

Town of La Conner

Comprehensive Water System Plan 2025 Update



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TOWN OF LA CONNER

2025 WATER SYSTEM PLAN
Revised July 2025

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EXECUTIVE SUMMARY

ES-1 INTRODUCTION

The 2025 Water system plan (WSP) replaces and supersedes the Town's 2009 WSP. The 2025 WSP is a compilation of planning and engineering efforts to describe and analyze system integrity and capacity to meet current and projected future demands. Included in this effort is a detailed capital improvement plan that identifies anticipated system needs through the 10-year and 20-year planning cycles. Also included in the WSP is a summary of Town Policies to manage existing connections, proposed system modifications and anticipated new or redevelopment.

This document has been prepared in accordance with the rules and regulations governing the operation of public water and sewer systems as administered by the State of Washington Departments of Health and Ecology (DOH and DOE, respectively), King County, and the codes and policies of all other agencies having jurisdiction in the Town's water service area.

Location and History

The Town of La Conner (TOLC) is located in Skagit County on the northeast corner of where the Swinomish Channel meets Skagit Bay with rural portions of the Town's water service area extending north to Young Road. To the west of the Swinomish Channel is the community known as Shelter Bay. owns and operates a municipal Group A Community water distribution system. The system is regulated by the Washington State Department of Health (DOH). The La Conner water system is formally identified as:

La Conner Water Department, Skagit County
System ID No. 43350

The current system consists of a single transmission main from the meter at Young Road south on La Conner-Whitney Road to Downey Road, and then parallel mains south into the TOLC. The "Skagit Beach" distribution line along Downey Road and Channel Drive and the storage and distribution facilities are within the TOLC Limits. The Town does not have any water rights. All water is purchased from the City of Anacortes. The TOLC continues to review options to increase reliability such as interties. To date those options have not proven to be cost effective. The TOLC has invested in asset management software to enhance operational efficiency. Over time the information on the Town's distribution system will improve but as of now generally consists of the following:

- Approximately 28,500 LF of transmission piping (>10”).
- Approximately 73,379 LF of distribution piping (4” – 10”).
- Approximately 10,760 LF of water service piping (<3”)
- A total of 692 service and intertie meters.
- A total of 5 pressure reducing valves.
- A total of 1 altitude valve.
- A total of 105 fire hydrants.
- A total of 1 storage reservoir (tank).
- A total of 213 Isolation Valves
- A total of 10 Air Release Valves
- A total of 1 Intertie

ES-2 BASIC PLANNING DATA

The TOLC has customers that reside within and outside the TOLC’s UGA limits. Skagit County has identified differing growth rates for both areas that present challenges to growth. Further, the TOLC sells water wholesale to the community of Shelter Bay. Shelter Bay historically consumes approximately 45% of the average daily demand (ADD) every year. The loss of Shelter Bay as a customer would have significant adverse impacts to the Town, creating another challenge.

Analyzing meter data a conservative value of 170 gallons per day (gpd) per equivalent residential units (ERU) was calculated. The projected 2044 population was calculated to be approximately 1,400 excluding Shelter Bay. Forecasted population, and by extension demands, in 2044 were calculated based on growth factors established in the Skagit County planning documentation. Actual growth rates appear to be half of this planned value.

Skagit Beach is the only area projected to reach buildout within the planning period (2033). Shelter bay is near buildout now with 878 active connections and 911 approved connections.

Land within La Conner and outside the UGA is mostly agricultural. Skagit planning shows a 0.5% growth potential, half of the UGA growth. Any development to occur would likely need to acquire land from agricultural uses. Current and future population projections are in Table 2.1 below:

TABLE ES-1
La Conner Residential Population: Historic And Future
****Population within TOLC Limits only.**

Historic		Future	
Year	Population	Year	Population
1980	660	2025	1,013
1990	686	2030	1,062
2000	761	2035	1,115
2010	891	2040	1,158
2020	965	2045	1,216

Although it appears the Town will not reach the maximum capacity allowed by the City of Anacortes within the planning period, the lower growth creates financial challenges to address items noted in the Capital Improvement Plan.

Current average daily use in the Town continues to be approximately 368,055 gallons per day. In an effort to control costs and maintain service, the TOLC has been active in distribution loss reduction. Recent historical data indicates a three-year rolling average loss of just 4.24%. The most recent DSL data only showed a loss of 1.59%.

The Town has a reservoir that provides limited resiliency in the event of a source interruption. The TOLC remains open to exploring other resiliency options, however another intertie appears to be the most cost-effective solution. A connection to Skagit County is possible, however economically the connection is unlikely to occur.

ES-3 ASSET MANAGEMENT AND SYSTEM ANALYSIS

The TOLC has purchased an asset management suite and is working with the company to upload available information to permit more accurate management of all Town assets. Not all the data has accurate information, such as age of assets. However, as this information is updated, the system is expected to perform well.

The water system was analyzed using hydraulic modeling software, based on water system mapping from the Town. The hydraulic model was updated to incorporate anticipated increased development in specific areas of the Town. The updated hydraulic model was calibrated and is capable of analyzing the

system under various development/demand scenarios and water system design criteria. Minimum and maximum pressure requirements and source, storage and pumping requirements were determined from DOH criteria and regulations. Fire flow requirements are based off of Fire Code and Fire Marshal needs. The existing system was analyzed under a maximum velocity constraint of ten feet-per-second.

The results of the water system analysis indicated that while the system generally performs well under all design parameters, anticipated development in specific areas requires pipe upsizing and system modifications and upgrades to accommodate current and anticipated fire flow requirements. Pressure zone reconfiguration was identified as a means of increasing water circulation and system performance while reducing the expense associated with pumping. The storage analysis for the system confirmed the adequacy of storage capacity under minimum DOH requirements. The existing reservoir is adequate for short term disruptions. Longer term disruptions due to natural disasters would be an issue for the Town with limited staffing and larger scale repair abilities. The Town would be reliant upon 3rd party contractors to repair the work. Water brought in from tankers and/or bottled water would be utilized for immediate demand needs until areas can be repaired and restored to service.

ES-4 WATER USE EFFICIENCY (WUE) PROGRAM

As regulation, Washington Administrative Code (WAC) 246-290 was amended effective January 22, 2007, to include the final rules developed from the Municipal Water Law. The new DOH code requirements mandate the development of a water use efficiency (WUE) program including WUE planning requirements, WUE goal setting and performance reporting, and distribution system leakage monitoring. For systems that serve less than 1,000 connections as is the case in La Conner, the WUE program was implemented by the deadline of January 22, 2008. The Town continues to review and update the program as needed to boost efficiency.

The TOLC uses meter data to help manage distribution system losses (DSL). As discussed above, the TOLC has been successful in maximizing water use efficiency in this regard. Metering, leak detection, and public information initiatives have yielded increased efficiency. The Town is meeting its goals of less than 5% DSL before 2028 as early as 2022 as a result of these efforts. WUE goals are already being met and are forecasted to continue to be below goals. The Town continues to push the education of the consumer. The Town is currently evaluating meter replacements where the new meters would allow customers to log into an app and see their use and potentially look at usage trends that may further conserve water use. The new meters, if implemented, would continue to monitor for leakage but with the app may alert the customer as

well, allowing repairs to occur sooner, especially if the leak is on the private side where the Town cannot enact a repair.

ES-5 SOURCE PROTECTION

The Town has no water rights and has no sanitary control areas.

ES-6 OPERATION AND MAINTENANCE PROGRAM

The Town has no water rights and has no sanitary control areas. The TOLC does however remain active in planning with Skagit County and the City of Anacortes to help ensure watershed protection is maximized.

The TOLC engages in routine sampling and inspections of their assets. Required monitoring is completed and results provided to the Department of Health (DOH). At present, the Town is short staffed which creates challenges to maintaining frequency of inspections that is typical. The TOLC does maintain a stock of repair couplings and pipe fittings to help address main breaks quickly. The Town is not listed as being a member of WAWARN. The Town will re-evaluate the need for this in terms of improving the response after a natural disaster.

The TOLC maintains a contact list and procedures for emergency response. The TOLC also has safety procedures in place as workers can be exposed to asbestos cement piping during break repair, in addition to the typical other hazards of heavy construction. Eight-hour OSHA training is required from all workers at minimum.

The TOLC also follows the DOH guidelines for evaluating main breaks by type and acting accordingly.

The Public Works Supervisor is certified as a Water Distribution Manager 4 and cross connection control specialist (CCS) as part of the Town's Cross Connection Control Program. Any at risk issues regarding cross connection will be prioritized for repair. Testing and inspection logs are also maintained.

ES-7 DESIGN AND CONSTRUCTION STANDARDS

The Town has an Infrastructure Improvement Manual that provides all requirements for design and construction within the Town. The manual is intended to meet or exceed standards set by State and Federal agencies as well as be in line with best practices set by the American Water Works Association (AWWA) and others.

ES-8 CAPITAL IMPROVEMENT PLAN

The Capital Improvement Plan (CIP) prioritizes projects based on risk categories as found in the Drinking Water State Revolving Fund literature with further guidance from the Rural Community Assistance Corporation's "Asset Inventory Worksheet." Table 3-1 has an initial category established for various Town assets to guide future CIP selection.

Implementation of the CIP requires careful consideration of rates and charges. The Town relies on rates and charges, coupled with low interest loans, to finance capital improvements to the system. The majority of improvements identified herein are necessary to enhance reliability of the system, increase fire flow protection, and serve growth needs within the service area. The Town has developed a connection charge to help manage fees for higher levels of development (e.g., single-family, multi-family non-residential, and irrigation).

Chapter 8 of the Plan identifies potential funding mechanisms for the recommended CIP below. Review of the rates and expects to update the connection charge to fund these projects. Bonding should be considered for specific projects that benefit a sizable portion of the Town. If grant money were to become available and decrease the cost per ERU to an acceptable amount, the grant would help move projects forward. Table 8-1 contains probable methods to fund the CIP projects listed below.

Town of La Conner

2025 Water Capital Improvement Plan

Map Letter	Year	Project Name	Description	Estimated Rounded Project Cost
A	**2025**	**Skagit Beach Replacement**	Downey Rd, Channel Dr.	$3,911,000
B	**2026**	**S 1st St Replacement (*sub)**	Commercial to Morris - AC and sizing replacement (see Transportation)	$380,000
C	**2027**	**S 3rd St Replacement**	8" replacement from Washington to Douglas	$340,000
D	**2028**	**AC Trans Main Ph 2**	AC Main replacement in conjunction with TIP Mill and Overlay of Round-About, Morris and Maple (100' S of Morris)	$240,000
E	**2029**	**AC Trans Main Ph 3**	AC Main replacement along La Conner/Whitney	$3,390,000
F	**2030**	**Water Reservoir Interior Paint**	Prep and recoat interior	$330,000
G	**2031**	**Rainier St Replacement**	Undersized Replacement	$210,000
H	**2032**	**N 4th St Replacement**	Replace 2" from Center to State, Fire Flow	$250,000
I	**2032**	**AC Trans Main Ph 4**	AC Main replacement from end Ph 3 in Maple (100' S of Morris) to reservoir	$1,290,000
		(*sub) denotes projects that are a subcomponent of a larger multi-utility project and may not contain all costs associated with single utility construction.		**$10,341,000**

ES-9 FINANCIAL PROGRAM

The Town budgets yearly and revises rates yearly to match the needs of the water system. The Town is currently conducting another rate study to help ensure the Town continues to maintain a sustainable approach moving forward.

The Town is moving forward to complete all CIP projects listed within the next 10 years. There is a limit to the amount of debt the Town may incur based on the budgets and other factors, and this debt limit includes both water and non-water projects and items. Therefore, the CIP continues to be susceptible to funding shortfalls, causing delays in the implementation of the CIP.

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** Figures 1.1 through 1.5(a) and (b), WFI, Consistency Form

CHAPTER 1

DESCRIPTION OF WATER SYSTEM

The Washington State Department of Health (DOH) published the most current conservation planning guidelines in a document entitled "Water System Planning Guidebook." The latest revision was performed on August 10, 2020, and serves as the basis for this Plan update. The pre-planning meeting with the Department of Health showed a checklist using a slightly differing paragraph layout than the Planning Guidebook. The required sections from the checklist may be in differing Chapters due to the change in plan format (e.g., Inventory of Existing Facilities is now located in Chapter 3 instead of Chapter 1).

1.1 OWNERSHIP AND MANAGEMENT

The Town of La Conner (TOLC) owns and operates a municipal Group A Community water distribution system. The Washington State Department of Health (DOH) regulates the system. The La Conner water system is formally identified as:

La Conner Water Department, Skagit County
System ID No. 43350

A copy of the current Water Facilities Inventory (WFI) Report is included at the end of this Chapter. A Vicinity Map is included as Figure 1.1 at the end of this chapter.

The TOLC Public Works Department operates and maintains the water system. The daily operation of the water system is under the control of the TOLC Director of Public Works. The management of the water system is generally as follows:

- The Director of Public Works reports directly to the TOLC Administrator.
- The TOLC Administrator reports to the Mayor.
- The Mayor, along with the TOLC Council, approve all water utility budgets and capital improvement projects for the water system.

Recognizing the need for the continuing development and improvement of the TOLC water facilities, the TOLC Council authorized David Evans and Associates, Inc. (DEA) to proceed with the studies required to prepare this updated comprehensive water system plan, which will ensure an orderly development of facilities within the TOLC Water Service Area.

This Comprehensive Water System Plan (WSP) was prepared in accordance with WAC 246-290-100, WAC 246-293-230, and RCW 70.116.

1.2 SYSTEM HISTORY AND BACKGROUND

1.2.1 History

The TOLC water system consists of a single steel above-grade storage reservoir, a distribution system consisting of approximately 22 miles of water mains up to 16" in diameter and services as small as ¾" diameter, complete with appurtenances such as valves, fire hydrants, pressure reducing valves, and other items as required for a compliant water system.

The La Conner water system has been improved and expanded over time. The original distribution system was constructed in the 1930's. The original system consisted of unfiltered water supplied by the City of Anacortes that was conveyed to the TOLC filtration plant via a 24-inch diameter Anacortes transmission line on SR 20 and a 6-inch diameter steel line. After filtration, the water was impounded in a 250,000-gallon ground level distribution reservoir. In 1951, the 6-inch diameter supply line was paralleled with an 8-inch diameter asbestos cement line. The 6-inch diameter line was subsequently abandoned because of excessive leakage.

Anacortes constructed a new water filtration plant and began providing treated water to the TOLC in the 1960's. The TOLC discontinued the operation of its filter plant as a result and subsequently demolished the site.

Because of the expansion of major industries in the TOLC, namely the New England Fish Company, San Juan Island Cannery, and Moore-Clark Company, an in-line booster pump was installed on the 8-inch diameter supply line in 1965. This pump increased the capacity of the supply line to approximately 1,000 gpm.

In late 1969, a 14-inch diameter asbestos cement transmission line was constructed from the Anacortes transmission line to La Conner parallel to the existing 8-inch diameter supply line. This improvement increased the transmission capacity to approximately 3,000 gpm. Usage of the above-mentioned in-line booster station was discontinued following the installation of this new line. The booster pump station was dismantled and the building demolished after the lease on the property expired in 1980.

In 1979, the TOLC installed 590 feet of 12-inch water main on Sixth Street from State Street to 300 feet north of Birch Lane with fire hydrants providing fire flows to the school. Additionally, three dryfire hydrants were installed on First Street at Caledonia Street, Calhoun Street, and Morris Street for pumping seawater directly from the Swinomish Channel for firefighting adjacent to the channel. Lastly, a master meter was installed

in a vault on Third Street, just south of the new marina, to provide more accurate measurement of water usage by the Port of Skagit County.

In October 1980, the TOLC constructed a new 1.5 million-gallon (MG) steel above-grade reservoir at the site of the existing reservoir. The existing reservoir was taken offline and discontinued.

The TOLC system also provides water to three separate subsystems: Shelter Bay Community (Shelter Bay), Skagit Beach, and the Port of Skagit County Marina (see Figure 1.2). Town zoning is as shown in Figure 1.3. County Zoning is shown in Figure 1.4. Generalized system maps are shown in Figures 1.5(a) and 1.5(b). All the above figures are included at the end of this chapter.

The Skagit Beach Development deeded its water system to the TOLC in an agreement dated February 1, 1977. Under this agreement (in Appendix A), the TOLC now operates and maintains the system. However, the TOLC is not obligated to expand the system or make any improvements to the system.

The TOLC supplies water to the Shelter Bay system through a master meter located on the east side of the Swinomish Channel. The distribution system on the west side of the channel and connecting piping under the channel are owned, operated, and maintained by the Shelter Bay Community. A copy of the Water Supply Agreement between the TOLC and Shelter Bay is contained in Appendix A.

The Port of Skagit marina system was upgraded and transferred to the TOLC ownership in 1995, which eliminated the need for a Port master meter.

Since the 2009 Comprehensive Water System Plan update, the TOLC has continued to upgrade water mains within the TOLC. The Morris Street project replaced approximately 1,500 feet of existing 6” Asbestos Cement (AC) water main with 10” Ductile Iron (DI) pipe. The TOLC has also replaced the small water lines on residential streets between Maple Street and Whatcom Street with larger mains. Water mains were also installed on the hill in the alleys between South Second and South Third Streets from Douglas Street to Benton Street.

TOLC replaced the 14” and 8” AC mains from the Anacortes supply connection to Downey Road with a single 16” PVC C-909 water main (approximately 7,500 LF).

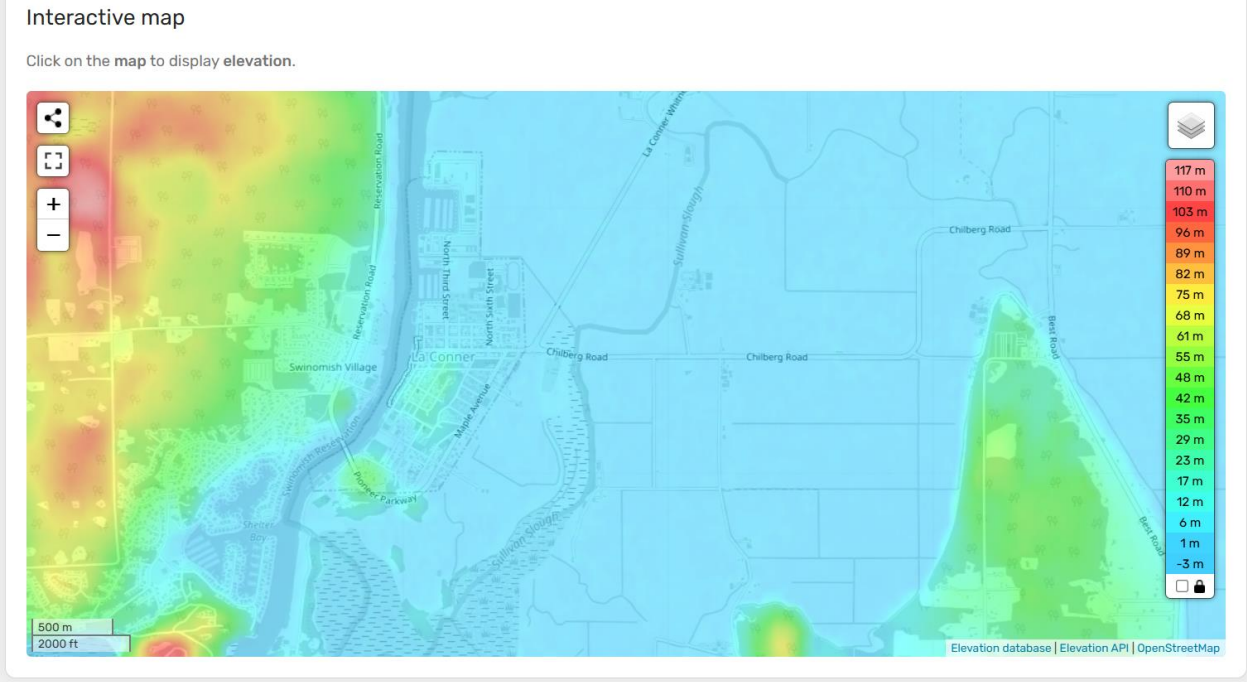
TOLC added a continuous chlorine monitoring station adjacent to the 1.5 MG reservoir that is connected to an online portal for logging chlorine

residual concentration. Other measured parameters at the reservoir include pH, tank water level, and water temperature.

1.2.2 Topography

The service area is generally considered flat, as it is within the floodplain of the Skagit River. The river is located about two miles to the southeast. Elevations in the service area range from 0 feet to 150 feet. The TOLC is located at the southern end of the service area on the east bank of the Swinomish Channel (channel). The channel forms the west boundary of the service area.

The central part of TOLC is the area with steeply sloping rocky bluffs and a rock outcropping rising above the flatter surrounding area. The service area outside of the TOLC boundaries consists of agricultural floodplains, forested uplands, wetlands, priority habitats, and a complex system of river and marine waters. Below is a color map of the Town's contours as a colored gradient and is for reference only. This contour map can be located online at https://en-gb.topographic-map.com/map-prz9gt/La-Conner/. More accurate topography is available to the Town from aerial photogrammetry in conjunction with the development of the TOLC Storm Water Management Plan and is used for site specific purposes.



1.2.3 Soils

There are three native soils groups, as identified by the Soil Conservation Service - Soil Survey, within the service area. All of the TOLC north of

Morris Street and approximately half of the south part of TOLC is Skagit silt loam. The central and southern outcroppings consist of Fidalgo Lithic Xerochrepts - Rock Outcrop Complex. The southeast corner of the TOLC consists of Sumas silt loam. The surrounding area is intermingled Skagit silt loam and Sumas silt loam. The following are characteristic statements about these soil groups:

Skagit Silt Loam

This very deep, poorly drained soil is found on flood plains and deltas. This soil is partially protected from flooding. It is formed in alluvium and volcanic ash. Slope is 0 percent to 1 percent and elevation is 0 to 50 feet.

Included in this unit are soils that are generally very strongly acidic or are salt affected in the underlying material. Soils that are sandy or have strata of mulch or peat in the underlying material.

The permeability of the Skagit soil group is moderate. Available water capacity is high. The delta area has a seasonal high-water table that is at a depth of 6 inches to 24 inches from November to March, during the growing season, the water table is lowered to a depth of about 36 inches to 60 inches.

Fidalgo-Lithic Xerochrepts-Rock Outcrop Complex, 3 to 30 percent slopes

This soil unit is about 45 percent Fidalgo gravelly loam, 20 percent Lithic Xerochrepts, and 20 percent Rock outcrop. The components of this unit are intricately intermingled.

The permeability of the Fidalgo soil is moderate and available water capacity is low to moderate. The permeability of the Lithic Xerochrepts is moderate and available water capacity is very low to low. Storm runoff is medium, and the hazard of water erosion is moderate. Rock outcrops consist of exposures of hard and mostly unweathered argillite and can occur at steep cliffs.

Sumas Silt Loam

This very deep, poorly drained soil is on flood plains and deltas. The slope is 0 percent to 2 percent. In some tidal areas there are soils that are similar to this Sumas soil but have strongly acidic to very strongly acidic underlying material.

The permeability of this Sumas soil is moderate in the upper part and rapid in the lower part and available water capacity is moderately high. Areas affected by tides are moderately saline.

Storm water runoff is generally very slow, and the hazard of water erosion is minimal.

Given the characteristics of the soil's groups described above, several generalities related to construction can be drawn. Construction in lower elevations can anticipate seasonally high groundwater. Underground piping should be constructed of impervious, corrosion resistant materials, such as PVC. Where ductile iron is required, it should be coated and/or wrapped in polyethylene to deter corrosion.

Excavation on the rock outcrops may require blasting. It would be advisable to perform soil borings and testing at the proposed site of any major structure or pipeline alignment to determine the underlying composition and potential for corrosion.

1.2.4 Climate

Climate data was obtained from the Western Regional Climate Center which maintains records from Mount Vernon, WA from 1981 through 2010.

The average annual precipitation is about 33 inches. Winter averages of about 3.6 inches per month (Oct. – Mar.) and about 1.9 inches per month in summer (Apr. – Sep.). Typical snowfall is 4.7 inches per year, falling entirely between November and March based on monthly data recorded from 1956 – 2006.

The average annual air temperature, based on monthly data recorded from 1956-2005, is about 51° F. The average winter temperature is 47° F daytime and 34° F at night. Average summer temperatures of 72° F daytime and in the 50°F at night. The average frost-free season lasts 160 to 210 days.

1.2.5 Surface Waters

The service area is in the northern region of Puget Sound. The Swinomish Channel forms the west boundary of the service area. Higgins Slough and associated drainages are located within the northern end of the service area. The District 15 drainage ditch crosses the north part of the TOLC and empties into the Channel. The mouth of the Skagit River and several sloughs, including Sullivan Slough, are outside the service area to the southeast.

The Swinomish Channel and the Skagit River are closest to the TOLC. As a result, they have the greatest potential effect on the service area given their proximity to the TOLC. Conversely, the Higgins Slough and Sullivan Slough should have a limited potential impact for the same reason.

The Swinomish Channel is a navigable waterway 6.5 miles long connecting Skagit Bay to the south with Padilla Bay to the north. Throughout its entire length, a 100-foot wide and 12-foot-deep channel is maintained by the U.S. Army Corps of Engineers (COE) as part of an 11-mile-long federal navigation project. The channel is subject to strong tidal currents and bank erosion is common along the TOLC waterfront due to the geography of being an outside bend of a channel and the COE's ongoing dredging activities. Expected tides range from a low of minus 1.48 feet to a high of 11.62 feet (NAVD 88).

The source of major flooding in the delta area fronting Padilla Bay to the north and Skagit Bay to the south is the Skagit River. The flood plain elevation in La Conner is typically one to two feet above ground elevation in the lower, generally flat areas of TOLC. Minor flooding may occur in La Conner when high tides from Skagit Bay and/or overland flood flows from the Skagit River outflank, overtop, or breach levees along the northern, eastern, and southern sides of the TOLC. Major floods of the Skagit River in the vicinity of La Conner are usually caused by a combination of extremely heavy winter rainstorms combined with rapid snow melt. Recent events, including major storms in 1990 and 1995, were responsible for flooding much of the agricultural land to the east of TOLC. In December of 2022, the TOLC experienced a tidal surge which caused flooding issues.

The Higgins Slough is a drainage path for the agricultural lands to the north of La Conner. The slough collects storm and irrigation water runoff and transports it westward to the Swinomish Channel.

The Sullivan Slough east of the TOLC also collects agricultural runoff. This slough conveys runoff to the South into Skagit Bay.

1.2.6 La Conner Stormwater System

La Conner operates a stormwater collection system that consists of catch basins, storm drain lines, two pump stations and a treatment pond. The TOLC has increased the priority of collecting stormwater. The TOLC general design policy is to review waterline replacement needs where stormwater installation is needed to maximize the efficiency of constructing utilities.

1.2.7 Neighboring Purveyors

As indicated in Figure 1.1, the area east of the TOLC water service area is served by Skagit County Public Utility District No. 1. Fidalgo Island, west of the Swinomish Channel, is served by the Swinomish Tribal Community

and the Shelter Bay Community. The Tribal Community purchases water from Anacortes and Shelter Bay is a wholesale customer of the TOLC.

1.3 RELATED PLANS

The following is a list of planning documents, with a brief summary of each, that have been reviewed and have an impact on the development of a water system plan for the TOLC:

A. Skagit County Coordinated Water System Plan, 2000 with Last Update August 2020

The coordinated water system plan (CWSP) was the result of Skagit County being identified as a Critical Water Supply Area. The plan delineates existing and future water service areas and contains water demand forecasting data. The TOLC water system plan is prepared in conformance with the CWSP.

B. Skagit County Comprehensive Plan Update, 2016 - 2036
Skagit County Unified Development Code, December 16, 2024

These documents provide some population growth forecasts with the TOLC as well as addresses the non-UGA rural areas within the TOLC Water Service Area, but outside of the TOLC limits.

C. City of Anacortes Comprehensive Water Plan, March 5, 2012, with 4-Year Limited Updates, most recent being adopted on December 18, 2018.

This document provides information related to the water supply for La Conner.

D. Town of La Conner Comprehensive Plan (GMA), 2018

The TOLC Comprehensive Plan provides for existing and future development planning data. The plan includes growth rates, zoning, and land use. This plan is currently being updated with release planned on or before 2025.

E. Town of La Conner Uniform Development Code, December 13, 2022

This code establishes regulations and standards for land use decisions with the TOLC in accordance with the *Comprehensive Plan (GMA).*

F. Town of La Conner Shoreline Master Program, June 19, 2014

This document addresses the development uses and goals for the Shoreline for optimized management.

G. Town of La Conner Comprehensive Water System Plan, December 2009
This document is the prior water system plan. This document provides historical data and recommendations to ensure an orderly development of facilities within the TOLC Water Service Area.

H. Town of La Conner Six-Year Capital Facilities Plan 2023-2027
This document is an update to the Capital Facilities Element of the TOLC Comprehensive Plan. This plan outlines the necessary improvements to keep the TOLC facilities in full compliance with county, state, and federal laws and regulations, and maintain and improve public services to citizens, and accommodate orderly growth.

1.4 SERVICE AREA, MAPS, AND LAND USE

The current system maps are shown on Figures 1.5a and 1.5b. Sampling sites discussed in Chapter 6 are also shown on these Figures.

1.4.1 SERVICE AREA CHARACTERISTICS

The current, future, and retail service areas are the same and are addressed in this section.

The TOLC water service area is indicated on Figure 1.1. It includes all of the TOLC incorporated areas and additional unincorporated commercial, residential, and agricultural areas of Skagit County east of Swinomish Channel.

TABLE 1.1
SERVICE AREA COMPONENTS

TOLC, incorporated area	255 acres
Skagit County Rural Reserve (Skagit Beach)	59 acres
Skagit County Commercial	18 acres
Skagit County Agricultural	2,713 acres
Total Service Area	3,045 acres

The current system consists of a single transmission main from SR 20 to Downey road along La Conner-Whitney Road, and then parallel mains south into the TOLC. The “Skagit Beach” distribution line along Downey Road and Channel Drive and the storage and distribution facilities are within the TOLC Limits.

Zoning and land use within the service area is under the authority of the TOLC and Skagit County. Figure 1.2 is the TOLC Zoning Map. The current TOLC Limits are also the urban growth area limits with the exception of potential annexation of the TOLC wastewater treatment plant. Current zoning for unincorporated Skagit County is indicated on Figure 1.1.

1.4.2 RETAIL SERVICE AREA

The TOLC current and future service areas are the same as the retail service area, therefore the TOLC designates their service area as its “retail service area” as required under the 2003 Municipal Water Supply-Efficiency Requirements Act (commonly referred to as the Municipal Water Law) and supporting regulations.

The basis for meeting each threshold is summarized as follows, with specific determination to be made with each application for service.

The capacity of the system is discussed in detail in Chapter 3. A key objective of water system planning is to reasonably anticipate and provide capacity for growth in the system. The TOLC receives its water supply from the City of Anacortes and is not aware of any circumstances that would limit the ability of Anacortes to supply the necessary quality and quantity of water from the contractual and anticipated needs of the TOLC water service area.

Applications for new water service are individually reviewed for consistency with the WSP. However, it is presumed that applications for service for new development are being reviewed by the local land use authority for conformance with appropriate development regulations.

The TOLC presently purchases all of its water from the City of Anacortes. Water right sufficiency is not directly applicable to the TOLC. However, the TOLC does monitor its existing and forecast demand against contractual limitations that are presumed to be consistent with the supplier’s water rights.

The TOLC provides water service to new connections following review of application for service. The application describes the service desired. Single family residential service (e.g., new connection to existing vacant lot) applications

are reviewed over the counter whereas commercial and development projects require more detailed review under the TOLC *Infrastructure Improvements Manual* (see Chapter 7). Additional service area policies are discussed below.

1.4.3 SERVICE AREA AGREEMENTS

The current service area appears to have been established in coordination with the City of Anacortes, with the current Agreement in Appendix A, and Skagit County Planning as their CWSP, passed by Skagit County via Ordinance 17938 also references limits and recognizes the TOLC UGA. A specific agreement between for the service area could not be located by the County or Town. To date, no known overlaps or gaps have been identified in the service areas.

1.5 SYSTEM POLICIES

Policies and requirements specific to the water service area are addressed in Title 12 of the TOLC Municipal Code.

Ordinances

Ordinances pertaining to the TOLC Water System can be found in Chapter 12 and 15 of the TOLC Municipal Code.

The TOLC revised Water Cross Connection Standards, adopted by Ordinance No. 748 in 1999, sets forth a detailed cross connection control program. This was further refined in Ordinance 796 passed in 2000 (See Appendix A of this plan). Further information may be obtained from the Town's website at https://www.townoflaconner.org/157/Public-Works.

The TOLC *Comprehensive Plan*, adopted in 2009), indicates a level of service standard for potable water of "170 gallons per capita per day at 65 psi; and a minimum fire flow of 2,000 gallons per minute. This Plan includes several recommended revisions, including changing to a level of service based on Equivalent Residential Units (ERU). These values are further discussed in Chapters 2 and 3 of this plan.

The TOLC *Uniform Development Code*, adopted by Ordinance No. 671 in 1995, requires, among other things, potable water service to all development in the TOLC. Such a service shall meet or exceed minimum standards set by local and state agencies. This Ordinance was further refined by Ordinance 685 in 1996 and Ordinance 691 in 1997 but neither of those updates appeared to have altered any water system codes to a significant degree.

The following is a brief summary of key elements as currently addressed in the municipal code.

A. Wholesaling Water

A specific policy has not been set. The TOLC does require a (negotiated) wholesale agreement that is approved by the TOLC Council prior to service as published in Paragraph 12.20(2) of the TOLC Code.

B. Wheeling Water

Currently, neither the TOLC policies nor the supply agreement with Anacortes address transfer of water via the TOLC water system. However, the TOLC is wheeling water to Shelter Bay through a separate agreement (included in Appendix A) and is evaluating the desire to develop a policy for wheeling water to serve the agriculture community within and adjacent to the TOLC service area.

C. Annexation

The TOLC does not require annexation as a condition of service.

D. Direct Connection and Satellite/Remote Systems

New development within the TOLC corporate limits must connect to the TOLC water system. The TOLC is not considering becoming a DOH-approved Satellite Management Agency (SMA).

Currently there are no other water systems within the TOLC service area. The TOLC policy regarding connection/remote systems for development within the TOLC water service area, but outside of the TOLC corporate limits, is to require direct connection to the water system. Requests for remote systems will be determined on a case-by-case basis, pending whether the applicant can prove beneficial reasons as to why the TOLC should consider allowing the remote connection. Skagit County UDC and CWSP standards will be applicable to all development outside of the TOLC limits.

E. Design and Performance Standards

The TOLC requires all designs to be prepared by a licensed professional engineer in the State of Washington, meeting all local and State guidelines.

The TOLC has prepared and adopted the Infrastructure Improvements Project Manual last revised August 2018. This manual contains all of the requirements, design standards and other pertinent information relating to infrastructure improvements within the TOLC, including replacement or expansion of the TOLC water system. Development within the TOLC limits will be governed by the TOLC policies. Development within the

unincorporated area will be governed by both the TOLC and Skagit County policies.

1.6 DUTY TO SERVE

Per the Municipal Water Law (MWL), municipal water suppliers have a duty to provide service to all new connections within their retail service area if the following thresholds are met:

1. The supplier has sufficient capacity to serve water in a safe and reliable manner.
2. The service request is consistent with adopted local plans and development regulations.
3. The supplier has sufficient water rights to provide service.
4. Service can be provided in a timely and reasonable manner.

For the first threshold above, the TOLC has a contract with the City of Anacortes that allows the Town to purchase up to a specified gallonage per year. The TOLC actively tracks water usage as well as distribution system loss to ensure new connections do not elevate the yearly demand beyond the contracted allowance. Metered and billed water use is the primary means of tracking demand.

For the second threshold above, new service requests are evaluated to this Plan which should help ensure consistency with other local plans and development regulations. The developer extension agreement procedures also help ensure proper evaluations are made.

For the third threshold above, the TOLC has no water rights, and this threshold is not applicable.

For the fourth threshold above, the TOLC utilizes developer extension agreements as another means of complying with such duty in a timely and reasonable manner.

1.7 LOCAL GOVERNMENT CONSISTENCY

This Plan is required to meet state, county, and local requirements. It complies with the requirements of DOH as set forth in the Washington Administrative Code (WAC) 246-290-108. The TOLC will submit this plan to DOH, Skagit County, adjacent utilities, and local governments as part of the Agency Review process. See Appendix H for the Comment Letters. The adopting resolution will be included in Appendix H, upon Plan approval by the TOLC's Town Council.

Design Standards used for the District water system are consistent with or stricter than the minimum design standards required in the Skagit County CWSP.

The District water system as designed will provide fire flow requirements that is consistent with the Skagit County CWSP.

All future development must meet the requirements of Skagit County. A copy of a Local Government Consistency Determination Form completed by the Skagit County Planning Department is located at the end of this Chapter. The form confirms the District's role in providing water service in compliance with the County's GMA policies.

The TOLC's water service policies are consistent with applicable local land use plans and development regulations. The conditions of water service and associated fees, costs, and charges are consistent with the conditions of service described in this Plan and applicable adopted TOLC code, policies, and standards. The conditions of service and associated fees, costs and charges are consistent with the TOLC's requirements applied to other property owners requesting water service who are similarly situated and are requesting the same type or level of water service from the TOLC.

The owners of properties which require extension of the TOLC's water system to make water service available to the property should be able to obtain water service following the owner's execution of an extension agreement with the TOLC. The party entering into the extension agreement with the TOLC has one year from the date of the mutual execution of the extension agreement to complete the following process to obtain retail water service from the TOLC to the property, all in accordance with the terms and conditions of the extension agreement and applicable TOLC codes and standards:

- Design of the extension required to connect the property to the TOLC's existing water system by the owner's professional engineer.
- Approval of the extension design by the TOLC.
- Construction of the extension by the owner's licensed contractor.
- Payment by the owner of all applicable TOLC developer extension, meter, connection, and administrative rates, fees, and charges to the TOLC.
- Transfer of the extension ownership to the TOLC by the property owner.

As part of the development of this plan, draft copies were provided to the following organizations. Skagit County planning and land use agencies were provided with blank Local Government Local Consistency Forms. All required completed forms are at the end of this Chapter. Others may offer comments for review through other written methods.

Organization	Mailing/e-mail Address*	Comments Y/N
Washington State Department of Health** Attn: PJ Wilkerson	PO Box 47800 MS: 47822 Olympia, WA 98504 pjwilkerson@doh.wa.gov	Y
Skagit County Dept. of Health Attn: Greg Geleynse	Courthouse Admin Bldg Rm 301 301 Valley Mall Way; Ste 110 Mount Vernon, WA 98273-3864	N
Skagit County Planning & Development Services Attn: Tara Satushek, AICP	1800 Continental Place Mount Vernon, WA 98273	Y
City of Anacortes Attn: Matt Reynolds	P.O. Box 547 Anacortes, WA 98221	N
Shelter Bay Community Attn: Bill Palmer	1000 Shoshone Drive La Conner, WA 98257 bpalmer@shelterbay.net	N
Swinomish Indian Tribal Community Attn: Mike Poppe	P.O. Box 340 La Conner, WA 98257	N
Skagit County PUD No. 1 Attn: Andrew Miller	P.O. Box 1436 Mount Vernon, WA 98273 miller@skagitpud.org	N
* Copies circulated by e-mail primarily. Hardcopies mailed USPS only as required or requested. ** Copies of the TOLC WSP were provided to DOH to forward onto DOE for review. DOE Provided Comments as well.		

A summary of all comments received, and response given, is included in Appendix H.

1.8 WATERSHED PLAN CONSISTENCY

The TOLC does not have water rights as they are a wholesale purchaser from the City of Anacortes. This aspect of the Plan is not applicable to the TOLC.

1.9 COMPLAINTS

Complaints pertaining to the TOLC water system are referred directly to the Director of Public Works. Customers have access to complaint forms available through e-mail as listed on the website. Consumers may also file complaints in person at the TOLC Town Hall and the Public Works office. Once a form is filled out, Public Works contacts the reporting party as soon as possible. The completed forms are kept on file at the Public Works office.



Figure 1.1 - Vicinity Map

Legend

- Town of La Conner
- La Conner Retail Water Service Area

DAVID EVANS AND ASSOCIATES INC.

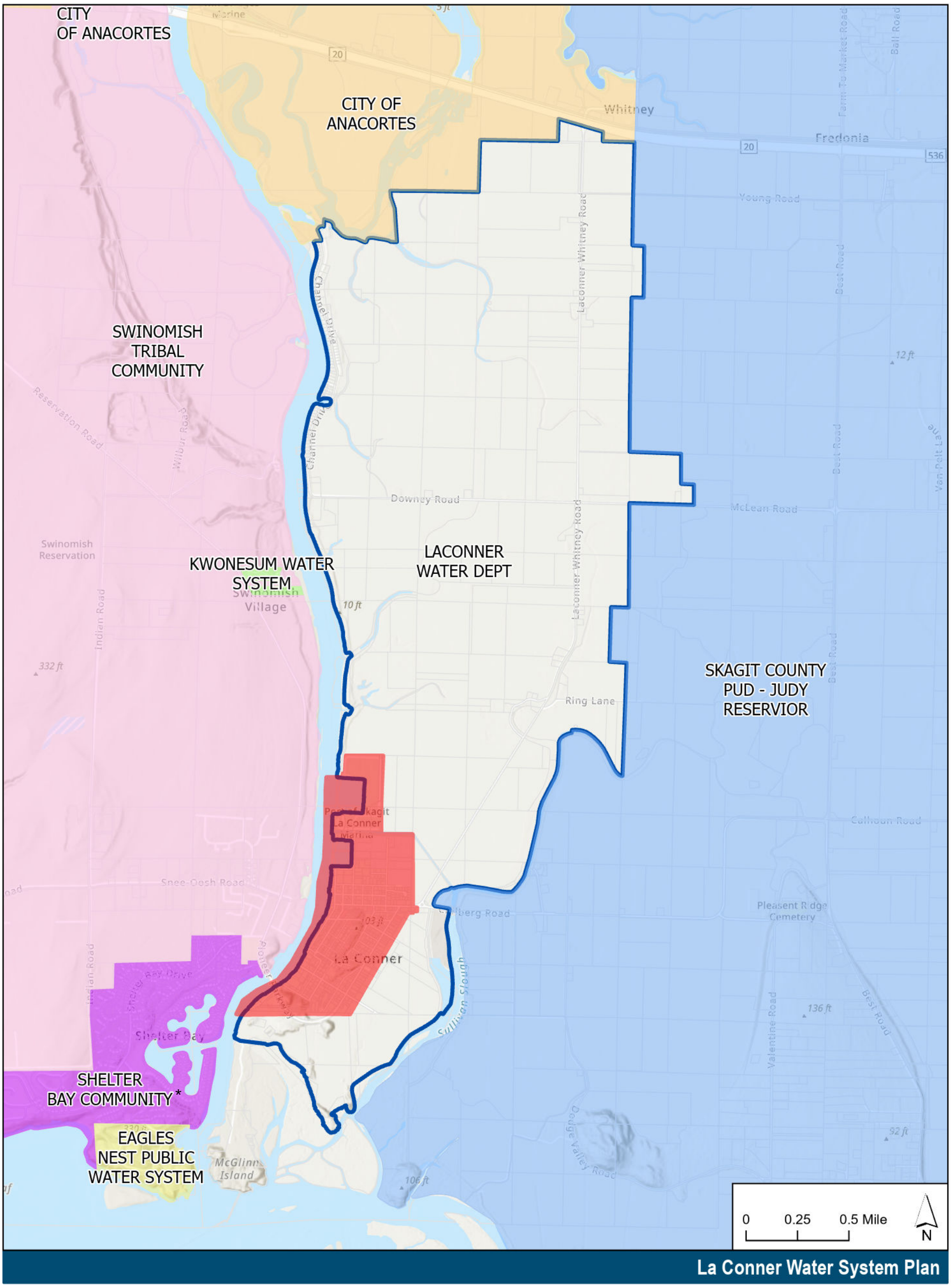


Figure 1.2 - Retail Water Service Area and Surrounding Purveyors

Legend

- Town of La Conner
- La Conner Water Service Area

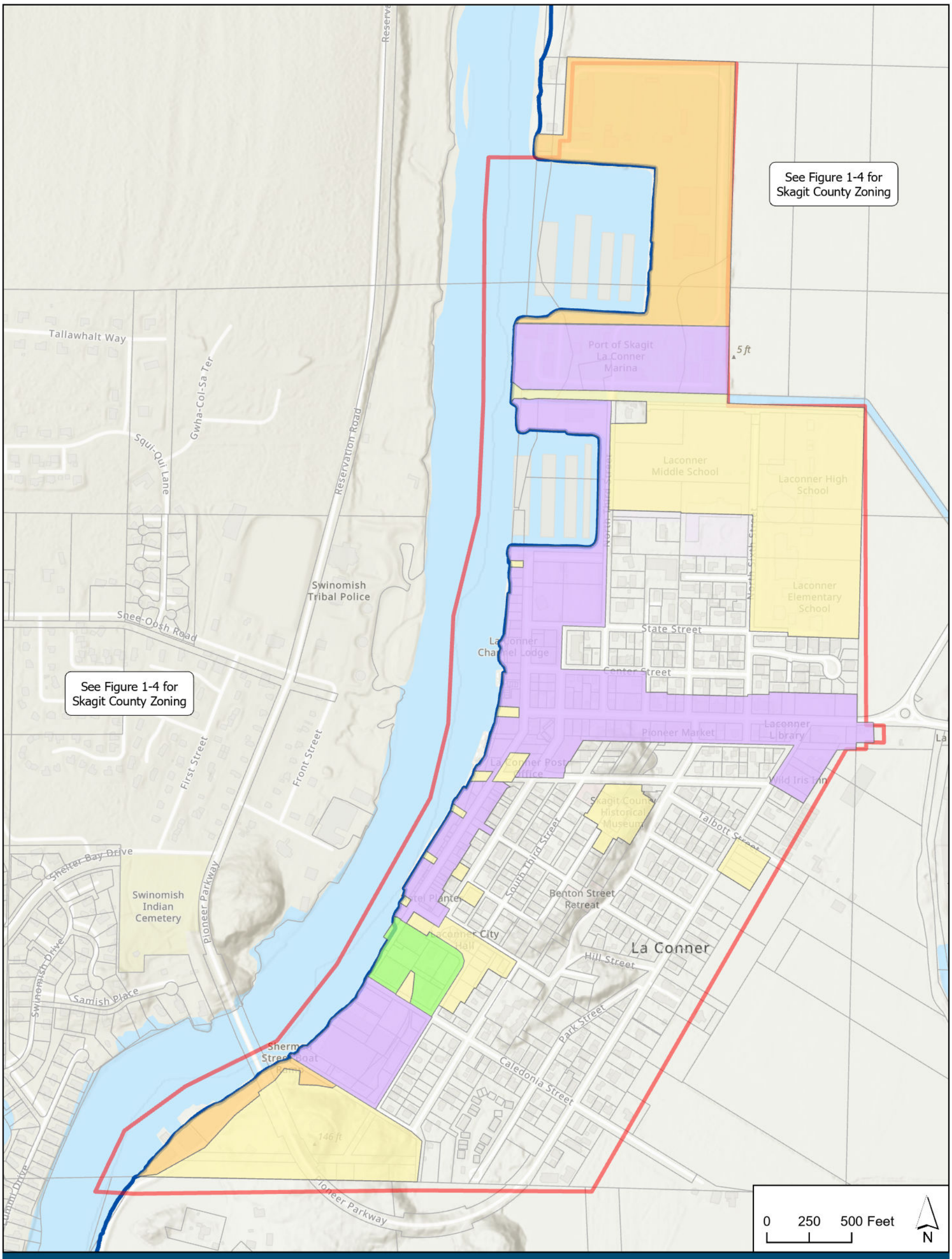
Surrounding Purveyors

- City of Anacortes
- Kwonesum Water System
- Shelter Bay Community
- Skagit County PUD - Judy Reservoir
- Swinomish Tribal Community
- Eagles Nest Public Water System

* - Shelter Bay is wholesale customer of La Conner

DAVID EVANS AND ASSOCIATES INC.

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La Conner Water System Plan

Figure 1.3 - Town of La Conner Zoning

Legend

- Town of La Conner
- La Conner Water Service Area

La Conner Zoning

- Comm Transition
- Commercial
- Industrial
- Public Use

NOTE: Parcels without color withing the Town borders are zoned Residential.

DAVID EVANS AND ASSOCIATES INC.

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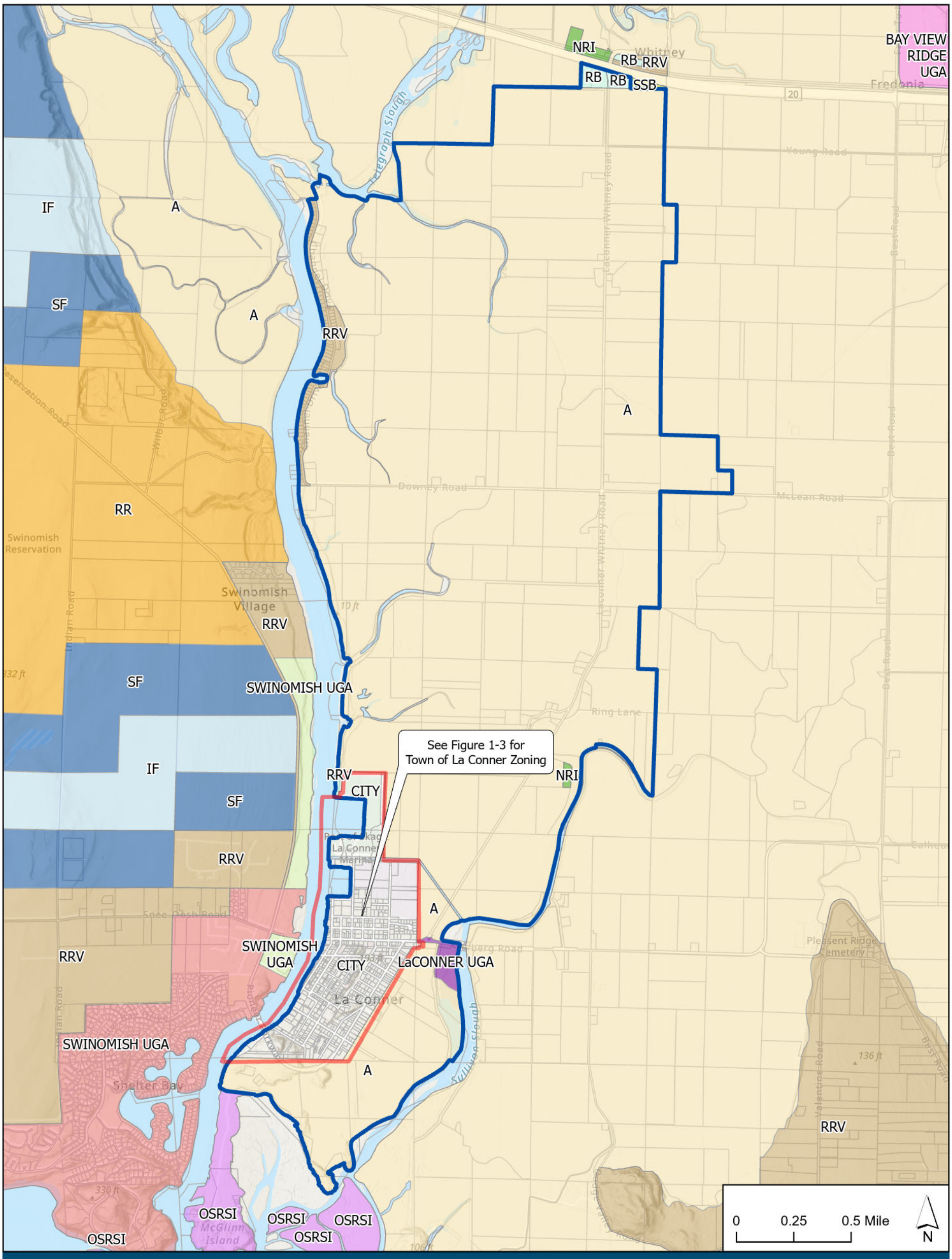


Figure 1-4 - Skagit County Zoning

Legend

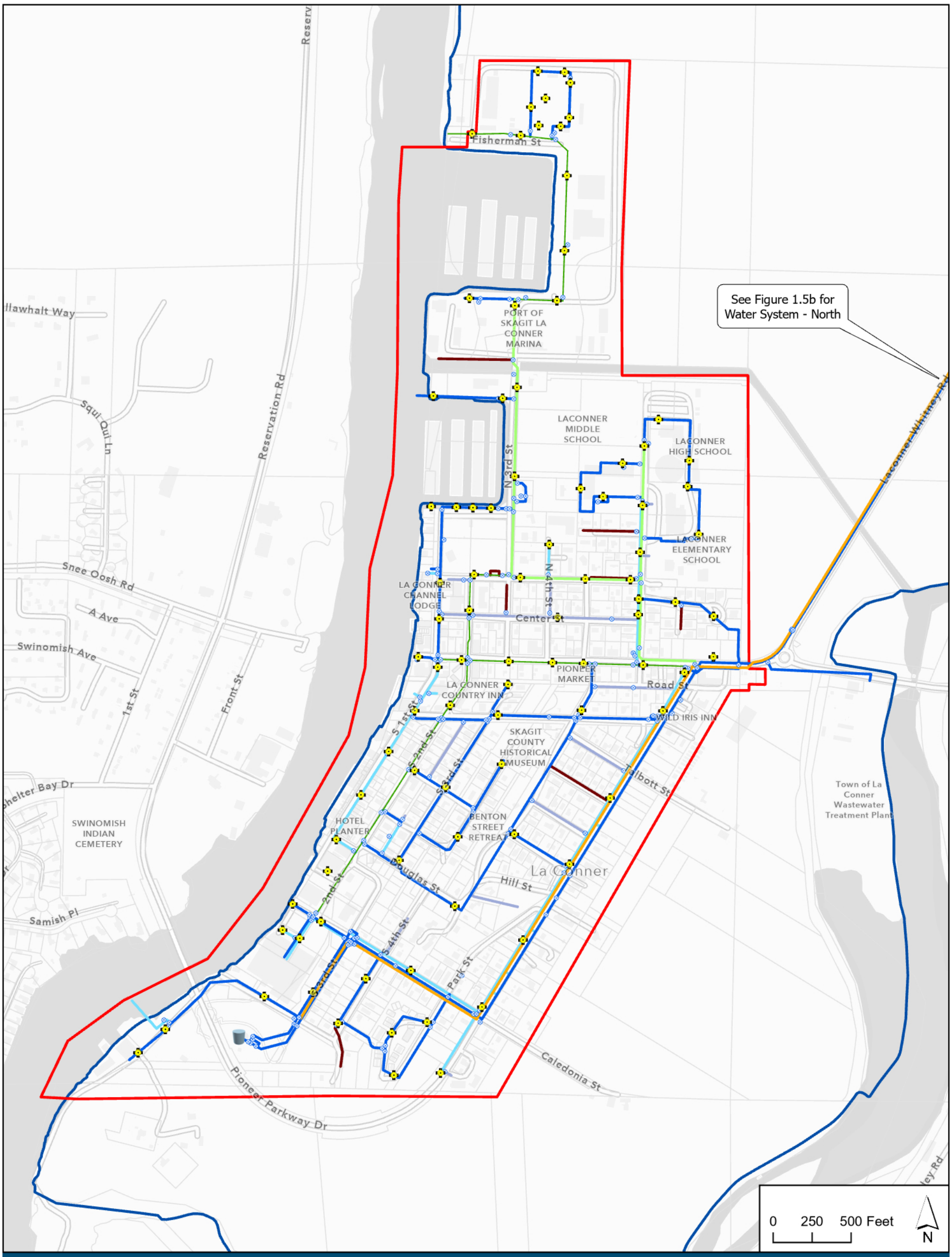
- Town of La Conner
- La Conner Water Service Area

Zoning

- Swinomish Commercial
- Swinomish Residential
- Agricultural - NRL
- Bayview Ridge Heavy Industrial
- Industrial Forest - NRL
- LC-UD
- Natural Resource Industrial
- Public Open Space
- Rural Business
- Rural Resource - NRL
- Rural Reserve
- Secondary Forest - NRL
- Small-Scale Business

DAVID EVANS AND ASSOCIATES INC.

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La Conner Water System Plan

Figure 1.5a - Water System - South

Legend

- Town of La Conner
- La Conner Water Service Area
- Valves
- Fire Hydrants
- Reservoir

Mains by Diameter

- 2"
- 4"
- 6
- 8"
- 10
- 12"
- 14
- 16"

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

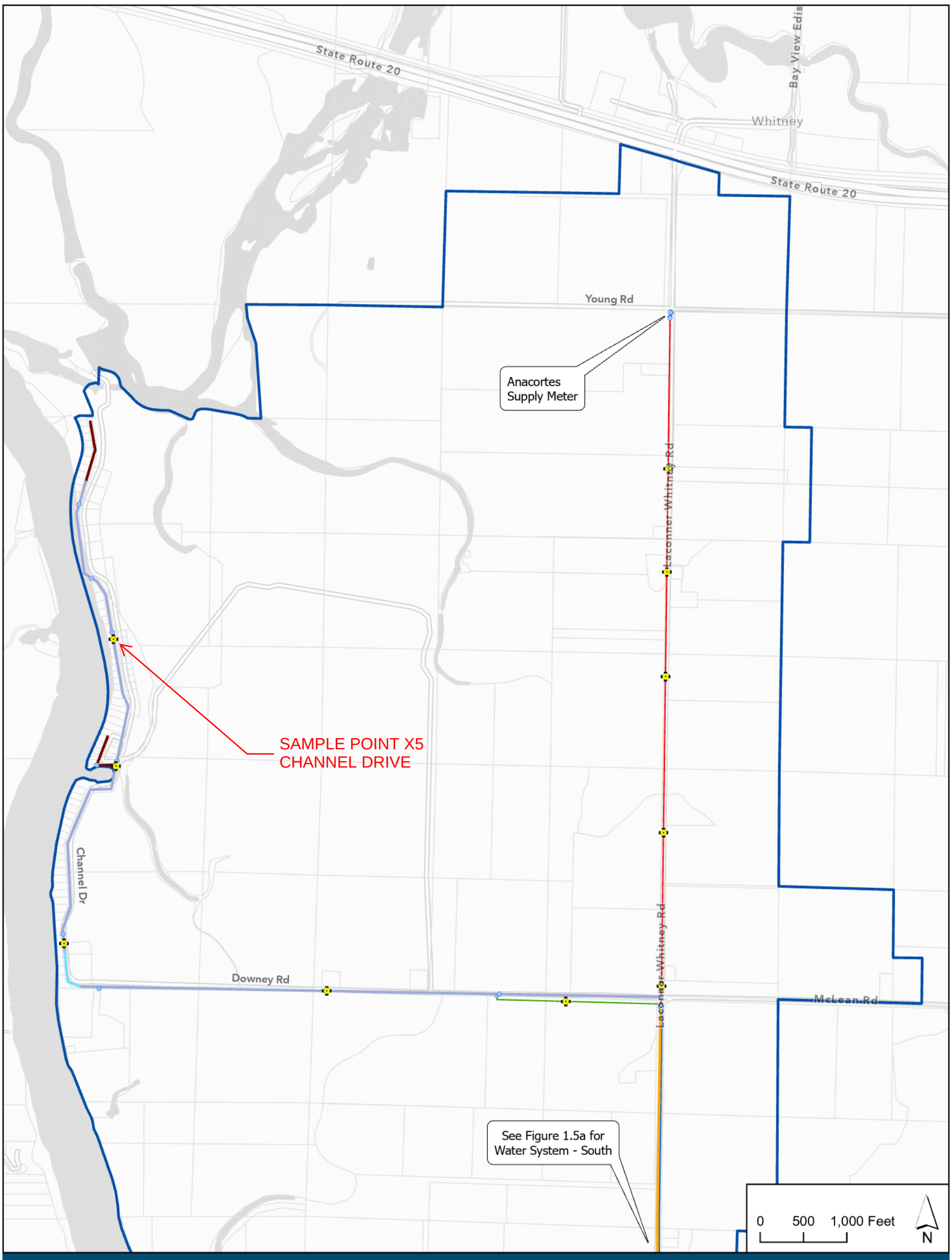


Figure 1.5b - Water System - North

Legend

- Town of La Conner
- La Conner Water Service Area
- Valves
- Fire Hydrants
- Reservoir

Mains by Diameter

- 2"
- 4"
- 6
- 8"
- 10
- 12"
- 14
- 16"

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 1
Updated: 04/22/2024
Printed: 7/14/2025
WFI Printed For: On-Demand
Submission Reason: Pop/Connect Update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
43350 0	LA CONNER WATER DEPT	SKAGIT	A	Comm

6. PRIMARY CONTACT NAME & MAILING ADDRESS

BRIAN W. LEASE [PUBLIC WORKS DIRECTO]
PO BOX 400
LACONNER, WA 98257

7. OWNER NAME & MAILING ADDRESS

LA CONNER, TOWN OF
BRIAN W. LEASE
PO BOX 400
LA CONNER, WA 98257

ADMINISTRATOR

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN BRIAN LEASE
ADDRESS 604 NORTH 3RD ST
CITY LA CONNER STATE WA ZIP 98257

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS 204 DOUGLAS ST
CITY LACONNER STATE WA ZIP 98257

9. 24 HOUR PRIMARY CONTACT INFORMATION

Primary Contact Daytime Phone: (360) 466-3933
Primary Contact Mobile/Cell Phone: (360) 840-3001
Primary Contact Evening Phone: (xxx)-xxx-xxxx
Fax: (360) 466-4293 E-mail: pxxxxxxxxxs@townoflaconner.org

10. OWNER CONTACT INFORMATION

Owner Daytime Phone: (360) 466-3933
Owner Mobile/Cell Phone: (360) 840-3001
Owner Evening Phone: (xxx)-xxx-xxxx
Fax: (360) 466-3901 E-mail: pxxxxxxxxxs@townoflaconner.org

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [x] Agricultural
- [x] Commercial / Business
- [ ] Day Care
- [x] Food Service/Food Permit
- [x] 1,000 or more person event for 2 or more days per year
- [x] Hospital/Clinic
- [x] Industrial
- [ ] Licensed Residential Facility
- [x] Lodging
- [x] Recreational / RV Park
- [x] Residential
- [x] School
- [ ] Temporary Farm Worker
- [x] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [x] City / Town
- [ ] County
- [ ] Federal
- [ ] Investor
- [ ] Private
- [ ] Special District
- [ ] State

14. STORAGE CAPACITY (gallons)

1,500,000

15	16	17	18 SOURCE CATEGORY									19 USE			20	21 TREATMENT					22	23	24 SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	02200C/ANACORTES	02200 C										X				X							3500			00N	00E

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
43350 0	LA CONNER WATER DEPT	SKAGIT	A	Comm

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		618	Unspecified
A. Full Time Single Family Residences (Occupied 180 days or more per year)	520		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	33		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	98		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	0	0	
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	205	205	
28. TOTAL SERVICE CONNECTIONS		823	

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 891

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?	300	300	400	2000	1000	800	800	600	400	300	300	300
B. How many days per month is water accessible to the public?	31	28	31	30	31	30	31	30	30	31	30	31

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?	627	627	627	627	627	627			627	627	627	627
B. How many days per month are they present?	20	20	20	20	20	10			10	20	20	20

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	2	2	2	2	2	2	1	1	2	2	2	2

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	7/14/2025		
Water System Id(s):	433500		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

Local Government Consistency Determination Form

331-568 • 8/10/2023

Water System Name: Town of La Conner PWS ID: 433500

Planning/Engineering Document Title: 2025 WSP Plan Date: 2/28/25

Local Government with Jurisdiction Conducting Review: Skagit County Planning and Development Services

Before the Department of Health (DOH) approves a planning or engineering submittal under Section 100 or Section 110, the local government must review the documentation the municipal water supplier provides to prove the submittal is consistent with **local comprehensive plans, land use plans and development regulations** (WAC 246-290-108). Submittals under Section 105 require a local consistency determination if the municipal water supplier requests a water right place-of-use expansion. The review must address the elements identified below as they relate to water service.

By signing this form, the local government reviewer confirms the document under review is consistent with applicable local plans and regulations. If the local government reviewer identifies an inconsistency, the reviewer should include the citation from the applicable comprehensive plan or development regulation and explain how to resolve the inconsistency, or confirm that the inconsistency is not applicable by marking N/A. See more instructions on page 2.

Local Government Consistency Statement	For Use by Water System Identify page(s) in submittal	For Use by Local Government Yes or Not Applicable
a) The water system service area is consistent with the adopted land use and zoning within the service area.	Chapter 1 Page 9	Yes
b) The growth projection used to forecast water demand is consistent with the adopted city or county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology.	Chapter 2 Pages 15-21	Yes
c) For cities and towns that provide water service: All water service area policies of the city or town described in the plan conform to all relevant utility service extension ordinances.	Chapter 6, Pages 2-12	Yes
d) Service area policies for new service connections conform to the adopted local plans and adopted development regulations of all cities and counties with jurisdiction over the service area.	Chapter 7, Pages 1 & 2	Yes
e) Other relevant elements related to water supply are addressed in the water system plan, if applicable. This may include Coordinated Water System Plans, Regional Wastewater Plans, Reclaimed Water Plans, Groundwater Management Area Plans, and the Capital Facilities Element of local comprehensive plans.	Appendix A	Yes

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Tara Satushek

Signature

4/21/2025

Date

Tara Satushek, Sr. Planner, Skagit County Planning and Development Services

Printed Name, Title, & Jurisdiction

Consistency Review Guidance
For Use by Local Governments and Municipal Water Suppliers

This checklist may be used to meet the requirements of WAC 246-290-108. When using an alternative format, it must describe all the elements; 1a), b), c), d), and e), when they apply.

For **water system plans (WSP)**, a consistency review is required for the municipal water supplier's service area. Municipal water suppliers may exclude wholesale areas from the consistency review provided the water system receiving the wholesale water complies with the requirements for a consistency review when developing a water system plan for any new connection within their service area.

For **small water system management programs**, a consistency review is only required for areas where a municipal water supplier wants to expand its water right's place-of-use. If no water right place-of-use expansion is requested, a consistency review is not required.

For **engineering documents,** a consistency review is required for areas where a municipal water supplier wants to expand its water right's place-of-use (water system plan amendment is required). For noncommunity water systems, a consistency review is required when requesting a place-of-use expansion. All engineering documents must be submitted with a service area map (WAC 246-290-110(4)(b)(ii)).

A) Documenting Consistency: The planning or engineering document must include the following when applicable.

a) A copy of the adopted land use/zoning map corresponding to the service area. The uses provided in the WSP should be consistent with the adopted land use/zoning map. Include any other portions of comprehensive plans or development regulations that relate to water supply planning.

b) A copy of the growth projections that correspond to the service area. If the local population growth projections are not used, explain in detail why the chosen projections more accurately describe the expected growth rate. Explain how it is consistent with the adopted land use.

c) Include water service area policies and show that they are consistent with the utility service extension ordinances within the city or town boundaries. (This applies to cities and towns only.)

d) All **service area policies** for how you will provide new water service to new customers.

e) **Other relevant elements** the Department of Health determines are related to water supply planning. See Local Government Consistency—Other Relevant Elements, Policy B.07

B) Documenting an Inconsistency: Please document the inconsistency, include the citation from the comprehensive plan or development regulation, and explain how to resolve the inconsistency.

C) Documenting a Lack of Local Review for Consistency: Where the local government with jurisdiction did ***not*** provide a consistency review, document efforts made, and the amount of time provided to the local government for review. Please include name of contact, date, and efforts made (letters, phone calls, and emails). To self-certify, please contact the DOH Planner.

Washington State Department of HEALTH

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.

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** Figure 2-1

CHAPTER 2

BASIC PLANNING DATA

2.1 CURRENT POPULATION, SERVICE CONNECTIONS, AND ERU'S

The residential population served by the TOLC Water Utility is comprised of two main groups; those residing within the TOLC's limits and those residing within the TOLC's water service area but outside of the TOLC's limits. Each group has different growth pressures and constraints. The 2018 TOLC Comprehensive Plan indicated that build out potential for residential land use is an additional 152 dwelling units. The Washington State Office of Financial Management (OFM) uses data from the 2020 census for various purposes. The average population per household overall with the TOLC's zip code is calculated as approximately 2.

2.1.1 Residential Population within TOLC's Limits

The 2020 residential population within the TOLC's limits was estimated at 965 using OFM data. The TOLC's 2018 TOLC Comprehensive Plan projects a one percent annual residential growth rate. The census data indicates that for 2020 through 2022, the growth rate ranging from 0.5% to 1%. Table 2-1 shows the population estimates for the future projections at one percent growth rate. The Skagit County Comprehensive Plan 2016-2036 allocated a population of 1,226 in the year 2036. The growth is anticipated to be less than anticipated in that document. This will not create any negative impacts to Skagit County plans.

TABLE 2-1
La Conner Residential Population: Historic And Future
****Population within TOLC Limits only.**

Historic		Future	
Year	Population	Year	Population
1980	660	2025	1,013
1990	686	2030	1,062
2000	761	2035	1,115
2010	891	2040	1,158
2020	965	2045	1,216

2.1.2 Residential Population Outside TOLC Limits

Populations outside of the TOLC's Limits, but within the TOLC's water service area, consist of the Skagit Beach area and the less developed, mostly agricultural, unincorporated County area.

Additionally, the residential population of the Shelter Bay Water Service area impacts the demand on the TOLC's water system.

2.1.2.A Skagit Beach

Skagit Beach is a small community of residential platted lots lying on the eastern bank of the Swinomish Channel along Channel Drive.

The 2020 Census showed an average rural residential density of 2.0 persons/residence in TOLC's zip code which encompasses the entirely of the water district. 2022 TOLC records list a total of 81 accounts, resulting in an estimated current population of (81 x 2) approximately 162. The buildout population is estimated at (86 x 2) approximately 172. The TOLC Comprehensive Plan projected a 0.75% growth rate for the rural/agricultural areas through the planning year of 2035. This year exceeds our planning year of 2033. Table 2-2 shows the projected population based this growth rate. This growth rate would result in the area reaching buildout on or about the year 2033.

TABLE 2-2
SKAGIT BEACH SUBAREA
Residential Population: Existing and Future

Year	Existing Population	Year	Future Population
2024	162	2025	165
		2030	170
		2035	172
		2040	172
		2045	172

2.1.2.B Unincorporated County Area

As discussed in Chapter 1 and shown on Figure 1.1, the majority of TOLC's water service area consists of unincorporated agricultural land. The TOLC's records show approximately 47 residential connections, the majority of which are situated along La Conner-Whitney Road, and Downey Road. The Department of Ecology has no record of any private potable wells in this area. The 2020 estimated population for the agricultural area is (47 x 2) approximately 94.

The TOLC Comprehensive Plan projected a 0.75% growth rate for the rural/agricultural areas through the planning year of 2035. This year exceeds our planning year of 2033. Table 2-3 shows the estimated population growth at the above growth rate.

TABLE 2-3
COUNTY SUB-AREA
Residential Population: Historic and Future

Year	Historic Population	Year	Future Population
2024	94	2025	97
		2030	103
		2035	107
		2040	111
		2045	115

2.1.2.C Shelter Bay

Shelter Bay is a planned residential community designed for approximately 947 lots. The exiting meter sizing would permit a maximum available flow of 1,000 gpm if needed. The 2019 Shelter Bay WFI estimates that there are 878 active connections with 911 approved connections to the water system. Shelter Bay has a wholesale water agreement with the TOLC (dated 2011, see Appendix A) that provides for an annual allotment of 400,000 gpd. Although the TOLC is not responsible for growth planning beyond the contracted amount, the TOLC does need to estimate the future impact of continued growth within the Shelter Bay water system.

Given recent economic conditions, it is likely that Shelter Bay could experience a growth rate comparable to or less than the TOLC. They appear to be near the buildout level of 947 lots.

Shelter Bay purchases water from the TOLC. The loss of Shelter Bay as a customer is one scenario that is included within this planning document.

2.1.3 Agricultural Use

Historically, agricultural use of potable water for irrigation or processing has been a small, seasonal, component of the total TOLC's water demand. There are no current contracts for agricultural irrigation. The TOLC has not adopted a specific position regarding the use of potable water for commercial agricultural irrigation. Instead, the TOLC reviews each application on a case-by-case basis. Withdrawals that would negatively impact existing customers are not allowed and any temporary use is subject to being turned off without notice. Situations that could cause this include but are not limited to: drought conditions which may prompt water conservation, water system maintenance, construction activities impacting water infrastructure.

When an application is received, it is reviewed by the TOLC staff. If felt needed, the Engineer also reviews to determine feasibility, costs, and impacts. Public works staff and the utility clerk monitor consumption. The City of Anacortes is contacted if consumption is higher than expected and/or average consumption approaches the maximum contracted amount.

2.1.4 Equivalent Residential Unit

An Equivalent Residential Unit (ERU) is defined as the amount of water consumed by a typical single-family residence. Calculation of an ERU shall be based on the meter data provided by the TOLC. Zero flow or low flow accounts were not included in the analysis. Accounts with year-round flow over all five years of the analysis were used to calculate the ERU. An ERU is expressed as an annual Average Daily Demand (ADD) and uses the units of gallons per day (gpd).

Typical water demand will vary yearly in response to climate and economic conditions. For this update, the COVID pandemic also altered the water demand patterns. Calculation of the gpd/ERU value for this report was performed by averaging the previous five years of meter data and calculating the ADD for residential (TOLC) connections (see Table 2.5). The COVID pandemic impacted water demand as evident in the data. The previous 2009 CWP used 170 ADD-gpd to equal 1 ERU. Averaging the current data, it appears pre-pandemic water use (2018-2020) would justify the continued use of 170 gpd ADD/ERU. The somewhat erratic demand seen in the data during and since (2020-2022) seems to indicate the region is recovering. It is reasonable to conclude that the region should recover to pre-pandemic demands in the next 10 years. For the purposes of this 10-year plan, use of the more conservative value of 170 gpd/ERU appears appropriate and is utilized for further analysis herein.

The TOLC 2005 Comprehensive Plan (GMA) states a “level of service” of 157 gallons per capita per day. The GMA Plan does not discuss ERU values. The TOLC is expected to revise the Comprehensive Plan and resulting ordinances to include the definition of one ERU and establish that value as 170 ADD-gallons per day in the next update, to occur after this plan is approved. It is expected that the revision would include a “level of service” standard on an ERU basis to avoid conflicting standards.

Table 2.5 presents a summary of the meter data provided by the TOLC. Connections with zero flow recorded in 2022 were not included in the analysis. The data received from the TOLC delineates general zoning for each meter (Residential, Commercial, etc.) as well as general area where the meter is located (TOLC, County, Port, etc.). The presence of partial year accounts was also considered in the calculations to provide more accurate results. This was used to generate the summary in Table 2.5 which is further described as follows:

Residential (TOLC). Residential properties residing with the TOLC limits are included here. The data includes both single family and multiple family homes. Demand patterns are expected to follow typical diurnal

patterns with heavier demands in the mornings and evenings and lower than average demands during the day and evening.

Commercial (TOLC). The TOLC's commercial areas are primarily linked to the service industry (lodging, restaurants, shopping) and is influenced by tourism. Water demand has been relatively stable and is expected to keep pace with the residential population. Demand patterns for commercial areas are expected to follow typical commercial patterns with demand rising during the morning and remaining consistent throughout the day before falling in the evening as businesses close.

Industrial (TOLC). The TOLC's industrial users have fairly stable water use for light manufacturing. Water demand patterns are more variable but tend to remain consistent during hours of operation.

Public Facilities (TOLC). This class groups the municipal owned facilities together, including public restrooms. Future growth is expected to be dependent on tourism growth. Demand patterns are expected to be similar to the commercial pattern described above.

Residential (County). Residential properties residing outside the TOLC limits are included here. The data includes both single family and multiple family homes and includes the Skagit Beach sub-area discussed earlier. Demand patterns are expected to be consistent with other residential areas.

Commercial (County). This class primarily consists of agricultural-related businesses and is projected to remain very stable. Demand patterns are expected to be consistent with other commercial areas.

Shelter Bay. The Shelter Bay community represents approximately 57 percent of the total water used by the TOLC water system in 2022. Typically, it seems this percentage is between 40% and 60%. Shelter Bay is mainly residential in nature and demand patterns are expected to be consistent with other residential areas.

Skagit County Port (Marina). As the marina is of fixed size, water demand is linked to use with limited potential for facilities expansion. Demand patterns are expected to be highly variable dependent on how many visitors there are in the area.

Agricultural Uses. The TOLC has metered connections that are not classified under any other category. These are irrigation meters used on a temporary basis. The demand pattern would be wholly dependent on the crops being irrigated.

TABLE 2-4
SERVICE METER RECORD
ANNUAL DATA SUMMARY

ERU = 170 ADD-gpd*

Category	Desc./ Location	Item	**Year 2022-2023**
1	**Residential**	9%	
	TOLC	# of Accounts	260
		Total Use (CF/year)	1,613,939
		Average Day Use (gal)	33,075
		Average Use (gpd/conn)	127
		Estimated ERU's	195
2	**Commercial**	9%	
	TOLC	# of Accounts	118
		Total Use (CF/year)	1,556,400
		Average Day Use (gal)	31,896
		Average Use (gpd/conn)	270
		Estimated ERU's	188
3	**Industrial**	2%	
	TOLC	# of Accounts	10
		Total Use (CF/year)	313,437
		Average Day Use (gal)	6,423
		Average Use (gpd/conn)	642
		Estimated ERU's	38
4	**Public**	1%	
	TOLC	# of Accounts	15
		Total Use (CF/year)	193,928
		Average Day Use (gal)	3,974
		Average Use (gpd/conn)	265
		Estimated ERU's	23
5	**Residential**	5%	
	County	# of Accounts	90
		Total Use (CF/year)	904,727
		Average Day Use (gal)	18,541
		Average Use (gpd/conn)	206
		Estimated ERU's	109
6	**Commercial**	2%	
	County	# of Accounts	11
		Total Use (CF/year)	385,841
		Average Day Use (gal)	7,907
		Average Use (gpd/conn)	719
		Estimated ERU's	47

TABLE 2-4
SERVICE METER RECORD
ANNUAL DATA SUMMARY

ERU = 170 ADD-gpd*

Category	Desc./ Location	Item	**Year 2022-2023**
7	**Wholesale - Shelter Bay**	46%	
	County	# of Accounts	1
		Total Use (CF/year)	8,243,000
		Average Day Use (gal)	168,925
		Average Use (gpd/conn)	168,925
		Estimated ERU's	994
8	**Port**	3%	
	TOLC	# of Accounts	35
		Total Use (CF/year)	541,872
		Average Day Use (gal)	11,105
		Average Use (gpd/conn)	317
		Estimated ERU's	65
9	**Agricultural Use**	23%	
		# of Accounts	55
		Total Use (CF/year)	4,206,764
		Average Day Use (gal)	86,210
		Average Use (gpd/conn)	1,567
		Estimated ERU's	507
		100%	
	TOTALS	# of Accounts	**595**
		Total Use (CF/year)	**17,959,908**
		Average Day Use (gal)	**368,055**
		Estimated ERU's	2,165

CF = Cubic Feet, gpd = gallons per day

2.2 WATER PRODUCTION AND USAGE

The TOLC has approximately 758 connections, all of which have metered services. Meters used range from ¾" typical residential meters to a 6" meter for Shelter Bay. Each meter is read monthly via a "radio read" device, the data is then downloaded at TOLC Hall and processed. During the Fall of 2007, the TOLC switched billing software and currently maintains a historical database of billing records from the switch.

In preparation for this plan, the TOLC staff forwarded all water meter consumption for 2022 to the Engineers. The records have been analyzed

to determine key values in this Plan. Table 2.5 is a summary of the type, number, and water use for each class of connections.

The TOLC does not produce any water. They purchase water wholesale from the City of Anacortes. For the purposes of this report, the billed volumes as metered by the City of Anacortes is used in lieu of a production volume.

The Conservation Planning Requirements establishes data collection and reporting requirements. The TOLC's current procedures provide for collecting the core data needed including tracking non-revenue water. Recommendations for improving this area of the operations are discussed in Chapter 6 of this Plan.

Demand Factors: ADD, MDD and PHD

The 3-year average (2018-2020) for ADD is calculated to be 140 gpd/residence based on the meter data. The meter data also shows the pandemic skewed the average down to 135 gpd/residence. The more conservative value was chosen for the ADD as it seems reasonable that usage will return to pre-pandemic levels within this planning period. A factor of safety is applied resulting in an ADD value for this plan of 170 gpd per ERU.

Currently, the TOLC reads water meters on a monthly basis. Anacortes also reads the TOLC's master supply meter on a monthly basis. The monthly data provided documentation for calculating the ADD for all consumer classes and the resulting ERU. The monthly data does not provide sufficient information to adequately quantify the daily and hourly variations that are seen in a water system. The DOH Water System Design Manual (DOH Manual) uses factors to estimate MDD by applying a factor to the Maximum Monthly Average Daily Demand (MMADD), which can be calculated from the meter data. The MMADD:ADD ratio calculated from the meter data is 2.0.

Maximum Day Demand (MDD): Section 3.4.1 of the DOH Manual indicates that a typical MDD to MMADD ratio in the range of 1.35 – 1.65 for systems less than 1,000 people. TOLC is nearing the threshold population of 1,000 people and therefore this Plan will utilize a MDD:MMADD ration of 1.35. The meter data shows residential accounts have a calculated MMADD of approximately 2.0. This gives the following planning values:

- MMADD = 2.0 x 170 = 340 gpd/ERU
- MDD = 1.35 x 340 = 460 gpd/ERU

Peak Hourly Demand (PHD): The meter data obtained from the Town was separated based on type. The 170 gpd ADD/ERU was based on the calculated value from the residential meters with a safety factor. This was then used to calculate ERU's for the other non-residential services based on meter data. In the absence of detailed hourly demand data, a planning ratio of 2.0 is used to estimate Peak Hourly Demand (PHD) from the projected Maximum Daily Demand (MDD) of 1,084,386 gpd to give the following approximate value:

- PHD = 1,506 gpm

For reference, the 2009 plan that had the same approximately 60/40 split between residential and non-residential used a peaking factor of 1.6. Using those same design manual equations in use at the time would result in a PHD of 1,205 gpm if used here. Applying Equation 3-1 to the system as a whole would result in a peak hourly demand of approximately 1,348 gpm. Using 2.0 as a peaking factor appears most conservative.

The loss of Shelter Bay as a customer would not appear to impact the demands per ERU values given earlier to any significant degree. However, the total peak demands should decrease since those are based on the number of connections and total water use.

2.3 DISTRIBUTION SYSTEM LEAKAGE

Chapter 6 of this Plan discusses operational changes made that permitted more accurate estimates of non-revenue water losses as seen in Table 2-5 below and on the following two pages.

Table 2-5
Town of La Conner Water Loss Tabulation
January 2021 - December 2022

Year	Month	Total Production Anacortes Billed (gal)	TOLC Authorized Consumption (Billed plus unmetered) (gal)	Loss (gal)	Loss (%)
2020	Jan	8,806,270	8,211,703	594,567	-6.75%
	Feb	7,514,137	6,630,546	883,592	-11.76%
	Mar	6,801,281	7,232,541	-431,259	6.34%
	Apr	9,100,913	7,960,051	1,140,862	-12.54%
	May	11,119,389	10,287,114	832,275	-7.48%
	Jun	10,637,988	9,801,404	836,584	-7.86%
	Jul	19,404,342	17,007,516	2,396,826	-12.35%

Table 2-5 Town of La Conner Water Loss Tabulation January 2021 - December 2022					
	Aug	18,121,044	18,216,779	-95,736	0.53%
	Sep	14,999,841	13,630,390	1,369,451	-9.13%
	Oct	11,709,714	9,907,448	1,802,267	-15.39%
	Nov	9,782,755	8,491,430	1,291,325	-13.20%
	Dec	7,907,089	6,891,556	1,015,533	-12.84%
2021	Jan	5,676,510	5,987,333	-310,823	5.48%
	Feb	5,877,340	5,399,709	477,631	-8.13%
	Mar	6,041,904	5,802,834	239,070	-3.96%
	Apr	8,750,727	7,773,435	977,293	-11.17%
	May	10,207,992	10,291,572	-83,580	0.82%
	Jun	15,078,955	13,888,872	1,190,083	-7.89%
	Jul	24,773,664	22,434,192	2,339,473	-9.44%
	Aug	18,425,014	21,305,815	-2,880,801	15.64%
	Sep	10,845,535	10,969,651	-124,117	1.14%
	Oct	7,638,449	7,401,802	236,646	-3.10%
	Nov	6,834,151	5,915,064	919,087	-13.45%
	Dec	7,886,839	7,588,531	298,308	-3.78%
2022	Jan	7,470,788	7,088,997	381,791	-5.11%
	Feb	5,764,997	5,368,792	396,206	-6.87%
	Mar	5,849,894	6,203,378	-353,484	6.04%
	Apr	7,786,182	6,677,404	1,108,778	-14.24%
	May	7,363,068	7,443,155	-80,086	1.09%
	Jun	8,364,441	8,954,325	-589,884	7.05%
	Jul	27,766,202	26,963,676	802,525	-2.89%
	Aug	31,163,293	31,260,188	-96,895	0.31%
	Sep	18,509,746	17,460,192	1,049,554	-5.67%
	Oct	11,644,020	12,294,945	-650,925	5.59%
	Nov	6,638,804	6,518,301	120,504	-1.82%
	Dec	7,474,356	7,245,923	228,433	-3.06%

Loss = Unmetered water losses

Yearly Average Loss % 2020: -8.56%
Yearly Average Loss % 2021: -2.56%
Yearly Average Loss % 2022: -1.59%

3 Year Average: -4.24%

Water system losses saw a peak year in 2020 which skewed the 3-year average higher. As seen in the Table above, the TOLC's efforts to mitigate losses appears to be effective with an average loss of approximately 2%. The 2023 Consumer Confidence Report shows the 2023 losses at -3.42%, meeting the goal of less than 5%.

Shelter Bay is not under the authority of the TOLC water system and DSL values given herein do not account for any losses that may occur within Shelter Bay.

2.4 WATER SUPPLY CHARACTERISTICS

The TOLC water system was originally constructed around 1930 and supplied with water by the City of Anacortes (Anacortes). The average amount purchased in 2022 was approximately 146 million gallons (MG). The agreement currently in place is valid until December 31, 2025. The agreement with Anacortes has a committed water volume for the TOLC in the amount of 162 million gallons per year (MGY) (443,875 gpd) at a stated pressure of 120 psi at the connection point.

The water from Anacortes is pumped out of the Skagit River. It is treated at their water treatment plant and then pumped through a transmission main, tees to feed to the TOLC, then continues to a 1.5-million-gallon reservoir. From there it is distributed throughout Anacortes and sold to numerous other purveyors.

The TOLC has a contract with the community of Shelter Bay for wholesale water. The Contract with Shelter Bay sets a limit of 400,000 gpd (146 MGY). Shelter Bay's metered consumption in 2022 used approximately 8.2 million cubic feet or 61 million gallons.

The TOLC does not directly hold any water rights. Anacortes owns the water rights and has a contract with the TOLC. Anacortes is obligated to deliver to the TOLC water derived from their rights, permits and claims. The TOLC may not, according to the agreement with Anacortes, increase industrial operations, add new customers, or expand its service area such that the demand would be 10% without approval from Anacortes. Revisions to the agreement may be made as growth in the TOLC or Shelter Bay require.

The source water quality appears excellent. The 2023 Consumer Confidence Report for Anacortes, published online, shows the following in regard to water quality:

Lead and copper results are as follows:

Compounds and Units	MCLG	Action Level (AL)	90th Percentile Level	Homes Exceeding Action Level	Date of Sample
Lead (ppb)	0	0.015	N.D.	0 out of 34	2022
Copper (ppm)	1.3	1.3	0.07568	0 out of 34	2022

Other results:

Compounds and Units	Ideal Level/ Goal (MCLG)	Maximum Allowable (MCL)	Average Level Detected	Range of Detections	Violation
Total Organic Carbon (ppm)	N/A	TT	0.40	0.26-0.58	NONE
Nitrate (ppm)	10	10	0.13	N.D.-0.13	NONE
Total Coliform Bacteria (% positive)	0	5% positive per month	Absent	Absent	NONE
Chlorine (ppm)	4.0 (MRDLG)	4.0 (MRDL)	1.22	1.14-1.34	NONE
Haloacetic Acids 5 (ppb)	N/A	60	14.2	9.9-20.4	NONE
Total Trihalomethanes (ppb)	N/A	80	16.0	9.2-28.3	NONE
Sodium (ppm)	N/A	N/A	4.6	4.5-4.7	NONE
Barium (ppm)	2	2	0.01063	0.0092-0.0122	NONE
Fluoride (ppm)	4	4	N.D.	N.D.	NONE
Turbidity* (NTU)	N/A	TT	0.018	0.013-0.041	NONE
Per- and polyfluoroalkyl substances (PFAS) (ppb)	N/A	N/A	N.D.	N.D.	NONE

IMPORTANT TERMS

Action Level or AL The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. **Maximum Contaminant Level or MCL** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

Maximum Containment Level Goal or MCLG The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level or MRDL The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or MRDLG The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A Not Applicable – meaning EPA has not established MCLGs for these substances.

N/D Not Detected at or above the minimum reporting level.

NTU Nephelometric Turbidity Units, a measurement of water clarity.

ppm An abbreviation for parts per million.

ppb An abbreviation for parts per billion.

Treatment Technique or TT A required process intended to reduce the level of a contaminant in drinking water.

The TOLC monitors disinfection by-products by testing at sites located throughout the Town. A list of sites is as follows:

- Water storage reservoir
- Anacortes master meter

HPC, Temperature, Tank turnover are all monitored by the Town. The Town keeps temperature and tank turnover records. The ideal tank turnover the Town attempts to maintain is three days. HPC results are reported. Most recent HPC result as of June 2024 is as follows:

- May 2024 HPC: 2 CFU/mL

2.5 WATER SUPPLY RELIABILITY EVALUATION

The TOLC purchases water from Anacortes and has no water rights of their own. The reliability of the water supply from the City's source to the intertie resides solely with Anacortes. The Town however remains committed to alternate means to increase their resiliency.

The current agreement with the City expires in December 2036, and permits the TOLC to utilize 162 MG/Year. Figure 2.1 at the end of the chapter has two demand projections over the next 20 years. The TOLC could reach this permitted use as early as 2043 if growth occurs at a rate estimated by the Skagit County Comprehensive Plan. However, using meter data and actual growth from census data, it appears the TOLC will not reach the permitted use limit in the next 20 years.

The permitted limit would not appear to be reachable within the planning period if Shelter Bay were to stop purchasing water from the TOLC.

Fire flows for the TOLC are 1,500 gpm for two hours and the existing storage tank has sufficient capacity for over one day of storage at maximum daily flow with fire flow storage in reserve. Further details are discussed in Chapter 3. The Skagit Beach community currently does not have fire flow protection as the other areas of the Town. The system reliability is not expected to change if the community decides to pay for improvements to have fire protection brought into their area of the Town.

Resiliency in terms of main breaks is maintained through routine operations to identify leaks in the system as quickly as possible and repair the mains to stop the leak.

The piping materials used in the system may not withstand a significant earthquake. Multiple breaks would be anticipated. The Town has a plan for such events as discussed in Chapter 6. It is likely that such an event

would also impact Anacortes and other potential intertie systems being reviewed herein.

Service interruptions from Anacortes, if they should occur, are assumed to be short-term in nature (meter failure or supply main leak). The Town's storage tank maintains a capacity of over one day at maximum daily flow and can absorb such interruption. Longer term interruption is assumed to only arise from a natural disaster such as an earthquake. Such an event would likely impact any other interties or sources the Town decided to develop, assuming economic conditions permitted. In such an event, multiple breaks in the system are likely to occur, especially in more fragile AC piping and would force the Town to isolate affected sections to maximize water availability to the Town as a whole. Trucked water and/or bottled water could be made available to help address immediate needs while repairs are conducted and the system restored.

The agreement with the City stipulates that the City will undergo due diligence to provide a consistent supply but will be indemnified against interruptions beyond the City's control, such as an earthquake. The loss of Anacortes supply for an extended period would result in the Town having no source supply.

An intertie with Skagit PUD is possible and is one option that comes under review to enhance resiliency of supply. The cost for this intertie has historically appeared excessive and has generally not been pursued beyond preliminary discussion. The Town continues to review this as an option and could pursue if funding methods permitted it. The Town is also aware of their option to pursue other connection points with Anacortes as permitted in their agreement. Costs for such a connection is a concern, similar to the PUD intertie option. Lastly, should the Swinomish Tribe obtain a connection with Anacortes or otherwise obtain sufficient source capacity, the Town may review the possibility to have an intertie to help increase resiliency.

2.6 FUTURE WATER DEMAND

2.6.1 FUTURE POPULATION PROJECTIONS AND LAND USE

The land use patterns within the TOLC's water service area are not projected to change significantly over the 10-year planning horizon. Both the TOLC and Skagit County have completed GMA Comprehensive Plans. The land use and zoning, as discussed in Chapter 1 and shown on Figures 1.1 and 1.2, will remain in effect. Growth projections are based on

existing zoning. General development patterns are discussed in Section 2.1.

Table 2-6 summarizes the estimated existing and future residential populations within TOLC's water service area:

TABLE 2-6
LA CONNER WATER SERVICE AREA
RESIDENTIAL POPULATION SUMMARY*

Year	0.5% Growth/yr La Conner	0.5% Growth/yr Skagit Beach	0.75% Growth/yr County	Total
2020	900	165	96	1,161
2025	923	169	100	1,191
2030	946	172	103	1,221
2035	969	172	107	1,248
2040	993	172	111	1,277
2045	1018	172	115	1,306

*- Skagit Beach reaches buildout during the planning period.

The GMA indicated that the TOLC would reach its buildout potential of 1,117 units. Skagit Beach has limited growth potential due to the limits of any area to develop further. Multi-family construction was noted as one factor to permit more dwelling units. 2020 Census data indicates approximately 1.9 people per household giving a buildout population of approximately 2,122. Within the planning period of this Plan, the TOLC is not expected to approach buildout.

Factors affecting the water demand forecast have been discussed in this chapter. Table 2-7 below summarize the projected annual water demands in units of ADD-gpd, MDD-gpd, PHD-gpd, and ERU. Table 2-7 below provides similar demand forecasts broken out by Category with possible impacts if additional conservation occurs. Table 2-8 shows the resulting demands if Shelter Bay leaves as a customer in 2023. Demand factors are discussed earlier in 2.2. Figure 2.1 at the end of the chapter is a graph of the tabulated data from Tables 2-7 and 2-8. A 1% growth factor was used in Table 2-7 as the Table includes all water demands, not just residential and should be conservative.

TABLE 2-7
Water Demand Factors and Projections 2025 - 2045 at 1% Growth

Water Demand Factors*

1 ERU =	**170**	**ADD-gpd**	ERU = Equivalent Residential Unit
MDD =	**2.70**	**x ADD (1.35 x MMADD)**	MDD = Maximum Day Demand
PHD =	**2.00**	**x MDD**	PHD = Peak Hour Demand

gpd = gallons per day
gpm = gallons per minute
Mg/yr = Million Gallons per year
cf/yr = cubic feet per year
MMADD = Maximum Monthly Demand from Meter Readings

Water System Demand Projections

		ADD				MDD				PHD*
Year	# ERU	gpd	gpm	Mg/yr	cf/yr	gpd	gpm	Mg/yr	cf/yr	gpm
2025	2,209	375,400	261	137	18,318,300	1,013,600	704	370	49,460,400	1,408
2026	2,231	379,200	263	138	18,503,700	1,023,800	711	374	49,958,200	1,422
2027	2,253	383,000	266	140	18,689,200	1,034,100	718	377	50,460,800	1,436
2028	2,275	386,800	269	141	18,874,600	1,044,400	725	381	50,963,400	1,451
2029	2,298	390,700	271	143	19,064,900	1,054,900	733	385	51,475,700	1,465
2030	2,321	394,600	274	144	19,255,200	1,065,400	740	389	51,988,100	1,480
2031	2,344	398,500	277	145	19,445,500	1,076,000	747	393	52,505,300	1,494
2032	2,368	402,500	280	147	19,640,700	1,086,800	755	397	53,032,400	1,509
2033	2,392	406,600	282	148	19,840,800	1,097,800	762	401	53,569,100	1,525
2034	2,415	410,600	285	150	20,036,000	1,108,600	770	405	54,096,100	1,540
2035	2,440	414,700	288	151	20,236,000	1,119,700	778	409	54,637,800	1,555
2045	2,684	456,200	317	167	22,261,100	1,231,700	855	450	60,103,000	1,711

* - Demand factors source is as stated in Chapter 2.2

TABLE 2-7 (continued)
Water Demand Factors and Projections 2025 - 2045 at 1% Growth w/o Shelter Bay

Water Demand Factors*

1 ERU =	**170**	**ADD-gpd**	ERU = Equivalent Residential Unit
			ADD = Average Annual demand
MDD =	**2.70**	**x ADD**	MDD = Maximum Day Demand
			PHD = Peak Hour Demand
PHD =	**2.00**	**x MDD**	

gpd = gallons per day
gpm = gallons per minute
Mg/yr = Million Gallons per year
cf/yr = cubic feet per year

Water System Demand Projections

		ADD				MDD				PHD*
Year	# ERU	gpd	gpm	Mg/yr	cf/yr	gpd	gpm	Mg/yr	cf/yr	gpm
2025	1,195	203,100	141	74	9,910,600	548,400	381	200	26,760,200	762
2026	1,207	205,200	143	75	10,013,100	554,000	385	202	27,033,400	769
2027	1,219	207,200	144	76	10,110,700	559,400	388	204	27,296,900	777
2028	1,231	209,300	145	76	10,213,200	565,100	392	206	27,575,100	785
2029	1,243	211,400	147	77	10,315,600	570,800	396	208	27,853,200	793
2030	1,256	213,500	148	78	10,418,100	576,500	400	210	28,131,400	801
2031	1,268	215,600	150	79	10,520,600	582,100	404	212	28,404,600	808
2032	1,281	217,800	151	79	10,627,900	588,100	408	215	28,697,400	817
2033	1,294	220,000	153	80	10,735,300	594,000	413	217	28,985,300	825
2034	1,307	222,200	154	81	10,842,600	599,900	417	219	29,273,200	833
2035	1,320	224,400	156	82	10,950,000	605,900	421	221	29,566,000	842
2045	1,452	246,800	171	90	12,043,000	666,400	463	243	32,518,200	926

* - Demand factors source is as stated in Chapter 2.2

TABLE 2-8
TOWN OF LA CONNER
Projected Annual Water Demands 2025-2045

1 ERU = 170 ADD-gpd

(See Section 2.2)

Growth Projections

Category	2025 Demand		2026 Demand		2027 Demand		2028 Demand		2029 Demand		2030 Demand	
	ERU	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*
Residential (Town)	197	33,482	198	33,650	199	33,818	200	33,987	201	34,157	202	34,341
Commercial (Town)	192	32,602	194	32,928	196	33,258	198	33,590	200	33,926	202	34,337
Industrial (Town)	39	6,590	39	6,656	40	6,722	40	6,790	40	6,857	41	6,937
Public (Town)	24	4,028	24	4,089	24	4,150	25	4,212	25	4,275	26	4,378
Residential (County)	110	18,716	111	18,809	111	18,903	112	18,998	112	19,093	113	19,231
Commercial (County)	47	8,070	48	8,110	48	8,151	48	8,192	48	8,233	48	8,242
Shelter Bay	947	160,990	947	160,990	947	160,990	947	160,990	947	160,990	947	160,990
Multifamily Residential (Town)	5	859	5	863	5	867	5	871	5	876	5	854
Port (Town)	66	11,161	66	11,217	66	11,273	67	11,329	67	11,386	68	11,504
Unclassified/Temp Use	56	87,074	56	87,510	56	87,947	56	88,387	57	88,829	57	89,273
***Non-Revenue Water	81	13,825	82	13,866	82	13,907	82	13,948	82	13,990	87	14,740
Total Demands	**1,763**	**377,397**	**1,769**	**378,687**	**1,774**	**379,986**	**1,779**	**381,294**	**1,785**	**382,612**	**1,796**	**384,826**
Planning Totals												
ADD - (gpd) (gpm)	377,397	262	378,687	263	379,986	264	381,294	265	382,612	266	384,826	267
MDD - (gpd) (gpm)	1,018,972	708	1,022,455	710	1,025,962	712	1,029,494	715	1,033,051	717	1,039,031	722
PHD - (gpd) (gpm)	2,037,944	1,415	2,044,909	1,420	2,051,924	1,425	2,058,988	1,430	2,066,103	1,435	2,078,061	1,443
ADD - gal/yr	137,749,928		138,220,720		138,694,849		139,172,343		139,653,229		140,461,552	
WUE Goal ADD - gal/yr	**137,061,178**		**137,529,617**		**138,001,375**		**138,476,481**		**138,954,962**		**139,759,245**	
Estimated Water Savings gal/yr	**688,750**		**691,104**		**693,474**		**695,862**		**698,266**		**702,308**	

TABLE 2-8 (continued)
TOWN OF LA CONNER
Projected Annual Water Demands 2025-2045

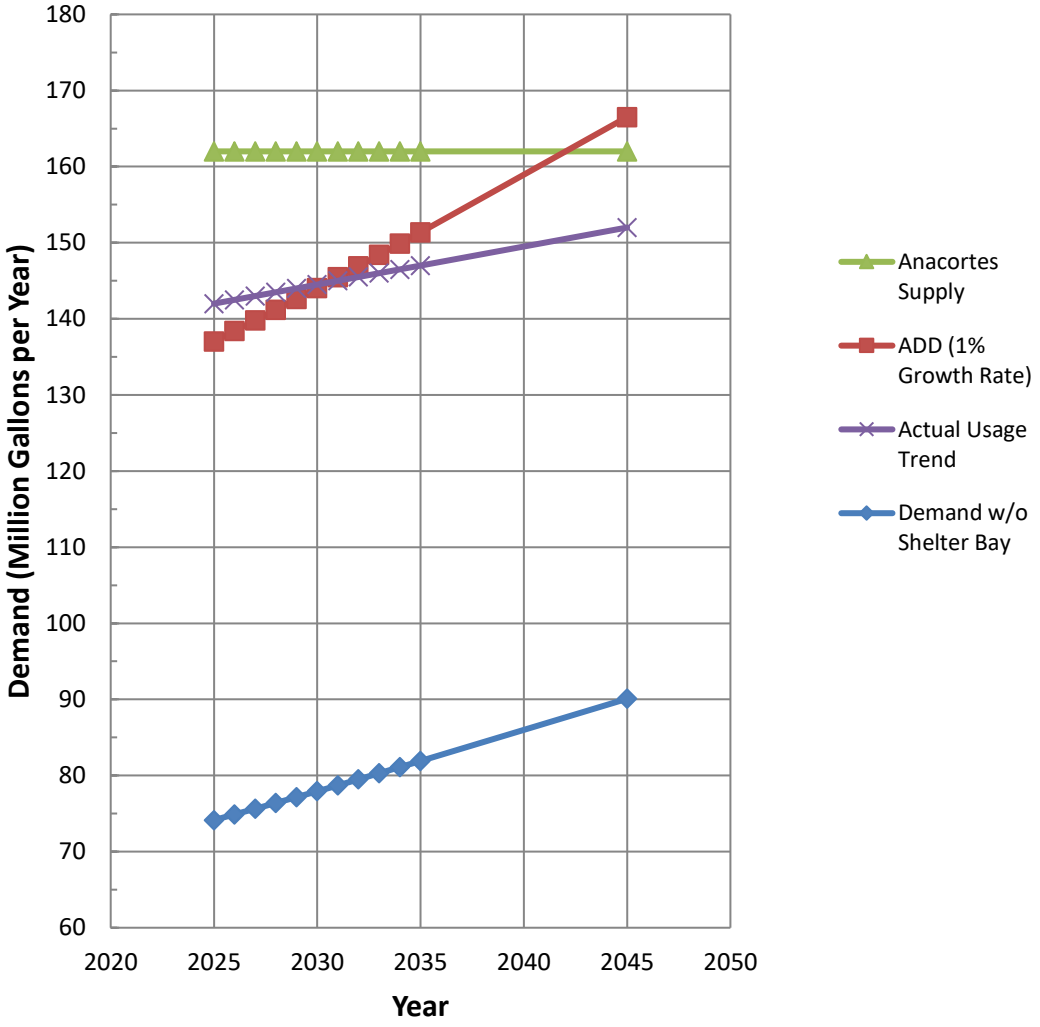
1 ERU = 170 ADD-gpd

(See Section 2.2)

Growth Projections

Customer Class	2031 Demand		2032 Demand		2033 Demand		2034 Demand		2035 Demand		2045 Demand	
	ERU	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*	*ERU*	*gpd*
Residential (Town)	203	34,513	204	34,685	205	34,859	206	35,033	207	35,208	217	36,968
Commercial (Town)	204	34,680	206	35,027	208	35,377	210	35,731	212	36,088	234	39,697
Industrial (Town)	41	7,006	42	7,076	42	7,147	42	7,218	43	7,291	47	8,020
Public (Town)	26	4,444	27	4,511	27	4,578	27	4,647	28	4,717	32	5,424
Residential (County)	114	19,327	114	19,424	115	19,521	115	19,618	116	19,716	122	20,702
Commercial (County)	49	8,283	49	8,324	49	8,366	49	8,408	50	8,450	52	8,872
Shelter Bay	947	160,990	947	160,990	947	160,990	947	160,990	947	160,990	947	160,990
Multifamily Residential (Town)	5	859	5	863	5	867	5	871	5	876	5	920
Port (Town)	68	11,562	68	11,620	69	11,678	69	11,736	69	11,795	73	12,384
Unclassified/Temp Use	57	89,719	58	90,168	58	90,619	58	91,072	58	91,527	59	91,985
***Non-Revenue Water	83	14,083	83	14,126	83	14,169	84	14,213	84	14,257	86	14,699
Total Demands	1,797	385,465	1,802	386,813	1,808	388,170	1,814	389,537	1,819	390,914	1,874	400,662
Planning Totals												
ADD - (gpd) (gpm)	385,465	268	386,813	269	388,170	270	389,537	271	390,914	271	400,662	278
MDD - (gpd) (gpm)	1,040,757	723	1,044,395	725	1,048,060	728	1,051,751	730	1,055,468	733	1,081,787	751
PHD - (gpd) (gpm)	2,081,513	1,445	2,088,791	1,451	2,096,120	1,456	2,103,502	1,461	2,110,936	1,466	2,163,573	1,502
ADD - gal/yr	140,694,885		141,186,775		141,682,179		142,181,126		142,683,646		146,241,537	
WUE Goal ADD - gal/yr	**139,991,410**		**140,480,841**		**140,973,768**		**141,470,220**		**141,970,228**		**145,510,330**	
Estimated Water Savings gal/yr	**703,474**		**705,934**		**708,411**		**710,906**		**713,418**		**731,208**	

Figure 2-1
Demand Projections 2025-2045



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**	Tables 3.1 and Table 3.2	

CHAPTER 3

SYSTEM ANALYSIS AND ASSET MANAGEMENT

3.1 ASSET MANAGEMENT – ASSET INVENTORY AND ANALYSIS

3.1.1 Asset Inventory

The Town has purchased an asset management suite that will permit more accurate tracking of assets within the next 10 years using Geographic Information System (GIS) and Artificial Intelligence (AI) technology. The program may also allow for more funding sources to be available for CIP as discussed in Chapter 8. Currently all record drawing and field information is being loaded into the software. Pipe sizes, materials, age of infrastructure, locations of valves and hydrants, and other useful information is currently being gathered such that the Town may begin utilizing the system. It is assumed that much of the information regarding condition and remaining useful life will be estimates, as that information is not generally available at present except for more recent installations. The Town's existing water system assets are shown in system mapping in Appendix A. The Table separates pipelines and other components by size.

The TOLC has the following estimated quantities:

- Approximately 28,500 LF of transmission piping (>10").
- Approximately 73,379 LF of distribution piping (4" – 10").
- Approximately 10,760 LF of water service piping (<3")
- A total of 692 service and intertie meters.
- A total of 5 pressure reducing valves.
- A total of 1 altitude valve.
- A total of 105 fire hydrants.
- A total of 1 storage reservoir (tank).

The TOLC has one intertie with Anacortes near the intersection of SR 20 and La Conner-Whitney Road. The TOLC has a wholesale supply connection to Shelter Bay across the Swinomish channel. Shelter Bay assets are not included in this document as they are a wholesale customer. General system assets are as follows, with more detailed inventory in Table 3-1 and deficiencies in Table 3-2, both located at the end of this Chapter:

- Source/Treatment: Town has no source or treatment of its own.
- Storage: One steel above-grade reservoir. Capacity of 1.5 million gallons.
- Transmission/Distribution Mains (Piping less than 4" assumed to be services):

Diameter	¾”	1”	1-½	2”	3”
Rounded Length, ft.	190	330	875	9,245	120

Diameter	4”	6”	8”	10”	12”	14”	16”
Rounded Length, ft.	16,928	8,948	39,103	8,400	4,405	16,114	7,981

*Total length equals 112,639 feet or approximately 21.3 miles. It is expected with the new asset management software that any quantities provided in this Chapter would be refined in future updates. The 6” length values may include hydrant laterals. As the above-mentioned asset management software is utilized, refinements to the lengths are expected in the next update to this Plan. Ancillary lengths such as at PRV vaults use assumed lengths in the totals above.

- Booster Pump Stations: None
- Fire Hydrants: 105
- Valves:

	Isolation (Gate/Butterfly)	Air Release	Pressure Reducing and Altitude
Quantity	213	10	6

- Interties: Source from Anacortes at SR-20 and La Conner-Whitney Road; Wholesale supply to Shelter Bay Community across Swinomish Channel.

3.1.2 Asset Condition and Criticality

The existing asbestos cement piping in the Town is generally deemed to be in poor condition as that piping given the age and need for repairs. The latest repair noted was on Downey Road earlier in 2024. Other older mains along with newer mains appear to be adequate in condition but may be deficient in capacity or for resiliency reasons. Table 3-2 at the end of this Chapter includes some of the notable deficiencies. Chapter 8 outlines the current plan to address them.

The City of Anacortes is responsible for monitoring and maintaining the intertie. The Town performs cursory inspections when at the site to help ensure the reliability of this critical intertie.

3.1.3 Telemetry

The Town currently utilizes telemetry at the storage tank. An Emerson Model FCL analyzer is installed at the base of the reservoir which measures level, real time free chlorine, pH, and temperature. The level aspect also contains alarm set parameters that notify by text and email. The system is connected to a SCADA system to permit Town

personnel the ability to log in to remotely. The SCADA system also keeps years of data history. Cybersecurity is a newer threat to water systems nationwide. The Cybersecurity and Infrastructure Security Agency (CISA) is a federal agency that has recommended guidance for systems to improve resiliency of their telemetry. AWWA has also developed guidance based in part from CISA. Chapter 6 has more detailed information on this guidance.

3.2 WATER QUALITY

Group A public water systems must comply with the provisions of the Federal Safe Drinking Water Act (SDWA). Washington State's water quality provisions are contained in Chapter 246-290 WAC and generally incorporate the SDWA requirements.

The supplier of the Town's potable water, the City of Anacortes, draws its water from the Skagit River near the community of Avon, several miles northeast of the Town. The Anacortes water supply facility includes a diversion structure located in the Skagit River and a water treatment plant with flocculation, sedimentation, filtration and disinfection with chlorine.

As the supplier, Anacortes is required to treat the water in accordance with state and federal requirements for delivery to the Town. The Town, as the purchasing system, is required to maintain the water quality within its system in accordance with Chapter 246-290-300. The Town is required to:

1. Collect coliform samples per subsection (2).
2. Collect trihalomethane samples per subsection (6).
3. Perform distribution system residual disinfectant monitoring per WAC-246-290-440 or 694.
4. Perform lead and copper monitoring as required by federal regulations.
5. Perform asbestos monitoring as required by federal regulations.
6. Maintain a monitoring plan.

These requirements may be reduced by DOH subject to certain conditions.

A copy of the Town's Coliform Monitoring Plan is included in Appendix F.

3.3 DESIGN STANDARDS

The TOLC has specific policies and standards that are outlined in Chapter 7. Inherent in the Town's policies and standards is compliance with the following:

- Chapter 246-290 of the WAC
- Water System Design Manual as published by the WSDOH.
- AWWA Standards
- WSDOT Standards for Road, Bridges, and Municipal Construction

The latest editions of these standards are typically used in all improvements. Standards for various aspects of the system are included in Table 7-1.

3.4 CAPACITY ANALYSIS

3.4.1 Source of Supply

The TOLC has no water rights and has no physical source capacity. The Town's source of supply is via the City of Anacortes transmission mains along SR 20 and the Town's parallel 8-inch and 14-inch asbestos cement high pressure transmission mains along La Conner-Whitney Road from SR 20 into and through the Town. As indicated in the CWSP, Anacortes currently has approximately 30 MGD pumping capacity installed and has future plans to expand the treatment and pumping to 55 MGD. The Town and Anacortes review the Town's water consumption yearly and revise the purchase agreement to reflect anticipated demand. Increased demand within the La Conner system has been factored into the demand projections for Anacortes in the CWSP. The Town is not aware of any circumstances that would limit the ability of Anacortes to supply the necessary quality and quantity of water from the contractual and anticipated needs of the Town's water service area.

The Town's 8-inch and 14-inch mains were installed in 1965 and 1969, respectively, and are reportedly in good condition. Despite their condition they are in the process of being replaced with new materials (C-909 PVCO pipe) and are recommended to be fully replaced within the next 5 to 10 years. Replacement is not only that the pipes will reach their service life (50 years for asbestos cement pipe) but also resiliency. Chapter 8 lists portions of the supply lines currently on the Capital Improvement Plan. The combined capacity of these mains is approximately 2,900 gpm (at 5 feet per second).

3.4.2 Storage

The Town has one steel, above-grade reservoir with a volume of 1,500,000 gallons. It was constructed in 1980 to replace the previous reservoir. As discussed below, its full volume is available for the system. It serves the only pressure zone in the Town's system and is filled directly from the Town's 14-inch transmission main, reduced down to 8" near the reservoir site. Pressure reducing valves in the system are designed to maintain this singular pressure zone.

The reservoir was recoated and structurally repaired in 2001. It is anchored to its foundation and spiral stairs provides access to the roof. The central screened roof vent serves as the base for a communication antenna. There is an internal ladder with a fall-restraint system. There is no cathodic protection system. Under typical demand conditions, water within the tank will be replaced approximately every 5 days. Storage Elements are described below and are based off of Table 7-1 in the DOH Design Manual.

Operational storage (OS) is required to meet demand when water is not being supplied by the source. The La Conner water system relies on a single supply of continuous pumped (by Anacortes) water from the Anacortes water transmission line. Anacortes is required by contract to use reasonable diligence to provide regular and uninterrupted service to the Town. The available rate of supply is greater than La Conner's demand and negates the need for operational storage. The operational storage volume required for the La Conner water system is therefore zero gallons.

Equalizing storage (ES) provides water during daily periods of system demand higher than the source capacity. The agreement with Anacortes does not stipulate a maximum flow rate, only annual volume. The peak flow rate in the La Conner system is calculated to be lower than the anticipated maximum permissible flow through the interconnection. The Anacortes master meter is an 8" Sensus turbo that is calibrated annually. ES volume (as a function of supply capacity only) required is therefore zero gallons.

Fire suppression storage is a function of the volume and duration of required fire flow. The Skagit CWSP reports that a minimum fire flow of 1,500 gpm for 60 minutes be available for typical construction within the UGA and non-UGA areas. Lower density areas have lower flow requirements while commercial/industrial parcels may require higher flows. Specific fire flow requirements for any given parcel are provided by the Fire Marshal during development or redevelopment. The Town and Fire Marshal have identified a peak fire flow of 2,000 gpm for one hour as applicable to storage requirements during tank sizing and design for the Town.

FSS Volume = Fire Flow Rate X Time Required
FSS Volume = 2,000 gpm x 60 min. = 120,000 gallons

Standby Storage (SB) for a single source system is calculated from the product of ERU's in the system, gpd/ERU_{MDD}, and number of days to provide reliability. The tank is existing and therefore this volume is back calculated from subtracting the total volume from the other required storage volumes. Standby Storage for this tank is therefore 1,380,000 gallons. For the given number of ERU's in Table 2-4 and gpd/ERU in Section 2.2 the existing storage tank has 1.38 days of standby storage at maximum day flow. This would increase to an estimated 2.56 days if Shelter Bay was no longer a customer and tank operational setpoints were not adjusted.

Dead storage is volume not available to the water system. The Town's existing reservoir is filled from the high-pressure Anacortes and Town transmission mains and an altitude valve is utilized to prevent overflow of the reservoir. The bottom elevation of the tank (elevation 140 feet) is above the highest service elevation. The entire volume of the storage tank is therefore available, resulting in a dead storage volume of zero gallons.

The existing and required storage volumes are summarized in Table 3-3 below:

TABLE 3-3 STORAGE TANK VOLUMES		
Storage Type	Calculated Volume (gal)	ERU Value
Operational Storage	0	0
Equalizing Storage	0	0
Fire Suppression Storage	120,000	706
Standby Storage	1,380,000	3,000 for 1 day at MDD
Dead Storage	0	0
TOTAL	**1,500,000**	**3,706 at MDD**

3.4.3 Distribution System

A. General Description

The Town's water system begins at the supply source connection with Anacortes. 8", 14", and 16" transmission mains, in parallel, transport the water from the intersection of La Conner-Whitney Road and Young Road to the southern end of the Town. The supply and transmission mains operate at a Hydraulic Grade Line (HGL) elevation of 230 feet (95 psi).

At the intersection of Maple Avenue and Morris Street, the transmission main forks. A 12-inch main extends west and north toward the Port of Skagit County Marina, while the 8" and 14" main continue south and west to the southern limits of the Town.

The transmission main connects to the Town's 1.5 MG storage reservoir, with inflow controlled by an altitude valve. The altitude valve typically maintains the tank water level and corresponding system pressure at an HGL elevation of 180 feet. Under normal operating conditions, much of the Town's demand is fed through the reservoir.

There are also several PRV taps that feed from the 8" and 14" transmission mains into the Town's distribution system. All of these PRV's are set to maintain a slightly lower HGL elevation of 170± feet. The only PRV that is in continuous operation is PRV No. 6 that supplies the north marina basin and surrounding commercial and industrial area. The PRV's are included in the hydraulic model used for this Plan and were present during the field testing to validate the model as discussed below.

The Town's distribution system consists of 10", 8", 6" and smaller looped piping. A complete inventory of the Town's in-place facilities is described above. A color coded map of the Town's system showing pipe sizes and hydrants is included as Figure 1.5a and b.

Available evidence, such as system loss and maintenance inspection, suggests that the overall system is in acceptable condition with isolated locations requiring repair. The system repairs made are resulting from apparent failures due to the following:

- Age of piping.
- Corrosion leaks have developed on the steel piping.
- In response to damage from other construction work.

The Town's operation and maintenance (O&M) program lists routine activities ranging from weekly inspections of the storage tank, altitude valve and PRV's to annual inspection and exercise of fire hydrants. The Town performs most system repairs and service line taps. Larger taps (6"+) and major water system repairs are typically contracted out. Chapter 6 provides more information on the O&M program.

Isolation valving and fire hydrants have generally adequate spacing and coverage. The Town does not have a specific program for exercising valves or hydrants.

B. Hydraulic Capacity Analysis

The existing water system was analyzed with the computer software program WaterGEMS® from Bentley. This program integrates the network analysis methods from the Kentucky Pipe software program (KYPIPE) with the graphical interface of AutoCAD. The Town operates under one pressure zone as the high pressure transmission main from Anacortes only fills the Town's reservoir.

Model Accuracy Verification

The Town verified modifications to the water system in terms of pipe replacement (size and material revisions, if applicable) and new pipe installation, confirmed sizes of PRV's, pressure settings and storage tank settings.

The existing data (pipe diameter, length, roughness coefficient, junction demand and elevation, etc.) was used from the *2001 Comprehensive Water System Plan* that formed the original model. The elevations of the original model were converted from NGVD 29 to NAV 88. It has also been updated as main replacements have been completed and as new developments have been constructed. The last major update occurred in 2018. The smallest pipe included in the model was 2-inch diameter. Water demand was distributed based on actual customer water use records. Global demand factors were applied to the base demand distribution to achieve the existing or projected demand (ADD, MDD or PHD) considered in the various runs of the model. A roughness

coefficient of 130 was initially assumed for all pipes. Appropriate roughness factors for updated piping is utilized. Boundary conditions such as reservoir altitude valve settings, PRV setting and normal supply pressure were also entered in the model.

On May 16, 2008, four (4) separate fire hydrant flow tests were conducted by the Town's public works department. The tests were made by placing a 2" diffuser on the subject hydrant and then recording static and residential pressures within the Town's system. A second hydrant test was performed in the spring of 2023. The results of both tests were then compared to the model to help confirm overall accuracy.

The flow test results were then compared to hydraulic model runs for similar conditions. To improve the model's accuracy, the following revisions were required:

- Adding in minor losses for pipe reaches to account for the use of fittings and valves
- Revising the elevation and settings of the PRV's to model the current conditions of service the Town was observing
- Adding in minor losses at the PRV's to account for fittings
- Correctly modeling the PRV's with bypasses
- Adjusting the C factor from 130 to 120 for ductile iron pipes (to account for age)
- Conducting additional fire hydrant testing within the system and adjusting the losses in the model to correctly simulate the Town's current operating conditions

A preliminary fire flow test scenario was run with the criteria of 1,500 gpm required at all nodes. Areas not satisfying the fire flow requirements were identified and those nodes not applicable to fire flow testing were excluded.

Once the base model was calibrated, separate scenarios were created by globally increasing the demand to simulate peak hour demand (PHD) conditions for years 2024 through 2034 consecutively, 2036, 2040 and 2044. Fire flows of 1,500 gpm were introduced at several different junctions to help identify capacity issues.

Current Model

The 2024 peak hour demands were entered into the model to confirm the results were similar to those in the previous comprehensive plan model. Any differences were noted. The global demand factors were adjusted to conform to more recent revisions to the DOH Design Manual or from what the meter data showed as appropriate to approximate the flows given in

Chapter 2. To be conservative, the larger demand factors were utilized in future scenarios. The existing infrastructure was utilized in all modeling. Growth occurring within the planning period will require a model run to establish adequacy/availability as determined by the Public Works Director.

The Town's current average water consumption appears near the 2023 meter data model (212 gpm for metered connections, excluding irrigation). The 2025 model numbers used below reflect 1% growth since those readings were obtained, which is approximately 100% greater than the estimated actual growth.

Modeling the flow was performed using global demand multipliers of the ADD as follows:

Model Multipliers			
	ADD	MDD	PHF
2025	1	2.7	6.4
2035	1.1	3.1	7.2

Multipliers are based upon DOH Manual Equation 3-1 predictions for MDD and PHF. Future flow multipliers added another 12.5% to 2025 multipliers to help account for growth that may not be residential, while remaining conservative. The model results indicated the following flows using the multipliers that match up well to Table 2-7:

Model Results (Flows in gpm)			
	ADD	MDD	PHF
2025	261	705	1670
2035	288	893	2074

Figures 3.1a and 3.1b show the network that was analyzed. The suffix "a" in the figures show the immediate town area while the "b" suffix is for the northernmost area (Skagit Beach and the Anacortes Intertie). This convention is consistent throughout the Figures. Figures 3.2 through 3.10 (a and b) are color coded maps showing the current and future projected demands of this system (ADD, MDD, PHD) where the colors represent pressures at the nodes and velocities in the pipes under the given conditions. Figures 3.9 and 3.10 show expected fire flows throughout the area. Figures 3.11 through 3.20 (a and b) are a repeat of the prior figures but do not include Shelter Bay as a customer). Copies of input and selected output data for the hydraulic analysis is included in Appendix C. Fire Flow is per Skagit County Fire Flow Requirements and was used in the model analysis. Note that the 4" polyethylene on McLean Road shown in Figure 1.5b and in the system map figures does not show up in the model figures. The main was treated as a service connection as it only

provides domestic service for two farms. The 4” main provides no fire protection and two domestic services should have no significant impact to the model results.

Note that little growth is estimated in Shelter Bay within the planning period as its service area includes a set lot count, most of which is occupied as described in Chapter 2.

C. Skagit Beach Hydraulic Analysis

Skagit Beach (Channel Drive) is a separate community located north of La Conner, outside of Town limits, at the west extent of Downey Road. Little growth is estimated in this area within the planning period as its service area includes all currently occupied lots. Chapter 2 has more detailed information. Fire protection is not available, due to 4” and 2” piping that makes up the local distribution system. This area was not included in the capacity analysis performed earlier as it relates to fire protection. There are no hydrants in the area at present. A preliminary design plan was prepared for the area to increase pipe sizes and install hydrants for fire protection. The cost for this project would be borne solely by Skagit Beach residents. At present, the cost per ERU to provide fire protection was deemed too high and therefore the area remains without fire protection.

The Town has received in the past a few complaints from homeowners along the north portion of Channel Drive, regarding low pressures. The Town investigated the issue and found that the low pressures were very likely due to domestic water services being used to supply commercial agricultural irrigation. The Town has been in contact with the irrigation users and has limited irrigation use such that it does not impact the domestic users. The issue has reportedly not been repeated.

The Skagit Beach area is fed from the high-pressure transmission main in La Conner – Whitney Road by approximately 2,000 feet of 16” pipe, followed by over one mile of 4” pipe, and finally by approximately 2,000 feet of 2”. The pressure problem arose due to the irrigators pulling water through the 4” pipe. Part of the solution has been to limit agricultural use to withdrawals through the 10" pipe only.

The existing 4” and 2” system is adequate to supply domestic demand for the platted residential lots but will not support any additional demand. Any further development will require extending the 10” pipe further west on Downey Road and may require upsizing the 4” piping in Channel Dr.

3.5 SUMMARY OF SYSTEM DEFICIENCIES AND LIMITING FACTORS

The deficiencies noted below are a part of the included Limiting Factor Analysis to identify areas of the existing system that appears in need of capital improvements where possible based on the model scenarios performed. A Table adapted from Table 4-1 of the DOH Water Design Manual was utilized as a guide and can be found below with further comments after:

ERU Capacity Summary

Specific Single-Family Residential Connection Criteria (measured or estimated demands)

Average Day Demand (ADD): 170 gpd/ERU Maximum Day Demand (MDD) 460 gpd/ERU

Water System Connections Correlated to ERUs			
Service Classification	**Total MDD for the classification, gpd**	**Total # Connections in the classification**	**ERUs**
Residential			
Single-family incl. Shelter Bay	594,780	348	1293
Multifamily	2,300	3	5
Nonresidential			
Industrial	17,480	10	38
Commercial	107,640	129	234
Governmental/Recreational	10,580	15	23
Agricultural	233,220	55	507
Other (specify) - Port	29,900	35	65
DSL		N/A	
Other (identify)			
Total existing ERUs (Residential + Nonresidential + DSL + Other) = 2165			

Service Capacity as ERUs and Gallons Per Day		
Water System Component (Facility)	**ERU_{ADD} Capacity for Each Component**	**GPD Capacity for Each Component**
Source(s)	2611	443,836
Treatment	N/A	N/A
Equalizing Storage	0	0
Standby Storage	8,118	1,380,000
Transmission	Varies	Varies
Water Rights (Qa and Qi)	N/A	N/A
Other (specify)		
Water System Service Capacity (ERUs) = (based on the limiting water system component shown above)		

Notes:

- *Capacity determinations are only for existing facilities that are operational for the water system.*
- *Not shown above are distribution system limitations on ERUs because these are location-specific within the distribution system. These limits not expected to limit the ERU capacity of the entire water system.*

Adapted from the Water System Design Manual
DOH 331-123, June 2020

Source of Supply

Although not evident in the Figures given the short length, fire flow demands appear to generate excessive velocities within the 8" Anacortes intertie piping.

The Town has no water rights and is therefore dependent upon Anacortes for all water needs. This is a limiting factor

Storage

The existing reservoir provides the required storage for the anticipated demands throughout the study period. However, a single reservoir does not offer redundancy in the event the reservoir is offline. The Town would rely solely on the flows through the intertie in an emergency.

Distribution System

A. Typical Daily Flows

The hydraulic model indicated that the existing distribution system was adequate to meet future peak hour demands in all areas. Figures 3.2 through 3.8 (a and b). The Skagit County Historical Museum area was showing the lowest pressure during peak hourly demands.

The Town personnel have reviewed the frequency of repairs and have included the following projects based upon the poor condition of service of the existing materials:

- Replace undersized main along 3rd Street North, from Centre Street to State Street.
- Replace main along 1st Street South, from Commercial to Morris.
- Replace undersized main on Rainier Street.
- Replace AC pipe with newer materials when able to do so given the maintenance cost of AC pipe repairs.

Without Shelter Bay the model was not showing any significant differences to available pressures where it relates to deficiencies/limiting factors.

B. Fire Flow

Fire flows were modeled by adding the required fire flow to the respective flows given above. Mains less than 8 inches, where fire flows may not be as high as modeled, are not considered undersized despite model results provided they permit the required flows. This also applies to lots where adequate fire protection is provided on an adjacent main with the smaller main providing domestic supply. Individual lot analysis was not

performed for the Plan. The model results (Figures 3.9a and 3.10a) show that within the Town center the expected fire flow availability is generally 1,500 gpm – 2,000 gpm. The fire flow availabilities generally increase to 2,000 gpm outside of the Town center. Availability decreases at the northern end (Marina), and to the southwest along 1st Street near and south of the Shelter Bay intertie. Without Shelter Bay as a customer, fire flow availability appears to remain above 1,500 gpm throughout the Town.

Fire flow deficiencies were defined based on pipe velocities exceeding 10 fps, availability less than required by the Fire Marshal, or pressures less than 20 psi. The area near the Skagit County Historical Museum area (S 4th Street) was showing the lowest consistent availability in the scenarios.

Fire flow availability was limited in specific areas due to undersized lines. In order to meet existing and future fire flow requirements of 1,500 gpm for 60-minutes' duration and to promote the establishment of a 10" diameter loop through the Town, the following projects were developed:

- Replace 8" main at the connection point with Anacortes with a 12" main, with further refinements to meter sizing.
- Replace all remaining 2" through 6" mains with 8" mains where fire flow protection is provided (hydrants connected).

Table 3-1

Example Existing Component Inventory

Distribution System Inventory Components	Units	Number of Units	Remaining Useful Life	Condition Rating[1]	Criticality Rating	Replacement Cost[2]
Service Lines ≤3.0 inch	LF	10,760	Variable	Variable	4	$50/LF
Distribution Pipelines 4 - 6 inch	LF	25,876	Variable	Variable	4	$350/LF
Distribution Pipelines 8 -10 inch	LF	47,503	Variable	Variable	4	$450/LF
Distribution Pipelines 12-16 inch	LF	28,500	Variable	Variable	2	$550/LF
Service and Intertie Meters 3/4 inch	Each	597	Variable	Variable	4	$1,000
Service and Intertie Meters 1 - 1.5 inch	Each	70	Variable	Variable	4	$1,300
Service and Intertie Meters 2 inch	Each	17	Variable	Variable	4	$2,000
Service and Intertie Meters 3 inch	Each	6	Variable	Variable	4	$2,800
Service and Intertie Meters 4 inch	Each	1	Variable	Good	4	$3,500
Service and Intertie Meters > 6 inch	Each	1	>10	Good	1	$4,000
Pressure Reducing Valves ≤ 6 inch	Each	5	>10	Good	3	$7,500
Pressure Reducing Valves 8-12 inch	Each	1	>10	Good	3	$10,000
Isolation Valves 4 - 16 inch	Each	213	Variable	Variable	4	$4,000
Air Release Valves 2 inch	Each	10	Variable	Variable	4	$2,000
Altitude Valves 4 - 16 inch	Each	1	>10	Good	2	$15,000
Distribution System Inventory Components	**Units**	**Number of Units**	**Remaining Useful Life**	**Condition Rating**	**Criticality Rating**	**Replacement Cost**
Fire Hydrants	Each	105	Variable	Variable	2	$7,500
Raw and Finished Storage Inventory	**Size, MG**	**Facility Name**	**Remaining Useful Life**	**Condition Rating**	**Criticality Rating**	**Replacement Cost**
Storage Type: Above Grade Bolted Steel Tank	1.5	N/A	>20	Good	2	$2,000,000
Other			**Remaining Useful Life**	**Condition Rating**	**Criticality Rating**	**Replacement Cost**
SCADA control system is installed	Yes	-	>10	Good	2	$125,000

1 - Pipeline condition is generally more dependent on material than size, with asbestos cement piping being deemded generally poor. Meter conditions are relative to current service life. The CIP in Chapter 8 is focused on replacing the asbestos cement piping in the Town.

2 - Replacement costs estimated from market pricing at the time of writing with labor costs added, rounded up. Where possible, costs were compared to bid tabulation values of recent projects.

Table 3-2
Component Deficiencies and Project Solution

Classification of deficiency	Description of Project Solution	Location in WSP where deficiency is identified	Location in WSP where the analysis demonstrates deficiency will be addressed by the project
End of Useful Life	Skagit Beach Replacement (Downey Road, Channel Drive)	3.1	Chapter 8 & Table 8-1
End of Useful Life	S 1st St Replacement -Commercial to Morris AC replacement	3.1	Chapter 8 & Table 8-2
End of Useful Life	S 3rd St Replacement from Washington to Douglas	3.1	Chapter 8 & Table 8-3
End of Useful Life	AC Trans Main Ph 2 with TIP Mill and Overlay of Roundabout	3.1	Chapter 8 & Table 8-4
End of Useful Life	AC Trans Main Ph 3 replacement along La Conner and Whitney	3.1	Chapter 8 & Table 8-5
End of Useful Life	Water Reservoir Interior Paint	3.1	Chapter 8 & Table 8-6
Pressure	Rainier St Replacement of undersized main	3.1	Chapter 8 & Table 8-7
End of Useful Life	N 4th St Replacement from Center to State	3.1	Chapter 8 & Table 8-8
End of Useful Life	AC Trans Main Ph 4 replacement from Phase 3 end to reservoir	3.1	Chapter 8 & Table 8-9

CHAPTER 4 – WATER USE EFFICIENCY PROGRAM

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CHAPTER 4

WATER USE EFFICIENCY PROGRAM

In 2003, the Washington State Legislature passed the Engrossed Second Substitute House Bill 1338, better known as the "Municipal Water Law." This law amends and clarifies sections of the Revised Code of Washington (RCW) pertaining to public water systems, including requirements for specific water conservation efforts. In summary, the law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty. As regulation, Washington Administrative Code (WAC) 246-290 was amended effective January 22, 2007, to include the final rules developed from the Municipal Water Law. The new DOH code requirements mandate the development of a water use efficiency (WUE) program including WUE planning requirements, WUE goal setting and performance reporting, and distribution system leakage monitoring. For systems that serve less than 1,000 connections as is the case in La Conner, the WUE program must have been implemented by January 22, 2008. Key elements include:

- Development of a WUE program
- Meeting the distribution leak standards
- Establishment of water saving goals through a public process
- Evaluation/implementation of WUE measures to manage water use and to reach the stated goals
- Annual reporting of progress towards meeting water-saving goals and using water efficiently

4.1 SOURCE AND SERVICE METERING

Source Meters

The Town receives its source of supply from the City of Anacortes. There currently is a source meter installed. Water volume is measured, and all water use after the meter is tracked by the Town.

Service Meters

All permanent and temporary service connections are metered. The TOLC uses Badger meters with an AMR Orion reading system. Residential meters are nutating disk (Recordall) and ultrasonic (E-Series). Commercial meters are ultrasonic (E-Series), compound and turbine.

Meters are read and billed monthly. New meter installations and meter replacements are tracked by the billing and AMR programs. Meter inspections are done annually and tracked by public works staff. Meters service life is estimated to be 10-15 years at current usage. Service life is affected by variables such as water consumption and battery life of the endpoint/transmitter. TOLC does not rebuild or calibrate meters at the end of their service life, opting instead to replace them with new meters.

Operation, calibration, and maintenance are performed pursuant to standard industry practices with input from the manufacturer's written instructions to the maximum effort as allowed by staffing.

Interties

The Town has two interties currently in use: supply from the City of Anacortes and wholesale supply to the Shelter Bay Community with agreements for both included in Appendix A. A previous intertie supplying water westerly to the Swinomish Tribal Community has not been used or maintained in several years. The two existing interties are described in Table 4.1 below:

TABLE 4.1
EXISTING INTERTIES

Parameter	Anacortes Intertie	Shelter Bay Intertie
Location (General)	On La Conner-Whitney Road approximately 300 feet south of SR 20.	East side of Swinomish Channel, approximately 200 feet south of Rainbow Bridge
Date of First Use	1930's	1970
Purpose	Purchase of municipal/irrigation industrial water supply	Wholesale supply of municipal/irrigation water
Service Area	Town's water service area	Shelter Bay Community including Eagle's Nest
Current Use	Municipal/Industrial Supply	Municipal/Irrigation Supply
Meter	8" Hersey and 2" Bypass	4"

Leak Detection and Repair

The Town has an ongoing meter replacement and leak detection program using meter data to identify discrepancies and field equipment to find leaks.

Reclaimed Water

The Town currently uses reclaimed water from the wastewater treatment plant as wash water for the facility.

4.2 DISTRIBUTION SYSTEM LEAKAGE

4.2.1 Distribution Leak Standard and Water Audit

Under the WUE, all municipal water suppliers must maintain their distribution system leakage levels at or below 8 percent of their annual production, based on a rolling three-year average. If water suppliers do not meet the standard, a Water Loss Control Action Plan must be developed and implemented.

The Town's three-year rolling average for water loss during the period January 2020 to December 2022 was 4.24%. Water loss totals, in percentage and volume, for this period are provided in Table 2.5.

The Town's current meter replacement and leak detection program has been very successful. Water loss during the early 1990's routinely exceeded 14%.

Loss Measurement Techniques

The Town monitors and documents Non-Revenue Water / Water Loss on an ongoing basis. To accomplish this, the operator maintains an ongoing log of:

- Water Purchased (Monthly reading)
- Monitor the source meter (daily reading if there is a concern and comparing reading to consumption history)
- Water Sold, by Customer Class (Monthly reading)
- Water Sold through temporary connections (i.e.. Fire hydrant meters)
- Estimated Water Loss through Operations or Maintenance (i.e.. Line flushing, break repairs)

By tallying all known incoming and outgoing water, the Town will have a realistic value of true water loss. The record should be ongoing, as meter reading timing differences will average out over a longer period of time. Also, all water use account records should be reviewed on a yearly basis. Significant or steady increases may indicate a line break or a change of use. A steady or sudden decrease may indicate a failing water meter.

4.3 WATER USE EFFICIENCY PROGRAM

The Department of Ecology requires water purveyors to demonstrate consideration of opportunities to optimize or obtain the use of existing sources already developed. An evaluation of other innovative methods to meet water needs should also be included. The source of supply should include analysis of the feasibility and cost effectiveness of implementing the alternatives in lieu of

new source development. Collectively these efforts are part of the Water Use Efficiency (WUE) program. These alternatives are discussed below.

4.3.1 Enhanced Conservation Measures

The Town is not considering alternative sources of supply at this time. Potential future options for additional water supply include enhanced conservation measures, such as those required for medium sized systems. Enhanced conservation measures are included in the Town's WUE program as described in Section 4.1 above.

The Town's conservation program for 2009 – 2014 consisted of seven (7) conservation measures listed in Table 4.2. The program continues the existing measures as well as includes additional measures the Town can implement to further conserve water. This program is still in effect and updated to reflect new information on how to potentially increase efficiency. Resolution 601 in Appendix E contains the amended WUE Goals from this initial effort.

Table 4.2
Town of La Conner
2009 - 2014 Conservation Program
Conservation Measures

		Type			
Measure Description		Internal (supply side)	External (demand side)	Customer Information	**Implementation Schedule**
1.	Rate Evaluation	X			Already in place, with rates adjusted each year.
2.	Customer Metering	X			Already in place
3.	Meter Calibration	X			Already in place
4.	Reuse of Reclaimed Water		X		Already in place
5.	Bill Showing Consumption History	X			In place to online account customers
6.	Customer Information/Program Promotion			X	In place to online account customers
7.	Bill Stuffers			X	In place

<u>Rate Evaluation</u>

The Town hired a third-party firm evaluate rates in 2009, with the results of that described in Chapter 9. Since then, the Town has adjusted rates in accordance with costs using a similar rate schedule. Current rates may be found at the linked site below, for the public's knowledge and use: https://www.townoflaconner.org/210/Water-Services-Rates.

The Town evaluates its rates annually, and to further increase conservation the Town will include reviewing inclining and/or seasonal rate structures and implement rates that meet desired goals. The Town is currently undergoing a rate survey, which could evaluate various incentive structures such as an inclined rate to incentivize customers to use less. It is unclear however as to exactly what the rate evaluation will find. The Town intends to pursue all options on this issue.

Customer Metering

The Town will continue to meter any new connections to the water system and the ongoing replacement and leak detection program, utilizing outside technical assistance where necessary, to help minimize system leakage from this source. While the current meters help monitor leakage and send alerts on potential leaks, the Town is also reviewing plans to update their meters. The new meters, should they be installed, would allow customers to log into an app to see their real time use and potentially receive alerts of leaks inside the home where the Town cannot repair. The Town is investigating if the app permits tracking of usage over time so customers can, for example, compare use from the same time last year.

4.3.2 Water Right Changes

The Town's supply is by wholesale agreement with the City of Anacortes. The current contract amount is for 162 million gallons. In 2021, the actual use was approximately 141.3 million gallons. The City of Anacortes reviews and amends the wholesale agreement on a three-year cycle.

4.3.3 Interties

The Town currently has an intertie with the Shelter Bay Community (including Eagle's Nest).

Proposed Interties

There are currently no new interties planned. The Town could establish an intertie and receive water from the adjacent purveyor Skagit County PUD No. 1. Past discussions have occurred on a conceptual level to test viability. The cost of such an intertie appears to be the limiting factor. Other factors include the need for the Town and County to negotiate an intertie agreement as no policies currently exist between the two for supplying water to La Conner. Such an

intertie also does not appear to be included in the County's Comprehensive Water Plan.

4.3.4 Artificial Recharge

Artificial recharge is the injection or infiltration of available surface water, typically from winter flow or other available water into an aquifer and its subsequent withdrawal. This potential supply method is not an option for the Town.

4.3.5 Use of Reclaimed Water, Reuse, and other Non-Potable Sources

The Town currently uses reclaimed water from the wastewater treatment plant as wash water. The TOLC may also explore other opportunities to use reclaimed water for irrigation or other agricultural purposes if such a demand from those farms for reclaimed water arises.

4.3.6 Treatment

The Town's water is currently treated by the City of Anacortes. The type and level of treatment will need to be determined at such times as the sources are identified and located.

4.3.7 Historical Town of La Conner Conservation Program

The Town of La Conner has a formal conservation program, although they have not met all the regulatory requirements to-date. The Town has an ongoing meter replacement and leak detection program. They are also using reclaimed water at the wastewater treatment plant as wash water.

4.3.8 Historical Water Use Efficiency Rule Requirements and Town Compliance

The WUE Rule had several requirements and corresponding compliance dates. Some of the requirements are associated with water system comprehensive plans, while other requirements were independent of the six-year water system planning cycle required at that time. Table 4.3 lists the requirements and shows that the Town complied with the goals.

Table 4.3
Town of La Conner
WUE Rule Requirements and Town Compliance

New Requirement	Compliance Date	Town in Compliance?
Install production meter(s)	January 22, 2007	**Yes –** the source from Anacortes is metered.
Begin collection production and consumption data	January 1, 2008	**Yes -** the Town currently collects data for water purchased from Anacortes and water consumed by the Town.
Include WUE program in planning documents	January 22, 2008	**Yes –** the Town is implementing WUE in water system plan.
Set WUE goals	January 22, 2009	The Town formally adopted WUE goals and plan at a public meeting in May 2010.
Submit server meter installation schedule	July 1, 2009	**Yes -** All services within the Town's water system are currently metered. Any future services will be metered per the Town's infrastructure improvements manual.
Submit first annual performance report	July 1, 2009	**Yes –** 6 year public update process and annual WUE reporting is performed.
Completed installation of all service meters	January 22, 2017	**Yes -** All services within the Town's water system are currently metered. Any future services will be metered per the Town's infrastructure improvements manual.
Meet distribution leakage standard (based on 3-year rolling average)	July 1, 2011, or three years after installing all service meters	**Yes –** the Town meets the distribution system leakage of less than 10 percent of the annual production.

4.3.9 Current Conservation Measures

The Town's current conservation measures are aimed at improving education about the costs of increased usage, in line with the DOH's latest version of their WUE Guidebook (DOH 331-375), and include:

- Rate and rate structure evaluation.
- Service meters.
- Leak detection and repair/notification to customers of customer side leaks and costs.
- Using reclaimed water.

- Educating customers on the importance of conserving.

Moving forward the Town plans to increase communication with agricultural users to help ensure effective irrigation and find ways to improve that also minimizes water demand.

4.3.10 Estimated Savings Achieved by Historical Program

There is no data available to make a direct comparison, however erring meters and minor system leaks in a poorly maintained system can easily account for 20% to 50% of saved water. This does not appear to be the case with the La Conner water system that has consistently kept unmetered losses to less than 10%.

Reuse of Reclaimed Water

The Town will continue to evaluate additional uses for reclaimed water throughout the service area, as technology and demand opportunities present themselves.

4.3.11 Customer Education

To promote customer education, the Town plans to conduct a public education program on the conservation of water in conjunction with the required annual consumer confidence report. The Town may also institute a citizens' utility advisory committee to promote water conservation, participate in setting utility rates, and set priorities for improvements. In addition, the Town will be a leader by example to the public by making every effort to reduce water consumption in government facilities and adopt development codes that are receptive to new ideas and technologies for reducing water consumption.

Customer Information/Program Promotion

The Town may consider participating in newspaper advertising to further customer's information on water conservation.

Bill Stuffers

The Town will include informational brochures semi-annually with customer's monthly statements. One of those stuffers may include toilet tank leak detection dye tables.

4.3.12 Water Saving Goals

The Town's average residential consumption is calculated at 460 gpd MDD/ERU. Compared to other systems and ADD usage, it appears that further domestic usage reduction is not obtainable regarding WUE goals. Rather than focus on domestic use, the Town's main goals set in 2022 was as follows:

1. Continue to maintain unmetered losses to less than 10%.
2. Reduce summer irrigation by 5% by 2028.

4.3.13 Measurable Outcomes

The 2025-2045 Conservation Program will aim to:

- Continue to maintain the Town's unaccounted-for water to less than 8 percent with a continued reduction of losses to the maximum extent practical.
- Use educational materials to maintain the current consumption rates.
- Evaluate meter technology to allow customers to track their own usage and trends.
- Complete the updated rate evaluation so the Town can pursue their most favorable option.
- Promote and encourage low water/drought tolerant landscaping.
- Identify and promote more efficient irrigation methods and equipment using education materials.
- Review two years progress results and amend approach as deemed appropriate.

4.3.14 Water Loss Control Action Plan

The plan is activated when a water main break is observed or if metered data indicates significant losses are occurring. Section 6.5 of this manual outlines emergency procedures regarding main breaks. Operators will attempt to identify the approximate location of losses, ascertain the cause, and take appropriate measures to help eliminate the losses.

4.3.15 Evaluation of Reclaimed Water

At this time, the Town of La Conner uses reclaimed water from the wastewater treatment plant as wash water.

4.4 WATER USE EFFICIENCY SAVINGS

The Town continues to monitor their system and educate the residents regarding water conservation. Figure 4-1 utilizes the same data as Figure 2-1 with the added theoretical line indicating what demand would be with the anticipated growth consistent with the Comprehensive Plan coupled with a WUE goals mentioned in 4.3.12. The loss of Shelter Bay would not appear to impact the TOLC savings potential and was left out of Figures 4-1 and 4-2 below for clarity.

Figure 4.1
ADD Demand Projections with Water Savings Goals 2025-2045

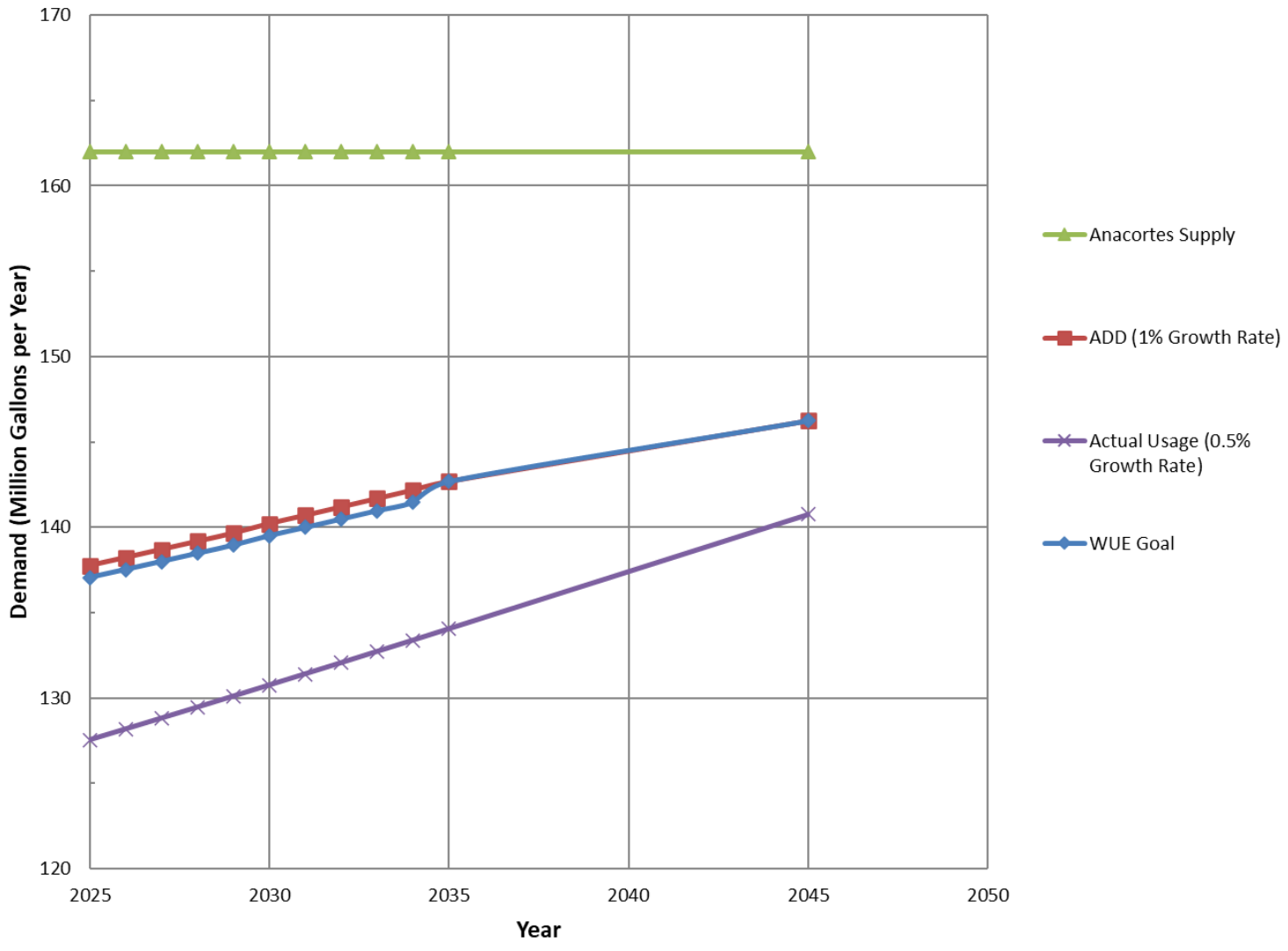
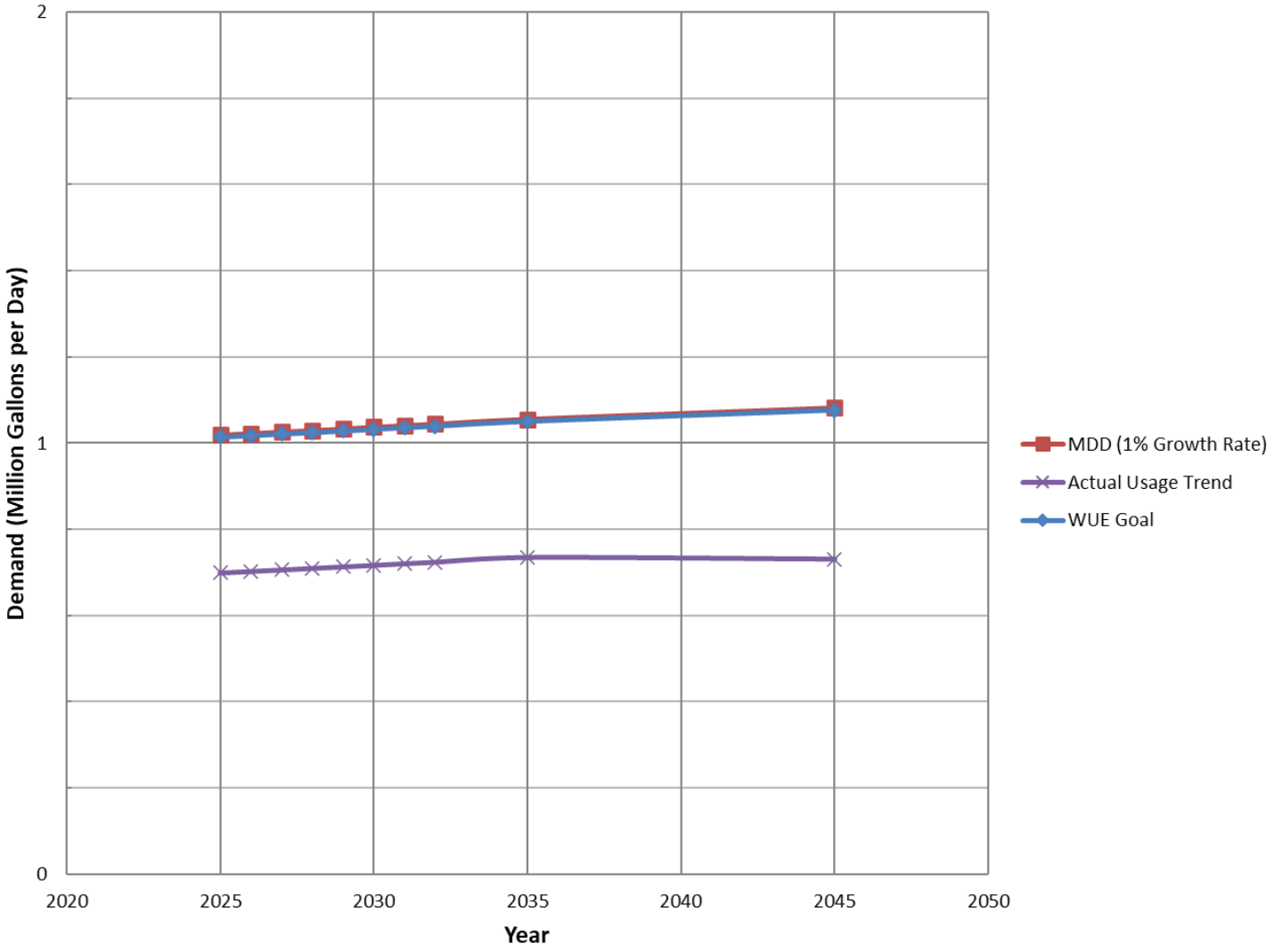


Figure 4-2
MDD Demand Projections 2025-2045



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CHAPTER 5

SOURCE PROTECTION

5.1 SANITARY CONTROL AREA

As identified in Chapters 1, 2 and 3, the TOLC purchases all of its water from the City of Anacortes. The City of Anacortes owns and operates a water treatment plant and the water transmission pipes leading from the plant to the Town's connection point. The Water Treatment Plant has a surface water intake structure located in the Skagit River east of Avon. The Town has no water rights of its own, and thus no sanitary control area.

5.2 WELLHEAD PROTECTION PROGRAM

The Town has participated in the development of the Skagit County Coordinated Water System Plan and the Anacortes Comprehensive Water Plan. The Town will continue to support area-wide planning efforts and meet the terms of any agreements between the Town and the City of Anacortes. Authority for development and implementation of source protection lies with the City of Anacortes and other holders of water rights that provides or may provide water to TOLC, the Skagit River Watershed, and Skagit County government.

5.3 WATERSHED CONTROL PROGRAM

The Town has participated in the development of the Skagit County Coordinated Water System Plan and the Anacortes Comprehensive Water Plan. The Town will continue to support area-wide planning efforts and meet the terms of any agreements between the Town and the City of Anacortes. Authority for development and implementation of source protection lies with the City of Anacortes, other holders of water rights to the Skagit River Watershed and Skagit County government.

Activities and Land Uses that have been deemed as potentially detrimental to water quality in the watershed include but are not limited to:

- On-site wastewater treatment (a.k.a. septic) systems.
- Lawncare/agricultural field products, particularly near surface water where compounds such as herbicides and pesticides can runoff into those waters.
- Concentrated animal feeding operations
- Emergency response

Mitigating efforts include but are not limited to the following:

- Public Education and outreach
- Contamination Source Controls

CHAPTER 6 – OPERATION AND MAINTENANCE PROGRAM

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** CISA/AWWA Cybersecurity Guidance, Recent ASR, Certifications, and Backflow Device List

CHAPTER 6

OPERATION AND MAINTENANCE PROGRAM

6.1 WATER SYSTEM MANAGEMENT AND PERSONNEL

The Town of La Conner acquires all of its potable water from the City of Anacortes; therefore, the Town of La Conner does not own or operate water treatment and source of supply facilities. System components include only transmission, distribution, and storage facilities.

The water system's business address is:

La Conner Water Department
Post Office Box 400
La Conner, Washington 98257

The Town's Public Works Department is comprised of six full-time employees including the director. The Public Works staff is responsible for the day-to-day field operations of the water system, stormwater system, transportation system and general Town maintenance.

Public Works Director:	Brian Lease Work Phone: (360) 466-3933

Administrative duties are divided between the Town Planner, the Public Works Supervisor and the Town's administrative staff according to the description in Chapter 1.1 of this Plan. The Town Council approve budgets.

The water system duties of the Public Works Director and operators include:

- Periodically inspect the exterior of the water storage tank. Hire divers to inspect the interior of the tank;
- Obtain required water samples and submit them to an approved laboratory for testing;
- Perform and respond to sanitary surveys;
- Implement complaint method for public and respond to complaints in a timely manner.
- Investigate complaints and reported problems;
- Locate water facilities as requested for proposed construction;
- Respond to emergencies in the appropriate manner;
- Repair, or cause to be repaired, line breaks, valve or storage tank problems;
- Read water meters on a monthly cycle.
- Monitor, log, and calculate water loss statistics;

- Investigate and resolve reported cross-connection problems;
- Capital improvement budget formulation;
- Implementation and enforcement of improvement and cross connection control programs.
- Ensuring there is time available for staff to get required training and/or continuing education while having staff for daily activities.

The duties of the Town administrative staff include:

- Maintain the Water Department's accounts and records;
- Produce and mail billing from meter readings obtained from the Public Works staff.

The Public Works Supervisor is certified as a Water Distribution Manager (WDM) 4 and cross connection control specialist (CCS) both with a certification number of 007950. A copy of staff certifications for the entire staff are included in Appendix F. Staff also includes Albert Sherman (WDM and CCS with certification number 0155569) and Christopher Smith (WDM with a certification number of 17087)

The Town does not treat the water and is generally considered as the least complex of water systems. Staffing is considered marginal given the needs of the system at the time of this report's preparation. The Town is actively seeking additional qualified help and committed to efforts to retain and train staff.

6.2 OPERATIONS AND PREVENTATIVE MAINTENANCE

A. SYSTEM OPERATION AND CONTROL

1. System Components

The water system generally includes the following (see Figure 1.5 a and 1.5b for color coded mapping) with more details provided in Chapter 3:

- 1.5-million-gallon storage reservoir;
- Water mains ranging in size from 6 inch to 16 inch;
- Water services ranging in size from ¾ inch to 4 inch;
- Isolation valves;
- Pressure reducing valves (PRV's);
- Air Release Valves (ARV's)
- Altitude valve;
- Service meters;
- Fire hydrants.

2. Routine System Operation and Maintenance

Preventative maintenance (PM) helps improve system reliability, is designed to reduce life-cycle costs, and may increase asset service life. Below is a brief description of recommended preventative maintenance for the various components within the TOLC system:

RESERVOIRS

Frequency	Action
Daily	1. Visually check for signs of an overflow. 2. Visually inspect for integrity (leaking, cracking, or buckling). 3. Inspect fences and locks.
Monthly	1. Inspect ladders, hatches, and vents.
Annually	1. Inspect condition of painted surfaces (interior and exterior). 2. Inspect for sediment buildup on bottom or walls. 3. Inspect Corrosion Control equipment and adjust as necessary. 4. Exercise valves.
Every 3 Years	1. Conduct video inspection and clean as necessary.

VALVES

Frequency	Action
Cyclical – Each valve inspected on an on-going rotational basis.	1. Visually inspect valve box and lid. 2. Clean debris from valve boxes as needed 3. Exercise valves — close and open fully a minimum of twice 4. Record condition of valve and number of turns to operate. Record data directly into Operations database. 5. Adjust valve boxes and/or install operating nut extension as needed. 6. Install valve box debris caps as needed. 7. Clear vegetation from around valves and valve markers. *Note: to be completed in conjunction with the UDF program.*

HYDRANTS

Frequency	Action
Annually	1. Clear vegetation from around and clean fire hydrants. 2. Inspect exterior surfaces of hydrant and guard posts. 3. Operate the hydrant fully. 4. Check for proper drainage. 5. Clean and lubricate access ports. 6. Where applicable, check oil reservoir and add as needed. 7. Install warning tag as needed. 8. Install Powder Coat hydrants as needed. 9. Document Inspection report in Lucity Asset Management System *Note: to be completed in conjunction with the UDF program.*

WATER MAINS & SERVICES

Frequency	Action
Every 5 Years	1. Leak detection survey, completing 20% annually.

WATER METERS

Frequency	Action
Cyclical – Each meter inspected on an on-going rotational basis	1. Meter reading support; meter reader vacations, delinquent notices, customer service; Finance Department requests. 2. Meter repairs and calibrations.
Every 20 Years	1. Replace and calibrate water meters.

PRESSURE REDUCING VALVES/CONTROL VALVES

Frequency	Action
Annually Inspect	1. Clean and inspect all system PRVs. 2. Replace gaskets and O-rings. 3. Test, operate and exercise. 4. Rebuild valves every 3 years annual rotation.

Staffing issues at the TOLC may dictate that the frequency of the above PM procedures may not be possible, however the goal is to achieve and maintain the above frequencies as much as practical. Excluding schedule, individual components of the system are maintained according to manufacturer's instructions. Air valves are not included above but are maintained to ensure proper function and drainage.

The Water Department maintains a stock of repair couplings and pipe fittings. The department performs most emergency pipeline repairs. Large diameter (≥ 6") water main taps are contracted. The distribution system is flushed annually.

Complaints and Customer Requests

As discussed in Chapter 1, complaints can be registered in person or by e-mail. Resources on the website provide consumers with the information needed. In addition, consumers can also use the same procedure to request a check for a water leak, request an adjustment on their bill (e.g., to correct for water loss as a result of a water leak), and submit a work order request.

3. Equipment, Supplies, and Chemical Listing

As stated above, the Town maintains a stock of repair couplings. Repair parts for pipe sizes ranging from ¾ inch to 16 inch are stocked. Needed repairs or minor improvements that cannot be performed by Town staff are contracted to local contractors. The Town maintains an inventory of service meters from ¾" to 2" as well as meter setters.

In addition, multiple local supply houses are present within 10 miles of the Town. In the unlikely event Town inventory is unusable for repair, local plumbing supply stores provide a secondary source of supplies. The close proximity of stores maximizes the Town's ability to promptly enact repairs.

The Town normally maintains a supply of chemicals adequate for its immediate needs, plus a small reserve. At present, the TOLC maintains an inventory of calcium hypochlorite for disinfection during repair or installation of cut-in tees or other similar work. The TOLC also maintains an inventory of sodium sulfite tablets for dechlorination when needed. The Town purchases its chemicals from the following supplier:

HD Fowler	Bellingham, WA	360-734-8400

The Town's reservoirs are cleaned and inspected once every three years by underwater commercial divers or remotely operated vehicles. This service may be provided by:

Liquivision	Klamath Falls, OR	800-229-6959
ExTech	Deep River, CT	860-526-2610

The Town conducts a leak detection survey using Public Works personnel and tools upon request of a Contractor. If needed, this service can also be provided by:

Utility Services Associates	Seattle, WA	800-621-9292

6.3 COMPREHENSIVE WATER QUALITY MONITORING

The Town is required to perform total coliform testing once per month as approved by the Coliform Monitoring Plan in Appendix F that follows WAC 246-290-300. This testing is performed at random locations selected by the Public Works Supervisor. The Town and State Department of health maintains a historical record of test locations. Samples are taken, transported, and analyzed utilizing EPA or other WA State approved methods. The chain of custody or other required paperwork is maintained by the Water Department.

The Town performs lead and copper monitoring according to WAC 246-290-300. Exceedances of action levels for either element requires notification within 24 hours to impacted customers and the DOH. Town may either use the EPA Tier 1 notification templates available on the DOH website or may use an equivalent. Further education is also required within 60 days after the monitoring period. Individual customers that have the exceedance levels must also be notified using forms available on the DOH website. Customer notifications must also be filed with the DOH.

The Town had been testing the water system for chlorine residual in the early 1990's. The Town does not own or operate any disinfection facilities once the filter plants cease operation. The Public Works Director notified the Department of Health in 1996 that the Town would be discontinuing its chlorine monitoring. Additionally, the Town's Public Works Director in 1996 instituted a policy of testing chlorine daily. The Public Works Dept. has implemented the monitoring schedule shown in Table 6.1. Sample sites are shown on the system maps Figures 1.5a and 1.5b.

TABLE 6.1 WATER UTILITY WATER QUALITY MONITORING PROGRAM			
Sample	Schedule	Location	Notes
Coliform Bacteria	2 Monthly, first and second week	X1 – 622 2nd Street X2 – 304 Morris Street X3 – Pioneer Park X4 – Port .R.Dock X5 – Channel Drive X6 - Reservoir	Specific notification and retest requirements if test fails.
Chlorine Residual	Each work day	X1 – Garden Club X2 – Morris RR X3 – Pioneer Park X4 – Port .R.Dock X5 – Channel Drive X6 - Reservoir	Rotate subs such that each remote location is sampled at least once per month. Send monthly report to DOH
Trihalomethanes	Yearly, each summer	2 total, Source Meter and Reservoir	
Lead & Copper	Every Third Year, last 2023, Next 2026	10 representative samples at customer's taps	
Asbestos	Every Ninth Year, last 2018, Next 2027	Representative sample	
** Copies of all monitoring to be kept on file at PW office. **			

The U.S. EPA published the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) on January 4, 2006. The Stage 2 DBPR builds on existing regulations by requiring water systems to meet disinfection byproduct maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health.

The standard monitoring requirements are to prepare and submit a standard monitoring plan, conduct one year of standard monitoring in the distribution system, prepare and submit the initial distribution system evaluation (IDSE), and prepare a Stage 2 DPBR compliance monitoring plan.

The Town has submitted a standard monitoring plan to EPA and it has been approved. Please see the submitted materials and EPA approval letter at the end of Chapter 6.

6.4 EMERGENCY PREPAREDNESS AND RESPONSE

The Town has prepared a draft Emergency Response Plan which includes specific details regarding water shortage. For short-term outages, the Town will temporarily disconnect or disable non-essential connections. For longer-term outages, the Town will implement the use of trucking water from other areas as needed in addition to

having customers heavily conserve water. A copy of the final plan is included in Appendix F and summarized as follows:

The following are emergency procedures for typical Water Department emergencies.

Water Line Break

- Contact the Public Works Director
  Phone: (360) 466-3933

- If the Public Works Supervisor cannot be reached, contact the Town's Emergency Contractor (Cuz Concrete)
  Phone: (360) 435-5531

- Inform the Contractor of the location of the break.

- Go to the location of the break. Close gate valves as necessary to isolate the break.

Loss of Supply

The loss of the Anacortes supply is assumed to be a short-term interruption and can be quickly identified into one of two conditions:

A. Loss of supply upstream of Anacortes master meter. Repairs required are the responsibility of the City of Anacortes.

   1. Verify lack of pressure and flow by observing pressure gauge and flow meter in master meter vault.
   2. Notify City of Anacortes c/o Terry Nemith 360-661-3519
   3. Notify Shelter Bay c/o Bill Palmer 360-466-3805

B. Loss of supply downstream of Anacortes Master Meter (Town's Transmission Lines). Repairs required are the responsibility of the Town.

   1. Isolate the problem.
   2. Notify Shelter Bay using the name and number above.
   3. Proceed with repair.

Sufficient storage appears to exist for short term interruptions. The 2020 Multi-jurisdictional Hazard Mitigation Plan published by Skagit County does not list the TOLC as a partner in terms of WAWARN. This is to be revisited moving forward to best serve Town needs. A longer-term interruption would likely be a result of a natural disaster. This event would require the Town to isolate any sections where major breaks occur and enact repairs, likely requiring multiple contractors

working concurrently. Tankers with potable water and/or bottled water would be brought in to serve affected areas with immediate needs.

6.5 SAFETY PROCEDURES

The Water Department is frequently involved in water main repair and replacement projects that expenses them to heavy construction activities and Asbestos Cement Pipe. First-Aid kits are located at the Water Department shop and in all vehicles and are kept up to date by removing expired items and replacing them. All of the current Water Department personnel have received First-Aid training and keep it current. The TOLC Public Works Safety Program is in place for staff and meets OSHA requirements.

The WFI accurately indicates a large portion of the existing system piping is Asbestos Cement (AC) Pipe. Patching, cutting and the disposal of AC pipe has specific operation and notification requirements. Asbestos is a hazardous material that is regulated by the EPA and WA Department of Ecology. Work with this material requires compliance with WAC 296-155-775 as well as coordination with the Northwest Clean Air Agency (NWCAA) at (360) 428-1617, with more information online at https://nwcleanairwa.gov/. NWCAA is the local agency responsible for air quality in the county and was established in accordance with RCW 70A.15.

Several of the Water Department staff members have received eight-hour OSHA training. The Department of Labor and Industries oversees and certifies worker training. Only a certified asbestos worker may cut AC pipe or evaluate the asbestos hazard on an AC pipe repair. Before a planned AC pipe replacement project proceeds, notification must be given to NWCAA. Emergency repairs require notification during or immediately after an emergency repair. A copy of NWCAA regulations, Section 570 – Asbestos Control Standards is included in Appendix F.

Regardless of pipe material, main breaks follow the protocol outlined in DOH Form 331-583 and the associated tables located in Appendix F and summarized here.

Main breaks are classified according to loss of pressure which in terms affects risk of contamination. Type I breaks are minor, and pressure is maintained in the system through the repair with low risk of contamination. Conversely Type IV breaks are catastrophic breaks and contamination risk is very high. The type of break dictates the expected protocol. Please refer to the above-mentioned DOH form tables for specifics on the protocols. A brief synopsis is as follows:

- Type I – Swab disinfect and continue repair. Boil water advisories and sampling is not needed.
- Type II – Isolate area and place hangars on doors/contact people where possible. Complete repair, flush and disinfect. Issue boil water advisory if needed and sample for disinfection effectiveness as outlined.
- Type III – Isolate area. Notify DOH and local health agency for notification needs. At minimum they should be equal to or greater than Type II breaks.

Notify the fire department about loss of fire flow availability. Complete repair and flush/disinfect to AWWA requirements. Conduct disinfection sampling and rescind boil water advisories only when the quality is acceptable.

- Type IV – Same as Type III with the understanding that it may be a large cost, and additional funding may be required. Extended loss of fire protection should be conveyed to the fire department.

6.6 CROSS-CONNECTION CONTROL PROGRAM

Washington State regulations (WAC 246-290-490) place the primary responsibility for control of cross-connections with the water purveyor. The purveyor for this system is the Town. The Town originally adopted Ordinance 464 in 1979 that established cross-connection control requirements. The Town adopted Ordinance 748 in 1999 that replaced the original requirements and created a Cross Connection Control Program in compliance with WAC 246-290-490, currently published in the LMC as Chapter 12.25. A copy of the Town's ordinance as well as more information may be found on the Town's website here https://www.townoflaconner.org/157/Public-Works and in the above referenced LMC online here. A list of backflow devices as well as a copy of the most recent ASR are included at the end of this Chapter.

A WA State approved backflow prevention device is required on all cross-connections, or possible cross-connections. Each device is required to be inspected and tested prior to commissioning and on an annual basis thereafter. Personnel performing testing and inspection shall be a certified BAT and work shall comply with WAC 246-292-036.

The cross-connection control program includes the following elements.

- A Cross-Connection Control Specialist (CCS) will be delegated to the responsibility and authority to organize and conduct the cross-connection control program. The specialist will be instructed as to the causes and hazards of unprotected cross-connections. Currently the Town has trained two of the Public Works staff as CCS, Brian Lease and Albert Sherman.

- All existing facilities where cross-connections are suspected will be listed on a priority basis and inspected.

- Provisions will be made to route all applications for new services or for enlarging services through the CCS.

- All new construction is inspected for possible cross-connections. Plans are reviewed before construction.

- A list of backflow devices approved by the Department of Health is made available to each water user required to provide backflow protection.

- Adequate records, including date of inspection, results of inspection, recommended protection, list of all reduced pressure backflow assembly (RPBA) devices, double check valve assemblies (DCVA), and air gaps in the system, test and maintenance reports, and all correspondence between the Town, DOH, and the customer is kept and filed for reference.

- A program has been established to notify the customer as to the date when his backflow device is to be tested. (Most regulations require a minimum of once each year.) After installation, a device must be tested and approved before the Town accepts it.

- All test reports received on backflow prevention will be updated into the computer records of history, ownership and maintenance will be kept current.

If an immediate hazard to health is caused by the cross-connection, water service to the premises will be discontinued until the cross-connection has been corrected.

Failure of the customer to cooperate in the installation, maintenance, testing or inspection of backflow prevention devices is grounds for the termination of water service to the premises or the requirement of an air gap separation. Authority to terminate the water service is included in the State regulations.

6.7 SANITARY SURVEY FINDINGS

Sanitary survey was completed in 2023 with no deficiencies found. A copy of the survey may be found in Appendix F.

6.8 RECORDKEEPING, REPORTING, AND CUSTOMER COMPLAINT PROGRAM

The Town administrative staff maintains all records pertaining to water use, billings, receipts, and water utility financial records. The Public Works Director maintains records regarding the system facilities, utility locate requests, repairs, water quality monitoring and reporting based on the latest required durations. There is always some risk associated with recordkeeping due to damage, electronic data corruption, or other unforeseeable circumstances. Any changes in the required duration of records may also result in unrecoverable data loss.

Barring the above, the Town currently maintains the following records in digital or hard copy format for the specified time periods:

Water Quality Analysis	Duration
Bacteriologic	5 Years
Inorganic Chemical	Permanently
Volatile Organic Chemical	Permanently
Synthetic Organic Chemical	Permanently
Radionuclides	Permanently
Lead and Copper	Permanently

Customer Records	Duration
Meter Readings	6 years
Service Account Records	Permanently
Complaints and Concerns	6 years
Cross Connection/Backflow Assembly Reports	Permanently
Other Records	**Duration**
Meter Test Records	Life of Meter
Maps and Drawings	Useful Life
Comprehensive Water System Plan	12 years
Water Quality Monitoring Plans	Useful Life
Equipment Maintenance Manuals	Life of Equipment
Valve Records	Valve Life
Hydrant Records	Hydrant Life

A report must be made available to DOH, water customers, and the public by July 1st of every year. The report consists of total annual production, water distribution leak standards, WUE goals and progress on goal achievement from the previous year. The reporting requirement can be fulfilled by including the performance information in the Town's annual Customer Confidence Report (CCR).

The Town has a formal system for handling complaints. See Section 1.11 for further discussion. Complaints, labor hours and materials (associated with complaints) should be tracked monthly to provide a yearly summary. The summary may assist in identifying specific problem lines or general areas of consumer dissatisfaction.

6.9 SUMMARY OF O&M DEFICIENCIES

Several operations and maintenance improvements are discussed throughout this Plan. Most of these concern administrative functions and may cause an increase in the workload for the Water Department staff. The following is a summary of the recommended changes:

- Ensure compliance with asbestos control standards by updating the training to reflect current best practices.
- Enhance Cybersecurity using guidance from CISA and AWWA to help identify needed improvements appropriate for the Town's system. Examples of such guidance is included at the end of this Chapter.
- The Town should evaluate their participation in WAWARN to maximize repairs in the event of an emergency.

TLP:CLEAR

Top Cyber Actions for Securing Water Systems



Overview

Water and Wastewater Systems Sector entities (herein referred to as "water systems") run operational technology (OT) and information technology (IT) systems that are too often vulnerable to cyberattacks. This fact sheet highlights the top cyber actions water systems can take today to reduce cyber risk and improve resilience to cyberattacks and provides free services, resources, and tools to support these actions, which can be taken concurrently.[1,2,3] Visit CISA's Water and Wastewater Systems Cybersecurity and EPA's Cybersecurity for the Water Sector webpages for more information and resources.

Buyer beware: Technology manufacturers make security choices that affect the quality of their software and hardware. Review CISA's Secure by Design guidance and ask your vendors how they are adopting the secure by design principles and tactics within their products to mitigate cybersecurity threats.

1. Reduce Exposure to the Public-Facing Internet

Use cyber hygiene services to reduce exposure of key assets to the public-facing internet. OT devices such as controllers and remote terminal units (RTUs) are easy targets for cyberattacks when connected to the internet.

- **Free resource**: CISA's Free Cyber Vulnerability Scanning for Water Utilities fact sheet explains the process and benefits of signing up for CISA's free vulnerability scanning program.
- **Free service:** Email vulnerability@cisa.dhs.gov with the subject line, "Requesting Cyber Hygiene Services" for CISA Cyber Hygiene Services, which proactively identify and enable timely mitigation of internet-exposed assets.

2. Conduct Regular Cybersecurity Assessments

Conduct a cybersecurity assessment on a regular basis to understand the existing vulnerabilities within OT and IT systems. Assessments enable you to identify, assess, and prioritize mitigating vulnerabilities in both OT and IT networks.

- **Free service:** EPA Cybersecurity Assessments can help assess cybersecurity posture.
- **Free resources:**
  - CISA's Cybersecurity Performance Goals (CPGs) provide a set of baseline cyber protections. A free CPG assessment can be administered by a CISA cybersecurity advisor CISA Regions) or through a self-assessment.
  - The American Water Works Association's (AWWA's) Water Sector Cybersecurity Risk Management Guidance and Risk Management Tool can help a utility examine which cybersecurity controls and practices are most applicable based on the technology applications they have implemented.
  - AWWA's Water Sector Cybersecurity Risk Management Guidance for Small Systems is a *getting started guide* that helps small, rural utilities (who serve <10,000 people) assess and implement cyber best practices.
  - The WaterISAC's 15 Cybersecurity Fundamentals for Water and Wastewater Utilities provides an overview of cybersecurity measures with resources to accompany each measure for deeper exploration.
  - The MS-ISAC's Center for Internet Security Risk Assessment Method (CIS RAM) is an information security risk assessment method that helps organizations implement and assess their security posture against the CIS Critical Security Controls (CIS Controls) cybersecurity best practices. The CIS RAM Family of Documents provides instructions, examples, templates, and exercises for conducting a cyber risk assessment.

[1] The Cybersecurity and Infrastructure Security Agency (CISA), Environmental Protection Agency (EPA), and Federal Bureau of Investigation (FBI) jointly authored this fact sheet.
[2] Joint FBI-CISA-NSA-EPA-INCD Advisory: IRGC-Affiliated Cyber Actors Exploit PLCs in Multiple Sectors, Including U.S. WWS Facilities
[3] Joint FBI-CISA-EPA-NSA Cybersecurity Advisory: Ongoing Cyber Threats to U.S. Water and Wastewater Systems

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TLP:CLEAR

3. Change Default Passwords Immediately

Require unique, strong, and complex passwords for all water systems, including connected infrastructure. Weak default or insecure passwords are easy to discover and exploit, and they may allow cyber threat actors to make changes to a water systems' operational processes. This can negatively impact public health and safety. Change default or insecure passwords and implement multifactor authentication (MFA) where possible. Focus on deploying MFA to IT infrastructure, such as email, to make it difficult for threat actors to access OT systems. Consider asking manufacturers to eliminate default passwords.

- **Free resources:** CISA's Secure our World Campaign: Use Strong Passwords and More than a Password Campaign. For additional cyber guidance, see CISA's Cyber Guidance for Small Businesses.

4. Conduct an Inventory of OT/IT Assets

Create an inventory of software and hardware assets to help understand what you need to protect. Focus initial efforts on internet-connected devices and devices where manual operations are not possible. Use monitoring to identify the devices communicating on your network.

- **Free service:** EPA's Cybersecurity Technical Assistance Program supports you in conducting an inventory.
- **Free tool:** A first step in conducting an inventory is identifying the devices on the network. CISA's Malcolm tool enables network monitoring with custom parsers designed for industrial control system (ICS)/OT protocols.

5. Develop and Exercise Cybersecurity Incident Response and Recovery Plans

Develop

Understand incident response actions, roles, responsibilities, as well as who to contact and how to report a cyber incident before one occurs to ensure readiness against potential targeting.

- **Free resources**: EPA's Cybersecurity Action Checklist and CISA's Incident Response Plan (IRP) Basics help to develop cyber incident response plans. The Joint CISA-FBI-EPA Water Incident Response Guide provides valuable information on how to work with federal response partners before, during, and after a cyber incident. **Note:** See this guide for contact information for CISA, FBI, and the EPA Water Infrastructure and Cyber Resilience Division.

Exercise

Test your incident response plan annually to ensure all operators are familiar with roles and responsibilities.

- **Free tools:** CISA Tabletop Exercise Package (CTEP) and EPA tabletop exercise (TTX) scenario tools assists critical infrastructure owners and operators in developing their own tabletop exercises to meet their specific needs.

6. Backup OT/IT Systems

Regularly backup OT/IT systems so you can recover to a known and safe state in the event of a compromise. Test backup procedures and isolate backups from network connections. Implement the NIST 3-2-1 rule: 3) Keep three copies: one primary and two backups; 2) Keep the backups on two different media types; 1) Store one copy offsite.

- **Free resources:** CISA's Cyber Essentials Toolkit Chapter 5: Your Data and NIST's Protecting Data From Ransomware and Other Data Loss Events provide guidance on backing up your systems.

7. Reduce Exposure to Vulnerabilities

Mitigate known vulnerabilities and keep all systems up to date with patches and security updates. Prioritize OT patches in accordance with CISA's Known Exploited Vulnerabilities (KEV) catalog during scheduled downtime of OT equipment; prioritize patches in IT, as applicable. CISA's Secure our World Campaign provides guidance on updating software.

8. Conduct Cybersecurity Awareness Training

Conduct cybersecurity awareness training annually, at a minimum, to help all employees understand the importance of cybersecurity and how to prevent and respond to cyberattacks.

- **Free resources:** See EPA Cybersecurity Training and CISA's free Industrial Control Systems cybersecurity virtual training to learn how to protect against cyberattacks to critical infrastructure. Also see CISA's Secure our World Campaign: Employee Phishing Training for practical steps to help your employees avoid phishing scams.

Support

If you require additional support for implementing any of these actions, contact EPA and/or your regional CISA cybersecurity advisor for assistance.

Disclaimer

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AWWA Cybersecurity Risk Management Plan Template
Version 1.0

Tool and Guidance Revision History		
Version	Date	Description
1.0	4/23/2025	Initial Release

Cover Photo Source: Naval Sea Systems Command
(https://www.navsea.navy.mil/Media/Images/igphoto/2001963531/)

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Background and Guidance on the Use of this Template

This Cybersecurity Risk Management Plan (CRMP) template is a companion document to the AWWA Water Sector Cybersecurity Risk Management Guidance and Self-Assessment Tool. These resources may be found at: https://www.awwa.org/cybersecurity.

This CRMP template was created to support systems with their IT and OT cybersecurity planning needs. The following sections are a recommendation for the structure and content that should be included in a system's CRMP. Systems using this template should tailor to their organizational needs. This may include adding sections or adapting the provided terminology to meet the needs of the system. This may require additional consultation with legal counsel to ensure that the system's CRMP properly addresses organizational risk.

Moving to Cybersecurity Risk Management Plan Development and Implementation

Once a system has implemented the practices included in the Phase 1 Getting Started Guide, the system should move on to Phase 2 – Cybersecurity Risk Management Planning. Phase 2 of the AWWA Cybersecurity Maturity Model (Figure 1) begins with conducting a cybersecurity assessment using either the full assessment approach or small systems approach. Completing Phase 1 and 2 is recommended to properly inform development of a Cybersecurity Risk Management Plan for implementation in Phase 3.



Figure 1 – Water Sector Cybersecurity Maturity Model

Key questions are provided as prompts in each section of the template for consideration while tailoring the CRMP document to the specific needs of the system. For each key question at least one example is stated to provide context. The first time a system uses the template, some of the information required to populate the CRMP may not be available. The CRMP sections are directly informed by the completed AWWA Assessment Excel output which provides a summary of the implementation status of controls within the following cybersecurity practice categories:

1. Access Control
2. Application Security
3. Business Continuity and Disaster Recovery
4. Cyber-Informed Engineering
5. Data Security
6. Cybersecurity Education
7. Encryption
8. Governance and Risk Management

9. Operations Security
10. Personnel Security
11. Physical Security
12. Server and Workstation Hardening
13. Service Level Agreements
14. Telecommunications, Network Security, and Architecture

In transitioning from Phase 2 to Phase 3 systems should consider which improvements need to be implemented in each of the practice categories noted above. Those improvements should be identified within the CRMP or related planning documents. These action items should be communicated to senior leadership to ensure they are provided with a clearly defined set of needs to effectively manage cyber-risk and budget accordingly. All systems implementing and maintaining a sustainable cybersecurity risk management program tailored to their organizational needs is the ultimate end-state goal.

The system should regularly revisit and update the CRMP as cybersecurity controls are implemented, capabilities change, and staffing changes. In addition, related documents such as the systems Emergency Response Plan or Cyber-Incident Response Plan should be aligned with and supplement the CRMP to the extent possible.

[System logo]

[System Name]

Cybersecurity Risk Management Plan [Template]

Version 1.0

Cybersecurity Risk Management Plan Sections

The CRMP should at minimum include the sections outlined below. These sections include key questions and example of answers to help a system initiate development and completion of a CRMP. Systems are encouraged to include additional sections, as needed, to address specific organizational conditions.

1. Introduction

The system should establish the purpose, scope, drivers and objectives behind their CRMP. This helps identify required changes to the document over time and establishes context for each subsequent section of the system's CRMP. The system decision-maker/s should be engaged in the development of this and subsequent sections of the CRMP to help ensure budgeting and long-term planning is successfully completed.

Key questions include:

- What is the purpose of the plan?
  - For example:
    - Establish a process for implementing and improving the cybersecurity posture of the system.
    - To support procurement of cyber-insurance.
- What is the scope of the plan? This includes the "what" and the "how" of cybersecurity risk management for the system.
  - For example:
    - Which critical functions/assets (identify critical systems, network, data, and applications)?
    - Types of threats (malware, phishing, insider, etc.)?
    - Existing vulnerabilities (gaps in controls that can be exploited)?
    - Is this for the information technology (IT) environment?
    - Is this for the operational technology (OT) environment?
- What regulatory drivers are applicable to our operations?
  - For example, AWIA §2013 or State requirements.
- What are the system 's cybersecurity objectives?
  - For example:
    - To ensure continuity of the system's critical functions during a cyber-attack.

- Smoothly and successfully respond to and recover from a cyber-attack.

Note: Timing for achieving an objective may be an important detail for some systems to manage expectations relative to budgetary and organizational considerations.

2. Cybersecurity Team

Establishing roles and responsibilities for system staff on a cybersecurity-focused team is an important step in establishing and maintaining the CRMP. Establishing a team with leaders responsible for cybersecurity helps ensure the sustainability of the system's cyber-risk management, planning, and budgeting processes.

Key questions include:

- Who is on the team?
  - For example:
    - Who is the decision maker for the system and are they present on the team?
    - Who is responsible for the different aspects of cybersecurity within the system?
    - Which contractors support the team and what are their responsibilities?
- What are the team members' roles and responsibilities?
  - For example:
    - Who is responsible for ensuring the annual cybersecurity budget is managed?
    - Who is responsible for maintaining firewall configurations?
    - Who is responsible for incident response?
- Are staff aware of who the main cybersecurity points of contact are for the system?
  - For example:
    - Is contact information shared during new staff orientation?
    - Are the main points of contact periodically shared with staff as a reminder?

3. Risk Assessment, Monitoring, and Reporting

Periodic risk assessments including monitoring of identified risks and reporting to system leadership is a key part of implementation of a CRMP. Establishing a schedule for assessment and expectations on reporting informs the system's cyber-risk management, planning, and budgeting processes.

Key questions include:

- How are cyber-risks assessed?
  - For example, using the AWWA Assessment Tool.
- How will cyber-risks be monitored?
- How will these risks be communicated to system leadership?
  - For example, how frequently and in what format will reports be provided?

4. Employee Training and Awareness

System staff are the most important line of defense against cyber-incidents. The system should consider developing or supplementing existing training to ensure that staff and contractors are sufficiently aware of the potential for and able to respond to cyber incidents.

Key questions include:

- What cybersecurity training should our staff and contractors have?
  - For example, phishing simulations to maintain awareness or cyber-attack simulations for operations staff.
  - Training should also be tailored to the organizational role and impact of the individual users. Organizational role examples include: IT User, OT User, IT Administrator (elevated privileges), OT Administrator (elevated privileges), OT Management, and Senior Management.

5. Third-Party Risk Management

Managing the risks with third parties such as contractors, integrators, vendors, and consultants can reduce cyber-risk to the system.

Key questions include:

- How do we assess vendors for cybersecurity risk?
  - For example, establishing requirements for how a third-party SCADA integrator implements and protects our SCADA system configurations and backups.
- What contractual requirements do we have to ensure our sensitive information is protected and maintained?
  - For example:
    - Requiring certain levels of cyber-insurance for service providers.
    - Terms and conditions for records retention and to ensure access to documentation.
    - Immediate notification of termination or suspension of contractors' employees that have access to system's systems and facilities.
    - Immediate notification of any security vulnerabilities within vendor-provided software or operating systems.
    - Service level agreements and contractual data privacy provisions to reduce the potential for the release of sensitive information.

6. Incident Response Plan

This section may reference a standalone Incident Response Plan. If the system decided to develop a standalone Cyber Incident Response Plan, staff should consider how to respond to and recover from a cyber incident.

Key questions include:

- How do we characterize incidents?
  - For example, scenarios a system may consider include:
    - A ransomware attack on the SCADA system.
    - An attacker making operational changes (e.g. changing chemical dosing)
    - An attacker accessing and changing PLC programs.

- Who is on the response team and what are their roles?
  - For example, internal resources who would have leadership roles in the response.
  - For example, third-parties who support our incident response operations.
- How do we capture response and recovery lessons learned?
  - For example, through an after-action reporting process and how are those archived for future reference.

7. Business Continuity and Disaster Recovery

This section may reference standalone plans such as a Business Continuity Plan (BCP) and/or Disaster Recovery Plan (DRP). If the system decided to develop BCP/DRP documents, staff should consider how they can maintain continuity of service to customers through a variety of disruptions.

Key questions include:

- What are our most critical functions and data?
  - For example, critical process, the SCADA system and customer information.
- What are our backup and recovery procedures?
  - For example, we store cold backups at a remote facility.
  - For example, our recovery procedures are available in the control room.
- How do we test and exercise our recovery capabilities?
  - For example, we conduct table-top exercises on the procedures required to ensure continuous service to our customers.
  - For example, we conduct backup restoration tests annually in a development environment.
  - For example, in the event of significant damage or destruction to facility X, personnel would reconstitute (system or operational processes) at (location) by (timeline) using (equipment).

8. Plan Maintenance and Review

The system should establish a schedule for periodic reviews and updates. This plan should inform regular planning and budgeting activities. Reviews and updates should be done annually, if not more frequent.

Key questions include:

- How do we make regular plan updates?
  - For example, through a periodic (e.g. annual) review.
- How do we ensure and document continuous improvement?
  - For example, through a periodic (e.g. annual) risk assessment project.
- How do we protect the information included in this plan from FOIA/sunshine laws or accidental release?
  - For example, citing the appropriate state statues summarized in AWWA's Protecting the Water Sector's Critical Infrastructure Information.[1]

[1] AWWA. 2020. Protecting the Water Sector's Critical Infrastructure Information. https://www.awwa.org/wp-content/uploads/Protecting-Water-Sectors-Critical-Infrastructure-Information.pdf.



AWWA Cyber-Incident Response Plan Template
Version 1.0

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Tool and Guidance Revision History		
Version	Date	Description
1.0	5/12/2025	Initial Release

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Background and Guidance on the Use of this Template

This Cyber-Incident Response Plan (CIRP) template is a companion document to the AWWA Water Sector Cybersecurity Risk Management Guidance and Assessment Tool. These resources may be found at: https://www.awwa.org/cybersecurity.

This CIRP template was developed by AWWA to provide a starting point for any water or wastewater system that does not already have one in place. This template is based on cross-sector best practices adapted for the water sector to aid systems with preparing for the inevitable reality of responding to a cyber-incident.

This CIRP template supports systems with their IT and OT cybersecurity planning needs. The following sections are a recommendation for the structure and content that should be included in a system's CIRP. Systems using this template should adapt it as they see fit. This may include adding sections or adapting the provided terminology to meet the needs of the system. In addition, a system should conduct table-top exercises with their CIRP to continually refine and adapt to the changing needs of the system. Resources for table-top exercises may be found at https://ttx.epa.gov/learn.html.

[The remainder of this document is a template with tables and text that should be updated and adapted by the system with specific information and activities staff and contractors should take during response operations.]

[System logo]

[System Name]

Cyber-Incident Response Plan [Template]

Version 1.0

Incident Response Team

A proactive cybersecurity approach includes identifying a dedicated Incident Response Team (IRT). An example table is provided, below. While smaller systems may have a single person responsible for more than one of the roles listed in the example table, it is strongly recommended that regardless of size, each of these roles be represented on the IRT.

[The system should adapt the following table.]

Position	Name	Phone Number	Alternate (Supervisor/ cell)	Role/Responsibility	Availability
General Manager	John Doe	555-789-0123	000-111-2222	Executive oversight and final decision-making	24/7
IT/OT Manager	Jane Smith	555-123-4567	--	Technical analysis and support	24/7
Operations Manager	Michael Green	555-234-5678	--	Maintain operations	24/7
Public Information Officer	Jane Doe	555-345-6789	--	Develop and make public statements on behalf of the system	24/7
Legal Counsel	Frank Black	555-456-7890	--	Advise system leadership and ensure actions are lawful	24/7
Insurer	Ann Onymous	555-567-8901	--	Provide guidance on response and recovery	24/7

While many CIRP implementations are focused on meeting customer demands, including the Public Information Officer and Legal Counsel on the response team is critical to ensuring communications and actions taken do not inadvertently result in post-response issues for the system.

On-call staff should also be aware of potential Indicators of compromise to facilitate detection of a cyber-incident. This also facilitates dissemination information up and down the chain of command to help ensure timely and effective communication.

Detecting an Incident

Understanding Indicators of Compromise (IoCs) through alert triage is critical to identifying an attack as early as possible. Examples of technology that helps identify IoCs includes intrusion detection system/intrusion protection system alerts, antivirus alerts, network scanners, log analyzers, security information and event management (SIEM).

The system should determine how, based on unique characteristics and current capabilities, it would detect an incident. This may include any of the technologies listed above coupled with the awareness of staff to identify and report potential incidents.

Severity Matrix

Incident response actions vary by the severity of the incident. The following severity matrix provides an example of how a system might characterize severity levels, recommended actions at each level, and escalation thresholds for how a system might move from one level to the next. The system should add or modify this information as appropriate to support threat detection and incident response.

[The system should adapt the following table.]

Severity Level	Recommended Actions	Escalation Threshold
Low: • Normal IT/OT operations • Staff monitor system per normal	Maintain normal operations.	The threat level escalates.
Medium: The country, industry, or local threat level has increased. Nothing specific to the system has been noted.	Maintain normal operations. Heighten awareness of system staff.	The threat escalates to directly target the system.
High: A threat directed at the system has been noted.	Activate the system's emergency response plan and Department Operations Center. Notify response partners.	It is discovered that the system is directly impacted.
Critical: The system discovers: • Infection of a device. • A breach is discovered.	Implement the Cyber-Incident Response Checklist, below.	Not applicable.

A system must also deescalate an incident. While the staff must determine what the relevant thresholds are for de-escalation, the following section presents a Cyber-Incident Action Checklist (Cyber-IAC) template that may be adapted for use in a CIRP.

Cyber-Incident Action Checklist

Developing a Cyber-IAC is a valuable tool in the Incident Response (IR) process. It aids in understanding the full scope of an attack and in capturing lessons learned during the post-incident phase. The following Cyber-IAC is written to support Operational Technology (OT)/SCADA incident response. It can be adapted to an IT environment, if that is helpful to the system. In the following Cyber-IAC template:

- Tasks are laid out sequentially and colored to indicate which phase of incident response the task should be completed within, including:
  - **Discovery –** During this phase, the system discovers the incident.
  - **Initial Response –** During this phase, the system begins executing response actions.
  - **Sustained Actions –** During this phase, the system implements sustained actions to ensure operational continuity, investigate the incident, and addresses the cause of the incident.
  - **Remediation & Recovery –** During this phase, the system confirms that systems/capabilities are fully recovered.
  - **Termination & Follow-up –** During this phase, the system concludes all response actions and conducts follow-up activities (e.g. conducts a "hot-wash" and completes after-action report).
- The role of the person who should take the action specified, including:
  - **Incident Discoverer –** The person who first reports the incident to colleagues.
  - **Incident Commander –** The person who declares an incident and directs the system's response to the cyber-incident.
  - **OT/SCADA Tech –** The person responsible for maintaining the OT/SCADA system.
  - **Operations –** The person responsible for ensuring both normal and emergency operations of the system.
  - **Public Information Officer –** The person responsible for development and delivery of external communications.
  - **Legal Counsel –** The person responsible for advising management to ensure lawful response practices by the system.

While multiple roles are called out, it may be that a single person serves in more than one role. This is a common occurrence under the principles of Incident Command System (ICS).

[The system should adapt the following table.]

Discovery	Initial Response	Sustained Actions	Remediation & Recovery	Termination & Follow-up

OT Cyber-Incident Action Checklist

Date/Time	No.	Task	Notes
	1	**Incident Discoverer:** The problem is discovered. This may occur through one of the following ways: • Observation by an OT user • System irregularity • Routine System Monitoring • OT alarms	
	2	**Incident Discoverer:** Notify: OT Staff, Supervisor, Incident Commander	
	3	**Incident Commander:** Assess the situation and declare an incident, if needed. Notify staff as appropriate including legal counsel, the Public Information Officer, and external response partners. Attempt to determine the source and extent of the problem or if it is suspected that the system has been compromised by an intruder.	
		If possible, physically disconnect all external links to SCADA systems. Do not turn off or reboot systems, this preserves evidence and allows for investigation.	
		If possible, place affected or potentially affected equipment in local/manual control, as needed.	

Date/Time	No.	Task	Notes
	4	**Public Information Officer:** Notify stakeholders and response partners that an incident has occurred, and the system is responding accordingly. Consider notifying the public, if determined necessary by the Incident Response Team.	
	5	**Incident Commander:** If SCADA has been manipulated, Notify Senior Staff.	
	6	**Incident Commander:** Mobilize necessary personnel. Direct available personnel to perform any needed repairs and operate local control of facilities/equipment as necessary. Additional personnel may be necessary to manually operate the water/wastewater facility.	
	7	**Operations:** Assume local control of affected facility/equipment, as needed. Deploy to the affected facilities. Direct available personnel to operate local control of facilities/equipment as necessary.	
	8	**Public Information Officer:** a. Communicate with law enforcement, as appropriate.	
		b. Conduct other notifications (e.g. state agencies), as appropriate.	
		Provide periodic updates to stakeholders and response partners that an incident has occurred, and the system is responding accordingly.	

Date/Time	No.	Task	Notes
	9	**Incident Commander:** When applicable, contact the system's insurer. This may result in engagement with a cybersecurity forensic consultant for comprehensive forensic analysis. Discuss the Tactics, Techniques, and Procedures, and indicator(s) of compromise with forensic team. Discuss steps required for remediation. If the insurer does not require engagement with a cybersecurity forensic consultant, the system should determine if they should engage.	
	10	**SCADA Tech:** Compare PLC programs for all potentially affected PLCs against baseline PLC program. Identify and record any anomalies. Isolate PLCs requiring remediation.	
		Completely purge the memory from all affected or potentially affected PLCs. Download latest archived, operative PLC program (if unaffected by the attack).	
		Recover and resume network connectivity based on baseline network switch configuration files.	
		Recover OT servers and workstations to last known operational state.	
		Force password change on all systems connected to, or impacting, OT systems.	
		Restart reconfigured OT server application. Verify that the application is current. If not, install any service packs or updates installed since the last backup.	

Date/Time	No.	Task	Notes
	11	**Operations:** When issue is resolved (and it has been determined by the operations lead that operating in local automatic mode poses no risk), reset controls to automatic mode.	
		Verify proper facility/equipment operations	
	12	**Incident Commander:** Return assets to safe operation and perform site cleanup as necessary.	
		Public Information Officer: Notify stakeholders that response actions are complete, and operations has returned to normal.	
	13	**Incident Commander:** Initiate post incident analysis and take corrective action.	
		Coordinate hot-wash with internal/external parties as appropriate.	
		Prepare an After-Action Report. Update ERP as necessary. Update policies and/or procedures as necessary.	

Post Incident Actions

Following any incident, the system staff should complete several steps to help ensure similar incidents do not occur again.

Evidence Retention

Where appropriate follow all data retention policies for evidence gathering and handling. In addition, identify how the attack occurred as this information might be needed for legal proceedings. Data such as location, serial number, model number, hostname, MAC and IP address can all be used for identifying information.

Lessons Learned / After Action Report (AAR)

Post incident analysis is crucial to preventing repeat incidents. Developing a timeline of events can help paint the full picture as to the nature and scope of the attack. The following questions are examples from the NIST Special Publication 800-61 and industry best practices that will assist in the investigation.

- Exactly what happened, and at what times?
- How well did staff and management perform in dealing with the incident? Were the documented procedures followed? Were they adequate?
- What information was needed sooner?
- Were any steps or actions taken that might have inhibited the recovery?
- What would the staff and management do differently the next time a similar incident occurs?
- How could information sharing with other organizations have been improved?
- What corrective actions can prevent similar incidents in the future?
- What precursors or indicators should be watched for in the future to detect similar incidents?
- What additional tools or resources are needed to detect, analyze, and mitigate future incidents?

Implementing Improvements/Corrective Actions

Corrective actions are specific steps taken to address issues found in lessons learned. Identifying policies and procedures that need to be updated as well as potential tools or products that could have assisted in the identification or containment phases. Other actions such as enhanced training and awareness programs help facilitate team members understanding of attack vectors and IoCs.

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Cross-Connection Control Program Annual Summary Report

Describe the PWS's CCC Program plan, policies, or procedures at the end of the reporting year 2024 .

Part 1: Public Water System (PWS) Identification

PWS ID: 43350	PWS Name: Town of La Conner	County: Skagit

Part 2: Cross-Connection Control (CCC) Program Characteristics

A. Type of Program Currently Implemented

Type of Program	Check One
Premises isolation only.	☐
Combination program: reliance on both premises isolation and in-premises protection.	☒
In transition from a combination program to a premises isolation-only program.	☐

B. Coordination with Authority Having Jurisdiction (AHJ) on Cross-Connection Issues

Indicate the status of coordination with AHJs in your service area. The AHJ is the entity that enforces the Uniform Plumbing Code. ***Check one box in each of last three columns for each AHJ in your service area.***

AHJ No.	Name of AHJ (e.g., the City or County Building Department)	PWS currently:		If Not Coordinating, did AHJ Decline to Coordinate?
		Coordinates with AHJ	Has Written Agreement with AHJ	
1	Skagit County	Y ☒ N ☐	Y ☒ N ☐	Y ☐ N ☒
2		Y ☐ N ☐	Y ☐ N ☐	Y ☐ N ☐
3		Y ☐ N ☐	Y ☐ N ☐	Y ☐ N ☐
4		Y ☐ N ☐	Y ☐ N ☐	Y ☐ N ☐
5		Y ☐ N ☐	Y ☐ N ☐	Y ☐ N ☐

[1] If more than 5 AHJs, attach separate sheet providing the above information.

C. Corrective or Enforcement Actions Available to the Purveyor

Type of Corrective Action	Indicate Whether Available	Most Often Used (check one)
Denial or discontinuance of water service.	Y ☒ N ☐	☐
Purveyor installs backflow preventer and bills customer.	Y ☐ N ☒	☐
Assessment of fines (in addition to elimination or control of cross connection).	Y ☐ N ☒	☐
Other corrective actions (describe):	Y ☐ N ☒	☐
	Y ☐ N ☐	☐

D. CCC Program Responsibilities

Do not include enforcement action-related procedures or circumstances.

CCC Program Activity	Responsible Party (Check one per row)	
	Customer	Purveyor
Hazard Evaluation by DOH-certified CCS	☐	☒
Backflow preventer (BP) ownership	☒	☐
BP installation	☒	☐
BP ***initial*** inspection (for proper installation – all BPs)	☐	☒
BP ***initial*** test (for testable assemblies)	☒	☐
BP ***annual*** inspection (Air Gaps and AVBs)	☐	☒
BP ***annual*** test (for testable assemblies)	☒	☐
BP maintenance and repair	☒	☐

E. Backflow Protection for Fire Protection Systems

Please remember to enter number of days allowed if you require retrofitting.

PWS coordinates with ***AHJ*** on CCC issues for fire protection systems (FPS).		Y ☒ N ☐ N/A ☐
PWS coordinates with ***local Fire Marshal*** on CCC issues for FPS.		Y ☒ N ☐ N/A ☐
PWS ensures backflow prevention is installed before serving ***new*** connections with FPS.		Y ☒ N ☐
PWS requires retrofits to ***high***-hazard FPS.	Y ☒ (No. of days allowed: _____)	N ☐ N/A ☐
PWS requires retrofits to ***low***-hazard FPS.	Y ☒ (No. of days allowed: _____)	N ☐ N/A ☐

F. Backflow Protection for Irrigation Systems

Minimum level of backflow prevention required on irrigation systems ***without*** chemical addition.	Not Addressed ☐ AVB ☐ PV/SVBA ☐ DCVA ☒ RPBA ☐
PWS currently inspects AVBs upon ***initial*** installation.	Y ☒ N ☐ N/A ☐
PWS currently inspects AVBs upon repair, reinstallation, or relocation.	Y ☒ N ☐ N/A ☐

G. Used Water

PWS prohibits, by ordinance, rule, policy, or agreement, the intentional return of used water (e.g., for heating or cooling) into the distribution system.		Y ☒ N ☐
If not prohibited at present, date plan to prohibit.	Date (mm/dd/yyyy):	N/A ☒
Current number of service connections returning used water to distribution system.		0

H. Backflow Protection for Unapproved Auxiliary Water Supplies[1] NOT Interconnected with PWS

Show the **minimum** backflow preventer and type of protection required for service connections with unapproved auxiliary water supplies *NOT interconnected with the PWS.* Check only one box per row.

Existing service connections.	None ☒	DCVA ☐	RPBA ☐	AG ☐
Type of protection required.	None ☒	In-premises protection ☐		Premises isolation ☐
New service connections.	None ☒	DCVA ☐	RPBA ☐	AG ☐
Type of protection required.	None ☒	In-premises protection ☐		Premises isolation ☐

[1] An auxiliary water supply is any water supply on or available to the customer's premises in addition to the purveyor's potable water supply.

I. Backflow Protection for Tanker Trucks and Temporary Water Connections

Minimum level of backflow protection (installed on or associated with the truck) required for tanker trucks taking water from PWS.	AG ☐ DCVA ☐ RPBA ☒ Not specified ☐ Tanker trucks not allowed ☐
PWS requires tanker trucks to obtain water at designated filling sites each equipped with permanently installed backflow preventer(s).	Y ☒ (Min. site protection: DCVA ☐ RPBA ☒) N ☐ N/A ☐ No sites provided ☐
PWS currently accepts tanker trucks approved by other PWSs without further inspection or testing.	Y ☐ N ☒ N/A ☐
Minimum level of backflow protection required for temporary water connections (e.g., for construction sites).	AG ☐ DCVA ☐ RPBA ☒ Not specified ☐ Temp. connections not allowed ☐
PWS requires testing each time the temporary connection backflow preventer is relocated.	Y ☒ N ☐ N/A ☐ (Temp. connections not allowed)
PWS provides approved backflow preventer for temporary connections.	Y ☒ N ☐ N/A ☐ (Temp. connections not allowed)

J. Backflow Protection for Non-Residential Connections

For each category shown, indicate whether PWS has non-residential connections of that type and the **minimum** level of ***premises isolation*** backflow protection required (whether or not PWS currently has that type of customer).

Type of Connection	PWS has Customers of This Type	Minimum Premises Isolation Backflow Protection Required
Commercial	Y ☒ N ☐	Not required ☐ DCVA ☒ RPBA ☐
Industrial	Y ☒ N ☐	Not required ☐ DCVA ☒ RPBA ☐
Institutional	Y ☒ N ☐	Not required ☐ DCVA ☒ RPBA ☐
Other (specify): _____	Y ☐ N ☐	Not required ☐ DCVA ☐ RPBA ☐
Other (specify): _____	Y ☐ N ☐	Not required ☐ DCVA ☐ RPBA ☐

K. Backflow Protection for Wholesale Customers

Indicate whether the PWS requires backflow protection at interties with wholesale customers (other PWSs).

Type of Intertie	PWS has (plans to have) Customers of This Type	Backflow Protection Required (If protection is required, indicate minimum level)
Existing	Y ☒ N ☐	Not specified/not required ☒ Always required ☐ Required only if purchaser's CCC program is inadequate ☐ Minimum required (if applicable): DCVA ☐ RPBA ☐
New	Y ☐ N ☒	Not specified/not required ☐ Always required ☐ Required only if purchaser's CCC program is inadequate ☐ Minimum required (if applicable): DCVA ☐ RPBA ☐

L. Exceptions to Mandatory Premises Isolation

PWS's written CCC Program Plan *allows* system to grant Exceptions to mandatory premises isolation per WAC 246-290-490(4)(b)(iii).	Yes ☐ No ☒ Doesn't Address ☐

PWS currently grants **new** Exceptions.	Yes ☐	No ☒
PWS granted Exceptions in previous reporting years.	Yes ☐	No ☒

Part 3: CCC Program Record-Keeping and Inventory

Indicate the type or name of the computer software used by the PWS to track CCC records.

Cross-Track (BMI) ☐	BPMS ☐	XC2 (Engsoft) ☐	Tokay ☐
Other commercial CCC software ☐ (specify): _____		Custom developed for or by PWS[1] ☐	
[1]Other non-CCC software (e.g., Excel) ☒		None Used ☐	

[1] Do not include commercial CCC software customized for PWS. If PWS uses customized commercial software, check the box for the appropriate commercial software name.

Part 4: Comments and Clarifications

Enter comments or clarifications to any of the information in this report. ***Please date your comment.***

Part No.	Comment	Date

Part 5: CCC Program Summary Completion Information

Enter dates in MM/DD/YYYY format.

I certify that the information provided in this CCC Program Summary is complete and accurate to the best of my knowledge.		
CCC Program Mgr. Name (Print)[2]: Brian Lease		Title: Director, WDM 4, CCS
Signature: Brian Lease		Date: 02/03/2025
Phone: (360) 840-3001	E-mail: publicworks@townoflaconner.org	
I certify that the information provided in this report accurately represents the status and description of this water system's CCC Program.		
PWS Mgr./Owner Name (Print)[3]: Albert Sherman		Title: WDM 1, CCS
Signature: Albert Sherman	Op. Cert No: 15569	Date: 02/04/2025

[2] The CCC Program Manager is generally the CCS responsible for developing and implementing the PWS's CCC program.

[3] The person that the CCC Program Manager reports to or other manager having direct responsibility and/or oversight of the CCC program. This person doesn't need to be in charge of the entire water system.

If you have a question or comment regarding this form, you can find contact information at https://www.doh.wa.gov/communityandenvironment/drinkingwater or email us at CCCprogram@doh.wa.gov.

If you need this publication in an alternate format, call (800) 525-0127. For TTY/TDD, call (800) 833-6388.

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Brian W Lease

is hereby certified as a Waterworks Operator in the State of Washington.
This individual has met the established qualifications of the Washington State Department of Health
and has passed the Waterworks Operator Certification exam for this classification.

Classification: **WDM 4 - Water Distribution Manager 4**

Certification Number: **007950**

Deni Gray, Program Manager,
Waterworks Operator Certification Program

March 31, 2017
Date

This certificate shall be in full force and effect when accompanied by an annual validation card.

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

The State of Washington

Department of Health

Certificate of Competency

The Department of Health, Water Works Operator Certification Program for the State of Washington
Hereby Recognizes

BRIAN W. LEASE

as a

Cross Connection Control Specialist 1

and certifies that this individual has met the established qualifications and has passed the above water works operator certification examination.

Witnessed under my hand this 2nd day
of June, 19 99

Cheryl L. Bergener

Cheryl L. Bergener
Water Works Operator Certification Program Manager

CERTIFICATE NO. 7950

This certificate shall be in full force and effect when accompanied by an annual renewal card.

DOH 331-007 (Rev 12/95)

Certificate of Competency

Albert R Sherman

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

WDM 1 - Water Distribution Manager 1

Effective February 10, 2022

Certification Number 015569

Holly Myers
Director, Office of Drinking Water

Deni Gray, Program Manager
Waterworks Operator Certification

This certificate shall be in full force and effective when accompanied by an annual validation card.

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Albert R Sherman

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

CCS - Cross-Connection Control Specialist

Effective February 13, 2023

Certification Number 015569

This certificate shall be in full force and effective when accompanied by an annual validation card.

Holly Myers
Director, Office of Drinking Water

Deni Gates, Program Manager
Waterworks Operator Certification

Washington State Department of HEALTH

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Christopher Smith

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

WDM 1

This certificate shall be in full force and effective only when accompanied by an annual validation card.
This certificate was issued 4/15/2024.
Certification Number 17087

Holly Myers
Director, Office of Drinking Water

Deni Gates, Program Manager
Waterworks Operator Certification

Washington State Department of HEALTH

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
C - LOW	Port of Skagit County	539 N. 3rd	4"	wilkins	DCVA	V17924	Riser room N.side of bldg.		1/3/2024	
C - LOW	Port of Skagit County	539 N. 3rd	3/4"	wilkins	DCVA	2925807	Fire sprinkler system		2/7/2024	
C - LOW	Port of Skagit County	539 N. 3rd	1 1/2"	Watts	RPBA	a30481	Fire sprinkler system		1/3/2024	
C - LOW	Port of Skagit County	539 N. 3rd	1 1/2"	Watts	RPBA	a34559	in utility closet		1/3/2024	
C - LOW	Port of Skagit County	539 N. 3rd	1"	Watts	DCVA	A69447	Flower Garden S Side		1/3/2024	
	Port of Skagit County	539 N. 3rd	1"	febco	DCVA	HB58684	Vault, S Side of bldg near main entrance		2/7/2024	
	Port of Skagit County	539 N 3rd	1"	Watts	DCVA	A04832	Vault, S Side of Building		1/3/2024	
	Port of Skagit County	613 N. 2nd	1"	Wilkins	DCVA	298521	Restrooms @ 1st & Basin		9/23/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	2"	Watts	RPBA	A010805	J&K dock		10/14/204	
C - HIGH	Port of Skagit County	613 N. 2nd	3"	Watts	DCVA	12543	Com dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3/4"	Watts	DCVA	153203	Com dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3/4"	Conbraco	PVB	YO371	Irrigation next to bathrooms		**REMOVED**	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	wilkins	DCDA	A658008	Dry dock/Boat Storage in Yard in Cemet Box		9/23/2024	
C - LOW	Port of Skagit County	613 N. 2nd	1"	Watts	DCVA	217020	Recycling		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3"	Watts	DCVA	12377	J&K dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3/4"	Watts	DCVA	735162	J&K dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3"	Watts	DCVA	12367	H&I dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	3/4"	Watts	DCVA	130956	H&I dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	2"	Apollo	RPVA	317601	H&I dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	wilkins	DCDA	A658007	C Dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	Wilkins	DCVA	A658006	A dock		10/14/2024	
	Port of Skagit County	613 N. 2nd	3/4"	Watts	DCVA	417711	In Vault btwn B & C Docks		9/23/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	Watts	RPBA	305075	B dock		10/14/2024	
C - LOW	Port of Skagit County	613 N. 2nd	4"	Watts	DCVA	103149	South basin in vault		10/14/2024	
C - LOW	Port of Skagit County	613 N. 2nd	3/4"	Watts	DCVA	103149	South basin in vault			
C - HIGH	Port of Skagit County	613 N. 2nd	2"	Watts	DCVA	165471	Commercial dock vault		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	2"	Watts	RPBA	229533	Left of H&I dock in vault		9/23/2024	
C - LOW	Port of Skagit County	613 N. 2nd	1"	wilkins	DCVA	3531697	By the hoist wash pad		10/14/2024	
C - LOW	Port of Skagit County	613 N. 2nd	1"	wilkins	DCVA	3531695	East of the wash pad		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	wilkins	DCDA	A658009	D Dock		10/14/2024	
C - HIGH	Port of Skagit County	613 N. 2nd	1"	Watts	DCVA	398630	E&F Dock		10/14/2024	
	Port of Skagit county	613 N 2nd	2"	Watts	RPBA	126083	RV Park in hot box on N side of park by hydrant		10/14/2024	
	Port of Skagit County/Maritime	918 Pearle Jensen	8"	wilkins	RPBA	7074B	In Vault SW of Corner of 920 Pearle Jensen			
	Port of Skagit County/Maritime	918 Pearle Jensen	3/4"	wilkins	RPBA	4310056	In Vault SW of Corner of 920 Pearle Jensen			
	Port of La Conner	116 S Basin Rd	1"	wilkins	DVCA	A978319	SW corner of field off restroom		10/14/2024	
C - LOW	**La Conner Elementary**	403 N 6th	1"	Apollo	DCVA	450169	Mech Room		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	2"	Watts	DCVA	77030	Kitchen attic		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	1 1/2"	Watts	DCVA	41401	Kitchen attic		4/4/2024	
C - LOW	**La Conner High school**	502 N. 6th	1"	Watts	RPBA	81849	Janitor's Closet Near Gym		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	1 1/2"	Watts	DCVA	43947	Mech Room near gym		5/29/2024	
C - LOW	**La Conner High school**	502 N. 6th	3/4"	Hersey	DCVA	65326	Vault on 6th		4/4/2024	
C - LOW	**La Conner High school**	502 N. 6th	6"	Hersey	DCVA	9302338	Vault on 6th		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	2"	Watts	DCVA	15406	Fire Sprinkler Room		**FAILED**	

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
C - LOW	**La Conner Elementary**	403 N 6th	1"	Watts	RPBA	482026	Wash down hood		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	1"	Conbraco	RP4A	450169	E Mech Room W Wall			
C - LOW	**La Conner Elementary**	403 N 6th	3/4"	Watts	DCVA	208191	In Vault North Side of Building		4/4/2024	
C - LOW	**La Conner Elementary**	403 N 6th	6"	Watts	DCDA	NK-1555	In Vault North Side of Building		4/4/2024	
C - LOW	La Conner Middle School	502 N. 6th	3/4"	Hersey	DVCA	166012	Vault on 6th		4/5/2024	
C - LOW	La Conner High school	502 N. 6th	1 1/2"	Watts	RPBA	44302	Boiler room		4/4/2024	
C - LOW	La Conner High school	502 N. 6th	2"	febco	DVCA	AM5005	Boiler room		**FAILED**	
C - LOW	La Conner High school	502 N. 6th	3/4"	Watts	DCVA	345833	Boiler room		**FAILED**	
C - LOW	La Conner Schools	502 N. 6th	1 1/4"	Watts	DCVA	03508	Mech Room upstairs		4/4/2024	
C - LOW	La Conner Middle School	502 N. 6th	6"	Hersey	DVCA	9307357	Vault on 6th		4/5/2024	
C - LOW	La Conner Middle School	404 N 6th	3"	Wilkins	RPBA	4631C	Riser Room		4/5/2024	
C - LOW	La Conner Middle School	404 N 6th	1/2"	Wilkins	RPBA	A373196	In kitchen left of dishwasher		**FAILED**	
C - LOW	La Conner Middle School	304/311 N 6th	3/4"	Wilkins	RPBA	B018522	Custodial Room #602		4/5/2024	
C - LOW	La Conner Middle School	304/311 N 6th	1 1/4"	Wilkins	RPBA	B015227	Custodial Room #602		4/5/2024	
C - LOW	La Conner Schools	502 N. 6th	4"	febco	DVCA	9910061259	Sprinkler room		4/4/2024	
C - LOW	La Conner Schools	502 N. 6th	3/4"	febco	DVCA	A012342	Sprinkler room		4/4/2024	
	La Conner Boys & Girls	301 6th St	1/2"	Watts	RPBA	122297	Boiler Room behind Storage Room		4/5/2024	
C - LOW	La Conner Public Works	PO Box 400	2"	Wilkins	975 XL2	3772286 XLTCU	hydrant meter		3/6/2024	
C - LOW	La Conner WWTP	PO Box 400	2"	Wilkins	975 XL2	3905573 XLTCU	hydrant meter		3/6/2024	
C - LOW	La Conner Public Works	PO Box 400	2"	Wilkins	975 XL2	3976871 XLTC	hydrant meter		**N/A**	No longer Exists
C - LOW	La Conner Public Works	PO Box 400	2"	Wilkins	950 XL	394151	hydrant meter		3/6/2024	
C - LOW	La Conner Public Works	PO Box 400	2"	Wilkins	RPBA	1054370	hydrant meter		**N/A**	No longer exists - unrepairable
C - LOW	La Conner Public Works	PO Box 400	2"	Watts	RPBA	147310	hydrant meter		3/6/2024	
C - LOW	La Conner Public Works	PO Box 400	2"	Wilkins	RPBA	1062634	hydrant meter		3/6/2024	
C - LOW	La Conner Public Works	PO Box 400	1"	wilkins	950XL	3628212	Roundabout		3/6/2024	
C - LOW	La Conner Public Works	PO Box 400	2"	wilkins	DCVA	4478916	hydrant meter		3/6/2002	
C - LOW	La Conner Public Works	PO Box 400	2"	Watts	RPBA	115173	hydrant meter		**N/A**	Stolen - No longer exists
C - LOW	La Conner City Hall	PO Box 400	3/4"	Watts	009M3QT	355785	Boiler		3/6/2024	
C - LOW	Channel Lodge	115 N.First	2"	Watts	RPBA	303961	Water heater		10/14/2024	
C - LOW	Channel Lodge	115 N.First	1/2"	Watts	RPBA	201942	Ice machines		10/14/2024	
C - LOW	Channel Lodge	115 N.First	4"	Wilkins	DCVA	W103696	Laundry room		10/14/2024	
C - LOW	Channel Lodge	115 N First	1/2"	Watts	RPBA	211031	Ice machines		10/14/2024	
C - LOW	Channel Lodge	115 N First	3/4"	Febco	DCVA	V6627	Behind Meter		10/14/2024	
C - LOW	The Fork at Skagit Bay	513 First	1/2"	Watts	009QT	A03150	Under Soda Counter			
	Blueberry Farm/Cui	15263 Channel Dr	1.25"	Watts	009QT	54826	1/4 mile up Channel Dr			
R - LOW	LC Retirement Inn	204 N.First	3/4"	Ames	DCVA	5821	fire sprinkler		11/8/2024	
R - HIGH	LC Retirement Inn	204 N.First	3"	Watts	DCVA	3701	Mech room			
R - HIGH	LC Retirement Inn	204 N.First	4"	Ames	DCVA	3CN1499	garage		**11/8/2024**	
R - HIGH	LC Retirement Inn	204 N.First	1/2"	Watts	RPBA	86325	First floor boiler		11/8/2024	
R - HIGH	LC Retirement Inn	204 N.First	1/2"	conbraco	RPBA	01186Q	3rd floor mech room		**FAILED**	
	LC Retirement Inn	204 N.First	1 1/2"	Wilkins	950XL	583765	S Side of Cottages in Yd Bx		11/8/2024	
	Mit Harlan	319 N First	4"	wilkins	350ADA	V03531	Entrance to Vestibule @ riser		5/24/2024	
	Mit Harlan	319 N First	3/4"	Wilkins	950XL	2184840	Entrance to Vestibule @ riser		5/24/2024	

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
	Oyster & Thistle	205 E Washington	1/2"	Apollo	RPLF4A	520082	Ice machines			
	Oyster & Thistle	205 E Washington	1/2"	Apollo	DCLF4A	544249	Dishwasher			
	Oyster & Thistle	205 E Washington	1/2"	Apollo	DCLF4A	544254	Dishwasher			
	Port of Skagit County/Mavrik	780 Pearle Jensen	8"	Wilkins	DCDA	19103B	Large vault @ SW corner of 760 building		9/9/2024	
	Port of Skagit County/Mavrik	780 Pearle Jensen	3/4"	Wilkins	DCVA	HC37542	Large vault @ SW corner of 760 building		9/9/2024	
	Port of Skagit County/Mavrik	780 Pearle Jensen	1.25	Watts	RPBA	17143	SW corner of building, on wall by fire pump test header control valve		9/9/2024	
C - LOW	Port of Skagit County/Mavrik	780 Pearle Jensen	8"	febco	DCVA	108101313	Womens restrooms		9/9/2024	
C - LOW	Port of Skagit County/Mavrik	780 Pearle Jensen	3/4"	febco	DCVA	018932	Womens restrooms		9/9/2024	
C - LOW	Port of Skagit County/Maritime	918 Pearle Jensen	3/4"	Watts	RPBA	128011	Boiler room			
	Upper Skagit Indian Tribe - SW Address	900 Pearle Jensen	1 1/2"	Watts	RPBA	034096	In Dock House		11/13/2024	
	Upper Skagit Indian Tribe - SW Address	900 Pearle Jensen	1"	Watts	DCVA	057814	In Green Box right of gate		11/13/2024	
	LC Pier Upper Skagit Tribe	108 Caledonia	1"	Apollo	DCVA	123413	Black Meter Vault @ NW corner of building		11/13/2024	
C - LOW	**LC Pier Upper Skagit Tribe**	108 Caledonia	1/2"	Watts	DCVA	105871	Warehouse		11/13/2024	
C - LOW	**LC Pier Upper Skagit Tribe**	108 Caledonia	8"	Ames	DCDA	61404	Warehouse		11/13/2024	
C - HIGH	LCWWTP	PO Box 400	1"	Watts	RPVA	58446	Chlorine room		11/14/2024	
C - HIGH	LCWWTP	PO Box 400	2"	clavavle	RPVA	389121	Lab furnace room		11/14/2024	
C - HIGH	LCWWTP	PO Box 400	2"	clavavle	RPVA	386677	Lab furnace room		11/14/2024	
C - LOW	**Nell Thorn**	116 S. First	2"	watts	RPBA	235158	Fire anti freeze loop		12/16/2024	
C - LOW	**Nell Thorn**	116 S. First	3/4"	Ames	DCVA	01495	Sprinkler room		12/16/2024	
C - LOW	**Nell Thorn**	116 S. First	4"	Ames	DCDA	EL-0106	fire service		12/16/2024	
C - LOW	Fire Dept	PO Box 400	3/4"	febco	DCVA	A019812	conference room			
C - LOW	Fire Dept	PO Box 400	3"	febco	DCDA	0110240817	sprinkler system			
C - LOW	Fire Dept	PO Box 400	1 1/4"	Watts	RPBA	26232	in mech closet			
C - LOW	La Conner Country Inn	102 S. 2nd	1/2"	Watts	RPBA	213450	Ice machines		10/14/2024	
C - HIGH	United Healthcare (LC Med Center)	528 Myrtle	1"	febco	RPBA	A01380	Bathrooms			
C - LOW	Town Square Dental Dr Fisher	102 S. 2nd	1"	Watts	RPBA	159966	in crawl space N.wall			
C - LOW	Wild Iris Inn	121 Maple	1/2"	Watts	RPBA	148454	Attic Mech Room		10/14/2024	
C - HIGH	Wild Iris Inn	121 Maple	2"	Hersey	DCVA	173390	Kitchen		10/14/2024	
	Wild Iris Inn	121 Maple	1"	Febco	DCVA	HE38161	Green vault S. side of bldg.		10/14/2024	
C - LOW	Dr. B. Atkinson	721 Maple	3/4"	Watts	RPBA	521583	Crawl Space		10/14/2024	
C - LOW	La Conner Brewing	117 First st.	1"	Watts	RPBA	7969	Feed line hot tank		10/14/2024	
	La Conner Brewing	117 First st.	1/2"	Watts	RPBA	72273	Soda Stuff		10/14/2024	
	O'Neil - Soda Fountain	713 First St	1/2"	Watts	RPBA	396716	Under Espresso		4/4/2024	
	O'Neil - Soda Fountain	713 First St	1/2"	Watts	RPBA	408053	Under cabinet, Right of Ice		4/4/2024	
	O'Neil - Soda Fountain	713 First St	1/2"	W	RPBA	404769	Under 3 comp sink		4/4/2024	
	La Conner Firehall Kitchen	402 Morris	1/2"	Watts	RPBA	341382	Dishwasher		10/14/2024	
C - LOW	La Conner Swinomish Library	520 Morris	1"	wilkins	DVCA	4786283	Small irrigation vault, north side of building next to PIV		10/14/2024	NEW

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
C - LOW	La Conner Swinomish Library	520 Morris	2"	Wilkins	RPBA	AKB9177	Mechanical room on main floor near restrooms		10/14/2024	**NEW**
C - LOW	La Conner Swinomish Library	520 Morris	4"	Ames	DCDA	2958	In fire riser room		10/14/2024	**New**
C - LOW	La Conner Swinomish Library	520 Morris	1/2"	Ames	DCVA	8008	In fire riser room		10/14/2024	**NEW**
C - LOW	COA Restaurant (Old Seeds)	623 Morris	1"	febco	DCVA	H82809	By meter box		6/15/2024	
C - LOW	COA Restaurant (Old Seeds)	623 Morris	1/2"	Watts	RPBA	395394	Boiler H2O			
C - LOW	COA Restaurant (Old Seeds)	623 Morris	1 1/4"	Watts	RPBA	28325	Mech. Room			
R - LOW	Jaci Chamness Residence	205 N. 6th	1"	Wilkins	DCVA	A485703	in green irrg. Vault		9/6/2024	
C - LOW	Tomco Marine	800 S. Pearl Jenson	6"	febco	DCVA	9207101542	Center of lamination room		10/9/2024	
C - LOW	Sacred Heart Church	410 Douglas	2 1/2	Wilkins	DCVA	V12722	Storage closet		11/27/2024	
C - LOW	Sacred Heart Church	410 Douglas	3/4"	Wilkins	DCVA	2596046	Storage closet		11/27/2024	
C - LOW	Cynick LLC/Universal Seed	16631 LC Whitney	3/4"	Wilkins	DCVA	3215605	in hot box			
C - LOW	Cynick LLC/Universal Seed	16631 LC Whitney	8"	Wilkins	DCVA	P05023	in hot box			
R - LOW	Jim King	316 N.3rd	3/4"	Watts	DCVA	51242	Pool pump room			
R - LOW	Jim King	316 N.3rd	1/2"	conbraco	RPBA	210535	Pool pump room			
R - LOW	Tillinghast Postal	521 Morris	3/4"	Ames	DCVA	46643	hot box on 6th		1/30/2024	
R - LOW	Tillinghas Postal	521 Morris	4"	Ames	DCVA	144968	hot box on 6th		1/30/2024	
C - LOW	Pioneer Point Marina	1320 Conner Way	2"	Apollo	RPLF4A	518695	Hot Box after meter			
C - LOW	Seaport Landing	104 & 106 First	4"	Wilkins	DCDA	V08466	Fire Service		3/13/2024	
	Seaport Landing	104 & 106 First	3/4"	Wilkins	DCVA	2312372	Fire Service		3/13/2024	
	Skagit Valley Farms	12021 Downey Rd	2"	Watts	DCVA	056704	Next to meter box			
	Tillinghast Building	623 Morris	3/4"	Ames/Colt	DCDA	33291	NE Corner of Building, Outside Access in Riser Room		6/15/2024	
	Tillinghast Building	623 Morris	4"	Ames/Colt	DCDA	DJ1960	NE Corner of Building Outside Acess		6/15/2024	
	La Conner Seafood & Prime Rib	614 S First	1 1/2"	Wilkins	DCVA	W89926	2nd Floor in water heater closet		10/24/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Watts	RPBA	350993	Behind Soda/ice machine		10/22/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Conbraco/Apollo	RPBA	514075	Behind Soda Machine			
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Watts	RPBA	118329	Under Broiler			
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Watts	RPBA	85546	Under bar counter		N/A	**REMOVED**
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Conbraco/Apollo	RPBA	599493	Store Room by water heater - UPPER		10/22/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Conbraco/Apollo	RPBA	514072	Store Room by water heater-LOWER		10/22/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Watts		449959	Store Room by water heater		10/22/2024	New
	American Grill & Irish Pub	13724 LaConner-Whitney	3/4"	Watts	DCVA	06967	Riser Room behind building		10/22/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	6"	Ames	DCDA	3K10255	Riser Room behind building		10/22/2024	
	American Grill & Irish Pub	13724 LaConner-Whitney	1/2"	Watts		399050	Behind Bar - left of ice machine		10/22/2024	Recert
	Nalley's Corner	12689 Downey Rd	3/4"	Watts	RPBA	360225	West wall of workshop, center, by roll up door		N/A	**REMOVED**
	Shell Gas Station	13725 La Conner Whitney	1/2"	Watts	RPBA	45639	Under Counter 8' N of Soda Machine		2/7/2024	
	Shell Gas Station	13725 La Conner Whitney	3/4"	Watts	RPBA	83951	On wall @ NW corner of building by office door		**FAILED**	
	Skagit Sun Farms	16733 La Conner Whitney	2"	Wilkins	DCVA	4402099	South of 16733 @ Meter			

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
IRRIGATION BACKFLOW ASSEMBLY SITES										
R - LOW	Marilyn Thostenson	705 Whatcom	1"	Wilkins	DCVA	A253532	By Meter Box		9/6/2024	
R - LOW	Richard Holt	741 Maple	1"	febco	DCVA	X3424	By Meter Box		12/16/2024	
R - LOW	Randy & Sally Hayes	202 N. 6th	1"	Wilkins	DCVA	1988497	Left side of house			
R - LOW	Rick & Paulette Dole	602 Tillinghast	1"	Wilkins	DCVA	W007443	In box NW corner of Foundation		8/29/2024	
R - LOW	Fred Loffer	606 Tillinghast	1"	Wilkins	DCVA	2302218	By Meter		9/6/2024	
R - LOW	Jeannette Smith	607 Tillinghast	1"	Apollo	DCVA	6768	By Meter		9/6/2024	
R - LOW	Jon & Linda Peterson	609 Tillinghast	1"	Wilkins	RPBA	2018348	By Meter Box		8/29/2024	Installed in area subject to flood
R - LOW	Richard Cushing	611 Tillinghast	1"	Apollo	DCVA	6670	Next to water meter		12/17/2024	
R - LOW	Rick Linton	613 Tillinghast	1"	Wilkins	DCVA	A554594	SW corner of crawl space		9/6/2024	
R - LOW	Hays, Rob & Anne	616 Tillinghast	1"	febco	DCVA	HF21748	In Box @ Meter			
R - LOW	Brett Horn	618 Tillinghast	1"	Wilkins	DCVA	W258152	Next to meter		8/29/2024	
R - LOW	Gretchen Gorans-Gill	202 Dalan	1"	Conbraco	RPBA	00818T	Left front of house		10/3/2024	
R - LOW	Oliver Iversen	204 Dalan	1"	Watts	DCVA	A13001	Right of house		9/6/2024	
R - LOW	Kevin Kok	525 Birch Lane	3/4"	febco	DCVA	HA62341	Landscape vault side yard		12/31/2024	
R - LOW	Rebecca Stewart (tenant) / letter to Craig Zimmerman owner	513 Birch Lane	1"	Watts	DCVA	109593	SE corner of lot in vault near 3ft water faucet		9/23/2024	
R - LOW	State Street Condos	413 State	1"	febco	DCVA	A014420	Green vault in front yard near fence		12/24/2024	
R - LOW	Harbor Villa Apts	403 State	1"	Wilkins	DCVA	A321630	SW corner of property		3/15/2024	
R - LOW	Sarah Eskenazi/Gregg Shiosaki	15354 Channel Drive	1"	febco	DCVA	1HF80147	Next to Meter Box			
R - LOW	Will Winchester	15246 Channel Drive		Febco	DCVA	HD08714	Left of the meter			
R - LOW	Chris King	15174 Channel Drive	1"	Febco	DCVA	A59375	Left front corner of lot by meter		10/17/2024	
R - LOW	Steven Scruggs	15158 Channel Drive	1"	Wilkins	DCVA	039184	Left of meter box		11/8/2024	
R - LOW	Gordon Haddon	15118 Channel Drive	1"	febco	DCVA	HD34597	10' past meter		12/16/2024	
R - LOW	David Buchan	15376 Channel Dr	1"	Conbraco	DCVA	002311	S Side of House			
R - LOW	Brett Powers	14954 Channel Lane	1"	febco	DCVA	H11686	Right side of driveway		12/16/2024	
R - LOW	Scott Kindall	14912 Channel Drive	1"	Watts	DCVA	N/A	By meter			
R - LOW	Dale & Kelly Anderson	14884 Channel Drive	1"	febco	DCVA	A047212	By meter box			
R - LOW	Robert Green	14864 Channel Drive	3/4"	Zurn	DCVA	A369895	In box by garden			
R - LOW	William Taylor	14806 Channel Drive	1"	febco	DCVA	HD69215	Right next to meter			
R - LOW	Patricia Strong	14743 Channel Drive	1"	Wilkins	DCVA	2059394	Next to meter			
R - LOW	Jerry Willins	14358 Channel Drive	1"	febco	DCVA	HG23744	SW corner of property			
R - LOW	Ron Vanderstoep	14298 Channel Drive	1"	febco	DCVA	HA96181	Next to meter box			
R - LOW	Larry/Katy Jensen	14286 Channel Drive	3/4"	febco	DCVA	A46595	Next to meter			
R - LOW	Don Zimmer	14776 Channel Drive	1"	febco	DCVA	79047	SE corner of property			
R - LOW	Miklos Endrody	14704 Channel Drive	1"	Wilkins	DCVA	A248564	In front of meter box		10/17/2024	
R - LOW	Linda Ryan	14794 Channel Drive	3/4"	Wilkins	DCVA	A431085	By Street		8/29/2024	
R - LOW	Paige Zimmer	14932 Channel Drive	1"	febco	DCVA	HE10347	Behind Shed			
R - LOW	Taylor Ohl	514 S 3rd	3/4"	Wilkins	DCVA	3938889	Out front by meter		1/10/2025	
	Katy's Inn	503 S 3rd	1"	Febco	DCVA	HA19520	Irrigation			
	Toby Rice	512 Centre		Febco		HG33571	Irrigation		12/3/2024	
	Toby Rice	514 Centre								
	Karen & James Gerarden	416 State Street	1"	Watts	RPBA	188099	At NE Corner of crawl space		10/14/2024	
	James Airy	516 S 4th Street	1"	Watts	DVCA	456887	Green vault near meter @ street			
	Manuel Pena	516 Road Street	1/2"	Watts	DCVA	293106	Laundry by Boiler			
	Dorothy Larsen	401 Maple Ave	1"	Wilkins	DCVA	A992198	Lot 5, Right side of house			

Town of La Conner
2024 Cross Control Testing Sites

HealthRisk	Name of Establishment	Address	Size	Manufacturer	Type	Serial #	Location	Letters sent	DATE PASSED	NOTES
	Gary Sinclair	405 Maple Ave	1"	Wilkins	DCVA	A984543	Lot 6, Left side of house		10/14/2024	
	Vanessa Finch	409 Maple Ave	1"	Wilkins	DVCA	A9845281	Lot 7, Left side of house			
	Maple Field, LLC	407 Maple Ave	1"	Wilkins	DCVA	A984530	Lot 8, Under deck			
	Bradley Huizenga	403 Maple Ave	1"	Wilkins	DCVA	A984537	Lot 9, By meters near street			
	Colleen Donker	319 Maple	1"	Wilkins	DCVA	A984548	Lot 3, Left side of house			
	Thomas Harader	315 Maple Ave	1"	Wilkins	DCVA	A994490	Front of house by meter			
	Maple Field, LLC	339 Maple Ave	1"	Wilkins	DCVA	A998117	Backyard near deck			

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CHAPTER 7

DESIGN AND CONSTRUCTION STANDARDS

7.1 PROJECT REVIEW PROCEDURES

The Town of La Conner requires that all extensions or improvements to the Town's water system be approved by the Town. Application for a proposed project may be made directly to the Public Works Director. However, most projects will be handled through the Town Planner's office due to complexity and multiple permits required. Project application forms are available at the Town's offices.

In general, developers are given the choice of selecting their own engineer or utilizing the Town's Engineer to develop construction plans and specifications. La Conner Municipal Code 12.20 further details development requirements.

Before any project is approved for construction, it should be thoroughly reviewed by:

Position	Responsibility
Town Planner	Environmental and Growth Impacts Zoning Compliance Permit Requirements
Public Works Director/Town Engineer	Water System Impacts Shutdowns or Outages Cross-Connection Control Placement and Access Compliance with Standards

7.2 POLICIES AND REQUIREMENTS FOR OUTSIDE PARTIES

The Town of La Conner has developed an *Infrastructure Improvements Manual*, which provides guidance to outside parties for the installation of utilities, streets, and other items to be deeded over to the Town upon completion of construction. The manual describes the administrative processes for approval to construct, checklists and forms, fee schedules (Sections A&B) and provides design standards as described herein (Section C). A copy of the manual may be found on the Town's website here: https://www.townoflaconner.org/157/Public-Works.

7.3 CONSTRUCTION AND DESIGN STANDARDS

The Washington State Department of Health's *Water System Design Manual*, dated June 2020, was utilized for this system analysis. The primary design criteria include maintaining 30 psi in the distribution system under peak hourly demand (PHD) design flow conditions and 20 psi under fire flow conditions.

Section C of the Town of La Conner *Infrastructure Improvements Manual* provides the construction and design standards to be utilized. A copy of the manual may be found on the Town's website here: https://www.townoflaconner.org/157/Public-Works. The standards apply to Town projects as well. Variances that may be requested are to be evaluated against the latest edition of the DOH Design Manual at the time the request is submitted.

The *Infrastructure Improvements Manual* was last revised in August 2018. General Town requirements are described in Section 3.3 and subparagraphs within.

Table 7-1 below outlines specific standards for various parameters.

TABLE 7-1
SYSTEM DESIGN STANDARDS

Parameter	**Minimum Standard**
Water Quality	Federal Safe Drinking Water Act and State Statutes (DOH) for Maximum Contaminant Levels (WAC 246-290)
Maximum Day Demand	Per DOH Design Manual Calculations
Peak Hour Demand	Per DOH Design Manual Calculations
Storage	Per DOH Design Manual Calculations
Fire Flow Refer also to Table C-1 in the Skagit County CWSP	Residential 1,500 gpm for 60 minutes Commercial/Industrial 1,500 gpm for 60 minutes Port (Marina) 2,000 gpm for 60 minutes Rural/Agricultural 500 gpm for 30 minutes
Minimum System Pressure	30 psi during MDD conditions 20 psi under fire flow conditions
Minimum Pipe Size	8" (4" with Town Approval for local distribution lines without fire flow)
Telemetry	To be determined. As necessary for monitoring automatic equipment.
Standby Power	To be determined depending on reliability needs.
Valve Spacing	As described below
Hydrant Spacing	As described below
Construction Standards	As described below
Cross-Connection Control	Pursuant to CCC Rules 331-355 (WAC 246-290-490)

7.3.1 Abbreviations

In this report, a number of common technical terms and expressions have been abbreviated. These terms and their abbreviations are presented here.

ADD	Average Day Demand (gallons/day/ERU)
cfs	cubic feet per second
CWSP	Coordinated Water System Plan
DOH	Department of Health
ERU	Equivalent Residential Unit
gal	gallon(s)
gpcd	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
MDD	Maximum Day Demand (gallons/day/ERU)
MSL	Mean Sea Level
mgd	million gallons per day
PHD	Peak Hour Demand
ppm	parts per million

7.3.2 Reference Datum

The planning of facilities in this study is based on the North American Vertical Datum of 1988 (NAVD 88). Prior to 2008, most of the TOLC record drawings referenced the vertical datum to the National Geodetic Vertical Datum (NGVD)–1929 NGVD, Pacific Northwest Adjustment 1947–of mean sea level as elevation zero.

7.3.3 Period of Design

The period of design for this Plan will be 10 years. Demand projections for the 20-year mark is to be included herein.

In planning facilities with capacities adequate for the next 20 years, these requirements must be fulfilled initially. Development of water sources and construction of storage should be phased with regional requirements and pipelines can be constructed in segments in accordance with localized needs. Consistency with this plan while performing improvements is recommended.

A. Surcharge for Outside Customers

The TOLC has reserved the right but does not currently impose an additional charge on customers outside of the TOLC limits.

B. Formation of Local Improvements Districts Outside Legal Boundaries

The TOLC does not have a specific policy regarding utility LID's outside of the TOLC limits. The TOLC has assisted the Skagit Beach area through the use of a service agreement.

C. UGA and Water Service Extension

In all cases, the developer is solely responsible for all costs associated with expanding the water system beyond its present locations and/or capacities. The TOLC may participate based upon its own determination.

D. Oversizing

In all cases, the developer is solely responsible for all costs associated with expanding the water system beyond its present locations and/or capacities. The TOLC may participate based upon its own determination.

E. Latecomers Agreements

The TOLC allows Latecomer's Agreements subject to state law and TOLC ordinances. The Latecomer's Agreement provides for a window of 10 years, during which a developer may receive partial reimbursement of the installation cost.

7.3.4 Cross-Connection Control Policy

The TOLC requires State-approved backflow devices installed on all potential sources of cross-connection. New development is approved prior to installation. Ordinances regarding cross-connection control are discussed in Section 3. Details on Cross-Connection control is discussed in Chapter 6.

7.3.5 Conditions of Service

1. Application

An application for service shall be submitted to the TOLC Public Works Director on forms provided by the TOLC.

2. Construction and Materials

All materials shall meet TOLC Standards (see Chapter 7 for more information).

3. Fees

The applicant is responsible for all costs including permit, design, review, construction, inspection, testing and General Facilities charge. Chapter 9 has more details regarding system finances.

7.4 SYSTEM SPECIFIC DESIGN STANDARDS

7.4.1 Distribution System

The water distribution system is required to provide dependable service. This is accomplished through interconnections and pipe sizing to provide adequate water pressure and fire protection for the community. Water pressure is maintained between 30 psi and 80 psi through the use of pressure reducing valves and the storage reservoir. There are no booster pumps currently in the Town, however they are permissible when required to maintain the above pressures.

All water mains shall be designed in accordance with good engineering practice by a professional engineer to suit actual conditions at the project location. All pipelines shall be constructed in accordance with the requirements of the Town's policies and standards which have been accepted by the Department of Health. All water mains should be owned, operated, and maintained by the Town.

Water mains should be looped where feasible, so dead-end lines are minimized. The usual standard size for all water mains are 8-, 10-, 12- and 14-inch diameters. The grid distribution mains in residential areas shall be at least 8-inch diameter.

In high-value districts, such as commercial, industrial, and multiple family developments, the minimum size of a water main the Town should be 10 inches in diameter. Larger mains may be required for high fire flow requirements or for mains with long distances between intersecting points. Engineering designs made for each individual system shall consider the specific fire flow requirements and hydraulic conditions for the development.

7.4.2 Fire Hydrants

Fire hydrants should be placed according to the Fire Marshal and WA State Fire Code with a maximum spacing of 500 feet. These are consistent with the Skagit County CWSP. The Town typically uses (unless the Fire Marshal requires otherwise) a maximum hydrant spacing 500 feet in single-family detached residential areas. Maximum spacing in multiple-family, clustered, mixed-use, commercial, and industrial areas have a maximum spacing of 300 feet. Any hydrant branch exceeding 50 feet in length shall be 8 inches in diameter, otherwise 6 inch is typical. If conditions permit, no more than one hydrant should be installed on any dead-end 8-inch branch.

7.4.3 Valves

Isolation valves should be installed at intersections, not to exceed 800 feet in the distribution system and 0.25 miles in transmission mains. Valve spacing in

commercial, industrial, and multiple-family districts shall not exceed 500 feet. Valves shall be installed on each hydrant branch and at tees, crosses, or as determined by the Town Public Works Department.

Air release valves are required at local high points and may incorporate vacuum relief as needed for the system.

Pressure reducing valves are typically required when pressures exceed or are expected to exceed 80 psi at the service connection. Pressure reducing valves may also incorporate other functions such as pressure sustaining, as well as including other ancillaries such as anti-cavitation trims, when required by the system design.

7.4.4 Fire Flow Standards and Performance

Fire protection is considered in all cases. The minimum fire flow requirements for new system expansions is discussed in Chapter 3 as well. New development will be required to follow the minimum design standards developed as part of the Skagit Count CWSP and WA State Fire Code and as required by the Fire Marshal. Fire flow requirements within the UGA (Town Limits) are typically 1,500 gpm for 60 minutes. Fire Flow requirements outside of the UGA are governed by the Skagit County CWSP but are generally similar. Figure 3.2 reproduces the CWSP requirements. Individual fire flows may be more or less than the above at the discretion of the Fire Marshal.

7.5 CONSTRUCTION CERTIFICATION

All construction activity related to the Town's water system must be coordinated through the Public Works Department. The Town may observe during construction for compliance with the approved design plans, specifications, and project submittals. Contractors perform testing such as soil compaction, pressure and disinfection testing of water mains according to ASTM and AWWA standards as appropriate. The Town performs bacteriological testing of water mains per DOH requirements prior to authorizing connection to a potable water main. All observation and testing costs are to be paid by the Contractor/Developer as appropriate.

The Town typically requires third party testing for other items such as HMA compaction and backflow prevention devices. The latter must be initially tested and certified by a Backflow Assembly Tester (BAT), prior to being placed in service. The BAT must have a valid certificate issued under WAC 246-292.

The TOLC Public Works department strives to maintain hard copies or scans of certificates indefinitely.

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**	Table 8-1 and Figure 8-1	

CHAPTER 8

CAPITAL IMPROVEMENT PROGRAM

This chapter summarizes the various projects that were discussed in previous chapters. The capital improvement program (CIP) listed in this chapter and shown on the Table at the end of this chapter provide the City with a guideline for the planning and budgeting of its water system. The CIP was completed in July 2024 and the summaries herein contain only revisions for clarity to the previously submitted plan. The CIP consists of schedule and cost estimates for each project.

8.1 PRIORITIZATION

Chapter 3 of this plan presents the analysis and development of the Capital Improvements needed to be undertaken within the next six years. Table 3-1 serves as a filter to identify areas of concern and areas to watch for. The items therein have been prioritized and scheduled based on current information.

Risk assessment for the listed capital improvements were performed using the same general criteria as found in the Drinking Water State Revolving Fund Construction Loan Guidelines as well as definitions found in the Rural Community Assistance Corporation (RCAC) “Asset Inventory Worksheet”, namely:

- **Risk Category 1:** The proposed project eliminates a documented microbial contamination issue within the system or intends to address measures to correct areas of the water system that would otherwise shut the system down upon failure.
- **Risk Category 2:** The proposed project eliminates primary inorganic chemical contamination or addresses water shortages as a result of loss of supply water or intends to address measures to correct areas where failure would otherwise create significant impacts upon the water system if remedies were not implemented promptly.
- **Risk Category 3:** The proposed project eliminates other primary chemical risk, addresses a sanitary survey significant deficiency, disinfection installation, receiverships, or EPA chemical Health Advisory (HA). Alternatively, projects that intend to address unnecessary operational and/or maintenance costs to the water system.
- **Risk Category 4:** The proposed project addresses a secondary Maximum Contaminant Level (MCL), resiliency, seawater intrusion risk, sanitary survey significant findings not deemed as deficient, 80 percent of nitrate or arsenic MCL, transmission line replacement or a restructuring or consolidation project. Alternatively, projects that are intended to address areas of the water system that may cause inconvenience to customers upon failure.
- **Risk Category 5:** The proposed project must include components for infrastructure sustainability. Alternatively, projects that are intended to address unknown conditions with components to the water system.

Other aspects that the Town may incorporate into prioritizing projects include but are not limited to availability of funds, bonding capacity, existing agreement terms, and growth. It is intended to complete projects to mitigate the highest risks before lower risks. However, these other aspects described above may result in the opposite.

8.2 CAPITAL IMPROVEMENT PROGRAM SUMMARY AND SCHEDULE

Table 8.1 lists the recommended improvements and their estimated cost. As detailed in Chapter 9, it has been assumed that all CIP projects will be funded through a combination of cash-on-hand, connection charges and loans. It is not possible to accurately predict the actual amount of connection charge revenue or successful grant applications that will be available in any given year. Cost Estimates for each project are included at the end of this Chapter and are in 2024-dollar amounts.

Table 8-1, located at the end of this Chapter, lists the projects that are recommended to resolve or eliminate the existing and anticipated system deficiencies noted in Chapter 3. The location and extent of the projects is further shown on Figure 8-1, also located at the end of this Chapter. Additional details on a few of the projects listed are discussed below.

The Town's water storage tank coating was evaluated in the recent past as it is beyond its published useful life. A certified diver was utilized, and it appears the tank coating remains acceptable. Tank coating will be routinely monitored. Recoating of the tank is included in Table 8-1 to be re-coated within the next ten years.

Skagit Beach is currently without fire protection. The current agreement with the TOLC delegates the responsibility of maintenance to the Town. The agreement does not require the Town to upgrade the infrastructure. Discussions with that community have occurred and such protection was deemed cost prohibitive as the residents of that community is not receptive to cost sharing. This project remains on the CIP so if grant money becomes available this project could potentially move forward.

A smaller project for Skagit Beach is the installation of a double detector check assembly on Channel Drive. This would isolate an older water infrastructure from the rest of the system and improve resiliency.

The AC transmission main replacement items of the CIP (Map Letters D, E,& I) costs assume pipe bursting as the installation method. In the event Shelter Bay leaves as a customer, the existing 8" main on La Conner and Whitney could be taken offline and abandoned in place or left online for increased resiliency depending on costs and any other factors that are present at that time.

The asset management software and management updates described in Chapter 3 may allow increased funding opportunities for the Town. Asset management is typically encouraged by the Public Works Board. Larger projects may require such management. Specific requirements change and are typically set for each funding cycle. Further, certain loans may have requirements for asset management.

Given ongoing budget constraints, the Town's current Capital Improvement Plan (originally scoped over 20 years) has been planned so that all projects are now scheduled for completion within the next 10 years and are already fully accounted for in Chapter 9. There are no additional projects currently forecasted beyond this 10-year horizon; however, should existing CIP projects be completed or new needs arise, we will update the long-term plan through the established amendment process. Projects are prioritized using a documented risk-assessment framework emphasizing public-safety, asset preservation, and compliance so that funding is allocated efficiently within fiscal capacity.

Table 8-1

Capital Improvement Program Summary and Schedule

Map Letter	Project	Risk Category	Project Type	Year	Total project cost[1] (2024 USD)	Anticipated source of funding	Classification of deficiency
A	Skagit Beach Replacement (Downey Road, Channel Drive)	4	Distribution	2025	$ 3,911,000	LIDR Grant	End of Useful Life
B	S 1st St Replacement **(*sub)** Commercial to Morris AC replacement	4	Distribution	2026	$ 380,000	TOLC	End of Useful Life
C	S 3rd St Replacement from Washington to Douglas	5	Distribution	2027	$ 340,000	TOLC	End of Useful Life
D	AC Trans Main Ph 2 with TIP Mill and Overlay of Roundabout, Morris & Maple	5	Distribution	2028	$ 240,000	TOLC	End of Useful Life
E	AC Trans Main Ph 3 replacement along La Conner and Whitney	5	Distribution	2029	$ 3,390,000	TOLC	End of Useful Life
F	Water Reservoir Interior Paint	5	Storage	2030	$ 330,000	TOLC	End of Useful Life
G	Rainier St Replacement of undersized main	3	Distribution	2031	$ 210,000	TOLC	Pressure
H	N 4th St Replacement from Center to State	3	Distribution	2032	$ 250,000	TOLC	Public Safety/Fire Flow
I	AC Trans Main Ph 4 replacement from Phase 3 end to reservoir	5	Distribution	2032	$ 1,290,000	TOLC	End of Useful Life

1. Includes engineering design, financing, state taxes, contingency, and construction. See estimates for details.

(*sub) - denotes projects that are a subcomponent of a larger multi-utility project and may not contain all costs associated with single utility construction.

Estimated Total: $ 10,341,000

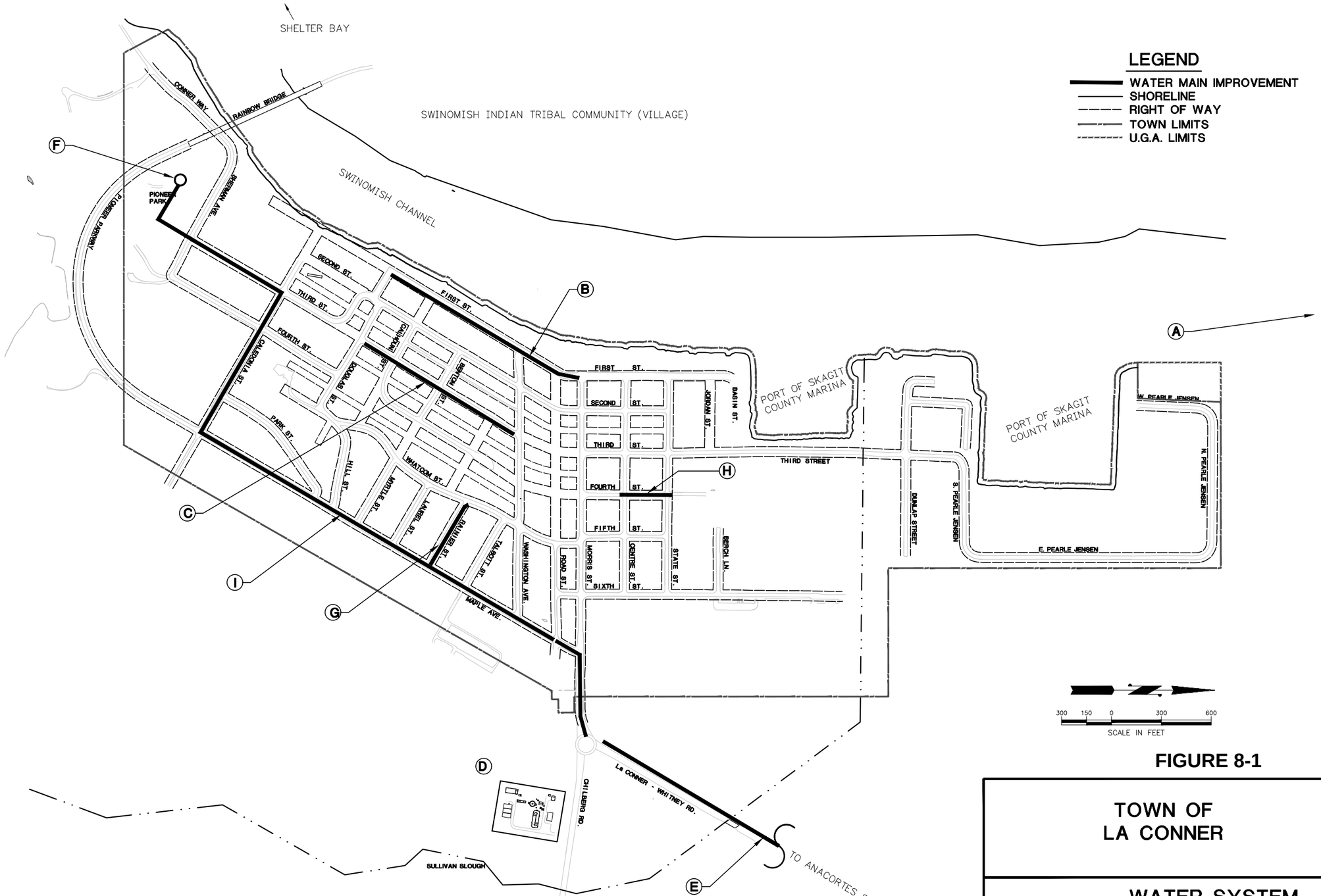


FIGURE 8-1

TOWN OF LA CONNER	S:\GIS\3LV\Logos & Templates\DEA Logos\logomiddle.jpg
WATER SYSTEM 2025 CAPITAL IMPROVEMENT PLAN	Scale: AS SHOWN
Drawn by WG Checked by ZW	Project # TOLC00002000 Date 07-23-24
	Sheet 1 / 1

30-LACONNER\300003 - STORM\2013-CAPITAL IMPROVEMENT PLAN\2013-CIP-STORM.DWG 1"=300' 22x34 6/15/2012

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CHAPTER 9

FINANCIAL PROGRAM

9.1 FINANCIAL VIABILITY

The Financial Viability Test (FVT) requirements previously performed for Group community water systems under 1,000 connections consisted of four related financial tests. The FVT covered the six-year planning period required at that time. The first three individual tests examine the adequacy of the utility's operating budget, operating cash reserve, and emergency reserve. The fourth test, the household income index analysis, allows the utility and the DOH to evaluate the water rate impact on system users of existing and additional operating procedures and/or capital improvements. All four individual tests are discussed in detail below and continue to aid the Town in preparing current budgets.

The TOLC bills all accounts on a monthly basis. The bill contains two charges; a minimum fixed charge based on meter size and a rate change based on the cubic feet of water consumed. The water user rate is $6.83 per 100 cubic feet (cf) for all users except Shelter Bay, which is charged per contract. Minimum monthly service charges are shown below. The TOLC has published service charges for new meters on its website that, as of this writing, are as follows:

Size	Service Charge
¾" or less	$ 50.57
1"	$ 101.13
1-1/2"	$ 151.70
2"	$ 252.83
3"	$ 606.79
Hydrant Meters	$ 167.12

Rates are currently flat fees with service meters charged $0.07833 per cubic foot and hydrant meters charged $0.0161 per cubic foot. Senior Citizen and disability discounted rates are available for those that apply and are qualified, as described on the website https://www.townoflaconner.org/210/Water-Services-Rates.

Test No. 1 - Develop an Operating Budget

The first test requires the utility to develop an operating budget that demonstrates sufficient revenue to meet all of its incurred expenses. The initial operating budget is for a six-year period. Updates to the budget should be completed at least every three

months, including impacts from projects and activities identified in the utility's Water System Plan.

To pass the test, revenues must be greater than expenses. Based on KIA's study, the Town of La Conner will use funds from their reserves; however, will maintain an estimated ending balance for each year within the six-year period of over $300,000. Detailed information from KIA's study is included in Appendix D.

Test No. 2 - Create and Fund an Operating Cash Reserve

The second test requires the utility to develop and fund an Operating Cash Reserve. The Operating Cash Reserve is essentially the "check-book balance" a utility must maintain to meet cash flow needs and provide contingency funds for unforeseen operating emergencies. Most utilities attempt to keep at least 1/8 of their annual operating and maintenance (O&M) and general and administrative (G&A) expenses in an Operating Cash Reserve to prevent potential cash flow problems. This 1/8 annual operating budget figure is established by DOH as Test No. 2.

Per KIA's study, the Town will maintain over their minimum target of $50,000 in cumulative reserve during the six-year period (see summary in Appendix D for more information). Therefore, the Town of La Conner also passes this test.

Test No. 3 - Create and Fund an Emergency Reserve

The third test requires the utility to demonstrate its ability to cover the costs of an emergency or failure of its most vulnerable system component. This can be accomplished either by 1) developing and funding an Emergency Reserve, or 2) obtaining an alternative financing arrangement. Generally, replacement of a production well, a source of supply, the largest pumping equipment, or key transmission lines represents the most expensive and difficult facility to replace and is used to estimate the minimum Emergency Reserve amount.

The Town does not maintain a separate emergency reserve fund. The most vulnerable component is the parallel transmission lines that supply water from Anacortes. The Town is planning to replace one of the transmission mains in 2020 and has accounted for the local match for a Public Works Board loan. The City passes Test No. 3.

Test No. 4 - Conduct Median Household Income Index Analysis

The fourth and final test requires the utility to measure the rate impact of increased operating and facility expenses on its system users. To complete this test, the utility must

1) Compute 1½ percent of the respective County's average annual median household income (MHHI). The MHHI is a value computed by the U.S. Census Bureau.

2) Determine the current and projected average annual residential water bill for all six years.

3) Compare the existing and projected average annual residential bill to 1½ percent annual MHHI for all six years.

This analysis provides an indication of a residential connection's ability to pay the existing and projected rates. When rates exceed 1½ percent of the MHHI in any year of the budget, it suggests the utility rates may not be affordable.

The 2020 U.S. Census lists the MHHI for the Town at $53,438. Computing 1.5% of the MHHI provides a value of $801.57. MMHI over the last 21 years in Skagit County has trended upwards at an average rate of $1,414 per year according to the FRED® Database that is operated by the Federal Reserve Bank of St. Louis[1]. Future projections regarding MMHI shown below take this trend into account.

The current and projected water bills were based on the average residential base rate of $43.80 per month in addition to an average additional usage of 518 cubic feet per month (at $0.062 per cf). This rate assumes a ¾" service. Larger services have higher base rates. Future water bills estimated below shall use 682 cubic feet per month, corresponding to 170 gpd ADD per ERU.

The average annual rate increase is 9.2% between 2009 and 2010. Between 2010 and 2011, there will be an increase in rates by approximately 12.6% (based on loan debt in 2011 and any adjustment in the rates from Anacortes – contract renews with the Town of La Conner every 3 years). In 2012-2013, there will be an increase of approximately 3.7% and 2.4%, respectively. In 2014, there will be another larger increase in rates, by approximately 7.0%, to account for any adjustment in rates from Anacortes.

	Current and Projected Water Bills (Rounded)	1½% of MHHI (Rounded)
2025	$1,075	$844
2026	$1,096	$865
2027	$1,118	$886
2028	$1,141	$908
2029	$1,163	$929
2030	$1,190	$950

[1] U.S. Census Bureau, Estimate of Median Household Income for Skagit County, WA [MHIWA53057A052NCEN], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MHIWA53057A052NCEN, March 30, 2023.

The Town passes Test No. 4 from the data and evaluation above. The tests demonstrate that the Town continues to maintain a financially-sound water utility that is adequately funded without being a hardship to the ratepayers. If water usage continues to trend well below the planned value, the rates become even more affordable.

9.2 PAST INCOME AND EXPENSES

Appendix D summarizes KIA's rate study, based on a series of key assumptions. The rate study and adopted rates provide a six-year outlook and allow the water utility to be managed while avoiding drastic impacts on the Town's customers.

Income in 2022 equaled approximately $1,372,341.33 based on usage and rate data. Expenditures in 2023 equaled approximately $1,127,944.68 based on Town records. Table 9-1 below shows the three-year history of revenue as published in the 2024 Final Budget:

TABLE 9-1

TOWN OF LA CONNER

2024 BUDGET - WATER FUND

Account	Description	Budget 2022	Actual 2022	Budget 2023	Actual 2023	Budget 2024
WATER FUND REVENUES			$1,450,619.22			
401-308-41-00-00	Beginning Fund Balance	$747,009.45	$1,042,198.57	$1,042,198.57	$1,281,545.22	$1,281,545.22
401-308-41-01-00	Capital Project/RCE Fees Collected	$83,667.00	$95,787.00	$95,787.00	$100,837.00	$100,837.00
401-308-41-02-00	Water Capital	$40,076.00	$40,076.00	$40,076.00	$40,076.00	$40,076.00
401-308-41-03-00	Water Captial Connections	$28,161.00	$28,161.00	$28,161.00	$28,161.00	$28,161.00
		$898,913.45	$1,206,222.57	$1,206,222.57	$1,450,619.22	$1,450,619.22
	Charges for Goods & Svcs					
401-343-40-01-00	Water Sales	975,000.00	1,056,244.08	1,070,550.00	1,208,164.22	1,145,489.00
401-343-40-01-01	Water Meter	5,000.00	16,385.00	5,000.00	16,800.00	5,000.00
401-343-40-01-02	LC Whitney Water Main Shared Costs	57,254.64	54,888.72	58,138.00	53,565.46	58,138.00
401-343-40-02-00	Extra Services	25,000.00	72,648.19	25,000.00	60,776.87	15,000.00
401-343-40-02-03	Water Meter RCE's	3,000.00	12,120.00	3,000.00	5,050.00	6,000.00
401-343-40-03-00	Utility Billing Penalties	375.00	703.75	300.00	722.01	700.00
401-345-81-00-00	DE Engineering Fees	3,500.00	628.00	3,500.00	12,561.00	3,500.00
401-345-89-00-00	Planning & Development Fees	-	2,278.72	1,500.00	425.00	1,000.00
	Total Charges for Goods & Svcs	1,069,129.64	1,215,896.46	1,166,988.00	1,358,064.56	1,234,827.00
401-361-11-00-00	Interest & Other Earnings Investment Interest	1,000.00	3,040.52	1,000.00	8,734.95	4,500.00
401-361-11-02-00	Reinvested Interest	500.00	876.13	400.00	3,181.73	1,800.00
401-369-91-00-00	Miscellaneous Revenue	300.00	224.71	300.00	1,860.09	500.00
	Total Interest & Other Earnings	1,800.00	4,141.36	1,700.00	13,776.77	6,800.00
Nonrevenues 401-382-10-00-00	Hydrant Meter Deposit	400.00	500.00	400.00	500.00	400.00
Total Nonrevneue	s	400.00	500.00	400.00	500.00	400.00
TOTAL WATER	FUND	1,071,329.64	1,220,537.82	1,169,088.00	1,372,341.33	1,242,027.00

Table 9-2 shows a three-year history of District expenditures:

TABLE 9-2

TOWN OF LA CONNER

2024 BUDGET - WATER FUND

Account	Description	Budget 2022	Actual 2022	Budget 2023	Actual 2023	Budget 2024
EXPENDITURES	General Operations					
401-534-80-10-01	Water Salaries & Wages	160,689.00	158,224.39	183,741.00	186,528.02	208,972.00
401-534-80-10-02	Overtime/Other Earnings	10,500.00	7,465.01	5,000.00	9,817.97	8,000.00
401-534-80-21-00	Benefits	96,700.00	89,171.69	93,937.00	102,151.49	125,500.00
401-534-80-31-00	Office & Operating Supplies	3,000.00	1,217.28	150.00	471.22	3,500.00
401-534-80-32-00	Fuel	10,000.00	13,165.86	12,000.00	12,095.87	14,000.00
401-534-80-33-00	Purchase of Wholesale Water	327,070.00	315,917.80	353,236.00	430,829.30	443,890.00
401-534-80-35-00	Small Tools & Equipment	6,500.00	5,898.93	35,500.00	34,847.10	58,200.00
401-534-80-40-00	Lease Agreement Tax	-	-	-	32.58	40.00
401-534-80-41-00	Professional Services	91,300.00	10,853.60	25,965.00	7,412.81	25,582.00
401-534-80-41-01	Audit Fees	-	2,182.00	3,850.00	345.00	4,000.00
401-534-80-41-02	DE Engineer Fees	3,500.00	1,258.82	3,500.00	4,551.67	3,500.00
401-534-80-42-00	Communications	8,500.00	7,514.26	8,500.00	10,052.15	11,500.00
401-534-80-42-02	Postage	1,700.00	1,593.72	1,790.00	1,502.64	1,790.00
401-534-80-44-00	Advertising	250.00	300.00	300.00	83.75	-
401-534-80-45-00	Rents & Leases - Short Term	9,400.00	10,621.50	11,500.00	11,403.57	11,600.00
401-534-80-46-00	Insurance	14,953.00	17,908.30	23,639.00	24,396.29	25,860.00
401-534-80-47-00	Public Utility Services	6,000.00	9,084.79	9,500.00	9,088.59	9,800.00
401-534-80-48-00	Repair & Maintenance	60,000.00	48,967.94	65,000.00	57,002.20	70,000.00
401-534-80-48-01	Software Maintence	3,507.00	2,845.06	3,500.00	3,026.89	3,500.00
401-534-80-48-02	Vehicle Repair & Maintenance	5,500.00	4,272.55	5,500.00	6,052.42	5,500.00
401-534-80-48-03	System Repair & Maintenance	75,000.00	26,982.77	60,000.00	22,648.75	50,000.00
401-534-80-49-00	Dues & Subscriptions	3,000.00	2,290.41	2,720.00	2,732.96	2,900.00
401-534-80-49-02	Training & Meetings	2,500.00	1,502.68	2,000.00	1,115.00	2,000.00
401-534-80-49-03	Excise Taxes	46,500.00	51,606.10	51,000.00	58,217.82	59,000.00
	Total General Operations	**946,069.00**	**790,845.46**	**961,828.00**	**996,406.06**	**1,148,634.00**
	Nonexpenditures/Other					
401-582-10-00-00	Hydrant Meter Dep Refund	400.00	500.00	500.00	500.00	500.00
	Total Nonexpenditures/Other	**400.00**	**500.00**	**500.00**	**500.00**	**500.00**
401-591-31-70-00	**Rents & Leases - Capital**	**-**	**729.01**	**.**	**913.44**	**1,060.00**
Debt	**Debt**					
401-591-34-70-00	Water Main Phs 1 Principal	40,000.00	40,000.00	42,000.00	42,000.00	43,000.00
401-592-34-80-00	Water Main Phs 1 Interest	31,407.70	31,407.70	30,226.00	30,225.95	28,954.00
Total Debt	**Total Debt**	**71,407.70**	**71,407.70**	**72,226.00**	**72,225.95**	**71,954.00**
	Capital Expenditures					
401-594-34-64-02	Capital Projects	47,500.00	49,746.53	200,000.00	57,899.23	115,000.00
	Total Capital Expenditures	**47,500.00**	**49,746.53**	**200,000.00**	**57,899.23**	**115,000.00**
401-597-00-00-00	**Operating Transfer Out**	**-**	**-**	**-**	**-**	**-**
Total WATER FUND		**1,065,376.70**	**913,228.70**	**1,234,554.00**	**1,127,944.68**	**1,337,148.00**

9.3 BALANCED OPERATIONAL BUDGET

The “Total Water Revenue” Line Item in Tables 9-1 less the “Total WATER FUND” line item in Table and 9-2 reflects profit for the District. The aforementioned line items individually reflect total amounts of revenue and expenditure for a given year, respectively. In 2023 the profit was calculated to be $244,396 or 17.8% of revenue. The 2024 budget shows the Town to have a net loss in funds ($95,121). This is due to larger expenditure on Capital Improvements, new tools and equipment, the new asset management software, and system repair/maintenance.

During the fall of 2008, the Town of La Conner contracted with Katy Isaksen & Associates (KIA) to complete a rate study. The projected revenues and operation and

maintenance expenses were based on the 2008 budget, actual experience, known differences, and key assumptions. A rate model was developed, and the results were presented to the Town for input. After assumptions were refined, final recommendations were presented to the Town Council in the spring of 2009. Final water rates were approved by the Council and went into effect for the 2009-2010 period. A summary of KIA's rate study is included in Appendix D.

Projecting future revenues and expenses with a high level of accuracy is difficult at best. Some categories may be projected with a high level of accuracy while others may range up and down over the years by a factor of ten or more. Revenues are even dependent upon the weather. Examples of this are water sales and water purchases which are significantly higher in hotter, drier years than in colder, wetter years. The continued sale to Shelter Bay is the largest unknown variable for the budget. The loss of this community would have a significantly adverse impact upon the Town. The projected loss of water sales is estimated to be $521,326 per year. This estimate utilized the 3-year average monthly use from Shelter Bay of 700,00 cf at the contract rates.

The Town is currently revising its rate evaluation to support a balanced ten-year budget that aligns with the planning period in Chapter 3 and the CIP in Chapter 8. They rely primarily on updated rates and allowable debt capacity including all current and anticipated loan payments to fund the CIP. Any limitations on debt service will directly inform the timing and scope of capital projects. The Town is committed to only proceeding with CIP projects that are fully integrated into a balanced budget ensuring that all identified deficiencies, existing debt, and future borrowing are explicitly planned for and included in our financial forecast.

9.4 RESERVE FUNDS

The Town has a minimum amount of undeveloped land within Town limits and has no plans for expanding their boundary, as a result all CIP funding will need to come from existing fund balance and water rates.

Emergency reserves should only be used to respond to immediate health or significant service issues and then promptly replaced.

9.5 DEBT FINANCED CAPITAL IMRPOVEMENTS

The projects identified in Table 8-1 assume that the Town would first fund the project out of its cash reserve account, and/or through rate increases and new customer revenues. If adequate funding is not available from the water construction account, then it is likely that the Town will apply for loans from the Public Works Board, municipal bond sales or other sources.

9.6 WATER RATE EVALUATION

The Town last completed a rate study in 2008. Since then, the Town reviews water rates on a yearly basis. The Town currently utilizes a baseline yearly Consumer Price Index adjustment that increases or decreases the rates relative to the published CPI.

Water rate increases for capital improvements are needed in addition to the CPI adjustments discussed above. Further, differing rates for Skagit Beach would likely be implemented if fire protection was pursued and costs sharing was implemented to pay for the improvements. The rate increase for Skagit Beach would be dependent upon the cost of improvements, less any grant money received. An additional analysis would be required at the time of the project design.

The Town is currently undergoing another rate evaluation. Changes to the Town's rate structure (flat fee, inclined rate, declined rate, etc) and rates themselves are expected to be evaluated so the Town can pursue the option most favorable to them while maintaining a balanced budget and maximize CIP completion.

9.7 UTILITIES AND TRANSPORTATION COMMISSION

The La Conner Water system is not listed on the UTC website as a regulated system under their authority.

9.8 WASHINGTON STATE AUDITOR'S OFFICE

The Town's yearly financial reports are audited yearly. The 2025 report's audit has not yet been completed or otherwise posted to the Town's website. Audits of the Town's prior reports are posted on the Town's website.

CHAPTER 10 – MISCELLANEOUS DOCUMENTS

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CHAPTER 10

MISCELLANEOUS DOCUMENTS

10.1 STATE ENVIRONMENTAL POLICY ACT (SEPA)

A SEPA Checklist has been prepared in support of the Town's proposed action to adopt this water system plan (see Appendix B). The Town is the Lead Agency and the Town's Planning Director is the designated SEPA official. The Town has reviewed and signed the Checklist.

10.2 AGREEMENTS

As referenced in previous chapters, the intertie agreements with Anacortes and the Shelter Bay Community are included in Appendix A along with relevant Ordinances.

10.3 CORRESPONDENCE

Agency review comments are to be provided in Appendix I of a revised plan when they become available.

10.4 APPENDICES

Appendix A: Agreements, Ordinances, and System Plans
Appendix B: SEPA Checklist
Appendix C: Hydraulic Analysis
Appendix D: Design Standards
Appendix E: Rate Study
Appendix F: CCR and WUE Documentation
Appendix G: Operating Procedures and Operator Certifications
Appendix H: Self-Assessment Form
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APPENDIX A – AGREEMENTS, ORDINANCES, AND SYSTEM MAPS

CITY OF ANACORTES, WASHINGTON

WATER SUPPLY AGREEMENT

2017 - 2036

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CITY OF ANACORTES, WASHINGTON

WATER SUPPLY AGREEMENT

2017 - 2036

1. AGREEMENT

This Water Supply Agreement ("Agreement") is entered between the City of Anacortes, ("City") and Town of La Conner ("Customer"). The City and Customer are each a "Party" and collectively the "Parties" to this Agreement. The Parties agree as follows.

2. RECITALS

2.1 Water Supply. The City owns and operates a Utility System, including a Water Supply System. The City has water available to serve the Customer and other wholesale customers. The City has in the past supplied and will continue to supply water according to the terms and conditions of this Agreement.

2.2 Capacity. The City operates its Water Supply System for the purpose of delivering an adequate supply of water to all of its customers. The City operates its Utility System to meet the volumes contracted for by its customers and to provide for future use or expansion of the Utility System.

2.3 Multiple Customers. This is one of a series of similar, non-exclusive water supply agreements. Through its Water Supply System, the City supplies water to the City's retail water system; and by contract to regional customers that include the Town of La Conner, City of Oak Harbor, Skagit Public Utilities District No. 1, Swinomish Utility Authority, Shell Oil Products US, and Tesoro Refining and Marketing Company. The intent of this Agreement is that the costs of the Water Supply System be shared by the regional customers in a reasonable and consistent manner, in light of the varying demands of the regional customers. The Customer enters this Agreement to continue the City supply of water for its industrial and/or municipal water supply requirements. This Agreement replaces and supersedes any previous Agreements or understandings between the parties.

3. DEFINITIONS

3.1 "Capital Costs" are costs incurred or planned for the betterment and rehabilitation of the Water Supply System, including amounts paid from current water system revenues, fund balances, and debt service costs.

3.2 "Debt Service Costs" are the cost of issuance, and principal and interest on outstanding bonds, loans or other Utility System debt

3.3 "Municipal customers" mean the Town of La Conner, City of Oak Harbor, Skagit Public Utilities District No. 1, and Swinomish Utility Authority.

3.4 "Operating Costs" are the cost of labor, supervision, supplies, utilities, services, taxes (including but not limited to State and City utility taxes), insurance, and all other direct or indirect expenses required to operate and maintain the Water Supply System.

3.5 "Refinery customers" mean Shell Oil Products and Tesoro Refining and Marketing Company.

3.6 "Regional customers" mean the Town of La Conner, City of Oak Harbor, Skagit Public Utilities District No. 1, Swinomish Utility Authority, Shell Oil Products US, and Tesoro Refining and Marketing Company.

3.7 "Retail water system" means the City's retail water service area.

3.8 "Uncontrollable Circumstances" includes, but is not limited to, acts of God, sabotage, war, fires, flood, earthquakes, power failure or other catastrophes, strikes, or failure or breakdown of the Water Supply System.

3.9 "Utility System" under this Agreement means the City's retail water system and the Water Supply System.

3.10 "Water Supply System" means the City water system improvements, for purposes of this Agreement, to include:

3.10.1 The water intake and treatment facilities near Avon on the Skagit River and the water transmission pipelines from the water intake and treatment facilities to Sharpe's Corner (collectively the "Regional Facilities");

3.10.2 The 20-inch water supply pipeline from South March Point Road to the refineries ("Refinery Segment"); and

3.10.3 The 10-inch water supply pipeline along SR20 from Sharpe's Corner to the Oak Harbor metering point just north of the Deception Pass Bridge ("Oak Harbor Segment").

4. WATER SUPPLY, USE AND QUANTITY

4.1 The City shall supply quantities and pressures of water at location(s) and in amounts as stated in this Agreement Exhibit A, and any subsequent amendments to this Agreement. With the exception of the Skagit Public Utilities District #1 service area east of the Swinomish Channel, Customer agrees that except for Uncontrollable Circumstances, the City shall be its sole supplier of water for municipal or industrial purposes. Customer shall only use delivered water for its own purposes. Refinery customers shall not use water for resale. A municipal customer shall not use water for service or resale outside of the municipal customer's service area as provided in Exhibit A.

4.2 The City shall use reasonable diligence to provide a regular and uninterrupted supply to the Customer's approved delivery point(s), but shall not be liable to the Customer for damages, breach of this Agreement, or otherwise for interruption of water service or curtailment of water supply for any Uncontrollable Circumstances. The Customer holds the City harmless from any claim for damages related to continuity of service by third parties served by the Customer, to the extent that the claim arises out of Customer's negligence.

5. WATER DELIVERY POINTS

5.1 Approved Delivery Points. The City shall deliver water to the Customer at the approved delivery points listed in Exhibit A.

5.2 New Delivery Points. The Customer may request service at additional delivery points subject to the approval of the City. Recognizing that the Water Supply System is not a distribution system but the Customer has complete responsibility for constructing, operating and maintaining, and repair and replacement, of Customer's distribution system adequate for its service area. The Customer shall be responsible for paying all costs associated with installing new service connections. The connection shall include the necessary piping and valves, metering equipment of standard manufacture, and suitable isolating or backflow prevention devices as appropriate. If required by the City, the meter shall be of a type capable of transmitting continuous readings to the City's Water Treatment Plant. For any proposed service connection, the Customer shall prepare and submit the design for City approval prior to installation. The City shall own the meter and be responsible for maintaining it in good repair.

6. QUALITY OF WATER

6.1 Standards. The City shall operate and maintain its Water Supply System in order to supply water for municipal and industrial purposes that meets the water quality standards of the Washington State Department of Health and the U.S. Environmental Protection Agency, including periodic revisions to these standards. The City shall employ the normal care and practices of water utilities with respect to meeting water quality standards.

6.2 Limits on Liability. The City shall not be liable to the Customer for failure to meet the water quality standards for reasons that are outside the control of the City. The Customer indemnifies and holds harmless the City from any water quality-related claim for damages by third parties served by the Customer, to the extent that the claim arises out of Customer's negligence.

7. RATES AND CHARGES. Customer shall pay its share of costs as determined by the City using the methodology identified in this Agreement. Exercising its sole discretion as manager of the Utility System, the City shall allocate overall water utility costs between its retail water system and the Water Supply System, using standard cost recovery principles, available accounting data, and reasonable approximations when necessary. The Water Supply System costs shall distinguish between Operating Costs and Capital Costs. Capital Costs shall be further allocated between Regional Facilities, the Refinery Segment, and the Oak Harbor Segment.

7.1 Charges for Operating Costs.

7.1.1 Allocation Basis. To calculate annual operating charges, Operating Costs for the Water Supply System shall be allocated to each regional customer based on each customer's percentage share of the total regional water usage for the three (3) years previous to the year to which the charges apply. For example, for 2020 operating charges the allocation would be based on 2017-2019 water usage.

A. Future Transfers of Service Area. If there are future transfers of service area between one regional customer and another, the historical data shall be adjusted accordingly, using the best estimates available of actual water usage in the transferred area.

B. Retail Water System Allocation. Under this Agreement, the water usage of the City's retail water system shall be calculated by taking the total annual metered usage of all meters, and then subtracting the metered usage of the regional customers and other non-retail water system customers.

C. No State utility tax will be included in Operating Costs assessed to wholesale Customers purchasing water for resale.

7.1.2 Preliminary Operating Costs. For any year, preliminary Operating Costs shall be calculated before January 30th of that year, based on the City's adopted budget. One-twelfth of the preliminary operating charge to each regional customer shall be payable each month. Billing is in arrears; it applies to service provided the previous month.

7.1.3 Reconciliation to Actual Operating Costs. After year-end, a reconciling charge or credit shall be calculated that accounts for the difference between the budgeted and actual Operating Costs of the Water Supply System during the given year. The reconciling charge or credit shall be allocated to regional customers based on the same relative percentages as the corresponding preliminary operating charge.

7.2 Charges for Capital Costs.

7.2.1 Planning Period. The planning period for Capital Costs is the period over which the City plans capital improvement projects for the Water Supply System, the cost of which is to be recovered from regional customers. The planning period may range from three to five years, as determined by the City.

7.2.2 Planned Capital Charges. Capital charges under this Agreement are fixed annual charges to regional customers, to recover the projected Capital Costs incurred during a planning period. The City shall segregate planned capital charges for Regional Facilities, the Refinery Segment, and the Oak Harbor Segment.

7.2.3 Allocation Basis – General. Capital Costs shall be allocated to each regional customer based on each customer's percentage share of the total regional water usage for the three (3) years previous to the year to which the charges apply. For example, for 2020 capital charges the allocation would be based on 2017-2019 water usage.

7.2.4 Allocation Basis – Regional Facilities. Capital Costs for Regional Facilities are based on each regional customer's percentage share of the total regional water usage as determined under Agreement Section 7.2.3.

7.2.5 Allocation Basis – Refinery Segment. Capital Costs for the Refinery Segment are allocated between the City retail water system and the refinery customers according to their respective percentages under Agreement Section 7.2.3.

7.2.6 Allocation Basis – Oak Harbor Segment. Capital Costs for the Oak Harbor Segment shall be divided between Oak Harbor and the City retail water system according to their respective percentages under Agreement Section 7.2.3.

7.2.7 Regional Capital Account Balance. For charges for Capital Costs, there is no reconciliation after a billing cycle. The City shall account for and maintain a "regional capital account balance" for money paid by regional customers for Capital Costs.

7.2.8 Supplemental Capital Charge. If unforeseen Capital Costs arise so that there will be no regional capital account balance within a given planning period, the City may either delay projects until the next planning period or charge for supplemental Capital Costs to be paid by regional customers for the remainder of the current planning period. If the cause of unexpected Capital Costs is the Refinery Segment or the Oak Harbor Segment, then the supplemental Capital Costs shall be allocated proportionately to the regional customers with an interest in the specific facilities. Otherwise, the supplemental Capital Costs shall be applied in the same percentage allocations used for the Capital Costs for the applicable planning period.

7.2.9 Debt Service Charges to Refinery Customers. Recognizing the variability of demand from the refinery customers and that regional customers may terminate the agreement with only three-year' notice, the City may maintain alternative schedule(s) for recovery of Debt Service Costs as a component of Capital Costs charged to the refinery customers.

7.3 Planning and Advisory Estimates. To assist Customer in its financial planning, the City shall provide information to Customer, at least as follows. Following the City administrative officer's submission of a preliminary annual budget to the City Council under RCW 35A.33.055, a copy of that preliminary budget, or excerpts related to the Utility System from that budget, shall be sent by City to Customer. In the event the City determines to operate under a biennial budget under Chapter 35A.34 RCW, the city shall provide to Customer such review and modification materials required under RCW 35A.34.130. By November 15th of each year, the City shall provide to Customer a further, non-binding, advisory estimate of charges for Operating Costs and Capital Costs for the next year. The City shall provide to Customer advance notice of draft comprehensive plans, facility plans capital improvement plans or other planning documents relating to the Utility System, as soon as practicable following the publication or general availability of such plan drafts.

8. BILLING AND PAYMENT.

8.1 Monthly Billing. The City shall bill Customer monthly for one twelfth (1/12) of the annual charges calculated under Agreement Section 7. The bill shall identify the Capital Cost and Operating Cost, the volume of metered water delivered to the Customer during the month. Payment by the Customer is due within thirty (30) days of the receipt of the bill.

8.2 Late Payment. If a bill remains unpaid after forty-five (45) days, the City will assess interest on the delinquent amount at the rate of twelve percent (12%) per annum. If a bill still is not paid after ninety (90) days, the City may use other remedies legally available to it, including shutting off service to enforce payment. Nothing in this Agreement Section 8 relieves Customer of obligations for payment of Capital Costs and Operating Costs for the three (3) year period following notice of Agreement termination.

9. METERING.

9.1 Meters and Testing. The volume of water delivered to the Customer shall be measured at the metering equipment at the delivery points identified under Agreement Section 5. Meters shall be maintained and read monthly by the City. Meters shall be tested by the City periodically, but not less than once per year, to assure continuing accuracy and conformance to the standards of measurement and service accepted in the water industry. The Customer has the right to advance notice and to be present at any of the regularly scheduled tests. The cost of conducting such tests shall be borne by the City. Tests may also be conducted at other times at the request of the Customer and the Customer may elect to have a representative witness the meter test. If the meter is accurate, the Customer shall pay for the cost of the test; but if the test reveals an inaccuracy of more than 2 percent, the City shall pay for the test. If an inaccuracy of more than 2 percent is discovered, all billings for water furnished hereunder for one-half the time from the date of the preceding test shall be adjusted. The adjustment shall be for the full amount in excess of 2 percent.

9.2 Temporary Lapses in Water Meter Data. If metered water use is incomplete or inaccurate for any period of time, the City may bill the Customer for such period based on estimated water use. The City may estimate use on any reasonable basis. The City shall provide the Customer documentation of the method used to estimate Customer water use for such period.

9.3 Documentation of Monthly Metering Results. Even though monthly metered water use does not affect the customer bill during the current year, the City shall read the meters on a monthly basis and notify the Customer of its water use during the prior month

10. FUTURE WATER SERVICE AND SUPPLY REQUIREMENTS

10.1 Service Area. This Agreement between the City and the Customer is to supply water to the Customer's existing industrial operations and/or water service area. In this regard, the Customer agrees not to increase its industrial operations or to expand its service area in a manner that would increase its water requirements by more than ten (10) percent without the prior approval of the City.

10.2 Future Improvements. The City plans and develops water supply facilities that may become necessary in the future to replace existing facilities or to expand the capacity of its Water Supply System to meet growing demands. The City may require appropriate commitments from regional customers prior to proceeding with system improvements.

10.3 Other Service. Nothing in this Agreement limits the City's authority to expand its service area or serve other retail or wholesale customers, in addition to service provided to the regional customers.

11. TERM AND TERMINATION.

11.1 Term. Subject to Agreement Section 11.2, this Agreement shall take effect on January 1, 2017, and remain in full force and effect until December 31, 2036. Either party can request, no more frequently than annually, amendment or renegotiation of this Agreement.

11.2 Termination. Either Party has the right to terminate this Agreement by giving not less than three (3) years' written notice to the other Party.

12. GENERAL

12.1 Conflicts. To the extent that there is any inconsistency between the provisions of this Agreement, any exhibit incorporated as part of this Agreement, the provisions of this Agreement shall control.

12.2 Records Inspection. The City shall maintain and make available for inspection at reasonable times all records pertaining to the Utility System. These records shall be maintained for a minimum of three (3)-years.

12.3 Notices. All notices and billing required hereunder shall be sent to the following addresses:

CITY OF ANACORTES	CUSTOMER
Mailing: PO Box 547 Anacortes, WA 98221 Physical: 904 6th Street Anacortes, WA 98221	Town of La Conner PO Box 400 204 Douglas Street La Conner, WA 98257

The person and address to which the notices are to be given may be changed at any time by either Party upon written notice to the other Party. All notices given pursuant to this Agreement shall be deemed given upon receipt.

12.4 Applicable Law. This Agreement and all disputes arising thereunder shall be governed by Washington State Law.

12.5 Assignment; Survival. Except as otherwise provided herein, neither Party may assign its rights or obligations under this Agreement without the express written consent of the other Party, which consent may be withheld in the sole discretion of such Party. This

Agreement shall be binding upon, and inure to the benefit of, the successors and permitted assigns of the Parties.

12.6 Dispute Resolution. The Parties shall seek to resolve amicably any disputes arising under this Agreement. If a dispute cannot be resolved by the Parties, any Party may invoke a formal conflict resolution process under this Section 12.6.

12.6.1 The first step in the process shall be a meeting including the City's Mayor and Public Works Director and the Customer's representative(s).

12.6.2 If the Parties cannot resolve the dispute at the first step within thirty (30) days, the second step in the process shall be mediation before a single mediator selected by mutual agreement of the Parties. If the Parties cannot agree on a mediator, either Party may apply to the presiding judge of the Skagit County Superior Court.

12.6.3 If the Parties cannot resolve the dispute at the second step within ninety (90) days of the appointment of the mediator, any Party may commence an action under this Agreement.

Any dispute that cannot be resolved by the Parties shall be resolved in the Skagit County Superior Court with each Party preserving its right to trial by jury.

12.7 Non-Waiver. A waiver by either Party of any breach of any provision hereof shall not be taken or held to be a waiver of any succeeding breach of such provision or as waiver of any provision itself. No payment or acceptance of compensation for any period subsequent to any breach shall be deemed a waiver of any right or acceptance of the breach. Where the condition to be waived is a material part of the Agreement such that its waiver would affect the essential bargains of the Parties, the waiver must be supported by consideration and take the form of an Agreement modification.

12.8 No Third Party Beneficiary. The rights and obligations created by this Agreement are for the sole benefit of the Parties, their successors or assigns and no person not a Party shall be a beneficiary, intended or otherwise, of any such rights or be entitled to enforce any of the obligations created by this Agreement.

12.9 Severability. If any term or provision of this Agreement, or the application thereof to any person or circumstances, shall to any extent be invalid or unenforceable, the remainder of this Agreement or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforced to the fullest extent permitted by law. Further, the Parties shall negotiate in good faith regarding amendments to this Agreement that would, to the maximum extent possible, effectuate the intent of any provision determined to be invalid or unenforceable.

12.10 Construction. This Agreement has been freely and fairly negotiated by the Parties hereto and has been reviewed and discussed by legal counsel for each of the Parties, each of whom has had the full opportunity to modify the draftsmanship hereof and, therefore, the terms

of this Agreement shall be construed and interpreted without any presumption or other rule requiring constructional interpretation against the Party causing the drafting of the Agreement.

12.11 Captions. The captions and paragraphs headings contained in this Agreement are for convenience and reference purposes only and in no way define, describe, extend or limit the scope or intent of this Agreement, nor the intent of any provision hereof.

12.12 Prior Agreement Superseded; Complete Agreement. This Agreement supersedes that Water Supply Agreement between the Parties (effective January 1, 2006 for the term 2006 – 2026, the "Prior Agreement). The Prior Agreement has no further force or effect commencing January 1, 2017. This Agreement contains the complete statement of the understanding of the Parties with respect to the subject matter of this Agreement. There are no other representations, agreements, or understandings, oral or written, by the Parties relating to the subject matter of this Agreement that are not fully expressed in this Agreement. Each Party acknowledges and represents to the other Party that it is executing this Agreement solely in reliance upon its own judgment and knowledge and that it is not executing this Agreement based upon the representation or covenant of the other Party, or anyone acting on such Party's behalf, except as expressly stated herein. Any modifications or amendments to this Agreement shall be approved in writing by both Parties.

12.13 Execution in Counterparts. This Agreement may be executed in two or more counterparts, all of which, when taken together, shall constitute one and the same Agreement. Executed counterparts transmitted by facsimile or electronic means shall be binding on the Parties.

12.14 Certain Representations And Warranties Of The Parties. Each Party represents and warrants to the other that the execution, delivery, and performance of this Agreement have been duly approved by all required government or corporate action, and that the person or persons signing on behalf of such Party have full authority to do so.

IN WITNESS WHEREOF, the Parties hereto have each executed this Agreement as of the day and year below written.

CITY OF ANACORTES

By: _____
Laurie M. Gere, Mayor

DATE: 2-7-17

ATTEST:

_____
Steven D. Hoglund, City Clerk Treasurer

APPROVED AS TO FORM:

_____
Darcy J. Swetnam, WSBA # 40530
City Attorney

CUSTOMER: Town of La Conner

By: _____

DATE: 1-24-17

ATTEST: _____

APPROVED AS TO FORM:

_____

City Attorney

EXHIBIT A

Water Supply Agreement between the City of Anacortes and Town of La Conner.

Approved Metered Service Connections:

No.	Size	Brand	Type	Location	Reading System
1	8"	Sensus		La Conner Whitney Rd & SR20	Automated
2	2"	Sensus		La Conner Whitney Rd & SR20	Automated

1. Contractual Water Volume:

   Annual: 162 Million Gallons

2. Water Pressure: 120 psi
3. The Town of La Conner is allowed to serve water to the Shelter Bay Community designated Service Area as identified in the Skagit County Coordinated Water System Plan.

WATER SUPPLY AGREEMENT

This Agreement, entered into this 25th day of September, 1992, between the Town of LaConner (Town) and the Shelter Bay Community, Inc., (Customer) is for the purpose of the Town supplying water to the Customer. It replaces and supersedes any previous agreements or understandings between the parties. This agreement shall be incorporated into the Skagit Coordinated Water System Plan.

The Customer is entering into this Agreement in order to secure a reliable and safe supply of household water. The Town has water available to serve the Customer and is willing to supply water according to the terms and conditions of this Agreement.

The Town's water system is defined for purposes of this Agreement as a 1.5 million gallon reservoir, which receives water from the Anacortes water system, and an eight inch line leading to a point on the east side of the Swinomish Channel, south of the bridge. At this point, which shall be known as the "delivery point", the line connects to a six inch meter and transmission line under the Channel to Shelter Bay. The Customer is responsible for all of the system downstream of the six inch meter.

1. Quantity. The Town agrees to supply water to the delivery point at 90 pounds per square inch in amounts up to a peak demand of 400,000 gallons per day. This Agreement does not address Customer's needs for fire flow protection, nor shall the Town be held liable for any shortfall in this regard.

2. Quality. The Town shall operate and maintain its water supply system in accordance with the standards set by the Washington State Department of Social and Health Services and the U.S. Environmental Protection Agency, including periodic revisions or updates to these standards. The Town shall employ normal care and practices expected of water utilities in meeting the above described water quality standards.

3. Liability. The Town shall not be liable to the Customer for failure to meet the water quality standards for reasons that are beyond the control of the Town. The Town shall only be liable for any water-related claim in which negligence by the Town is proven. The Customer shall hold the Town harmless from any water quality related claim for damages by a third party served by the Customer to the extent that such claim arises out of the negligence of the Customer, or others, or is due to causes beyond the control of the Town.

4. Rates. Under Ordinance No. 445, dated January 10, 1978, the Town established the following rates and charges for residential customers:

Fixed fee per month for 6 inch meter	$130.75
First 9,650 cu.ft per month	$0.00
Per each 100 cu.ft. above 9,650	$1.30

The parties recognize that the primary supplier, the City of Anacortes, is undergoing a continuing study and adjustment of water rates. Therefore, the above rates shall govern until May 1, 1993, at which time the rate structure will be negotiated with

the Customer, based on the amount of increase imposed by the City of Anacortes in its wholesale rate. Water rates shall then be reviewed and be adjusted at three year intervals thereafter.

5. Billing. On or before the tenth day of each month, the Customer will receive an invoice showing cubic feet of water consumed during the previous month and the charges. This amount shall be paid to the Town not later than the first day of the following month. A late fee of 1.5% of the amount due shall be assessed for payments postmarked after the first day of the following month.

6. Meter. The six inch meter is the property of the Town, and it shall be maintained and be read by the Town. It shall be tested annually by an independent testing company acceptable to the Town. The Customer shall be notified in advance of testing and shall have the right to have a witness present. The costs of conducting the regular tests shall be borne by the Town. Testing may also be conducted at other times at the request of the Customer, in which case the customer shall pay for the test if the test reveals an inaccuracy of 2 percent or less. If the test reveals an inaccuracy greater than 2 percent, then the Town shall pay for the test, and in addition, shall recompute all billings for one half of the time from the date of the previous test to the date of the current test. The adjustment, whether credit or debit from the Customer's point of view, shall be for the amount in excess of the 2 percent.

7. Continuity of Service. The Town shall use reasonable dili-

gence to provide a regular and uninterrupted supply of water to the Customer's delivery point, but shall not be liable to the Customer for damages, breach of contract, or otherwise for interruption of service or curtailment of supply for any cause beyond the control of the Town. These could include, but are not limited to, Acts of God, sabotage, war, fires, floods, earthquakes, strikes, or failure or breakdown of the water supply system. The Town shall only be responsible for continuity failures in those cases where negligence by the Town is proven. The Customer shall hold the Town harmless from any claim of damage related to continuity of service by third parties served by the Customer, to the extent that such claim arises out of the negligence of the Customer, or others, or is due to causes beyond the control of the Town.

8. Conflicts. To the extent that there is any inconsistency between the provisions of this Agreement, any exhibit incorporated in this Agreement, or any amendments made to it, and the rules and regulations of the Town or the Customer, then this Agreement shall control.

9. Future Supply.

9.1 Service Area. The service area shall be the roughly 942 platted lots and the marina/clubhouse complex of Shelter Bay, plus the plat of Eagles Nest and a portion of the Dr. Joe Division #2 lots. The Customer agrees not to expand its service area in a manner that would increase its water requirements by more than 10 percent without prior approval by the Town. It is

agreed that, if the Customer develops needs for water over and above the ability of the Town to supply, then the Customer shall have the right to seek other sources of water.

9.2 Capacity Limitations. It is agreed that the Town shall have the right to limit future increases in water use or peak demands should the total system usage approach the capacity of the LaConner water supply system. However, the Town agrees to consult with the Customer in those cases where growth would have an impact on the Towns' ability to supply the Customer with the quantity specified in paragraph 1, above.

9.3 Future Improvements. The Town may plan and develop water supply facilities that may become necessary to replace existing facilities, to expand capacity, to take advantage of technological advances, or to comply with changes in regulatory directives. The Town may require a cost sharing commitment from the Customer prior to proceeding with system improvements.

10. Disputes. In the event of any dispute under this Agreement which results in litigation, the prevailing party shall have the right to collect court costs and attorney fees from the losing party. This Agreement and all disputes arising thereunder shall be governed by the laws of the State of Washington.

11. Term. This contract shall remain in force in perpetuity, or until such date as the parties hereto shall mutually agree to terminate it.

12. Records Inspection. The Town shall maintain and make available for inspection at reasonable times all records per-

taining to the water system. These records shall be maintained for at least four years, after which time they may be destroyed upon mutual agreement of the parties.

13. Notices. All notices and billings shall be sent to the following addresses:

Town of LaConner
Attn: Mayor
Box 400
LaConner, WA 98257

Shelter Bay Community
Attn: Manager
Box A
LaConner, WA 98257

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written.

The Town of LaConner

Mayor

Attest:

Town Clerk

Shelter Bay Community, Inc.

President, Board of Directors

~~Attorney~~
Secretary

Town of La Conner Cross Connection Program

1) Ordinance number 748 adopted 7/99, with annual notice of inspection/testing requirements, beginning 7/00 and every July thereafter. (see attached ordinance for technical provisions). Letter of authorization from Skagit County building department authorizing water department personnel to inspect premises outside La Conner Town limits.

2) New connections are reviewed by county building department as part of permitting process, with additional evaluation by water department personnel before hookup. Periodic review to be done by on-site visits and observations, to be coordinated with meter reading activities throughout the year, to determine that no change of use or modification has occurred.

3) Degree of hazard and appropriate prevention procedures to be determined during annual inspection by designated program administrator who shall be a certified CCS 1. AWWA manual M14, 'Recommended Practice for Backflow Prevention and Cross Connection Control' along with UPC and WAC 246-290, 248-54-820, RCW 19.27, as well as the 'Cross Connection Control Guidance Manual for Small Systems' standards are to be followed.

4) Designated CCS administrator to coordinate with Public Works Director in development and implementation of new standards or policies, along with appropriate Department of Health and other agency personnel where required.

5) Backflow Incident Procedures:
   a) immediate isolation of premises from public water supply
   b) determination of incident and area(s) affected by physical inspection
   c) degree of hazard and action required; i.e., isolation of water main(s), public and agencies to be notified, Etc.
   d) other measures to be determined by appropriate entities.
   e) completion of backflow incident report

6) Quality Assurance/ Certification: Forms to be provided for copies of tester certification, test kit calibration documentation, test report contents for each device tested along with a timeline, (30 days),for report submittal upon test completion to department.

7) Information/Education Program: Initial notification in the first year shall contain a brief explanation of the program along with additional information if requested. Copies of regulations will be available at the water department office. Additional information to be provided with consumer confidence report annually.

8) A master list and inventory shall be kept at the water department office including but not limited to; location of premises with backflow devices, the type of device, date of installation, date of inspection, name of inspector, owners name, installers name, manufacturer, repairs, etc. A list of backflow incident reports and a program summary report, along with other policies and procedures and regulations shall be kept under this program as well. All pertinent regulations and procedures involving cross connection control shall be kept updated and available in the appropriate location as well.

Town of La Conner

ORDINANCE NO. 748

AN ORDINANCE REVISING WATER CROSS CONNECTION STANDARDS

Whereas, the Town of La Conner currently supplies potable water to its citizens; and

Whereas, current water cross connection requirements are contained in Chapter 12.25 of the La Conner Municipal code; and

Whereas, regulations covering cross connections are promulgated by the Washington State Department of Health (DOH); and

Whereas, it is deemed to be in the public interest and in compliance with DOH regulations to revise water cross connections standards for the Town of La Conner; and

Whereas, water cross connections pose a serious and immediate threat of contamination to the La Conner water system and to the health and welfare of the systems users.

NOW THEREFORE BE IT ORDAINED that the following water cross connection standards are adopted:

Section 1. Sections 12.25.010 and 12.25.020 of the current La Conner Municipal Code are hereby abolished.

Section 2. A new section 12.25.010 is hereby added to read:

12.25.010 Definitions

Air Gap Separation - The physical vertical separation between the free flowing discharge end of a potable water supply pipe line and the open or non-pressure receiving vessel.

Approved Backflow Prevention Assembly - An assembly which has been approved by the State and the Town, for preventing backflow.

Atmospheric Vacuum Breaker - (also known as an anti-syphon valve) A device consisting of a single check valve in the supply line that opens to the atmosphere when the pressure in the line drops to atmospheric.

Auxiliary Water Supply - Any supply of water used to augment the supply obtained through the Town's water system which serves the premises in question.

Backflow - The flow of water or other fluids in the direction opposite to the normal flow.

Backflow Prevention Assembly Tester - An individual who is certified by the State and approved by the Town to test Backflow Prevention Assemblies.

Check Valve - A valve that permits flow in only one direction.

Contaminant - Ant physical, chemical, biological, or radiological substance or matter in water which may render water non-potable, according to State regulations.

Cross Connection - Any link or channel between piping which carries potable water and the piping or fixtures which carry non-potable water or other substances.

Cross Connection Inspector - An individual certified by the State and approved by the Town to inspect for cross connections.

Customer System - All plumbing, piping, and appurtenances on the customer side of the point of metering or connection.

Double Check Valve Assembly - An assembly of two independently acting check valves with a shut off valve on each side of the two check valves. The assembly also has test ports for checking the water tightness of each check valve.

Double Detector Check Valve Assembly - Same as a Double Check Valve Assembly with the addition of a water meter and an additional Double Check Valve Assembly bypassing the main line assembly for the purpose of measuring low or proportional flow.

Facility Survey - An on-site review of the water source, facilities, equipment, operation, and maintenance for the purpose of evaluating the hazards to the drinking water supply.

Pressure Vacuum Breaker Assembly - A mechanical assembly consisting of one spring loaded check valve in the supply line and a spring loaded air inlet on the downstream side of the check valve which will open to atmosphere when the pressure in the assembly drops below one pound per square inch. The complete assembly consists of two shut off valves and two test ports for checking water tightness of the check valve.

Reduced Pressure Backflow Prevention Assembly - (RP) An assembly for preventing backflow incorporating two check valves, a differential relief valve located between the two check valves, two shut off valves, one on each end of the assembly, test ports for checking water tightness of the check valves and the operation of the relief valve.

Reduced Pressure Detector Assembly (RPD) Same as an RP Assembly with the addition of a water meter and an additional RP Assembly bypassing the main line assembly for the purpose of measuring low of proportional flow.

Safe Drinking Water - (Potable Water) Water which has sufficiently low concentrations of microbiological, inorganic chemical, radiological or physical substances so that individuals drinking such water at normal levels of consumption will not be exposed to disease organisms or other substances which may produce harmful physical effects.

Secondary Contaminant - Contaminants which at levels generally found in drinking water do not present unreasonable risk to health, but do adversely affect taste, odor, or color.

Service Connection - The point of delivery of water at or near the property line, generally at the water meter.

Section 3. A new section 12.25.020 is hereby added to read:

12.25.020 Customer System Open For Inspection

The customer system shall be open for Facility Survey at all reasonable times to the Town to determine whether cross connections or other structural or sanitary hazards including violations of these regulations exist. When such a condition becomes known, the Town's Cross Connection Inspector shall cause the service to the premises to be immediately discontinued or denied by a physical break in the service until the customer has corrected the condition in conformance with these regulations.

Section 4. A new section 12.25.030 is hereby added to read:

12.25.030 Backflow Prevention Requirements

Backflow prevention assemblies shall be installed on each service line of a customer's system at or near the property line or immediately inside the building being served, but in all cases before the first branch line leading off the service line wherever, in the opinion of the Town's Cross Connection Inspector, any of the following conditions exist:

1. There is an auxiliary water supply which is, or could be, connected to the potable water piping.

2. Where there is piping for conveying liquids other than potable water, and where that piping is installed and operated in a manor which could cause a cross connection.

3. There are cross connections or intricate plumbing which make it impractical to ascertain whether or not a cross connection exists.

4. In the case where there has been a history of repeating the same or similar cross connection or a backflow, even though these have been removed or disconnected.

5. Where there is a building over two stories in height or any plumbing system that is greater than or equal to thirty feet above the water main from which it is served.

6. Where fire hydrants or fire systems are connected to the potable domestic water service within the property being served.

7. Where a single water service is used to supply three or more dwellings.

8. Where the water meter serving the property is one and one half inch or larger.

9. Where there is backflow or backsiphonage potential.

10. Where any fixture is subject to being submerged.

11. Where the system is not open for inspection.

Section 5. A new section 12.25.040 is hereby added to read:

12.25.040 Type of Backflow Protection Required

The type of protection required shall be commensurate with the degree of hazard which exists, in the opinion of the Town's Cross Connection Inspector, as follows:

1. An approved Air Gap of at least twice the inside diameter, but not less than one inch, of the incoming supply line measured vertically above the top rim of the vessel, or an approved Reduced Pressure Backflow Prevention Assembly shall be installed where the substance which could backflow is a contaminant or potentially hazardous to health. Examples would include, but not be limited to, hospitals, mortuaries, car washes, medical clinics, auxiliary water systems, etc.

2. An approved Double Check Valve Assembly shall be installed where the substance which could backflow is a secondary contaminant. Examples would include, but not be limited to, landscape irrigation systems, multiple dwelling units served by a single water service, etc.

3. An approved Pressure Vacuum Breaker or an Atmospheric Vacuum Breaker shall be installed where the substance which could backflow is objectionable but does not pose a risk to health and where there is no possibility of backpressure in the downstream piping.

4. In the case of all private fire systems, an approved Backflow Prevention Assembly installed to the Town's construction specifications shall be required. The Town may require a monitoring meter or detection system to detect unauthorized use or leakage within the system. The type of Backflow Prevention Assembly shall be as follows:

    A. Low Hazard - Systems with or without a pumper connection but no auxiliary water supplies available, chemicals or additives. or other detectable cross connections require a Town approved Double Check Valve Assembly.

    B. High Hazard - Systems with auxiliary water supplies, chemical additives, or other detectable cross connection shall require a Town approved Reduced Pressure Backflow Prevention Assembly.

Section 6. A new section 12.25.050 is hereby added to read:

12.25.050 Approval of Assemblies

All Backflow Prevention Assemblies required under this ordinance shall be of a type and model approved by the State and the Town of La Conner.

Section 7. A new section 12.25.060 is hereby added to read:

12.25.060 Owners Duty For Inspection

It shall be the duty of the assembly owner of any premise where backflow assemblies are installed to have the assembly tested and certified as working immediately upon installation, and at least once a year, or more often in those instances where successive inspections indicate repeated failure. The frequency of these tests or the replacement of the assembly because of repeated failure is at the sole discretion of the Town. The tests, repairs, and/or replacement of any backflow prevention assembly shall be at the sole and complete expense of the assembly owner and performed by a Backflow Prevention Assembly Tester who is currently certified by the State and approved by the Town. Test, repair, and/or replacement shall be performed within thirty (30) days of the test due date. The assembly owner is required to contact a Tester who can perform the test in the necessary time period. The Town will notify the owner each year when the assembly is due for testing. The assembly owner shall notify the Town a minimum of forty eight (48) hours in advance of when a test is to be performed, so that the Town's Cross Connection Inspector may witness the test if they so desire. Records of such tests, repairs, and/or replacement shall be submitted to the Town within ten (10) days of such tests, repairs, and/or replacement.

Section 8. A new section 12.25.070 is hereby added to read:

12.25.070 Previously Installed Assemblies

Backflow Prevention Assemblies which were approved at the time they were installed but are not on the current list of approved assemblies shall be permitted to remain in service provided they, in the opinion of the Town, are properly maintained, are commensurate with the degree of hazard, are tested at least annually, and perform satisfactorily. When assemblies of this type are moved, or require more than minimum maintenance, they shall be replaced by assemblies which are on the list of approved assemblies by the State and approved by the Town.

Section 9. A new section 12.25.080 is hereby added to read:

12.25.080 Enforcement

1. The Cross Connection Inspector shall cause the water service to the premise to be immediately discontinued or denied by a physical break in the service until the customer has corrected the condition in conformance with this ordinance in any of the following situations:

   A. When it becomes known that a condition such as a cross connection, plumbing, structural, or sanitary hazard, or other violation of this ordinance is present.

   B. In those cases of extreme emergency, and where an immediate threat to life or public health is found to exist.

C. When, in other cases and after a reasonable length of time has been allowed as determined solely by the Town's Cross Connection Inspector, the tests, repairs, and/or replacement of assemblies or any other requirement within this ordinance is not performed in accordance with this ordinance.

2. Written notice of disconnection shall be provided to the property owner of record and the occupant. Within five (5) days thereafter, the owner or occupant may appeal the disconnection by filing an appeal with the Hearings Examiner who shall have authority to hear such appeal. The Hearings Examiner shall conduct an open record hearing and render a decision within ten (10) days of receipt of a properly filed appeal. The appeal must be accompanied with a fee of $150.00 together with a $300.00 deposit to be used to defray, in full or part, the actual cost of the Hearing Examiner's fees charged to the Town.

Dated this 13th day of July, 1999

Bud Moore
MAYOR

ATTEST:

Debby Malarchuk
TOWN CLERK

APPROVED AS TO FORM:

TOWN ATTORNEY

TOWN OF LA CONNER
204 DOUGLAS ST. • P.O. BOX 400
LA CONNER, WASHINGTON 98257
PHONE: (360) 466-3125 • FAX: (360) 466-3901

ERON BERG,
MAYOR

GREG YOUNG,
ADMINISTRATOR

Dear_____

The protection of the potable water supply of the Town of La Conner is a matter of mutual concern and benefit.

Pursuant to WAC 246-290-010 and RCW 19.27 along with Ordinance 748 regulating our Cross-Connection Control Program, our inspectors will be conducting inspections of the potable water system in building(s) under your control. This program is required under Health Department regulations and state law.

Some literature explaining the need for backflow prevention is attached for your information. Our inspector will phone to make appointments for someone to participate in the inspection and set a date for such inspection. Should you require further information on the Cross-Connection Program please feel free to contact the La Conner Water Department at 466-3933.

Thank you for your cooperation!

Yours truly,

Brian Lease

Cross-Connection Control Officer

TOWN OF LA CONNER
DETERMINATION OF NON-SIGNIFICANCE (DNS)/NOTICE OF PUBLIC HEARING (NOH)

Date: February 3, 2025

Application File #: WSP-SEPA 2025

Applicant: Town of La Conner

Owner: Town of La Conner

Town Contact Person: Brian Lease, Public Works Director; P.O. Box 400, La Conner, WA 98257; 360-466-3125

Project Location: Town of La Conner.

Assessor Tax Parcel: N/A effects entire Town

Project Description: 2025 Water System Plan Comprehensive Update

Lead Agency: Town of La Conner

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. This decision was made after review of a completed environmental checklist and other information on file with the lead agency, and is available to the public upon request.
This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by February 25, 2025.

CONSISTENCY OVERVIEW:

Date of Permit Application: February 1, 2025

Date of Determination of Completeness: February 1, 2025

Land Use Designation: N/A

Public Hearing: February 25, 2025, 6:00 pm, Upper Maple Center, La Conner, WA.

Environmental Documents That Evaluate the Proposed Project: SEPA Checklist dated February 1, 2025.

The application and materials are available for review at Town Hall.

If you have any questions concerning this project, contact Town Hall at (360) 466-3125 or email publicworks@townoflaconner.org.

Issued: February 3, 2025
Published: February 6, 2025

townoflaconner.org/259/Public-Notices

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ALERT

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Home › Departments › Planning, Permits & Codes › Public Notices

PUBLIC NOTICES

When an applicant submits a Class II, Class III, Class IV, or Class V permit,
public notice requirements in LCMC 15.135.110, public notices will also b

- DNS - 2025 Spring LCMC Update (PDF)
- DNS August 2024 Capital Facilities Plan Update (PDF)
- DNS UDC Update November 2024 (PDF)
- DNS.NOH Water Comprehensive Plan 2025 Update 2.3.2025 (PDF)
- DNS/NOH - 2025 Comp Plan Update (PDF)

DEED AND AGREEMENT AS TO WATER SYSTEM

This is an Agreement dated February 1, 1977, between SKAGIT BEACH, INC. and The City of LaConner, Washington.

SKAGIT BEACH, INC. has installed a water system in the following described real property, situate in Skagit County, Washington:

> Plat of Skagit Beach No. 1, as per plat recorded in Volume 8 of Plats, page 71; the Plat of Skagit Beach No. 2, as per plat recorded in Volume 9 of Plats at page 25; Plat of Skagit Beach No. 3, as per plat recorded in Volume 9 of Plats, page 26; Plat of Skagit Beach No. 4, as per plat recorded in Volume 11 of Plats, page 45; Plat of Skagit Beach No. 5, as per plat recorded in Volume 10 of Plats, page 27, all records of Skagit County, Washington, together with adjacent property.

The City of LaConner has been furnishing water through this system. SKAGIT BEACH, INC. desires to transfer all interest in the water lines and facilities to the City of LaConner and the City of LaConner is willing to accept the water lines and assume the maintenance, repair and operation of the existing system. It is, therefore, agreed between the parties as follows:

1. Skagit Beach, Inc. hereby sells, assigns, sets over and conveys to the City of LaConner, all interest in the water system supplying the real property above described.

2. The City of LaConner accepts the water system.

3. The City of LaConner agrees to maintain and repair the system and make maintenance replacement of the existing system.

4. The City of LaConner does not obligate itself to expand the system nor make any improvements thereto, including enlarging the lines or upgrading the system.

5. If it be desired that there be additions to the system or improvements to the existing system, the City of LaConner shall not have any responsibility, financial or otherwise, in connection therewith, nor does the City, in advance, agree to assume the responsibility for the maintenance and repair of any subsequent additions to the system.

IN WITNESS WHEREOF, the parties have hereunto set their hands.

SKAGIT BEACH, INC.

By J. M. Johnson
Its President

CITY OF LA CONNER

By Frederick S. Martin
Its Mayor

Attest:

Elizabeth Emmanuel
Its Clerk

BANNISTER, BRUHN & CUNINGHAM
ATTORNEYS AT LAW
415 PINE STREET
MOUNT VERNON, WASHINGTON 98273
TELEPHONE 336-2191

Town of LaConner

Phone 466-3125

September 13, 1982

Skagit County Planning Department
County Administration Building, Room 216
Mount Vernon, Washington 98273

Dear Sirs:

REZONE REQUEST R-82-017

The Town of La Conner is concerned with the ability of the water lines serving Skagit Beach area to adequately serve additional residences in that area.

The Town of La Conner Water Department foreman has been on vacation for the past two weeks and has not been available to comment on this proposal.

We ask that the Town be consulted and involved in the platting process so that we may address the water availability.

Thank you for the opportunity to respond to this matter.

Sincerely yours,

MARY M. LAM
Mayor

kae

LaConner, Washington 98257 P.O. Box 400

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
1511 Third Ave., Suite 719 • Seattle, Washington 98101-1632

February 5, 1993

Mr. Daniel O'Donnell, Mayor
Town of LaConner
P.O. Box 400
LaConner, WA 98257

SUBJECT: LaConner Water System, Skagit County
Skagit Beach Extension

Dear Mayor O'Donnell:

Our department has received correspondence from the Skagit County Department of Health regarding the adequacy of the LaConner Water System's Skagit Beach line serving the Skagit Beach Extension (see attachment).

The Engineering Report provided by Inca Engineers clearly states that these facilities are not capable of providing adequate flows.

We understand that Skagit Beach is within the LaConner water service area but is outside of your incorporated city limits and that Skagit County is the land use and building permit authority for the area in question.

Section 63 of the Growth Management Act requires evidence of an adequate water supply prior to the issuance of a building permit. Since Skagit Beach is within LaConner's water service area, it is the responsibility of LaConner to agree to provide water service or to deny requests for water service within their service area based on the adequacy and capability of the water system to provide a specified level of service. An indication of water availability issued by LaConner is a necessary prerequisite before Skagit County can issue a building permit within the unincorporated portion of the LaConner water service area.

If the LaConner water system is not capable of providing a required level of service, it is LaConner's responsibility to deny the request for water service. If water service to this area cannot be provided in a timely and reasonable manner, then LaConner may wish to relinquish that portion of their service area.

I hope our department's views are of help. If you have questions, please contact me at (206) 587-5619.

Sincerely,

Richard Rodriguez
Regional Planner
NW Drinking Water Operations

RR:ss

cc: Skagit County Commissioners
Dave Hough, Interim Director, Skagit County Planning and Community Development
Kraig Olason, Skagit County Planning and Community Development
John Thayer, Director of Environmental Health, Skagit County Department of Health
Bert Wells, President, Skagit Beach Association
Derek Pell, DOH

SKAGIT COUNTY DEPARTMENT OF HEALTH
Administration Building, Mount Vernon, Washington 98273
Telephone 336-9380
Memorandum

TO: Bert Wells home: 466-4862 pager: 758-9179
President, Skagit Beach Association
1506 Channel Drive
LaConner

FROM: Lorna Haycox

DATE: February 5, 1993

SUBJECT: Skagit Beach Extension
LaConner Water System

Today I spoke with Richard Rodriguez of the State Department of Health.

He is in the process of drafting a letter to the City of LaConner. I believe that it will be sent out soon. I requested that you be sent a copy also.

Richard expressed that the:
1. City of LaConner bears the responsibility to follow the drinking water regulations (WAC 246-290) and to deny additional houses until adequate flow is achieved based on the INCA engineering report.
2. The City of LaConner has chosen the Skagit Beach area as their Service Area. If LaConner can not serve in a timely and/or reasonable manner LaConner may wish to relinquish that area.

I realize that this does not provide a solution to your dilemma. Ultimately, the solution should be negotiated between the residents and the City of LaConner.

Richard felt that his letter will clearly explain their position and therefore will not need to attend the night meeting.

John Thayer (Director of Environmental Health) and I are still willing to attend your night meeting. Please let me know the date and time.

cc: Skagit County Commissioners
Dave Hough, Skagit County Planning and Community Development
Kraig Olason, Skagit County Planning and Community Development
Mayor Dan O'Donnell, City of LaConner
Derek Pell, State Department of Health
Richard Rodriguez, State Department of Health
John Thayer, Director of Environmental Health

MARTIN R. LIND
ATTORNEY AT LAW
127 EAST FAIRHAVEN
BURLINGTON, WASHINGTON 98233
TELEPHONE (206) 755-9631

May 5, 1993

Mr. Dan O'Donnell, Mayor
Town of La Conner
PO Box 400
LaConner, WA 98257

RE: Skagit Beach

Dear Mayor O'Donnell:

I represent Skagit Beach, Inc., and this letter is for the purpose of confirming my client's position with respect to proposed improvements to the water supply system serving the plats of Skagit Beach.

Skagit Beach, Inc., gave up any interest it may have had in the water system serving Plats 1 - 5 of Skagit Beach by Deed dated February 1, 1977. It has not asserted any interest during the period since that Deed was executed and does not now assert any interest in the water system nor has it retained or assumed any obligation for the maintenance, improvement, alteration, etc. Skagit Beach, Inc., has not been consulted in any manner since February 1, 1977, concerning the maintenance or operation of the water system and, with the exception of connecting Plat #6 of Skagit Beach, has had no involvement of any sort, with the operation of the system.

If I may be of further assistance in clarifying my client's position, please contact me.

Very truly yours,

MARTIN LIND

ML/ll
cc: Client

WATER SAMPLE STATION # 4

WATER SAMPLE STATION # 2

HYDRANT AND BLOWOFF BEHIND SEED COMPANY

PORT OF SKAGIT COUNTY MARINA

SWINOMISH INDIAN RESERVATION

RESERVATION ROAD

W. PEARL JENSEN WAY

S PEARLE JENSEN WAY (PRIVATE)

FISHERMAN RD

NORTH BASIN STREET (PRIVATE)

SOUTH BASIN STREET (PRIVATE)

DUNLAP STREET (PRIVATE)

VACATED JORDAN STREET

CENTER STREET

MORRIS STREET

TOWN OF LA CONNER

SKAGIT COUNTY

TILLINGHAST DRIVE

SIRCH LANE

LACONNER WHITNEY ROAD

14" AC, LACONNER WHITNEY ROAD

8" AC

PRV 1

PRV 2

PRV 5

PRV 7

3" PRV

HYD

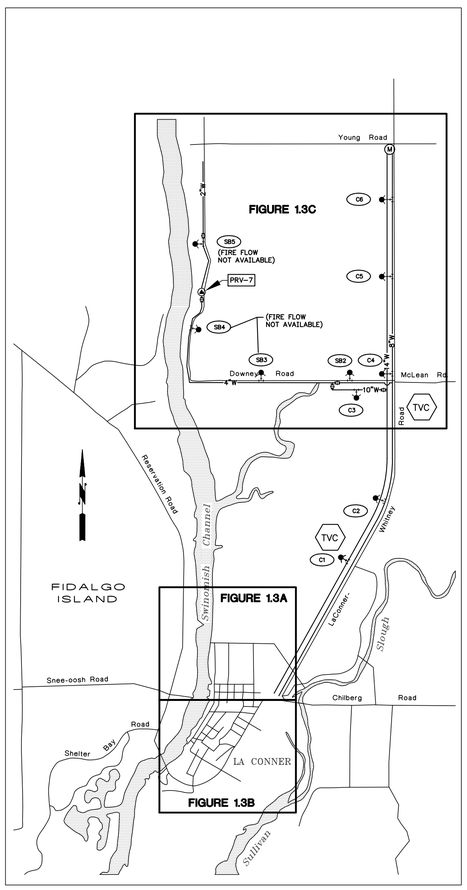
ARV 2

BO 2

2" SVC VLV & FOOTBALL FIELD MTR

2" SVC VLV & YD HYD

MATCHLINE - SEE FIGURE 1.3B FOR CONTINUATION



SCALE 1"=3000'

LEGEND

N### S###		FIRE HYDRANT
		VALVE
12" DI		WATER MAIN
• PRV #		PRESSURE REDUCING VALVE

N

SCALE

300 0 150 300 600

(FEET)

1 INCH = 300 FT.

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Suite 400
Bellevue, WA 98007
425.519.6500

Plot Date: 5/14/2025 10:33 AM By: Scott Stcherbinine
Save Date: 1/22/2025 11:17 AM By: Sys File:P:\TITOLC000020\80400\CAD\SHEETS\ECTOLC2008 - Figure 1.3A_B_C - Current.dwg

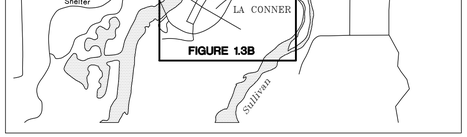
Town of La Conner Water System Plan

1.3A (NORTH HALF)

SYSTEM FACILITIES MAP

MATCHLINE - SEE FIGURE 1.3A FOR CONTINUATION





SCALE: NTS

LEGEND

N220		FIRE HYDRANT
	•	VALVE
12" DI		WATER MAIN
• PRV 7		PRESSURE REDUCING VALVE

N

SCALE
300 0 150 300 600
(FEET)
1 INCH = 300 FT.

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Suite 400
Bellevue, WA 98007
425.519.6500

Plot Date: 5/14/2025 10:33 AM By: Scott Sticherbinine
Save Date: 1/22/2025 11:17 AM By: Sys File: P:\IT\TOLC\000020\08\400\CAD\SHEETS\ECTOLC2008 - Figure 1.3A_B_C - Current.dwg

Town of La Conner Water System Plan

1.3B (SOUTH HALF)

SYSTEM FACILITIES MAP

YOUNG ROAD

8" ACACORDES SOURCE METER

12" DI

16" C909

LACONNER WHITNEY ROAD

C8

16" C909

ARV 3

C7

LACONNER WHITNEY ROAD

16" C909

C6

SP110

2" PVC

CHANNEL DRIVE

2" PVC

4" PVC

SB5

CHANNEL DRIVE

4" AC

BO4

2" PVC

4" AC

SB4

WATER SAMPLE STATION # 5

ARV 4

C5

16" C909

LACONNER WHITNEY ROAD

6" C-900

CHANNEL DRIVE

ARV

SB3

6" DI

DOWNEY ROAD

2"

DOWNEY ROAD

4" AC

DOWNEY ROAD

SB2

DOWNEY ROAD

4" AC

DOWNEY ROAD

4" AC

C4

4" AC

4" POLY

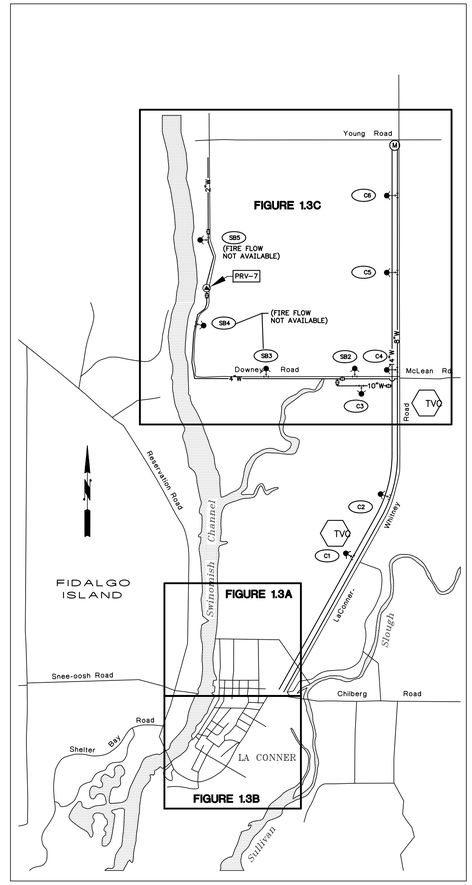
C3

10" DI

14" AC

8" AC

LACONNER WHITNEY ROAD



SCALE: NTS

LEGEND

N220		FIRE HYDRANT
		VALVE
12" DI		WATER MAIN
PRV 7		PRESSURE REDUCING VALVE

N

SCALE
500 0 250 500 1000
(FEET)
1 INCH = 500 FT.

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Suite 400
Bellevue, WA 98007
425.519.6500

Plot Date: 5/14/2025 10:33 AM By: Scott Sicherbinine
Save Date: 1/22/2025 11:17 AM By: Sys File: P:\TIVTOLC000002\08\00400CAD\SHEETS\ECTOLC2008 - Figure 1.3A_B_C - Current.dwg

Town of La Conner Water System Plan

1.3C

SYSTEM FACILITIES MAP

APPENDIX B – SEPA CHECKLIST

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   Town of La Conner 2024 Comprehensive Water System Plan

2. **Name of applicant:**

   Town of La Conner Public Works

3. **Address and phone number of applicant and contact person:**

   Brian Lease

   Director of Public Works

   604 N 3rd Street, La Conner, WA 98257

   Ph: (360) 466-3933

4. **Date checklist prepared:**

   August 2024

5. **Agency requesting checklist:**

   Town of La Conner

6. **Proposed timing of schedule (including phasing, if applicable):**

   Adoption of Water Service Plan - 2024.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   Town growth and redevelopment will require possible new service connections and upgraded sizing for customers to meet demand. Known improvements are included in Chapter 8. Town will implement and update the Water Service Plan as such growth, regulatory requirements, and system conditions warrant.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   The Town of La Conner has a Comprehensive Plan that includes Critical Area mapping and narrative.

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   No applications are known.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

No permits required for this plan's adoption. Washington State Department of Ecology, Washington State Department of Health, and Skagit County Planning need to approve the plan prior to adoption.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Plan discusses the existing and proposed conditions of the Town of La Conner portions served by the water system. The Plan discusses proposed system expansions and/or improvements, population projections, and summarizes funding and financing strategies.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The Town of La Conner is located on the west central side of the Skagit County. The Town of La Conner service area is located in southwestern Skagit County in portions of Sections 24, 25 and 36, Township 34 North, Range 2 East, W.M. and Sections 19, 30 and 31. Township 34 North, Range 3 East, W.M. A copy of Figure 1-1 indicating the District boundary and service area is attached to this checklist.

B.Environmental Elements

1. Earth

Find help answering earth questions[3]

a. General description of the site:

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

Generally flat with some hills and local, steep slope formations near the center of Town.

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

b. What is the steepest slope on the site (approximate percent slope)?

Steepest slope is approximately 50%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Three primary soil groups are identified in the Soil Survey for Skagit County Area, Washington, U.S.D.A., May, 1992. Very deep, moderately well to poorly drained, clay/sandy loams comprise the majority of the area's soil.

Number	*Name*
55	*Fidalgo-Lithic Xerochrepts-Rock Outcrop Complex, 3 to 30 percent slopes*
123	*Skagit Silt Loam*
136	*Sumas Silt Loam*

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No. There are regulated slopes (15% min. over 10' elevation change) within the Town and in the south portion of the service area that are regulated by the Critical Areas Ordinance.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Water line trenches for repair/replacement and developer extensions will be excavated and backfilled as much as possible with native material. The town or county may require imported backfill depending on the condition and type of native soil. Bedding and backfill will come from local suppliers to the maximum extent practical.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

Erosion during construction is possible but should be minimal. Construction erosion requirements will be imposed. Construction, within the Town's limits, will typically take place in the public right-of-way, minimizing or eliminating the need for additional clearing. Implementing best management practices such as those contained in the Town's Stormwater Management Plan will minimize erosion during construction.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

No plans to replace the existing cover with impervious surfaces unless the unit already exists under impervious surfacing such as in the right-of-way. Impervious surfaces include asphalt and concrete road surfaces.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

The construction documents will require the Contractor to utilize erosion/sedimentation control measures to prevent erosion by covering erodible embankments, hydroseeding, filter fabric and straw bale filters and other measures as necessary to meet local and state requirements. The Contractor will be required to schedule operations such that the excavation, embankment and restoration work proceeds commensurate with his ability to complete restoration, mulching, seeding, and other erosion control measures immediately following disturbance of the earth. Implementing best management practices such as those contained in the Town's Stormwater Management Plan will minimize erosion during construction.

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Normal dust and machinery emissions during construction; no emissions after construction. The Contractor will be required to limit emissions as required by the appropriate regulatory agencies and to control dust emissions so as not to damage property or vegetation or create a nuisance for the public.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Contractor will be required to control dust during construction, within the Town's limits. Best management practices as published in the Town and other Erosion control design guidelines will be required.

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

3. Water

Find help answering water questions[5]

a. Surface:

Find help answering surface water questions[6]

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

   Swinomish Channel forms the west boundary of the service area. Higgins Slough drains the north portion of the service area into Swinomish Channel. The District 15 drainage ditch across the north part of the Town empties into the Channel. The Skagit River, Sullivan Slough, and other sloughs are located southeast of the service area. A wetland area is delineated on the Town's Critical Areas Map.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   Individual projects will be designed and constructed in compliance with all applicable local, State and Federal requirements. Some projects may require construction within 200 feet of said waters and will be subject to the appropriate shoreline permits and/or the Town's Shoreline Master Program.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   Generally, all areas impacted by construction will be restored to original contours. Construction will consist of excavation of water line trench (average 3' deep, ½ CY per foot of trench) and installation of pipe and backfill with native materials. Poor materials with close proximity to, or location within, a roadway, may receive backfill gravel to replace native material as required by the Town or County. Maximum amount of gravel should be approximately half of the trench cross-section. Backfill gravel would come from local materials yards to the maximum extent practical.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   No

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water
[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

Yes. Approximately 200 acres, or 77 percent of the Town and most of the service area outside the town is at or below the 100 year flood elevation of 11.52 feet (NAVD 88).

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No

b. Ground:

Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

   No

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   No

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   Completed projects will not result in an appreciable amount of increased impervious area. Current drainage patterns are not anticipated to be altered by the finished projects.

   Stormwater runoff impacting the construction zones will be intercepted for sedimentation control prior to release to its normal outfall.

   Typical construction documents will require the Contractor to utilize sedimentation control facilities per the specifications and local/state requirements to ensure that sediment-laden water does not enter the natural drainage system.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

With required erosion and sediment controls in place no waste materials should enter ground or surface waters.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   Drainage patterns are not anticipated in Town projects. Private development may generate small pattern changes as needed, such as to connect into the Town Storm water system. New construction would be in accordance with local development regulations.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Erosion/sedimentation control facilities will be required as discussed in response to 3.c.1. above. New construction would be in accordance with local development regulations.

4. Plants

Find help answering plants questions

a. Check the types of vegetation found on the site:

☒ **deciduous tree: alder, maple, aspen, other**

☒ **evergreen tree: fir, cedar, pine, other**

☒ **shrubs**

☒ **grass**

☒ **pasture**

☒ **crop or grain**

☒ **orchards, vineyards, or other permanent crops.**

☒ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☒ **water plants: water lily, eelgrass, milfoil, other**

☒ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

Low growing vegetation such as grasses, forbs, small shrubs and trees along the roadside shoulders may be directly affected by excavation within existing road rights-of-way. Cut trees is expected to be replaced with native plant nursery stock or as recommended by an Arborist, and the road shoulder/ditch areas will be reseeded with native grasses and forbs.

c. List threatened and endangered species known to be on or near the site.

None.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

Avoidance: The following measures may be incorporated into the construction plans, for projects within the study area, to avoid impacts to existing plant communities and other wildlife habitat features.

- *The projects will be planned to limit construction impact to within existing road rights-of-way where feasible.*
- *Large trees and native plants of significance will be flagged and avoided where feasible.*

Reduction of Unavoidable Impacts: The following measures may be incorporated into the construction plans, for projects within the study area, to reduce unavoidable impacts to existing plant communities and other wildlife habitat features.

- *Vegetable will be cleared, where needed, or laid-over rather than removed by excavation.*
- *Topsoil from the trench will be stockpiled separately for short periods of time and replaced above the subsoil fill. This approach will allow for the survival of plant regenerative parts (root, stems, rhizomes and seeds)(present in the exiting topsoil.*
- *Silt fences and hay bales will be placed in areas of steep slope to avoid erosion and sedimentation of wetland plant communities.*

Compensatory Mitigation Measures: The following measures may be incorporated into the construction plans, for projects within the study area, to compensate for unavailable impacts to existing plant communities and other wildlife habitat features.

- *Large woody debris will be left on-site as nurse logs and wildlife habitat features.*
- *Disturbed areas will be hydroseeded with a seed mixture containing native grasses and forbs.*
- *Native plant tree and shrub nursery stock will be planted to compensate for unavoidable loss or larger trees and portions of native plant communities.*

e. List all noxious weeds and invasive species known to be on or near the site.

None known in any specific area of the Town. The Skagit County Noxious Weed list provides a full list of identified species in the County and was used as a basis for the response. List can be downloaded here: https://skagitcountywa.gov/Departments/NoxiousWeeds/weedlist.htm

5. Animals

Find help answering animal questions[8]

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

- **Birds: hawk, heron, eagle, songbirds**
- **Mammals: deer**
- **Fish: salmon, trout, herring, shellfish, steelhead, smelt**

b. List any threatened and endangered species known to be on or near the site.

Bald eagles, peregrine falcons, marbled marlet have been reported in nearby areas. No nesting states have been reported within the service area.

c. Is the site part of a migration route? If so, explain.

The service area lies within the north-south migration route of birds along the Pacific coastline. The area is not part of a migration route for large mammals.

d. Proposed measures to preserve or enhance wildlife, if any.

None proposed.

e. List any invasive animal species known to be on or near the site.

The Washington Invasive Species Council tracks various species. No known invasive animals have been confirmed in La Conner. The Washington Invasive Species Council tracks various species in the State which serves as a basis for the response. Site is here: https://invasivespecies.wa.gov/

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Fuel for operation of equipment during construction.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals
[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

None.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

Primary exposure risk would likely occur during construction from machinery and construction practices. Exposures include spills of oil, hydraulic fluid, and gas because of improper filling and/or machinery failures.

1. **Describe any known or possible contamination at the site from present or past uses.**

   Brownfield sites are known to exist in the area. Site remediation in accordance with local, state, and federal regulations is to be required prior to new construction.

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   Buried natural gas lines is the main source of potential impacts. Coordination with the gas utility for accurate mark out and design coordination is required on all projects to help mitigate risks.

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   Gasoline could be stored onsite for use with small tools and equipment. Propane or equivalent compressed fuel may be onsite for any temporary heating required on a project.

4. **Describe special emergency services that might be required.**

   Spill cleanup kits are required to have stored gasoline onsite. Local fire department is typically notified when any significant fire/explosion hazard is present on a site.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   Spill clean-up services during construction are to be required. Site security may be enhanced to protect some hazards. Further, Contractors are to hold routine safety meetings and comply with OSHA/WISHA.

[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Typical noise in the Town includes traffic with occasional emergency sirens.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   Additional noise from construction include that from heavy equipment and any temporary power/pumping required on a project.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Limiting construction to daylight hours, sound attenuation for equipment operating overnight, and other measures as required by federal, state, and local regulations.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Construction is typically planned within public road rights-of-way. The Town is primarily residential with a supporting amount of business-commercial The service area outside of town consists of agricultural floodplains, forested uplands, wetlands, priority habitats, and a complex system of river and marine waters.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Large portions of the water service area is currently zoned and utilized for agriculture.

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

   Impacts to farm access include temporary restrictions resulting from construction. Contractors are required to maintain access for local traffic when able. Coordination with the farms is expected so as not to impair their operations unless it cannot be avoided.

c. Describe any structures on the site.

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

Various residential and commercial structures can be found within the Town and surrounding water service area.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

The current zoning in the town and surrounding areas is shown in Figure 1-1 of the Plan, per Town of La Conner Zoning Map.

f. What is the current comprehensive plan designation of the site?

See 8.3 above.

g. If applicable, what is the current shoreline master program designation of the site?

Urban, historic

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Approximately 1.1 acres of the Town has been designated as non-marine wetlands as seen on the Town's Critical Areas Map. Other wetland areas include the ports and areas along the Swinomish Channel. The non-marine wetland site is located in the southeastern area of the Town and does not include any of the projects identified in the Capital Improvement Plan.

i. Approximately how many people would reside or work in the completed project?

Projected Permanent Residential Population of the Town assuming growth per County Planning (1%):

Year	*2024*	*2025*	*2030*	*2034*
Population	*1,003*	*1,013*	*1,062*	*1,090*

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any.

None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

Review and approval by the Town of La Conner as well as other agencies having jurisdiction.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Zoning codes and utility availability preclude large scale development. The City of Anacortes would need to approve any demand increase exceeding 10%. These aspects are expected to help avoid loss of farmland for large residential and commercial development.

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

   None

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

   None

c. **Proposed measures to reduce or control housing impacts, if any:**

   None

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

   All projects identified in the Capital Improvement Plan are not likely to involve above grade structures to the point of altering aesthetics.

b. **What views in the immediate vicinity would be altered or obstructed?**

   None

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

   None

11. Light and glare

Find help answering light and glare questions[14]

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   None

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing
[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. Recreation

Find help answering recreation questions

a. What designated and informal recreational opportunities are in the immediate vicinity?

Pioneer Park, shopping, marinas, sports fields, marine viewing, arts and cultural centers, museums and historic areas can all be found within the Town's limits.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

The Civic Garden Club is on the State Historic Resister. The La Conner Historic Preservation District is a locally-designated area of preservation that includes structures along North 1st Street that are on the National Register.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

See response to 13.a. above

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and

[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Federal, State, and local regulations are to be followed with new construction, including cultural and historic items. Consultation with Tribes as well as archeological consultants can be performed for projects outside currently disturbed areas.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Specific projects will be reviewed for impact and appropriate action implemented. As most projects will take place within the existing roadway and road shoulders, conflicts are not likely.

14. Transportation

Find help with answering transportation questions[16]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

State, County and Town roads and highways provide public access to and through the Town. See Figure 3.1 a,b,c in the plan for a detailed map of existing Town roads.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Skagit Public Transit Benefit Area (SKAT) has several stops within the Town's limits.

c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Repair and/or replacement of water mains may require trenching through existing roadways. Proper roadway patching and/or paving overlays, in accordance with Town or County standards will be evaluated for each specific project.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The service area is adjacent to the Swinomish Channel which is used as a water transport route.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Town staff work throughout the Town with normal operation and maintenance activities. Additional traffic is expected from construction activities. Localized higher peak traffic may occur if drivers detour around construction areas.

f. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Construction activities may require lane closures or detours which can add unavoidable time to transportation. Driveways may also be temporarily blocked while excavation occurs.

g. Proposed measures to reduce or control transportation impacts, if any:

Contractors

15. Public services

Find help answering public service questions[17]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Construction of proposed facilities will occur in conjunction with infill development supporting increased population in the area. An increase in population will require increased public services. At present there is sufficient surplus in water to support growth. Other projects are designed to enhance public services by providing additional fire protection capability and/or increased resiliency.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Projects for resiliency help control impacts to public service in the long term by minimizing risk of emergency maintenance.

16. Utilities

Find help answering utilities questions[18]

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Adoption of the Water Comprehensive Plan will provide the Town with a responsible means of maintaining existing water service while planning for future capacity. Future

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services
[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

construction activities will consist of trenching for water line installation and modifications. The Town of La Conner will operate and maintain completed systems up to the meters or as shown on approved plans.

C.Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

x _____

Type name of signee:

Position and agency/organization:

Date submitted:

D.Supplemental sheet for nonproject actions

Find help for the nonproject actions worksheet[20]

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

- **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

   - **Proposed measures to protect or conserve energy and natural resources are:**

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

   - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

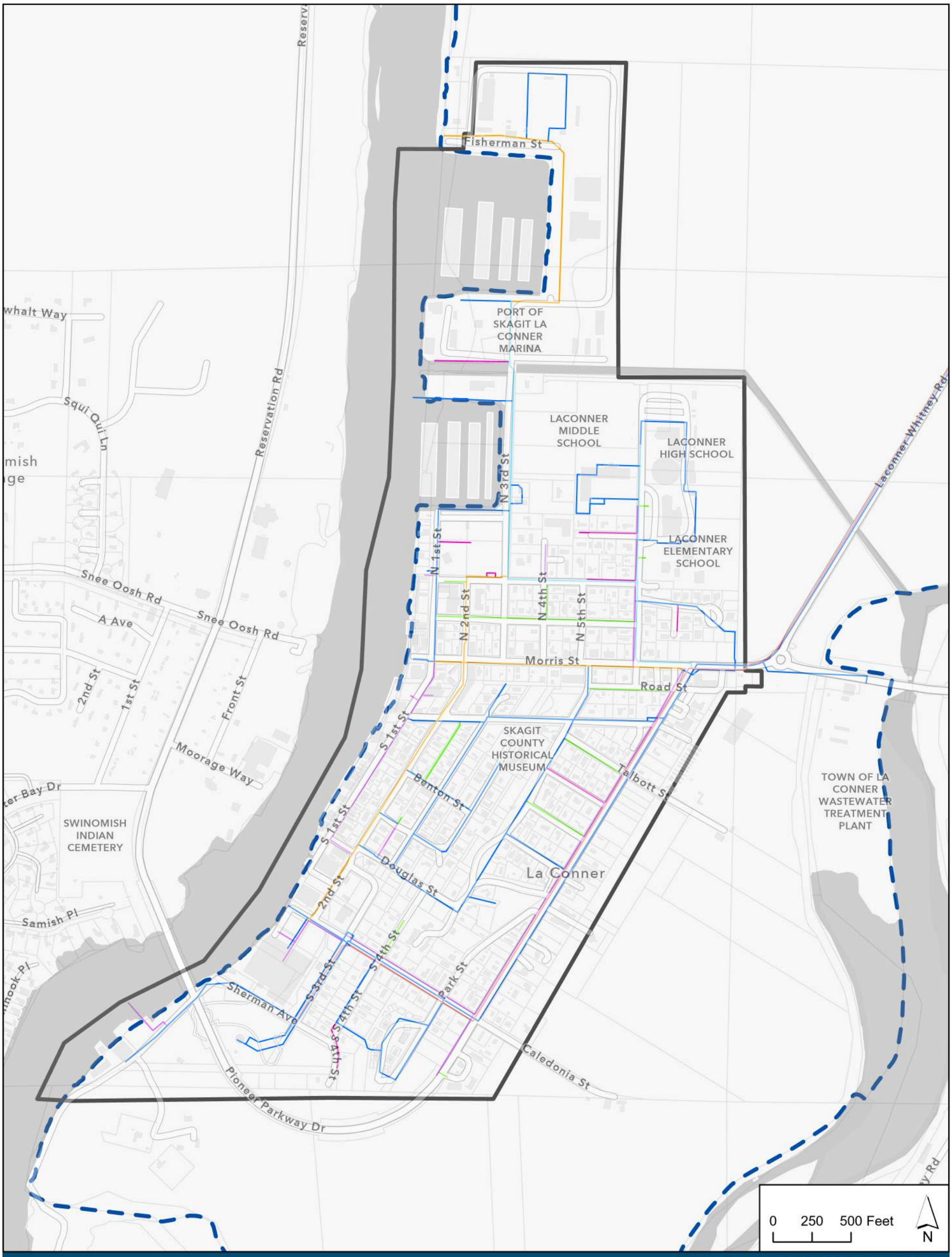
   - **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

   - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

APPENDIX C – HYDRAULIC ANALYSIS



La Conner Water System Plan

Figure 3.1a - Model Base Scenairo South

Legend

Mains by Diameter

- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

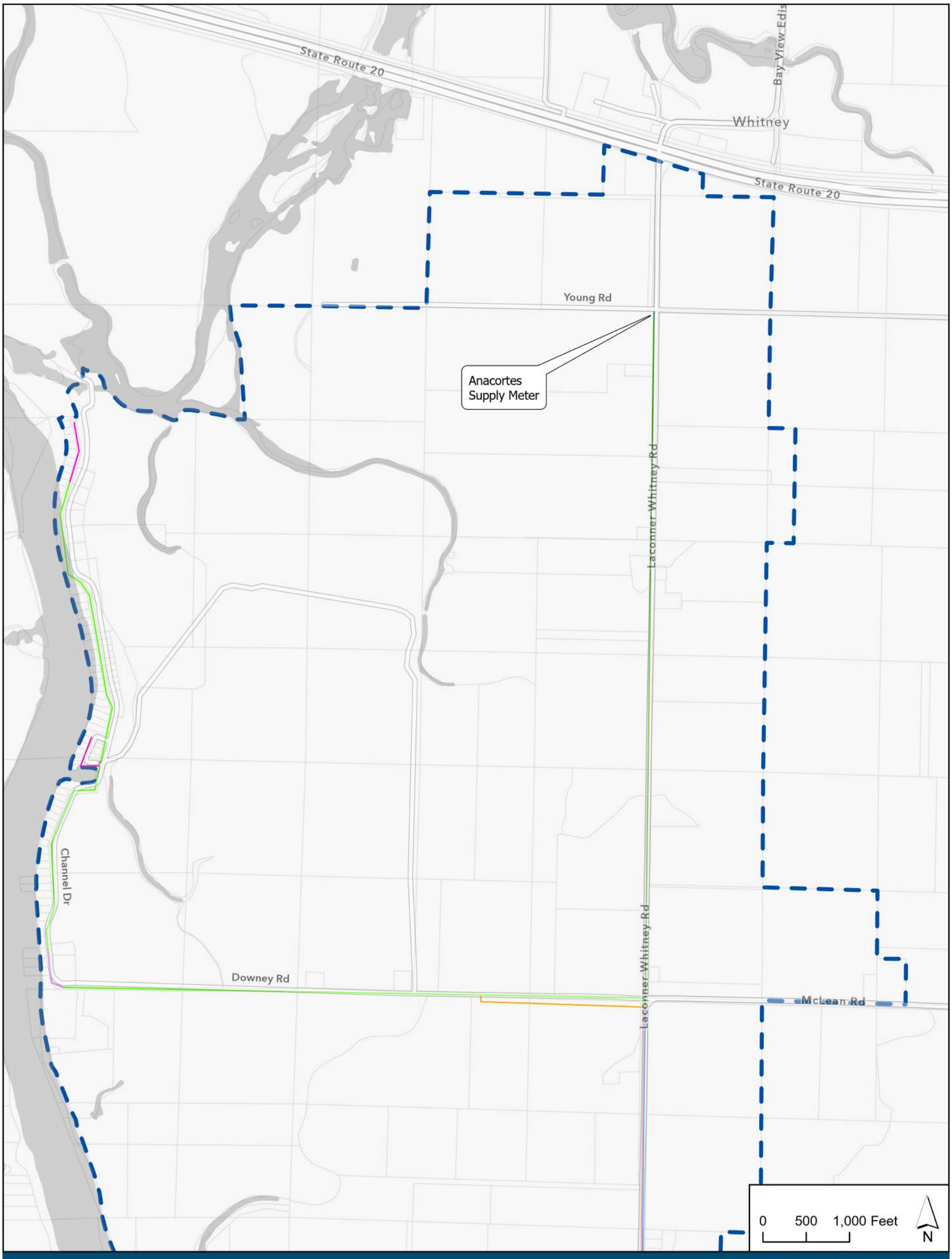


Figure 3.1b - Model Base Scenairo North

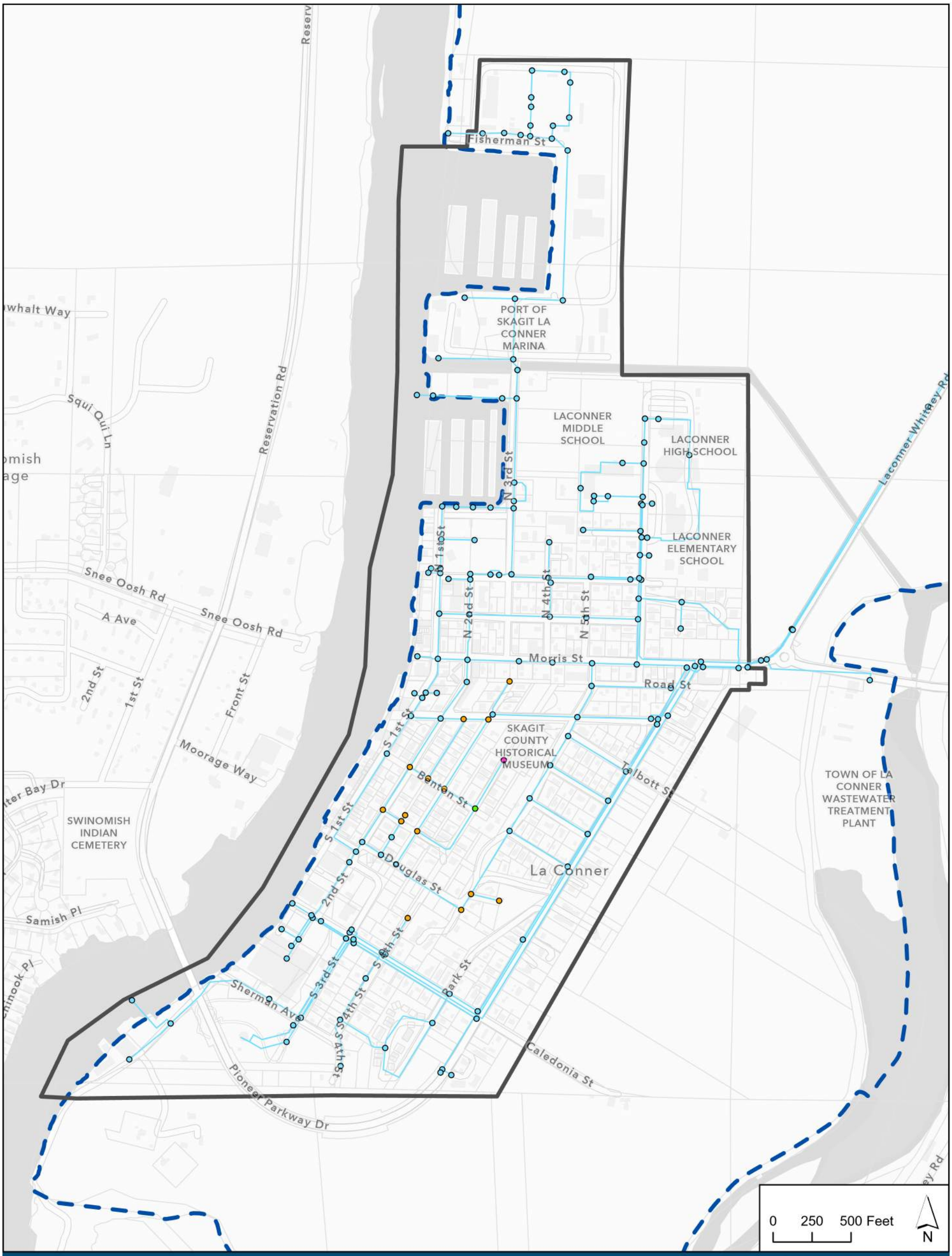
Legend

Mains by Diameter

- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"
- Town of La Conner
- La Conner Water Service Area

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Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.2a - Model ADD Scenairo South

Legend

ADD Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD Mains by Velocity
- Less than 1 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

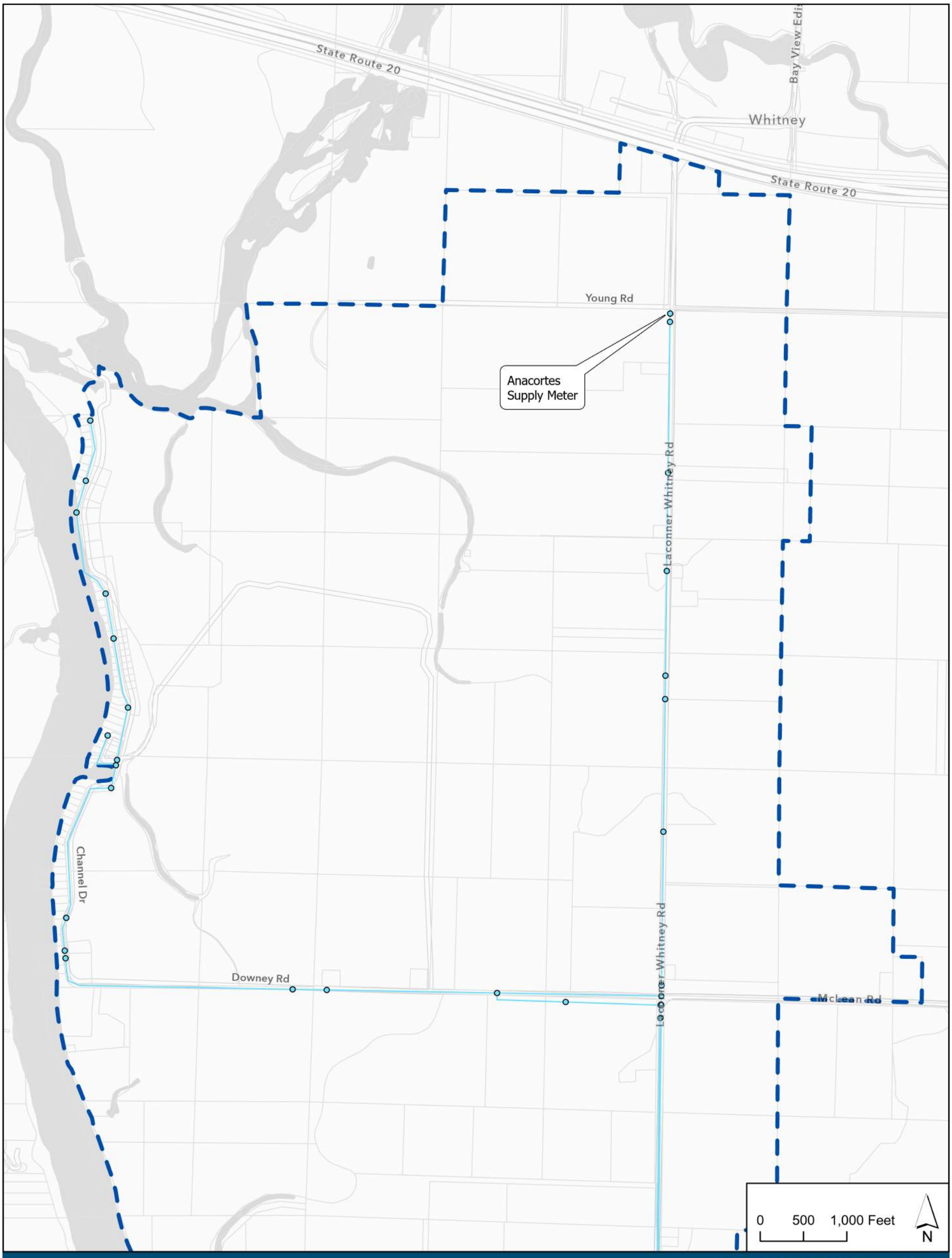


Figure 3.2b - Model ADD Scenairo North

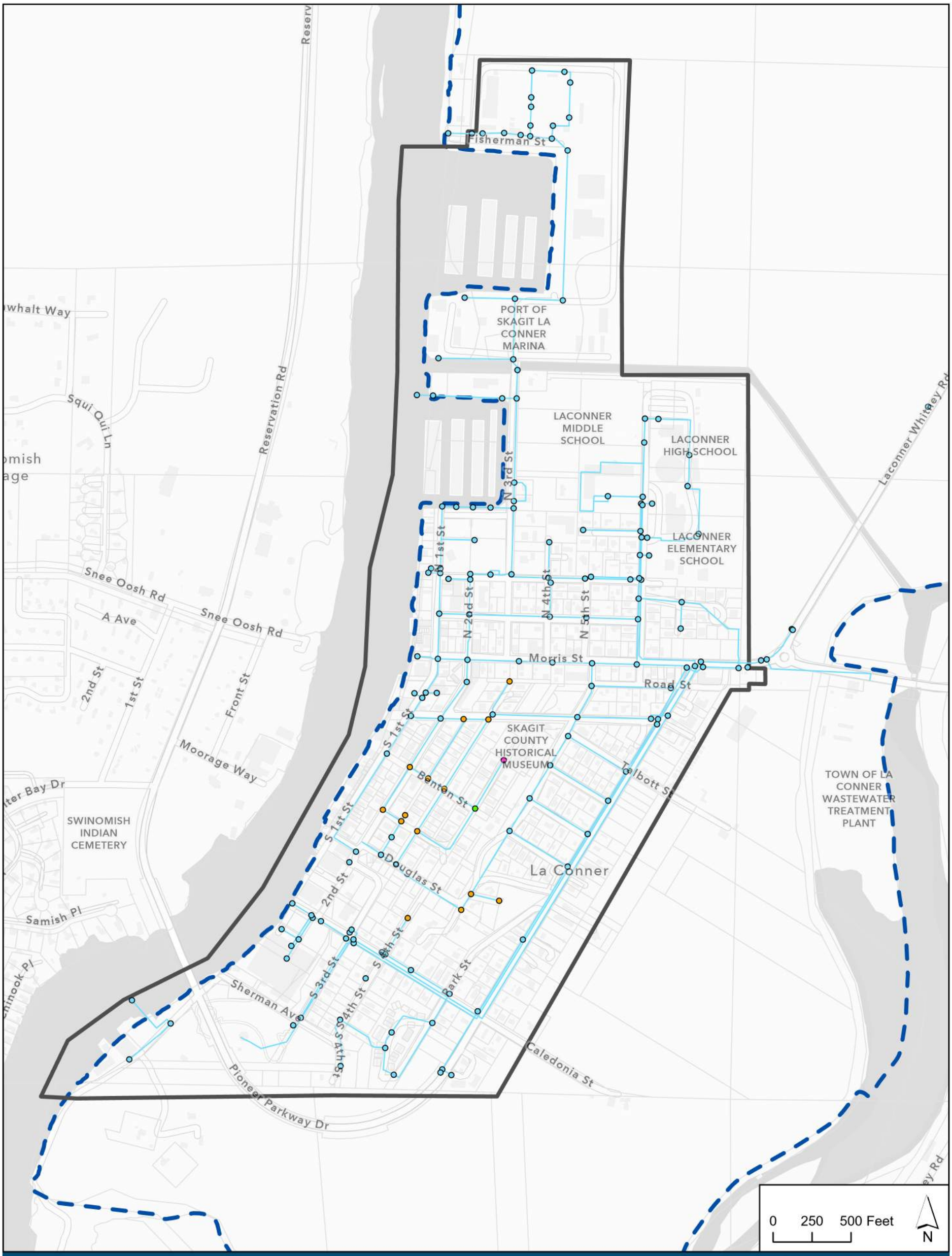
Legend

ADD Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD Mains by Velocity
- Less than 1 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.3a - Model ADD 2035 Scenairo South

Legend

ADD 2034 Junctions by Pressure

- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD 2034 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

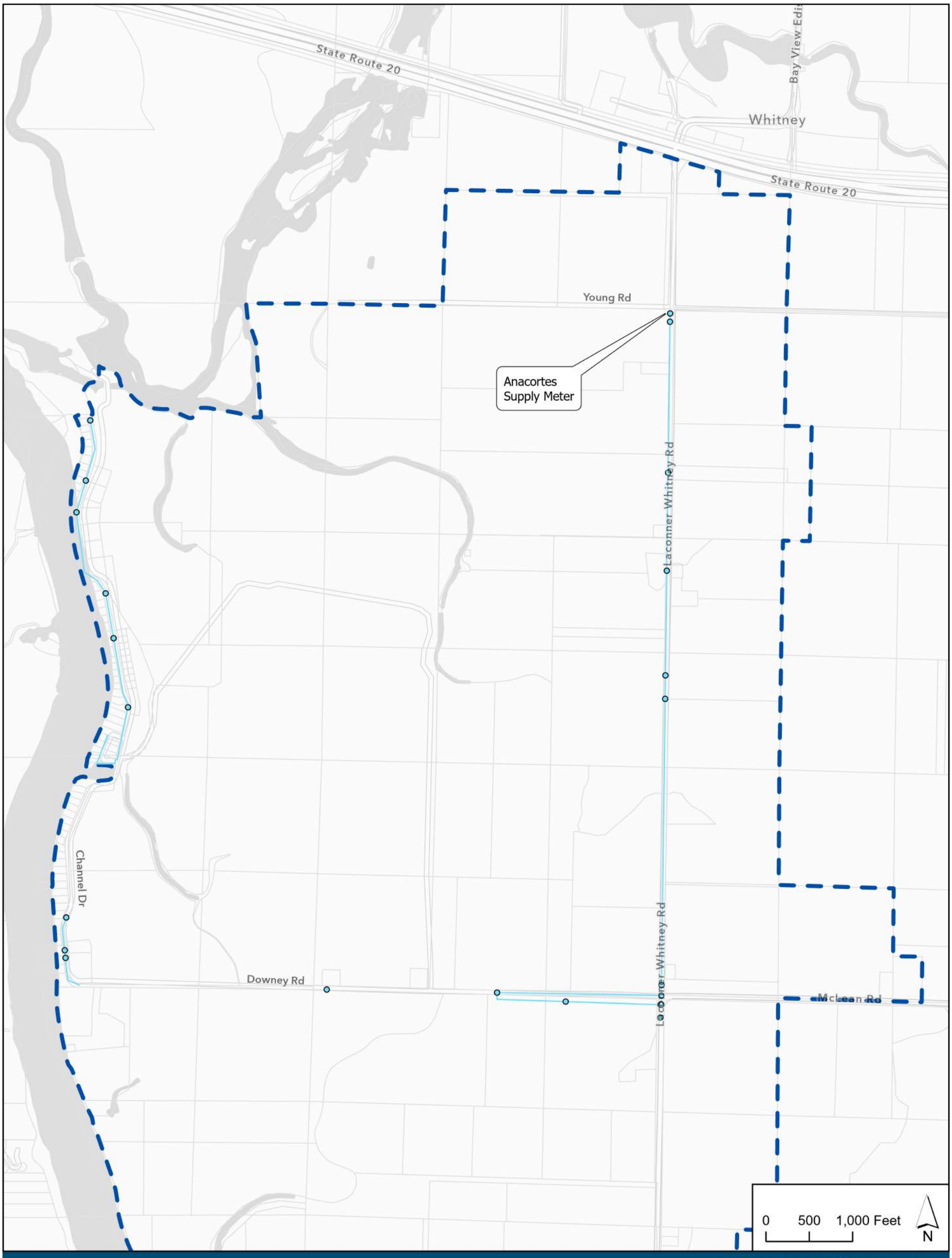


Figure 3.3b - Model ADD 2035 Scenairo North

Legend

ADD 2034 Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD 2034 Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

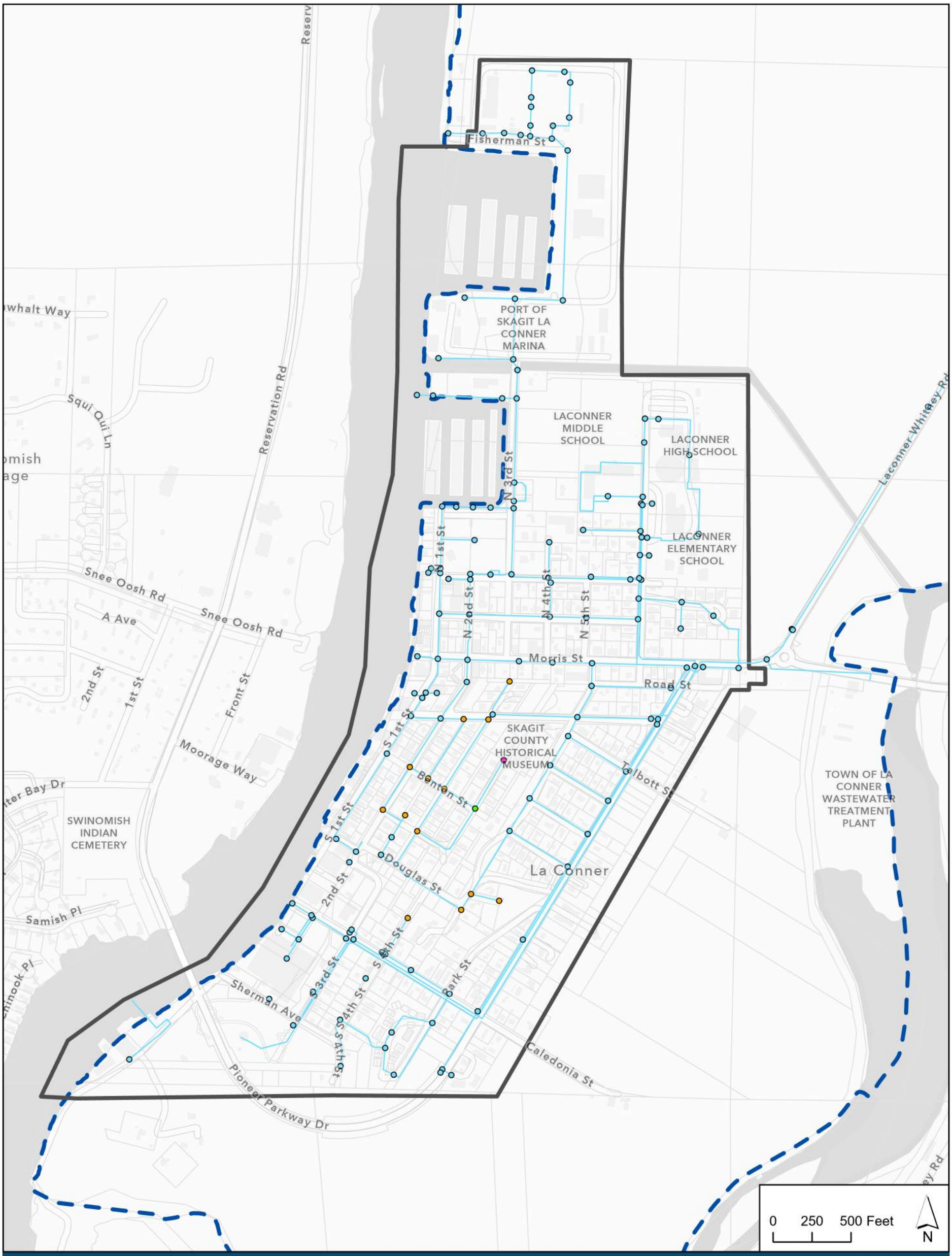


Figure 3.4a - Model MDD Scenairo South

Legend

MDD Junctions by Pressure	MDD Mains by Velocity
30-40 psi	Less than 1 fps
40-50 psi	1-3 fps
50-60 psi	Town of La Conner
60+ psi	La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

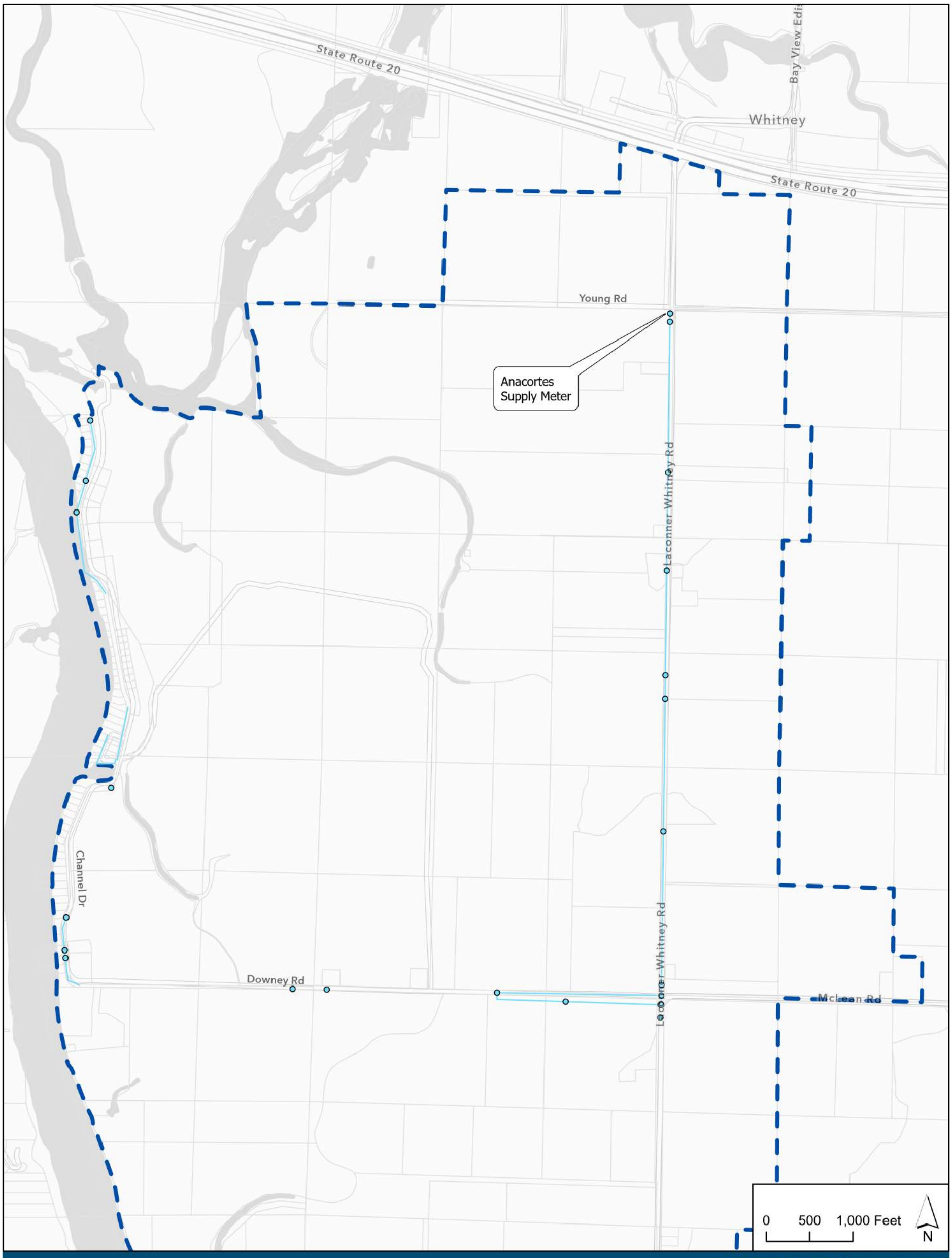


Figure 3.4b - Model MDD Scenairo North

Legend

MDD Junctions by Pressure

- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD Mains by Velocity

- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

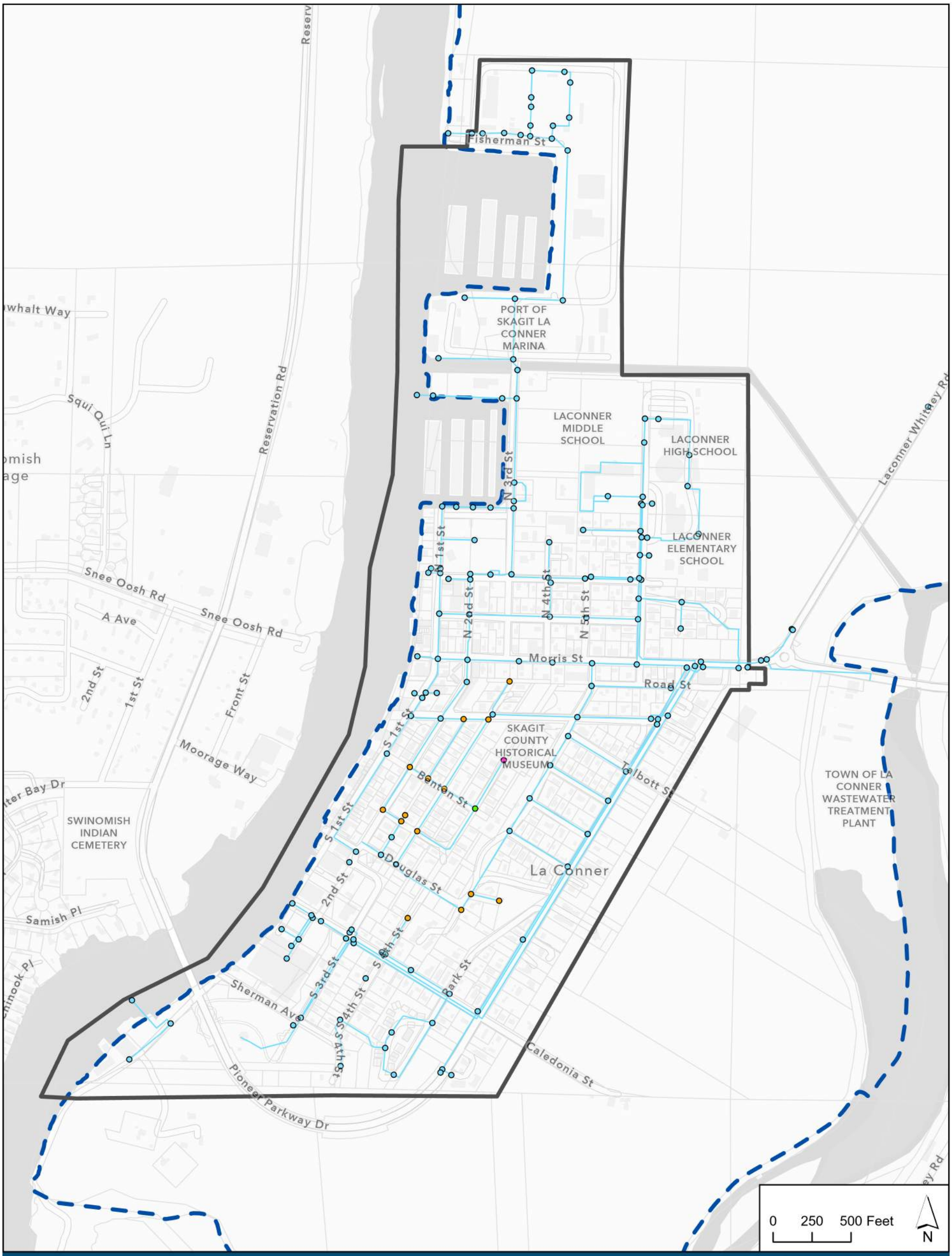


Figure 3.5a - Model MDD 2035 Scenairo South

Legend

MDD 2034 Junctions by Pressure	MDD 2034 Mains by Velocity
30-40 psi	Less than 1 fps
40-50 psi	1-3 fps
50-60 psi	3-6 fps
60+ psi	Town of La Conner
	La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

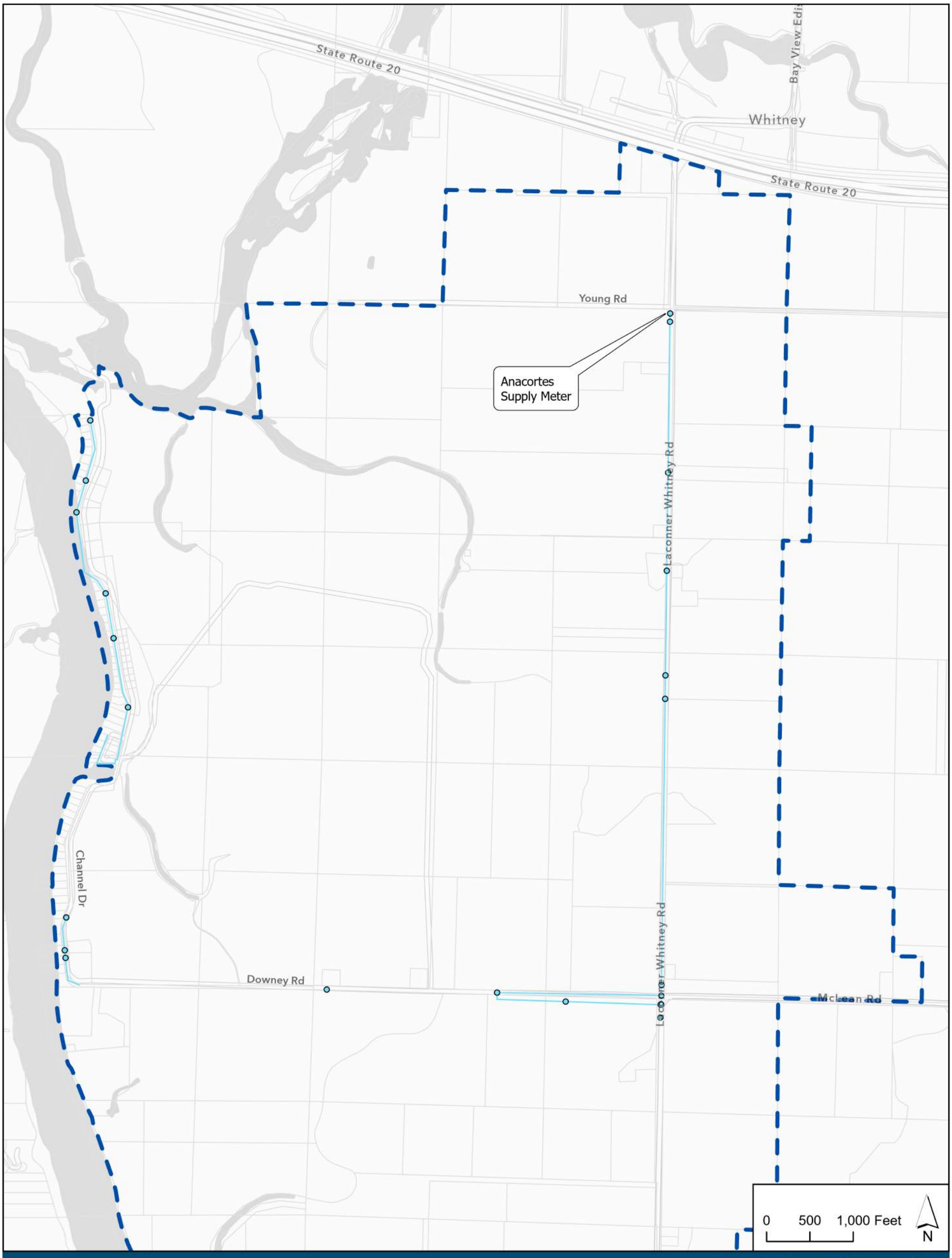


Figure 3.5b - Model MDD 2035 Scenairo North

Legend

MDD 2034 Junctions by Pressure

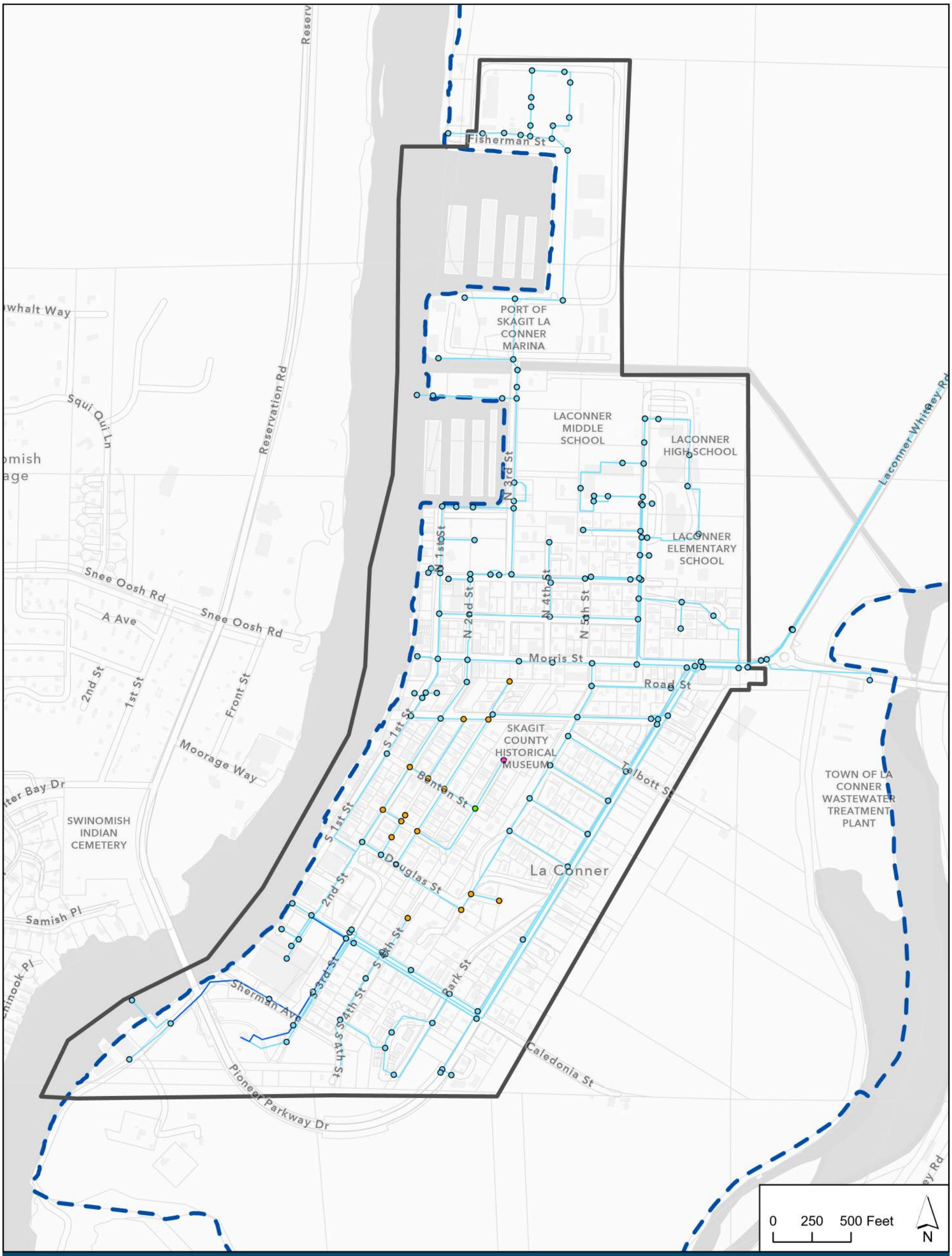
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2034 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.6a - Model MDD 2045 Scenairo South

Legend

MDD 2044 Junctions by Pressure

- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

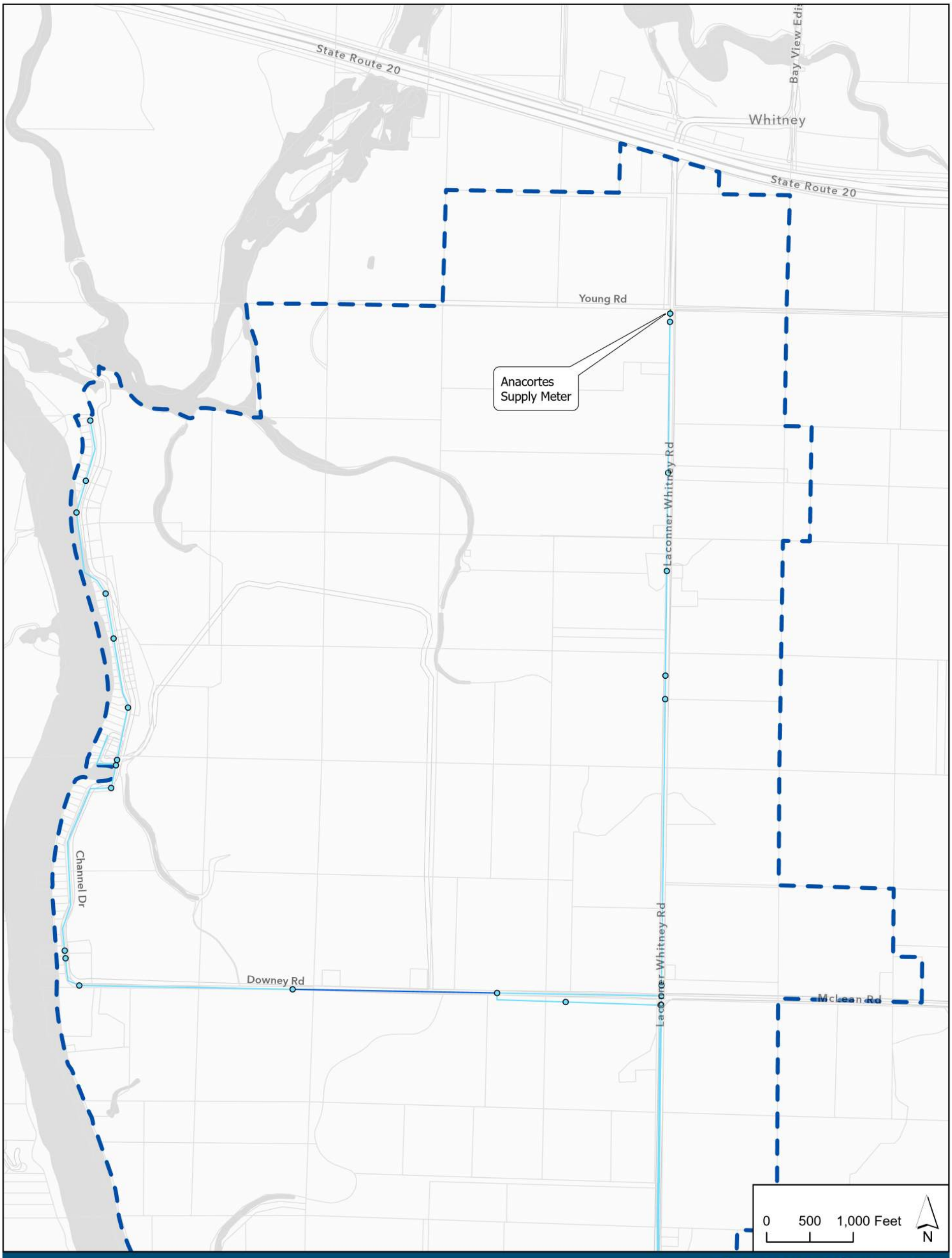


Figure 3.6b - Model MDD 2045 Scenairo North

Legend

MDD 2044 Junctions by Pressure

- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

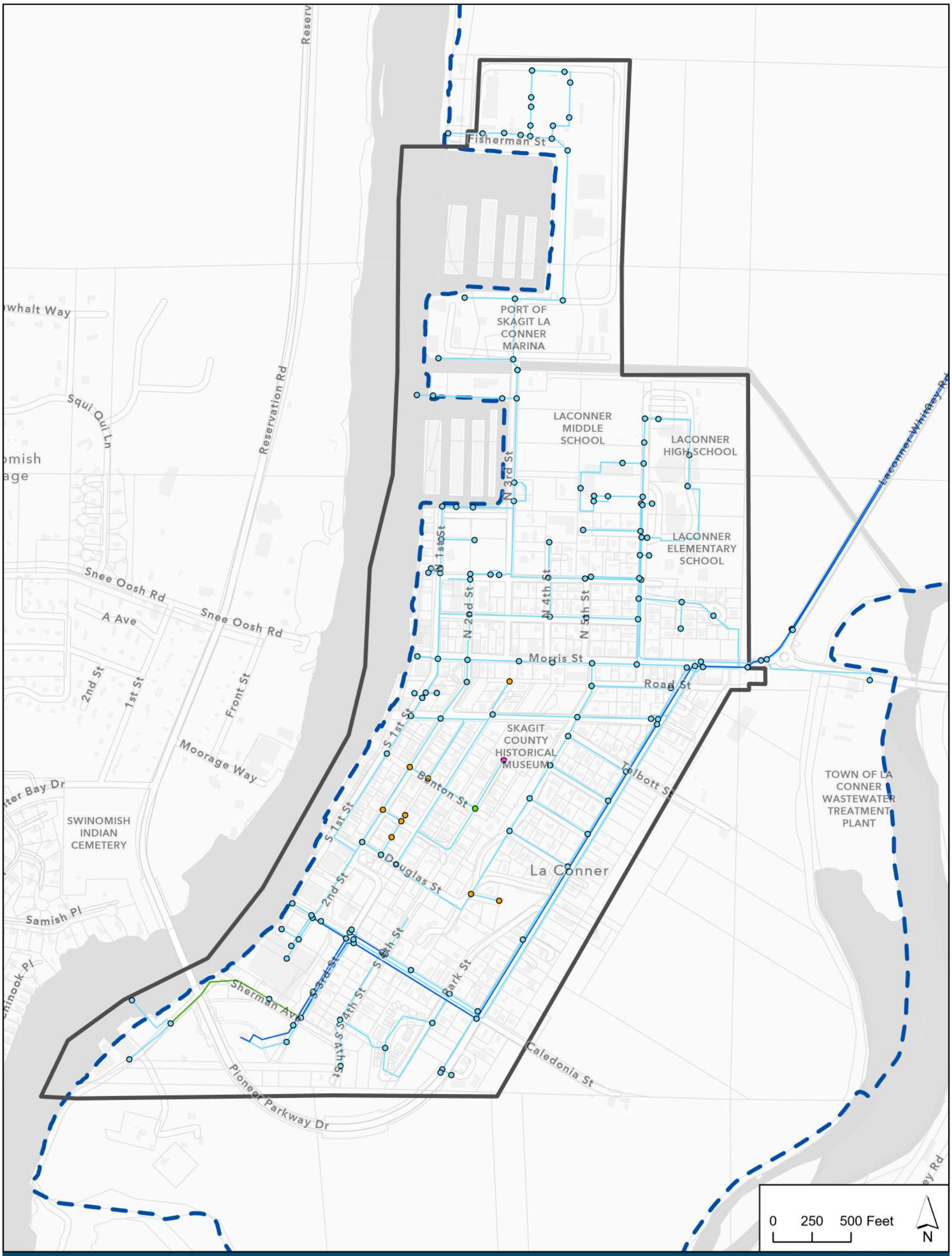


Figure 3.7a - Model PHD Scenairo South

Legend

PHD Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

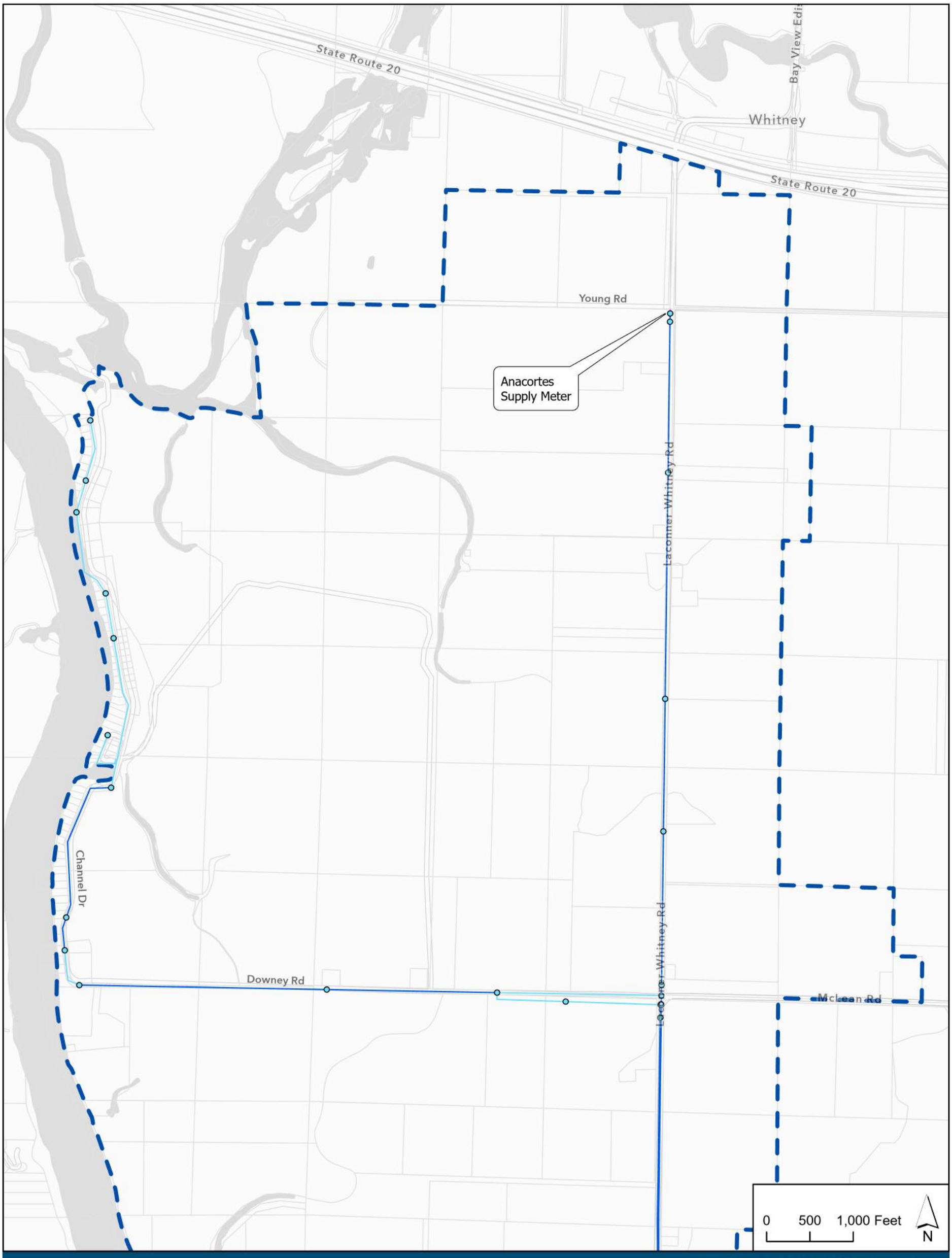


Figure 3.7b - Model PHD Scenairo North

Legend

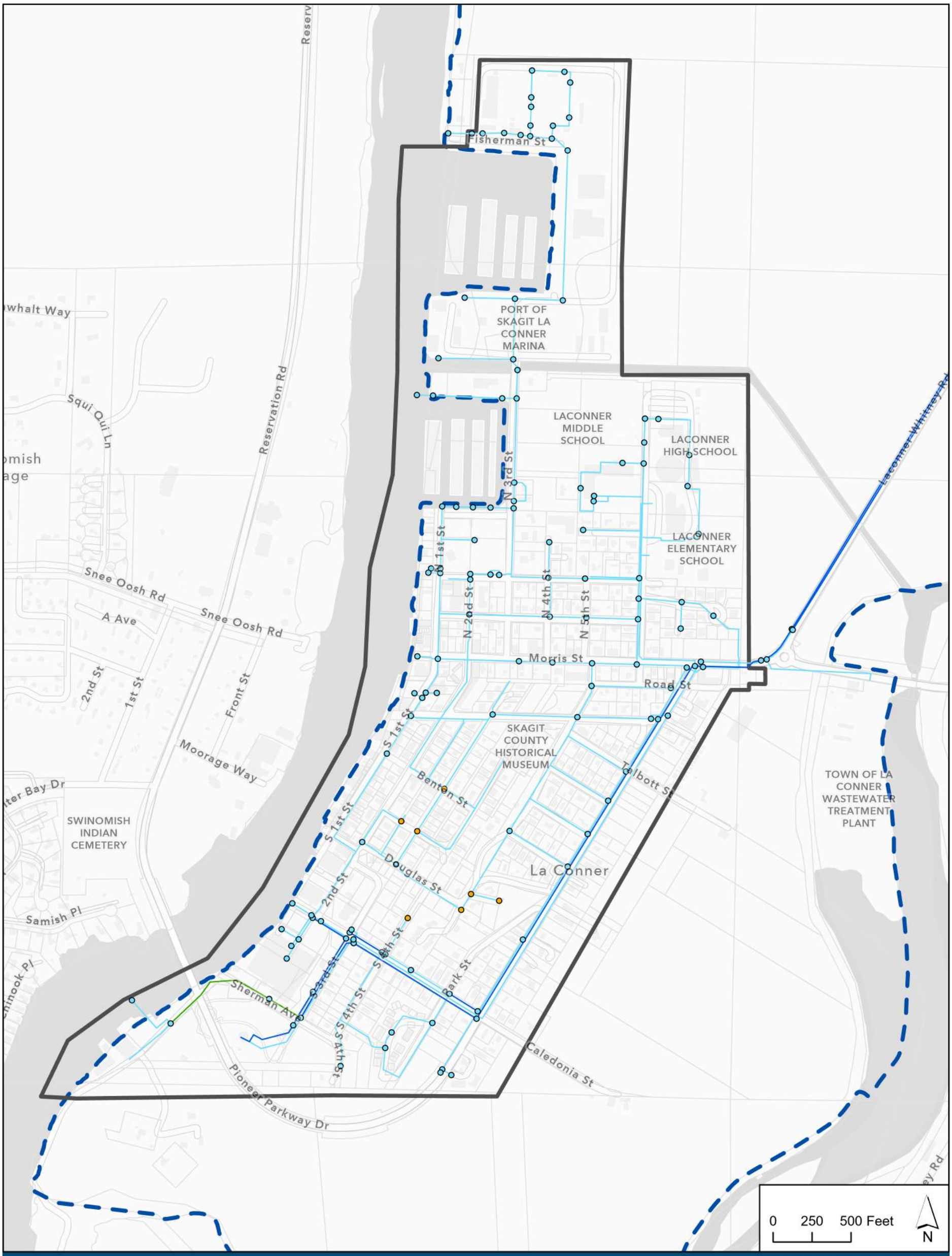
PHD Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.8a - Model PHD 2035 Scenairo South

Legend

PHD 2034 Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD 2034 Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

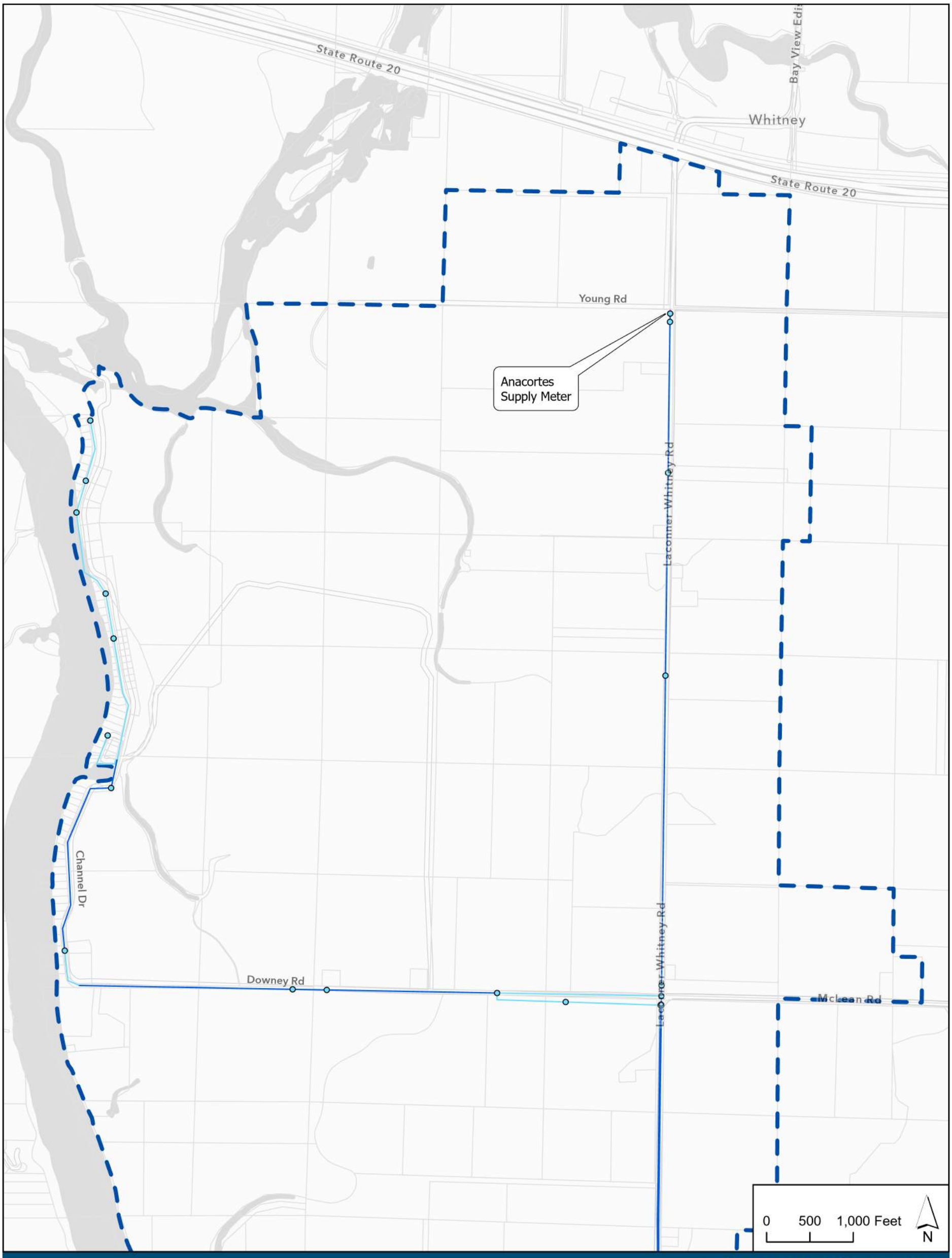


Figure 3.8b - Model PHD 2035 Scenairo North

Legend

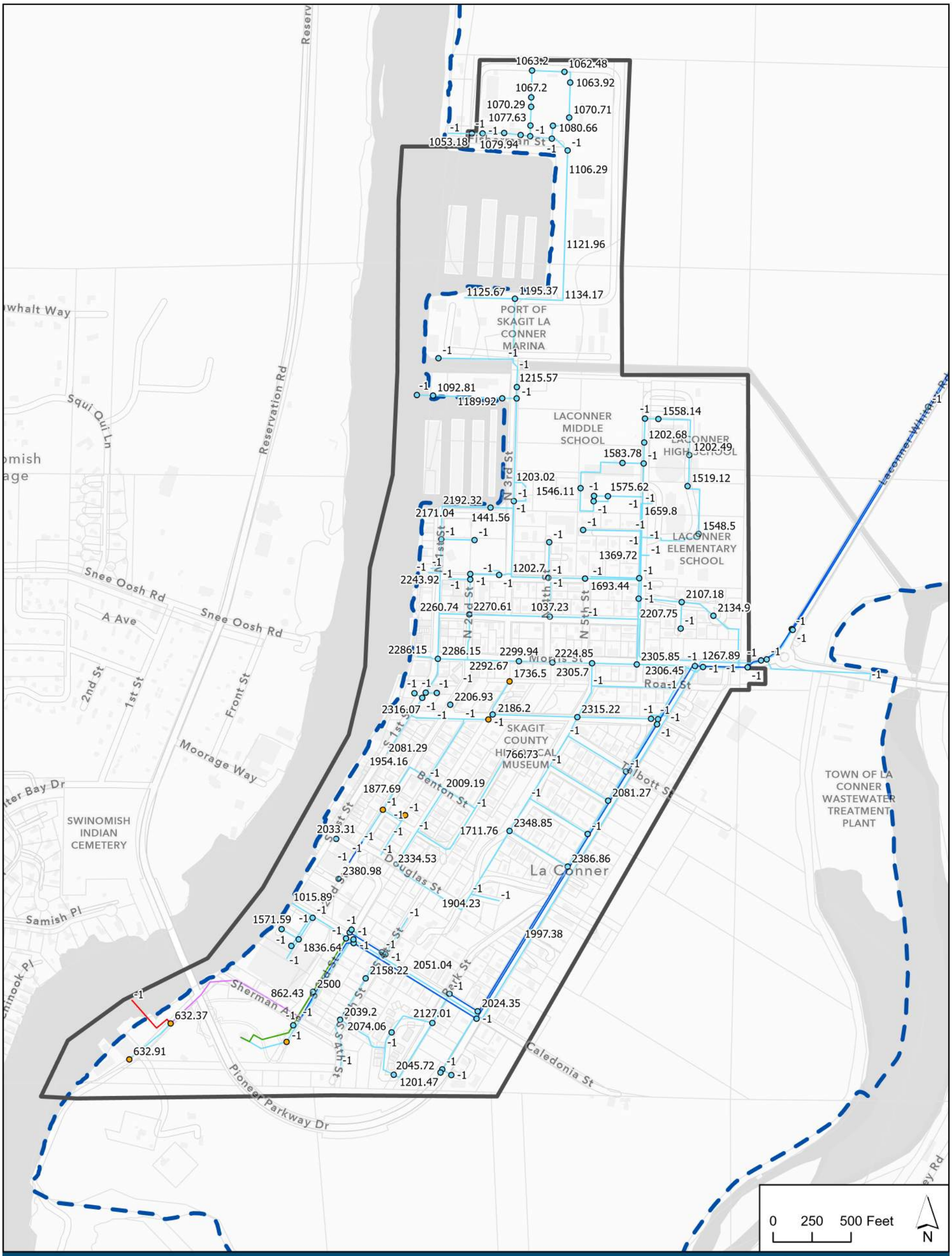
PHD 2034 Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD 2034 Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.9a - Model MDD & FF Scenairo South

Legend

MDD & FF Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD & FF Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps
- 10+ fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

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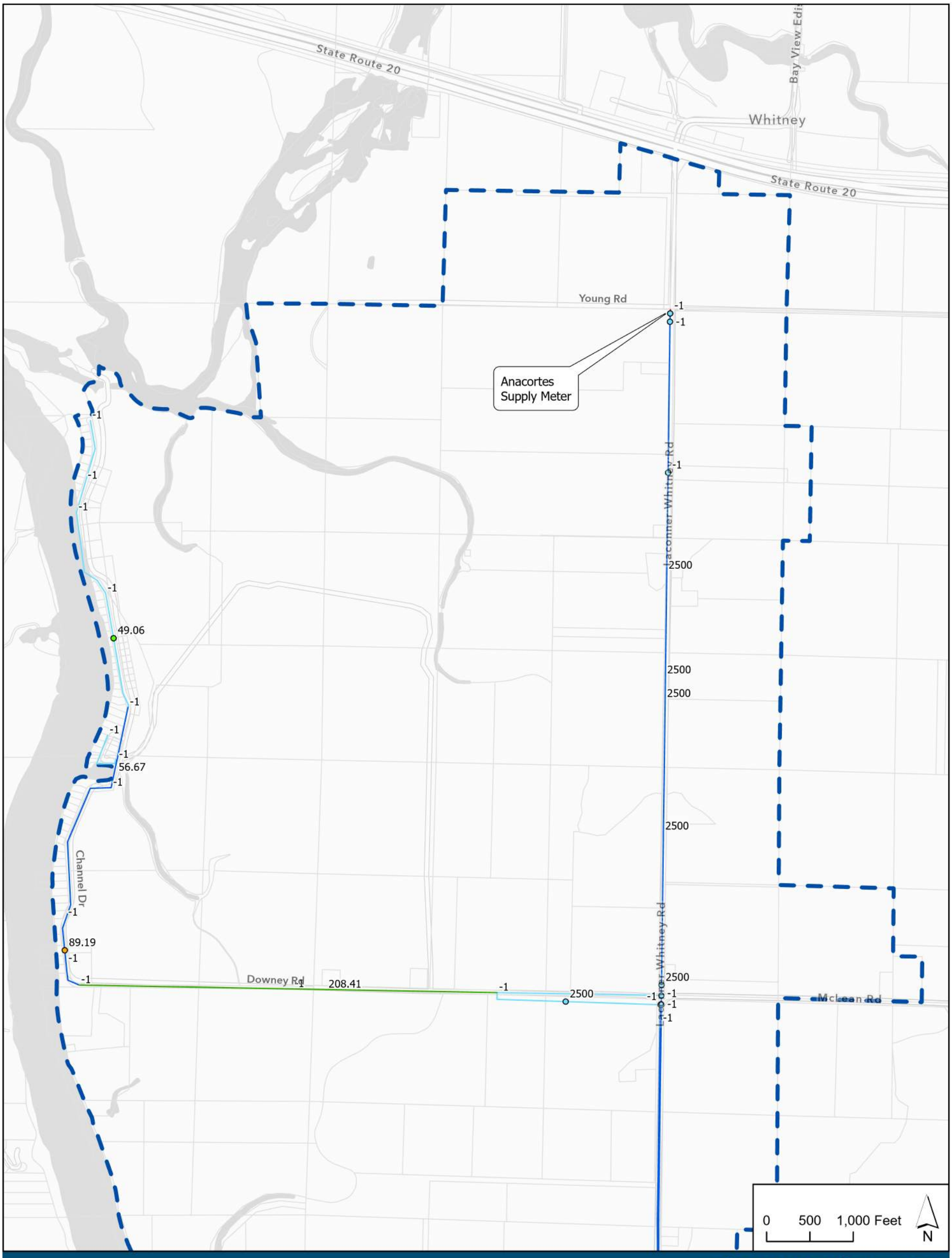


Figure 3.9b - Model MDD & FF Scenairo North

Legend

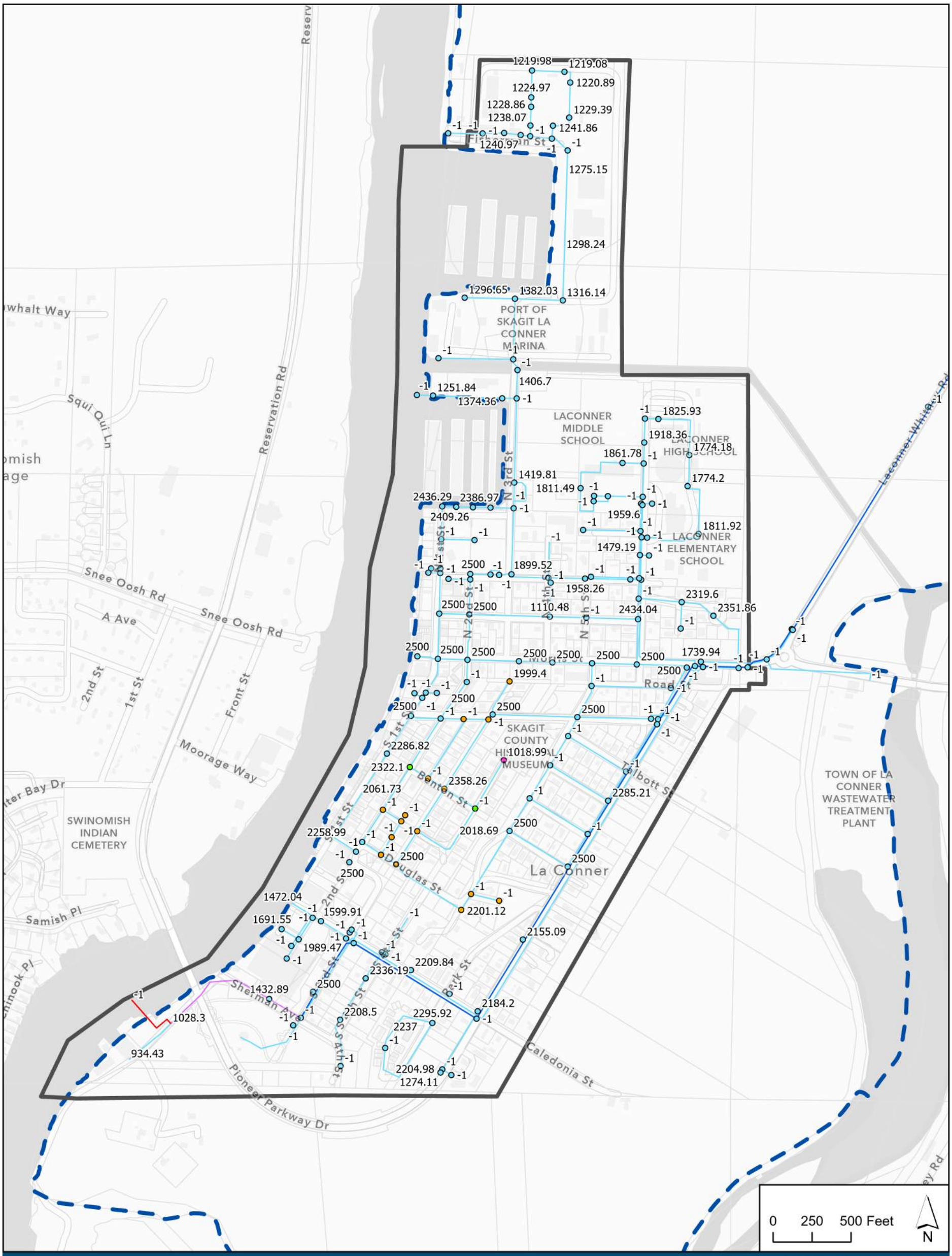
MDD & FF Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD & FF Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps
- 10+ fps

- Town of La Conner
- La Conner Water Service Area

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Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.10a - Model MDD 2045 & FF Scenairo South

Legend

MDD 2044 & FF Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 & FF Mains by Velocity
- Less than 1 fps
- 1 to 3 fps
- 3 to 6 fps
- 6 to 10 fps
- 10+ fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

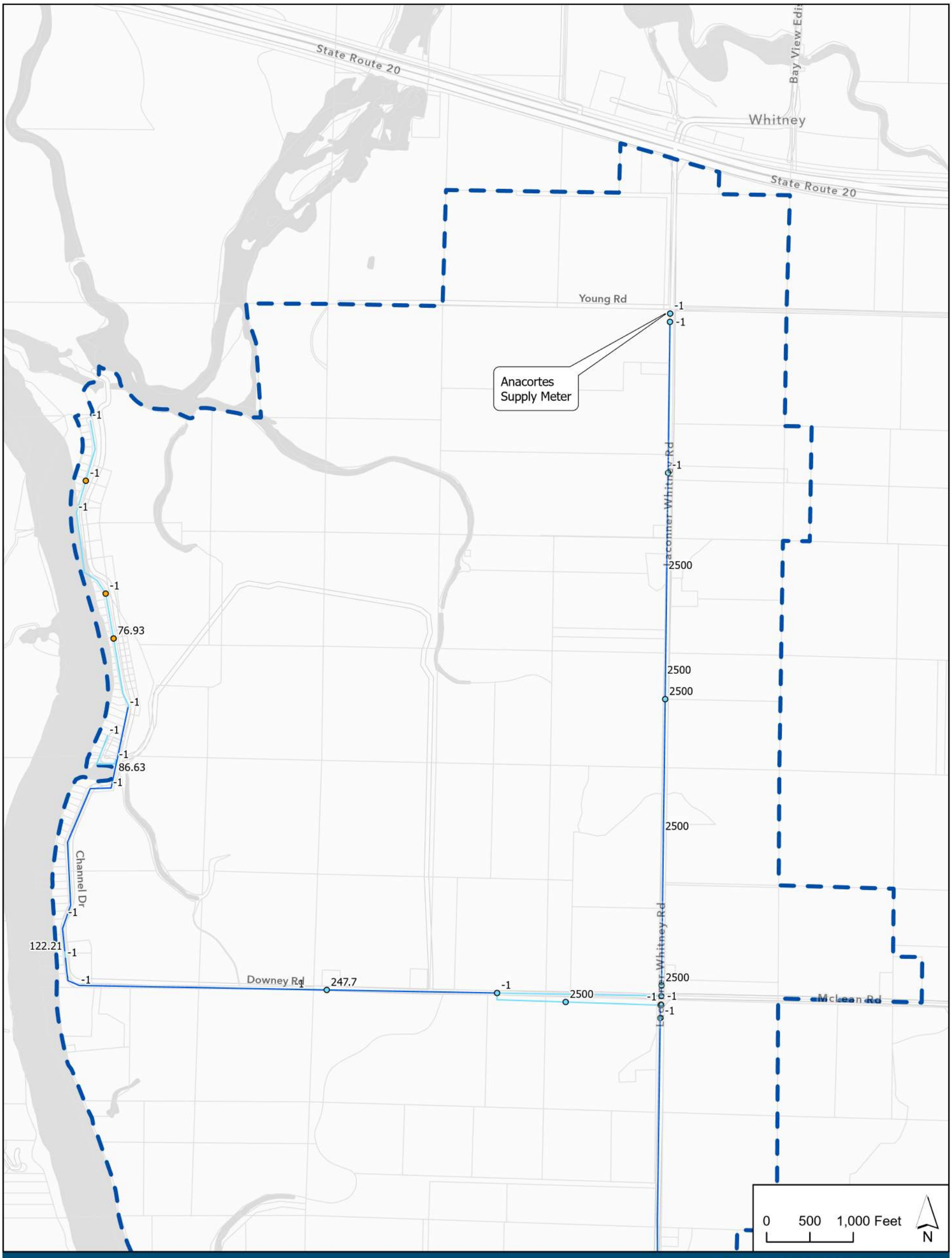


Figure 3.10b - Model MDD 2045 & FF Scenairo North

Legend

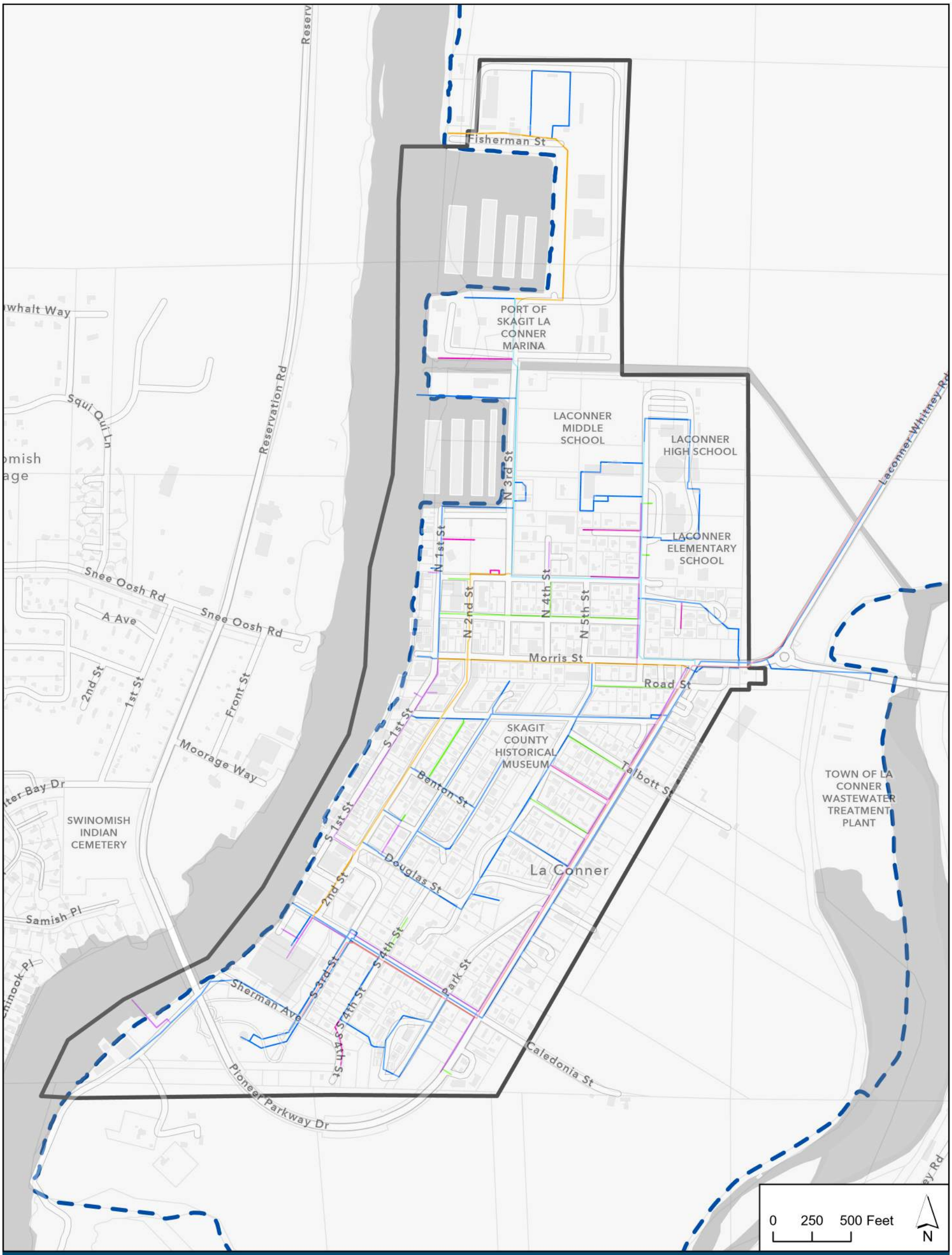
MDD 2044 & FF Junctions by Pressure
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 & FF Mains by Velocity
- Less than 1 fps
- 1 to 3 fps
- 3 to 6 fps
- 6 to 10 fps
- 10+ fps

- Town of La Conner
- La Conner Water Service Area

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Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.11a - Model Base w/o Shelter Bay Scenairo South

Legend

Mains by Diameter

- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"

Town of La Conner

La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

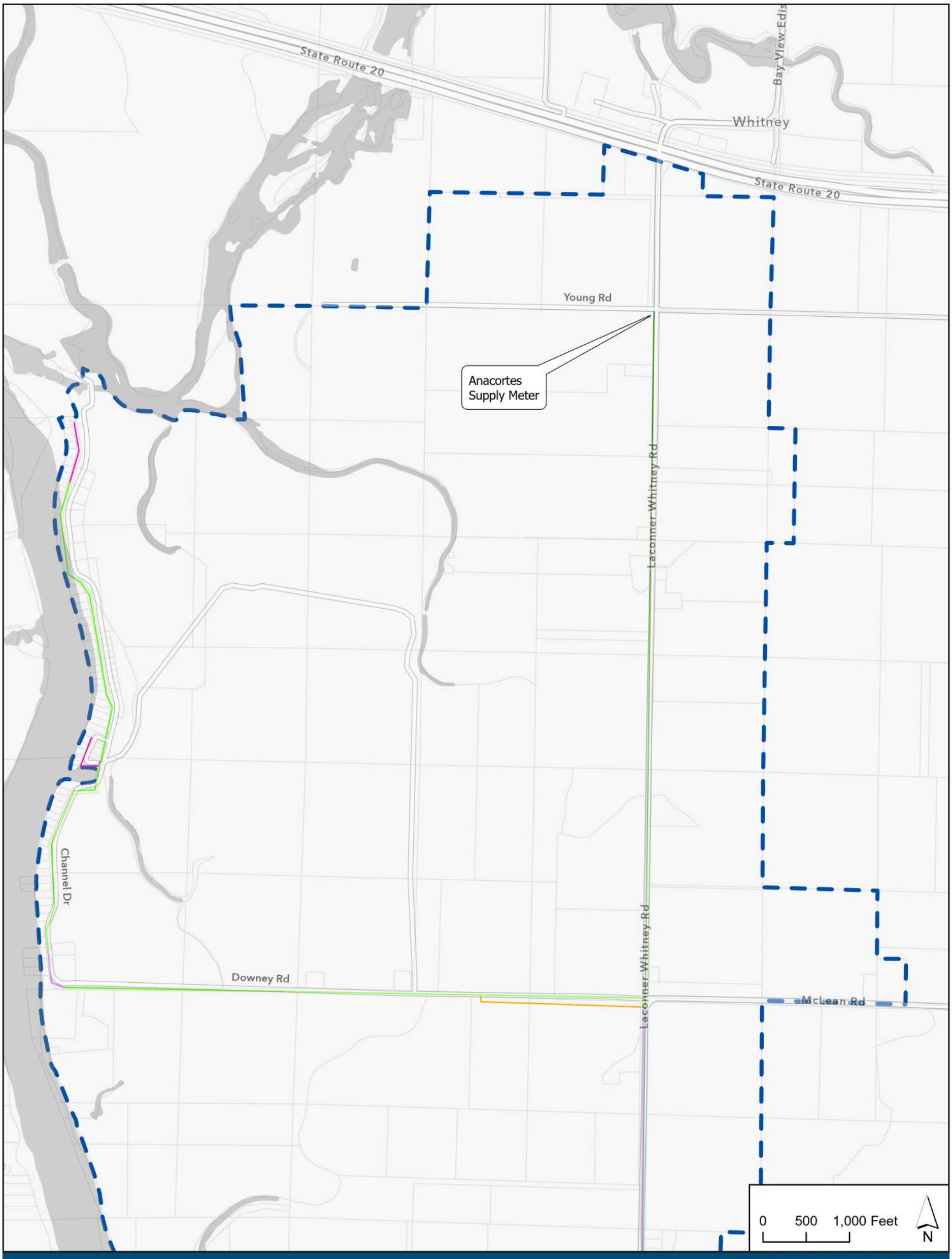


Figure 3.11b - Model Base w/o Shelter Bay Scenairo North

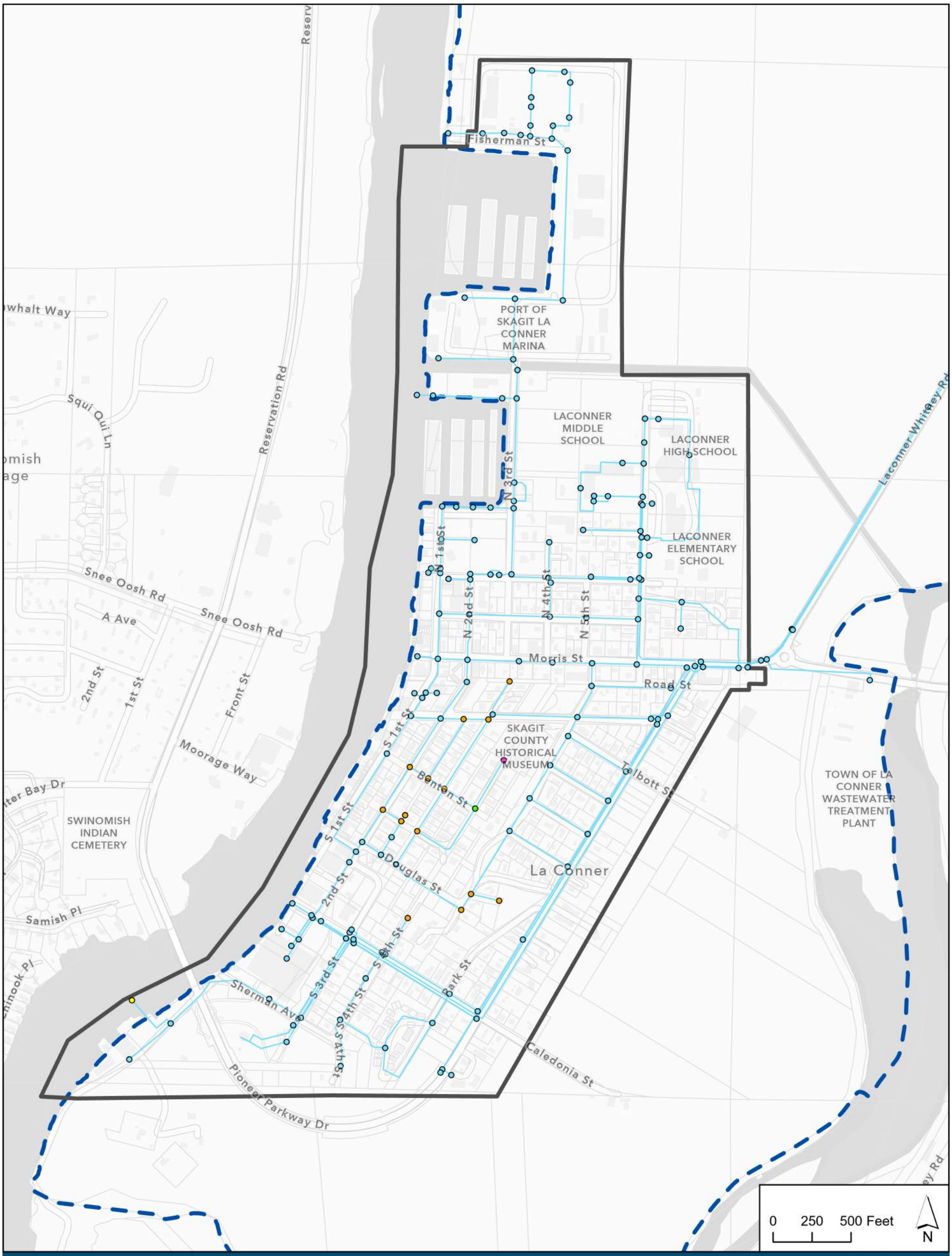
Legend

Mains by Diameter

- 2"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.12a - Model ADD w/o Shelter Bay Scenairo South

Legend

ADD Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD Mains by Velocity
- Less than 1 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

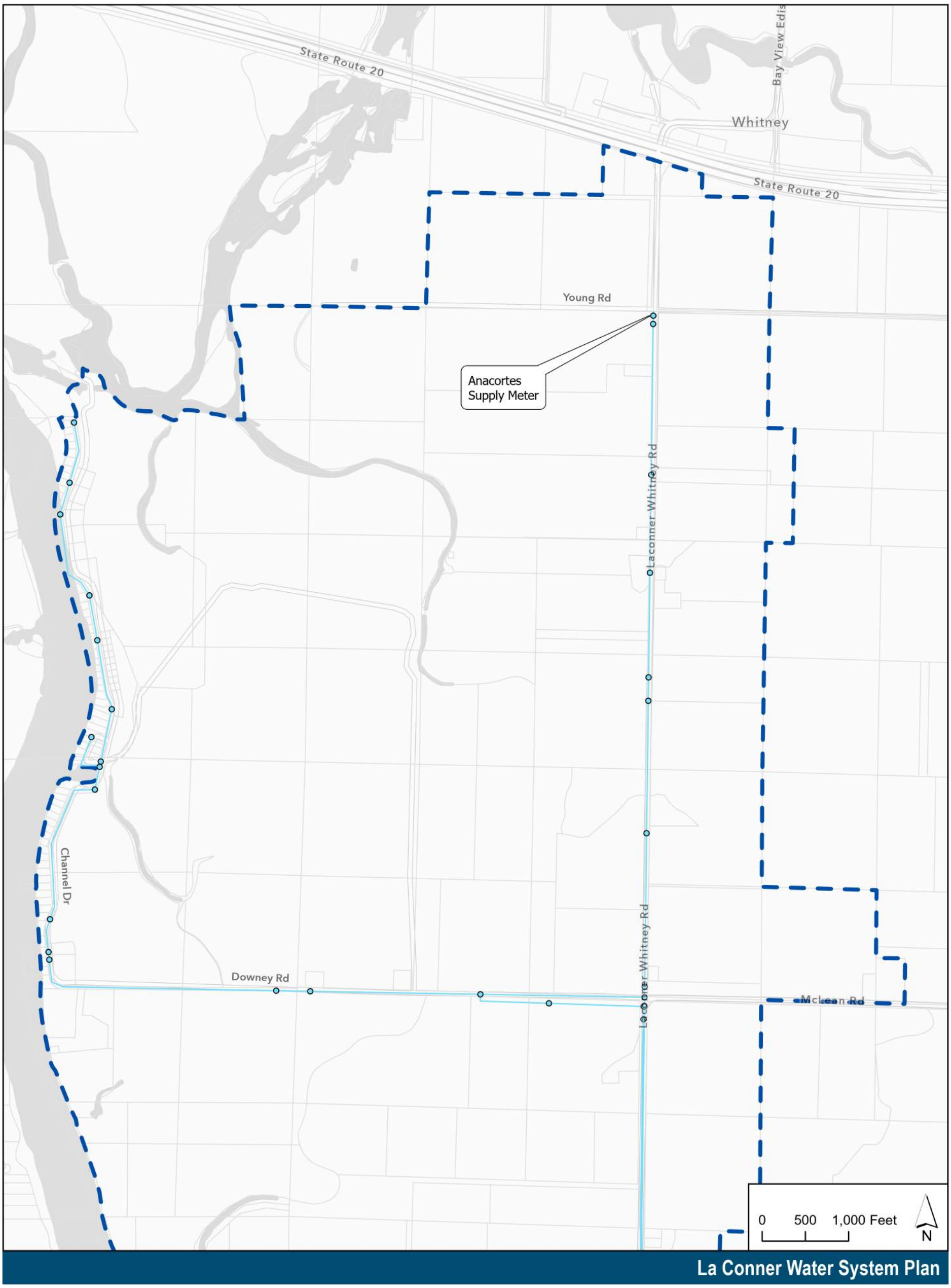


Figure 3.12b - Model ADD w/o Shelter Bay Scenairo North

Legend

ADD Junctions by Pressure

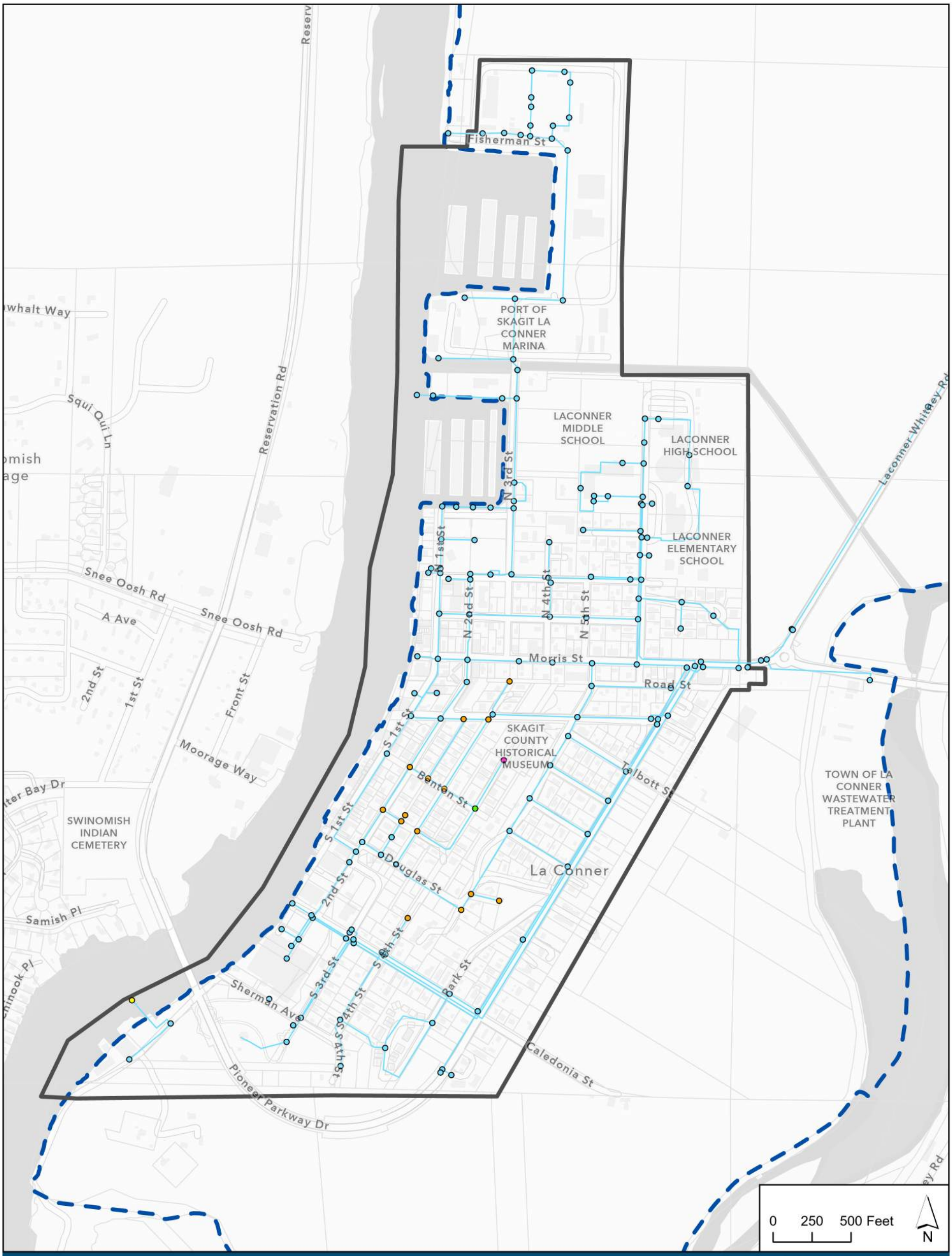
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD Mains by Velocity

- Less than 1 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.13a - Model ADD 2035 w/o Shelter Bay Scenairo South

Legend

ADD 2034 Junctions by Pressure

- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD 2034 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

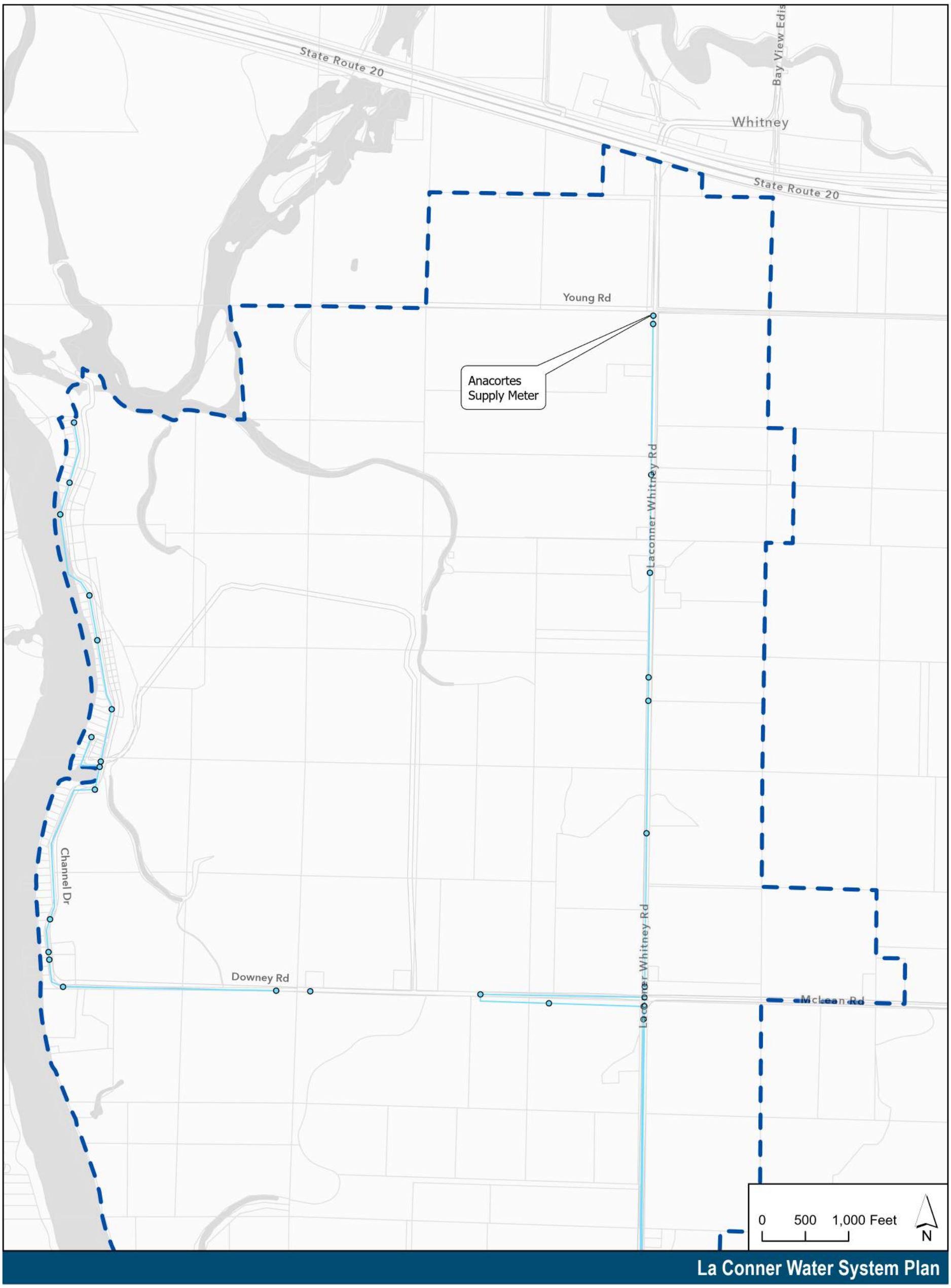


Figure 3.13b - Model ADD 2035 w/o Shelter Bay Scenairo North

Legend

ADD 2034 Junctions by Pressure

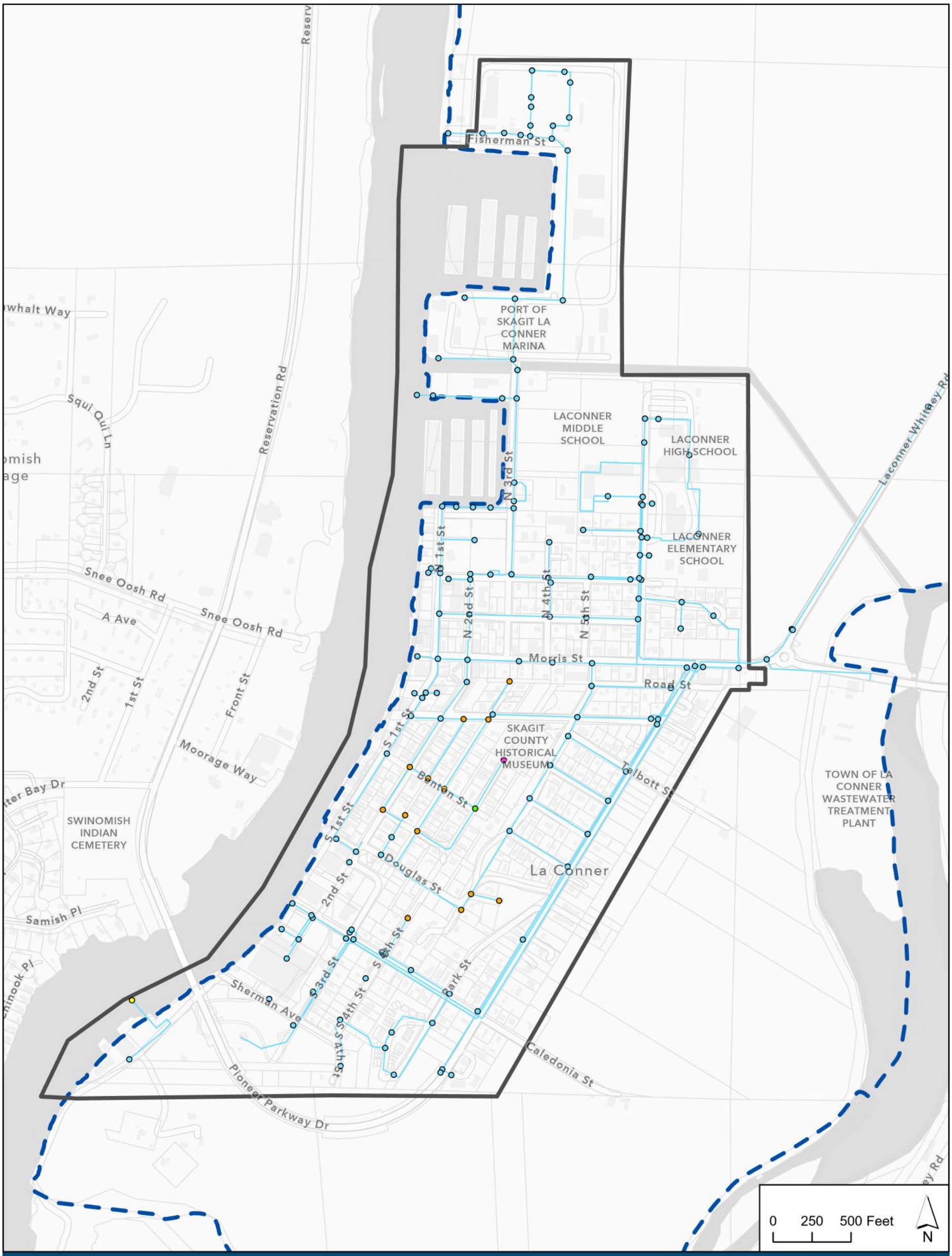
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

ADD 2034 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.14a - Model MDD w/o Shelter Bay Scenairo South

Legend

MDD Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

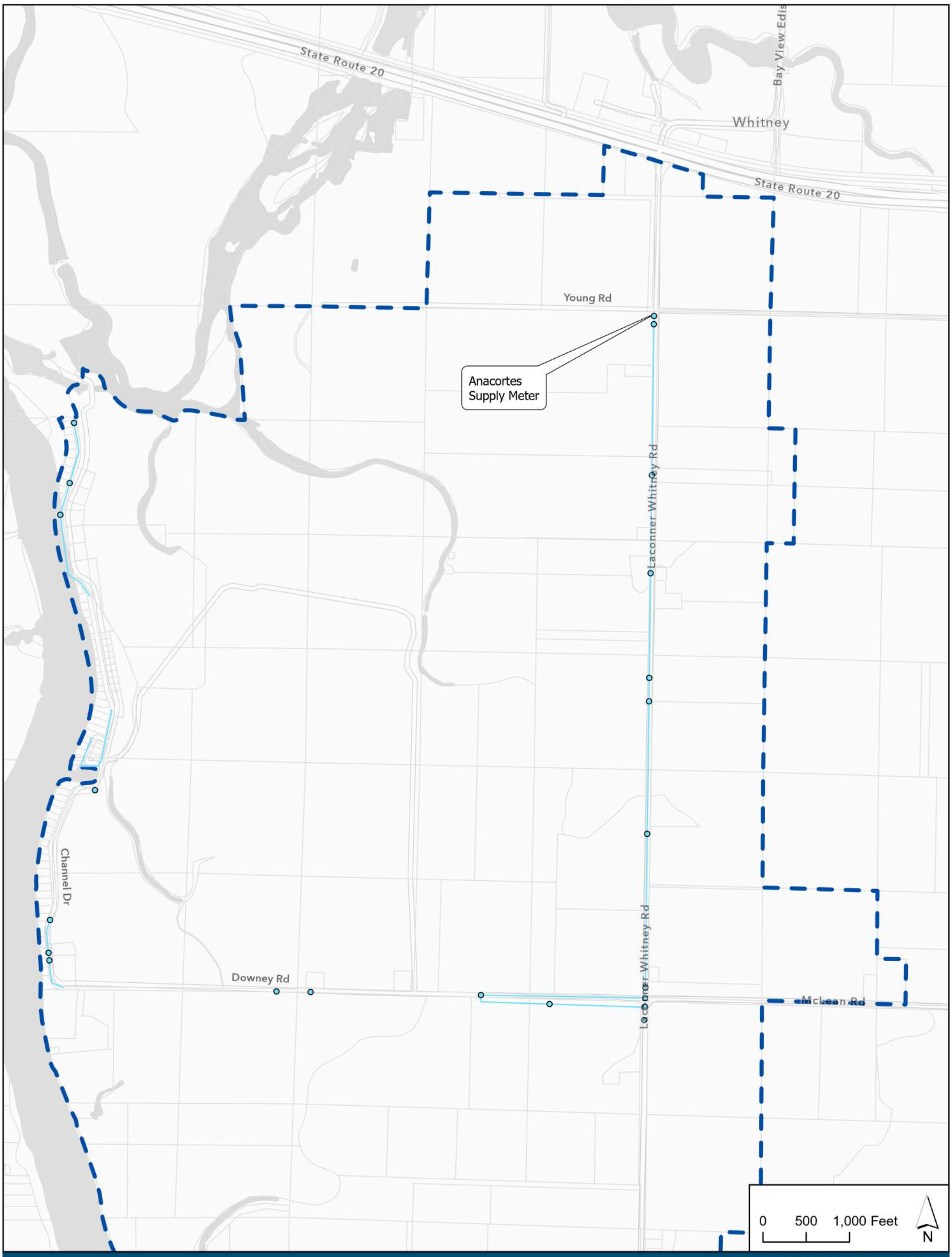


Figure 3.14b - Model MDD w/o Shelter Bay Scenairo North

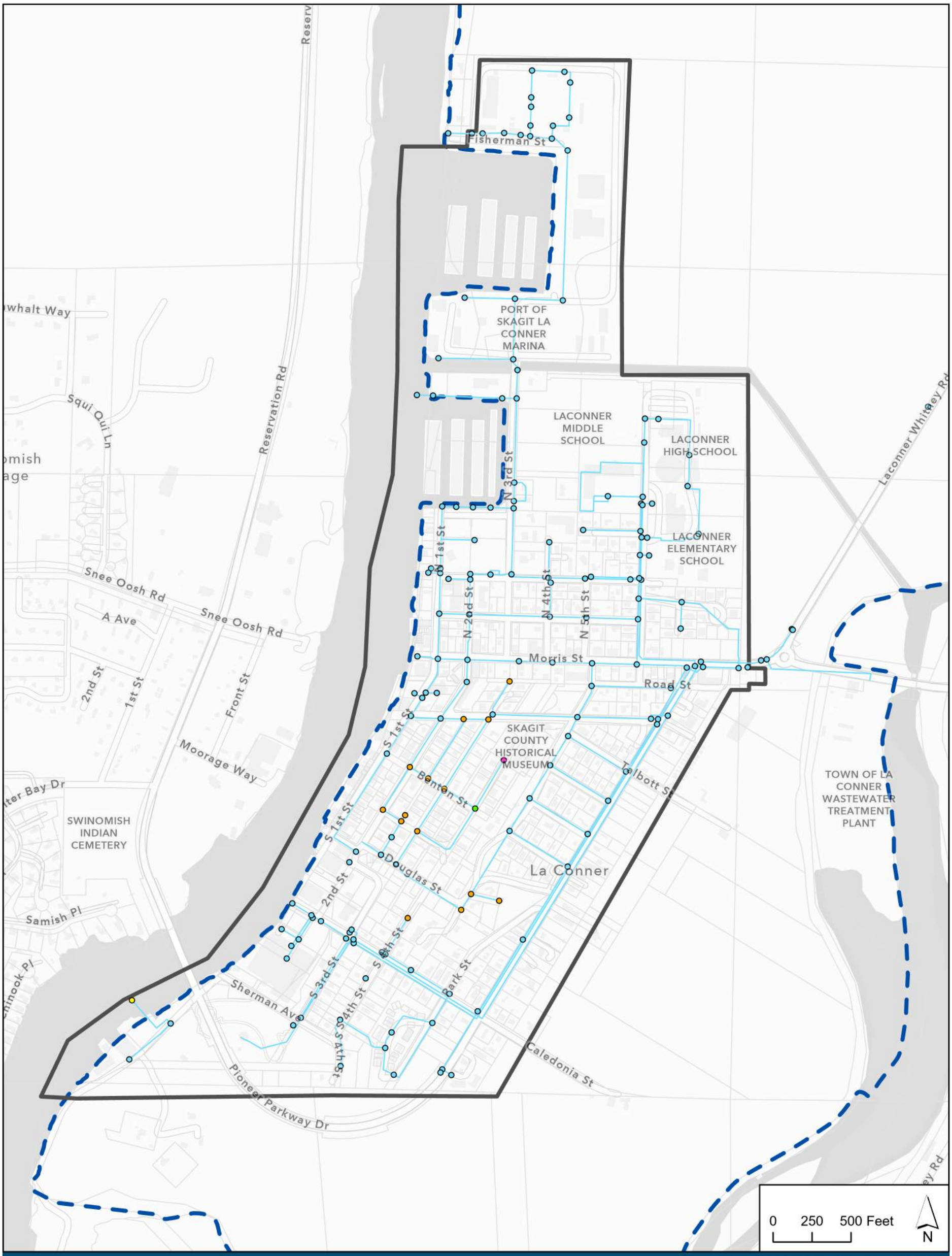
Legend

MDD Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.15a - Model MDD 2035 w/o Shelter Bay Scenairo South

Legend

MDD 2034 Junctions by Pressure	MDD 2034 Mains by Velocity
Less than 30 psi	Less than 1 fps
30-40 psi	1-3 fps
40-50 psi	3-6 fps
50-60 psi	Town of La Conner
60+ psi	La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

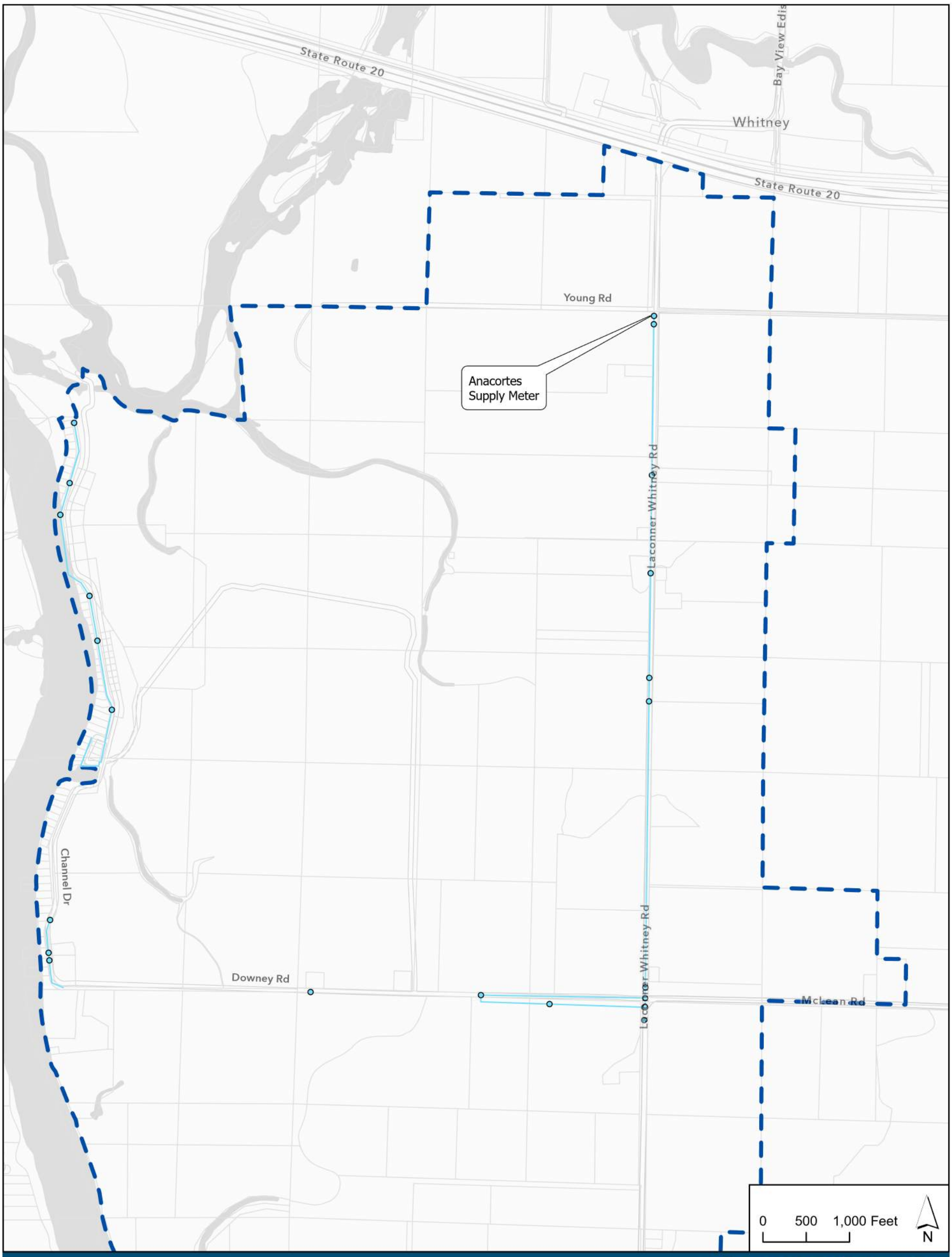


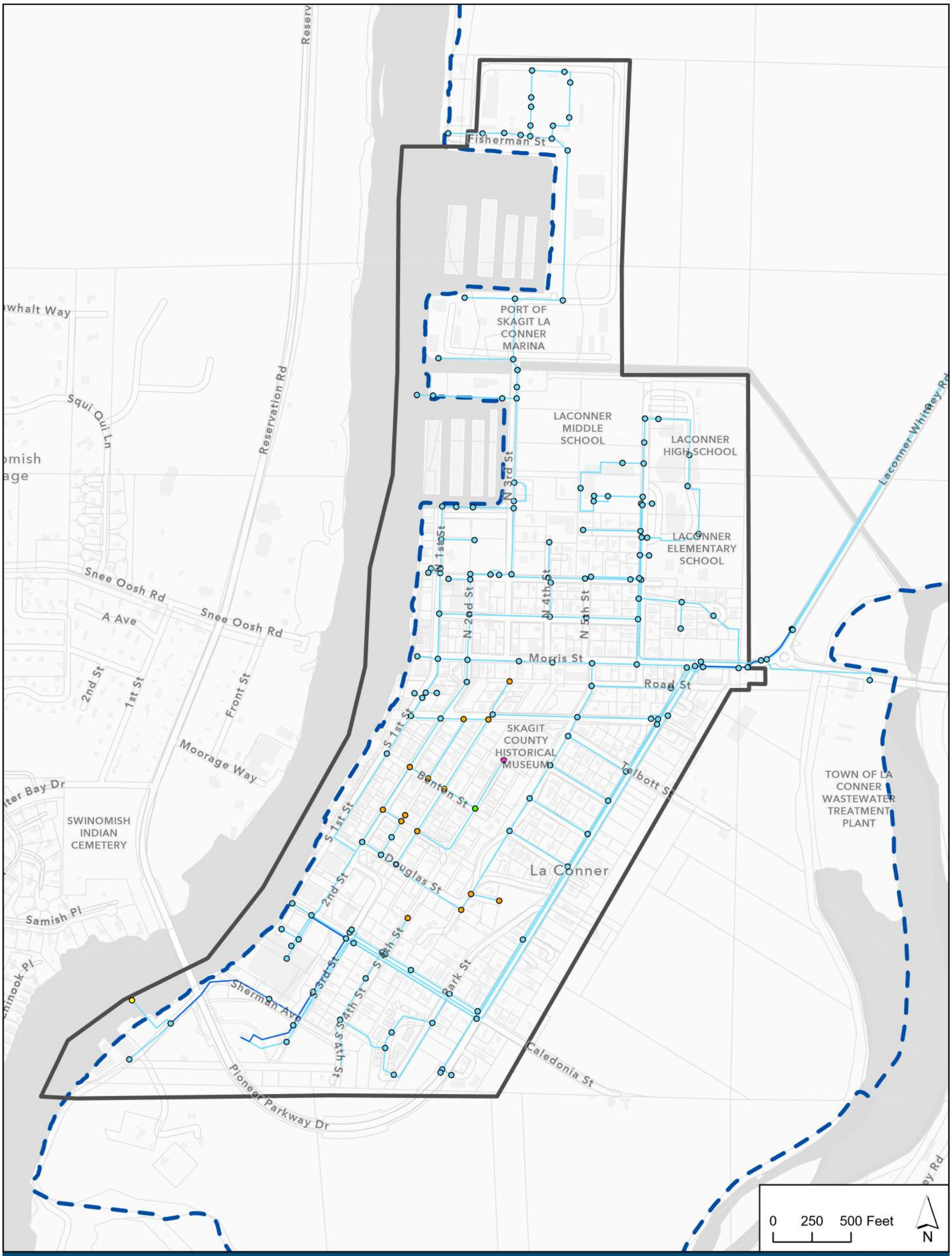
Figure 3.15b - Model MDD 2035 w/o Shelter Bay Scenairo North

Legend

MDD 2034 Junctions by Pressure	MDD 2034 Mains by Velocity
Less than 30 psi	Less than 1 fps
30-40 psi	1-3 fps
40-50 psi	3-6 fps
50-60 psi	Town of La Conner
60+ psi	La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.16a - Model MDD 2045 w/o Shelter Bay Scenairo South

Legend

MDD 2044 Junctions by Pressure

- Less than 30 fps
- 30-40 fps
- 40-50 fps
- 50-60 fps
- 60+ fps

MDD 2044 Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

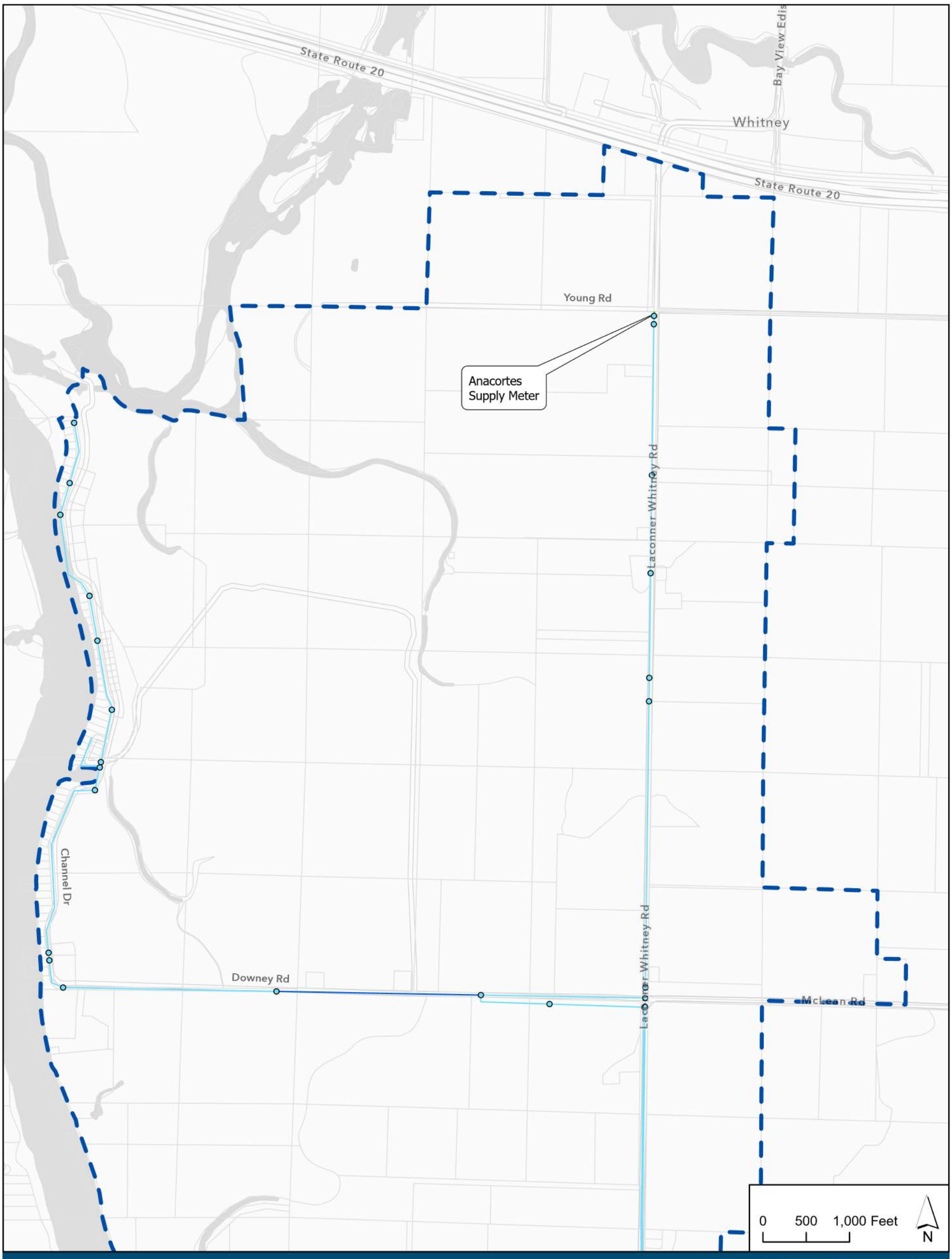


Figure 3.16b - Model MDD 2045 w/o Shelter Bay Scenairo North

Legend

MDD 2044 Junctions by Pressure	MDD 2044 Mains by Velocity
Less than 30 fps	Less than 1 fps
30-40 fps	1-3 fps
40-50 fps	3-6 fps
50-60 fps	Town of La Conner
60+ fps	La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

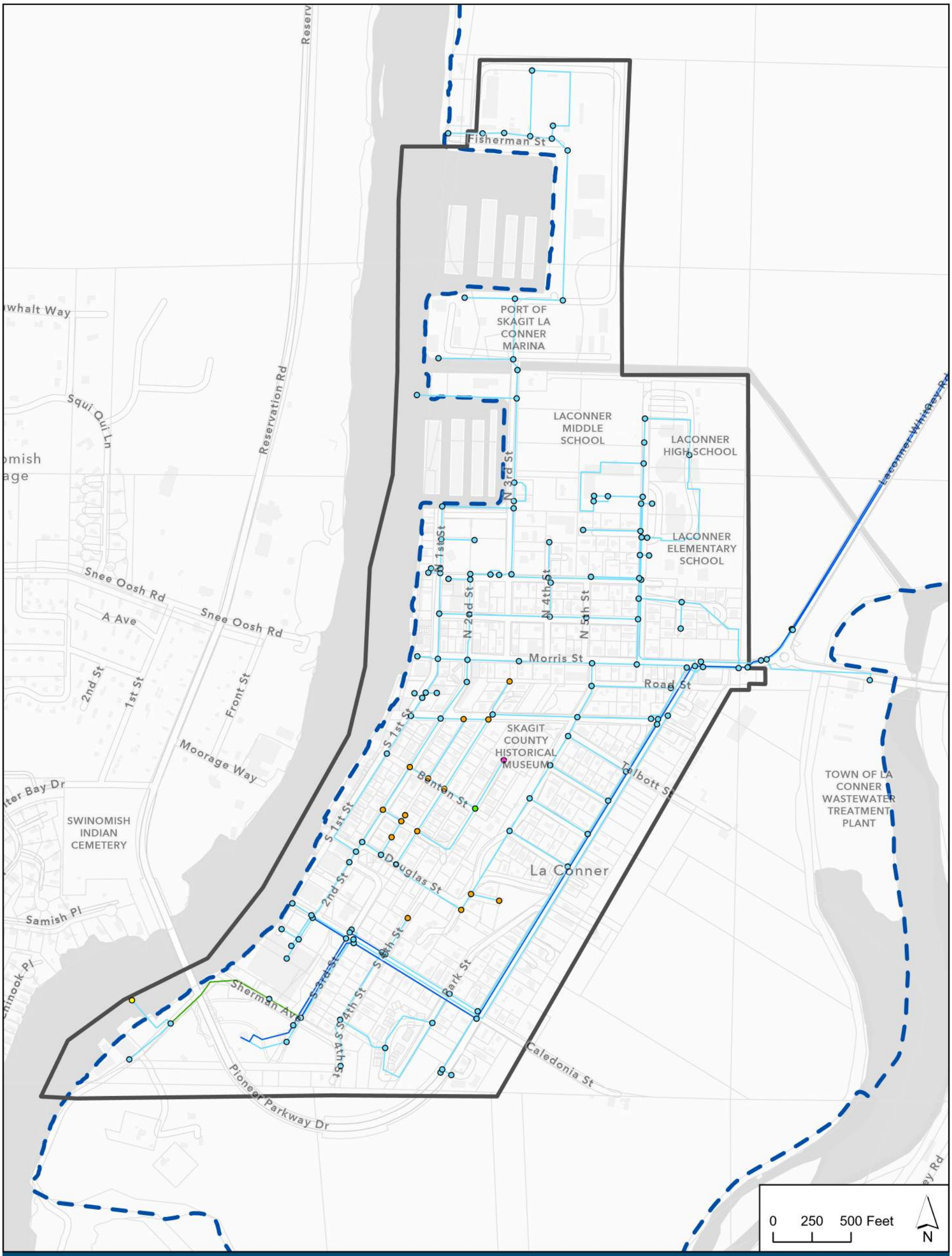


Figure 3.17a - Model PHD w/o Shelter Bay Scenairo South

Legend

PHD Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

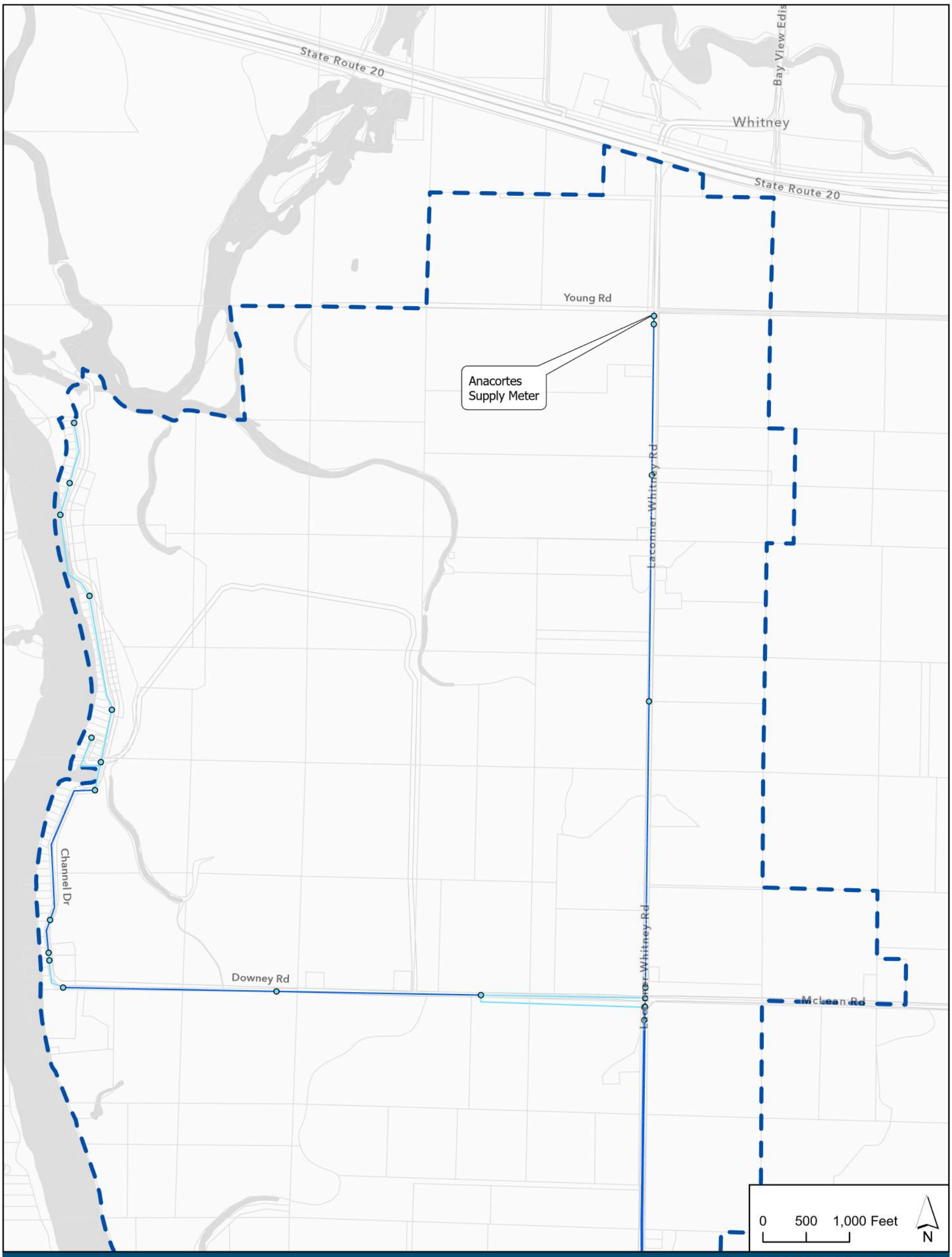


Figure 3.17b - Model PHD w/o Shelter Bay Scenairo North

Legend

PHD Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

PHD Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

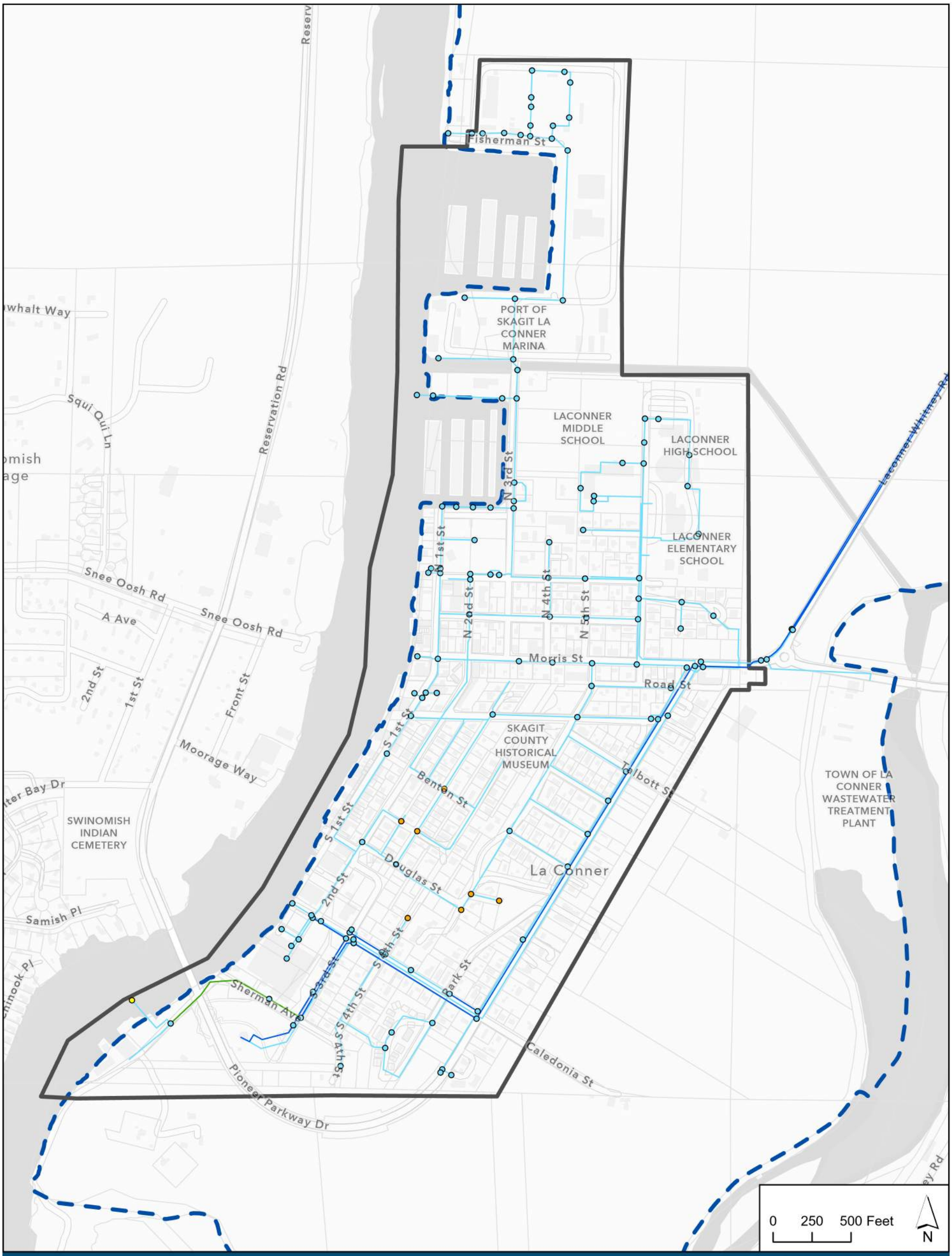


Figure 3.18a - Model PHD 2035 w/o Shelter Bay Scenairo South

Legend

PHD 2034 Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 PSI
- 60+ psi

PHD 2034 Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

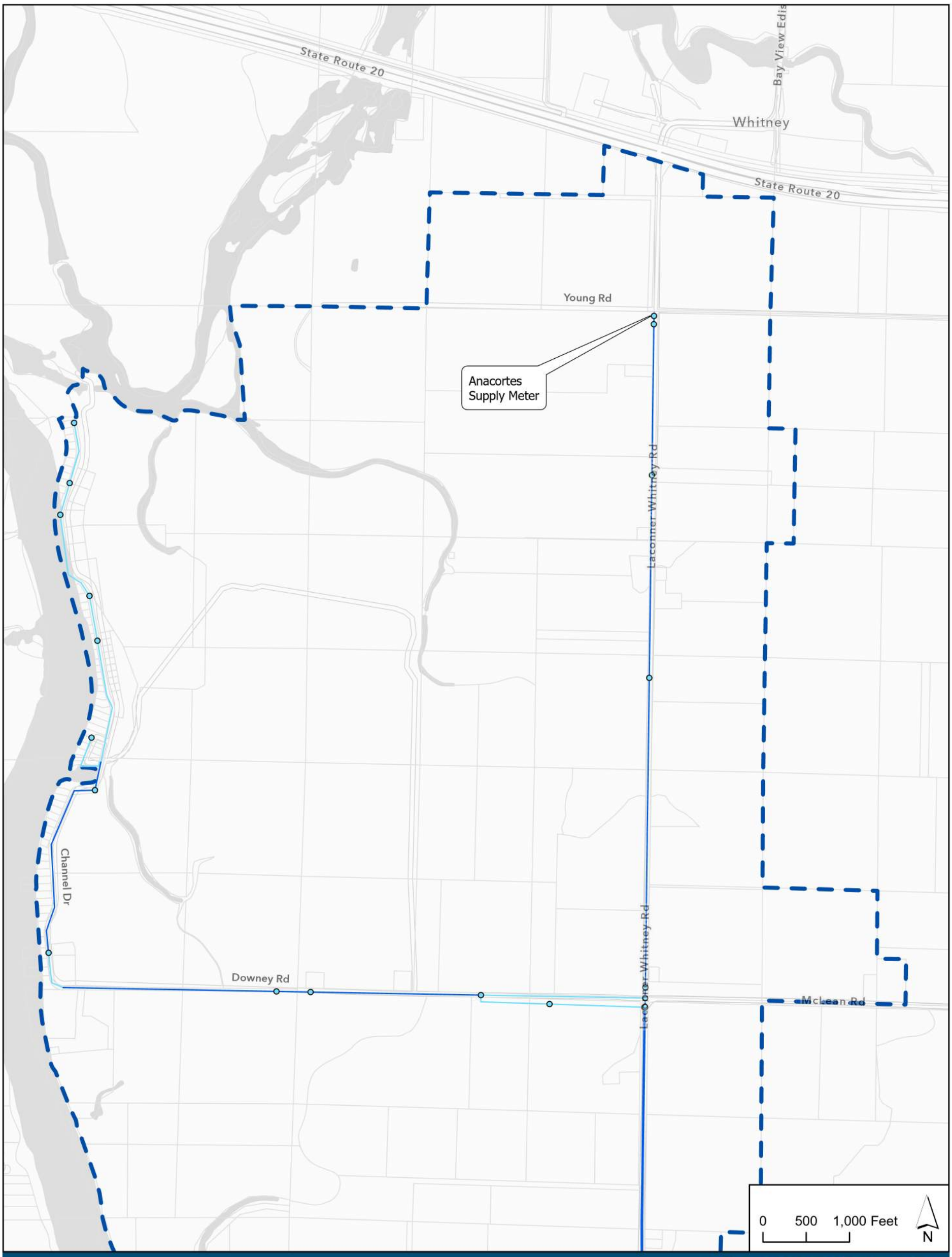


Figure 3.18b - Model PHD 2035 w/o Shelter Bay Scenairo North

Legend

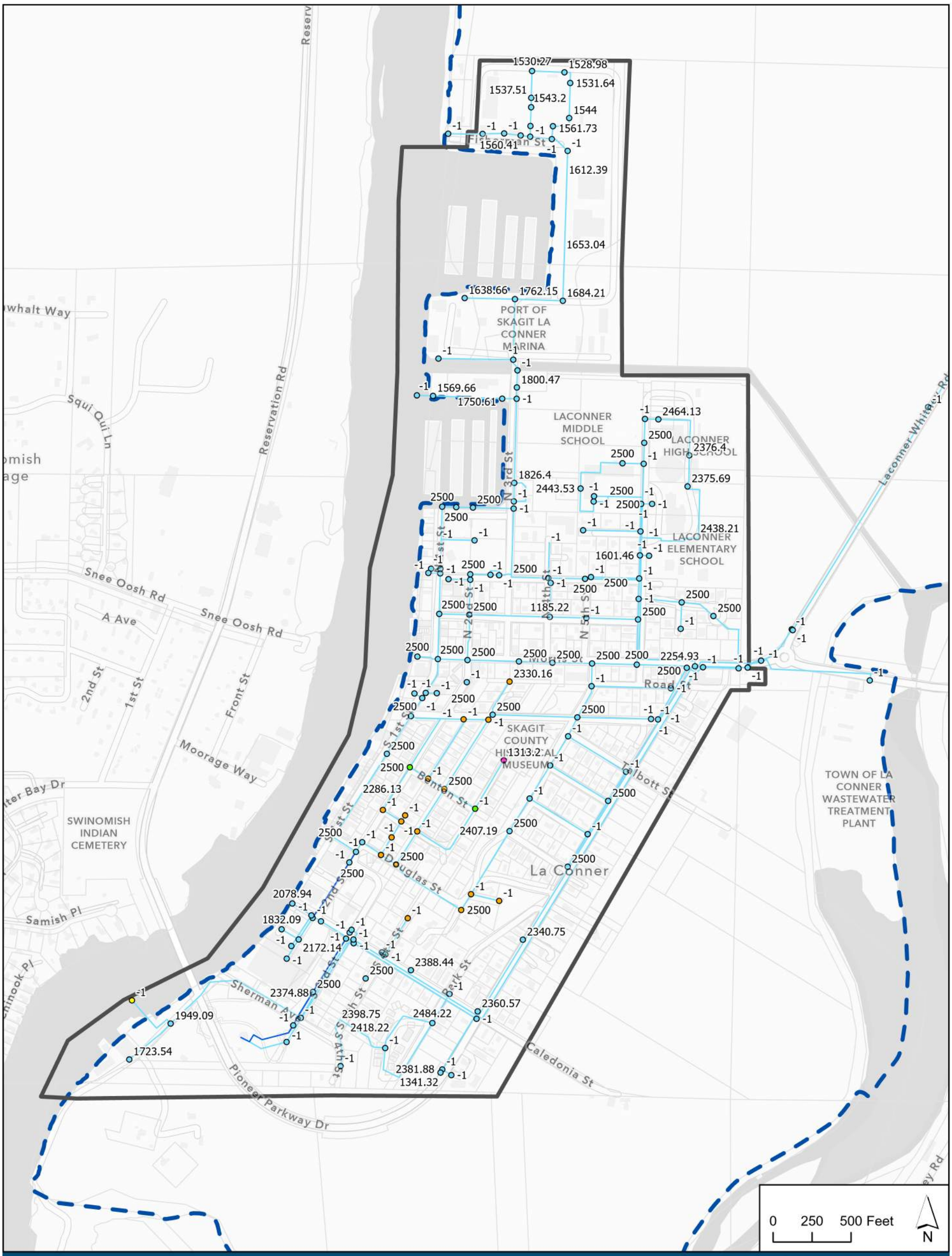
PHD 2034 Junctions by Pressure
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 PSI
- 60+ psi

PHD 2034 Mains by Velocity
- Less than 1 fps
- 1-3 fps
- 3-6 fps
- 6-10 fps

- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.19a - Model MDD & FF w/o Shelter Bay Scenairo South

Legend

MDD & FF Junctions by Pressure

- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD & FF Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

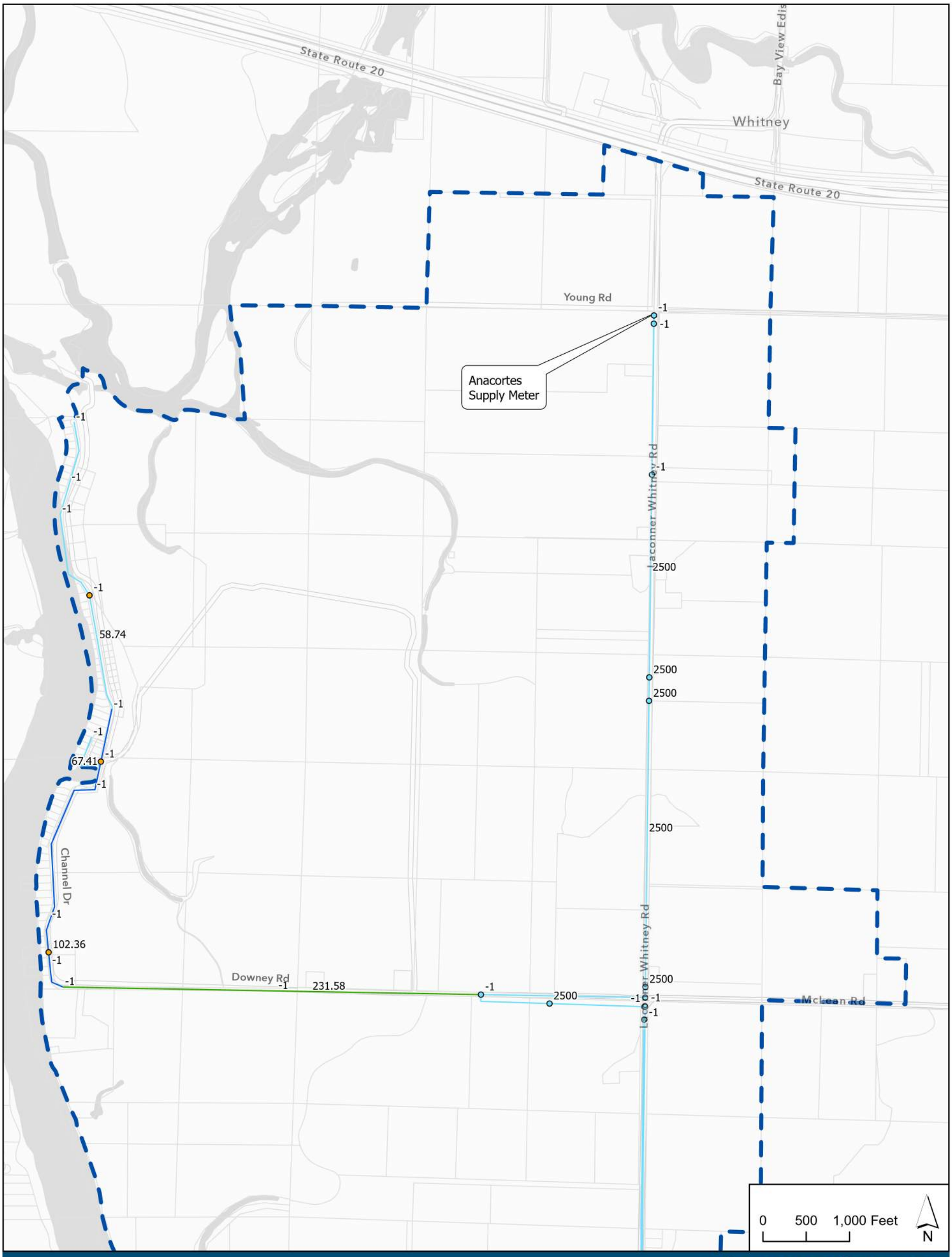


Figure 3.19b - Model MDD & FF w/o Shelter Bay Scenairo North

Legend

MDD & FF Junctions by Pressure

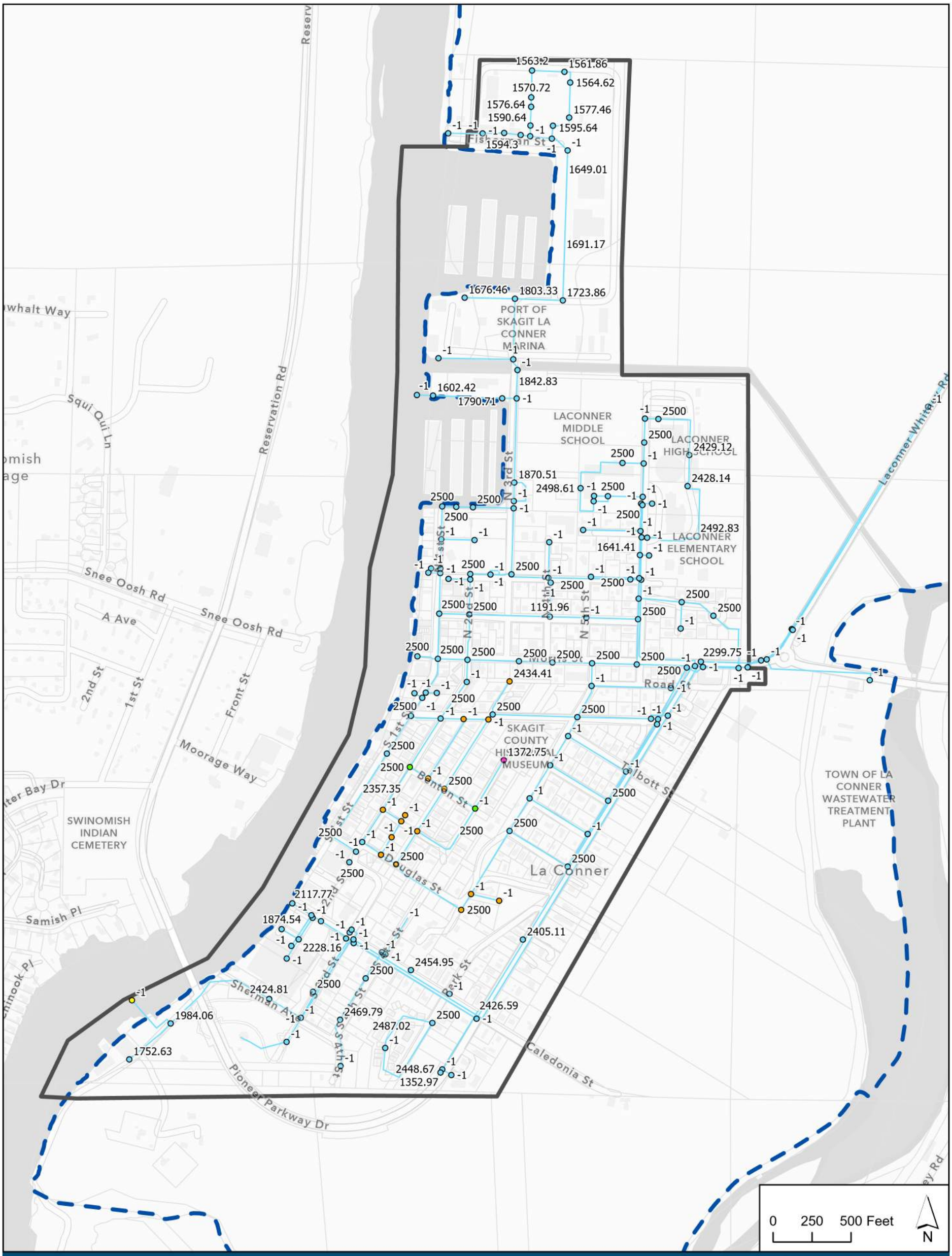
- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD & FF Mains by Velocity

- Less than 1 fps
- 1-3 fps
- 3-6 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx



La Conner Water System Plan

Figure 3.20a - Model MDD 2045 & FF w/o Shelter Bay Scenairo South

Legend

MDD 2044 & FF Junctions by Pressure

- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 & FF Mains by Velocity

- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

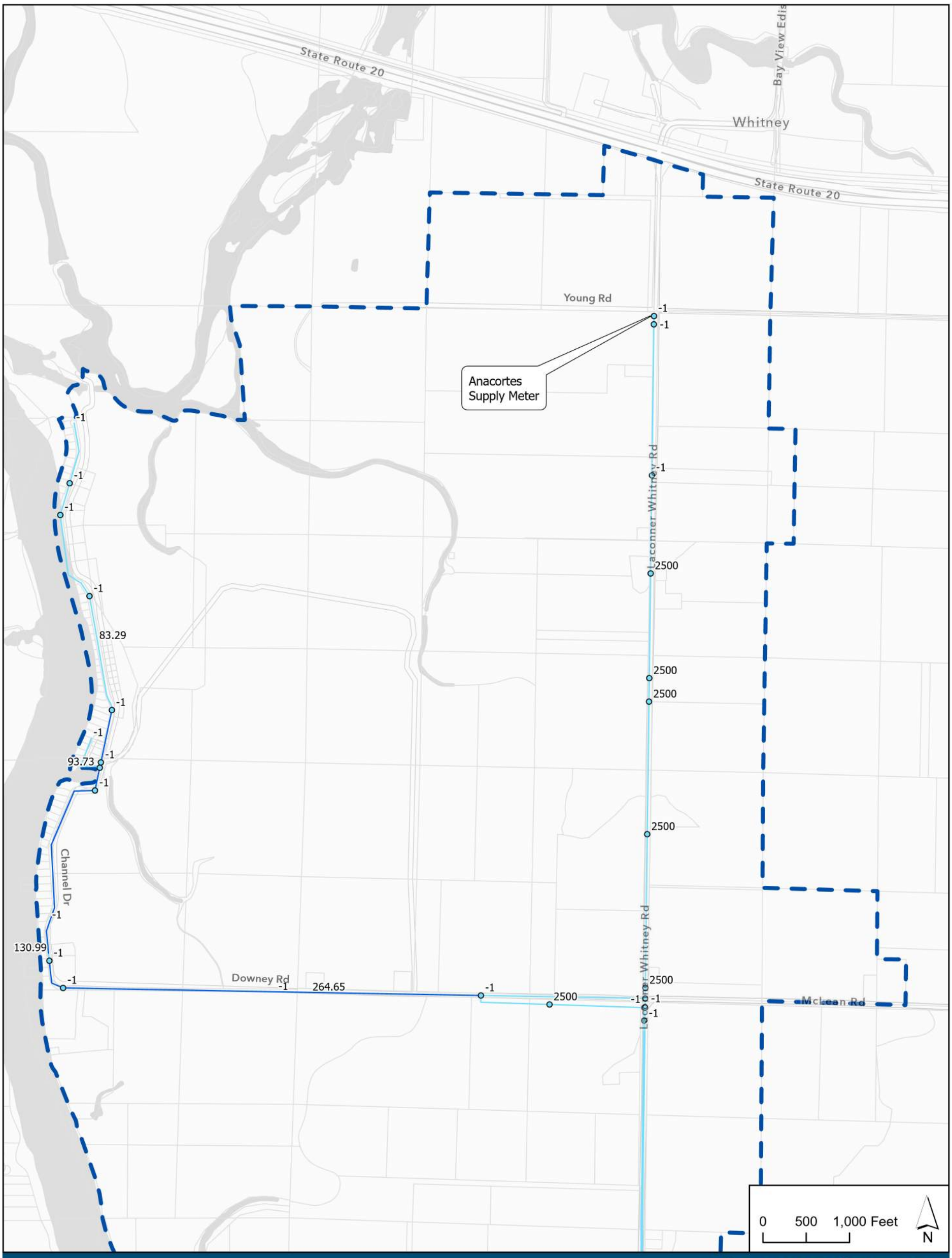


Figure 3.20b - Model MDD 2045 & FF w/o Shelter Bay Scenairo North

Legend

MDD 2044 & FF Junctions by Pressure

- Less than 30 psi
- 30-40 psi
- 40-50 psi
- 50-60 psi
- 60+ psi

MDD 2044 & FF Mains by Velocity

- Less than 1 fps
- 1-3 fps
- Town of La Conner
- La Conner Water Service Area

DAVID EVANS AND ASSOCIATES INC.

Path: P:\T\TOLC00002008\0600INFO\GS\TOLC00002008\TOLC00002008.aprx

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.9	0.00	195.8	(N/A)
666	C4	13.5	<None>	78.9	0.61	195.8	(N/A)
1038	C5	13.5	<None>	78.9	0.00	195.8	(N/A)
675	C6	13.5	<None>	78.9	0.17	195.9	(N/A)
1041	C7	13.5	<None>	78.9	0.00	195.9	(N/A)
1044	C8	13.5	<None>	78.9	0.00	195.9	(N/A)
85	J-1	15.5	Zone	77.6	0.44	195.0	(N/A)
86	J-2	15.5	Zone	77.6	0.20	195.0	(N/A)
87	J-3	15.5	Zone	77.7	2.92	195.1	(N/A)
88	J-5	13.5	Zone	78.6	0.46	195.2	(N/A)
89	J-6 (Ag)	13.5	Zone	78.9	0.58	195.8	(N/A)
90	J-7	13.5	Zone	78.9	0.18	195.8	(N/A)
92	J-9	13.5	Zone	78.9	0.58	195.8	(N/A)
95	J-12	13.5	Zone	78.9	0.14	195.9	(N/A)
96	J-13	13.5	Zone	78.9	2.72	195.9	(N/A)
97	J-15 (Ag)	13.5	Zone	78.8	0.00	195.6	(N/A)
98	J-16	13.5	Zone	78.7	0.05	195.5	(N/A)
99	J-17	11.0	Zone	79.8	0.20	195.5	(N/A)
100	J-18	9.0	Zone	80.7	0.34	195.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.29	165.3	(N/A)
103	J-21	15.5	Zone	64.8	0.51	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.03	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.28	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.15	165.3	(N/A)
114	J-32	9.0	Zone	80.7	0.11	195.5	(N/A)
118	J-36	6.5	Zone	73.7	0.66	176.8	(N/A)
119	J-37	8.5	Zone	72.8	0.00	176.8	(N/A)
120	J-38	8.5	Zone	80.9	0.17	195.5	(N/A)
126	J-45	43.0	Zone	57.9	0.53	176.8	(N/A)
133	J-52	9.0	Zone	72.6	0.22	176.8	(N/A)
137	J-56	64.0	Zone	48.8	1.20	176.8	(N/A)
141	J-60	26.0	Zone	65.3	0.14	176.9	(N/A)
143	J-62	47.0	Zone	56.2	1.11	176.8	(N/A)
145	J-64	12.4	Zone	71.1	0.00	176.9	(N/A)
146	J-66	8.0	Zone	81.1	0.07	195.4	(N/A)
147	J-67	8.0	Zone	73.1	0.61	176.9	(N/A)
148	J-68	6.1	Zone	73.9	1.64	176.9	(N/A)
150	J-70	6.0	Zone	82.0	0.59	195.4	(N/A)
152	J-72	7.0	Zone	73.5	1.12	176.9	(N/A)
154	J-74	8.0	Zone	73.1	0.17	176.9	(N/A)
156	J-76	40.0	Zone	67.3	0.00	195.5	(N/A)
157	J-77	20.0	Zone	75.7	0.00	195.0	(N/A)
162	J-82	21.5	Zone	75.3	2.25	195.5	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	73.1	0.33	176.9	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.5	0.21	176.8	(N/A)
167	J-88	13.0	Zone	70.9	0.75	176.8	(N/A)
168	J-89	9.5	Zone	80.5	2.59	195.5	(N/A)
169	J-90	8.5	Zone	80.9	0.00	195.5	(N/A)
170	J-91	9.5	Zone	80.5	0.31	195.5	(N/A)
171	J-94	9.0	Zone	80.7	0.03	195.5	(N/A)
173	J-96	8.0	Zone	81.1	0.77	195.5	(N/A)
174	J-97	8.5	Zone	80.9	0.04	195.5	(N/A)
175	J-99	8.5	Zone	72.8	0.51	176.8	(N/A)
176	J-100	8.5	Zone	72.8	0.00	176.8	(N/A)
178	J-102	10.0	Zone	72.2	0.00	176.8	(N/A)
179	J-103	10.0	Zone	72.2	0.08	176.8	(N/A)
181	J-105	10.0	Zone	72.2	0.00	176.8	(N/A)
182	J-106	9.0	Zone	72.6	0.00	176.8	(N/A)
185	J-109	8.0	Zone	73.1	0.38	176.8	(N/A)
187	J-112	9.5	Zone	72.4	0.53	176.8	(N/A)
188	J-113	8.0	Zone	73.1	6.19	176.8	(N/A)
189	J-114	9.0	Zone	72.6	0.57	176.8	(N/A)
190	J-115	9.0	Zone	72.6	0.44	176.8	(N/A)
191	J-116	8.0	Zone	73.1	0.72	176.8	(N/A)
192	J-117	11.0	Zone	71.8	0.78	176.8	(N/A)
193	J-118	13.3	Zone	70.8	0.04	176.8	(N/A)
194	J-119	13.3	Zone	70.8	0.27	176.8	(N/A)
195	J-120	7.0	Zone	73.5	1.09	176.8	(N/A)
198	J-122	8.0	Zone	73.1	2.57	176.8	(N/A)
199	J-123	9.0	Zone	72.6	0.00	176.8	(N/A)
201	J-125	27.0	Zone	64.8	1.09	176.9	(N/A)
202	J-126	20.0	Zone	67.9	0.02	176.9	(N/A)
203	J-127	8.0	Zone	73.1	0.00	176.9	(N/A)
206	J-130	11.0	Zone	79.8	0.00	195.4	(N/A)
207	J-131	10.0	Zone	80.2	0.00	195.4	(N/A)
210	J-134	15.0	Zone	70.0	0.19	176.8	(N/A)
211	J-135	49.0	Zone	55.3	0.46	176.8	(N/A)
213	J-137	9.0	Zone	72.6	0.15	176.8	(N/A)
215	J-139	8.5	Zone	80.9	0.20	195.5	(N/A)
217	J-141	12.0	Zone	79.4	0.20	195.5	(N/A)
218	J-142	7.0	Zone	73.5	0.07	176.8	(N/A)
219	J-143	7.0	Zone	73.5	0.04	176.8	(N/A)
220	J-144	40.0	Zone	59.2	0.93	176.9	(N/A)
197	J-145	8.0	LP	73.1	0.00	176.9	(N/A)
221	J-146	8.0	HP	81.1	0.00	195.5	(N/A)
407	J-148	15.5	Zone	77.7	0.22	195.2	(N/A)
417	J-149	10.0	Zone	72.2	0.27	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	72.2	0.15	176.8	(N/A)
422	J-151	37.0	Zone	60.5	0.09	176.9	(N/A)
423	J-152	48.0	Zone	55.7	0.06	176.9	(N/A)
429	J-154	9.0	Zone	72.6	0.57	176.8	(N/A)
449	J-158	7.0	Zone	81.5	0.32	195.5	(N/A)
453	J-159	7.0	Zone	81.6	1.78	195.5	(N/A)
470	J-161	10.0	Zone	72.2	0.00	176.8	(N/A)
473	J-162	10.0	Zone	80.3	0.00	195.5	(N/A)
480	J-163	13.5	Zone	78.7	0.21	195.5	(N/A)
490	J-165	12.0	Zone	79.4	0.00	195.5	(N/A)
493	J-166	12.0	Zone	79.4	0.00	195.5	(N/A)
633	J-168	8.0	<None>	81.2	1.53	195.6	(N/A)
636	J-169	8.0	<None>	81.2	0.58	195.6	(N/A)
640	J-170	10.0	<None>	80.2	0.72	195.4	(N/A)
642	J-172	34.0	<None>	61.8	0.04	176.9	(N/A)
646	J-173	49.0	<None>	55.3	2.27	176.9	(N/A)
650	J-174	49.0	<None>	55.3	0.37	176.9	(N/A)
663	J-178 (Ag)	9.9	<None>	80.4	2.92	195.7	(N/A)
672	J-180	15.5	<None>	77.6	1.52	195.0	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.9	0.39	195.9	(N/A)
682	J-184	13.5	<None>	78.7	2.06	195.4	(N/A)
748	J-185	40.0	<None>	59.2	0.79	176.8	(N/A)
753	J-187	15.5	<None>	77.7	1.89	195.0	(N/A)
756	J-188	15.5	<None>	77.7	1.54	195.0	(N/A)
764	J-190	14.0	<None>	65.5	0.10	165.3	(N/A)
783	J-191	9.6	<None>	72.4	0.00	177.0	(N/A)
811	J-192	7.0	<None>	73.5	0.00	176.9	(N/A)
814	J-193	0.0	<None>	76.5	1.39	176.9	(N/A)
818	J-195	0.0	<None>	76.5	0.00	176.9	(N/A)
826	J-198	8.2	<None>	73.0	0.24	176.8	(N/A)
829	J-199	0.0	<None>	76.5	0.56	176.8	(N/A)
836	J-202	13.9	<None>	65.5	0.02	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.14	165.3	(N/A)
841	J-204	9.5	<None>	80.5	0.00	195.5	(N/A)
849	J-207	0.0	<None>	76.5	0.38	176.8	(N/A)
852	J-208	13.5	<None>	78.9	0.00	195.8	(N/A)
855	J-209	13.4	<None>	78.9	0.04	195.8	(N/A)
859	J-210	15.5	<None>	77.7	0.19	195.0	(N/A)
862	J-211	0.0	<None>	84.4	0.51	195.0	(N/A)
871	J-214	7.9	<None>	73.1	0.63	176.9	(N/A)
875	J-215	8.5	<None>	72.8	0.19	176.8	(N/A)
879	J-216	9.6	<None>	72.3	0.05	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	80.0	1.59	195.5	(N/A)
902	J-225	15.5	<None>	77.6	1.42	195.0	(N/A)
911	J-226	39.0	<None>	59.7	0.00	176.8	(N/A)
914	J-227	39.0	<None>	59.6	0.00	176.8	(N/A)
116	N5	7.0	Zone	73.5	0.68	176.8	(N/A)
117	N10	8.0	Zone	73.1	0.55	176.8	(N/A)
184	N15	7.0	Zone	73.5	0.44	176.8	(N/A)
180	N20	10.0	Zone	72.2	0.00	176.8	(N/A)
115	N25	9.0	Zone	72.6	0.89	176.8	(N/A)
113	N27	8.0	Zone	73.1	0.00	176.8	(N/A)
209	N30	8.5	Zone	80.9	0.51	195.5	(N/A)
963	N35	8.8	<None>	80.8	0.00	195.5	(N/A)
960	N40	8.6	<None>	80.9	0.00	195.5	(N/A)
186	N43	8.0	Zone	73.1	1.13	176.8	(N/A)
957	N44	8.3	<None>	72.9	0.00	176.8	(N/A)
177	N45	8.5	Zone	72.8	0.19	176.8	(N/A)
112	N60	14.0	Zone	70.5	0.55	176.8	(N/A)
967	N65	14.0	<None>	70.5	0.00	176.8	(N/A)
970	N70	14.0	<None>	70.5	0.00	176.8	(N/A)
973	N75	13.7	<None>	78.7	0.00	195.5	(N/A)
979	N80	8.5	<None>	80.9	0.00	195.5	(N/A)
844	N81	9.2	<None>	80.6	0.00	195.5	(N/A)
976	N82	9.5	<None>	80.5	0.00	195.5	(N/A)
982	N83	9.5	<None>	80.5	0.00	195.5	(N/A)
163	N85	9.0	Zone	80.7	0.00	195.5	(N/A)
985	N86	9.0	<None>	80.7	0.00	195.5	(N/A)
172	N87	9.0	Zone	80.7	1.47	195.5	(N/A)
988	N88	8.9	<None>	80.7	0.00	195.5	(N/A)
991	N89	8.7	<None>	80.8	0.00	195.5	(N/A)
483	N90	15.0	Zone	65.0	2.97	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	80.7	0.00	195.5	(N/A)
110	N200	14.5	Zone	65.2	2.64	165.3	(N/A)
109	N205	13.5	Zone	65.7	0.74	165.3	(N/A)
107	N210	18.5	Zone	63.5	0.56	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	79.9	130.90	195.0	(N/A)
159	S8	14.5	Zone	78.1	0.37	195.0	(N/A)
155	S10	11.1	Zone	79.7	0.18	195.3	(N/A)
926	S15	9.0	<None>	72.7	0.00	176.9	(N/A)
153	S20	13.5	Zone	70.7	1.01	176.9	(N/A)
916	S21	6.7	<None>	73.6	0.00	176.9	(N/A)
919	S22	6.8	<None>	73.6	0.00	176.9	(N/A)
151	S23	6.1	Zone	73.9	0.23	176.9	(N/A)
923	S25	10.1	<None>	72.1	0.00	176.9	(N/A)
160	S30	7.0	Zone	73.5	0.00	176.9	(N/A)
149	S35	6.0	Zone	73.9	1.02	176.9	(N/A)
929	S40	7.2	<None>	73.4	0.00	176.9	(N/A)
204	S45	10.0	Zone	72.2	0.00	176.9	(N/A)
208	S50	10.0	Zone	72.2	0.08	176.9	(N/A)
205	S52	11.0	Zone	79.8	0.00	195.4	(N/A)
942	S55	10.3	<None>	80.1	0.00	195.4	(N/A)
144	S60	47.0	Zone	56.2	0.74	176.8	(N/A)
945	S65	7.0	<None>	73.5	0.00	176.9	(N/A)
936	S70	23.0	<None>	66.6	0.00	176.9	(N/A)
933	S72	17.7	Zone	68.8	0.00	176.9	(N/A)
142	S75	33.0	Zone	62.2	0.14	176.8	(N/A)
135	S80	8.0	Zone	73.1	2.61	176.9	(N/A)
136	S85	7.0	Zone	73.5	0.77	176.8	(N/A)
939	S90	16.2	<None>	69.5	0.00	176.8	(N/A)
138	S95	50.0	Zone	54.9	0.68	176.8	(N/A)
134	S100	8.0	Zone	73.1	0.80	176.8	(N/A)
139	S105	55.0	Zone	52.7	0.22	176.8	(N/A)
140	S110	10.0	Zone	72.2	2.35	176.8	(N/A)
128	S115	10.0	Zone	72.2	0.31	176.8	(N/A)
824	S117	0.0	<None>	76.5	0.40	176.8	(N/A)
457	S120	7.0	Zone	73.5	0.14	176.8	(N/A)
127	S130	48.5	Zone	55.5	0.23	176.8	(N/A)
125	S135	8.0	Zone	73.1	0.43	176.8	(N/A)
183	S136	10.0	Zone	72.2	0.00	176.8	(N/A)
124	S137	9.0	Zone	72.6	0.90	176.8	(N/A)
123	S140	8.0	Zone	73.1	1.13	176.8	(N/A)
954	S145	8.0	<None>	73.1	0.00	176.8	(N/A)
121	S150	10.3	Zone	72.0	0.92	176.8	(N/A)
161	S155	10.0	Zone	72.2	0.28	176.8	(N/A)
951	S160	12.8	<None>	71.0	0.00	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	73.1	0.70	176.8	(N/A)
657	S170	92.2	<None>	36.6	0.47	176.8	(N/A)
948	S175	57.5	<None>	51.6	0.00	176.8	(N/A)
1047	SB2	13.5	<None>	78.7	0.00	195.5	(N/A)
760	SB3	10.4	<None>	79.9	0.25	195.2	(N/A)
1050	SB4	15.5	<None>	77.7	0.00	195.0	(N/A)
1053	SB5	15.5	<None>	77.6	0.00	195.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.9	0.00	195.8	(N/A)
666	C4	13.5	<None>	78.9	0.61	195.8	(N/A)
1038	C5	13.5	<None>	78.9	0.00	195.8	(N/A)
675	C6	13.5	<None>	78.9	0.17	195.9	(N/A)
1041	C7	13.5	<None>	78.9	0.00	195.9	(N/A)
1044	C8	13.5	<None>	78.9	0.00	195.9	(N/A)
85	J-1	15.5	Zone	77.6	0.44	195.0	(N/A)
86	J-2	15.5	Zone	77.6	0.20	195.0	(N/A)
87	J-3	15.5	Zone	77.7	2.92	195.1	(N/A)
88	J-5	13.5	Zone	78.6	0.46	195.2	(N/A)
89	J-6 (Ag)	13.5	Zone	78.9	0.58	195.8	(N/A)
90	J-7	13.5	Zone	78.9	0.18	195.8	(N/A)
92	J-9	13.5	Zone	78.9	0.58	195.8	(N/A)
95	J-12	13.5	Zone	78.9	0.14	195.9	(N/A)
96	J-13	13.5	Zone	78.9	2.72	195.9	(N/A)
97	J-15 (Ag)	13.5	Zone	78.8	0.00	195.6	(N/A)
98	J-16	13.5	Zone	78.7	0.05	195.5	(N/A)
99	J-17	11.0	Zone	79.8	0.20	195.5	(N/A)
100	J-18	9.0	Zone	80.7	0.34	195.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.29	165.3	(N/A)
103	J-21	15.5	Zone	64.8	0.51	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.03	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.28	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.15	165.3	(N/A)
114	J-32	9.0	Zone	80.7	0.11	195.5	(N/A)
118	J-36	6.5	Zone	73.7	0.66	176.8	(N/A)
119	J-37	8.5	Zone	72.8	0.00	176.8	(N/A)
120	J-38	8.5	Zone	80.9	0.17	195.5	(N/A)
126	J-45	43.0	Zone	57.9	0.53	176.8	(N/A)
133	J-52	9.0	Zone	72.6	0.22	176.8	(N/A)
137	J-56	64.0	Zone	48.8	1.20	176.8	(N/A)
141	J-60	26.0	Zone	65.3	0.14	176.9	(N/A)
143	J-62	47.0	Zone	56.2	1.11	176.8	(N/A)
145	J-64	12.4	Zone	71.1	0.00	176.9	(N/A)
146	J-66	8.0	Zone	81.1	0.07	195.4	(N/A)
147	J-67	8.0	Zone	73.1	0.61	176.9	(N/A)
148	J-68	6.1	Zone	73.9	1.64	176.9	(N/A)
150	J-70	6.0	Zone	82.0	0.59	195.4	(N/A)
152	J-72	7.0	Zone	73.5	1.12	176.9	(N/A)
154	J-74	8.0	Zone	73.1	0.17	176.9	(N/A)
156	J-76	40.0	Zone	67.3	0.00	195.5	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	75.3	2.25	195.5	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	73.1	0.33	176.9	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.5	0.21	176.8	(N/A)
167	J-88	13.0	Zone	70.9	0.75	176.8	(N/A)
168	J-89	9.5	Zone	80.5	2.59	195.5	(N/A)
169	J-90	8.5	Zone	80.9	0.00	195.5	(N/A)
170	J-91	9.5	Zone	80.5	0.31	195.5	(N/A)
171	J-94	9.0	Zone	80.7	0.03	195.5	(N/A)
173	J-96	8.0	Zone	81.1	0.77	195.5	(N/A)
174	J-97	8.5	Zone	80.9	0.04	195.5	(N/A)
175	J-99	8.5	Zone	72.8	0.51	176.8	(N/A)
176	J-100	8.5	Zone	72.8	0.00	176.8	(N/A)
178	J-102	10.0	Zone	72.2	0.00	176.8	(N/A)
179	J-103	10.0	Zone	72.2	0.08	176.8	(N/A)
181	J-105	10.0	Zone	72.2	0.00	176.8	(N/A)
182	J-106	9.0	Zone	72.6	0.00	176.8	(N/A)
185	J-109	8.0	Zone	73.1	0.38	176.8	(N/A)
187	J-112	9.5	Zone	72.4	0.53	176.8	(N/A)
188	J-113	8.0	Zone	73.1	6.19	176.8	(N/A)
189	J-114	9.0	Zone	72.6	0.57	176.8	(N/A)
190	J-115	9.0	Zone	72.6	0.44	176.8	(N/A)
191	J-116	8.0	Zone	73.1	0.72	176.8	(N/A)
192	J-117	11.0	Zone	71.8	0.78	176.8	(N/A)
193	J-118	13.3	Zone	70.8	0.04	176.8	(N/A)
194	J-119	13.3	Zone	70.8	0.27	176.8	(N/A)
195	J-120	7.0	Zone	73.5	1.09	176.8	(N/A)
198	J-122	8.0	Zone	73.1	2.57	176.8	(N/A)
199	J-123	9.0	Zone	72.6	0.00	176.8	(N/A)
201	J-125	27.0	Zone	64.8	1.09	176.9	(N/A)
202	J-126	20.0	Zone	67.9	0.02	176.9	(N/A)
203	J-127	8.0	Zone	73.1	0.00	176.9	(N/A)
206	J-130	11.0	Zone	79.8	0.00	195.4	(N/A)
207	J-131	10.0	Zone	80.2	0.00	195.4	(N/A)
210	J-134	15.0	Zone	70.0	0.19	176.8	(N/A)
211	J-135	49.0	Zone	55.3	0.46	176.8	(N/A)
213	J-137	9.0	Zone	72.6	0.15	176.8	(N/A)
215	J-139	8.5	Zone	80.9	0.20	195.5	(N/A)
217	J-141	12.0	Zone	79.4	0.20	195.5	(N/A)
218	J-142	7.0	Zone	73.5	0.07	176.8	(N/A)
219	J-143	7.0	Zone	73.5	0.04	176.8	(N/A)
220	J-144	40.0	Zone	59.2	0.93	176.9	(N/A)
197	J-145	8.0	LP	73.1	0.00	176.9	(N/A)
221	J-146	8.0	HP	81.1	0.00	195.5	(N/A)
407	J-148	15.5	Zone	77.7	0.22	195.2	(N/A)
417	J-149	10.0	Zone	72.2	0.27	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	72.2	0.15	176.8	(N/A)
422	J-151	37.0	Zone	60.5	0.09	176.9	(N/A)
423	J-152	48.0	Zone	55.7	0.06	176.9	(N/A)
429	J-154	9.0	Zone	72.6	0.57	176.8	(N/A)
449	J-158	7.0	Zone	81.5	0.32	195.5	(N/A)
453	J-159	7.0	Zone	81.6	1.78	195.5	(N/A)
470	J-161	10.0	Zone	72.2	0.00	176.8	(N/A)
473	J-162	10.0	Zone	80.3	0.00	195.5	(N/A)
480	J-163	13.5	Zone	78.7	0.21	195.5	(N/A)
490	J-165	12.0	Zone	79.4	0.00	195.5	(N/A)
493	J-166	12.0	Zone	79.4	0.00	195.5	(N/A)
633	J-168	8.0	<None>	81.2	1.53	195.6	(N/A)
636	J-169	8.0	<None>	81.2	0.58	195.6	(N/A)
640	J-170	10.0	<None>	80.2	0.72	195.4	(N/A)
642	J-172	34.0	<None>	61.8	0.04	176.9	(N/A)
646	J-173	49.0	<None>	55.3	2.27	176.9	(N/A)
650	J-174	49.0	<None>	55.3	0.37	176.9	(N/A)
663	J-178 (Ag)	9.9	<None>	80.4	2.92	195.7	(N/A)
672	J-180	15.5	<None>	77.6	1.52	195.0	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.9	0.39	195.9	(N/A)
682	J-184	13.5	<None>	78.7	2.06	195.4	(N/A)
748	J-185	40.0	<None>	59.2	0.79	176.8	(N/A)
753	J-187	15.5	<None>	77.7	1.89	195.0	(N/A)
756	J-188	15.5	<None>	77.7	1.54	195.0	(N/A)
764	J-190	14.0	<None>	65.5	0.10	165.3	(N/A)
783	J-191	9.6	<None>	72.4	0.00	177.0	(N/A)
811	J-192	7.0	<None>	73.5	0.00	176.9	(N/A)
814	J-193	0.0	<None>	76.5	1.39	176.9	(N/A)
818	J-195	0.0	<None>	76.5	0.00	176.9	(N/A)
826	J-198	8.2	<None>	73.0	0.24	176.8	(N/A)
829	J-199	0.0	<None>	76.5	0.56	176.8	(N/A)
836	J-202	13.9	<None>	65.5	0.02	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.14	165.3	(N/A)
841	J-204	9.5	<None>	80.5	0.00	195.5	(N/A)
849	J-207	0.0	<None>	76.5	0.38	176.8	(N/A)
852	J-208	13.5	<None>	78.9	0.00	195.8	(N/A)
855	J-209	13.4	<None>	78.9	0.04	195.8	(N/A)
859	J-210	15.5	<None>	77.7	0.19	195.0	(N/A)
862	J-211	0.0	<None>	84.4	0.51	195.0	(N/A)
871	J-214	7.9	<None>	73.1	0.63	176.9	(N/A)
875	J-215	8.5	<None>	72.8	0.19	176.8	(N/A)
879	J-216	9.6	<None>	72.3	0.05	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	80.0	1.59	195.5	(N/A)
902	J-225	15.5	<None>	77.6	1.42	195.0	(N/A)
911	J-226	39.0	<None>	59.7	0.00	176.8	(N/A)
914	J-227	39.0	<None>	59.6	0.00	176.8	(N/A)
116	N5	7.0	Zone	73.5	0.68	176.8	(N/A)
117	N10	8.0	Zone	73.1	0.55	176.8	(N/A)
184	N15	7.0	Zone	73.5	0.44	176.8	(N/A)
180	N20	10.0	Zone	72.2	0.00	176.8	(N/A)
115	N25	9.0	Zone	72.6	0.89	176.8	(N/A)
113	N27	8.0	Zone	73.1	0.00	176.8	(N/A)
209	N30	8.5	Zone	80.9	0.51	195.5	(N/A)
963	N35	8.8	<None>	80.8	0.00	195.5	(N/A)
960	N40	8.6	<None>	80.9	0.00	195.5	(N/A)
186	N43	8.0	Zone	73.1	1.13	176.8	(N/A)
957	N44	8.3	<None>	72.9	0.00	176.8	(N/A)
177	N45	8.5	Zone	72.8	0.19	176.8	(N/A)
112	N60	14.0	Zone	70.5	0.55	176.8	(N/A)
967	N65	14.0	<None>	70.5	0.00	176.8	(N/A)
970	N70	14.0	<None>	70.5	0.00	176.8	(N/A)
973	N75	13.7	<None>	78.7	0.00	195.5	(N/A)
979	N80	8.5	<None>	80.9	0.00	195.5	(N/A)
844	N81	9.2	<None>	80.6	0.00	195.5	(N/A)
976	N82	9.5	<None>	80.5	0.00	195.5	(N/A)
982	N83	9.5	<None>	80.5	0.00	195.5	(N/A)
163	N85	9.0	Zone	80.7	0.00	195.5	(N/A)
985	N86	9.0	<None>	80.7	0.00	195.5	(N/A)
172	N87	9.0	Zone	80.7	1.47	195.5	(N/A)
988	N88	8.9	<None>	80.7	0.00	195.5	(N/A)
991	N89	8.7	<None>	80.8	0.00	195.5	(N/A)
483	N90	15.0	Zone	65.0	2.97	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	80.7	0.00	195.5	(N/A)
110	N200	14.5	Zone	65.2	2.64	165.3	(N/A)
109	N205	13.5	Zone	65.7	0.74	165.3	(N/A)
107	N210	18.5	Zone	63.5	0.56	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	79.9	130.90	195.0	(N/A)
159	S8	14.5	Zone	78.1	0.37	195.0	(N/A)
155	S10	11.1	Zone	79.7	0.18	195.3	(N/A)
926	S15	9.0	<None>	72.7	0.00	176.9	(N/A)
153	S20	13.5	Zone	70.7	1.01	176.9	(N/A)
916	S21	6.7	<None>	73.6	0.00	176.9	(N/A)
919	S22	6.8	<None>	73.6	0.00	176.9	(N/A)
151	S23	6.1	Zone	73.9	0.23	176.9	(N/A)
923	S25	10.1	<None>	72.1	0.00	176.9	(N/A)
160	S30	7.0	Zone	73.5	0.00	176.9	(N/A)
149	S35	6.0	Zone	73.9	1.02	176.9	(N/A)
929	S40	7.2	<None>	73.4	0.00	176.9	(N/A)
204	S45	10.0	Zone	72.2	0.00	176.9	(N/A)
208	S50	10.0	Zone	72.2	0.08	176.9	(N/A)
205	S52	11.0	Zone	79.8	0.00	195.4	(N/A)
942	S55	10.3	<None>	80.1	0.00	195.4	(N/A)
144	S60	47.0	Zone	56.2	0.74	176.8	(N/A)
945	S65	7.0	<None>	73.5	0.00	176.9	(N/A)
936	S70	23.0	<None>	66.6	0.00	176.9	(N/A)
933	S72	17.7	Zone	68.8	0.00	176.9	(N/A)
142	S75	33.0	Zone	62.2	0.14	176.8	(N/A)
135	S80	8.0	Zone	73.1	2.61	176.9	(N/A)
136	S85	7.0	Zone	73.5	0.77	176.8	(N/A)
939	S90	16.2	<None>	69.5	0.00	176.8	(N/A)
138	S95	50.0	Zone	54.9	0.68	176.8	(N/A)
134	S100	8.0	Zone	73.1	0.80	176.8	(N/A)
139	S105	55.0	Zone	52.7	0.22	176.8	(N/A)
140	S110	10.0	Zone	72.2	2.35	176.8	(N/A)
128	S115	10.0	Zone	72.2	0.31	176.8	(N/A)
824	S117	0.0	<None>	76.5	0.40	176.8	(N/A)
457	S120	7.0	Zone	73.5	0.14	176.8	(N/A)
127	S130	48.5	Zone	55.5	0.23	176.8	(N/A)
125	S135	8.0	Zone	73.1	0.43	176.8	(N/A)
183	S136	10.0	Zone	72.2	0.00	176.8	(N/A)
124	S137	9.0	Zone	72.6	0.90	176.8	(N/A)
123	S140	8.0	Zone	73.1	1.13	176.8	(N/A)
954	S145	8.0	<None>	73.1	0.00	176.8	(N/A)
121	S150	10.3	Zone	72.0	0.92	176.8	(N/A)
161	S155	10.0	Zone	72.2	0.28	176.8	(N/A)
951	S160	12.8	<None>	71.0	0.00	176.8	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	73.1	0.70	176.8	(N/A)
657	S170	92.2	<None>	36.6	0.47	176.8	(N/A)
948	S175	57.5	<None>	51.6	0.00	176.8	(N/A)
1047	SB2	13.5	<None>	78.7	0.00	195.5	(N/A)
760	SB3	10.4	<None>	79.9	0.25	195.2	(N/A)
1050	SB4	15.5	<None>	77.7	0.00	195.0	(N/A)
1053	SB5	15.5	<None>	77.6	0.00	195.0	(N/A)

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.05	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	1.14	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.28	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.01	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.04	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.01	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.02	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.01	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.01	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.02	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.02	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.03	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.24	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.00	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.02	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.01	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.02	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.03	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.02	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.04	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.02	8.0	Steel	False
289	WP-37	437	S85	S80	0.03	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.01	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.28	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.28	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	0.84	8.0	PVC	False
295	WP-42	780	S10	S7	0.84	8.0	PVC	False
296	WP-43	352	S7	S8	0.00	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.02	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	0.38	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.17	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
305	WP-51	362	J-72	S20	0.06	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.05	8.0	Ductile Iron	False
312	WP-57	140	J-23	J-21	0.00	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.00	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	(N/A)	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.00	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.08	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.00	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.01	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.00	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.01	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.01	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.01	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.01	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.01	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.04	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.03	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.02	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.02	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.01	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.05	2.0	PVC	False
343	WP-86	220	J-113	S100	0.04	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.04	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.03	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.04	8.0	PVC	False
348	WP-90	246	J-115	S85	0.04	8.0	PVC	False
349	WP-91	251	S100	J-116	0.04	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.05	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.00	4.0	PVC	False
352	WP-94	142	J-118	S115	0.04	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.03	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.01	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.01	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.01	6.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.01	10.0	Ductile Iron	False
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.12	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.14	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.03	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.01	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.02	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.01	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.01	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.01	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.02	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.02	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.02	4.0	PVC	False
398	WP-127	424	N30	J-141	0.03	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.13	6.0	PVC	False
412	WP-132	369	J-134	S105	0.05	10.0	PVC	False
419	WP-133	146	S165	J-150	0.02	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.01	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.02	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.01	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.28	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.28	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.02	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.01	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.02	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.02	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.03	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.03	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.02	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.05	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.05	8.0	PVC	False
485	WP-154	540	N90	J-29	0.02	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.26	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	0.31	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.03	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.16	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.01	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.18	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.27	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.26	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.02	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.06	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.07	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.02	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.06	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.07	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.01	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.01	4.0	PVC	False
653	WP-172	235	S95	J-56	0.00	8.0	PVC	False
659	WP-173	361	S170	J-56	0.00	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.03	8.0	Steel	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
665	WP-176	2,212	J-178 (Ag)	J-168	0.18	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.28	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.05	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.28	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.30	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.00	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.00	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.02	4.0	PVC	False
758	WP-188	1,795	J-188	J-3	0.20	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.27	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.12	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.02	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.04	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.14	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.01	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.02	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.06	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.01	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.01	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.01	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.00	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.00	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.00	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.27	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.27	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.20	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	0.40	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.14	4.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
863	WP-201	630	J-210	J-211	0.05	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	0.35	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.11	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.01	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.01	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.04	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.02	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.02	8.0	Ductile Iron	False
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	0.31	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	0.31	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.04	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.05	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.01	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.01	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.02	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.02	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.03	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.03	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.07	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.07	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	0.35	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	0.35	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.09	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.09	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
934	WP-106(1)	127	J-126	S72	0.14	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.14	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.04	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.04	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.04	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False
946	WP-56(1)	549	S80	S65	0.14	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.14	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.01	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.01	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.04	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.04	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.01	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.01	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.02	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.02	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.03	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.03	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.03	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.00	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.01	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.01	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.00	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.00	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.00	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.00	8.0	Ductile Iron	False
989	WP-69(1)	203	N87	N88	0.01	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.01	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.01	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.02	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.02	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.00	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.00	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.00	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False	-1.93	-1.93
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False	178.48	178.48
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False	175.76	175.76
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False	2.25	2.25
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False	15.06	15.06
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False	-1.62	-1.62
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False	-5.24	-5.24
1036	WP-4(1)	1,094	J-208	C3	0.05	10.0	Ductile Iron	False		
1037	WP-4(2)	872	C3	J-6 (Ag)	0.05	10.0	Ductile Iron	False		
1039	WP-179(1)	1,531	C6	C5	0.28	16.0	PVC	False		
1040	WP-179(2)	1,773	C5	C4	0.28	16.0	PVC	False		
1043	WP-181(2)	271	C7	C6	0.28	16.0	PVC	False		
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.28	16.0	PVC	False		
1046	WP-181(1)(2	1,209	C8	C7	0.28	16.0	PVC	False		
1048	WP-183(1)	394	J-184	SB2	0.35	4.0	PVC	False		
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	0.35	4.0	PVC	False		
1051	WP-189 A(1)	268	J-188	SB4	0.16	4.0	PVC	False		
1052	WP-189 A(2)	63	SB4	J-210	0.16	4.0	PVC	False		
1054	WP-187(1)	526	J-180	SB5	0.09	4.0	Asbestos Cement	False		
1055	WP-187(2)	821	SB5	J-187	0.09	4.0	Asbestos Cement	False		

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-3.46	-3.46
1.75	1.75
-2.54	-2.54
0.06	0.06
-4.24	-4.24
1.05	1.05
-21.34	-21.34
-0.07	-0.07
2.64	2.64
1.68	1.68
-1.61	-1.61
3.93	3.93
-2.90	-2.90
-6.44	-6.44
-3.25	-3.25
-5.48	-5.48
0.12	0.12
132.24	132.24
132.17	132.17
131.45	131.45
131.27	131.27
0.37	0.37
0.17	0.17
33.17	33.17
-15.00	-15.00
-9.62	-9.62
-8.27	-8.27
0.68	0.68
-0.84	-0.84
(N/A)	(N/A)
-0.55	-0.55
0.75	0.75
0.62	0.62
2.88	2.88
0.62	0.62
0.51	0.51
0.00	0.00
0.77	0.77
-1.51	-1.51
-1.59	-1.59
-1.59	-1.59
0.00	0.00
0.00	0.00
-10.35	-10.35
0.00	0.00
2.70	2.70

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
0.73	0.73
1.53	1.53
-0.92	-0.92
0.53	0.53
-3.23	-3.23
-5.95	-5.95
1.19	1.19
-6.30	-6.30
-6.87	-6.87
-3.91	-3.91
-4.51	-4.51
0.12	0.12
-3.39	-3.39
-2.58	-2.58
-1.21	-1.21
1.09	1.09
0.78	0.78
0.00	0.00
0.00	0.00
0.00	0.00
-2.57	-2.57
0.00	0.00
-28.96	-28.96
-33.07	-33.07
0.08	0.08
0.00	0.00
0.00	0.00
0.08	0.08
9.37	9.37
1.82	1.82
-3.22	-3.22
1.78	1.78
4.63	4.63
-0.92	-0.92
-1.44	-1.44
3.25	3.25
0.93	0.93
8.86	8.86
0.00	0.00
0.00	0.00
-11.10	-11.10
-12.14	-12.14
-3.61	-3.61
0.27	0.27
1.40	1.40
0.57	0.57

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
133.15	133.15
132.83	132.83
1.77	1.77
1.78	1.78
0.00	0.00
0.00	0.00
-3.32	-3.32
-3.29	-3.29
4.03	4.03
-4.20	-4.20
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
8.66	8.66
8.45	8.45
8.45	8.45
5.48	5.48
125.48	125.48
150.34	150.34
4.08	4.08
-24.86	-24.86
2.09	2.09
28.94	28.94
128.64	128.64
125.48	125.48
2.59	2.59
-9.48	-9.48
-11.00	-11.00
-1.48	-1.48
-15.58	-15.58
-16.88	-16.88
-0.97	-0.97
0.37	0.37
-0.42	-0.42
-0.47	-0.47
4.80	4.80
27.88	27.88
174.45	174.45
-2.06	-2.06
175.62	175.62
-11.56	-11.56
-0.49	-0.49
-0.34	-0.34

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
0.94	0.94
-7.71	-7.71
-10.63	-10.63
10.88	10.88
0.00	0.00
1.39	1.39
0.00	0.00
1.39	1.39
0.00	0.00
0.00	0.00
-21.34	-21.34
0.23	0.23
-1.28	-1.28
-2.07	-2.07
0.56	0.56
5.22	5.22
5.06	5.06
0.14	0.14
0.02	0.02
0.64	0.64
0.33	0.33
-0.31	-0.31
(N/A)	(N/A)
128.82	128.82
171.95	171.95
30.81	30.81
-141.11	-141.11
5.47	5.47
0.51	0.51
54.84	54.84
0.00	0.00
-9.93	-9.93
1.09	1.09
0.51	0.51
0.38	0.38
-2.73	-2.73
-2.78	-2.78
0.29	0.29
150.14	150.14
148.55	148.55
0.12	0.12
-0.44	-0.44
-1.86	-1.86
-2.16	-2.16
-2.16	-2.16
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-3.79	-3.79
-3.79	-3.79
-4.71	-4.71
-4.71	-4.71
10.80	10.80
10.80	10.80
54.84	54.84
54.84	54.84
-8.37	-8.37
-8.37	-8.37
-33.08	-33.08
-33.08	-33.08
-3.96	-3.96
-3.96	-3.96
-3.96	-3.96
0.00	0.00
0.00	0.00
-12.59	-12.59
-12.59	-12.59
-2.08	-2.08
-2.08	-2.08
-10.35	-10.35
-10.35	-10.35
-2.33	-2.33
-2.33	-2.33
-2.58	-2.58
-2.58	-2.58
10.26	10.26
10.26	10.26
10.26	10.26
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.33	0.33
3.52	3.52
3.52	3.52
0.33	0.33
0.33	0.33
0.59	0.59
0.59	0.59
-0.88	-0.88
-0.88	-0.88
-0.88	-0.88
5.33	5.33

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
5.33	5.33
0.00	0.00
0.00	0.00
0.00	0.00
1.12	1.12
1.12	1.12
1.12	1.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.29	0.29
0.29	0.29
0.00	0.00
0.00	0.00
12.28	12.28
12.28	12.28
175.06	175.06
175.06	175.06
175.23	175.23
175.23	175.23
175.23	175.23
-13.63	-13.63
-13.63	-13.63
6.17	6.17
6.17	6.17
-3.58	-3.58
-3.58	-3.58

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.05	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	1.14	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.28	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.01	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.04	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.01	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.02	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.01	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.01	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.02	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.02	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.03	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.24	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.00	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.02	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.01	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.02	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.03	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.02	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.04	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.02	8.0	Steel	False
289	WP-37	437	S85	S80	0.03	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.01	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.28	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.28	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	0.84	8.0	PVC	False
295	WP-42	780	S10	S7	0.84	8.0	PVC	False
296	WP-43	352	S7	S8	0.00	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.02	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	0.38	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.17	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
305	WP-51	362	J-72	S20	0.06	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.05	8.0	Ductile Iron	False
312	WP-57	140	J-23	J-21	0.00	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.00	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	0.00	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.00	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.08	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.00	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.01	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.00	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.01	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.01	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.01	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.01	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.01	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.04	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.03	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.02	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.02	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.01	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.05	2.0	PVC	False
343	WP-86	220	J-113	S100	0.04	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.04	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.03	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.04	8.0	PVC	False
348	WP-90	246	J-115	S85	0.04	8.0	PVC	False
349	WP-91	251	S100	J-116	0.04	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.05	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.00	4.0	PVC	False
352	WP-94	142	J-118	S115	0.04	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.03	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.01	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.01	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.01	6.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.01	10.0	Ductile Iron	False
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.12	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.14	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.03	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.01	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.02	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.01	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.01	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.01	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.02	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.02	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.02	4.0	PVC	False
398	WP-127	424	N30	J-141	0.03	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.13	6.0	PVC	False
412	WP-132	369	J-134	S105	0.05	10.0	PVC	False
419	WP-133	146	S165	J-150	0.02	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.01	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.02	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.01	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.28	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.28	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.02	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.01	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.02	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.02	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.03	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.03	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.02	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.05	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.05	8.0	PVC	False
485	WP-154	540	N90	J-29	0.02	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.26	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	0.31	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.03	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.16	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.01	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.18	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.27	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.26	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.02	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.06	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.07	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.02	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.06	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.07	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.01	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.01	4.0	PVC	False
653	WP-172	235	S95	J-56	0.00	8.0	PVC	False
659	WP-173	361	S170	J-56	0.00	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.03	8.0	Steel	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
665	WP-176	2,212	J-178 (Ag)	J-168	0.18	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.28	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.05	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.28	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.30	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.00	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.00	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.02	4.0	PVC	False
758	WP-188	1,795	J-188	J-3	0.20	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.27	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.12	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.02	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.04	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.14	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.01	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.02	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.06	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.01	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.01	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.01	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.00	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.00	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.00	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.27	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.27	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.20	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	0.40	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.14	4.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
863	WP-201	630	J-210	J-211	0.05	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	0.35	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.11	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.01	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.01	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.04	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.02	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.02	8.0	Ductile Iron	False
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	0.31	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	0.31	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.04	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.05	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.01	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.01	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.02	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.02	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.03	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.03	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.07	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.07	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	0.35	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	0.35	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.09	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.09	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
934	WP-106(1)	127	J-126	S72	0.14	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.14	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.04	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.04	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.04	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False
946	WP-56(1)	549	S80	S65	0.14	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.14	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.01	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.01	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.04	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.04	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.01	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.01	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.02	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.02	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.03	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.03	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.03	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.00	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.01	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.01	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.00	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.00	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.00	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.00	8.0	Ductile Iron	False
989	WP-69(1)	203	N87	N88	0.01	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.01	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.01	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.02	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.02	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.00	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.00	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.00	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False	-1.93	-1.93
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False	178.48	178.48
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False	175.76	175.76
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False	2.25	2.25
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False	15.06	15.06
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False	-1.62	-1.62
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False	-5.24	-5.24
1036	WP-4(1)	1,094	J-208	C3	0.05	10.0	Ductile Iron	False		
1037	WP-4(2)	872	C3	J-6 (Ag)	0.05	10.0	Ductile Iron	False		
1039	WP-179(1)	1,531	C6	C5	0.28	16.0	PVC	False		
1040	WP-179(2)	1,773	C5	C4	0.28	16.0	PVC	False		
1043	WP-181(2)	271	C7	C6	0.28	16.0	PVC	False		
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.28	16.0	PVC	False		
1046	WP-181(1)(2	1,209	C8	C7	0.28	16.0	PVC	False		
1048	WP-183(1)	394	J-184	SB2	0.35	4.0	PVC	False		
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	0.35	4.0	PVC	False		
1051	WP-189 A(1)	268	J-188	SB4	0.16	4.0	PVC	False		
1052	WP-189 A(2)	63	SB4	J-210	0.16	4.0	PVC	False		
1054	WP-187(1)	526	J-180	SB5	0.09	4.0	Asbestos Cement	False		
1055	WP-187(2)	821	SB5	J-187	0.09	4.0	Asbestos Cement	False		

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-3.46	-3.46
1.75	1.75
-2.54	-2.54
0.06	0.06
-4.24	-4.24
1.05	1.05
-21.34	-21.34
-0.07	-0.07
2.64	2.64
1.68	1.68
-1.61	-1.61
3.93	3.93
-2.90	-2.90
-6.44	-6.44
-3.25	-3.25
-5.48	-5.48
0.12	0.12
132.24	132.24
132.17	132.17
131.45	131.45
131.27	131.27
0.37	0.37
0.17	0.17
33.17	33.17
-15.00	-15.00
-9.62	-9.62
-8.27	-8.27
0.68	0.68
-0.84	-0.84
0.00	0.00
-0.55	-0.55
0.75	0.75
0.62	0.62
2.88	2.88
0.62	0.62
0.51	0.51
0.00	0.00
0.77	0.77
-1.51	-1.51
-1.59	-1.59
-1.59	-1.59
0.00	0.00
0.00	0.00
-10.35	-10.35
0.00	0.00
2.70	2.70

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
0.73	0.73
1.53	1.53
-0.92	-0.92
0.53	0.53
-3.23	-3.23
-5.95	-5.95
1.19	1.19
-6.30	-6.30
-6.87	-6.87
-3.91	-3.91
-4.51	-4.51
0.12	0.12
-3.39	-3.39
-2.58	-2.58
-1.21	-1.21
1.09	1.09
0.78	0.78
0.00	0.00
0.00	0.00
0.00	0.00
-2.57	-2.57
0.00	0.00
-28.96	-28.96
-33.07	-33.07
0.08	0.08
0.00	0.00
0.00	0.00
0.08	0.08
9.37	9.37
1.82	1.82
-3.22	-3.22
1.78	1.78
4.63	4.63
-0.92	-0.92
-1.44	-1.44
3.25	3.25
0.93	0.93
8.86	8.86
0.00	0.00
0.00	0.00
-11.10	-11.10
-12.14	-12.14
-3.61	-3.61
0.27	0.27
1.40	1.40
0.57	0.57

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
133.15	133.15
132.83	132.83
1.77	1.77
1.78	1.78
0.00	0.00
0.00	0.00
-3.32	-3.32
-3.29	-3.29
4.03	4.03
-4.20	-4.20
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
8.66	8.66
8.45	8.45
8.45	8.45
5.48	5.48
125.48	125.48
150.34	150.34
4.08	4.08
-24.86	-24.86
2.09	2.09
28.94	28.94
128.64	128.64
125.48	125.48
2.59	2.59
-9.48	-9.48
-11.00	-11.00
-1.48	-1.48
-15.58	-15.58
-16.88	-16.88
-0.97	-0.97
0.37	0.37
-0.42	-0.42
-0.47	-0.47
4.80	4.80
27.88	27.88
174.45	174.45
-2.06	-2.06
175.62	175.62
-11.56	-11.56
-0.49	-0.49
-0.34	-0.34

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
0.94	0.94
-7.71	-7.71
-10.63	-10.63
10.88	10.88
0.00	0.00
1.39	1.39
0.00	0.00
1.39	1.39
0.00	0.00
0.00	0.00
-21.34	-21.34
0.23	0.23
-1.28	-1.28
-2.07	-2.07
0.56	0.56
5.22	5.22
5.06	5.06
0.14	0.14
0.02	0.02
0.64	0.64
0.33	0.33
-0.31	-0.31
(N/A)	(N/A)
128.82	128.82
171.95	171.95
30.81	30.81
-141.11	-141.11
5.47	5.47
0.51	0.51
54.84	54.84
0.00	0.00
-9.93	-9.93
1.09	1.09
0.51	0.51
0.38	0.38
-2.73	-2.73
-2.78	-2.78
0.29	0.29
150.14	150.14
148.55	148.55
0.12	0.12
-0.44	-0.44
-1.86	-1.86
-2.16	-2.16
-2.16	-2.16
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-3.79	-3.79
-3.79	-3.79
-4.71	-4.71
-4.71	-4.71
10.80	10.80
10.80	10.80
54.84	54.84
54.84	54.84
-8.37	-8.37
-8.37	-8.37
-33.08	-33.08
-33.08	-33.08
-3.96	-3.96
-3.96	-3.96
-3.96	-3.96
0.00	0.00
0.00	0.00
-12.59	-12.59
-12.59	-12.59
-2.08	-2.08
-2.08	-2.08
-10.35	-10.35
-10.35	-10.35
-2.33	-2.33
-2.33	-2.33
-2.58	-2.58
-2.58	-2.58
10.26	10.26
10.26	10.26
10.26	10.26
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.33	0.33
3.52	3.52
3.52	3.52
0.33	0.33
0.33	0.33
0.59	0.59
0.59	0.59
-0.88	-0.88
-0.88	-0.88
-0.88	-0.88
5.33	5.33

FlexTable: Pipe Table

Active Scenario: BASE-ADD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
5.33	5.33
0.00	0.00
0.00	0.00
0.00	0.00
1.12	1.12
1.12	1.12
1.12	1.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.12	0.12
0.29	0.29
0.29	0.29
0.00	0.00
0.00	0.00
12.28	12.28
12.28	12.28
175.06	175.06
175.06	175.06
175.23	175.23
175.23	175.23
175.23	175.23
-13.63	-13.63
-13.63	-13.63
6.17	6.17
6.17	6.17
-3.58	-3.58
-3.58	-3.58

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.9	0.00	195.8	(N/A)
666	C4	13.5	<None>	78.9	0.55	195.8	(N/A)
1038	C5	13.5	<None>	78.9	0.00	195.9	(N/A)
675	C6	13.5	<None>	78.9	0.16	195.9	(N/A)
1041	C7	13.5	<None>	78.9	0.00	195.9	(N/A)
1044	C8	13.5	<None>	78.9	0.00	195.9	(N/A)
85	J-1	15.5	Zone	77.7	0.40	195.1	(N/A)
86	J-2	15.5	Zone	77.7	0.18	195.1	(N/A)
87	J-3	15.5	Zone	77.8	2.66	195.3	(N/A)
88	J-5	13.5	Zone	78.6	0.42	195.3	(N/A)
89	J-6 (Ag)	13.5	Zone	78.9	0.53	195.8	(N/A)
90	J-7	13.5	Zone	78.9	0.16	195.8	(N/A)
92	J-9	13.5	Zone	78.9	0.52	195.8	(N/A)
95	J-12	13.5	Zone	78.9	0.13	195.9	(N/A)
96	J-13	13.5	Zone	78.9	2.48	196.0	(N/A)
97	J-15 (Ag)	13.5	Zone	78.8	0.00	195.6	(N/A)
98	J-16	13.5	Zone	78.8	0.04	195.6	(N/A)
99	J-17	11.0	Zone	79.9	0.18	195.6	(N/A)
100	J-18	9.0	Zone	80.7	0.31	195.6	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.26	165.3	(N/A)
103	J-21	15.5	Zone	64.8	0.47	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.03	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.26	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.14	165.3	(N/A)
114	J-32	9.0	Zone	80.7	0.10	195.6	(N/A)
118	J-36	6.5	Zone	73.7	0.60	176.9	(N/A)
119	J-37	8.5	Zone	72.8	0.00	176.9	(N/A)
120	J-38	8.5	Zone	80.9	0.15	195.6	(N/A)
126	J-45	43.0	Zone	57.9	0.48	176.9	(N/A)
133	J-52	9.0	Zone	72.6	0.20	176.9	(N/A)
137	J-56	64.0	Zone	48.8	1.09	176.9	(N/A)
141	J-60	26.0	Zone	65.3	0.13	176.9	(N/A)
143	J-62	47.0	Zone	56.2	1.01	176.9	(N/A)
145	J-64	12.4	Zone	71.2	0.00	176.9	(N/A)
146	J-66	8.0	Zone	81.1	0.06	195.5	(N/A)
147	J-67	8.0	Zone	73.1	0.56	176.9	(N/A)
148	J-68	6.1	Zone	73.9	1.49	176.9	(N/A)
150	J-70	6.0	Zone	82.0	0.54	195.5	(N/A)
152	J-72	7.0	Zone	73.5	1.01	176.9	(N/A)
154	J-74	8.0	Zone	73.1	0.16	176.9	(N/A)
156	J-76	40.0	Zone	67.3	0.00	195.6	(N/A)
157	J-77	20.0	Zone	75.8	0.00	195.2	(N/A)
162	J-82	21.5	Zone	75.3	2.05	195.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	73.1	0.30	176.9	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.5	0.19	176.9	(N/A)
167	J-88	13.0	Zone	70.9	0.68	176.9	(N/A)
168	J-89	9.5	Zone	80.5	2.36	195.6	(N/A)
169	J-90	8.5	Zone	80.9	0.00	195.6	(N/A)
170	J-91	9.5	Zone	80.5	0.28	195.6	(N/A)
171	J-94	9.0	Zone	80.7	0.03	195.6	(N/A)
173	J-96	8.0	Zone	81.2	0.70	195.6	(N/A)
174	J-97	8.5	Zone	80.9	0.03	195.6	(N/A)
175	J-99	8.5	Zone	72.8	0.47	176.9	(N/A)
176	J-100	8.5	Zone	72.8	0.00	176.9	(N/A)
178	J-102	10.0	Zone	72.2	0.00	176.9	(N/A)
179	J-103	10.0	Zone	72.2	0.07	176.9	(N/A)
181	J-105	10.0	Zone	72.2	0.00	176.9	(N/A)
182	J-106	9.0	Zone	72.6	0.00	176.9	(N/A)
185	J-109	8.0	Zone	73.1	0.34	176.9	(N/A)
187	J-112	9.5	Zone	72.4	0.48	176.9	(N/A)
188	J-113	8.0	Zone	73.1	5.62	176.9	(N/A)
189	J-114	9.0	Zone	72.6	0.51	176.9	(N/A)
190	J-115	9.0	Zone	72.6	0.40	176.9	(N/A)
191	J-116	8.0	Zone	73.1	0.66	176.9	(N/A)
192	J-117	11.0	Zone	71.8	0.71	176.9	(N/A)
193	J-118	13.3	Zone	70.8	0.03	176.9	(N/A)
194	J-119	13.3	Zone	70.8	0.25	176.9	(N/A)
195	J-120	7.0	Zone	73.5	1.00	176.9	(N/A)
198	J-122	8.0	Zone	73.1	2.34	176.9	(N/A)
199	J-123	9.0	Zone	72.6	0.00	176.9	(N/A)
201	J-125	27.0	Zone	64.8	0.99	176.9	(N/A)
202	J-126	20.0	Zone	67.9	0.02	176.9	(N/A)
203	J-127	8.0	Zone	73.1	0.00	176.9	(N/A)
206	J-130	11.0	Zone	79.8	0.00	195.5	(N/A)
207	J-131	10.0	Zone	80.3	0.00	195.5	(N/A)
210	J-134	15.0	Zone	70.0	0.17	176.9	(N/A)
211	J-135	49.0	Zone	55.3	0.42	176.9	(N/A)
213	J-137	9.0	Zone	72.6	0.14	176.9	(N/A)
215	J-139	8.5	Zone	80.9	0.18	195.6	(N/A)
217	J-141	12.0	Zone	79.4	0.18	195.6	(N/A)
218	J-142	7.0	Zone	73.5	0.06	176.9	(N/A)
219	J-143	7.0	Zone	73.5	0.04	176.9	(N/A)
220	J-144	40.0	Zone	59.2	0.85	176.9	(N/A)
197	J-145	8.0	LP	73.1	0.00	176.9	(N/A)
221	J-146	8.0	HP	81.2	0.00	195.6	(N/A)
407	J-148	15.5	Zone	77.8	0.20	195.3	(N/A)
417	J-149	10.0	Zone	72.2	0.25	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	72.2	0.13	176.9	(N/A)
422	J-151	37.0	Zone	60.5	0.08	176.9	(N/A)
423	J-152	48.0	Zone	55.8	0.05	176.9	(N/A)
429	J-154	9.0	Zone	72.6	0.52	176.9	(N/A)
449	J-158	7.0	Zone	81.6	0.29	195.6	(N/A)
453	J-159	7.0	Zone	81.6	1.62	195.6	(N/A)
470	J-161	10.0	Zone	72.2	0.00	176.9	(N/A)
473	J-162	10.0	Zone	80.3	0.00	195.6	(N/A)
480	J-163	13.5	Zone	78.8	0.19	195.6	(N/A)
490	J-165	12.0	Zone	79.4	0.00	195.6	(N/A)
493	J-166	12.0	Zone	79.4	0.00	195.6	(N/A)
633	J-168	8.0	<None>	81.2	1.39	195.7	(N/A)
636	J-169	8.0	<None>	81.2	0.53	195.7	(N/A)
640	J-170	10.0	<None>	80.3	0.66	195.5	(N/A)
642	J-172	34.0	<None>	61.8	0.03	176.9	(N/A)
646	J-173	49.0	<None>	55.3	2.06	176.9	(N/A)
650	J-174	49.0	<None>	55.3	0.34	176.9	(N/A)
663	J-178 (Ag)	9.9	<None>	80.4	2.66	195.7	(N/A)
672	J-180	15.5	<None>	77.7	1.38	195.1	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.9	0.35	195.9	(N/A)
682	J-184	13.5	<None>	78.7	1.88	195.5	(N/A)
748	J-185	40.0	<None>	59.2	0.72	176.9	(N/A)
753	J-187	15.5	<None>	77.7	1.72	195.2	(N/A)
756	J-188	15.5	<None>	77.7	1.40	195.2	(N/A)
764	J-190	14.0	<None>	65.5	0.09	165.3	(N/A)
783	J-191	9.6	<None>	72.4	0.00	177.0	(N/A)
811	J-192	7.0	<None>	73.5	0.00	176.9	(N/A)
814	J-193	0.0	<None>	76.5	1.27	176.9	(N/A)
818	J-195	0.0	<None>	76.5	0.00	176.9	(N/A)
826	J-198	8.2	<None>	73.0	0.22	176.9	(N/A)
829	J-199	0.0	<None>	76.5	0.51	176.9	(N/A)
836	J-202	13.9	<None>	65.5	0.02	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.13	165.3	(N/A)
841	J-204	9.5	<None>	80.5	0.00	195.6	(N/A)
849	J-207	0.0	<None>	76.5	0.34	176.9	(N/A)
852	J-208	13.5	<None>	78.9	0.00	195.8	(N/A)
855	J-209	13.4	<None>	78.9	0.03	195.8	(N/A)
859	J-210	15.5	<None>	77.7	0.17	195.2	(N/A)
862	J-211	0.0	<None>	84.4	0.46	195.2	(N/A)
871	J-214	7.9	<None>	73.1	0.57	176.9	(N/A)
875	J-215	8.5	<None>	72.8	0.18	176.9	(N/A)
879	J-216	9.6	<None>	72.4	0.05	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	80.1	1.45	195.6	(N/A)
902	J-225	15.5	<None>	77.7	1.29	195.1	(N/A)
911	J-226	39.0	<None>	59.7	0.00	176.9	(N/A)
914	J-227	39.0	<None>	59.7	0.00	176.9	(N/A)
116	N5	7.0	Zone	73.5	0.61	176.9	(N/A)
117	N10	8.0	Zone	73.1	0.50	176.9	(N/A)
184	N15	7.0	Zone	73.5	0.40	176.9	(N/A)
180	N20	10.0	Zone	72.2	0.00	176.9	(N/A)
115	N25	9.0	Zone	72.6	0.81	176.9	(N/A)
113	N27	8.0	Zone	73.1	0.00	176.9	(N/A)
209	N30	8.5	Zone	80.9	0.47	195.6	(N/A)
963	N35	8.8	<None>	80.8	0.00	195.6	(N/A)
960	N40	8.6	<None>	80.9	0.00	195.6	(N/A)
186	N43	8.0	Zone	73.1	1.03	176.9	(N/A)
957	N44	8.3	<None>	72.9	0.00	176.9	(N/A)
177	N45	8.5	Zone	72.8	0.17	176.9	(N/A)
112	N60	14.0	Zone	70.5	0.50	176.9	(N/A)
967	N65	14.0	<None>	70.5	0.00	176.9	(N/A)
970	N70	14.0	<None>	70.5	0.00	176.9	(N/A)
973	N75	13.7	<None>	78.7	0.00	195.6	(N/A)
979	N80	8.5	<None>	80.9	0.00	195.6	(N/A)
844	N81	9.2	<None>	80.6	0.00	195.6	(N/A)
976	N82	9.5	<None>	80.5	0.00	195.6	(N/A)
982	N83	9.5	<None>	80.5	0.00	195.6	(N/A)
163	N85	9.0	Zone	80.7	0.00	195.6	(N/A)
985	N86	9.0	<None>	80.7	0.00	195.6	(N/A)
172	N87	9.0	Zone	80.7	1.33	195.6	(N/A)
988	N88	8.9	<None>	80.8	0.00	195.6	(N/A)
991	N89	8.7	<None>	80.8	0.00	195.6	(N/A)
483	N90	15.0	Zone	65.0	2.70	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	80.7	0.00	195.6	(N/A)
110	N200	14.5	Zone	65.2	2.40	165.3	(N/A)
109	N205	13.5	Zone	65.7	0.68	165.3	(N/A)
107	N210	18.5	Zone	63.5	0.51	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	80.0	119.00	195.2	(N/A)
159	S8	14.5	Zone	78.2	0.34	195.2	(N/A)
155	S10	11.1	Zone	79.7	0.16	195.4	(N/A)
926	S15	9.0	<None>	72.7	0.00	176.9	(N/A)
153	S20	13.5	Zone	70.7	0.92	176.9	(N/A)
916	S21	6.7	<None>	73.6	0.00	176.9	(N/A)
919	S22	6.8	<None>	73.6	0.00	176.9	(N/A)
151	S23	6.1	Zone	73.9	0.21	176.9	(N/A)
923	S25	10.1	<None>	72.2	0.00	176.9	(N/A)
160	S30	7.0	Zone	73.5	0.00	176.9	(N/A)
149	S35	6.0	Zone	73.9	0.92	176.9	(N/A)
929	S40	7.2	<None>	73.4	0.00	176.9	(N/A)
204	S45	10.0	Zone	72.2	0.00	176.9	(N/A)
208	S50	10.0	Zone	72.2	0.08	176.9	(N/A)
205	S52	11.0	Zone	79.8	0.00	195.5	(N/A)
942	S55	10.3	<None>	80.1	0.00	195.5	(N/A)
144	S60	47.0	Zone	56.2	0.67	176.9	(N/A)
945	S65	7.0	<None>	73.5	0.00	176.9	(N/A)
936	S70	23.0	<None>	66.6	0.00	176.9	(N/A)
933	S72	17.7	Zone	68.8	0.00	176.9	(N/A)
142	S75	33.0	Zone	62.2	0.13	176.9	(N/A)
135	S80	8.0	Zone	73.1	2.37	176.9	(N/A)
136	S85	7.0	Zone	73.5	0.70	176.9	(N/A)
939	S90	16.2	<None>	69.5	0.00	176.9	(N/A)
138	S95	50.0	Zone	54.9	0.62	176.9	(N/A)
134	S100	8.0	Zone	73.1	0.73	176.9	(N/A)
139	S105	55.0	Zone	52.7	0.20	176.9	(N/A)
140	S110	10.0	Zone	72.2	2.14	176.9	(N/A)
128	S115	10.0	Zone	72.2	0.28	176.9	(N/A)
824	S117	0.0	<None>	76.5	0.36	176.9	(N/A)
457	S120	7.0	Zone	73.5	0.13	176.9	(N/A)
127	S130	48.5	Zone	55.5	0.21	176.9	(N/A)
125	S135	8.0	Zone	73.1	0.39	176.9	(N/A)
183	S136	10.0	Zone	72.2	0.00	176.9	(N/A)
124	S137	9.0	Zone	72.6	0.82	176.9	(N/A)
123	S140	8.0	Zone	73.1	1.03	176.9	(N/A)
954	S145	8.0	<None>	73.1	0.00	176.9	(N/A)
121	S150	10.3	Zone	72.1	0.83	176.9	(N/A)
161	S155	10.0	Zone	72.2	0.26	176.9	(N/A)
951	S160	12.8	<None>	71.0	0.00	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	73.1	0.64	176.9	(N/A)
657	S170	92.2	<None>	36.6	0.43	176.9	(N/A)
948	S175	57.5	<None>	51.7	0.00	176.9	(N/A)
1047	SB2	13.5	<None>	78.8	0.00	195.6	(N/A)
760	SB3	10.4	<None>	80.0	0.23	195.3	(N/A)
1050	SB4	15.5	<None>	77.7	0.00	195.2	(N/A)
1053	SB5	15.5	<None>	77.7	0.00	195.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.9	0.00	195.8	(N/A)
666	C4	13.5	<None>	78.9	0.55	195.8	(N/A)
1038	C5	13.5	<None>	78.9	0.00	195.9	(N/A)
675	C6	13.5	<None>	78.9	0.16	195.9	(N/A)
1041	C7	13.5	<None>	78.9	0.00	195.9	(N/A)
1044	C8	13.5	<None>	78.9	0.00	195.9	(N/A)
85	J-1	15.5	Zone	77.7	0.40	195.1	(N/A)
86	J-2	15.5	Zone	77.7	0.18	195.1	(N/A)
87	J-3	15.5	Zone	77.8	2.66	195.3	(N/A)
88	J-5	13.5	Zone	78.6	0.42	195.3	(N/A)
89	J-6 (Ag)	13.5	Zone	78.9	0.53	195.8	(N/A)
90	J-7	13.5	Zone	78.9	0.16	195.8	(N/A)
92	J-9	13.5	Zone	78.9	0.52	195.8	(N/A)
95	J-12	13.5	Zone	78.9	0.13	195.9	(N/A)
96	J-13	13.5	Zone	78.9	2.48	196.0	(N/A)
97	J-15 (Ag)	13.5	Zone	78.8	0.00	195.6	(N/A)
98	J-16	13.5	Zone	78.8	0.04	195.6	(N/A)
99	J-17	11.0	Zone	79.9	0.18	195.6	(N/A)
100	J-18	9.0	Zone	80.7	0.31	195.6	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.26	165.3	(N/A)
103	J-21	15.5	Zone	64.8	0.47	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.03	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.26	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.14	165.3	(N/A)
114	J-32	9.0	Zone	80.7	0.10	195.6	(N/A)
118	J-36	6.5	Zone	73.7	0.60	176.9	(N/A)
119	J-37	8.5	Zone	72.8	0.00	176.9	(N/A)
120	J-38	8.5	Zone	80.9	0.15	195.6	(N/A)
126	J-45	43.0	Zone	57.9	0.48	176.9	(N/A)
133	J-52	9.0	Zone	72.6	0.20	176.9	(N/A)
137	J-56	64.0	Zone	48.8	1.09	176.9	(N/A)
141	J-60	26.0	Zone	65.3	0.13	176.9	(N/A)
143	J-62	47.0	Zone	56.2	1.01	176.9	(N/A)
145	J-64	12.4	Zone	71.2	0.00	176.9	(N/A)
146	J-66	8.0	Zone	81.1	0.06	195.5	(N/A)
147	J-67	8.0	Zone	73.1	0.56	176.9	(N/A)
148	J-68	6.1	Zone	73.9	1.49	176.9	(N/A)
150	J-70	6.0	Zone	82.0	0.54	195.5	(N/A)
152	J-72	7.0	Zone	73.5	1.01	176.9	(N/A)
154	J-74	8.0	Zone	73.1	0.16	176.9	(N/A)
156	J-76	40.0	Zone	67.3	0.00	195.6	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	75.3	2.05	195.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	73.1	0.30	176.9	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.5	0.19	176.9	(N/A)
167	J-88	13.0	Zone	70.9	0.68	176.9	(N/A)
168	J-89	9.5	Zone	80.5	2.36	195.6	(N/A)
169	J-90	8.5	Zone	80.9	0.00	195.6	(N/A)
170	J-91	9.5	Zone	80.5	0.28	195.6	(N/A)
171	J-94	9.0	Zone	80.7	0.03	195.6	(N/A)
173	J-96	8.0	Zone	81.2	0.70	195.6	(N/A)
174	J-97	8.5	Zone	80.9	0.03	195.6	(N/A)
175	J-99	8.5	Zone	72.8	0.47	176.9	(N/A)
176	J-100	8.5	Zone	72.8	0.00	176.9	(N/A)
178	J-102	10.0	Zone	72.2	0.00	176.9	(N/A)
179	J-103	10.0	Zone	72.2	0.07	176.9	(N/A)
181	J-105	10.0	Zone	72.2	0.00	176.9	(N/A)
182	J-106	9.0	Zone	72.6	0.00	176.9	(N/A)
185	J-109	8.0	Zone	73.1	0.34	176.9	(N/A)
187	J-112	9.5	Zone	72.4	0.48	176.9	(N/A)
188	J-113	8.0	Zone	73.1	5.62	176.9	(N/A)
189	J-114	9.0	Zone	72.6	0.51	176.9	(N/A)
190	J-115	9.0	Zone	72.6	0.40	176.9	(N/A)
191	J-116	8.0	Zone	73.1	0.66	176.9	(N/A)
192	J-117	11.0	Zone	71.8	0.71	176.9	(N/A)
193	J-118	13.3	Zone	70.8	0.03	176.9	(N/A)
194	J-119	13.3	Zone	70.8	0.25	176.9	(N/A)
195	J-120	7.0	Zone	73.5	1.00	176.9	(N/A)
198	J-122	8.0	Zone	73.1	2.34	176.9	(N/A)
199	J-123	9.0	Zone	72.6	0.00	176.9	(N/A)
201	J-125	27.0	Zone	64.8	0.99	176.9	(N/A)
202	J-126	20.0	Zone	67.9	0.02	176.9	(N/A)
203	J-127	8.0	Zone	73.1	0.00	176.9	(N/A)
206	J-130	11.0	Zone	79.8	0.00	195.5	(N/A)
207	J-131	10.0	Zone	80.3	0.00	195.5	(N/A)
210	J-134	15.0	Zone	70.0	0.17	176.9	(N/A)
211	J-135	49.0	Zone	55.3	0.42	176.9	(N/A)
213	J-137	9.0	Zone	72.6	0.14	176.9	(N/A)
215	J-139	8.5	Zone	80.9	0.18	195.6	(N/A)
217	J-141	12.0	Zone	79.4	0.18	195.6	(N/A)
218	J-142	7.0	Zone	73.5	0.06	176.9	(N/A)
219	J-143	7.0	Zone	73.5	0.04	176.9	(N/A)
220	J-144	40.0	Zone	59.2	0.85	176.9	(N/A)
197	J-145	8.0	LP	73.1	0.00	176.9	(N/A)
221	J-146	8.0	HP	81.2	0.00	195.6	(N/A)
407	J-148	15.5	Zone	77.8	0.20	195.3	(N/A)
417	J-149	10.0	Zone	72.2	0.25	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	72.2	0.13	176.9	(N/A)
422	J-151	37.0	Zone	60.5	0.08	176.9	(N/A)
423	J-152	48.0	Zone	55.8	0.05	176.9	(N/A)
429	J-154	9.0	Zone	72.6	0.52	176.9	(N/A)
449	J-158	7.0	Zone	81.6	0.29	195.6	(N/A)
453	J-159	7.0	Zone	81.6	1.62	195.6	(N/A)
470	J-161	10.0	Zone	72.2	0.00	176.9	(N/A)
473	J-162	10.0	Zone	80.3	0.00	195.6	(N/A)
480	J-163	13.5	Zone	78.8	0.19	195.6	(N/A)
490	J-165	12.0	Zone	79.4	0.00	195.6	(N/A)
493	J-166	12.0	Zone	79.4	0.00	195.6	(N/A)
633	J-168	8.0	<None>	81.2	1.39	195.7	(N/A)
636	J-169	8.0	<None>	81.2	0.53	195.7	(N/A)
640	J-170	10.0	<None>	80.3	0.66	195.5	(N/A)
642	J-172	34.0	<None>	61.8	0.03	176.9	(N/A)
646	J-173	49.0	<None>	55.3	2.06	176.9	(N/A)
650	J-174	49.0	<None>	55.3	0.34	176.9	(N/A)
663	J-178 (Ag)	9.9	<None>	80.4	2.66	195.7	(N/A)
672	J-180	15.5	<None>	77.7	1.38	195.1	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.9	0.35	195.9	(N/A)
682	J-184	13.5	<None>	78.7	1.88	195.5	(N/A)
748	J-185	40.0	<None>	59.2	0.72	176.9	(N/A)
753	J-187	15.5	<None>	77.7	1.72	195.2	(N/A)
756	J-188	15.5	<None>	77.7	1.40	195.2	(N/A)
764	J-190	14.0	<None>	65.5	0.09	165.3	(N/A)
783	J-191	9.6	<None>	72.4	0.00	177.0	(N/A)
811	J-192	7.0	<None>	73.5	0.00	176.9	(N/A)
814	J-193	0.0	<None>	76.5	1.27	176.9	(N/A)
818	J-195	0.0	<None>	76.5	0.00	176.9	(N/A)
826	J-198	8.2	<None>	73.0	0.22	176.9	(N/A)
829	J-199	0.0	<None>	76.5	0.51	176.9	(N/A)
836	J-202	13.9	<None>	65.5	0.02	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.13	165.3	(N/A)
841	J-204	9.5	<None>	80.5	0.00	195.6	(N/A)
849	J-207	0.0	<None>	76.5	0.34	176.9	(N/A)
852	J-208	13.5	<None>	78.9	0.00	195.8	(N/A)
855	J-209	13.4	<None>	78.9	0.03	195.8	(N/A)
859	J-210	15.5	<None>	77.7	0.17	195.2	(N/A)
862	J-211	0.0	<None>	84.4	0.46	195.2	(N/A)
871	J-214	7.9	<None>	73.1	0.57	176.9	(N/A)
875	J-215	8.5	<None>	72.8	0.18	176.9	(N/A)
879	J-216	9.6	<None>	72.4	0.05	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	80.1	1.45	195.6	(N/A)
902	J-225	15.5	<None>	77.7	1.29	195.1	(N/A)
911	J-226	39.0	<None>	59.7	0.00	176.9	(N/A)
914	J-227	39.0	<None>	59.7	0.00	176.9	(N/A)
116	N5	7.0	Zone	73.5	0.61	176.9	(N/A)
117	N10	8.0	Zone	73.1	0.50	176.9	(N/A)
184	N15	7.0	Zone	73.5	0.40	176.9	(N/A)
180	N20	10.0	Zone	72.2	0.00	176.9	(N/A)
115	N25	9.0	Zone	72.6	0.81	176.9	(N/A)
113	N27	8.0	Zone	73.1	0.00	176.9	(N/A)
209	N30	8.5	Zone	80.9	0.47	195.6	(N/A)
963	N35	8.8	<None>	80.8	0.00	195.6	(N/A)
960	N40	8.6	<None>	80.9	0.00	195.6	(N/A)
186	N43	8.0	Zone	73.1	1.03	176.9	(N/A)
957	N44	8.3	<None>	72.9	0.00	176.9	(N/A)
177	N45	8.5	Zone	72.8	0.17	176.9	(N/A)
112	N60	14.0	Zone	70.5	0.50	176.9	(N/A)
967	N65	14.0	<None>	70.5	0.00	176.9	(N/A)
970	N70	14.0	<None>	70.5	0.00	176.9	(N/A)
973	N75	13.7	<None>	78.7	0.00	195.6	(N/A)
979	N80	8.5	<None>	80.9	0.00	195.6	(N/A)
844	N81	9.2	<None>	80.6	0.00	195.6	(N/A)
976	N82	9.5	<None>	80.5	0.00	195.6	(N/A)
982	N83	9.5	<None>	80.5	0.00	195.6	(N/A)
163	N85	9.0	Zone	80.7	0.00	195.6	(N/A)
985	N86	9.0	<None>	80.7	0.00	195.6	(N/A)
172	N87	9.0	Zone	80.7	1.33	195.6	(N/A)
988	N88	8.9	<None>	80.8	0.00	195.6	(N/A)
991	N89	8.7	<None>	80.8	0.00	195.6	(N/A)
483	N90	15.0	Zone	65.0	2.70	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	80.7	0.00	195.6	(N/A)
110	N200	14.5	Zone	65.2	2.40	165.3	(N/A)
109	N205	13.5	Zone	65.7	0.68	165.3	(N/A)
107	N210	18.5	Zone	63.5	0.51	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	80.0	119.00	195.2	(N/A)
159	S8	14.5	Zone	78.2	0.34	195.2	(N/A)
155	S10	11.1	Zone	79.7	0.16	195.4	(N/A)
926	S15	9.0	<None>	72.7	0.00	176.9	(N/A)
153	S20	13.5	Zone	70.7	0.92	176.9	(N/A)
916	S21	6.7	<None>	73.6	0.00	176.9	(N/A)
919	S22	6.8	<None>	73.6	0.00	176.9	(N/A)
151	S23	6.1	Zone	73.9	0.21	176.9	(N/A)
923	S25	10.1	<None>	72.2	0.00	176.9	(N/A)
160	S30	7.0	Zone	73.5	0.00	176.9	(N/A)
149	S35	6.0	Zone	73.9	0.92	176.9	(N/A)
929	S40	7.2	<None>	73.4	0.00	176.9	(N/A)
204	S45	10.0	Zone	72.2	0.00	176.9	(N/A)
208	S50	10.0	Zone	72.2	0.08	176.9	(N/A)
205	S52	11.0	Zone	79.8	0.00	195.5	(N/A)
942	S55	10.3	<None>	80.1	0.00	195.5	(N/A)
144	S60	47.0	Zone	56.2	0.67	176.9	(N/A)
945	S65	7.0	<None>	73.5	0.00	176.9	(N/A)
936	S70	23.0	<None>	66.6	0.00	176.9	(N/A)
933	S72	17.7	Zone	68.8	0.00	176.9	(N/A)
142	S75	33.0	Zone	62.2	0.13	176.9	(N/A)
135	S80	8.0	Zone	73.1	2.37	176.9	(N/A)
136	S85	7.0	Zone	73.5	0.70	176.9	(N/A)
939	S90	16.2	<None>	69.5	0.00	176.9	(N/A)
138	S95	50.0	Zone	54.9	0.62	176.9	(N/A)
134	S100	8.0	Zone	73.1	0.73	176.9	(N/A)
139	S105	55.0	Zone	52.7	0.20	176.9	(N/A)
140	S110	10.0	Zone	72.2	2.14	176.9	(N/A)
128	S115	10.0	Zone	72.2	0.28	176.9	(N/A)
824	S117	0.0	<None>	76.5	0.36	176.9	(N/A)
457	S120	7.0	Zone	73.5	0.13	176.9	(N/A)
127	S130	48.5	Zone	55.5	0.21	176.9	(N/A)
125	S135	8.0	Zone	73.1	0.39	176.9	(N/A)
183	S136	10.0	Zone	72.2	0.00	176.9	(N/A)
124	S137	9.0	Zone	72.6	0.82	176.9	(N/A)
123	S140	8.0	Zone	73.1	1.03	176.9	(N/A)
954	S145	8.0	<None>	73.1	0.00	176.9	(N/A)
121	S150	10.3	Zone	72.1	0.83	176.9	(N/A)
161	S155	10.0	Zone	72.2	0.26	176.9	(N/A)
951	S160	12.8	<None>	71.0	0.00	176.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-ADD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	73.1	0.64	176.9	(N/A)
657	S170	92.2	<None>	36.6	0.43	176.9	(N/A)
948	S175	57.5	<None>	51.7	0.00	176.9	(N/A)
1047	SB2	13.5	<None>	78.8	0.00	195.6	(N/A)
760	SB3	10.4	<None>	80.0	0.23	195.3	(N/A)
1050	SB4	15.5	<None>	77.7	0.00	195.2	(N/A)
1053	SB5	15.5	<None>	77.7	0.00	195.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.3	0.00	194.4	(N/A)
666	C4	13.5	<None>	78.3	1.71	194.5	(N/A)
1038	C5	13.5	<None>	78.4	0.00	194.7	(N/A)
675	C6	13.5	<None>	78.5	0.49	195.0	(N/A)
1041	C7	13.5	<None>	78.5	0.00	195.0	(N/A)
1044	C8	13.5	<None>	78.6	0.00	195.2	(N/A)
85	J-1	15.5	Zone	75.0	1.24	188.9	(N/A)
86	J-2	15.5	Zone	75.1	0.56	189.0	(N/A)
87	J-3	15.5	Zone	75.5	8.24	190.0	(N/A)
88	J-5	13.5	Zone	76.5	1.31	190.3	(N/A)
89	J-6 (Ag)	13.5	Zone	78.3	1.64	194.4	(N/A)
90	J-7	13.5	Zone	78.3	0.50	194.4	(N/A)
92	J-9	13.5	Zone	78.3	1.63	194.5	(N/A)
95	J-12	13.5	Zone	78.8	0.39	195.6	(N/A)
96	J-13	13.5	Zone	78.8	7.68	195.6	(N/A)
97	J-15 (Ag)	13.5	Zone	77.6	0.00	192.9	(N/A)
98	J-16	13.5	Zone	77.5	0.13	192.7	(N/A)
99	J-17	11.0	Zone	78.6	0.57	192.6	(N/A)
100	J-18	9.0	Zone	79.4	0.96	192.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.82	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.44	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.10	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.79	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.43	165.3	(N/A)
114	J-32	9.0	Zone	79.4	0.32	192.5	(N/A)
118	J-36	6.5	Zone	73.3	1.86	176.0	(N/A)
119	J-37	8.5	Zone	72.4	0.00	176.0	(N/A)
120	J-38	8.5	Zone	79.6	0.47	192.5	(N/A)
126	J-45	43.0	Zone	57.5	1.49	176.0	(N/A)
133	J-52	9.0	Zone	72.2	0.63	176.0	(N/A)
137	J-56	64.0	Zone	48.4	3.38	176.0	(N/A)
141	J-60	26.0	Zone	64.9	0.39	176.0	(N/A)
143	J-62	47.0	Zone	55.8	3.12	176.0	(N/A)
145	J-64	12.4	Zone	70.8	0.00	176.0	(N/A)
146	J-66	8.0	Zone	79.5	0.20	191.9	(N/A)
147	J-67	8.0	Zone	72.8	1.72	176.2	(N/A)
148	J-68	6.1	Zone	73.6	4.63	176.2	(N/A)
150	J-70	6.0	Zone	80.5	1.66	192.0	(N/A)
152	J-72	7.0	Zone	73.2	3.14	176.2	(N/A)
154	J-74	8.0	Zone	72.8	0.49	176.2	(N/A)
156	J-76	40.0	Zone	66.1	0.00	192.7	(N/A)
157	J-77	20.0	Zone	73.3	0.00	189.3	(N/A)
162	J-82	21.5	Zone	74.1	6.35	192.7	(N/A)
164	J-84	8.0	Zone	72.8	0.94	176.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	71.2	0.60	176.0	(N/A)
167	J-88	13.0	Zone	70.5	2.11	175.9	(N/A)
168	J-89	9.5	Zone	79.2	7.30	192.5	(N/A)
169	J-90	8.5	Zone	79.6	0.00	192.5	(N/A)
170	J-91	9.5	Zone	79.2	0.88	192.5	(N/A)
171	J-94	9.0	Zone	79.4	0.08	192.5	(N/A)
173	J-96	8.0	Zone	79.8	2.18	192.5	(N/A)
174	J-97	8.5	Zone	79.6	0.11	192.5	(N/A)
175	J-99	8.5	Zone	72.4	1.45	176.0	(N/A)
176	J-100	8.5	Zone	72.4	0.00	176.0	(N/A)
178	J-102	10.0	Zone	71.8	0.00	176.0	(N/A)
179	J-103	10.0	Zone	71.8	0.22	176.0	(N/A)
181	J-105	10.0	Zone	71.8	0.00	176.0	(N/A)
182	J-106	9.0	Zone	72.2	0.00	176.0	(N/A)
185	J-109	8.0	Zone	72.7	1.07	176.0	(N/A)
187	J-112	9.5	Zone	72.0	1.49	175.9	(N/A)
188	J-113	8.0	Zone	72.7	17.43	176.0	(N/A)
189	J-114	9.0	Zone	72.2	1.59	176.0	(N/A)
190	J-115	9.0	Zone	72.2	1.25	176.0	(N/A)
191	J-116	8.0	Zone	72.7	2.04	176.0	(N/A)
192	J-117	11.0	Zone	71.4	2.19	176.0	(N/A)
193	J-118	13.3	Zone	70.4	0.10	176.0	(N/A)
194	J-119	13.3	Zone	70.4	0.76	176.0	(N/A)
195	J-120	7.0	Zone	73.1	3.08	176.0	(N/A)
198	J-122	8.0	Zone	72.7	7.24	176.0	(N/A)
199	J-123	9.0	Zone	72.2	0.00	176.0	(N/A)
201	J-125	27.0	Zone	64.5	3.07	176.0	(N/A)
202	J-126	20.0	Zone	67.5	0.05	176.0	(N/A)
203	J-127	8.0	Zone	72.8	0.00	176.3	(N/A)
206	J-130	11.0	Zone	78.3	0.00	191.9	(N/A)
207	J-131	10.0	Zone	78.7	0.00	191.9	(N/A)
210	J-134	15.0	Zone	69.6	0.53	176.0	(N/A)
211	J-135	49.0	Zone	54.9	1.31	176.0	(N/A)
213	J-137	9.0	Zone	72.2	0.43	176.0	(N/A)
215	J-139	8.5	Zone	79.6	0.55	192.5	(N/A)
217	J-141	12.0	Zone	78.1	0.56	192.5	(N/A)
218	J-142	7.0	Zone	73.1	0.19	176.0	(N/A)
219	J-143	7.0	Zone	73.1	0.12	176.0	(N/A)
220	J-144	40.0	Zone	58.9	2.62	176.2	(N/A)
197	J-145	8.0	LP	72.8	0.00	176.3	(N/A)
221	J-146	8.0	HP	79.9	0.00	192.7	(N/A)
407	J-148	15.5	Zone	75.6	0.61	190.2	(N/A)
417	J-149	10.0	Zone	71.8	0.77	176.0	(N/A)
418	J-150	10.0	Zone	71.8	0.42	176.0	(N/A)
422	J-151	37.0	Zone	60.1	0.24	176.0	(N/A)
423	J-152	48.0	Zone	55.4	0.16	176.0	(N/A)
429	J-154	9.0	Zone	72.2	1.61	176.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	80.2	0.90	192.4	(N/A)
453	J-159	7.0	Zone	80.3	5.02	192.7	(N/A)
470	J-161	10.0	Zone	71.8	0.00	176.0	(N/A)
473	J-162	10.0	Zone	79.0	0.00	192.5	(N/A)
480	J-163	13.5	Zone	77.4	0.60	192.5	(N/A)
490	J-165	12.0	Zone	78.2	0.00	192.7	(N/A)
493	J-166	12.0	Zone	78.2	0.00	192.7	(N/A)
633	J-168	8.0	<None>	80.2	4.31	193.5	(N/A)
636	J-169	8.0	<None>	80.2	1.63	193.5	(N/A)
640	J-170	10.0	<None>	78.6	2.03	191.8	(N/A)
642	J-172	34.0	<None>	61.4	0.10	176.0	(N/A)
646	J-173	49.0	<None>	54.9	6.40	176.0	(N/A)
650	J-174	49.0	<None>	54.9	1.04	176.0	(N/A)
663	J-178 (Ag)	9.9	<None>	79.5	8.24	193.8	(N/A)
672	J-180	15.5	<None>	75.1	4.27	189.0	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.7	1.09	195.3	(N/A)
682	J-184	13.5	<None>	77.3	5.82	192.1	(N/A)
748	J-185	40.0	<None>	58.8	2.22	176.0	(N/A)
753	J-187	15.5	<None>	75.1	5.33	189.2	(N/A)
756	J-188	15.5	<None>	75.2	4.35	189.4	(N/A)
764	J-190	14.0	<None>	65.5	0.29	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.8	(N/A)
811	J-192	7.0	<None>	73.2	0.00	176.1	(N/A)
814	J-193	0.0	<None>	76.2	3.93	176.1	(N/A)
818	J-195	0.0	<None>	76.2	0.00	176.0	(N/A)
826	J-198	8.2	<None>	72.6	0.67	176.0	(N/A)
829	J-199	0.0	<None>	76.1	1.57	175.9	(N/A)
836	J-202	13.9	<None>	65.5	0.06	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.40	165.3	(N/A)
841	J-204	9.5	<None>	79.2	0.00	192.5	(N/A)
849	J-207	0.0	<None>	76.1	1.06	175.9	(N/A)
852	J-208	13.5	<None>	78.3	0.00	194.5	(N/A)
855	J-209	13.4	<None>	78.3	0.10	194.5	(N/A)
859	J-210	15.5	<None>	75.2	0.53	189.3	(N/A)
862	J-211	0.0	<None>	81.9	1.43	189.2	(N/A)
871	J-214	7.9	<None>	72.8	1.77	176.2	(N/A)
875	J-215	8.5	<None>	72.4	0.55	176.0	(N/A)
879	J-216	9.6	<None>	72.0	0.14	176.0	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	78.8	4.49	192.6	(N/A)
902	J-225	15.5	<None>	75.1	4.01	189.0	(N/A)
911	J-226	39.0	<None>	59.3	0.00	176.0	(N/A)
914	J-227	39.0	<None>	59.3	0.00	176.0	(N/A)
116	N5	7.0	Zone	73.1	1.90	176.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	72.7	1.55	176.0	(N/A)
184	N15	7.0	Zone	73.1	1.24	176.0	(N/A)
180	N20	10.0	Zone	71.8	0.00	176.0	(N/A)
115	N25	9.0	Zone	72.2	2.50	176.0	(N/A)
113	N27	8.0	Zone	72.7	0.00	176.0	(N/A)
209	N30	8.5	Zone	79.6	1.44	192.5	(N/A)
963	N35	8.8	<None>	79.5	0.00	192.5	(N/A)
960	N40	8.6	<None>	79.6	0.00	192.5	(N/A)
186	N43	8.0	Zone	72.7	3.18	176.0	(N/A)
957	N44	8.3	<None>	72.5	0.00	176.0	(N/A)
177	N45	8.5	Zone	72.4	0.54	176.0	(N/A)
112	N60	14.0	Zone	70.1	1.55	176.0	(N/A)
967	N65	14.0	<None>	70.1	0.00	176.0	(N/A)
970	N70	14.0	<None>	70.1	0.00	176.0	(N/A)
973	N75	13.7	<None>	77.4	0.00	192.5	(N/A)
979	N80	8.5	<None>	79.6	0.00	192.5	(N/A)
844	N81	9.2	<None>	79.3	0.00	192.5	(N/A)
976	N82	9.5	<None>	79.2	0.00	192.5	(N/A)
982	N83	9.5	<None>	79.2	0.00	192.5	(N/A)
163	N85	9.0	Zone	79.4	0.01	192.5	(N/A)
985	N86	9.0	<None>	79.4	0.00	192.5	(N/A)
172	N87	9.0	Zone	79.4	4.13	192.5	(N/A)
988	N88	8.9	<None>	79.4	0.00	192.5	(N/A)
991	N89	8.7	<None>	79.5	0.00	192.5	(N/A)
483	N90	15.0	Zone	65.0	8.38	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.5	0.00	192.7	(N/A)
110	N200	14.5	Zone	65.2	7.43	165.3	(N/A)
109	N205	13.5	Zone	65.7	2.10	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.57	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	77.4	368.90	189.3	(N/A)
159	S8	14.5	Zone	75.6	1.04	189.3	(N/A)
155	S10	11.1	Zone	77.9	0.50	191.1	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	72.5	0.00	176.6	(N/A)
153	S20	13.5	Zone	70.4	2.84	176.2	(N/A)
916	S21	6.7	<None>	73.3	0.00	176.2	(N/A)
919	S22	6.8	<None>	73.3	0.00	176.2	(N/A)
151	S23	6.1	Zone	73.6	0.64	176.2	(N/A)
923	S25	10.1	<None>	71.8	0.00	176.2	(N/A)
160	S30	7.0	Zone	73.2	0.00	176.1	(N/A)
149	S35	6.0	Zone	73.6	2.86	176.1	(N/A)
929	S40	7.2	<None>	73.1	0.00	176.2	(N/A)
204	S45	10.0	Zone	71.8	0.00	176.0	(N/A)
208	S50	10.0	Zone	71.8	0.24	176.0	(N/A)
205	S52	11.0	Zone	78.3	0.00	191.9	(N/A)
942	S55	10.3	<None>	78.5	0.00	191.9	(N/A)
144	S60	47.0	Zone	55.8	2.08	176.0	(N/A)
945	S65	7.0	<None>	73.1	0.00	176.0	(N/A)
936	S70	23.0	<None>	66.2	0.00	176.0	(N/A)
933	S72	17.7	Zone	68.5	0.00	176.0	(N/A)
142	S75	33.0	Zone	61.9	0.40	176.0	(N/A)
135	S80	8.0	Zone	72.7	7.35	176.0	(N/A)
136	S85	7.0	Zone	73.1	2.16	176.0	(N/A)
939	S90	16.2	<None>	69.1	0.00	176.0	(N/A)
138	S95	50.0	Zone	54.5	1.92	176.0	(N/A)
134	S100	8.0	Zone	72.7	2.25	176.0	(N/A)
139	S105	55.0	Zone	52.3	0.63	176.0	(N/A)
140	S110	10.0	Zone	71.8	6.63	176.0	(N/A)
128	S115	10.0	Zone	71.8	0.88	176.0	(N/A)
824	S117	0.0	<None>	76.1	1.13	176.0	(N/A)
457	S120	7.0	Zone	73.1	0.40	176.0	(N/A)
127	S130	48.5	Zone	55.1	0.66	176.0	(N/A)
125	S135	8.0	Zone	72.7	1.21	176.0	(N/A)
183	S136	10.0	Zone	71.8	0.00	176.0	(N/A)
124	S137	9.0	Zone	72.2	2.53	176.0	(N/A)
123	S140	8.0	Zone	72.7	3.19	176.0	(N/A)
954	S145	8.0	<None>	72.7	0.00	176.0	(N/A)
121	S150	10.3	Zone	71.7	2.59	176.0	(N/A)
161	S155	10.0	Zone	71.8	0.80	176.0	(N/A)
951	S160	12.8	<None>	70.6	0.00	176.0	(N/A)
122	S165	8.0	Zone	72.7	1.98	176.0	(N/A)
657	S170	92.2	<None>	36.2	1.32	176.0	(N/A)
948	S175	57.5	<None>	51.3	0.00	176.0	(N/A)
1047	SB2	13.5	<None>	77.4	0.00	192.5	(N/A)
760	SB3	10.4	<None>	77.8	0.70	190.2	(N/A)
1050	SB4	15.5	<None>	75.2	0.00	189.3	(N/A)
1053	SB5	15.5	<None>	75.1	0.00	189.1	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.3	0.00	194.4	(N/A)
666	C4	13.5	<None>	78.3	1.71	194.5	(N/A)
1038	C5	13.5	<None>	78.4	0.00	194.7	(N/A)
675	C6	13.5	<None>	78.5	0.49	195.0	(N/A)
1041	C7	13.5	<None>	78.5	0.00	195.0	(N/A)
1044	C8	13.5	<None>	78.6	0.00	195.2	(N/A)
85	J-1	15.5	Zone	75.0	1.24	188.9	(N/A)
86	J-2	15.5	Zone	75.1	0.56	189.0	(N/A)
87	J-3	15.5	Zone	75.5	8.24	190.0	(N/A)
88	J-5	13.5	Zone	76.5	1.31	190.3	(N/A)
89	J-6 (Ag)	13.5	Zone	78.3	1.64	194.4	(N/A)
90	J-7	13.5	Zone	78.3	0.50	194.4	(N/A)
92	J-9	13.5	Zone	78.3	1.63	194.5	(N/A)
95	J-12	13.5	Zone	78.8	0.39	195.6	(N/A)
96	J-13	13.5	Zone	78.8	7.68	195.6	(N/A)
97	J-15 (Ag)	13.5	Zone	77.6	0.00	192.9	(N/A)
98	J-16	13.5	Zone	77.5	0.13	192.7	(N/A)
99	J-17	11.0	Zone	78.6	0.57	192.6	(N/A)
100	J-18	9.0	Zone	79.4	0.96	192.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.82	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.44	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.10	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.79	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.43	165.3	(N/A)
114	J-32	9.0	Zone	79.4	0.32	192.5	(N/A)
118	J-36	6.5	Zone	73.3	1.86	176.0	(N/A)
119	J-37	8.5	Zone	72.4	0.00	176.0	(N/A)
120	J-38	8.5	Zone	79.6	0.47	192.5	(N/A)
126	J-45	43.0	Zone	57.5	1.49	176.0	(N/A)
133	J-52	9.0	Zone	72.2	0.63	176.0	(N/A)
137	J-56	64.0	Zone	48.4	3.38	176.0	(N/A)
141	J-60	26.0	Zone	64.9	0.39	176.0	(N/A)
143	J-62	47.0	Zone	55.8	3.12	176.0	(N/A)
145	J-64	12.4	Zone	70.8	0.00	176.0	(N/A)
146	J-66	8.0	Zone	79.5	0.20	191.9	(N/A)
147	J-67	8.0	Zone	72.8	1.72	176.2	(N/A)
148	J-68	6.1	Zone	73.6	4.63	176.2	(N/A)
150	J-70	6.0	Zone	80.5	1.66	192.0	(N/A)
152	J-72	7.0	Zone	73.2	3.14	176.2	(N/A)
154	J-74	8.0	Zone	72.8	0.49	176.2	(N/A)
156	J-76	40.0	Zone	66.1	0.00	192.7	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	74.1	6.35	192.7	(N/A)
164	J-84	8.0	Zone	72.8	0.94	176.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	71.2	0.60	176.0	(N/A)
167	J-88	13.0	Zone	70.5	2.11	175.9	(N/A)
168	J-89	9.5	Zone	79.2	7.30	192.5	(N/A)
169	J-90	8.5	Zone	79.6	0.00	192.5	(N/A)
170	J-91	9.5	Zone	79.2	0.88	192.5	(N/A)
171	J-94	9.0	Zone	79.4	0.08	192.5	(N/A)
173	J-96	8.0	Zone	79.8	2.18	192.5	(N/A)
174	J-97	8.5	Zone	79.6	0.11	192.5	(N/A)
175	J-99	8.5	Zone	72.4	1.45	176.0	(N/A)
176	J-100	8.5	Zone	72.4	0.00	176.0	(N/A)
178	J-102	10.0	Zone	71.8	0.00	176.0	(N/A)
179	J-103	10.0	Zone	71.8	0.22	176.0	(N/A)
181	J-105	10.0	Zone	71.8	0.00	176.0	(N/A)
182	J-106	9.0	Zone	72.2	0.00	176.0	(N/A)
185	J-109	8.0	Zone	72.7	1.07	176.0	(N/A)
187	J-112	9.5	Zone	72.0	1.49	175.9	(N/A)
188	J-113	8.0	Zone	72.7	17.43	176.0	(N/A)
189	J-114	9.0	Zone	72.2	1.59	176.0	(N/A)
190	J-115	9.0	Zone	72.2	1.25	176.0	(N/A)
191	J-116	8.0	Zone	72.7	2.04	176.0	(N/A)
192	J-117	11.0	Zone	71.4	2.19	176.0	(N/A)
193	J-118	13.3	Zone	70.4	0.10	176.0	(N/A)
194	J-119	13.3	Zone	70.4	0.76	176.0	(N/A)
195	J-120	7.0	Zone	73.1	3.08	176.0	(N/A)
198	J-122	8.0	Zone	72.7	7.24	176.0	(N/A)
199	J-123	9.0	Zone	72.2	0.00	176.0	(N/A)
201	J-125	27.0	Zone	64.5	3.07	176.0	(N/A)
202	J-126	20.0	Zone	67.5	0.05	176.0	(N/A)
203	J-127	8.0	Zone	72.8	0.00	176.3	(N/A)
206	J-130	11.0	Zone	78.3	0.00	191.9	(N/A)
207	J-131	10.0	Zone	78.7	0.00	191.9	(N/A)
210	J-134	15.0	Zone	69.6	0.53	176.0	(N/A)
211	J-135	49.0	Zone	54.9	1.31	176.0	(N/A)
213	J-137	9.0	Zone	72.2	0.43	176.0	(N/A)
215	J-139	8.5	Zone	79.6	0.55	192.5	(N/A)
217	J-141	12.0	Zone	78.1	0.56	192.5	(N/A)
218	J-142	7.0	Zone	73.1	0.19	176.0	(N/A)
219	J-143	7.0	Zone	73.1	0.12	176.0	(N/A)
220	J-144	40.0	Zone	58.9	2.62	176.2	(N/A)
197	J-145	8.0	LP	72.8	0.00	176.3	(N/A)
221	J-146	8.0	HP	79.9	0.00	192.7	(N/A)
407	J-148	15.5	Zone	75.6	0.61	190.2	(N/A)
417	J-149	10.0	Zone	71.8	0.77	176.0	(N/A)
418	J-150	10.0	Zone	71.8	0.42	176.0	(N/A)
422	J-151	37.0	Zone	60.1	0.24	176.0	(N/A)
423	J-152	48.0	Zone	55.4	0.16	176.0	(N/A)
429	J-154	9.0	Zone	72.2	1.61	176.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	80.2	0.90	192.4	(N/A)
453	J-159	7.0	Zone	80.3	5.02	192.7	(N/A)
470	J-161	10.0	Zone	71.8	0.00	176.0	(N/A)
473	J-162	10.0	Zone	79.0	0.00	192.5	(N/A)
480	J-163	13.5	Zone	77.4	0.60	192.5	(N/A)
490	J-165	12.0	Zone	78.2	0.00	192.7	(N/A)
493	J-166	12.0	Zone	78.2	0.00	192.7	(N/A)
633	J-168	8.0	<None>	80.2	4.31	193.5	(N/A)
636	J-169	8.0	<None>	80.2	1.63	193.5	(N/A)
640	J-170	10.0	<None>	78.6	2.03	191.8	(N/A)
642	J-172	34.0	<None>	61.4	0.10	176.0	(N/A)
646	J-173	49.0	<None>	54.9	6.40	176.0	(N/A)
650	J-174	49.0	<None>	54.9	1.04	176.0	(N/A)
663	J-178 (Ag)	9.9	<None>	79.5	8.24	193.8	(N/A)
672	J-180	15.5	<None>	75.1	4.27	189.0	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.7	1.09	195.3	(N/A)
682	J-184	13.5	<None>	77.3	5.82	192.1	(N/A)
748	J-185	40.0	<None>	58.8	2.22	176.0	(N/A)
753	J-187	15.5	<None>	75.1	5.33	189.2	(N/A)
756	J-188	15.5	<None>	75.2	4.35	189.4	(N/A)
764	J-190	14.0	<None>	65.5	0.29	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.8	(N/A)
811	J-192	7.0	<None>	73.2	0.00	176.1	(N/A)
814	J-193	0.0	<None>	76.2	3.93	176.1	(N/A)
818	J-195	0.0	<None>	76.2	0.00	176.0	(N/A)
826	J-198	8.2	<None>	72.6	0.67	176.0	(N/A)
829	J-199	0.0	<None>	76.1	1.57	175.9	(N/A)
836	J-202	13.9	<None>	65.5	0.06	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.40	165.3	(N/A)
841	J-204	9.5	<None>	79.2	0.00	192.5	(N/A)
849	J-207	0.0	<None>	76.1	1.06	175.9	(N/A)
852	J-208	13.5	<None>	78.3	0.00	194.5	(N/A)
855	J-209	13.4	<None>	78.3	0.10	194.5	(N/A)
859	J-210	15.5	<None>	75.2	0.53	189.3	(N/A)
862	J-211	0.0	<None>	81.9	1.43	189.2	(N/A)
871	J-214	7.9	<None>	72.8	1.77	176.2	(N/A)
875	J-215	8.5	<None>	72.4	0.55	176.0	(N/A)
879	J-216	9.6	<None>	72.0	0.14	176.0	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	78.8	4.49	192.6	(N/A)
902	J-225	15.5	<None>	75.1	4.01	189.0	(N/A)
911	J-226	39.0	<None>	59.3	0.00	176.0	(N/A)
914	J-227	39.0	<None>	59.3	0.00	176.0	(N/A)
116	N5	7.0	Zone	73.1	1.90	176.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	72.7	1.55	176.0	(N/A)
184	N15	7.0	Zone	73.1	1.24	176.0	(N/A)
180	N20	10.0	Zone	71.8	0.00	176.0	(N/A)
115	N25	9.0	Zone	72.2	2.50	176.0	(N/A)
113	N27	8.0	Zone	72.7	0.00	176.0	(N/A)
209	N30	8.5	Zone	79.6	1.44	192.5	(N/A)
963	N35	8.8	<None>	79.5	0.00	192.5	(N/A)
960	N40	8.6	<None>	79.6	0.00	192.5	(N/A)
186	N43	8.0	Zone	72.7	3.18	176.0	(N/A)
957	N44	8.3	<None>	72.5	0.00	176.0	(N/A)
177	N45	8.5	Zone	72.4	0.54	176.0	(N/A)
112	N60	14.0	Zone	70.1	1.55	176.0	(N/A)
967	N65	14.0	<None>	70.1	0.00	176.0	(N/A)
970	N70	14.0	<None>	70.1	0.00	176.0	(N/A)
973	N75	13.7	<None>	77.4	0.00	192.5	(N/A)
979	N80	8.5	<None>	79.6	0.00	192.5	(N/A)
844	N81	9.2	<None>	79.3	0.00	192.5	(N/A)
976	N82	9.5	<None>	79.2	0.00	192.5	(N/A)
982	N83	9.5	<None>	79.2	0.00	192.5	(N/A)
163	N85	9.0	Zone	79.4	0.01	192.5	(N/A)
985	N86	9.0	<None>	79.4	0.00	192.5	(N/A)
172	N87	9.0	Zone	79.4	4.13	192.5	(N/A)
988	N88	8.9	<None>	79.4	0.00	192.5	(N/A)
991	N89	8.7	<None>	79.5	0.00	192.5	(N/A)
483	N90	15.0	Zone	65.0	8.38	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.5	0.00	192.7	(N/A)
110	N200	14.5	Zone	65.2	7.43	165.3	(N/A)
109	N205	13.5	Zone	65.7	2.10	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.57	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	77.4	368.90	189.3	(N/A)
159	S8	14.5	Zone	75.6	1.04	189.3	(N/A)
155	S10	11.1	Zone	77.9	0.50	191.1	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	72.5	0.00	176.6	(N/A)
153	S20	13.5	Zone	70.4	2.84	176.2	(N/A)
916	S21	6.7	<None>	73.3	0.00	176.2	(N/A)
919	S22	6.8	<None>	73.3	0.00	176.2	(N/A)
151	S23	6.1	Zone	73.6	0.64	176.2	(N/A)
923	S25	10.1	<None>	71.8	0.00	176.2	(N/A)
160	S30	7.0	Zone	73.2	0.00	176.1	(N/A)
149	S35	6.0	Zone	73.6	2.86	176.1	(N/A)
929	S40	7.2	<None>	73.1	0.00	176.2	(N/A)
204	S45	10.0	Zone	71.8	0.00	176.0	(N/A)
208	S50	10.0	Zone	71.8	0.24	176.0	(N/A)
205	S52	11.0	Zone	78.3	0.00	191.9	(N/A)
942	S55	10.3	<None>	78.5	0.00	191.9	(N/A)
144	S60	47.0	Zone	55.8	2.08	176.0	(N/A)
945	S65	7.0	<None>	73.1	0.00	176.0	(N/A)
936	S70	23.0	<None>	66.2	0.00	176.0	(N/A)
933	S72	17.7	Zone	68.5	0.00	176.0	(N/A)
142	S75	33.0	Zone	61.9	0.40	176.0	(N/A)
135	S80	8.0	Zone	72.7	7.35	176.0	(N/A)
136	S85	7.0	Zone	73.1	2.16	176.0	(N/A)
939	S90	16.2	<None>	69.1	0.00	176.0	(N/A)
138	S95	50.0	Zone	54.5	1.92	176.0	(N/A)
134	S100	8.0	Zone	72.7	2.25	176.0	(N/A)
139	S105	55.0	Zone	52.3	0.63	176.0	(N/A)
140	S110	10.0	Zone	71.8	6.63	176.0	(N/A)
128	S115	10.0	Zone	71.8	0.88	176.0	(N/A)
824	S117	0.0	<None>	76.1	1.13	176.0	(N/A)
457	S120	7.0	Zone	73.1	0.40	176.0	(N/A)
127	S130	48.5	Zone	55.1	0.66	176.0	(N/A)
125	S135	8.0	Zone	72.7	1.21	176.0	(N/A)
183	S136	10.0	Zone	71.8	0.00	176.0	(N/A)
124	S137	9.0	Zone	72.2	2.53	176.0	(N/A)
123	S140	8.0	Zone	72.7	3.19	176.0	(N/A)
954	S145	8.0	<None>	72.7	0.00	176.0	(N/A)
121	S150	10.3	Zone	71.7	2.59	176.0	(N/A)
161	S155	10.0	Zone	71.8	0.80	176.0	(N/A)
951	S160	12.8	<None>	70.6	0.00	176.0	(N/A)
122	S165	8.0	Zone	72.7	1.98	176.0	(N/A)
657	S170	92.2	<None>	36.2	1.32	176.0	(N/A)
948	S175	57.5	<None>	51.3	0.00	176.0	(N/A)
1047	SB2	13.5	<None>	77.4	0.00	192.5	(N/A)
760	SB3	10.4	<None>	77.8	0.70	190.2	(N/A)
1050	SB4	15.5	<None>	75.2	0.00	189.3	(N/A)
1053	SB5	15.5	<None>	75.1	0.00	189.1	(N/A)

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.14	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	3.21	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.79	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.04	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.12	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.02	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.06	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.04	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.02	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.05	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.05	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.08	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.68	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.00	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.05	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.02	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.05	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.07	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.05	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.12	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.06	8.0	Steel	False
289	WP-37	437	S85	S80	0.10	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.04	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.78	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.78	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	2.36	8.0	PVC	False
295	WP-42	780	S10	S7	2.36	8.0	PVC	False
296	WP-43	352	S7	S8	0.01	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.05	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	1.06	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.48	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.17	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.15	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.01	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.01	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	(N/A)	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.01	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.22	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.00	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.02	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.01	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.04	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.02	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.03	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.03	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.03	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.12	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.09	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.05	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.05	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.02	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.15	2.0	PVC	False
343	WP-86	220	J-113	S100	0.10	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.11	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.09	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.11	8.0	PVC	False
348	WP-90	246	J-115	S85	0.12	8.0	PVC	False
349	WP-91	251	S100	J-116	0.13	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.14	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.01	4.0	PVC	False
352	WP-94	142	J-118	S115	0.11	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.08	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.04	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.04	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.02	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.03	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.33	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.38	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.07	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.03	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.06	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.03	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.04	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.02	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.05	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.06	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.07	4.0	PVC	False
398	WP-127	424	N30	J-141	0.07	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.35	6.0	PVC	False
412	WP-132	369	J-134	S105	0.14	10.0	PVC	False
419	WP-133	146	S165	J-150	0.07	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.02	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.04	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.04	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.78	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.78	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.06	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.03	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.06	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.06	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.07	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.08	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.07	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.15	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.15	8.0	PVC	False
485	WP-154	540	N90	J-29	0.04	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.74	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	0.88	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.07	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.45	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.04	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.52	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.76	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.74	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.05	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.17	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.20	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.05	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.18	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.19	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.02	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.03	4.0	PVC	False
653	WP-172	235	S95	J-56	0.01	8.0	PVC	False
659	WP-173	361	S170	J-56	0.01	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.09	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	0.50	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.78	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.15	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.79	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.83	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.01	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.07	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	0.55	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.77	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.35	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.04	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.10	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.38	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.04	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.07	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.16	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.04	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.04	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.04	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.01	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.76	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.77	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.55	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	1.13	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.39	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.15	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	0.99	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.32	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.03	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.02	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.11	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.05	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.05	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	0.88	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	0.87	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.13	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.13	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.04	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.04	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.07	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.07	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.08	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.08	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.19	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.19	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	0.99	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	0.99	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.27	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.27	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	0.38	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.38	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.13	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.13	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.13	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	0.40	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.40	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.04	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.04	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.12	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.12	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.03	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.03	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.05	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.05	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.08	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.08	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.08	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.03	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.03	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.01	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.01	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.02	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.02	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.02	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.04	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.04	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.01	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.01	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.01	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.14	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.14	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	0.79	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	0.79	16.0	PVC	False	-5.50	-5.50
1043	WP-181(2)	271	C7	C6	0.79	16.0	PVC	False	502.99	502.99
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.79	16.0	PVC	False	495.32	495.32
1046	WP-181(1)(2	1,209	C8	C7	0.79	16.0	PVC	False	6.35	6.35
1048	WP-183(1)	394	J-184	SB2	0.98	4.0	PVC	False	42.44	42.44
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	0.98	4.0	PVC	False	-4.54	-4.54
1051	WP-189 A(1)	268	J-188	SB4	0.44	4.0	PVC	False	-14.74	-14.74
1052	WP-189 A(2)	63	SB4	J-210	0.44	4.0	PVC	False	-9.71	-9.71
1054	WP-187(1)	526	J-180	SB5	0.26	4.0	Asbestos Cement	False	4.90	4.90
1055	WP-187(2)	821	SB5	J-187	0.26	4.0	Asbestos Cement	False	-7.15	-7.15
									0.17	0.17
									-11.94	-11.94
									2.96	2.96
									-60.18	-60.18
									-0.19	-0.19
									7.43	7.43
									4.73	4.73
									-4.62	-4.62
									11.11	11.11
									-8.13	-8.13
									-18.12	-18.12
									-9.13	-9.13
									-15.45	-15.45
									0.35	0.35
									372.68	372.68
									372.48	372.48

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
370.44	370.44
369.94	369.94
1.04	1.04
0.49	0.49
93.44	93.44
-42.31	-42.31
-27.17	-27.17
-23.38	-23.38
1.92	1.92
-2.36	-2.36
(N/A)	(N/A)
-1.55	-1.55
2.11	2.11
1.74	1.74
8.11	8.11
1.73	1.73
1.45	1.45
0.00	0.00
2.18	2.18
-4.26	-4.26
-4.48	-4.48
-4.48	-4.48
0.00	0.00
0.00	0.00
-29.08	-29.08
0.00	0.00
7.61	7.61
2.05	2.05
4.32	4.32
-2.60	-2.60
1.49	1.49
-9.12	-9.12
-16.77	-16.77
3.34	3.34
-17.75	-17.75
-19.33	-19.33
-11.02	-11.02
-12.73	-12.73
0.33	0.33
-9.60	-9.60
-7.30	-7.30
-3.45	-3.45
3.08	3.08
2.19	2.19
0.00	0.00
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-7.24	-7.24
0.00	0.00
-81.51	-81.51
-93.15	-93.15
0.24	0.24
0.00	0.00
0.00	0.00
0.24	0.24
26.42	26.42
5.16	5.16
-9.11	-9.11
5.02	5.02
13.06	13.06
-2.59	-2.59
-4.09	-4.09
9.18	9.18
2.62	2.62
24.97	24.97
0.00	0.00
0.00	0.00
-31.29	-31.29
-34.11	-34.11
-10.20	-10.20
0.77	0.77
3.93	3.93
1.61	1.61
375.23	375.23
374.33	374.33
4.97	4.97
5.02	5.02
0.00	0.00
0.00	0.00
-9.37	-9.37
-9.32	-9.32
11.39	11.39
-11.83	-11.83
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
24.41	24.41
23.81	23.81
23.81	23.81
15.44	15.44
353.56	353.56

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
423.69	423.69
11.50	11.50
-70.13	-70.13
5.86	5.86
81.63	81.63
362.50	362.50
353.56	353.56
7.31	7.31
-26.65	-26.65
-30.92	-30.92
-4.18	-4.18
-43.86	-43.86
-47.52	-47.52
-2.73	-2.73
1.04	1.04
-1.16	-1.16
-1.32	-1.32
13.54	13.54
78.62	78.62
491.64	491.64
-5.81	-5.81
494.93	494.93
-32.59	-32.59
-1.36	-1.36
-0.94	-0.94
2.64	2.64
-21.73	-21.73
-29.97	-29.97
30.67	30.67
0.00	0.00
3.93	3.93
0.00	0.00
3.93	3.93
0.00	0.00
0.00	0.00
-60.18	-60.18
0.66	0.66
-3.60	-3.60
-5.84	-5.84
1.57	1.57
14.72	14.72
14.26	14.26
0.40	0.40
0.05	0.05
1.81	1.81
0.93	0.93
-0.88	-0.88

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
363.00	363.00
484.51	484.51
86.86	86.86
-397.55	-397.55
15.42	15.42
1.43	1.43
154.56	154.56
0.00	0.00
-27.96	-27.96
3.06	3.06
1.45	1.45
1.06	1.06
-7.69	-7.69
-7.83	-7.83
0.82	0.82
423.12	423.12
418.63	418.63
0.34	0.34
-1.24	-1.24
-5.25	-5.25
-6.04	-6.04
-6.04	-6.04
0.00	0.00
-10.72	-10.72
-10.72	-10.72
-13.30	-13.30
-13.30	-13.30
30.50	30.50
30.50	30.50
154.56	154.56
154.56	154.56
-23.56	-23.56
-23.56	-23.56
-93.20	-93.20
-93.20	-93.20
-11.25	-11.25
-11.25	-11.25
-11.25	-11.25
0.00	0.00
0.00	0.00
-35.52	-35.52
-35.52	-35.52
-5.86	-5.86
-5.86	-5.86
-29.08	-29.08
-29.08	-29.08

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-6.52	-6.52
-6.52	-6.52
-7.26	-7.26
-7.26	-7.26
28.91	28.91
28.91	28.91
28.91	28.91
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.93	0.93
9.92	9.92
9.92	9.92
0.93	0.93
0.93	0.93
1.65	1.65
1.65	1.65
-2.48	-2.48
-2.48	-2.48
-2.48	-2.48
15.01	15.01
15.01	15.01
0.00	0.00
0.00	0.00
0.00	0.00
3.15	3.15
3.15	3.15
3.15	3.15
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.82	0.82
0.82	0.82
0.00	0.00
0.00	0.00
34.55	34.55
34.55	34.55
493.35	493.35
493.35	493.35
493.84	493.84

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
493.84	493.84
493.84	493.84
-38.41	-38.41
-38.41	-38.41
17.38	17.38
17.38	17.38
-10.09	-10.09
-10.09	-10.09

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.14	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	3.21	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.79	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.04	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.12	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.02	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.06	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.04	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.02	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.05	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.05	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.08	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.68	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.00	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.05	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.02	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.05	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.07	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.05	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.12	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.06	8.0	Steel	False
289	WP-37	437	S85	S80	0.10	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.04	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.78	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.78	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	2.36	8.0	PVC	False
295	WP-42	780	S10	S7	2.36	8.0	PVC	False
296	WP-43	352	S7	S8	0.01	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.05	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	1.06	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.48	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.17	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.15	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.01	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.01	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	0.00	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.01	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.22	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.00	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.02	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.01	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.04	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.02	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.03	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.03	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.03	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.12	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.09	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.05	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.05	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.02	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.15	2.0	PVC	False
343	WP-86	220	J-113	S100	0.10	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.11	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.09	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.11	8.0	PVC	False
348	WP-90	246	J-115	S85	0.12	8.0	PVC	False
349	WP-91	251	S100	J-116	0.13	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.14	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.01	4.0	PVC	False
352	WP-94	142	J-118	S115	0.11	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.08	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.04	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.04	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.02	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.03	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.33	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.38	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.07	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.03	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.06	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.03	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.04	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.02	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.05	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.06	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.07	4.0	PVC	False
398	WP-127	424	N30	J-141	0.07	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.35	6.0	PVC	False
412	WP-132	369	J-134	S105	0.14	10.0	PVC	False
419	WP-133	146	S165	J-150	0.07	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.02	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.04	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.04	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.78	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.78	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.06	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.03	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.06	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.06	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.07	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.08	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.07	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.15	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.15	8.0	PVC	False
485	WP-154	540	N90	J-29	0.04	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.74	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	0.88	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.07	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.45	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.04	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.52	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.76	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.74	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.05	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.17	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.20	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.05	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.18	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.19	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.02	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.03	4.0	PVC	False
653	WP-172	235	S95	J-56	0.01	8.0	PVC	False
659	WP-173	361	S170	J-56	0.01	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.09	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	0.50	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.78	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.15	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.79	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.83	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.01	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.07	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	0.55	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.77	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.35	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.04	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.10	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.38	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.04	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.07	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.16	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.04	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.04	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.04	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.01	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.76	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.77	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.55	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	1.13	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.39	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.15	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	0.99	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.32	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.03	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.02	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.11	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.05	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.05	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	0.88	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	0.87	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.13	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.13	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.04	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.04	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.07	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.07	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.08	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.08	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.19	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.19	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	0.99	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	0.99	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.27	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.27	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	0.38	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.38	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.13	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.13	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.13	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	0.40	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.40	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.04	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.04	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.12	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.12	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.03	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.03	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.05	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.05	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.08	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.08	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.08	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.03	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.03	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.01	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.01	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.02	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.02	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.02	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.04	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.04	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.01	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.01	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.01	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.14	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.14	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	0.79	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	0.79	16.0	PVC	False	-5.50	-5.50
1043	WP-181(2)	271	C7	C6	0.79	16.0	PVC	False	503.00	503.00
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.79	16.0	PVC	False	495.32	495.32
1046	WP-181(1)(2	1,209	C8	C7	0.79	16.0	PVC	False	6.35	6.35
1048	WP-183(1)	394	J-184	SB2	0.98	4.0	PVC	False	42.44	42.44
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	0.98	4.0	PVC	False	-4.54	-4.54
1051	WP-189 A(1)	268	J-188	SB4	0.44	4.0	PVC	False	-14.74	-14.74
1052	WP-189 A(2)	63	SB4	J-210	0.44	4.0	PVC	False	-9.71	-9.71
1054	WP-187(1)	526	J-180	SB5	0.26	4.0	Asbestos Cement	False	4.90	4.90
1055	WP-187(2)	821	SB5	J-187	0.26	4.0	Asbestos Cement	False	-7.15	-7.15
									0.17	0.17
									-11.94	-11.94
									2.96	2.96
									-60.18	-60.18
									-0.19	-0.19
									7.43	7.43
									4.73	4.73
									-4.62	-4.62
									11.11	11.11
									-8.13	-8.13
									-18.12	-18.12
									-9.13	-9.13
									-15.45	-15.45
									0.35	0.35
									372.68	372.68
									372.48	372.48

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
370.44	370.44
369.94	369.94
1.04	1.04
0.49	0.49
93.44	93.44
-42.31	-42.31
-27.17	-27.17
-23.38	-23.38
1.92	1.92
-2.36	-2.36
0.00	0.00
-1.55	-1.55
2.11	2.11
1.74	1.74
8.11	8.11
1.73	1.73
1.45	1.45
0.00	0.00
2.18	2.18
-4.26	-4.26
-4.48	-4.48
-4.48	-4.48
0.00	0.00
0.00	0.00
-29.08	-29.08
0.00	0.00
7.61	7.61
2.05	2.05
4.32	4.32
-2.60	-2.60
1.49	1.49
-9.12	-9.12
-16.77	-16.77
3.34	3.34
-17.75	-17.75
-19.33	-19.33
-11.02	-11.02
-12.73	-12.73
0.33	0.33
-9.60	-9.60
-7.30	-7.30
-3.45	-3.45
3.08	3.08
2.19	2.19
0.00	0.00
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-7.24	-7.24
0.00	0.00
-81.51	-81.51
-93.15	-93.15
0.24	0.24
0.00	0.00
0.00	0.00
0.24	0.24
26.42	26.42
5.16	5.16
-9.11	-9.11
5.02	5.02
13.06	13.06
-2.59	-2.59
-4.09	-4.09
9.18	9.18
2.62	2.62
24.97	24.97
0.00	0.00
0.00	0.00
-31.29	-31.29
-34.11	-34.11
-10.20	-10.20
0.77	0.77
3.93	3.93
1.61	1.61
375.23	375.23
374.34	374.34
4.97	4.97
5.02	5.02
0.00	0.00
0.00	0.00
-9.37	-9.37
-9.32	-9.32
11.39	11.39
-11.83	-11.83
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
24.41	24.41
23.81	23.81
23.81	23.81
15.44	15.44
353.56	353.56

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
423.69	423.69
11.50	11.50
-70.13	-70.13
5.86	5.86
81.63	81.63
362.50	362.50
353.56	353.56
7.31	7.31
-26.65	-26.65
-30.92	-30.92
-4.18	-4.18
-43.86	-43.86
-47.52	-47.52
-2.73	-2.73
1.04	1.04
-1.16	-1.16
-1.32	-1.32
13.54	13.54
78.62	78.62
491.64	491.64
-5.81	-5.81
494.93	494.93
-32.59	-32.59
-1.36	-1.36
-0.94	-0.94
2.64	2.64
-21.73	-21.73
-29.97	-29.97
30.67	30.67
0.00	0.00
3.93	3.93
0.00	0.00
3.93	3.93
0.00	0.00
0.00	0.00
-60.18	-60.18
0.66	0.66
-3.60	-3.60
-5.84	-5.84
1.57	1.57
14.72	14.72
14.26	14.26
0.40	0.40
0.05	0.05
1.81	1.81
0.93	0.93
-0.88	-0.88

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
363.00	363.00
484.51	484.51
86.86	86.86
-397.55	-397.55
15.42	15.42
1.43	1.43
154.56	154.56
0.00	0.00
-27.96	-27.96
3.06	3.06
1.45	1.45
1.06	1.06
-7.69	-7.69
-7.83	-7.83
0.82	0.82
423.12	423.12
418.63	418.63
0.34	0.34
-1.24	-1.24
-5.25	-5.25
-6.04	-6.04
-6.04	-6.04
0.00	0.00
-10.72	-10.72
-10.72	-10.72
-13.30	-13.30
-13.30	-13.30
30.50	30.50
30.50	30.50
154.56	154.56
154.56	154.56
-23.56	-23.56
-23.56	-23.56
-93.20	-93.20
-93.20	-93.20
-11.25	-11.25
-11.25	-11.25
-11.25	-11.25
0.00	0.00
0.00	0.00
-35.52	-35.52
-35.52	-35.52
-5.86	-5.86
-5.86	-5.86
-29.08	-29.08
-29.08	-29.08

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-6.52	-6.52
-6.52	-6.52
-7.26	-7.26
-7.26	-7.26
28.91	28.91
28.91	28.91
28.91	28.91
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.93	0.93
9.92	9.92
9.92	9.92
0.93	0.93
0.93	0.93
1.65	1.65
1.65	1.65
-2.48	-2.48
-2.48	-2.48
-2.48	-2.48
15.01	15.01
15.01	15.01
0.00	0.00
0.00	0.00
0.00	0.00
3.15	3.15
3.15	3.15
3.15	3.15
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.34	0.34
0.82	0.82
0.82	0.82
0.00	0.00
0.00	0.00
34.55	34.55
34.55	34.55
493.35	493.35
493.35	493.35
493.84	493.84

FlexTable: Pipe Table

Active Scenario: BASE-MDD-2035

Flow (gpm)	Flow (Maximum) (gpm)
493.84	493.84
493.84	493.84
-38.41	-38.41
-38.41	-38.41
17.38	17.38
17.38	17.38
-10.09	-10.09
-10.09	-10.09

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.1	0.00	193.9	(N/A)
666	C4	13.5	<None>	78.1	1.99	194.0	(N/A)
1038	C5	13.5	<None>	78.2	0.00	194.3	(N/A)
675	C6	13.5	<None>	78.4	0.57	194.6	(N/A)
1041	C7	13.5	<None>	78.4	0.00	194.7	(N/A)
1044	C8	13.5	<None>	78.5	0.00	194.9	(N/A)
85	J-1	15.5	Zone	74.1	1.44	186.7	(N/A)
86	J-2	15.5	Zone	74.1	0.66	186.8	(N/A)
87	J-3	15.5	Zone	74.6	9.57	188.1	(N/A)
88	J-5	13.5	Zone	75.7	1.52	188.5	(N/A)
89	J-6 (Ag)	13.5	Zone	78.1	1.91	193.9	(N/A)
90	J-7	13.5	Zone	78.0	0.58	193.9	(N/A)
92	J-9	13.5	Zone	78.1	1.89	194.0	(N/A)
95	J-12	13.5	Zone	78.7	0.45	195.4	(N/A)
96	J-13	13.5	Zone	78.7	8.91	195.4	(N/A)
97	J-15 (Ag)	13.5	Zone	77.2	0.00	192.0	(N/A)
98	J-16	13.5	Zone	77.1	0.15	191.6	(N/A)
99	J-17	11.0	Zone	78.1	0.66	191.5	(N/A)
100	J-18	9.0	Zone	78.9	1.11	191.4	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.95	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.67	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.11	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.92	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.50	165.3	(N/A)
114	J-32	9.0	Zone	78.9	0.37	191.4	(N/A)
118	J-36	6.5	Zone	73.2	2.16	175.6	(N/A)
119	J-37	8.5	Zone	72.3	0.00	175.6	(N/A)
120	J-38	8.5	Zone	79.1	0.55	191.4	(N/A)
126	J-45	43.0	Zone	57.4	1.74	175.6	(N/A)
133	J-52	9.0	Zone	72.1	0.73	175.6	(N/A)
137	J-56	64.0	Zone	48.3	3.92	175.6	(N/A)
141	J-60	26.0	Zone	64.7	0.45	175.7	(N/A)
143	J-62	47.0	Zone	55.7	3.63	175.6	(N/A)
145	J-64	12.4	Zone	70.6	0.00	175.7	(N/A)
146	J-66	8.0	Zone	79.0	0.23	190.5	(N/A)
147	J-67	8.0	Zone	72.7	2.00	175.9	(N/A)
148	J-68	6.1	Zone	73.5	5.38	175.9	(N/A)
150	J-70	6.0	Zone	79.9	1.93	190.8	(N/A)
152	J-72	7.0	Zone	73.1	3.65	175.9	(N/A)
154	J-74	8.0	Zone	72.6	0.57	175.9	(N/A)
156	J-76	40.0	Zone	65.6	0.00	191.6	(N/A)
157	J-77	20.0	Zone	72.3	0.00	187.2	(N/A)
162	J-82	21.5	Zone	73.6	7.38	191.6	(N/A)
164	J-84	8.0	Zone	72.7	1.09	176.1	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	71.0	0.70	175.6	(N/A)
167	J-88	13.0	Zone	70.3	2.45	175.6	(N/A)
168	J-89	9.5	Zone	78.7	8.48	191.4	(N/A)
169	J-90	8.5	Zone	79.1	0.00	191.4	(N/A)
170	J-91	9.5	Zone	78.7	1.02	191.4	(N/A)
171	J-94	9.0	Zone	78.9	0.09	191.4	(N/A)
173	J-96	8.0	Zone	79.3	2.53	191.4	(N/A)
174	J-97	8.5	Zone	79.1	0.12	191.4	(N/A)
175	J-99	8.5	Zone	72.3	1.68	175.6	(N/A)
176	J-100	8.5	Zone	72.3	0.00	175.6	(N/A)
178	J-102	10.0	Zone	71.7	0.00	175.6	(N/A)
179	J-103	10.0	Zone	71.7	0.25	175.6	(N/A)
181	J-105	10.0	Zone	71.7	0.00	175.6	(N/A)
182	J-106	9.0	Zone	72.1	0.00	175.6	(N/A)
185	J-109	8.0	Zone	72.5	1.24	175.6	(N/A)
187	J-112	9.5	Zone	71.9	1.73	175.6	(N/A)
188	J-113	8.0	Zone	72.5	20.24	175.6	(N/A)
189	J-114	9.0	Zone	72.1	1.85	175.6	(N/A)
190	J-115	9.0	Zone	72.1	1.45	175.6	(N/A)
191	J-116	8.0	Zone	72.5	2.37	175.6	(N/A)
192	J-117	11.0	Zone	71.2	2.55	175.6	(N/A)
193	J-118	13.3	Zone	70.2	0.12	175.6	(N/A)
194	J-119	13.3	Zone	70.2	0.89	175.6	(N/A)
195	J-120	7.0	Zone	73.0	3.58	175.6	(N/A)
198	J-122	8.0	Zone	72.5	8.41	175.6	(N/A)
199	J-123	9.0	Zone	72.1	0.00	175.6	(N/A)
201	J-125	27.0	Zone	64.3	3.56	175.6	(N/A)
202	J-126	20.0	Zone	67.3	0.06	175.7	(N/A)
203	J-127	8.0	Zone	72.7	0.00	176.1	(N/A)
206	J-130	11.0	Zone	77.7	0.00	190.5	(N/A)
207	J-131	10.0	Zone	78.1	0.00	190.5	(N/A)
210	J-134	15.0	Zone	69.5	0.62	175.6	(N/A)
211	J-135	49.0	Zone	54.8	1.52	175.6	(N/A)
213	J-137	9.0	Zone	72.1	0.50	175.6	(N/A)
215	J-139	8.5	Zone	79.1	0.64	191.4	(N/A)
217	J-141	12.0	Zone	77.6	0.65	191.4	(N/A)
218	J-142	7.0	Zone	73.0	0.22	175.6	(N/A)
219	J-143	7.0	Zone	73.0	0.14	175.6	(N/A)
220	J-144	40.0	Zone	58.8	3.05	175.9	(N/A)
197	J-145	8.0	LP	72.7	0.00	176.1	(N/A)
221	J-146	8.0	HP	79.4	0.00	191.6	(N/A)
407	J-148	15.5	Zone	74.8	0.71	188.4	(N/A)
417	J-149	10.0	Zone	71.7	0.89	175.6	(N/A)
418	J-150	10.0	Zone	71.7	0.49	175.6	(N/A)
422	J-151	37.0	Zone	60.0	0.28	175.6	(N/A)
423	J-152	48.0	Zone	55.2	0.19	175.6	(N/A)
429	J-154	9.0	Zone	72.1	1.87	175.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	79.7	1.04	191.3	(N/A)
453	J-159	7.0	Zone	79.9	5.83	191.6	(N/A)
470	J-161	10.0	Zone	71.7	0.00	175.6	(N/A)
473	J-162	10.0	Zone	78.5	0.00	191.4	(N/A)
480	J-163	13.5	Zone	77.0	0.69	191.4	(N/A)
490	J-165	12.0	Zone	77.7	0.00	191.6	(N/A)
493	J-166	12.0	Zone	77.7	0.00	191.6	(N/A)
633	J-168	8.0	<None>	79.9	5.00	192.6	(N/A)
636	J-169	8.0	<None>	79.9	1.89	192.6	(N/A)
640	J-170	10.0	<None>	78.0	2.36	190.4	(N/A)
642	J-172	34.0	<None>	61.3	0.12	175.6	(N/A)
646	J-173	49.0	<None>	54.8	7.43	175.6	(N/A)
650	J-174	49.0	<None>	54.8	1.21	175.6	(N/A)
663	J-178 (Ag)	9.9	<None>	79.2	9.57	193.1	(N/A)
672	J-180	15.5	<None>	74.1	4.96	186.8	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.6	1.27	195.1	(N/A)
682	J-184	13.5	<None>	76.7	6.76	190.8	(N/A)
748	J-185	40.0	<None>	58.7	2.58	175.6	(N/A)
753	J-187	15.5	<None>	74.2	6.19	187.0	(N/A)
756	J-188	15.5	<None>	74.3	5.05	187.2	(N/A)
764	J-190	14.0	<None>	65.5	0.33	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.7	(N/A)
811	J-192	7.0	<None>	73.1	0.00	175.8	(N/A)
814	J-193	0.0	<None>	76.1	4.56	175.8	(N/A)
818	J-195	0.0	<None>	76.0	0.00	175.7	(N/A)
826	J-198	8.2	<None>	72.4	0.78	175.6	(N/A)
829	J-199	0.0	<None>	76.0	1.83	175.6	(N/A)
836	J-202	13.9	<None>	65.5	0.07	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.46	165.3	(N/A)
841	J-204	9.5	<None>	78.7	0.00	191.4	(N/A)
849	J-207	0.0	<None>	76.0	1.23	175.6	(N/A)
852	J-208	13.5	<None>	78.1	0.00	194.0	(N/A)
855	J-209	13.4	<None>	78.1	0.12	194.0	(N/A)
859	J-210	15.5	<None>	74.3	0.62	187.1	(N/A)
862	J-211	0.0	<None>	80.9	1.66	187.1	(N/A)
871	J-214	7.9	<None>	72.7	2.06	175.9	(N/A)
875	J-215	8.5	<None>	72.3	0.64	175.6	(N/A)
879	J-216	9.6	<None>	71.8	0.16	175.6	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	78.3	5.21	191.5	(N/A)
902	J-225	15.5	<None>	74.1	4.66	186.8	(N/A)
911	J-226	39.0	<None>	59.1	0.00	175.6	(N/A)
914	J-227	39.0	<None>	59.1	0.00	175.6	(N/A)
116	N5	7.0	Zone	73.0	2.21	175.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	72.5	1.80	175.6	(N/A)
184	N15	7.0	Zone	73.0	1.44	175.6	(N/A)
180	N20	10.0	Zone	71.7	0.00	175.6	(N/A)
115	N25	9.0	Zone	72.1	2.91	175.6	(N/A)
113	N27	8.0	Zone	72.5	0.00	175.6	(N/A)
209	N30	8.5	Zone	79.1	1.68	191.4	(N/A)
963	N35	8.8	<None>	79.0	0.00	191.4	(N/A)
960	N40	8.6	<None>	79.1	0.00	191.4	(N/A)
186	N43	8.0	Zone	72.5	3.69	175.6	(N/A)
957	N44	8.3	<None>	72.4	0.00	175.6	(N/A)
177	N45	8.5	Zone	72.3	0.62	175.6	(N/A)
112	N60	14.0	Zone	69.9	1.80	175.6	(N/A)
967	N65	14.0	<None>	69.9	0.00	175.6	(N/A)
970	N70	14.0	<None>	69.9	0.00	175.6	(N/A)
973	N75	13.7	<None>	76.9	0.00	191.4	(N/A)
979	N80	8.5	<None>	79.1	0.00	191.4	(N/A)
844	N81	9.2	<None>	78.8	0.00	191.4	(N/A)
976	N82	9.5	<None>	78.7	0.00	191.4	(N/A)
982	N83	9.5	<None>	78.7	0.00	191.4	(N/A)
163	N85	9.0	Zone	78.9	0.01	191.4	(N/A)
985	N86	9.0	<None>	78.9	0.00	191.4	(N/A)
172	N87	9.0	Zone	78.9	4.80	191.4	(N/A)
988	N88	8.9	<None>	78.9	0.00	191.4	(N/A)
991	N89	8.7	<None>	79.0	0.00	191.4	(N/A)
483	N90	15.0	Zone	65.0	9.73	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.0	0.00	191.6	(N/A)
110	N200	14.5	Zone	65.2	8.63	165.3	(N/A)
109	N205	13.5	Zone	65.7	2.44	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.83	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	76.5	428.40	187.2	(N/A)
159	S8	14.5	Zone	74.7	1.21	187.2	(N/A)
155	S10	11.1	Zone	77.2	0.58	189.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	72.5	0.00	176.5	(N/A)
153	S20	13.5	Zone	70.3	3.30	175.9	(N/A)
916	S21	6.7	<None>	73.2	0.00	175.9	(N/A)
919	S22	6.8	<None>	73.2	0.00	175.9	(N/A)
151	S23	6.1	Zone	73.5	0.75	175.9	(N/A)
923	S25	10.1	<None>	71.7	0.00	175.9	(N/A)
160	S30	7.0	Zone	73.0	0.00	175.8	(N/A)
149	S35	6.0	Zone	73.5	3.33	175.8	(N/A)
929	S40	7.2	<None>	73.0	0.00	175.9	(N/A)
204	S45	10.0	Zone	71.7	0.00	175.7	(N/A)
208	S50	10.0	Zone	71.7	0.27	175.7	(N/A)
205	S52	11.0	Zone	77.7	0.00	190.5	(N/A)
942	S55	10.3	<None>	78.0	0.00	190.5	(N/A)
144	S60	47.0	Zone	55.7	2.42	175.6	(N/A)
945	S65	7.0	<None>	73.0	0.00	175.7	(N/A)
936	S70	23.0	<None>	66.0	0.00	175.6	(N/A)
933	S72	17.7	Zone	68.3	0.00	175.7	(N/A)
142	S75	33.0	Zone	61.7	0.46	175.6	(N/A)
135	S80	8.0	Zone	72.5	8.53	175.6	(N/A)
136	S85	7.0	Zone	73.0	2.51	175.6	(N/A)
939	S90	16.2	<None>	69.0	0.00	175.6	(N/A)
138	S95	50.0	Zone	54.4	2.23	175.6	(N/A)
134	S100	8.0	Zone	72.5	2.61	175.6	(N/A)
139	S105	55.0	Zone	52.2	0.73	175.6	(N/A)
140	S110	10.0	Zone	71.7	7.70	175.6	(N/A)
128	S115	10.0	Zone	71.7	1.03	175.6	(N/A)
824	S117	0.0	<None>	76.0	1.31	175.6	(N/A)
457	S120	7.0	Zone	73.0	0.46	175.6	(N/A)
127	S130	48.5	Zone	55.0	0.77	175.6	(N/A)
125	S135	8.0	Zone	72.5	1.40	175.6	(N/A)
183	S136	10.0	Zone	71.7	0.00	175.6	(N/A)
124	S137	9.0	Zone	72.1	2.94	175.6	(N/A)
123	S140	8.0	Zone	72.5	3.70	175.6	(N/A)
954	S145	8.0	<None>	72.5	0.00	175.6	(N/A)
121	S150	10.3	Zone	71.5	3.01	175.6	(N/A)
161	S155	10.0	Zone	71.7	0.93	175.6	(N/A)
951	S160	12.8	<None>	70.5	0.00	175.6	(N/A)
122	S165	8.0	Zone	72.5	2.30	175.6	(N/A)
657	S170	92.2	<None>	36.1	1.53	175.6	(N/A)
948	S175	57.5	<None>	51.1	0.00	175.6	(N/A)
1047	SB2	13.5	<None>	76.9	0.00	191.4	(N/A)
760	SB3	10.4	<None>	77.0	0.81	188.4	(N/A)
1050	SB4	15.5	<None>	74.3	0.00	187.2	(N/A)
1053	SB5	15.5	<None>	74.1	0.00	186.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.1	0.00	193.9	(N/A)
666	C4	13.5	<None>	78.1	1.99	194.0	(N/A)
1038	C5	13.5	<None>	78.2	0.00	194.3	(N/A)
675	C6	13.5	<None>	78.4	0.57	194.6	(N/A)
1041	C7	13.5	<None>	78.4	0.00	194.7	(N/A)
1044	C8	13.5	<None>	78.5	0.00	194.9	(N/A)
85	J-1	15.5	Zone	74.1	1.44	186.7	(N/A)
86	J-2	15.5	Zone	74.1	0.66	186.8	(N/A)
87	J-3	15.5	Zone	74.6	9.57	188.1	(N/A)
88	J-5	13.5	Zone	75.7	1.52	188.5	(N/A)
89	J-6 (Ag)	13.5	Zone	78.1	1.91	193.9	(N/A)
90	J-7	13.5	Zone	78.0	0.58	193.9	(N/A)
92	J-9	13.5	Zone	78.1	1.89	194.0	(N/A)
95	J-12	13.5	Zone	78.7	0.45	195.4	(N/A)
96	J-13	13.5	Zone	78.7	8.91	195.4	(N/A)
97	J-15 (Ag)	13.5	Zone	77.2	0.00	192.0	(N/A)
98	J-16	13.5	Zone	77.1	0.15	191.6	(N/A)
99	J-17	11.0	Zone	78.1	0.66	191.5	(N/A)
100	J-18	9.0	Zone	78.9	1.11	191.4	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.95	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.67	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.11	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.92	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.50	165.3	(N/A)
114	J-32	9.0	Zone	78.9	0.37	191.4	(N/A)
118	J-36	6.5	Zone	73.2	2.16	175.6	(N/A)
119	J-37	8.5	Zone	72.3	0.00	175.6	(N/A)
120	J-38	8.5	Zone	79.1	0.55	191.4	(N/A)
126	J-45	43.0	Zone	57.4	1.74	175.6	(N/A)
133	J-52	9.0	Zone	72.1	0.73	175.6	(N/A)
137	J-56	64.0	Zone	48.3	3.92	175.6	(N/A)
141	J-60	26.0	Zone	64.7	0.45	175.7	(N/A)
143	J-62	47.0	Zone	55.7	3.63	175.6	(N/A)
145	J-64	12.4	Zone	70.6	0.00	175.7	(N/A)
146	J-66	8.0	Zone	79.0	0.23	190.5	(N/A)
147	J-67	8.0	Zone	72.7	2.00	175.9	(N/A)
148	J-68	6.1	Zone	73.5	5.38	175.9	(N/A)
150	J-70	6.0	Zone	79.9	1.93	190.8	(N/A)
152	J-72	7.0	Zone	73.1	3.65	175.9	(N/A)
154	J-74	8.0	Zone	72.6	0.57	175.9	(N/A)
156	J-76	40.0	Zone	65.6	0.00	191.6	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	73.6	7.38	191.6	(N/A)
164	J-84	8.0	Zone	72.7	1.09	176.1	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	71.0	0.70	175.6	(N/A)
167	J-88	13.0	Zone	70.3	2.45	175.6	(N/A)
168	J-89	9.5	Zone	78.7	8.48	191.4	(N/A)
169	J-90	8.5	Zone	79.1	0.00	191.4	(N/A)
170	J-91	9.5	Zone	78.7	1.02	191.4	(N/A)
171	J-94	9.0	Zone	78.9	0.09	191.4	(N/A)
173	J-96	8.0	Zone	79.3	2.53	191.4	(N/A)
174	J-97	8.5	Zone	79.1	0.12	191.4	(N/A)
175	J-99	8.5	Zone	72.3	1.68	175.6	(N/A)
176	J-100	8.5	Zone	72.3	0.00	175.6	(N/A)
178	J-102	10.0	Zone	71.7	0.00	175.6	(N/A)
179	J-103	10.0	Zone	71.7	0.25	175.6	(N/A)
181	J-105	10.0	Zone	71.7	0.00	175.6	(N/A)
182	J-106	9.0	Zone	72.1	0.00	175.6	(N/A)
185	J-109	8.0	Zone	72.5	1.24	175.6	(N/A)
187	J-112	9.5	Zone	71.9	1.73	175.6	(N/A)
188	J-113	8.0	Zone	72.5	20.24	175.6	(N/A)
189	J-114	9.0	Zone	72.1	1.85	175.6	(N/A)
190	J-115	9.0	Zone	72.1	1.45	175.6	(N/A)
191	J-116	8.0	Zone	72.5	2.37	175.6	(N/A)
192	J-117	11.0	Zone	71.2	2.55	175.6	(N/A)
193	J-118	13.3	Zone	70.2	0.12	175.6	(N/A)
194	J-119	13.3	Zone	70.2	0.89	175.6	(N/A)
195	J-120	7.0	Zone	73.0	3.58	175.6	(N/A)
198	J-122	8.0	Zone	72.5	8.41	175.6	(N/A)
199	J-123	9.0	Zone	72.1	0.00	175.6	(N/A)
201	J-125	27.0	Zone	64.3	3.56	175.6	(N/A)
202	J-126	20.0	Zone	67.3	0.06	175.7	(N/A)
203	J-127	8.0	Zone	72.7	0.00	176.1	(N/A)
206	J-130	11.0	Zone	77.7	0.00	190.5	(N/A)
207	J-131	10.0	Zone	78.1	0.00	190.5	(N/A)
210	J-134	15.0	Zone	69.5	0.62	175.6	(N/A)
211	J-135	49.0	Zone	54.8	1.52	175.6	(N/A)
213	J-137	9.0	Zone	72.1	0.50	175.6	(N/A)
215	J-139	8.5	Zone	79.1	0.64	191.4	(N/A)
217	J-141	12.0	Zone	77.6	0.65	191.4	(N/A)
218	J-142	7.0	Zone	73.0	0.22	175.6	(N/A)
219	J-143	7.0	Zone	73.0	0.14	175.6	(N/A)
220	J-144	40.0	Zone	58.8	3.05	175.9	(N/A)
197	J-145	8.0	LP	72.7	0.00	176.1	(N/A)
221	J-146	8.0	HP	79.4	0.00	191.6	(N/A)
407	J-148	15.5	Zone	74.8	0.71	188.4	(N/A)
417	J-149	10.0	Zone	71.7	0.89	175.6	(N/A)
418	J-150	10.0	Zone	71.7	0.49	175.6	(N/A)
422	J-151	37.0	Zone	60.0	0.28	175.6	(N/A)
423	J-152	48.0	Zone	55.2	0.19	175.6	(N/A)
429	J-154	9.0	Zone	72.1	1.87	175.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	79.7	1.04	191.3	(N/A)
453	J-159	7.0	Zone	79.9	5.83	191.6	(N/A)
470	J-161	10.0	Zone	71.7	0.00	175.6	(N/A)
473	J-162	10.0	Zone	78.5	0.00	191.4	(N/A)
480	J-163	13.5	Zone	77.0	0.69	191.4	(N/A)
490	J-165	12.0	Zone	77.7	0.00	191.6	(N/A)
493	J-166	12.0	Zone	77.7	0.00	191.6	(N/A)
633	J-168	8.0	<None>	79.9	5.00	192.6	(N/A)
636	J-169	8.0	<None>	79.9	1.89	192.6	(N/A)
640	J-170	10.0	<None>	78.0	2.36	190.4	(N/A)
642	J-172	34.0	<None>	61.3	0.12	175.6	(N/A)
646	J-173	49.0	<None>	54.8	7.43	175.6	(N/A)
650	J-174	49.0	<None>	54.8	1.21	175.6	(N/A)
663	J-178 (Ag)	9.9	<None>	79.2	9.57	193.1	(N/A)
672	J-180	15.5	<None>	74.1	4.96	186.8	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.6	1.27	195.1	(N/A)
682	J-184	13.5	<None>	76.7	6.76	190.8	(N/A)
748	J-185	40.0	<None>	58.7	2.58	175.6	(N/A)
753	J-187	15.5	<None>	74.2	6.19	187.0	(N/A)
756	J-188	15.5	<None>	74.3	5.05	187.2	(N/A)
764	J-190	14.0	<None>	65.5	0.33	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.7	(N/A)
811	J-192	7.0	<None>	73.1	0.00	175.8	(N/A)
814	J-193	0.0	<None>	76.1	4.56	175.8	(N/A)
818	J-195	0.0	<None>	76.0	0.00	175.7	(N/A)
826	J-198	8.2	<None>	72.4	0.78	175.6	(N/A)
829	J-199	0.0	<None>	76.0	1.83	175.6	(N/A)
836	J-202	13.9	<None>	65.5	0.07	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.46	165.3	(N/A)
841	J-204	9.5	<None>	78.7	0.00	191.4	(N/A)
849	J-207	0.0	<None>	76.0	1.23	175.6	(N/A)
852	J-208	13.5	<None>	78.1	0.00	194.0	(N/A)
855	J-209	13.4	<None>	78.1	0.12	194.0	(N/A)
859	J-210	15.5	<None>	74.3	0.62	187.1	(N/A)
862	J-211	0.0	<None>	80.9	1.66	187.1	(N/A)
871	J-214	7.9	<None>	72.7	2.06	175.9	(N/A)
875	J-215	8.5	<None>	72.3	0.64	175.6	(N/A)
879	J-216	9.6	<None>	71.8	0.16	175.6	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	78.3	5.21	191.5	(N/A)
902	J-225	15.5	<None>	74.1	4.66	186.8	(N/A)
911	J-226	39.0	<None>	59.1	0.00	175.6	(N/A)
914	J-227	39.0	<None>	59.1	0.00	175.6	(N/A)
116	N5	7.0	Zone	73.0	2.21	175.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	72.5	1.80	175.6	(N/A)
184	N15	7.0	Zone	73.0	1.44	175.6	(N/A)
180	N20	10.0	Zone	71.7	0.00	175.6	(N/A)
115	N25	9.0	Zone	72.1	2.91	175.6	(N/A)
113	N27	8.0	Zone	72.5	0.00	175.6	(N/A)
209	N30	8.5	Zone	79.1	1.68	191.4	(N/A)
963	N35	8.8	<None>	79.0	0.00	191.4	(N/A)
960	N40	8.6	<None>	79.1	0.00	191.4	(N/A)
186	N43	8.0	Zone	72.5	3.69	175.6	(N/A)
957	N44	8.3	<None>	72.4	0.00	175.6	(N/A)
177	N45	8.5	Zone	72.3	0.62	175.6	(N/A)
112	N60	14.0	Zone	69.9	1.80	175.6	(N/A)
967	N65	14.0	<None>	69.9	0.00	175.6	(N/A)
970	N70	14.0	<None>	69.9	0.00	175.6	(N/A)
973	N75	13.7	<None>	76.9	0.00	191.4	(N/A)
979	N80	8.5	<None>	79.1	0.00	191.4	(N/A)
844	N81	9.2	<None>	78.8	0.00	191.4	(N/A)
976	N82	9.5	<None>	78.7	0.00	191.4	(N/A)
982	N83	9.5	<None>	78.7	0.00	191.4	(N/A)
163	N85	9.0	Zone	78.9	0.01	191.4	(N/A)
985	N86	9.0	<None>	78.9	0.00	191.4	(N/A)
172	N87	9.0	Zone	78.9	4.80	191.4	(N/A)
988	N88	8.9	<None>	78.9	0.00	191.4	(N/A)
991	N89	8.7	<None>	79.0	0.00	191.4	(N/A)
483	N90	15.0	Zone	65.0	9.73	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.0	0.00	191.6	(N/A)
110	N200	14.5	Zone	65.2	8.63	165.3	(N/A)
109	N205	13.5	Zone	65.7	2.44	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.83	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	76.5	428.40	187.2	(N/A)
159	S8	14.5	Zone	74.7	1.21	187.2	(N/A)
155	S10	11.1	Zone	77.2	0.58	189.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE - MDD - 2045

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	72.5	0.00	176.5	(N/A)
153	S20	13.5	Zone	70.3	3.30	175.9	(N/A)
916	S21	6.7	<None>	73.2	0.00	175.9	(N/A)
919	S22	6.8	<None>	73.2	0.00	175.9	(N/A)
151	S23	6.1	Zone	73.5	0.75	175.9	(N/A)
923	S25	10.1	<None>	71.7	0.00	175.9	(N/A)
160	S30	7.0	Zone	73.0	0.00	175.8	(N/A)
149	S35	6.0	Zone	73.5	3.33	175.8	(N/A)
929	S40	7.2	<None>	73.0	0.00	175.9	(N/A)
204	S45	10.0	Zone	71.7	0.00	175.7	(N/A)
208	S50	10.0	Zone	71.7	0.27	175.7	(N/A)
205	S52	11.0	Zone	77.7	0.00	190.5	(N/A)
942	S55	10.3	<None>	78.0	0.00	190.5	(N/A)
144	S60	47.0	Zone	55.7	2.42	175.6	(N/A)
945	S65	7.0	<None>	73.0	0.00	175.7	(N/A)
936	S70	23.0	<None>	66.0	0.00	175.6	(N/A)
933	S72	17.7	Zone	68.3	0.00	175.7	(N/A)
142	S75	33.0	Zone	61.7	0.46	175.6	(N/A)
135	S80	8.0	Zone	72.5	8.53	175.6	(N/A)
136	S85	7.0	Zone	73.0	2.51	175.6	(N/A)
939	S90	16.2	<None>	69.0	0.00	175.6	(N/A)
138	S95	50.0	Zone	54.4	2.23	175.6	(N/A)
134	S100	8.0	Zone	72.5	2.61	175.6	(N/A)
139	S105	55.0	Zone	52.2	0.73	175.6	(N/A)
140	S110	10.0	Zone	71.7	7.70	175.6	(N/A)
128	S115	10.0	Zone	71.7	1.03	175.6	(N/A)
824	S117	0.0	<None>	76.0	1.31	175.6	(N/A)
457	S120	7.0	Zone	73.0	0.46	175.6	(N/A)
127	S130	48.5	Zone	55.0	0.77	175.6	(N/A)
125	S135	8.0	Zone	72.5	1.40	175.6	(N/A)
183	S136	10.0	Zone	71.7	0.00	175.6	(N/A)
124	S137	9.0	Zone	72.1	2.94	175.6	(N/A)
123	S140	8.0	Zone	72.5	3.70	175.6	(N/A)
954	S145	8.0	<None>	72.5	0.00	175.6	(N/A)
121	S150	10.3	Zone	71.5	3.01	175.6	(N/A)
161	S155	10.0	Zone	71.7	0.93	175.6	(N/A)
951	S160	12.8	<None>	70.5	0.00	175.6	(N/A)
122	S165	8.0	Zone	72.5	2.30	175.6	(N/A)
657	S170	92.2	<None>	36.1	1.53	175.6	(N/A)
948	S175	57.5	<None>	51.1	0.00	175.6	(N/A)
1047	SB2	13.5	<None>	76.9	0.00	191.4	(N/A)
760	SB3	10.4	<None>	77.0	0.81	188.4	(N/A)
1050	SB4	15.5	<None>	74.3	0.00	187.2	(N/A)
1053	SB5	15.5	<None>	74.1	0.00	186.9	(N/A)

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.16	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	3.73	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.92	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.05	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.14	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.02	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.07	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.05	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.02	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.05	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.01	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.06	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.09	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.79	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.01	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.06	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.02	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.06	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.08	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.06	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.13	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.07	8.0	Steel	False
289	WP-37	437	S85	S80	0.11	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.04	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.90	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.90	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	2.75	8.0	PVC	False
295	WP-42	780	S10	S7	2.74	8.0	PVC	False
296	WP-43	352	S7	S8	0.01	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.06	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	1.23	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.56	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.20	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.17	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.01	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.01	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	(N/A)	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.01	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.25	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.03	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.01	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.04	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.03	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.03	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.03	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.03	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.14	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.10	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.06	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.06	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.02	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.18	2.0	PVC	False
343	WP-86	220	J-113	S100	0.12	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.12	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.10	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.13	8.0	PVC	False
348	WP-90	246	J-115	S85	0.14	8.0	PVC	False
349	WP-91	251	S100	J-116	0.15	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.17	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.01	4.0	PVC	False
352	WP-94	142	J-118	S115	0.13	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.10	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.05	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.04	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.03	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.03	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.39	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.44	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.09	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.04	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.07	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.04	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.04	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.02	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.05	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.07	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.08	4.0	PVC	False
398	WP-127	424	N30	J-141	0.08	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.41	6.0	PVC	False
412	WP-132	369	J-134	S105	0.16	10.0	PVC	False
419	WP-133	146	S165	J-150	0.08	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.02	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.05	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.05	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.91	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.91	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.07	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.04	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.07	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.07	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.08	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.09	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.08	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.18	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.18	8.0	PVC	False
485	WP-154	540	N90	J-29	0.05	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.86	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	1.03	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.09	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.52	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.04	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.61	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.88	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.86	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.05	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.20	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.23	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.06	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.21	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.23	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.02	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.03	4.0	PVC	False
653	WP-172	235	S95	J-56	0.01	8.0	PVC	False
659	WP-173	361	S170	J-56	0.01	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.10	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	0.58	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.91	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.17	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.92	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.97	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.01	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.08	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	0.64	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.89	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.40	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.05	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.12	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.45	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.05	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.08	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.19	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.05	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.05	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.05	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.01	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.88	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.90	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.64	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	1.31	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.46	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.17	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	1.15	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.37	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.04	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.02	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.13	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.06	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.06	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	1.02	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	1.01	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.15	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.16	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.04	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.04	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.08	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.08	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.10	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.10	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.23	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.23	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	1.15	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	1.15	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.31	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.31	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	0.44	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.44	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.15	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.15	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.15	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	0.47	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.47	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.04	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.04	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.14	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.14	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.03	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.03	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.05	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.05	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.10	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.10	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.10	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.03	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.03	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.01	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.01	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.02	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.02	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.02	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.05	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.05	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.01	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.01	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.01	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.16	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.16	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	0.91	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	0.91	16.0	PVC	False	-6.40	-6.40
1043	WP-181(2)	271	C7	C6	0.92	16.0	PVC	False	584.12	584.12
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.92	16.0	PVC	False	575.21	575.21
1046	WP-181(1)(2	1,209	C8	C7	0.92	16.0	PVC	False	7.38	7.38
1048	WP-183(1)	394	J-184	SB2	1.14	4.0	PVC	False	49.28	49.28
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	1.14	4.0	PVC	False	-5.28	-5.28
1051	WP-189 A(1)	268	J-188	SB4	0.52	4.0	PVC	False	-17.12	-17.12
1052	WP-189 A(2)	63	SB4	J-210	0.52	4.0	PVC	False	-11.27	-11.27
1054	WP-187(1)	526	J-180	SB5	0.30	4.0	Asbestos Cement	False	5.69	5.69
1055	WP-187(2)	821	SB5	J-187	0.30	4.0	Asbestos Cement	False	-8.30	-8.30
									0.20	0.20
									-13.86	-13.86
									3.44	3.44
									-69.89	-69.89
									-0.23	-0.23
									8.63	8.63
									5.49	5.49
									-5.38	-5.38
									12.91	12.91
									-9.43	-9.43
									-21.04	-21.04
									-10.60	-10.60
									-17.94	-17.94
									0.41	0.41
									432.78	432.78
									432.55	432.55

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
430.19	430.19
429.61	429.61
1.21	1.21
0.57	0.57
108.50	108.50
-49.14	-49.14
-31.56	-31.56
-27.16	-27.16
2.23	2.23
-2.74	-2.74
(N/A)	(N/A)
-1.80	-1.80
2.45	2.45
2.02	2.02
9.42	9.42
2.01	2.01
1.68	1.68
0.00	0.00
2.53	2.53
-4.95	-4.95
-5.20	-5.20
-5.20	-5.20
0.00	0.00
0.00	0.00
-33.76	-33.76
0.00	0.00
8.84	8.84
2.39	2.39
5.01	5.01
-3.01	-3.01
1.73	1.73
-10.59	-10.59
-19.47	-19.47
3.89	3.89
-20.61	-20.61
-22.44	-22.44
-12.79	-12.79
-14.78	-14.78
0.37	0.37
-11.15	-11.15
-8.49	-8.49
-4.02	-4.02
3.58	3.58
2.55	2.55
0.00	0.00
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
-8.41	-8.41
0.00	0.00
-94.64	-94.64
-108.17	-108.17
0.27	0.27
0.00	0.00
0.00	0.00
0.27	0.27
30.68	30.68
6.00	6.00
-10.59	-10.59
5.83	5.83
15.16	15.16
-3.01	-3.01
-4.74	-4.74
10.65	10.65
3.05	3.05
29.00	29.00
0.00	0.00
0.00	0.00
-36.33	-36.33
-39.60	-39.60
-11.86	-11.86
0.89	0.89
4.57	4.57
1.87	1.87
435.75	435.75
434.71	434.71
5.77	5.77
5.83	5.83
0.00	0.00
0.00	0.00
-10.87	-10.87
-10.83	-10.83
13.24	13.24
-13.74	-13.74
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
28.35	28.35
27.66	27.66
27.66	27.66
17.92	17.92
410.57	410.57

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
492.02	492.02
13.35	13.35
-81.45	-81.45
6.80	6.80
94.81	94.81
420.96	420.96
410.57	410.57
8.50	8.50
-30.93	-30.93
-35.90	-35.90
-4.85	-4.85
-50.92	-50.92
-55.18	-55.18
-3.17	-3.17
1.21	1.21
-1.35	-1.35
-1.53	-1.53
15.73	15.73
91.31	91.31
570.94	570.94
-6.75	-6.75
574.76	574.76
-37.85	-37.85
-1.57	-1.57
-1.08	-1.08
3.07	3.07
-25.24	-25.24
-34.80	-34.80
35.62	35.62
0.00	0.00
4.56	4.56
0.00	0.00
4.56	4.56
0.00	0.00
0.00	0.00
-69.89	-69.89
0.77	0.77
-4.18	-4.18
-6.79	-6.79
1.83	1.83
17.09	17.09
16.56	16.56
0.46	0.46
0.06	0.06
2.10	2.10
1.08	1.08
-1.02	-1.02

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
421.54	421.54
562.65	562.65
100.88	100.88
-461.65	-461.65
17.91	17.91
1.66	1.66
179.49	179.49
0.00	0.00
-32.47	-32.47
3.55	3.55
1.68	1.68
1.23	1.23
-8.93	-8.93
-9.09	-9.09
0.95	0.95
491.36	491.36
486.15	486.15
0.40	0.40
-1.44	-1.44
-6.09	-6.09
-7.01	-7.01
-7.01	-7.01
0.00	0.00
-12.46	-12.46
-12.46	-12.46
-15.45	-15.45
-15.45	-15.45
35.43	35.43
35.43	35.43
179.49	179.49
179.49	179.49
-27.36	-27.36
-27.36	-27.36
-108.23	-108.23
-108.23	-108.23
-13.08	-13.08
-13.08	-13.08
-13.08	-13.08
0.00	0.00
0.00	0.00
-41.26	-41.26
-41.26	-41.26
-6.81	-6.81
-6.81	-6.81
-33.76	-33.76
-33.76	-33.76

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
-7.57	-7.57
-7.57	-7.57
-8.43	-8.43
-8.43	-8.43
33.57	33.57
33.57	33.57
33.57	33.57
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
1.08	1.08
11.51	11.51
11.51	11.51
1.08	1.08
1.08	1.08
1.92	1.92
1.92	1.92
-2.88	-2.88
-2.88	-2.88
-2.88	-2.88
17.43	17.43
17.43	17.43
0.00	0.00
0.00	0.00
0.00	0.00
3.66	3.66
3.66	3.66
3.66	3.66
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.95	0.95
0.95	0.95
0.00	0.00
0.00	0.00
40.12	40.12
40.12	40.12
572.92	572.92
572.92	572.92
573.49	573.49

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
573.49	573.49
573.49	573.49
-44.60	-44.60
-44.60	-44.60
20.19	20.19
20.19	20.19
-11.71	-11.71
-11.71	-11.71

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.16	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	3.73	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.92	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.05	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.14	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.02	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.07	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.05	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.02	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.05	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.01	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.06	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.09	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	0.79	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.01	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.06	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.02	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.06	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.08	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.06	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.13	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.07	8.0	Steel	False
289	WP-37	437	S85	S80	0.11	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.04	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.90	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.90	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	2.75	8.0	PVC	False
295	WP-42	780	S10	S7	2.74	8.0	PVC	False
296	WP-43	352	S7	S8	0.01	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.06	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	1.23	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	0.56	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.20	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.17	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.01	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.01	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	0.00	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.01	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.25	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.03	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.01	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.04	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.03	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.03	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.03	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.03	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.14	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.10	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.06	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.06	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.02	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.18	2.0	PVC	False
343	WP-86	220	J-113	S100	0.12	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.12	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.10	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.13	8.0	PVC	False
348	WP-90	246	J-115	S85	0.14	8.0	PVC	False
349	WP-91	251	S100	J-116	0.15	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.17	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.01	4.0	PVC	False
352	WP-94	142	J-118	S115	0.13	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.10	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.05	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.04	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.03	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.03	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.39	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.44	10.0	PVC	False
369	WP-108	165	J-64	S45	0.00	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.00	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.09	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.04	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.07	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.04	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.04	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.02	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.05	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.07	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.08	4.0	PVC	False
398	WP-127	424	N30	J-141	0.08	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.41	6.0	PVC	False
412	WP-132	369	J-134	S105	0.16	10.0	PVC	False
419	WP-133	146	S165	J-150	0.08	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.02	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.05	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.05	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.91	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.91	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.07	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.04	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.07	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.07	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.08	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.09	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.08	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.18	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.18	8.0	PVC	False
485	WP-154	540	N90	J-29	0.05	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.86	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	1.03	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.09	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.52	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.04	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.61	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.88	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.86	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.05	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.20	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.23	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.06	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.21	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.23	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.02	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.03	4.0	PVC	False
653	WP-172	235	S95	J-56	0.01	8.0	PVC	False
659	WP-173	361	S170	J-56	0.01	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.10	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	0.58	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.91	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.17	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.92	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	0.97	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.01	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.08	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	0.64	4.0	PVC	False
761	WP-190	388	J-3	SB3	0.89	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.40	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.05	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.12	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.45	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.00	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.05	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.08	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.19	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.05	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.05	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.05	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.01	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.88	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.90	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.64	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	1.31	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.46	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.17	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	1.15	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.37	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.04	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.02	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.13	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.06	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.06	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.00	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	1.02	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	1.01	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.00	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.15	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.16	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.04	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.04	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.08	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.08	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.10	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.10	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.23	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.23	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	1.15	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	1.15	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.31	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.31	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	0.44	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.44	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.15	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.15	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.15	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	0.47	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.47	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.04	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.04	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.14	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.14	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.03	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.03	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.05	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.05	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.10	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.10	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.10	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.03	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.03	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.01	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.01	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.02	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.02	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.02	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.05	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.05	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.01	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.01	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.01	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.00	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.00	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.00	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.00	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.00	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.00	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.00	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.00	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.00	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.00	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.16	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.16	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	0.91	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	0.91	16.0	PVC	False	-6.40	-6.40
1043	WP-181(2)	271	C7	C6	0.92	16.0	PVC	False	584.12	584.12
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.92	16.0	PVC	False	575.21	575.21
1046	WP-181(1)(2	1,209	C8	C7	0.92	16.0	PVC	False	7.38	7.38
1048	WP-183(1)	394	J-184	SB2	1.14	4.0	PVC	False	49.29	49.29
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	1.14	4.0	PVC	False	-5.28	-5.28
1051	WP-189 A(1)	268	J-188	SB4	0.52	4.0	PVC	False	-17.12	-17.12
1052	WP-189 A(2)	63	SB4	J-210	0.52	4.0	PVC	False	-11.27	-11.27
1054	WP-187(1)	526	J-180	SB5	0.30	4.0	Asbestos Cement	False	5.69	5.69
1055	WP-187(2)	821	SB5	J-187	0.30	4.0	Asbestos Cement	False	-8.30	-8.30
									0.20	0.20
									-13.86	-13.86
									3.44	3.44
									-69.89	-69.89
									-0.23	-0.23
									8.63	8.63
									5.49	5.49
									-5.38	-5.38
									12.91	12.91
									-9.43	-9.43
									-21.04	-21.04
									-10.60	-10.60
									-17.94	-17.94
									0.41	0.41
									432.79	432.79
									432.55	432.55

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
430.19	430.19
429.61	429.61
1.21	1.21
0.57	0.57
108.50	108.50
-49.14	-49.14
-31.56	-31.56
-27.16	-27.16
2.23	2.23
-2.74	-2.74
0.00	0.00
-1.80	-1.80
2.45	2.45
2.02	2.02
9.42	9.42
2.01	2.01
1.68	1.68
0.00	0.00
2.53	2.53
-4.95	-4.95
-5.20	-5.20
-5.20	-5.20
0.00	0.00
0.00	0.00
-33.76	-33.76
0.00	0.00
8.84	8.84
2.39	2.39
5.01	5.01
-3.01	-3.01
1.73	1.73
-10.59	-10.59
-19.47	-19.47
3.89	3.89
-20.61	-20.61
-22.44	-22.44
-12.79	-12.79
-14.78	-14.78
0.37	0.37
-11.15	-11.15
-8.49	-8.49
-4.02	-4.02
3.58	3.58
2.55	2.55
0.00	0.00
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
-8.41	-8.41
0.00	0.00
-94.64	-94.64
-108.17	-108.17
0.27	0.27
0.00	0.00
0.00	0.00
0.27	0.27
30.68	30.68
6.00	6.00
-10.59	-10.59
5.83	5.83
15.16	15.16
-3.01	-3.01
-4.74	-4.74
10.65	10.65
3.05	3.05
29.00	29.00
0.00	0.00
0.00	0.00
-36.33	-36.33
-39.60	-39.60
-11.86	-11.86
0.89	0.89
4.57	4.57
1.87	1.87
435.75	435.75
434.71	434.71
5.77	5.77
5.83	5.83
0.00	0.00
0.00	0.00
-10.87	-10.87
-10.83	-10.83
13.24	13.24
-13.74	-13.74
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
28.35	28.35
27.66	27.66
27.66	27.66
17.92	17.92
410.57	410.57

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
492.02	492.02
13.35	13.35
-81.45	-81.45
6.80	6.80
94.81	94.81
420.96	420.96
410.57	410.57
8.50	8.50
-30.93	-30.93
-35.90	-35.90
-4.85	-4.85
-50.92	-50.92
-55.18	-55.18
-3.17	-3.17
1.21	1.21
-1.35	-1.35
-1.53	-1.53
15.73	15.73
91.31	91.31
570.94	570.94
-6.75	-6.75
574.76	574.76
-37.85	-37.85
-1.57	-1.57
-1.08	-1.08
3.07	3.07
-25.24	-25.24
-34.80	-34.80
35.62	35.62
0.00	0.00
4.56	4.56
0.00	0.00
4.56	4.56
0.00	0.00
0.00	0.00
-69.89	-69.89
0.77	0.77
-4.18	-4.18
-6.79	-6.79
1.83	1.83
17.09	17.09
16.56	16.56
0.46	0.46
0.06	0.06
2.10	2.10
1.08	1.08
-1.02	-1.02

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
421.54	421.54
562.65	562.65
100.88	100.88
-461.66	-461.66
17.91	17.91
1.66	1.66
179.49	179.49
0.00	0.00
-32.47	-32.47
3.55	3.55
1.68	1.68
1.23	1.23
-8.93	-8.93
-9.09	-9.09
0.95	0.95
491.36	491.36
486.15	486.15
0.40	0.40
-1.44	-1.44
-6.09	-6.09
-7.01	-7.01
-7.01	-7.01
0.00	0.00
-12.46	-12.46
-12.46	-12.46
-15.45	-15.45
-15.45	-15.45
35.43	35.43
35.43	35.43
179.49	179.49
179.49	179.49
-27.36	-27.36
-27.36	-27.36
-108.23	-108.23
-108.23	-108.23
-13.08	-13.08
-13.08	-13.08
-13.08	-13.08
0.00	0.00
0.00	0.00
-41.26	-41.26
-41.26	-41.26
-6.81	-6.81
-6.81	-6.81
-33.76	-33.76
-33.76	-33.76

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
-7.57	-7.57
-7.57	-7.57
-8.43	-8.43
-8.43	-8.43
33.57	33.57
33.57	33.57
33.57	33.57
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
1.08	1.08
11.51	11.51
11.51	11.51
1.08	1.08
1.08	1.08
1.92	1.92
1.92	1.92
-2.88	-2.88
-2.88	-2.88
-2.88	-2.88
17.43	17.43
17.43	17.43
0.00	0.00
0.00	0.00
0.00	0.00
3.66	3.66
3.66	3.66
3.66	3.66
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.40	0.40
0.95	0.95
0.95	0.95
0.00	0.00
0.00	0.00
40.12	40.12
40.12	40.12
572.92	572.92
572.92	572.92
573.49	573.49

FlexTable: Pipe Table

Active Scenario: BASE - MDD - 2045

Flow (gpm)	Flow (Maximum) (gpm)
573.49	573.49
573.49	573.49
-44.60	-44.60
-44.60	-44.60
20.19	20.19
20.19	20.19
-11.71	-11.71
-11.71	-11.71

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	74.7	0.00	186.1	2,500.00
666	C4	13.5	<None>	74.9	4.87	186.6	2,500.00
1038	C5	13.5	<None>	75.5	0.00	188.0	2,500.00
675	C6	13.5	<None>	76.1	1.38	189.3	2,500.00
1041	C7	13.5	<None>	76.2	0.00	189.6	2,500.00
1044	C8	13.5	<None>	76.6	0.00	190.7	2,500.00
85	J-1	15.5	Zone	57.3	3.52	147.9	(N/A)
86	J-2	15.5	Zone	57.5	1.61	148.4	(N/A)
87	J-3	15.5	Zone	60.4	23.43	155.1	(N/A)
88	J-5	13.5	Zone	62.2	3.71	157.3	(N/A)
89	J-6 (Ag)	13.5	Zone	74.6	4.67	186.1	(N/A)
90	J-7	13.5	Zone	74.6	1.43	186.0	(N/A)
92	J-9	13.5	Zone	74.8	4.63	186.4	(N/A)
95	J-12	13.5	Zone	77.7	1.10	193.1	(N/A)
96	J-13	13.5	Zone	77.8	21.84	193.3	(N/A)
97	J-15 (Ag)	13.5	Zone	70.7	0.00	177.0	(N/A)
98	J-16	13.5	Zone	70.0	0.36	175.4	(N/A)
99	J-17	11.0	Zone	70.9	1.62	174.9	(N/A)
100	J-18	9.0	Zone	71.5	2.73	174.2	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	2.34	165.3	(N/A)
103	J-21	15.5	Zone	64.8	4.10	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.27	165.3	(N/A)
106	J-24	15.5	Zone	64.8	2.26	165.3	(N/A)
111	J-29	13.5	Zone	65.7	1.22	165.3	(N/A)
114	J-32	9.0	Zone	71.5	0.90	174.1	(N/A)
118	J-36	6.5	Zone	70.7	5.29	170.0	(N/A)
119	J-37	8.5	Zone	69.9	0.00	170.0	(N/A)
120	J-38	8.5	Zone	71.7	1.35	174.2	(N/A)
126	J-45	43.0	Zone	55.0	4.25	170.1	(N/A)
133	J-52	9.0	Zone	69.7	1.79	170.1	(N/A)
137	J-56	64.0	Zone	45.9	9.60	170.1	(N/A)
141	J-60	26.0	Zone	62.4	1.11	170.2	(N/A)
143	J-62	47.0	Zone	53.3	8.89	170.1	(N/A)
145	J-64	12.4	Zone	68.4	0.00	170.4	(N/A)
146	J-66	8.0	Zone	70.3	0.56	170.5	(N/A)
147	J-67	8.0	Zone	70.8	4.90	171.7	(N/A)
148	J-68	6.1	Zone	71.5	13.18	171.4	(N/A)
150	J-70	6.0	Zone	71.6	4.72	171.4	(N/A)
152	J-72	7.0	Zone	71.2	8.94	171.5	(N/A)
154	J-74	8.0	Zone	70.7	1.40	171.5	(N/A)
156	J-76	40.0	Zone	58.6	0.00	175.4	(N/A)
157	J-77	20.0	Zone	45.5	955.49	125.3	(N/A)
162	J-82	21.5	Zone	66.6	18.07	175.4	(N/A)
164	J-84	8.0	Zone	71.1	2.67	172.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	68.6	1.71	170.0	(N/A)
167	J-88	13.0	Zone	67.8	6.00	169.7	(N/A)
168	J-89	9.5	Zone	71.2	20.77	174.2	(N/A)
169	J-90	8.5	Zone	71.7	0.00	174.2	(N/A)
170	J-91	9.5	Zone	71.2	2.50	174.2	(N/A)
171	J-94	9.0	Zone	71.4	0.23	174.2	(N/A)
173	J-96	8.0	Zone	71.9	6.19	174.1	(N/A)
174	J-97	8.5	Zone	71.7	0.30	174.2	(N/A)
175	J-99	8.5	Zone	69.9	4.12	170.0	(N/A)
176	J-100	8.5	Zone	69.9	0.00	170.0	(N/A)
178	J-102	10.0	Zone	69.2	0.00	170.0	(N/A)
179	J-103	10.0	Zone	69.2	0.62	170.0	(N/A)
181	J-105	10.0	Zone	69.2	0.00	170.0	(N/A)
182	J-106	9.0	Zone	69.7	0.00	170.1	(N/A)
185	J-109	8.0	Zone	70.1	3.03	170.0	(N/A)
187	J-112	9.5	Zone	69.4	4.23	169.9	(N/A)
188	J-113	8.0	Zone	70.1	49.59	170.0	(N/A)
189	J-114	9.0	Zone	69.7	4.53	170.1	(N/A)
190	J-115	9.0	Zone	69.7	3.55	170.1	(N/A)
191	J-116	8.0	Zone	70.1	5.79	170.1	(N/A)
192	J-117	11.0	Zone	68.8	6.24	170.1	(N/A)
193	J-118	13.3	Zone	67.8	0.28	170.1	(N/A)
194	J-119	13.3	Zone	67.8	2.17	170.1	(N/A)
195	J-120	7.0	Zone	70.5	8.78	170.1	(N/A)
198	J-122	8.0	Zone	70.1	20.59	170.0	(N/A)
199	J-123	9.0	Zone	69.7	0.00	170.0	(N/A)
201	J-125	27.0	Zone	61.9	8.72	170.2	(N/A)
202	J-126	20.0	Zone	65.0	0.14	170.2	(N/A)
203	J-127	8.0	Zone	71.1	0.00	172.3	(N/A)
206	J-130	11.0	Zone	69.0	0.00	170.5	(N/A)
207	J-131	10.0	Zone	69.4	0.00	170.5	(N/A)
210	J-134	15.0	Zone	67.1	1.52	170.1	(N/A)
211	J-135	49.0	Zone	52.4	3.71	170.1	(N/A)
213	J-137	9.0	Zone	69.7	1.22	170.0	(N/A)
215	J-139	8.5	Zone	71.7	1.58	174.2	(N/A)
217	J-141	12.0	Zone	70.1	1.60	174.1	(N/A)
218	J-142	7.0	Zone	70.5	0.54	170.1	(N/A)
219	J-143	7.0	Zone	70.5	0.34	170.1	(N/A)
220	J-144	40.0	Zone	56.9	7.46	171.6	(N/A)
197	J-145	8.0	LP	71.1	0.00	172.3	(N/A)
221	J-146	8.0	HP	72.4	0.00	175.4	(N/A)
407	J-148	15.5	Zone	61.2	1.75	156.9	(N/A)
417	J-149	10.0	Zone	69.2	2.19	170.1	(N/A)
418	J-150	10.0	Zone	69.2	1.19	170.1	(N/A)
422	J-151	37.0	Zone	57.6	0.69	170.1	(N/A)
423	J-152	48.0	Zone	52.8	0.46	170.1	(N/A)
429	J-154	9.0	Zone	69.7	4.59	170.0	(N/A)

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	72.1	2.55	173.7	(N/A)
453	J-159	7.0	Zone	72.8	14.28	175.4	(N/A)
470	J-161	10.0	Zone	69.2	0.00	170.0	(N/A)
473	J-162	10.0	Zone	71.0	0.00	174.1	(N/A)
480	J-163	13.5	Zone	69.5	1.69	174.1	(N/A)
490	J-165	12.0	Zone	70.7	0.00	175.4	(N/A)
493	J-166	12.0	Zone	70.7	0.00	175.4	(N/A)
633	J-168	8.0	<None>	74.4	12.25	180.0	(N/A)
636	J-169	8.0	<None>	74.4	4.63	180.0	(N/A)
640	J-170	10.0	<None>	69.1	5.79	169.8	(N/A)
642	J-172	34.0	<None>	58.9	0.29	170.1	(N/A)
646	J-173	49.0	<None>	52.4	18.20	170.1	(N/A)
650	J-174	49.0	<None>	52.4	2.97	170.1	(N/A)
663	J-178 (Ag)	9.9	<None>	74.4	23.43	182.0	(N/A)
672	J-180	15.5	<None>	57.6	12.16	148.6	(N/A)
679	J-183 (Hydrant)	13.5	<None>	77.1	3.11	191.6	(N/A)
682	J-184	13.5	<None>	67.6	16.56	169.8	(N/A)
748	J-185	40.0	<None>	56.3	6.32	170.1	(N/A)
753	J-187	15.5	<None>	58.0	15.17	149.5	(N/A)
756	J-188	15.5	<None>	58.6	12.38	150.9	(N/A)
764	J-190	14.0	<None>	65.4	0.82	165.3	(N/A)
783	J-191	9.6	<None>	71.8	0.00	175.4	(N/A)
811	J-192	7.0	<None>	71.0	0.00	171.1	(N/A)
814	J-193	0.0	<None>	74.0	11.17	171.1	(N/A)
818	J-195	0.0	<None>	73.7	0.00	170.4	(N/A)
826	J-198	8.2	<None>	70.0	1.91	170.0	(N/A)
829	J-199	0.0	<None>	73.5	4.48	169.8	(N/A)
836	J-202	13.9	<None>	65.5	0.18	165.3	(N/A)
839	J-203	0.0	<None>	71.5	1.14	165.2	(N/A)
841	J-204	9.5	<None>	71.2	0.00	174.2	(N/A)
849	J-207	0.0	<None>	73.5	3.03	169.9	(N/A)
852	J-208	13.5	<None>	74.7	0.00	186.2	(N/A)
855	J-209	13.4	<None>	74.8	0.29	186.3	(N/A)
859	J-210	15.5	<None>	58.3	1.52	150.3	(N/A)
862	J-211	0.0	<None>	64.9	4.07	150.0	(N/A)
871	J-214	7.9	<None>	70.8	5.05	171.6	(N/A)
875	J-215	8.5	<None>	69.9	1.56	170.0	(N/A)
879	J-216	9.6	<None>	69.4	0.40	170.0	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	71.0	12.77	174.7	(N/A)
902	J-225	15.5	<None>	57.4	11.41	148.3	(N/A)
911	J-226	39.0	<None>	56.7	0.00	170.1	(N/A)
914	J-227	39.0	<None>	56.7	0.00	170.1	(N/A)
116	N5	7.0	Zone	70.5	5.42	170.1	2,500.00

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	70.1	4.40	170.0	1,110.48
184	N15	7.0	Zone	70.5	3.54	170.0	2,434.04
180	N20	10.0	Zone	69.2	0.00	170.0	2,500.00
115	N25	9.0	Zone	69.7	7.12	170.1	2,500.00
113	N27	8.0	Zone	70.1	0.00	170.0	2,500.00
209	N30	8.5	Zone	71.7	4.11	174.1	1,899.52
963	N35	8.8	<None>	71.5	0.00	174.2	1,958.26
960	N40	8.6	<None>	71.6	0.00	174.2	2,005.12
186	N43	8.0	Zone	70.1	9.05	170.0	2,319.60
957	N44	8.3	<None>	70.0	0.00	170.0	2,351.86
177	N45	8.5	Zone	69.9	1.53	170.0	1,479.19
112	N60	14.0	Zone	67.5	4.42	170.0	2,436.29
967	N65	14.0	<None>	67.5	0.00	170.0	2,409.26
970	N70	14.0	<None>	67.5	0.00	170.0	2,386.97
973	N75	13.7	<None>	69.4	0.00	174.1	1,691.36
979	N80	8.5	<None>	71.7	0.00	174.2	1,959.60
844	N81	9.2	<None>	71.4	0.00	174.2	1,849.79
976	N82	9.5	<None>	71.2	0.00	174.2	1,811.49
982	N83	9.5	<None>	71.2	0.00	174.2	1,861.78
163	N85	9.0	Zone	71.4	0.02	174.2	1,918.36
985	N86	9.0	<None>	71.4	0.00	174.2	1,825.93
172	N87	9.0	Zone	71.4	11.76	174.2	1,774.18
988	N88	8.9	<None>	71.5	0.00	174.2	1,774.20
991	N89	8.7	<None>	71.6	0.00	174.2	1,811.92
483	N90	15.0	Zone	65.0	23.84	165.3	1,419.81
1000	N100	13.5	<None>	65.7	0.00	165.3	1,251.84
997	N105	13.5	<None>	65.7	0.00	165.3	1,374.36
994	N110	13.7	<None>	65.6	0.00	165.3	1,406.70
214	N157	9.0	Zone	72.0	0.00	175.4	1,739.94
110	N200	14.5	Zone	65.2	21.14	165.3	1,296.65
109	N205	13.5	Zone	65.7	5.97	165.3	1,382.03
107	N210	18.5	Zone	63.5	4.48	165.3	1,316.14
1003	N215	17.5	<None>	63.9	0.00	165.3	1,298.24
1006	N220	16.0	<None>	64.6	0.00	165.3	1,275.15
1032	N225	16.5	<None>	64.4	0.00	165.3	1,209.35
1029	N230	15.5	<None>	64.8	0.00	165.3	1,240.97
1026	N235	15.5	<None>	64.8	0.00	165.3	1,238.07
897	N237	15.5	<None>	64.8	0.00	165.3	1,241.86
1010	N240	15.5	<None>	64.8	0.00	165.3	1,229.39
1023	N245	15.5	<None>	64.8	0.00	165.3	1,228.86
1019	N250	15.5	<None>	64.8	0.00	165.3	1,224.97
104	N260	15.5	Zone	64.8	0.00	165.3	1,219.98
1016	N265	15.5	<None>	64.8	0.00	165.3	1,219.08
1013	N270	15.5	<None>	64.8	0.00	165.3	1,220.89
158	S7	10.3	Zone	62.8	0.55	155.5	1,028.30
159	S8	14.5	Zone	61.0	2.96	155.5	934.43
155	S10	11.1	Zone	67.1	1.43	166.2	1,432.89

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	71.5	0.00	174.2	2,500.00
153	S20	13.5	Zone	68.4	8.08	171.5	2,208.50
916	S21	6.7	<None>	71.3	0.00	171.5	2,204.98
919	S22	6.8	<None>	71.3	0.00	171.5	2,237.00
151	S23	6.1	Zone	71.5	1.83	171.5	2,295.92
923	S25	10.1	<None>	69.9	0.00	171.6	2,336.19
160	S30	7.0	Zone	71.0	0.00	171.1	1,274.11
149	S35	6.0	Zone	71.4	8.15	171.1	2,184.20
929	S40	7.2	<None>	71.1	0.00	171.5	2,209.84
204	S45	10.0	Zone	69.4	0.00	170.4	1,989.47
208	S50	10.0	Zone	69.4	0.67	170.4	1,691.55
205	S52	11.0	Zone	69.0	0.00	170.5	1,472.04
942	S55	10.3	<None>	69.3	0.00	170.5	1,599.91
144	S60	47.0	Zone	53.3	5.93	170.1	2,201.12
945	S65	7.0	<None>	70.8	0.00	170.6	2,155.09
936	S70	23.0	<None>	63.7	0.00	170.2	2,258.99
933	S72	17.7	Zone	66.0	0.00	170.3	2,500.00
142	S75	33.0	Zone	59.3	1.14	170.1	2,500.00
135	S80	8.0	Zone	70.1	20.90	170.1	2,500.00
136	S85	7.0	Zone	70.6	6.16	170.1	2,500.00
939	S90	16.2	<None>	66.6	0.00	170.1	2,061.73
138	S95	50.0	Zone	52.0	5.47	170.1	2,358.26
134	S100	8.0	Zone	70.1	6.40	170.1	2,285.21
139	S105	55.0	Zone	49.8	1.79	170.1	2,322.10
140	S110	10.0	Zone	69.3	18.86	170.1	2,286.82
128	S115	10.0	Zone	69.3	2.51	170.1	2,500.00
824	S117	0.0	<None>	73.6	3.21	170.1	2,500.00
457	S120	7.0	Zone	70.6	1.13	170.1	2,500.00
127	S130	48.5	Zone	52.6	1.88	170.1	1,999.40
125	S135	8.0	Zone	70.1	3.43	170.1	2,500.00
183	S136	10.0	Zone	69.2	0.00	170.1	2,500.00
124	S137	9.0	Zone	69.7	7.21	170.1	2,500.00
123	S140	8.0	Zone	70.1	9.07	170.1	2,500.00
954	S145	8.0	<None>	70.1	0.00	170.1	2,500.00
121	S150	10.3	Zone	69.1	7.36	170.0	2,500.00
161	S155	10.0	Zone	69.2	2.27	170.0	2,500.00
951	S160	12.8	<None>	68.1	0.00	170.1	2,500.00
122	S165	8.0	Zone	70.1	5.64	170.1	2,500.00
657	S170	92.2	<None>	33.7	3.76	170.1	1,018.99
948	S175	57.5	<None>	48.7	0.00	170.1	2,018.69
1047	SB2	13.5	<None>	68.8	0.00	172.6	247.70
760	SB3	10.4	<None>	63.4	1.99	156.9	122.21
1050	SB4	15.5	<None>	58.4	0.00	150.4	86.63
1053	SB5	15.5	<None>	57.7	0.00	148.9	76.93

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.5	0.00	195.0	2,500.00
666	C4	13.5	<None>	78.6	4.87	195.1	2,500.00
1038	C5	13.5	<None>	78.6	0.00	195.3	2,500.00
675	C6	13.5	<None>	78.7	1.38	195.4	2,500.00
1041	C7	13.5	<None>	78.7	0.00	195.4	2,500.00
1044	C8	13.5	<None>	78.7	0.00	195.5	2,500.00
85	J-1	15.5	Zone	61.1	3.52	156.8	(N/A)
86	J-2	15.5	Zone	61.3	1.61	157.2	(N/A)
87	J-3	15.5	Zone	64.2	23.43	164.0	(N/A)
88	J-5	13.5	Zone	66.1	3.71	166.2	(N/A)
89	J-6 (Ag)	13.5	Zone	78.5	4.67	194.9	(N/A)
90	J-7	13.5	Zone	78.6	1.43	195.1	(N/A)
92	J-9	13.5	Zone	78.6	4.63	195.1	(N/A)
95	J-12	13.5	Zone	78.8	1.10	195.7	(N/A)
96	J-13	13.5	Zone	78.8	21.84	195.7	(N/A)
97	J-15 (Ag)	13.5	Zone	78.4	0.00	194.7	(N/A)
98	J-16	13.5	Zone	78.3	0.36	194.6	(N/A)
99	J-17	11.0	Zone	79.4	1.62	194.6	(N/A)
100	J-18	9.0	Zone	80.3	2.73	194.6	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	2.34	165.3	(N/A)
103	J-21	15.5	Zone	64.8	4.10	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.27	165.3	(N/A)
106	J-24	15.5	Zone	64.8	2.26	165.3	(N/A)
111	J-29	13.5	Zone	65.7	1.22	165.3	(N/A)
114	J-32	9.0	Zone	80.3	0.90	194.5	(N/A)
118	J-36	6.5	Zone	70.7	5.29	170.0	(N/A)
119	J-37	8.5	Zone	69.9	0.00	170.0	(N/A)
120	J-38	8.5	Zone	80.5	1.35	194.5	(N/A)
126	J-45	43.0	Zone	55.0	4.25	170.1	(N/A)
133	J-52	9.0	Zone	69.7	1.79	170.1	(N/A)
137	J-56	64.0	Zone	45.9	9.60	170.1	(N/A)
141	J-60	26.0	Zone	62.4	1.11	170.2	(N/A)
143	J-62	47.0	Zone	53.3	8.89	170.1	(N/A)
145	J-64	12.4	Zone	68.4	0.00	170.4	(N/A)
146	J-66	8.0	Zone	80.7	0.56	194.6	(N/A)
147	J-67	8.0	Zone	70.8	4.90	171.7	(N/A)
148	J-68	6.1	Zone	71.5	13.18	171.4	(N/A)
150	J-70	6.0	Zone	81.6	4.72	194.6	(N/A)
152	J-72	7.0	Zone	71.2	8.94	171.5	(N/A)
154	J-74	8.0	Zone	70.7	1.40	171.5	(N/A)
156	J-76	40.0	Zone	66.9	0.00	194.6	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	74.9	18.07	194.6	(N/A)
164	J-84	8.0	Zone	71.1	2.67	172.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	68.6	1.71	170.0	(N/A)
167	J-88	13.0	Zone	67.8	6.00	169.7	(N/A)
168	J-89	9.5	Zone	80.1	20.77	194.5	(N/A)
169	J-90	8.5	Zone	80.5	0.00	194.5	(N/A)
170	J-91	9.5	Zone	80.1	2.50	194.5	(N/A)
171	J-94	9.0	Zone	80.3	0.23	194.5	(N/A)
173	J-96	8.0	Zone	80.7	6.19	194.5	(N/A)
174	J-97	8.5	Zone	80.5	0.30	194.5	(N/A)
175	J-99	8.5	Zone	69.9	4.12	170.0	(N/A)
176	J-100	8.5	Zone	69.9	0.00	170.0	(N/A)
178	J-102	10.0	Zone	69.2	0.00	170.0	(N/A)
179	J-103	10.0	Zone	69.2	0.62	170.0	(N/A)
181	J-105	10.0	Zone	69.2	0.00	170.0	(N/A)
182	J-106	9.0	Zone	69.7	0.00	170.1	(N/A)
185	J-109	8.0	Zone	70.1	3.03	170.0	(N/A)
187	J-112	9.5	Zone	69.4	4.23	169.9	(N/A)
188	J-113	8.0	Zone	70.1	49.59	170.0	(N/A)
189	J-114	9.0	Zone	69.7	4.53	170.1	(N/A)
190	J-115	9.0	Zone	69.7	3.55	170.1	(N/A)
191	J-116	8.0	Zone	70.1	5.79	170.1	(N/A)
192	J-117	11.0	Zone	68.8	6.24	170.1	(N/A)
193	J-118	13.3	Zone	67.8	0.28	170.1	(N/A)
194	J-119	13.3	Zone	67.8	2.17	170.1	(N/A)
195	J-120	7.0	Zone	70.5	8.78	170.1	(N/A)
198	J-122	8.0	Zone	70.1	20.59	170.0	(N/A)
199	J-123	9.0	Zone	69.7	0.00	170.0	(N/A)
201	J-125	27.0	Zone	61.9	8.72	170.2	(N/A)
202	J-126	20.0	Zone	65.0	0.14	170.2	(N/A)
203	J-127	8.0	Zone	71.1	0.00	172.3	(N/A)
206	J-130	11.0	Zone	79.4	0.00	194.6	(N/A)
207	J-131	10.0	Zone	79.9	0.00	194.6	(N/A)
210	J-134	15.0	Zone	67.1	1.52	170.1	(N/A)
211	J-135	49.0	Zone	52.4	3.71	170.1	(N/A)
213	J-137	9.0	Zone	69.7	1.22	170.0	(N/A)
215	J-139	8.5	Zone	80.5	1.58	194.5	(N/A)
217	J-141	12.0	Zone	79.0	1.60	194.5	(N/A)
218	J-142	7.0	Zone	70.5	0.54	170.1	(N/A)
219	J-143	7.0	Zone	70.5	0.34	170.1	(N/A)
220	J-144	40.0	Zone	56.9	7.46	171.6	(N/A)
197	J-145	8.0	LP	71.1	0.00	172.3	(N/A)
221	J-146	8.0	HP	80.7	0.00	194.6	(N/A)
407	J-148	15.5	Zone	65.0	1.75	165.8	(N/A)
417	J-149	10.0	Zone	69.2	2.19	170.1	(N/A)
418	J-150	10.0	Zone	69.2	1.19	170.1	(N/A)
422	J-151	37.0	Zone	57.6	0.69	170.1	(N/A)
423	J-152	48.0	Zone	52.8	0.46	170.1	(N/A)
429	J-154	9.0	Zone	69.7	4.59	170.0	(N/A)

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	81.2	2.55	194.6	(N/A)
453	J-159	7.0	Zone	81.2	14.28	194.6	(N/A)
470	J-161	10.0	Zone	69.2	0.00	170.0	(N/A)
473	J-162	10.0	Zone	79.8	0.00	194.5	(N/A)
480	J-163	13.5	Zone	78.3	1.69	194.5	(N/A)
490	J-165	12.0	Zone	79.0	0.00	194.6	(N/A)
493	J-166	12.0	Zone	79.0	0.00	194.6	(N/A)
633	J-168	8.0	<None>	80.8	12.25	194.8	(N/A)
636	J-169	8.0	<None>	80.8	4.63	194.8	(N/A)
640	J-170	10.0	<None>	79.9	5.79	194.6	(N/A)
642	J-172	34.0	<None>	58.9	0.29	170.1	(N/A)
646	J-173	49.0	<None>	52.4	18.20	170.1	(N/A)
650	J-174	49.0	<None>	52.4	2.97	170.1	(N/A)
663	J-178 (Ag)	9.9	<None>	80.0	23.43	194.8	(N/A)
672	J-180	15.5	<None>	61.4	12.16	157.4	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.8	3.11	195.6	(N/A)
682	J-184	13.5	<None>	71.4	16.56	178.6	(N/A)
748	J-185	40.0	<None>	56.3	6.32	170.1	(N/A)
753	J-187	15.5	<None>	61.8	15.17	158.3	(N/A)
756	J-188	15.5	<None>	62.4	12.38	159.7	(N/A)
764	J-190	14.0	<None>	65.4	0.82	165.3	(N/A)
783	J-191	9.6	<None>	71.8	0.00	175.4	(N/A)
811	J-192	7.0	<None>	71.0	0.00	171.1	(N/A)
814	J-193	0.0	<None>	74.0	11.17	171.1	(N/A)
818	J-195	0.0	<None>	73.7	0.00	170.4	(N/A)
826	J-198	8.2	<None>	70.0	1.91	170.0	(N/A)
829	J-199	0.0	<None>	73.5	4.48	169.8	(N/A)
836	J-202	13.9	<None>	65.5	0.18	165.3	(N/A)
839	J-203	0.0	<None>	71.5	1.14	165.2	(N/A)
841	J-204	9.5	<None>	80.1	0.00	194.5	(N/A)
849	J-207	0.0	<None>	73.5	3.03	169.9	(N/A)
852	J-208	13.5	<None>	78.6	0.00	195.1	(N/A)
855	J-209	13.4	<None>	78.6	0.29	195.1	(N/A)
859	J-210	15.5	<None>	62.2	1.52	159.2	(N/A)
862	J-211	0.0	<None>	68.7	4.07	158.8	(N/A)
871	J-214	7.9	<None>	70.8	5.05	171.6	(N/A)
875	J-215	8.5	<None>	69.9	1.56	170.0	(N/A)
879	J-216	9.6	<None>	69.4	0.40	170.0	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	79.6	12.77	194.6	(N/A)
902	J-225	15.5	<None>	61.3	11.41	157.2	(N/A)
911	J-226	39.0	<None>	56.7	0.00	170.1	(N/A)
914	J-227	39.0	<None>	56.7	0.00	170.1	(N/A)
116	N5	7.0	Zone	70.5	5.42	170.1	2,500.00

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	70.1	4.40	170.0	1,191.96
184	N15	7.0	Zone	70.5	3.54	170.0	2,500.00
180	N20	10.0	Zone	69.2	0.00	170.0	2,500.00
115	N25	9.0	Zone	69.7	7.12	170.1	2,500.00
113	N27	8.0	Zone	70.1	0.00	170.0	2,500.00
209	N30	8.5	Zone	80.5	4.11	194.5	2,500.00
963	N35	8.8	<None>	80.4	0.00	194.5	2,500.00
960	N40	8.6	<None>	80.5	0.00	194.5	2,500.00
186	N43	8.0	Zone	70.1	9.05	170.0	2,500.00
957	N44	8.3	<None>	70.0	0.00	170.0	2,500.00
177	N45	8.5	Zone	69.9	1.53	170.0	1,641.41
112	N60	14.0	Zone	67.5	4.42	170.0	2,500.00
967	N65	14.0	<None>	67.5	0.00	170.0	2,500.00
970	N70	14.0	<None>	67.5	0.00	170.0	2,500.00
973	N75	13.7	<None>	78.2	0.00	194.5	2,322.03
979	N80	8.5	<None>	80.5	0.00	194.5	2,500.00
844	N81	9.2	<None>	80.2	0.00	194.5	2,500.00
976	N82	9.5	<None>	80.1	0.00	194.5	2,498.61
982	N83	9.5	<None>	80.1	0.00	194.5	2,500.00
163	N85	9.0	Zone	80.3	0.02	194.5	2,500.00
985	N86	9.0	<None>	80.3	0.00	194.5	2,500.00
172	N87	9.0	Zone	80.3	11.76	194.5	2,429.12
988	N88	8.9	<None>	80.3	0.00	194.5	2,428.14
991	N89	8.7	<None>	80.4	0.00	194.5	2,492.83
483	N90	15.0	Zone	65.0	23.84	165.3	1,870.51
1000	N100	13.5	<None>	65.7	0.00	165.3	1,602.42
997	N105	13.5	<None>	65.7	0.00	165.3	1,790.71
994	N110	13.7	<None>	65.6	0.00	165.3	1,842.83
214	N157	9.0	Zone	80.3	0.00	194.6	2,299.75
110	N200	14.5	Zone	65.2	21.14	165.3	1,676.46
109	N205	13.5	Zone	65.7	5.97	165.3	1,803.33
107	N210	18.5	Zone	63.5	4.48	165.3	1,723.86
1003	N215	17.5	<None>	63.9	0.00	165.3	1,691.17
1006	N220	16.0	<None>	64.6	0.00	165.3	1,649.01
1032	N225	16.5	<None>	64.4	0.00	165.3	1,550.61
1029	N230	15.5	<None>	64.8	0.00	165.3	1,594.30
1026	N235	15.5	<None>	64.8	0.00	165.3	1,590.64
897	N237	15.5	<None>	64.8	0.00	165.3	1,595.64
1010	N240	15.5	<None>	64.8	0.00	165.3	1,577.46
1023	N245	15.5	<None>	64.8	0.00	165.3	1,576.64
1019	N250	15.5	<None>	64.8	0.00	165.3	1,570.72
104	N260	15.5	Zone	64.8	0.00	165.3	1,563.20
1016	N265	15.5	<None>	64.8	0.00	165.3	1,561.86
1013	N270	15.5	<None>	64.8	0.00	165.3	1,564.62
158	S7	10.3	Zone	79.7	0.55	194.6	1,984.06
159	S8	14.5	Zone	77.9	2.96	194.6	1,752.63
155	S10	11.1	Zone	79.4	1.43	194.6	2,424.81

FlexTable: Junction Table

Active Scenario: MDD-2045&FF

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	71.5	0.00	174.2	2,500.00
153	S20	13.5	Zone	68.4	8.08	171.5	2,469.79
916	S21	6.7	<None>	71.3	0.00	171.5	2,448.67
919	S22	6.8	<None>	71.3	0.00	171.5	2,487.02
151	S23	6.1	Zone	71.5	1.83	171.5	2,500.00
923	S25	10.1	<None>	69.9	0.00	171.6	2,500.00
160	S30	7.0	Zone	71.0	0.00	171.1	1,352.97
149	S35	6.0	Zone	71.4	8.15	171.1	2,426.59
929	S40	7.2	<None>	71.1	0.00	171.5	2,454.95
204	S45	10.0	Zone	69.4	0.00	170.4	2,228.16
208	S50	10.0	Zone	69.4	0.67	170.4	1,874.54
205	S52	11.0	Zone	79.4	0.00	194.6	2,117.77
942	S55	10.3	<None>	79.7	0.00	194.6	2,366.48
144	S60	47.0	Zone	53.3	5.93	170.1	2,500.00
945	S65	7.0	<None>	70.8	0.00	170.6	2,405.11
936	S70	23.0	<None>	63.7	0.00	170.2	2,500.00
933	S72	17.7	Zone	66.0	0.00	170.3	2,500.00
142	S75	33.0	Zone	59.3	1.14	170.1	2,500.00
135	S80	8.0	Zone	70.1	20.90	170.1	2,500.00
136	S85	7.0	Zone	70.6	6.16	170.1	2,500.00
939	S90	16.2	<None>	66.6	0.00	170.1	2,357.35
138	S95	50.0	Zone	52.0	5.47	170.1	2,500.00
134	S100	8.0	Zone	70.1	6.40	170.1	2,500.00
139	S105	55.0	Zone	49.8	1.79	170.1	2,500.00
140	S110	10.0	Zone	69.3	18.86	170.1	2,500.00
128	S115	10.0	Zone	69.3	2.51	170.1	2,500.00
824	S117	0.0	<None>	73.6	3.21	170.1	2,500.00
457	S120	7.0	Zone	70.6	1.13	170.1	2,500.00
127	S130	48.5	Zone	52.6	1.88	170.1	2,434.41
125	S135	8.0	Zone	70.1	3.43	170.1	2,500.00
183	S136	10.0	Zone	69.2	0.00	170.1	2,500.00
124	S137	9.0	Zone	69.7	7.21	170.1	2,500.00
123	S140	8.0	Zone	70.1	9.07	170.1	2,500.00
954	S145	8.0	<None>	70.1	0.00	170.1	2,500.00
121	S150	10.3	Zone	69.1	7.36	170.0	2,500.00
161	S155	10.0	Zone	69.2	2.27	170.0	2,500.00
951	S160	12.8	<None>	68.1	0.00	170.1	2,500.00
122	S165	8.0	Zone	70.1	5.64	170.1	2,500.00
657	S170	92.2	<None>	33.7	3.76	170.1	1,372.75
948	S175	57.5	<None>	48.7	0.00	170.1	2,500.00
1047	SB2	13.5	<None>	72.6	0.00	181.4	264.65
760	SB3	10.4	<None>	67.2	1.99	165.7	130.99
1050	SB4	15.5	<None>	62.2	0.00	159.3	93.73
1053	SB5	15.5	<None>	61.6	0.00	157.8	83.29

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.29	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	2.51	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	0.59	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.12	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.34	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.04	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.16	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.10	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.06	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.13	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.01	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.14	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.21	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	1.91	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.02	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.13	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.05	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.14	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.18	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.14	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.32	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.16	8.0	Steel	False
289	WP-37	437	S85	S80	0.27	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.10	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	0.02	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	0.02	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	0.03	8.0	PVC	False
295	WP-42	780	S10	S7	0.02	8.0	PVC	False
296	WP-43	352	S7	S8	0.02	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.14	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	2.93	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	1.33	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.48	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.41	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.02	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.03	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	(N/A)	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.03	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.61	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.07	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.03	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.11	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.07	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.08	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.08	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.08	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.33	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.25	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.15	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.14	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.05	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.43	2.0	PVC	False
343	WP-86	220	J-113	S100	0.28	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.29	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.24	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.30	8.0	PVC	False
348	WP-90	246	J-115	S85	0.33	8.0	PVC	False
349	WP-91	251	S100	J-116	0.34	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.39	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.03	4.0	PVC	False
352	WP-94	142	J-118	S115	0.30	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.23	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.10	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.10	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.07	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.07	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.08	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.92	10.0	PVC	False
366	WP-105	80	J-60	J-126	1.05	10.0	PVC	False
369	WP-108	165	J-64	S45	0.01	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.01	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.21	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.09	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.16	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.16	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.11	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.05	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.17	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.20	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.19	4.0	PVC	False
398	WP-127	424	N30	J-141	0.20	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	1.01	6.0	PVC	False
412	WP-132	369	J-134	S105	0.38	10.0	PVC	False
419	WP-133	146	S165	J-150	0.19	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.06	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.12	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.12	4.0	PVC	False
450	WP-137	453	J-18	J-158	0.04	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	0.03	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.18	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.16	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.07	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.13	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.15	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.21	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.20	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.20	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.43	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.43	8.0	PVC	False
485	WP-154	540	N90	J-29	0.12	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	0.34	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	0.33	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.28	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	0.04	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.11	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	0.24	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	0.39	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	0.34	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.14	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.47	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.54	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.13	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.49	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.54	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.05	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.08	4.0	PVC	False
653	WP-172	235	S95	J-56	0.02	8.0	PVC	False
659	WP-173	361	S170	J-56	0.02	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.24	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	0.18	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	0.57	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.42	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	0.59	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	2.37	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.03	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.02	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.18	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	1.58	4.0	PVC	False
761	WP-190	388	J-3	SB3	2.18	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.99	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.13	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.29	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	1.07	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.01	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.12	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.19	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.46	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.12	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.12	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.12	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.03	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.02	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.02	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	0.40	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	0.55	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	0.33	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	0.83	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	1.12	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.42	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	2.74	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.88	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.10	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.05	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.31	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.14	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.14	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.01	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	0.32	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	0.30	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.01	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.36	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.38	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.10	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.10	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.19	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.19	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.24	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.24	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.54	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.54	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	2.74	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	2.74	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.74	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.74	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	1.05	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	1.05	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.36	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.36	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.36	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	1.11	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	1.11	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.10	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.10	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.33	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.33	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.06	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.06	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.13	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.13	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.23	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.23	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.23	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.02	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.08	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.08	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.02	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.02	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.03	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.03	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.05	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.05	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.05	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.12	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.12	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.04	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.04	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.04	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.01	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.01	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.01	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.01	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.01	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.01	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.01	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.01	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.01	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.01	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.42	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.42	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	0.58	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	0.58	16.0	PVC	False	-11.28	-11.28
1043	WP-181(2)	271	C7	C6	0.58	16.0	PVC	False	392.62	392.62
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	0.58	16.0	PVC	False	370.78	370.78
1046	WP-181(1)(2	1,209	C8	C7	0.58	16.0	PVC	False	18.07	18.07
1048	WP-183(1)	394	J-184	SB2	2.79	4.0	PVC	False	120.75	120.75
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	2.79	4.0	PVC	False	-10.03	-10.03
1051	WP-189 A(1)	268	J-188	SB4	1.26	4.0	PVC	False	-39.08	-39.08
1052	WP-189 A(2)	63	SB4	J-210	1.26	4.0	PVC	False	-24.20	-24.20
1054	WP-187(1)	526	J-180	SB5	0.73	4.0	Asbestos Cement	False	14.48	14.48
1055	WP-187(2)	821	SB5	J-187	0.73	4.0	Asbestos Cement	False	-20.26	-20.26
									0.40	0.40
									-33.88	-33.88
									8.27	8.27
									-167.99	-167.99
									-0.72	-0.72
									21.14	21.14
									13.45	13.45
									-12.49	-12.49
									28.83	28.83
									-22.17	-22.17
									-50.03	-50.03
									-25.03	-25.03
									-42.16	-42.16
									0.98	0.98
									11.29	11.29
									10.73	10.73

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
4.94	4.94
3.51	3.51
2.96	2.96
1.40	1.40
258.51	258.51
-117.15	-117.15
-75.69	-75.69
-64.91	-64.91
5.46	5.46
-6.71	-6.71
(N/A)	(N/A)
-4.42	-4.42
6.00	6.00
4.92	4.92
23.04	23.04
4.90	4.90
4.12	4.12
0.00	0.00
6.19	6.19
-12.13	-12.13
-12.74	-12.74
-12.74	-12.74
0.00	0.00
0.00	0.00
-79.77	-79.77
0.00	0.00
21.69	21.69
6.01	6.01
12.14	12.14
-7.52	-7.52
4.23	4.23
-24.61	-24.61
-44.85	-44.85
9.22	9.22
-47.61	-47.61
-52.25	-52.25
-30.04	-30.04
-34.76	-34.76
1.08	1.08
-26.68	-26.68
-20.16	-20.16
-9.21	-9.21
8.78	8.78
6.24	6.24
10.57	10.57
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
-20.59	-20.59
0.00	0.00
-225.25	-225.25
-257.70	-257.70
0.67	0.67
0.00	0.00
0.00	0.00
0.67	0.67
75.16	75.16
14.59	14.59
-25.53	-25.53
24.84	24.84
37.15	37.15
-7.38	-7.38
-14.65	-14.65
30.75	30.75
7.46	7.46
71.05	71.05
0.00	0.00
0.00	0.00
-89.01	-89.01
-93.26	-93.26
-29.60	-29.60
2.19	2.19
10.93	10.93
4.59	4.59
18.56	18.56
16.01	16.01
15.76	15.76
24.84	24.84
0.00	0.00
10.56	10.56
-20.73	-20.73
-23.74	-23.74
32.98	32.98
-31.09	-31.09
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
69.45	69.45
67.76	67.76
67.76	67.76
43.92	43.92
162.18	162.18

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
156.42	156.42
43.27	43.27
5.76	5.76
16.71	16.71
37.51	37.51
188.98	188.98
162.18	162.18
22.17	22.17
-73.34	-73.34
-85.24	-85.24
-11.61	-11.61
-120.58	-120.58
-131.28	-131.28
-7.49	-7.49
2.97	2.97
-2.74	-2.74
-3.76	-3.76
36.90	36.90
27.59	27.59
360.31	360.31
-16.54	-16.54
369.68	369.68
-92.72	-92.72
-4.74	-4.74
-3.82	-3.82
7.23	7.23
-61.84	-61.84
-85.27	-85.27
87.27	87.27
0.00	0.00
11.18	11.18
0.00	0.00
11.17	11.17
0.00	0.00
0.00	0.00
-167.99	-167.99
1.88	1.88
-10.23	-10.23
-16.63	-16.63
4.48	4.48
41.88	41.88
40.56	40.56
1.14	1.14
0.13	0.13
5.15	5.15
2.63	2.63
-2.52	-2.52

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
190.41	190.41
344.41	344.41
51.03	51.03
-293.09	-293.09
43.87	43.87
4.07	4.07
429.17	429.17
0.00	0.00
-77.92	-77.92
8.71	8.71
4.12	4.12
3.03	3.03
-22.02	-22.02
-22.42	-22.42
2.34	2.34
154.80	154.80
142.03	142.03
0.98	0.98
-3.52	-3.52
-14.93	-14.93
-16.24	-16.24
-16.24	-16.24
0.00	0.00
-29.82	-29.82
-29.82	-29.82
-36.92	-36.92
-36.92	-36.92
85.17	85.17
85.17	85.17
429.17	429.17
429.17	429.17
-65.41	-65.41
-65.41	-65.41
-257.84	-257.84
-257.84	-257.84
-31.34	-31.34
-31.34	-31.34
-31.34	-31.34
0.00	0.00
0.00	0.00
-97.82	-97.82
-97.82	-97.82
-16.11	-16.11
-16.11	-16.11
-79.77	-79.77
-79.77	-79.77

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
-15.13	-15.13
-15.13	-15.13
-20.81	-20.81
-20.81	-20.81
82.25	82.25
82.25	82.25
82.25	82.25
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2.65	2.65
28.19	28.19
28.19	28.19
2.65	2.65
2.65	2.65
4.67	4.67
4.67	4.67
-7.08	-7.08
-7.08	-7.08
-7.08	-7.08
42.70	42.70
42.70	42.70
0.00	0.00
0.00	0.00
0.00	0.00
8.97	8.97
8.97	8.97
8.97	8.97
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
2.34	2.34
2.34	2.34
0.00	0.00
0.00	0.00
102.68	102.68
102.68	102.68
365.18	365.18
365.18	365.18
366.57	366.57

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
366.57	366.57
366.57	366.57
-109.28	-109.28
-109.28	-109.28
49.45	49.45
49.45	49.45
-28.70	-28.70
-28.70	-28.70

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.39	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	8.60	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	2.12	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.12	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.34	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.04	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.16	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.10	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.06	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.13	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.02	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.14	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.21	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	1.91	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.02	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.13	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.05	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.14	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.18	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.14	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.32	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.16	8.0	Steel	False
289	WP-37	437	S85	S80	0.27	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.10	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	2.01	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	2.01	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	6.13	8.0	PVC	False
295	WP-42	780	S10	S7	6.12	8.0	PVC	False
296	WP-43	352	S7	S8	0.02	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.14	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	2.93	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	1.33	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.48	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.41	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.02	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.03	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	10.84	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.03	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.61	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.07	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.03	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.11	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.07	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.08	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.08	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.08	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.33	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.25	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.15	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.14	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.05	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.43	2.0	PVC	False
343	WP-86	220	J-113	S100	0.28	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.29	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.24	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.30	8.0	PVC	False
348	WP-90	246	J-115	S85	0.33	8.0	PVC	False
349	WP-91	251	S100	J-116	0.34	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.39	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.03	4.0	PVC	False
352	WP-94	142	J-118	S115	0.30	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.23	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.10	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.10	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.07	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.07	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.08	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.92	10.0	PVC	False
366	WP-105	80	J-60	J-126	1.05	10.0	PVC	False
369	WP-108	165	J-64	S45	0.01	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.01	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.21	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.09	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.16	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.16	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.11	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.05	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.17	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.20	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.19	4.0	PVC	False
398	WP-127	424	N30	J-141	0.20	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	1.01	6.0	PVC	False
412	WP-132	369	J-134	S105	0.38	10.0	PVC	False
419	WP-133	146	S165	J-150	0.19	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.06	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.12	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.12	4.0	PVC	False
450	WP-137	453	J-18	J-158	2.03	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	2.02	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.18	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.16	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.07	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.13	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.15	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.21	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.20	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.20	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.43	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.43	8.0	PVC	False
485	WP-154	540	N90	J-29	0.12	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	1.96	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	2.32	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.28	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	1.11	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.11	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	1.38	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	2.01	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	1.96	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.13	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.47	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.54	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.13	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.49	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.54	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.05	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.08	4.0	PVC	False
653	WP-172	235	S95	J-56	0.02	8.0	PVC	False
659	WP-173	361	S170	J-56	0.02	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.24	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	1.33	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	2.10	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.42	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	2.11	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	2.37	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.03	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.02	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.18	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	1.58	4.0	PVC	False
761	WP-190	388	J-3	SB3	2.18	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.99	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.13	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.29	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	1.07	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.01	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.12	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.19	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.46	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.12	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.12	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.12	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.03	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.02	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.02	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	2.01	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	2.07	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	1.48	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	3.02	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	1.12	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.42	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	2.74	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.88	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.10	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.05	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.31	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.14	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.14	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.01	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	2.31	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	2.29	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.01	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.36	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.38	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.10	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.10	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.19	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.19	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.24	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.24	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.54	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.54	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	2.74	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	2.74	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.74	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.74	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	1.05	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	1.05	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.36	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.36	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.36	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	1.11	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	1.11	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.10	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.10	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.33	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.33	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.06	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.06	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.13	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.13	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.23	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.23	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.23	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.02	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.08	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.08	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.02	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.02	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.03	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.03	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.05	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.05	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.05	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.12	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.12	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.04	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.04	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.04	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.01	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.01	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.01	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.01	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.01	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.01	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.01	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.01	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.01	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.01	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.40	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.40	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	2.11	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	2.11	16.0	PVC	False	-15.37	-15.37
1043	WP-181(2)	271	C7	C6	2.11	16.0	PVC	False	1,348.12	1,348.12
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	2.11	16.0	PVC	False	1,326.28	1,326.28
1046	WP-181(1)(2	1,209	C8	C7	2.11	16.0	PVC	False	18.07	18.07
1048	WP-183(1)	394	J-184	SB2	2.79	4.0	PVC	False	120.75	120.75
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	2.79	4.0	PVC	False	-10.03	-10.03
1051	WP-189 A(1)	268	J-188	SB4	1.26	4.0	PVC	False	-39.08	-39.08
1052	WP-189 A(2)	63	SB4	J-210	1.26	4.0	PVC	False	-24.20	-24.20
1054	WP-187(1)	526	J-180	SB5	0.73	4.0	Asbestos Cement	False	14.86	14.86
1055	WP-187(2)	821	SB5	J-187	0.73	4.0	Asbestos Cement	False	-20.64	-20.64
									0.78	0.78
									-33.50	-33.50
									8.27	8.27
									-167.99	-167.99
									-0.71	-0.71
									21.14	21.14
									13.45	13.45
									-12.49	-12.49
									28.83	28.83
									-22.17	-22.17
									-50.03	-50.03
									-25.04	-25.04
									-42.16	-42.16
									0.98	0.98
									966.78	966.78
									966.21	966.21

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
960.43	960.43
959.00	959.00
2.96	2.96
1.40	1.40
258.51	258.51
-117.15	-117.15
-75.69	-75.69
-64.91	-64.91
5.46	5.46
-6.71	-6.71
955.49	955.49
-4.42	-4.42
6.00	6.00
4.92	4.92
23.04	23.04
4.90	4.90
4.12	4.12
0.00	0.00
6.19	6.19
-12.13	-12.13
-12.74	-12.74
-12.74	-12.74
0.00	0.00
0.00	0.00
-79.76	-79.76
0.00	0.00
21.68	21.68
6.00	6.00
12.14	12.14
-7.52	-7.52
4.23	4.23
-24.61	-24.61
-44.85	-44.85
9.22	9.22
-47.61	-47.61
-52.25	-52.25
-30.04	-30.04
-34.76	-34.76
1.08	1.08
-26.69	-26.69
-20.17	-20.17
-9.22	-9.22
8.78	8.78
6.24	6.24
10.57	10.57
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
-20.59	-20.59
0.00	0.00
-225.25	-225.25
-257.70	-257.70
0.67	0.67
0.00	0.00
0.00	0.00
0.67	0.67
75.16	75.16
14.59	14.59
-25.53	-25.53
24.84	24.84
37.15	37.15
-7.38	-7.38
-14.65	-14.65
30.75	30.75
7.46	7.46
71.05	71.05
0.00	0.00
0.00	0.00
-89.01	-89.01
-93.26	-93.26
-29.60	-29.60
2.19	2.19
10.92	10.92
4.59	4.59
974.05	974.05
971.50	971.50
15.76	15.76
24.84	24.84
0.00	0.00
10.56	10.56
-20.73	-20.73
-23.74	-23.74
32.97	32.97
-31.09	-31.09
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
69.45	69.45
67.76	67.76
67.76	67.76
43.92	43.92
938.25	938.25

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
1,111.91	1,111.91
43.27	43.27
-173.66	-173.66
16.72	16.72
216.93	216.93
963.86	963.86
938.25	938.25
20.98	20.98
-73.34	-73.34
-85.24	-85.24
-11.61	-11.61
-120.58	-120.58
-131.28	-131.28
-7.49	-7.49
2.97	2.97
-2.74	-2.74
-3.76	-3.76
36.90	36.90
208.21	208.21
1,315.81	1,315.81
-16.54	-16.54
1,325.18	1,325.18
-92.72	-92.72
-4.74	-4.74
-3.82	-3.82
7.23	7.23
-61.84	-61.84
-85.27	-85.27
87.27	87.27
0.00	0.00
11.17	11.17
0.00	0.00
11.17	11.17
0.00	0.00
0.00	0.00
-167.99	-167.99
1.88	1.88
-10.23	-10.23
-16.63	-16.63
4.48	4.48
41.88	41.88
40.56	40.56
1.14	1.14
0.13	0.13
5.15	5.15
2.63	2.63
-2.52	-2.52

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
965.29	965.29
1,295.81	1,295.81
231.64	231.64
-1,063.88	-1,063.88
43.87	43.87
4.07	4.07
429.17	429.17
0.00	0.00
-77.92	-77.92
8.71	8.71
4.12	4.12
3.03	3.03
-22.02	-22.02
-22.42	-22.42
2.34	2.34
1,110.29	1,110.29
1,097.52	1,097.52
0.98	0.98
-3.52	-3.52
-14.93	-14.93
-16.24	-16.24
-16.24	-16.24
0.00	0.00
-29.82	-29.82
-29.82	-29.82
-36.92	-36.92
-36.92	-36.92
85.17	85.17
85.17	85.17
429.17	429.17
429.17	429.17
-65.41	-65.41
-65.41	-65.41
-257.84	-257.84
-257.84	-257.84
-31.34	-31.34
-31.34	-31.34
-31.34	-31.34
0.00	0.00
0.00	0.00
-97.82	-97.82
-97.82	-97.82
-16.11	-16.11
-16.11	-16.11
-79.76	-79.76
-79.76	-79.76

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
-15.13	-15.13
-15.13	-15.13
-20.80	-20.80
-20.80	-20.80
82.25	82.25
82.25	82.25
82.25	82.25
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2.65	2.65
28.19	28.19
28.19	28.19
2.65	2.65
2.65	2.65
4.67	4.67
4.67	4.67
-7.08	-7.08
-7.08	-7.08
-7.08	-7.08
42.70	42.70
42.70	42.70
0.00	0.00
0.00	0.00
0.00	0.00
8.97	8.97
8.97	8.97
8.97	8.97
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
0.98	0.98
2.34	2.34
2.34	2.34
0.00	0.00
0.00	0.00
98.59	98.59
98.59	98.59
1,320.68	1,320.68
1,320.68	1,320.68
1,322.06	1,322.06

FlexTable: Pipe Table

Active Scenario: MDD-2045&FF

Flow (gpm)	Flow (Maximum) (gpm)
1,322.06	1,322.06
1,322.06	1,322.06
-109.28	-109.28
-109.28	-109.28
49.45	49.45
49.45	49.45
-28.70	-28.70
-28.70	-28.70

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.4	0.00	194.8	(N/A)
666	C4	13.5	<None>	78.5	1.49	194.9	(N/A)
1038	C5	13.5	<None>	78.5	0.00	195.0	(N/A)
675	C6	13.5	<None>	78.6	0.42	195.2	(N/A)
1041	C7	13.5	<None>	78.6	0.00	195.2	(N/A)
1044	C8	13.5	<None>	78.7	0.00	195.4	(N/A)
85	J-1	15.5	Zone	75.7	1.08	190.5	(N/A)
86	J-2	15.5	Zone	75.7	0.49	190.6	(N/A)
87	J-3	15.5	Zone	76.1	7.17	191.3	(N/A)
88	J-5	13.5	Zone	77.0	1.14	191.6	(N/A)
89	J-6 (Ag)	13.5	Zone	78.4	1.43	194.8	(N/A)
90	J-7	13.5	Zone	78.4	0.44	194.8	(N/A)
92	J-9	13.5	Zone	78.4	1.42	194.8	(N/A)
95	J-12	13.5	Zone	78.8	0.34	195.7	(N/A)
96	J-13	13.5	Zone	78.8	6.69	195.7	(N/A)
97	J-15 (Ag)	13.5	Zone	77.9	0.00	193.6	(N/A)
98	J-16	13.5	Zone	77.8	0.11	193.4	(N/A)
99	J-17	11.0	Zone	78.9	0.50	193.4	(N/A)
100	J-18	9.0	Zone	79.7	0.83	193.3	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.72	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.26	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.08	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.69	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.37	165.3	(N/A)
114	J-32	9.0	Zone	79.7	0.28	193.3	(N/A)
118	J-36	6.5	Zone	73.4	1.62	176.2	(N/A)
119	J-37	8.5	Zone	72.6	0.00	176.2	(N/A)
120	J-38	8.5	Zone	79.9	0.41	193.3	(N/A)
126	J-45	43.0	Zone	57.6	1.30	176.2	(N/A)
133	J-52	9.0	Zone	72.3	0.55	176.2	(N/A)
137	J-56	64.0	Zone	48.5	2.94	176.2	(N/A)
141	J-60	26.0	Zone	65.0	0.34	176.2	(N/A)
143	J-62	47.0	Zone	55.9	2.72	176.2	(N/A)
145	J-64	12.4	Zone	70.9	0.00	176.2	(N/A)
146	J-66	8.0	Zone	80.0	0.17	192.8	(N/A)
147	J-67	8.0	Zone	72.9	1.50	176.4	(N/A)
148	J-68	6.1	Zone	73.7	4.03	176.4	(N/A)
150	J-70	6.0	Zone	80.9	1.44	192.9	(N/A)
152	J-72	7.0	Zone	73.3	2.74	176.4	(N/A)
154	J-74	8.0	Zone	72.8	0.43	176.4	(N/A)
156	J-76	40.0	Zone	66.4	0.00	193.4	(N/A)
157	J-77	20.0	Zone	73.9	0.00	190.8	(N/A)
162	J-82	21.5	Zone	74.4	5.53	193.4	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	72.9	0.82	176.5	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.3	0.52	176.2	(N/A)
167	J-88	13.0	Zone	70.6	1.84	176.2	(N/A)
168	J-89	9.5	Zone	79.5	6.36	193.3	(N/A)
169	J-90	8.5	Zone	79.9	0.00	193.3	(N/A)
170	J-91	9.5	Zone	79.5	0.76	193.3	(N/A)
171	J-94	9.0	Zone	79.7	0.07	193.3	(N/A)
173	J-96	8.0	Zone	80.2	1.90	193.3	(N/A)
174	J-97	8.5	Zone	79.9	0.09	193.3	(N/A)
175	J-99	8.5	Zone	72.6	1.26	176.2	(N/A)
176	J-100	8.5	Zone	72.6	0.00	176.2	(N/A)
178	J-102	10.0	Zone	71.9	0.00	176.2	(N/A)
179	J-103	10.0	Zone	71.9	0.19	176.2	(N/A)
181	J-105	10.0	Zone	71.9	0.00	176.2	(N/A)
182	J-106	9.0	Zone	72.3	0.00	176.2	(N/A)
185	J-109	8.0	Zone	72.8	0.93	176.2	(N/A)
187	J-112	9.5	Zone	72.1	1.30	176.2	(N/A)
188	J-113	8.0	Zone	72.8	15.18	176.2	(N/A)
189	J-114	9.0	Zone	72.3	1.39	176.2	(N/A)
190	J-115	9.0	Zone	72.3	1.09	176.2	(N/A)
191	J-116	8.0	Zone	72.8	1.77	176.2	(N/A)
192	J-117	11.0	Zone	71.5	1.91	176.2	(N/A)
193	J-118	13.3	Zone	70.5	0.09	176.2	(N/A)
194	J-119	13.3	Zone	70.5	0.66	176.2	(N/A)
195	J-120	7.0	Zone	73.2	2.69	176.2	(N/A)
198	J-122	8.0	Zone	72.8	6.30	176.2	(N/A)
199	J-123	9.0	Zone	72.3	0.00	176.2	(N/A)
201	J-125	27.0	Zone	64.6	2.67	176.2	(N/A)
202	J-126	20.0	Zone	67.6	0.04	176.2	(N/A)
203	J-127	8.0	Zone	72.9	0.00	176.5	(N/A)
206	J-130	11.0	Zone	78.7	0.00	192.8	(N/A)
207	J-131	10.0	Zone	79.1	0.00	192.8	(N/A)
210	J-134	15.0	Zone	69.7	0.46	176.2	(N/A)
211	J-135	49.0	Zone	55.0	1.14	176.2	(N/A)
213	J-137	9.0	Zone	72.3	0.37	176.2	(N/A)
215	J-139	8.5	Zone	79.9	0.48	193.3	(N/A)
217	J-141	12.0	Zone	78.4	0.49	193.3	(N/A)
218	J-142	7.0	Zone	73.2	0.16	176.2	(N/A)
219	J-143	7.0	Zone	73.2	0.11	176.2	(N/A)
220	J-144	40.0	Zone	59.0	2.28	176.4	(N/A)
197	J-145	8.0	LP	72.9	0.00	176.5	(N/A)
221	J-146	8.0	HP	80.2	0.00	193.4	(N/A)
407	J-148	15.5	Zone	76.2	0.53	191.5	(N/A)
417	J-149	10.0	Zone	71.9	0.67	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	71.9	0.36	176.2	(N/A)
422	J-151	37.0	Zone	60.2	0.21	176.2	(N/A)
423	J-152	48.0	Zone	55.5	0.14	176.2	(N/A)
429	J-154	9.0	Zone	72.3	1.40	176.2	(N/A)
449	J-158	7.0	Zone	80.6	0.78	193.2	(N/A)
453	J-159	7.0	Zone	80.7	4.37	193.4	(N/A)
470	J-161	10.0	Zone	71.9	0.00	176.2	(N/A)
473	J-162	10.0	Zone	79.3	0.00	193.3	(N/A)
480	J-163	13.5	Zone	77.8	0.52	193.3	(N/A)
490	J-165	12.0	Zone	78.5	0.00	193.4	(N/A)
493	J-166	12.0	Zone	78.5	0.00	193.4	(N/A)
633	J-168	8.0	<None>	80.5	3.75	194.0	(N/A)
636	J-169	8.0	<None>	80.5	1.42	194.0	(N/A)
640	J-170	10.0	<None>	79.1	1.77	192.7	(N/A)
642	J-172	34.0	<None>	61.5	0.09	176.2	(N/A)
646	J-173	49.0	<None>	55.0	5.57	176.2	(N/A)
650	J-174	49.0	<None>	55.0	0.91	176.2	(N/A)
663	J-178 (Ag)	9.9	<None>	79.8	7.17	194.3	(N/A)
672	J-180	15.5	<None>	75.8	3.72	190.6	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.7	0.95	195.5	(N/A)
682	J-184	13.5	<None>	77.6	5.07	193.0	(N/A)
748	J-185	40.0	<None>	58.9	1.93	176.2	(N/A)
753	J-187	15.5	<None>	75.8	4.64	190.7	(N/A)
756	J-188	15.5	<None>	75.9	3.79	190.9	(N/A)
764	J-190	14.0	<None>	65.5	0.25	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.8	(N/A)
811	J-192	7.0	<None>	73.3	0.00	176.3	(N/A)
814	J-193	0.0	<None>	76.3	3.42	176.3	(N/A)
818	J-195	0.0	<None>	76.3	0.00	176.2	(N/A)
826	J-198	8.2	<None>	72.7	0.59	176.2	(N/A)
829	J-199	0.0	<None>	76.2	1.37	176.2	(N/A)
836	J-202	13.9	<None>	65.5	0.05	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.35	165.3	(N/A)
841	J-204	9.5	<None>	79.5	0.00	193.3	(N/A)
849	J-207	0.0	<None>	76.2	0.93	176.2	(N/A)
852	J-208	13.5	<None>	78.4	0.00	194.8	(N/A)
855	J-209	13.4	<None>	78.5	0.09	194.8	(N/A)
859	J-210	15.5	<None>	75.8	0.46	190.8	(N/A)
862	J-211	0.0	<None>	82.5	1.24	190.8	(N/A)
871	J-214	7.9	<None>	72.9	1.54	176.4	(N/A)
875	J-215	8.5	<None>	72.6	0.48	176.2	(N/A)
879	J-216	9.6	<None>	72.1	0.12	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	79.1	3.91	193.4	(N/A)
902	J-225	15.5	<None>	75.7	3.49	190.6	(N/A)
911	J-226	39.0	<None>	59.4	0.00	176.2	(N/A)
914	J-227	39.0	<None>	59.4	0.00	176.2	(N/A)
116	N5	7.0	Zone	73.2	1.66	176.2	(N/A)
117	N10	8.0	Zone	72.8	1.35	176.2	(N/A)
184	N15	7.0	Zone	73.2	1.08	176.2	(N/A)
180	N20	10.0	Zone	71.9	0.00	176.2	(N/A)
115	N25	9.0	Zone	72.3	2.18	176.2	(N/A)
113	N27	8.0	Zone	72.8	0.00	176.2	(N/A)
209	N30	8.5	Zone	79.9	1.26	193.3	(N/A)
963	N35	8.8	<None>	79.8	0.00	193.3	(N/A)
960	N40	8.6	<None>	79.9	0.00	193.3	(N/A)
186	N43	8.0	Zone	72.8	2.77	176.2	(N/A)
957	N44	8.3	<None>	72.6	0.00	176.2	(N/A)
177	N45	8.5	Zone	72.6	0.47	176.2	(N/A)
112	N60	14.0	Zone	70.2	1.35	176.2	(N/A)
967	N65	14.0	<None>	70.2	0.00	176.2	(N/A)
970	N70	14.0	<None>	70.2	0.00	176.2	(N/A)
973	N75	13.7	<None>	77.7	0.00	193.3	(N/A)
979	N80	8.5	<None>	79.9	0.00	193.3	(N/A)
844	N81	9.2	<None>	79.6	0.00	193.3	(N/A)
976	N82	9.5	<None>	79.5	0.00	193.3	(N/A)
982	N83	9.5	<None>	79.5	0.00	193.3	(N/A)
163	N85	9.0	Zone	79.7	0.01	193.3	(N/A)
985	N86	9.0	<None>	79.7	0.00	193.3	(N/A)
172	N87	9.0	Zone	79.7	3.60	193.3	(N/A)
988	N88	8.9	<None>	79.8	0.00	193.3	(N/A)
991	N89	8.7	<None>	79.9	0.00	193.3	(N/A)
483	N90	15.0	Zone	65.0	7.30	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.8	0.00	193.4	(N/A)
110	N200	14.5	Zone	65.2	6.47	165.3	(N/A)
109	N205	13.5	Zone	65.7	1.83	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.37	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	78.1	321.30	190.8	(N/A)
159	S8	14.5	Zone	76.3	0.91	190.8	(N/A)
155	S10	11.1	Zone	78.4	0.44	192.2	(N/A)
926	S15	9.0	<None>	72.6	0.00	176.7	(N/A)
153	S20	13.5	Zone	70.5	2.47	176.4	(N/A)
916	S21	6.7	<None>	73.4	0.00	176.4	(N/A)
919	S22	6.8	<None>	73.4	0.00	176.4	(N/A)
151	S23	6.1	Zone	73.7	0.56	176.4	(N/A)
923	S25	10.1	<None>	71.9	0.00	176.4	(N/A)
160	S30	7.0	Zone	73.3	0.00	176.3	(N/A)
149	S35	6.0	Zone	73.7	2.49	176.3	(N/A)
929	S40	7.2	<None>	73.2	0.00	176.4	(N/A)
204	S45	10.0	Zone	71.9	0.00	176.2	(N/A)
208	S50	10.0	Zone	71.9	0.21	176.2	(N/A)
205	S52	11.0	Zone	78.7	0.00	192.8	(N/A)
942	S55	10.3	<None>	78.9	0.00	192.8	(N/A)
144	S60	47.0	Zone	55.9	1.81	176.2	(N/A)
945	S65	7.0	<None>	73.2	0.00	176.3	(N/A)
936	S70	23.0	<None>	66.3	0.00	176.2	(N/A)
933	S72	17.7	Zone	68.6	0.00	176.2	(N/A)
142	S75	33.0	Zone	62.0	0.35	176.2	(N/A)
135	S80	8.0	Zone	72.8	6.40	176.2	(N/A)
136	S85	7.0	Zone	73.2	1.88	176.2	(N/A)
939	S90	16.2	<None>	69.2	0.00	176.2	(N/A)
138	S95	50.0	Zone	54.6	1.67	176.2	(N/A)
134	S100	8.0	Zone	72.8	1.96	176.2	(N/A)
139	S105	55.0	Zone	52.4	0.55	176.2	(N/A)
140	S110	10.0	Zone	71.9	5.77	176.2	(N/A)
128	S115	10.0	Zone	71.9	0.77	176.2	(N/A)
824	S117	0.0	<None>	76.2	0.98	176.2	(N/A)
457	S120	7.0	Zone	73.2	0.35	176.2	(N/A)
127	S130	48.5	Zone	55.2	0.58	176.2	(N/A)
125	S135	8.0	Zone	72.8	1.05	176.2	(N/A)
183	S136	10.0	Zone	71.9	0.00	176.2	(N/A)
124	S137	9.0	Zone	72.3	2.21	176.2	(N/A)
123	S140	8.0	Zone	72.8	2.78	176.2	(N/A)
954	S145	8.0	<None>	72.8	0.00	176.2	(N/A)
121	S150	10.3	Zone	71.8	2.25	176.2	(N/A)
161	S155	10.0	Zone	71.9	0.69	176.2	(N/A)
951	S160	12.8	<None>	70.7	0.00	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	72.8	1.73	176.2	(N/A)
657	S170	92.2	<None>	36.3	1.15	176.2	(N/A)
948	S175	57.5	<None>	51.4	0.00	176.2	(N/A)
1047	SB2	13.5	<None>	77.8	0.00	193.3	(N/A)
760	SB3	10.4	<None>	78.4	0.61	191.5	(N/A)
1050	SB4	15.5	<None>	75.8	0.00	190.8	(N/A)
1053	SB5	15.5	<None>	75.8	0.00	190.7	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	78.4	0.00	194.8	(N/A)
666	C4	13.5	<None>	78.5	1.49	194.9	(N/A)
1038	C5	13.5	<None>	78.5	0.00	195.0	(N/A)
675	C6	13.5	<None>	78.6	0.42	195.2	(N/A)
1041	C7	13.5	<None>	78.6	0.00	195.2	(N/A)
1044	C8	13.5	<None>	78.7	0.00	195.4	(N/A)
85	J-1	15.5	Zone	75.7	1.08	190.5	(N/A)
86	J-2	15.5	Zone	75.7	0.49	190.6	(N/A)
87	J-3	15.5	Zone	76.1	7.17	191.3	(N/A)
88	J-5	13.5	Zone	77.0	1.14	191.6	(N/A)
89	J-6 (Ag)	13.5	Zone	78.4	1.43	194.8	(N/A)
90	J-7	13.5	Zone	78.4	0.44	194.8	(N/A)
92	J-9	13.5	Zone	78.4	1.42	194.8	(N/A)
95	J-12	13.5	Zone	78.8	0.34	195.7	(N/A)
96	J-13	13.5	Zone	78.8	6.69	195.7	(N/A)
97	J-15 (Ag)	13.5	Zone	77.9	0.00	193.6	(N/A)
98	J-16	13.5	Zone	77.8	0.11	193.4	(N/A)
99	J-17	11.0	Zone	78.9	0.50	193.4	(N/A)
100	J-18	9.0	Zone	79.7	0.83	193.3	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	0.72	165.3	(N/A)
103	J-21	15.5	Zone	64.8	1.26	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.08	165.3	(N/A)
106	J-24	15.5	Zone	64.8	0.69	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.37	165.3	(N/A)
114	J-32	9.0	Zone	79.7	0.28	193.3	(N/A)
118	J-36	6.5	Zone	73.4	1.62	176.2	(N/A)
119	J-37	8.5	Zone	72.6	0.00	176.2	(N/A)
120	J-38	8.5	Zone	79.9	0.41	193.3	(N/A)
126	J-45	43.0	Zone	57.6	1.30	176.2	(N/A)
133	J-52	9.0	Zone	72.3	0.55	176.2	(N/A)
137	J-56	64.0	Zone	48.5	2.94	176.2	(N/A)
141	J-60	26.0	Zone	65.0	0.34	176.2	(N/A)
143	J-62	47.0	Zone	55.9	2.72	176.2	(N/A)
145	J-64	12.4	Zone	70.9	0.00	176.2	(N/A)
146	J-66	8.0	Zone	80.0	0.17	192.8	(N/A)
147	J-67	8.0	Zone	72.9	1.50	176.4	(N/A)
148	J-68	6.1	Zone	73.7	4.03	176.4	(N/A)
150	J-70	6.0	Zone	80.9	1.44	192.9	(N/A)
152	J-72	7.0	Zone	73.3	2.74	176.4	(N/A)
154	J-74	8.0	Zone	72.8	0.43	176.4	(N/A)
156	J-76	40.0	Zone	66.4	0.00	193.4	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	74.4	5.53	193.4	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	72.9	0.82	176.5	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	71.3	0.52	176.2	(N/A)
167	J-88	13.0	Zone	70.6	1.84	176.2	(N/A)
168	J-89	9.5	Zone	79.5	6.36	193.3	(N/A)
169	J-90	8.5	Zone	79.9	0.00	193.3	(N/A)
170	J-91	9.5	Zone	79.5	0.76	193.3	(N/A)
171	J-94	9.0	Zone	79.7	0.07	193.3	(N/A)
173	J-96	8.0	Zone	80.2	1.90	193.3	(N/A)
174	J-97	8.5	Zone	79.9	0.09	193.3	(N/A)
175	J-99	8.5	Zone	72.6	1.26	176.2	(N/A)
176	J-100	8.5	Zone	72.6	0.00	176.2	(N/A)
178	J-102	10.0	Zone	71.9	0.00	176.2	(N/A)
179	J-103	10.0	Zone	71.9	0.19	176.2	(N/A)
181	J-105	10.0	Zone	71.9	0.00	176.2	(N/A)
182	J-106	9.0	Zone	72.3	0.00	176.2	(N/A)
185	J-109	8.0	Zone	72.8	0.93	176.2	(N/A)
187	J-112	9.5	Zone	72.1	1.30	176.2	(N/A)
188	J-113	8.0	Zone	72.8	15.18	176.2	(N/A)
189	J-114	9.0	Zone	72.3	1.39	176.2	(N/A)
190	J-115	9.0	Zone	72.3	1.09	176.2	(N/A)
191	J-116	8.0	Zone	72.8	1.77	176.2	(N/A)
192	J-117	11.0	Zone	71.5	1.91	176.2	(N/A)
193	J-118	13.3	Zone	70.5	0.09	176.2	(N/A)
194	J-119	13.3	Zone	70.5	0.66	176.2	(N/A)
195	J-120	7.0	Zone	73.2	2.69	176.2	(N/A)
198	J-122	8.0	Zone	72.8	6.30	176.2	(N/A)
199	J-123	9.0	Zone	72.3	0.00	176.2	(N/A)
201	J-125	27.0	Zone	64.6	2.67	176.2	(N/A)
202	J-126	20.0	Zone	67.6	0.04	176.2	(N/A)
203	J-127	8.0	Zone	72.9	0.00	176.5	(N/A)
206	J-130	11.0	Zone	78.7	0.00	192.8	(N/A)
207	J-131	10.0	Zone	79.1	0.00	192.8	(N/A)
210	J-134	15.0	Zone	69.7	0.46	176.2	(N/A)
211	J-135	49.0	Zone	55.0	1.14	176.2	(N/A)
213	J-137	9.0	Zone	72.3	0.37	176.2	(N/A)
215	J-139	8.5	Zone	79.9	0.48	193.3	(N/A)
217	J-141	12.0	Zone	78.4	0.49	193.3	(N/A)
218	J-142	7.0	Zone	73.2	0.16	176.2	(N/A)
219	J-143	7.0	Zone	73.2	0.11	176.2	(N/A)
220	J-144	40.0	Zone	59.0	2.28	176.4	(N/A)
197	J-145	8.0	LP	72.9	0.00	176.5	(N/A)
221	J-146	8.0	HP	80.2	0.00	193.4	(N/A)
407	J-148	15.5	Zone	76.2	0.53	191.5	(N/A)
417	J-149	10.0	Zone	71.9	0.67	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	71.9	0.36	176.2	(N/A)
422	J-151	37.0	Zone	60.2	0.21	176.2	(N/A)
423	J-152	48.0	Zone	55.5	0.14	176.2	(N/A)
429	J-154	9.0	Zone	72.3	1.40	176.2	(N/A)
449	J-158	7.0	Zone	80.6	0.78	193.2	(N/A)
453	J-159	7.0	Zone	80.7	4.37	193.4	(N/A)
470	J-161	10.0	Zone	71.9	0.00	176.2	(N/A)
473	J-162	10.0	Zone	79.3	0.00	193.3	(N/A)
480	J-163	13.5	Zone	77.8	0.52	193.3	(N/A)
490	J-165	12.0	Zone	78.5	0.00	193.4	(N/A)
493	J-166	12.0	Zone	78.5	0.00	193.4	(N/A)
633	J-168	8.0	<None>	80.5	3.75	194.0	(N/A)
636	J-169	8.0	<None>	80.5	1.42	194.0	(N/A)
640	J-170	10.0	<None>	79.1	1.77	192.7	(N/A)
642	J-172	34.0	<None>	61.5	0.09	176.2	(N/A)
646	J-173	49.0	<None>	55.0	5.57	176.2	(N/A)
650	J-174	49.0	<None>	55.0	0.91	176.2	(N/A)
663	J-178 (Ag)	9.9	<None>	79.8	7.17	194.3	(N/A)
672	J-180	15.5	<None>	75.8	3.72	190.6	(N/A)
679	J-183 (Hydrant)	13.5	<None>	78.7	0.95	195.5	(N/A)
682	J-184	13.5	<None>	77.6	5.07	193.0	(N/A)
748	J-185	40.0	<None>	58.9	1.93	176.2	(N/A)
753	J-187	15.5	<None>	75.8	4.64	190.7	(N/A)
756	J-188	15.5	<None>	75.9	3.79	190.9	(N/A)
764	J-190	14.0	<None>	65.5	0.25	165.3	(N/A)
783	J-191	9.6	<None>	72.3	0.00	176.8	(N/A)
811	J-192	7.0	<None>	73.3	0.00	176.3	(N/A)
814	J-193	0.0	<None>	76.3	3.42	176.3	(N/A)
818	J-195	0.0	<None>	76.3	0.00	176.2	(N/A)
826	J-198	8.2	<None>	72.7	0.59	176.2	(N/A)
829	J-199	0.0	<None>	76.2	1.37	176.2	(N/A)
836	J-202	13.9	<None>	65.5	0.05	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.35	165.3	(N/A)
841	J-204	9.5	<None>	79.5	0.00	193.3	(N/A)
849	J-207	0.0	<None>	76.2	0.93	176.2	(N/A)
852	J-208	13.5	<None>	78.4	0.00	194.8	(N/A)
855	J-209	13.4	<None>	78.5	0.09	194.8	(N/A)
859	J-210	15.5	<None>	75.8	0.46	190.8	(N/A)
862	J-211	0.0	<None>	82.5	1.24	190.8	(N/A)
871	J-214	7.9	<None>	72.9	1.54	176.4	(N/A)
875	J-215	8.5	<None>	72.6	0.48	176.2	(N/A)
879	J-216	9.6	<None>	72.1	0.12	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	79.1	3.91	193.4	(N/A)
902	J-225	15.5	<None>	75.7	3.49	190.6	(N/A)
911	J-226	39.0	<None>	59.4	0.00	176.2	(N/A)
914	J-227	39.0	<None>	59.4	0.00	176.2	(N/A)
116	N5	7.0	Zone	73.2	1.66	176.2	(N/A)
117	N10	8.0	Zone	72.8	1.35	176.2	(N/A)
184	N15	7.0	Zone	73.2	1.08	176.2	(N/A)
180	N20	10.0	Zone	71.9	0.00	176.2	(N/A)
115	N25	9.0	Zone	72.3	2.18	176.2	(N/A)
113	N27	8.0	Zone	72.8	0.00	176.2	(N/A)
209	N30	8.5	Zone	79.9	1.26	193.3	(N/A)
963	N35	8.8	<None>	79.8	0.00	193.3	(N/A)
960	N40	8.6	<None>	79.9	0.00	193.3	(N/A)
186	N43	8.0	Zone	72.8	2.77	176.2	(N/A)
957	N44	8.3	<None>	72.6	0.00	176.2	(N/A)
177	N45	8.5	Zone	72.6	0.47	176.2	(N/A)
112	N60	14.0	Zone	70.2	1.35	176.2	(N/A)
967	N65	14.0	<None>	70.2	0.00	176.2	(N/A)
970	N70	14.0	<None>	70.2	0.00	176.2	(N/A)
973	N75	13.7	<None>	77.7	0.00	193.3	(N/A)
979	N80	8.5	<None>	79.9	0.00	193.3	(N/A)
844	N81	9.2	<None>	79.6	0.00	193.3	(N/A)
976	N82	9.5	<None>	79.5	0.00	193.3	(N/A)
982	N83	9.5	<None>	79.5	0.00	193.3	(N/A)
163	N85	9.0	Zone	79.7	0.01	193.3	(N/A)
985	N86	9.0	<None>	79.7	0.00	193.3	(N/A)
172	N87	9.0	Zone	79.7	3.60	193.3	(N/A)
988	N88	8.9	<None>	79.8	0.00	193.3	(N/A)
991	N89	8.7	<None>	79.9	0.00	193.3	(N/A)
483	N90	15.0	Zone	65.0	7.30	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	79.8	0.00	193.4	(N/A)
110	N200	14.5	Zone	65.2	6.47	165.3	(N/A)
109	N205	13.5	Zone	65.7	1.83	165.3	(N/A)
107	N210	18.5	Zone	63.5	1.37	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	78.1	321.30	190.8	(N/A)
159	S8	14.5	Zone	76.3	0.91	190.8	(N/A)
155	S10	11.1	Zone	78.4	0.44	192.2	(N/A)
926	S15	9.0	<None>	72.6	0.00	176.7	(N/A)
153	S20	13.5	Zone	70.5	2.47	176.4	(N/A)
916	S21	6.7	<None>	73.4	0.00	176.4	(N/A)
919	S22	6.8	<None>	73.4	0.00	176.4	(N/A)
151	S23	6.1	Zone	73.7	0.56	176.4	(N/A)
923	S25	10.1	<None>	71.9	0.00	176.4	(N/A)
160	S30	7.0	Zone	73.3	0.00	176.3	(N/A)
149	S35	6.0	Zone	73.7	2.49	176.3	(N/A)
929	S40	7.2	<None>	73.2	0.00	176.4	(N/A)
204	S45	10.0	Zone	71.9	0.00	176.2	(N/A)
208	S50	10.0	Zone	71.9	0.21	176.2	(N/A)
205	S52	11.0	Zone	78.7	0.00	192.8	(N/A)
942	S55	10.3	<None>	78.9	0.00	192.8	(N/A)
144	S60	47.0	Zone	55.9	1.81	176.2	(N/A)
945	S65	7.0	<None>	73.2	0.00	176.3	(N/A)
936	S70	23.0	<None>	66.3	0.00	176.2	(N/A)
933	S72	17.7	Zone	68.6	0.00	176.2	(N/A)
142	S75	33.0	Zone	62.0	0.35	176.2	(N/A)
135	S80	8.0	Zone	72.8	6.40	176.2	(N/A)
136	S85	7.0	Zone	73.2	1.88	176.2	(N/A)
939	S90	16.2	<None>	69.2	0.00	176.2	(N/A)
138	S95	50.0	Zone	54.6	1.67	176.2	(N/A)
134	S100	8.0	Zone	72.8	1.96	176.2	(N/A)
139	S105	55.0	Zone	52.4	0.55	176.2	(N/A)
140	S110	10.0	Zone	71.9	5.77	176.2	(N/A)
128	S115	10.0	Zone	71.9	0.77	176.2	(N/A)
824	S117	0.0	<None>	76.2	0.98	176.2	(N/A)
457	S120	7.0	Zone	73.2	0.35	176.2	(N/A)
127	S130	48.5	Zone	55.2	0.58	176.2	(N/A)
125	S135	8.0	Zone	72.8	1.05	176.2	(N/A)
183	S136	10.0	Zone	71.9	0.00	176.2	(N/A)
124	S137	9.0	Zone	72.3	2.21	176.2	(N/A)
123	S140	8.0	Zone	72.8	2.78	176.2	(N/A)
954	S145	8.0	<None>	72.8	0.00	176.2	(N/A)
121	S150	10.3	Zone	71.8	2.25	176.2	(N/A)
161	S155	10.0	Zone	71.9	0.69	176.2	(N/A)
951	S160	12.8	<None>	70.7	0.00	176.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-MDD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	72.8	1.73	176.2	(N/A)
657	S170	92.2	<None>	36.3	1.15	176.2	(N/A)
948	S175	57.5	<None>	51.4	0.00	176.2	(N/A)
1047	SB2	13.5	<None>	77.8	0.00	193.3	(N/A)
760	SB3	10.4	<None>	78.4	0.61	191.5	(N/A)
1050	SB4	15.5	<None>	75.8	0.00	190.8	(N/A)
1053	SB5	15.5	<None>	75.8	0.00	190.7	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	75.7	0.00	188.5	(N/A)
666	C4	13.5	<None>	75.8	3.97	188.8	(N/A)
1038	C5	13.5	<None>	76.3	0.00	189.9	(N/A)
675	C6	13.5	<None>	76.7	1.13	190.9	(N/A)
1041	C7	13.5	<None>	76.8	0.00	191.1	(N/A)
1044	C8	13.5	<None>	77.2	0.00	191.9	(N/A)
85	J-1	15.5	Zone	63.5	2.87	162.2	(N/A)
86	J-2	15.5	Zone	63.6	1.31	162.5	(N/A)
87	J-3	15.5	Zone	65.6	19.13	167.2	(N/A)
88	J-5	13.5	Zone	67.1	3.03	168.7	(N/A)
89	J-6 (Ag)	13.5	Zone	75.7	3.82	188.4	(N/A)
90	J-7	13.5	Zone	75.6	1.17	188.4	(N/A)
92	J-9	13.5	Zone	75.8	3.78	188.7	(N/A)
95	J-12	13.5	Zone	78.0	0.90	193.8	(N/A)
96	J-13	13.5	Zone	78.0	17.83	193.9	(N/A)
97	J-15 (Ag)	13.5	Zone	72.6	0.00	181.3	(N/A)
98	J-16	13.5	Zone	72.1	0.30	180.1	(N/A)
99	J-17	11.0	Zone	73.0	1.32	179.7	(N/A)
100	J-18	9.0	Zone	73.6	2.22	179.1	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	1.91	165.3	(N/A)
103	J-21	15.5	Zone	64.8	3.35	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.22	165.3	(N/A)
106	J-24	15.5	Zone	64.8	1.84	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.99	165.3	(N/A)
114	J-32	9.0	Zone	73.6	0.73	179.1	(N/A)
118	J-36	6.5	Zone	71.6	4.32	172.0	(N/A)
119	J-37	8.5	Zone	70.7	0.00	172.0	(N/A)
120	J-38	8.5	Zone	73.8	1.10	179.1	(N/A)
126	J-45	43.0	Zone	55.8	3.47	172.0	(N/A)
133	J-52	9.0	Zone	70.5	1.46	172.0	(N/A)
137	J-56	64.0	Zone	46.7	7.84	172.0	(N/A)
141	J-60	26.0	Zone	63.2	0.91	172.1	(N/A)
143	J-62	47.0	Zone	54.1	7.26	172.0	(N/A)
145	J-64	12.4	Zone	69.2	0.00	172.3	(N/A)
146	J-66	8.0	Zone	72.7	0.46	176.1	(N/A)
147	J-67	8.0	Zone	71.5	4.00	173.2	(N/A)
148	J-68	6.1	Zone	72.2	10.76	173.0	(N/A)
150	J-70	6.0	Zone	73.9	3.85	176.9	(N/A)
152	J-72	7.0	Zone	71.8	7.30	173.0	(N/A)
154	J-74	8.0	Zone	71.4	1.14	173.1	(N/A)
156	J-76	40.0	Zone	60.6	0.00	180.1	(N/A)
157	J-77	20.0	Zone	62.3	0.00	163.9	(N/A)
162	J-82	21.5	Zone	68.6	14.75	180.1	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	71.7	2.18	173.7	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	69.4	1.40	172.0	(N/A)
167	J-88	13.0	Zone	68.7	4.90	171.8	(N/A)
168	J-89	9.5	Zone	73.4	16.96	179.1	(N/A)
169	J-90	8.5	Zone	73.8	0.00	179.1	(N/A)
170	J-91	9.5	Zone	73.4	2.04	179.1	(N/A)
171	J-94	9.0	Zone	73.6	0.19	179.1	(N/A)
173	J-96	8.0	Zone	74.0	5.05	179.1	(N/A)
174	J-97	8.5	Zone	73.8	0.24	179.1	(N/A)
175	J-99	8.5	Zone	70.7	3.36	172.0	(N/A)
176	J-100	8.5	Zone	70.7	0.00	172.0	(N/A)
178	J-102	10.0	Zone	70.1	0.00	172.0	(N/A)
179	J-103	10.0	Zone	70.1	0.50	172.0	(N/A)
181	J-105	10.0	Zone	70.1	0.00	172.0	(N/A)
182	J-106	9.0	Zone	70.5	0.00	172.0	(N/A)
185	J-109	8.0	Zone	70.9	2.48	172.0	(N/A)
187	J-112	9.5	Zone	70.3	3.46	171.9	(N/A)
188	J-113	8.0	Zone	71.0	40.49	172.0	(N/A)
189	J-114	9.0	Zone	70.5	3.70	172.0	(N/A)
190	J-115	9.0	Zone	70.5	2.90	172.0	(N/A)
191	J-116	8.0	Zone	71.0	4.73	172.0	(N/A)
192	J-117	11.0	Zone	69.7	5.10	172.0	(N/A)
193	J-118	13.3	Zone	68.7	0.23	172.0	(N/A)
194	J-119	13.3	Zone	68.7	1.77	172.0	(N/A)
195	J-120	7.0	Zone	71.4	7.16	172.0	(N/A)
198	J-122	8.0	Zone	71.0	16.81	172.0	(N/A)
199	J-123	9.0	Zone	70.5	0.00	172.0	(N/A)
201	J-125	27.0	Zone	62.8	7.12	172.1	(N/A)
202	J-126	20.0	Zone	65.8	0.12	172.1	(N/A)
203	J-127	8.0	Zone	71.7	0.00	173.6	(N/A)
206	J-130	11.0	Zone	71.4	0.00	176.1	(N/A)
207	J-131	10.0	Zone	71.9	0.00	176.1	(N/A)
210	J-134	15.0	Zone	67.9	1.24	172.0	(N/A)
211	J-135	49.0	Zone	53.2	3.03	172.0	(N/A)
213	J-137	9.0	Zone	70.5	0.99	172.0	(N/A)
215	J-139	8.5	Zone	73.8	1.29	179.1	(N/A)
217	J-141	12.0	Zone	72.3	1.30	179.1	(N/A)
218	J-142	7.0	Zone	71.4	0.44	172.0	(N/A)
219	J-143	7.0	Zone	71.4	0.28	172.0	(N/A)
220	J-144	40.0	Zone	57.6	6.09	173.1	(N/A)
197	J-145	8.0	LP	71.7	0.00	173.6	(N/A)
221	J-146	8.0	HP	74.4	0.00	180.1	(N/A)
407	J-148	15.5	Zone	66.1	1.43	168.4	(N/A)
417	J-149	10.0	Zone	70.1	1.79	172.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	70.1	0.97	172.0	(N/A)
422	J-151	37.0	Zone	58.4	0.56	172.1	(N/A)
423	J-152	48.0	Zone	53.7	0.37	172.1	(N/A)
429	J-154	9.0	Zone	70.5	3.74	172.0	(N/A)
449	J-158	7.0	Zone	74.3	2.08	178.7	(N/A)
453	J-159	7.0	Zone	74.9	11.66	180.1	(N/A)
470	J-161	10.0	Zone	70.1	0.00	172.0	(N/A)
473	J-162	10.0	Zone	73.2	0.00	179.1	(N/A)
480	J-163	13.5	Zone	71.6	1.38	179.1	(N/A)
490	J-165	12.0	Zone	72.7	0.00	180.0	(N/A)
493	J-166	12.0	Zone	72.7	0.00	180.1	(N/A)
633	J-168	8.0	<None>	76.0	10.00	183.7	(N/A)
636	J-169	8.0	<None>	76.0	3.78	183.7	(N/A)
640	J-170	10.0	<None>	71.6	4.72	175.6	(N/A)
642	J-172	34.0	<None>	59.7	0.24	172.1	(N/A)
646	J-173	49.0	<None>	53.2	14.85	172.1	(N/A)
650	J-174	49.0	<None>	53.2	2.43	172.1	(N/A)
663	J-178 (Ag)	9.9	<None>	75.9	19.13	185.2	(N/A)
672	J-180	15.5	<None>	63.7	9.93	162.7	(N/A)
679	J-183 (Hydrant)	13.5	<None>	77.5	2.54	192.7	(N/A)
682	J-184	13.5	<None>	70.8	13.51	177.2	(N/A)
748	J-185	40.0	<None>	57.1	5.16	172.0	(N/A)
753	J-187	15.5	<None>	63.9	12.38	163.3	(N/A)
756	J-188	15.5	<None>	64.3	10.11	164.2	(N/A)
764	J-190	14.0	<None>	65.5	0.67	165.3	(N/A)
783	J-191	9.6	<None>	71.9	0.00	175.9	(N/A)
811	J-192	7.0	<None>	71.8	0.00	172.8	(N/A)
814	J-193	0.0	<None>	74.8	9.12	172.8	(N/A)
818	J-195	0.0	<None>	74.5	0.00	172.3	(N/A)
826	J-198	8.2	<None>	70.8	1.56	172.0	(N/A)
829	J-199	0.0	<None>	74.3	3.66	171.8	(N/A)
836	J-202	13.9	<None>	65.5	0.14	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.93	165.3	(N/A)
841	J-204	9.5	<None>	73.4	0.00	179.1	(N/A)
849	J-207	0.0	<None>	74.4	2.47	171.9	(N/A)
852	J-208	13.5	<None>	75.7	0.00	188.5	(N/A)
855	J-209	13.4	<None>	75.8	0.24	188.5	(N/A)
859	J-210	15.5	<None>	64.2	1.24	163.9	(N/A)
862	J-211	0.0	<None>	70.8	3.32	163.6	(N/A)
871	J-214	7.9	<None>	71.5	4.12	173.2	(N/A)
875	J-215	8.5	<None>	70.7	1.27	172.0	(N/A)
879	J-216	9.6	<None>	70.2	0.32	172.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	73.1	10.43	179.5	(N/A)
902	J-225	15.5	<None>	63.6	9.32	162.5	(N/A)
911	J-226	39.0	<None>	57.6	0.00	172.1	(N/A)
914	J-227	39.0	<None>	57.6	0.00	172.1	(N/A)
116	N5	7.0	Zone	71.4	4.42	172.0	(N/A)
117	N10	8.0	Zone	70.9	3.59	172.0	(N/A)
184	N15	7.0	Zone	71.4	2.89	172.0	(N/A)
180	N20	10.0	Zone	70.1	0.00	172.0	(N/A)
115	N25	9.0	Zone	70.5	5.81	172.0	(N/A)
113	N27	8.0	Zone	71.0	0.00	172.0	(N/A)
209	N30	8.5	Zone	73.8	3.36	179.1	(N/A)
963	N35	8.8	<None>	73.7	0.00	179.1	(N/A)
960	N40	8.6	<None>	73.8	0.00	179.1	(N/A)
186	N43	8.0	Zone	70.9	7.39	172.0	(N/A)
957	N44	8.3	<None>	70.8	0.00	172.0	(N/A)
177	N45	8.5	Zone	70.7	1.25	172.0	(N/A)
112	N60	14.0	Zone	68.4	3.61	172.0	(N/A)
967	N65	14.0	<None>	68.4	0.00	172.0	(N/A)
970	N70	14.0	<None>	68.4	0.00	172.0	(N/A)
973	N75	13.7	<None>	71.6	0.00	179.1	(N/A)
979	N80	8.5	<None>	73.8	0.00	179.1	(N/A)
844	N81	9.2	<None>	73.5	0.00	179.1	(N/A)
976	N82	9.5	<None>	73.4	0.00	179.1	(N/A)
982	N83	9.5	<None>	73.4	0.00	179.1	(N/A)
163	N85	9.0	Zone	73.6	0.01	179.1	(N/A)
985	N86	9.0	<None>	73.6	0.00	179.1	(N/A)
172	N87	9.0	Zone	73.6	9.60	179.1	(N/A)
988	N88	8.9	<None>	73.6	0.00	179.1	(N/A)
991	N89	8.7	<None>	73.7	0.00	179.1	(N/A)
483	N90	15.0	Zone	65.0	19.46	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	74.0	0.00	180.1	(N/A)
110	N200	14.5	Zone	65.2	17.26	165.3	(N/A)
109	N205	13.5	Zone	65.7	4.87	165.3	(N/A)
107	N210	18.5	Zone	63.5	3.66	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	66.5	856.80	163.9	(N/A)
159	S8	14.5	Zone	64.6	2.42	163.9	(N/A)
155	S10	11.1	Zone	69.9	1.17	172.6	(N/A)
926	S15	9.0	<None>	71.8	0.00	175.0	(N/A)
153	S20	13.5	Zone	69.0	6.60	173.1	(N/A)
916	S21	6.7	<None>	72.0	0.00	173.0	(N/A)
919	S22	6.8	<None>	71.9	0.00	173.0	(N/A)
151	S23	6.1	Zone	72.2	1.50	173.0	(N/A)
923	S25	10.1	<None>	70.5	0.00	173.1	(N/A)
160	S30	7.0	Zone	71.7	0.00	172.8	(N/A)
149	S35	6.0	Zone	72.2	6.65	172.8	(N/A)
929	S40	7.2	<None>	71.8	0.00	173.1	(N/A)
204	S45	10.0	Zone	70.2	0.00	172.3	(N/A)
208	S50	10.0	Zone	70.2	0.55	172.3	(N/A)
205	S52	11.0	Zone	71.4	0.00	176.1	(N/A)
942	S55	10.3	<None>	71.7	0.00	176.1	(N/A)
144	S60	47.0	Zone	54.1	4.84	172.1	(N/A)
945	S65	7.0	<None>	71.6	0.00	172.4	(N/A)
936	S70	23.0	<None>	64.5	0.00	172.1	(N/A)
933	S72	17.7	Zone	66.8	0.00	172.2	(N/A)
142	S75	33.0	Zone	60.2	0.93	172.1	(N/A)
135	S80	8.0	Zone	71.0	17.06	172.1	(N/A)
136	S85	7.0	Zone	71.4	5.03	172.0	(N/A)
939	S90	16.2	<None>	67.5	0.00	172.1	(N/A)
138	S95	50.0	Zone	52.8	4.46	172.0	(N/A)
134	S100	8.0	Zone	71.0	5.23	172.0	(N/A)
139	S105	55.0	Zone	50.6	1.46	172.0	(N/A)
140	S110	10.0	Zone	70.1	15.39	172.0	(N/A)
128	S115	10.0	Zone	70.1	2.05	172.0	(N/A)
824	S117	0.0	<None>	74.4	2.62	172.0	(N/A)
457	S120	7.0	Zone	71.4	0.92	172.0	(N/A)
127	S130	48.5	Zone	53.4	1.53	172.0	(N/A)
125	S135	8.0	Zone	71.0	2.80	172.0	(N/A)
183	S136	10.0	Zone	70.1	0.00	172.0	(N/A)
124	S137	9.0	Zone	70.5	5.88	172.0	(N/A)
123	S140	8.0	Zone	71.0	7.40	172.0	(N/A)
954	S145	8.0	<None>	71.0	0.00	172.0	(N/A)
121	S150	10.3	Zone	70.0	6.01	172.0	(N/A)
161	S155	10.0	Zone	70.1	1.85	172.0	(N/A)
951	S160	12.8	<None>	68.9	0.00	172.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	71.0	4.61	172.0	(N/A)
657	S170	92.2	<None>	34.5	3.07	172.0	(N/A)
948	S175	57.5	<None>	49.6	0.00	172.0	(N/A)
1047	SB2	13.5	<None>	71.7	0.00	179.1	(N/A)
760	SB3	10.4	<None>	68.4	1.63	168.4	(N/A)
1050	SB4	15.5	<None>	64.2	0.00	164.0	(N/A)
1053	SB5	15.5	<None>	63.8	0.00	162.9	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	75.7	0.00	188.5	(N/A)
666	C4	13.5	<None>	75.8	3.97	188.8	(N/A)
1038	C5	13.5	<None>	76.3	0.00	189.9	(N/A)
675	C6	13.5	<None>	76.7	1.13	190.9	(N/A)
1041	C7	13.5	<None>	76.8	0.00	191.1	(N/A)
1044	C8	13.5	<None>	77.2	0.00	191.9	(N/A)
85	J-1	15.5	Zone	63.5	2.87	162.2	(N/A)
86	J-2	15.5	Zone	63.6	1.31	162.5	(N/A)
87	J-3	15.5	Zone	65.6	19.13	167.2	(N/A)
88	J-5	13.5	Zone	67.1	3.03	168.7	(N/A)
89	J-6 (Ag)	13.5	Zone	75.7	3.82	188.4	(N/A)
90	J-7	13.5	Zone	75.6	1.17	188.4	(N/A)
92	J-9	13.5	Zone	75.8	3.78	188.7	(N/A)
95	J-12	13.5	Zone	78.0	0.90	193.8	(N/A)
96	J-13	13.5	Zone	78.0	17.83	193.9	(N/A)
97	J-15 (Ag)	13.5	Zone	72.6	0.00	181.3	(N/A)
98	J-16	13.5	Zone	72.1	0.30	180.1	(N/A)
99	J-17	11.0	Zone	73.0	1.32	179.7	(N/A)
100	J-18	9.0	Zone	73.6	2.22	179.1	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	1.91	165.3	(N/A)
103	J-21	15.5	Zone	64.8	3.35	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.22	165.3	(N/A)
106	J-24	15.5	Zone	64.8	1.84	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.99	165.3	(N/A)
114	J-32	9.0	Zone	73.6	0.73	179.1	(N/A)
118	J-36	6.5	Zone	71.6	4.32	172.0	(N/A)
119	J-37	8.5	Zone	70.7	0.00	172.0	(N/A)
120	J-38	8.5	Zone	73.8	1.10	179.1	(N/A)
126	J-45	43.0	Zone	55.8	3.47	172.0	(N/A)
133	J-52	9.0	Zone	70.5	1.46	172.0	(N/A)
137	J-56	64.0	Zone	46.7	7.84	172.0	(N/A)
141	J-60	26.0	Zone	63.2	0.91	172.1	(N/A)
143	J-62	47.0	Zone	54.1	7.26	172.0	(N/A)
145	J-64	12.4	Zone	69.2	0.00	172.3	(N/A)
146	J-66	8.0	Zone	72.7	0.46	176.1	(N/A)
147	J-67	8.0	Zone	71.5	4.00	173.2	(N/A)
148	J-68	6.1	Zone	72.2	10.76	173.0	(N/A)
150	J-70	6.0	Zone	73.9	3.85	176.9	(N/A)
152	J-72	7.0	Zone	71.8	7.30	173.0	(N/A)
154	J-74	8.0	Zone	71.4	1.14	173.1	(N/A)
156	J-76	40.0	Zone	60.6	0.00	180.1	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	68.6	14.75	180.1	(N/A)
164	J-84	8.0	Zone	71.7	2.18	173.7	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
166	J-87	11.5	Zone	69.4	1.40	172.0	(N/A)
167	J-88	13.0	Zone	68.7	4.90	171.8	(N/A)
168	J-89	9.5	Zone	73.4	16.96	179.1	(N/A)
169	J-90	8.5	Zone	73.8	0.00	179.1	(N/A)
170	J-91	9.5	Zone	73.4	2.04	179.1	(N/A)
171	J-94	9.0	Zone	73.6	0.19	179.1	(N/A)
173	J-96	8.0	Zone	74.0	5.05	179.1	(N/A)
174	J-97	8.5	Zone	73.8	0.24	179.1	(N/A)
175	J-99	8.5	Zone	70.7	3.36	172.0	(N/A)
176	J-100	8.5	Zone	70.7	0.00	172.0	(N/A)
178	J-102	10.0	Zone	70.1	0.00	172.0	(N/A)
179	J-103	10.0	Zone	70.1	0.50	172.0	(N/A)
181	J-105	10.0	Zone	70.1	0.00	172.0	(N/A)
182	J-106	9.0	Zone	70.5	0.00	172.0	(N/A)
185	J-109	8.0	Zone	70.9	2.48	172.0	(N/A)
187	J-112	9.5	Zone	70.3	3.46	171.9	(N/A)
188	J-113	8.0	Zone	71.0	40.49	172.0	(N/A)
189	J-114	9.0	Zone	70.5	3.70	172.0	(N/A)
190	J-115	9.0	Zone	70.5	2.90	172.0	(N/A)
191	J-116	8.0	Zone	71.0	4.73	172.0	(N/A)
192	J-117	11.0	Zone	69.7	5.10	172.0	(N/A)
193	J-118	13.3	Zone	68.7	0.23	172.0	(N/A)
194	J-119	13.3	Zone	68.7	1.77	172.0	(N/A)
195	J-120	7.0	Zone	71.4	7.16	172.0	(N/A)
198	J-122	8.0	Zone	71.0	16.81	172.0	(N/A)
199	J-123	9.0	Zone	70.5	0.00	172.0	(N/A)
201	J-125	27.0	Zone	62.8	7.12	172.1	(N/A)
202	J-126	20.0	Zone	65.8	0.12	172.1	(N/A)
203	J-127	8.0	Zone	71.7	0.00	173.6	(N/A)
206	J-130	11.0	Zone	71.4	0.00	176.1	(N/A)
207	J-131	10.0	Zone	71.9	0.00	176.1	(N/A)
210	J-134	15.0	Zone	67.9	1.24	172.0	(N/A)
211	J-135	49.0	Zone	53.2	3.03	172.0	(N/A)
213	J-137	9.0	Zone	70.5	0.99	172.0	(N/A)
215	J-139	8.5	Zone	73.8	1.29	179.1	(N/A)
217	J-141	12.0	Zone	72.3	1.30	179.1	(N/A)
218	J-142	7.0	Zone	71.4	0.44	172.0	(N/A)
219	J-143	7.0	Zone	71.4	0.28	172.0	(N/A)
220	J-144	40.0	Zone	57.6	6.09	173.1	(N/A)
197	J-145	8.0	LP	71.7	0.00	173.6	(N/A)
221	J-146	8.0	HP	74.4	0.00	180.1	(N/A)
407	J-148	15.5	Zone	66.1	1.43	168.4	(N/A)
417	J-149	10.0	Zone	70.1	1.79	172.0	(N/A)
418	J-150	10.0	Zone	70.1	0.97	172.0	(N/A)
422	J-151	37.0	Zone	58.4	0.56	172.1	(N/A)
423	J-152	48.0	Zone	53.7	0.37	172.1	(N/A)
429	J-154	9.0	Zone	70.5	3.74	172.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
449	J-158	7.0	Zone	74.3	2.08	178.7	(N/A)
453	J-159	7.0	Zone	74.9	11.66	180.1	(N/A)
470	J-161	10.0	Zone	70.1	0.00	172.0	(N/A)
473	J-162	10.0	Zone	73.2	0.00	179.1	(N/A)
480	J-163	13.5	Zone	71.6	1.38	179.1	(N/A)
490	J-165	12.0	Zone	72.7	0.00	180.0	(N/A)
493	J-166	12.0	Zone	72.7	0.00	180.1	(N/A)
633	J-168	8.0	<None>	76.0	10.00	183.7	(N/A)
636	J-169	8.0	<None>	76.0	3.78	183.7	(N/A)
640	J-170	10.0	<None>	71.6	4.72	175.6	(N/A)
642	J-172	34.0	<None>	59.7	0.24	172.1	(N/A)
646	J-173	49.0	<None>	53.2	14.85	172.1	(N/A)
650	J-174	49.0	<None>	53.2	2.43	172.1	(N/A)
663	J-178 (Ag)	9.9	<None>	75.9	19.13	185.2	(N/A)
672	J-180	15.5	<None>	63.7	9.93	162.7	(N/A)
679	J-183 (Hydrant)	13.5	<None>	77.5	2.54	192.7	(N/A)
682	J-184	13.5	<None>	70.8	13.51	177.2	(N/A)
748	J-185	40.0	<None>	57.1	5.16	172.0	(N/A)
753	J-187	15.5	<None>	63.9	12.38	163.3	(N/A)
756	J-188	15.5	<None>	64.3	10.11	164.2	(N/A)
764	J-190	14.0	<None>	65.5	0.67	165.3	(N/A)
783	J-191	9.6	<None>	71.9	0.00	175.9	(N/A)
811	J-192	7.0	<None>	71.8	0.00	172.8	(N/A)
814	J-193	0.0	<None>	74.8	9.12	172.8	(N/A)
818	J-195	0.0	<None>	74.5	0.00	172.3	(N/A)
826	J-198	8.2	<None>	70.8	1.56	172.0	(N/A)
829	J-199	0.0	<None>	74.3	3.66	171.8	(N/A)
836	J-202	13.9	<None>	65.5	0.14	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.93	165.3	(N/A)
841	J-204	9.5	<None>	73.4	0.00	179.1	(N/A)
849	J-207	0.0	<None>	74.4	2.47	171.9	(N/A)
852	J-208	13.5	<None>	75.7	0.00	188.5	(N/A)
855	J-209	13.4	<None>	75.8	0.24	188.5	(N/A)
859	J-210	15.5	<None>	64.2	1.24	163.9	(N/A)
862	J-211	0.0	<None>	70.8	3.32	163.6	(N/A)
871	J-214	7.9	<None>	71.5	4.12	173.2	(N/A)
875	J-215	8.5	<None>	70.7	1.27	172.0	(N/A)
879	J-216	9.6	<None>	70.2	0.32	172.0	(N/A)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	73.1	10.43	179.5	(N/A)
902	J-225	15.5	<None>	63.6	9.32	162.5	(N/A)
911	J-226	39.0	<None>	57.6	0.00	172.1	(N/A)
914	J-227	39.0	<None>	57.6	0.00	172.1	(N/A)
116	N5	7.0	Zone	71.4	4.42	172.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
117	N10	8.0	Zone	70.9	3.59	172.0	(N/A)
184	N15	7.0	Zone	71.4	2.89	172.0	(N/A)
180	N20	10.0	Zone	70.1	0.00	172.0	(N/A)
115	N25	9.0	Zone	70.5	5.81	172.0	(N/A)
113	N27	8.0	Zone	71.0	0.00	172.0	(N/A)
209	N30	8.5	Zone	73.8	3.36	179.1	(N/A)
963	N35	8.8	<None>	73.7	0.00	179.1	(N/A)
960	N40	8.6	<None>	73.8	0.00	179.1	(N/A)
186	N43	8.0	Zone	70.9	7.39	172.0	(N/A)
957	N44	8.3	<None>	70.8	0.00	172.0	(N/A)
177	N45	8.5	Zone	70.7	1.25	172.0	(N/A)
112	N60	14.0	Zone	68.4	3.61	172.0	(N/A)
967	N65	14.0	<None>	68.4	0.00	172.0	(N/A)
970	N70	14.0	<None>	68.4	0.00	172.0	(N/A)
973	N75	13.7	<None>	71.6	0.00	179.1	(N/A)
979	N80	8.5	<None>	73.8	0.00	179.1	(N/A)
844	N81	9.2	<None>	73.5	0.00	179.1	(N/A)
976	N82	9.5	<None>	73.4	0.00	179.1	(N/A)
982	N83	9.5	<None>	73.4	0.00	179.1	(N/A)
163	N85	9.0	Zone	73.6	0.01	179.1	(N/A)
985	N86	9.0	<None>	73.6	0.00	179.1	(N/A)
172	N87	9.0	Zone	73.6	9.60	179.1	(N/A)
988	N88	8.9	<None>	73.6	0.00	179.1	(N/A)
991	N89	8.7	<None>	73.7	0.00	179.1	(N/A)
483	N90	15.0	Zone	65.0	19.46	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	74.0	0.00	180.1	(N/A)
110	N200	14.5	Zone	65.2	17.26	165.3	(N/A)
109	N205	13.5	Zone	65.7	4.87	165.3	(N/A)
107	N210	18.5	Zone	63.5	3.66	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	66.5	856.80	163.9	(N/A)
159	S8	14.5	Zone	64.6	2.42	163.9	(N/A)
155	S10	11.1	Zone	69.9	1.17	172.6	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD-2035

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
926	S15	9.0	<None>	71.8	0.00	175.0	(N/A)
153	S20	13.5	Zone	69.0	6.60	173.1	(N/A)
916	S21	6.7	<None>	72.0	0.00	173.0	(N/A)
919	S22	6.8	<None>	71.9	0.00	173.0	(N/A)
151	S23	6.1	Zone	72.2	1.50	173.0	(N/A)
923	S25	10.1	<None>	70.5	0.00	173.1	(N/A)
160	S30	7.0	Zone	71.7	0.00	172.8	(N/A)
149	S35	6.0	Zone	72.2	6.65	172.8	(N/A)
929	S40	7.2	<None>	71.8	0.00	173.1	(N/A)
204	S45	10.0	Zone	70.2	0.00	172.3	(N/A)
208	S50	10.0	Zone	70.2	0.55	172.3	(N/A)
205	S52	11.0	Zone	71.4	0.00	176.1	(N/A)
942	S55	10.3	<None>	71.7	0.00	176.1	(N/A)
144	S60	47.0	Zone	54.1	4.84	172.1	(N/A)
945	S65	7.0	<None>	71.6	0.00	172.4	(N/A)
936	S70	23.0	<None>	64.5	0.00	172.1	(N/A)
933	S72	17.7	Zone	66.8	0.00	172.2	(N/A)
142	S75	33.0	Zone	60.2	0.93	172.1	(N/A)
135	S80	8.0	Zone	71.0	17.06	172.1	(N/A)
136	S85	7.0	Zone	71.4	5.03	172.0	(N/A)
939	S90	16.2	<None>	67.5	0.00	172.1	(N/A)
138	S95	50.0	Zone	52.8	4.46	172.0	(N/A)
134	S100	8.0	Zone	71.0	5.23	172.0	(N/A)
139	S105	55.0	Zone	50.6	1.46	172.0	(N/A)
140	S110	10.0	Zone	70.1	15.39	172.0	(N/A)
128	S115	10.0	Zone	70.1	2.05	172.0	(N/A)
824	S117	0.0	<None>	74.4	2.62	172.0	(N/A)
457	S120	7.0	Zone	71.4	0.92	172.0	(N/A)
127	S130	48.5	Zone	53.4	1.53	172.0	(N/A)
125	S135	8.0	Zone	71.0	2.80	172.0	(N/A)
183	S136	10.0	Zone	70.1	0.00	172.0	(N/A)
124	S137	9.0	Zone	70.5	5.88	172.0	(N/A)
123	S140	8.0	Zone	71.0	7.40	172.0	(N/A)
954	S145	8.0	<None>	71.0	0.00	172.0	(N/A)
121	S150	10.3	Zone	70.0	6.01	172.0	(N/A)
161	S155	10.0	Zone	70.1	1.85	172.0	(N/A)
951	S160	12.8	<None>	68.9	0.00	172.0	(N/A)
122	S165	8.0	Zone	71.0	4.61	172.0	(N/A)
657	S170	92.2	<None>	34.5	3.07	172.0	(N/A)
948	S175	57.5	<None>	49.6	0.00	172.0	(N/A)
1047	SB2	13.5	<None>	71.7	0.00	179.1	(N/A)
760	SB3	10.4	<None>	68.4	1.63	168.4	(N/A)
1050	SB4	15.5	<None>	64.2	0.00	164.0	(N/A)
1053	SB5	15.5	<None>	63.8	0.00	162.9	(N/A)

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.33	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	7.46	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	1.84	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.09	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.28	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.04	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.14	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.09	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.05	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.10	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.11	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.18	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	1.59	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.01	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.11	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.04	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.12	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.17	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.12	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.27	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.14	8.0	Steel	False
289	WP-37	437	S85	S80	0.23	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.08	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	1.80	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	1.80	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	5.49	8.0	PVC	False
295	WP-42	780	S10	S7	5.48	8.0	PVC	False
296	WP-43	352	S7	S8	0.02	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.12	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	2.46	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	1.12	6.0	Asbestos Cement	False
305	WP-51	362	J-72	S20	0.40	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.35	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
312	WP-57	140	J-23	J-21	0.02	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.02	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	(N/A)	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.02	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.50	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.05	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.03	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.09	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.06	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.06	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.07	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.07	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.28	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.20	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.12	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.11	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.04	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.35	2.0	PVC	False
343	WP-86	220	J-113	S100	0.24	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.25	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.20	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.26	8.0	PVC	False
348	WP-90	246	J-115	S85	0.29	8.0	PVC	False
349	WP-91	251	S100	J-116	0.29	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.34	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.02	4.0	PVC	False
352	WP-94	142	J-118	S115	0.25	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.19	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.09	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.08	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.06	6.0	Ductile Iron	False
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.07	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.77	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.88	10.0	PVC	False
369	WP-108	165	J-64	S45	0.01	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.01	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.17	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.08	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.14	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.07	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.09	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.04	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.11	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.14	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.16	4.0	PVC	False
398	WP-127	424	N30	J-141	0.16	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.82	6.0	PVC	False
412	WP-132	369	J-134	S105	0.32	10.0	PVC	False
419	WP-133	146	S165	J-150	0.15	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.05	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.10	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.10	4.0	PVC	False
450	WP-137	453	J-18	J-158	1.82	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	1.81	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.13	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.07	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.14	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.14	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.17	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.18	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.16	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.35	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.35	8.0	PVC	False
485	WP-154	540	N90	J-29	0.10	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	1.71	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	2.05	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.17	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	1.04	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.09	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	1.21	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	1.75	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	1.71	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.11	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.39	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.46	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.11	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.42	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.45	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.04	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.06	4.0	PVC	False
653	WP-172	235	S95	J-56	0.02	8.0	PVC	False
659	WP-173	361	S170	J-56	0.02	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.20	8.0	Steel	False
665	WP-176	2,212	J-178 (Ag)	J-168	1.17	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	1.82	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.34	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	1.83	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	1.93	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.02	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.16	4.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
758	WP-188	1,795	J-188	J-3	1.29	4.0	PVC	False
761	WP-190	388	J-3	SB3	1.78	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.81	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.10	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.23	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.89	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.01	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.09	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.15	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.37	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.10	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.09	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.09	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.03	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	1.76	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	1.80	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	1.29	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	2.62	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.91	4.0	Asbestos Cement	False
863	WP-201	630	J-210	J-211	0.34	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	2.29	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.74	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.08	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.04	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.25	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.11	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.12	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
885	WP-27	139	J-218	J-20	0.01	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	2.05	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	2.03	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.01	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.29	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.31	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.09	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.09	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.16	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.16	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.20	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.20	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.45	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.45	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	2.29	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	2.29	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.62	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.62	6.0	Asbestos Cement	False
934	WP-106(1)	127	J-126	S72	0.88	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.88	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.30	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.30	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.30	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
946	WP-56(1)	549	S80	S65	0.94	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.94	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.09	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.09	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.28	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.28	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.06	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.06	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.11	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.11	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.19	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.19	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.19	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.07	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.07	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.02	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.02	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
989	WP-69(1)	203	N87	N88	0.04	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.04	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.04	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.10	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.10	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.03	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.03	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.03	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.01	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.01	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.01	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.01	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.01	8.0	Asbestos Cement	False
1024	WP-198(2)(1	60	N250	N245	0.01	8.0	Asbestos Cement	False
1027	WP-198(2)(2	121	N245	N235	0.01	8.0	Asbestos Cement	False
1028	WP-198(2)(2	68	N235	J-21	0.01	8.0	Asbestos Cement	False
1030	WP-57 A(1)	62	J-21	N230	0.01	10.0	Asbestos Cement	False
1031	WP-57 A(2)	106	N230	J-218	0.01	10.0	Asbestos Cement	False
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False
1036	WP-4(1)	1,094	J-208	C3	0.33	10.0	Ductile Iron	False
1037	WP-4(2)	872	C3	J-6 (Ag)	0.33	10.0	Ductile Iron	False
1039	WP-179(1)	1,531	C6	C5	1.83	16.0	PVC	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1040	WP-179(2)	1,773	C5	C4	1.83	16.0	PVC	False	-12.91	-12.91
1043	WP-181(2)	271	C7	C6	1.83	16.0	PVC	False	1,168.24	1,168.24
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	1.83	16.0	PVC	False	1,150.42	1,150.42
1046	WP-181(1)(2	1,209	C8	C7	1.83	16.0	PVC	False	14.75	14.75
1048	WP-183(1)	394	J-184	SB2	2.28	4.0	PVC	False	98.57	98.57
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	2.28	4.0	PVC	False	-10.51	-10.51
1051	WP-189 A(1)	268	J-188	SB4	1.03	4.0	PVC	False	-34.20	-34.20
1052	WP-189 A(2)	63	SB4	J-210	1.03	4.0	PVC	False	-22.46	-22.46
1054	WP-187(1)	526	J-180	SB5	0.60	4.0	Asbestos Cement	False	11.06	11.06
1055	WP-187(2)	821	SB5	J-187	0.60	4.0	Asbestos Cement	False	-16.36	-16.36
									0.14	0.14
									-27.97	-27.97
									6.88	6.88
									-139.85	-139.85
									-0.45	-0.45
									17.26	17.26
									10.98	10.98
									-10.90	-10.90
									25.91	25.91
									-18.79	-18.79
									-42.04	-42.04
									-21.18	-21.18
									-35.95	-35.95
									0.82	0.82
									865.57	865.57
									865.11	865.11

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
860.39	860.39
859.22	859.22
2.42	2.42
1.14	1.14
216.94	216.94
-98.35	-98.35
-63.23	-63.23
-54.43	-54.43
4.45	4.45
-5.48	-5.48
(N/A)	(N/A)
-3.61	-3.61
4.90	4.90
4.02	4.02
18.82	18.82
4.01	4.01
3.36	3.36
0.00	0.00
5.05	5.05
-9.90	-9.90
-10.40	-10.40
-10.40	-10.40
0.00	0.00
0.00	0.00
-67.38	-67.38
0.00	0.00
17.68	17.68
4.77	4.77
10.02	10.02
-6.03	-6.03
3.46	3.46
-21.22	-21.22
-38.90	-38.90
7.77	7.77
-41.18	-41.18
-44.88	-44.88
-25.63	-25.63
-29.56	-29.56
0.80	0.80
-22.36	-22.36
-17.03	-17.03
-8.10	-8.10
7.16	7.16
5.10	5.10
0.00	0.00
0.00	0.00
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-16.81	-16.81
0.00	0.00
-189.08	-189.08
-216.28	-216.28
0.55	0.55
0.00	0.00
0.00	0.00
0.55	0.55
61.35	61.35
12.08	12.08
-21.26	-21.26
11.66	11.66
30.33	30.33
-6.02	-6.02
-9.53	-9.53
21.31	21.31
6.09	6.09
58.00	58.00
0.00	0.00
0.00	0.00
-72.66	-72.66
-79.03	-79.03
-23.75	-23.75
1.79	1.79
9.13	9.13
3.74	3.74
871.50	871.50
869.42	869.42
11.49	11.49
11.66	11.66
0.00	0.00
0.00	0.00
-21.75	-21.75
-21.75	-21.75
26.51	26.51
-27.42	-27.42
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
56.69	56.69
55.31	55.31
55.31	55.31
35.85	35.85
821.03	821.03

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
984.05	984.05
26.71	26.71
-163.02	-163.02
13.52	13.52
189.72	189.72
841.83	841.83
821.03	821.03
17.02	17.02
-61.76	-61.76
-71.69	-71.69
-9.69	-9.69
-101.75	-101.75
-110.27	-110.27
-6.33	-6.33
2.43	2.43
-2.69	-2.69
-3.07	-3.07
31.48	31.48
182.70	182.70
1,141.87	1,141.87
-13.50	-13.50
1,149.52	1,149.52
-75.69	-75.69
-3.10	-3.10
-2.11	-2.11
6.15	6.15
-50.48	-50.48
-69.61	-69.61
71.24	71.24
0.00	0.00
9.12	9.12
0.00	0.00
9.12	9.12
0.00	0.00
0.00	0.00
-139.85	-139.85
1.53	1.53
-8.35	-8.35
-13.57	-13.57
3.66	3.66
34.19	34.19
33.11	33.11
0.93	0.93
0.11	0.11
4.20	4.20
2.15	2.15
-2.05	-2.05

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
(N/A)	(N/A)
843.00	843.00
1,125.18	1,125.18
201.83	201.83
-923.11	-923.11
35.81	35.81
3.32	3.32
358.97	358.97
0.00	0.00
-64.89	-64.89
7.11	7.11
3.36	3.36
2.47	2.47
-17.87	-17.87
-18.19	-18.19
1.91	1.91
982.72	982.72
972.30	972.30
0.80	0.80
-2.87	-2.87
-12.19	-12.19
-13.96	-13.96
-13.96	-13.96
0.00	0.00
-24.98	-24.98
-24.98	-24.98
-30.94	-30.94
-30.94	-30.94
70.97	70.97
70.97	70.97
358.97	358.97
358.97	358.97
-54.68	-54.68
-54.68	-54.68
-216.39	-216.39
-216.39	-216.39
-26.29	-26.29
-26.29	-26.29
-26.29	-26.29
0.00	0.00
0.00	0.00
-82.57	-82.57
-82.57	-82.57
-13.60	-13.60
-13.60	-13.60
-67.38	-67.38
-67.38	-67.38

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
-15.05	-15.05
-15.05	-15.05
-16.87	-16.87
-16.87	-16.87
67.14	67.14
67.14	67.14
67.14	67.14
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2.16	2.16
23.01	23.01
23.01	23.01
2.16	2.16
2.16	2.16
3.82	3.82
3.82	3.82
-5.78	-5.78
-5.78	-5.78
-5.78	-5.78
34.86	34.86
34.86	34.86
0.00	0.00
0.00	0.00
0.00	0.00
7.32	7.32
7.32	7.32
7.32	7.32
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
1.91	1.91
1.91	1.91
0.00	0.00
0.00	0.00
80.11	80.11
80.11	80.11
1,145.84	1,145.84
1,145.84	1,145.84
1,146.97	1,146.97

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

Flow (gpm)	Flow (Maximum) (gpm)
1,146.97	1,146.97
1,146.97	1,146.97
-89.21	-89.21
-89.21	-89.21
40.37	40.37
40.37	40.37
-23.43	-23.43
-23.43	-23.43

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
237	WP-2	1,896	J-6 (Ag)	J-9	0.33	4.0	PVC	False
242	WP-180 A	45	R-1	J-13	7.46	8.0	Ductile Iron	False
243	WP-180 B	95	J-13	J-12	1.84	16.0	PVC	False
250	WP-6	750	J-16	J-82	0.09	8.0	Ductile Iron	False
252	WP-8	891	J-18	J-38	0.28	12.0	Asbestos Cement	False
253	WP-9	323	S155	S150	0.04	10.0	Ductile Iron	False
254	WP-10	287	S150	S165	0.14	10.0	Ductile Iron	False
256	WP-12	330	S140	S137	0.09	10.0	Ductile Iron	False
257	WP-13	190	S137	S135	0.05	10.0	Ductile Iron	False
258	WP-14	290	N25	S135	0.10	8.0	Asbestos Cement	False
259	WP-15	192	N25	N5	0.00	4.0	Ductile Iron	False
260	WP-16	293	N5	S137	0.11	10.0	Ductile Iron	False
261	WP-17	517	N5	N10	0.18	4.0	Asbestos Cement	False
263	WP-18	242	J-67	J-127	1.59	6.0	Asbestos Cement	False
264	WP-19	235	N10	J-36	0.01	4.0	Asbestos Cement	False
269	WP-23	323	N205	N200	0.11	8.0	Asbestos Cement	False
270	WP-24	307	N205	N210	0.04	10.0	Asbestos Cement	False
278	WP-30	287	S115	S110	0.12	6.0	Asbestos Cement	False
279	WP-144 A	47	J-45	S117	0.17	8.0	Ductile Iron	False
285	WP-33	519	S60	S75	0.12	8.0	Ductile Iron	False
286	WP-34	252	J-62	S75	0.27	8.0	Ductile Iron	False
287	WP-35	323	S95	J-62	0.14	8.0	Steel	False
289	WP-37	437	S85	S80	0.23	8.0	Ductile Iron	False
290	WP-38	436	J-52	S100	0.08	2.0	Ductile Iron	False
292	WP-39	926	J-70	J-66	1.80	14.0	Asbestos Cement	False
293	WP-40	607	J-66	J-170	1.80	14.0	Asbestos Cement	False
294	WP-41	236	J-170	S10	5.49	8.0	PVC	False
295	WP-42	780	S10	S7	5.48	8.0	PVC	False
296	WP-43	352	S7	S8	0.02	8.0	Ductile Iron	False
299	WP-45	315	S20	J-74	0.12	2.0	Ductile Iron	False
301	WP-47	252	J-84	J-64	2.46	6.0	Ductile Iron	False
303	WP-49	212	S35	J-68	1.12	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
305	WP-51	362	J-72	S20	0.40	8.0	Ductile Iron	False
307	WP-53	217	J-68	S23	0.35	8.0	Ductile Iron	False
312	WP-57	140	J-23	J-21	0.02	10.0	Asbestos Cement	False
313	WP-58	131	J-23	J-24	0.02	10.0	Asbestos Cement	False
314	WP-59	361	S7	J-77	0.00	6.0	Ductile Iron	False
316	WP-61	211	N60	J-87	0.02	8.0	Ductile Iron	False
317	WP-62	213	J-87	J-88	0.50	2.0	Ductile Iron	False
318	WP-63	135	J-89	N85	0.01	12.0	Ductile Iron	False
319	WP-64	214	J-90	J-89	0.05	12.0	Ductile Iron	False
321	WP-66	153	N85	J-94	0.03	8.0	Ductile Iron	False
325	WP-70	70	J-37	J-99	0.09	4.0	PVC	False
326	WP-71	59	N45	J-100	0.00	4.0	PVC	False
327	WP-72	229	J-32	J-96	0.06	6.0	Ductile Iron	False
328	WP-73	188	J-87	J-103	0.06	8.0	Ductile Iron	False
329	WP-74	260	N20	N25	0.07	8.0	Asbestos Cement	False
330	WP-75	30	J-103	N20	0.07	8.0	Asbestos Cement	False
331	WP-76	60	J-103	J-102	0.00	8.0	Ductile Iron	False
332	WP-77	76	N20	J-105	0.00	6.0	Ductile Iron	False
333	WP-78	142	S137	J-106	0.28	10.0	PVC	False
334	WP-79	135	S135	S136	0.00	8.0	Ductile Iron	False
335	WP-80	290	S150	N15	0.20	6.0	Asbestos Cement	False
336	WP-81	332	N15	J-36	0.12	4.0	Asbestos Cement	False
338	WP-83	132	N15	J-109	0.11	6.0	Ductile Iron	False
339	WP-84	277	J-109	N43	0.04	8.0	Ductile Iron	False
340	WP-85	170	N43	J-112	0.35	2.0	PVC	False
343	WP-86	220	J-113	S100	0.24	6.0	Ductile Iron	False
345	WP-87	220	J-114	J-52	0.25	8.0	PVC	False
346	WP-88	435	J-114	J-113	0.20	4.0	PVC	False
347	WP-89	250	J-52	J-115	0.26	8.0	PVC	False
348	WP-90	246	J-115	S85	0.29	8.0	PVC	False
349	WP-91	251	S100	J-116	0.29	6.0	Ductile Iron	False
350	WP-92	245	J-116	S80	0.34	6.0	Ductile Iron	False
351	WP-93	437	J-115	J-116	0.02	4.0	PVC	False
352	WP-94	142	J-118	S115	0.25	6.0	Ductile Iron	False
353	WP-95	40	J-119	J-118	0.19	6.0	Ductile Iron	False
354	WP-96	239	S135	J-119	0.09	6.0	Asbestos Cement	False
355	WP-97	71	J-119	J-120	0.08	6.0	Ductile Iron	False
356	WP-98	58	J-118	J-117	0.06	6.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
359	WP-99	64	PRV-5 (Wsh)	J-142	0.00	8.0	Ductile Iron	False
360	WP-100	22	J-145	J-127	0.00	8.0	Ductile Iron	False
361	WP-101	35	N27	J-122	0.00	10.0	Ductile Iron	False
362	WP-102	225	J-122	N5	0.07	10.0	Ductile Iron	False
363	WP-103	140	J-122	J-123	0.00	4.0	Ductile Iron	False
364	WP-104	73	J-125	J-60	0.77	10.0	PVC	False
366	WP-105	80	J-60	J-126	0.88	10.0	PVC	False
369	WP-108	165	J-64	S45	0.01	6.0	Ductile Iron	False
370	WP-109	144	J-130	S52	0.00	8.0	Ductile Iron	False
371	WP-110	235	J-130	J-131	0.00	8.0	Ductile Iron	False
372	WP-111	128	S45	S50	0.01	6.0	Asbestos Cement	False
373	WP-112	255	J-32	N30	0.17	12.0	Asbestos Cement	False
375	WP-114	123	J-135	S95	0.08	8.0	Ductile Iron	False
376	WP-115	138	J-135	S105	0.14	8.0	Ductile Iron	False
379	WP-117	426	J-16	N157	0.07	8.0	Asbestos Cement	False
381	WP-119	277	J-38	J-139	0.09	12.0	Ductile Iron	False
384	WP-122	36	J-97	J-139	0.04	8.0	Ductile Iron	False
394	WP-124	379	S155	J-143	0.11	6.0	Asbestos Cement	False
396	WP-125	45	J-142	J-143	0.14	8.0	Ductile Iron	False
397	WP-126	273	J-214	J-144	0.16	4.0	PVC	False
398	WP-127	424	N30	J-141	0.16	12.0	Asbestos Cement	False
402	WP-129	25	J-146	PRV-11 (Cld)	0.00	8.0	Ductile Iron	False
403	WP-129 A	64	PRV-11 (Cld)	J-145	0.00	8.0	Ductile Iron	False
409	WP-131	402	J-148	J-5	0.82	6.0	PVC	False
412	WP-132	369	J-134	S105	0.32	10.0	PVC	False
419	WP-133	146	S165	J-150	0.15	8.0	Ductile Iron	False
421	WP-134	509	J-150	J-149	0.05	4.0	PVC	False
424	WP-135	119	J-151	J-152	0.10	6.0	Ductile Iron	False
430	WP-136	218	N10	J-154	0.10	4.0	PVC	False
450	WP-137	453	J-18	J-158	1.82	14.0	Asbestos Cement	False
451	WP-138	2,215	J-158	J-70	1.81	14.0	Asbestos Cement	False
452	WP-139	393	J-143	J-113	0.13	6.0	Ductile Iron	False
454	WP-140	406	N157	J-159	0.07	8.0	Asbestos Cement	False
455	WP-141	3,247	J-159	J-146	0.00	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
456	WP-142	66	J-159	PRV-5 (Wsh)	0.00	8.0	Ductile Iron	False
458	WP-143	473	J-142	S120	0.14	8.0	Ductile Iron	False
459	WP-144	543	S120	S117	0.14	8.0	Ductile Iron	False
460	WP-145	224	S120	J-150	0.17	8.0	Ductile Iron	False
461	WP-146	135	S120	J-114	0.18	8.0	Ductile Iron	False
471	WP-147	29	W	J-161	0.00	10.0	Ductile Iron	False
472	WP-148	130	J-161	N27	0.00	10.0	Ductile Iron	False
474	WP-149	80	N30	J-162	0.00	10.0	Ductile Iron	False
475	WP-150	27	J-162	W	0.00	10.0	Ductile Iron	False
478	WP-151	51	J-162	PRV-10-2 (St)	0.00	2.0	Ductile Iron	False
479	WP-152	58	PRV-10-2 (St)	J-161	0.00	2.0	Ductile Iron	False
481	WP-153	46	J-141	J-163	0.16	12.0	PVC	False
482	WP-203	126	J-163	PRV-9-8 (Prt)	0.35	8.0	PVC	False
484	WP-203 A	126	PRV-9-8 (Prt)	N90	0.35	8.0	PVC	False
485	WP-154	540	N90	J-29	0.10	12.0	PVC	False
491	WP-155	1,672	J-15 (Ag)	J-165	1.71	14.0	Asbestos Cement	False
492	WP-156	289	J-165	J-17	2.05	14.0	Asbestos Cement	False
495	WP-157	257	J-166	J-16	0.17	8.0	Asbestos Cement	False
496	WP-158	8	J-165	J-166	1.04	8.0	Ductile Iron	False
632	WP-160	194	J-134	S115	0.09	8.0	Ductile Iron	False
635	WP-161	4,933	J-168	J-166	1.21	8.0	Asbestos Cement	False
637	WP-162	6,071	J-7	J-169	1.75	14.0	Asbestos Cement	False
638	WP-163	3,265	J-169	J-15 (Ag)	1.71	14.0	Asbestos Cement	False
639	WP-164	9	J-169	J-168	0.11	8.0	Ductile Iron	False
643	WP-165	115	S75	J-172	0.39	8.0	PVC	False
644	WP-166	147	J-172	J-125	0.46	8.0	PVC	False
645	WP-167	132	J-151	J-172	0.11	6.0	Ductile Iron	False
647	WP-168	324	S105	J-173	0.42	10.0	PVC	False
648	WP-169	246	J-173	J-125	0.45	10.0	PVC	False
649	WP-170	139	J-173	J-152	0.04	8.0	PVC	False
651	WP-171	46	J-152	J-174	0.06	4.0	PVC	False
653	WP-172	235	S95	J-56	0.02	8.0	PVC	False
659	WP-173	361	S170	J-56	0.02	8.0	Ductile Iron	False
660	WP-174	527	S95	J-45	0.20	8.0	Steel	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
665	WP-176	2,212	J-178 (Ag)	J-168	1.17	8.0	Asbestos Cement	False
668	WP-177	123	C4	J-9	1.82	16.0	PVC	False
673	WP-178	1,052	J-2	J-180	0.34	4.0	PVC	False
680	WP-180	1,743	J-12	J-183 (Hydrant)	1.83	16.0	PVC	False
683	WP-182	2,464	J-5	J-184	1.93	4.0	PVC	False
749	WP-184	147	J-134	J-185	0.02	8.0	Ductile Iron	False
750	WP-185	159	J-185	J-45	0.01	8.0	Ductile Iron	False
751	WP-186	447	J-135	J-185	0.16	4.0	PVC	False
758	WP-188	1,795	J-188	J-3	1.29	4.0	PVC	False
761	WP-190	388	J-3	SB3	1.78	4.0	PVC	False
763	WP-191	88	J-148	SB3	0.81	6.0	PVC	False
789	WP-44 A	61	T-1	PRV-16 (Res)	0.00	8.0	Ductile Iron	False
812	WP-50	437	S35	J-192	0.10	6.0	Ductile Iron	False
813	WP-50 A	23	J-192	S30	0.00	6.0	Ductile Iron	False
815	WP-192	68	J-192	J-193	0.23	4.0	Ductile Iron	False
817	WP-130	797	J-146	J-76	0.00	8.0	Asbestos Cement	False
819	WP-108 A	145	S45	J-195	0.00	6.0	Ductile Iron	False
821	WP-107	45	J-127	J-84	0.89	8.0	Ductile Iron	False
825	WP-31	243	S117	S130	0.01	8.0	Ductile Iron	False
827	WP-82	148	N45	J-198	0.09	6.0	Ductile Iron	False
828	WP-82 A	131	J-198	J-109	0.15	6.0	Ductile Iron	False
830	WP-193	310	J-198	J-199	0.37	2.0	Ductile Iron	False
837	WP-21 B	80	J-190	J-202	0.10	12.0	Ductile Iron	False
838	WP-21	389	J-202	N205	0.09	12.0	Asbestos Cement	False
840	WP-196	480	J-202	J-203	0.09	2.0	PVC	False
842	WP-67 A	34	J-91	J-204	0.00	8.0	Ductile Iron	False
845	WP-65	223	J-90	N81	0.03	8.0	Ductile Iron	False
846	WP-65 A	89	N81	J-91	0.01	8.0	Ductile Iron	False
847	WP-195	127	J-204	N81	0.01	8.0	Ductile Iron	False
851	WP-154 A	119	J-163	N90	(N/A)	12.0	Ductile Iron	False
854	WP-5	148	J-208	J-7	1.76	14.0	Asbestos Cement	False
856	WP-175 A	107	J-9	J-209	1.80	16.0	PVC	False
857	WP-175	3,982	J-209	J-178 (Ag)	1.29	8.0	Asbestos Cement	False
858	WP-202	11	J-208	J-209	2.62	12.0	Ductile Iron	False
861	WP-189	617	J-210	J-187	0.91	4.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
863	WP-201	630	J-210	J-211	0.34	2.0	PVC	False
866	WP-55 A	407	T-1	J-191	2.29	8.0	Ductile Iron	False
869	WP-44	256	PRV-16 (Res)	J-76	0.00	8.0	Ductile Iron	False
873	WP-48 A	26	J-214	J-67	0.74	6.0	Asbestos Cement	False
876	WP-121	154	N45	J-215	0.08	6.0	Ductile Iron	False
877	WP-121 A	176	J-215	J-37	0.04	6.0	Asbestos Cement	False
878	WP-194	368	J-215	J-207	0.25	2.0	Ductile Iron	False
880	WP-200	229	J-137	J-216	0.11	8.0	Ductile Iron	False
881	WP-199	125	J-216	S155	0.12	8.0	Ductile Iron	False
885	WP-27	139	J-218	J-20	0.01	10.0	Asbestos Cement	False
887	WP-7	102	J-17	J-219	2.05	14.0	Asbestos Cement	False
888	WP-118	338	J-219	J-18	2.03	14.0	Asbestos Cement	False
898	WP-26	83	J-23	N237	0.01	8.0	Asbestos Cement	False
903	WP-1	715	J-1	J-225	0.29	2.0	PVC	False
904	WP-204	382	J-225	J-2	0.31	4.0	PVC	False
912	WP-32(1)	474	S85	J-226	0.09	8.0	PVC	False
913	WP-32(2)	119	J-226	S60	0.09	8.0	PVC	False
915	P-396	185	J-226	J-227	0.00	8.0	Ductile Iron	False
917	WP-52(1)	446	S23	S21	0.16	8.0	Ductile Iron	False
918	WP-52(2)	215	S21	J-72	0.16	8.0	Ductile Iron	False
920	WP-54(1)	321	S23	S22	0.20	8.0	Ductile Iron	False
921	WP-54(2)	112	S22	J-72	0.20	8.0	Ductile Iron	False
924	WP-46(1)	197	J-67	S25	0.45	8.0	Ductile Iron	False
925	WP-46(2)	312	S25	S20	0.45	8.0	Ductile Iron	False
927	WP-55(1)	249	J-191	S15	2.29	8.0	Ductile Iron	False
928	WP-55(2)	403	S15	J-84	2.29	8.0	Ductile Iron	False
930	WP-48(1)	291	J-68	S40	0.62	6.0	Asbestos Cement	False
931	WP-48(2)	192	S40	J-214	0.62	6.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
934	WP-106(1)	127	J-126	S72	0.88	10.0	PVC	False
935	WP-106(2)	302	S72	J-64	0.88	10.0	PVC	False
938	WP-29(2)	151	S70	J-60	0.30	6.0	Ductile Iron	False
940	WP-29(1)(1)	310	S110	S90	0.30	6.0	Ductile Iron	False
941	WP-29(1)(2)	345	S90	S70	0.30	6.0	Ductile Iron	False
943	WP-128(1)	253	J-66	S55	0.00	8.0	Ductile Iron	False
944	WP-128(2)	72	S55	J-130	0.00	8.0	Ductile Iron	False
946	WP-56(1)	549	S80	S65	0.94	6.0	Asbestos Cement	False
947	WP-56(2)	551	S65	S35	0.94	6.0	Asbestos Cement	False
949	WP-36(1)	211	J-56	S175	0.09	8.0	Ductile Iron	False
950	WP-36(2)	339	S175	J-62	0.09	8.0	Ductile Iron	False
952	WP-113(1)	180	J-106	S160	0.28	10.0	PVC	False
953	WP-113(2)	108	S160	J-134	0.28	10.0	PVC	False
955	WP-11(1)	254	S165	S145	0.06	10.0	Ductile Iron	False
956	WP-11(2)	215	S145	S140	0.06	10.0	Ductile Iron	False
958	WP-116(1)	232	N43	N44	0.11	8.0	Ductile Iron	False
959	WP-116(2)	453	N44	J-137	0.11	8.0	Ductile Iron	False
961	WP-20(1)	70	J-38	N40	0.19	12.0	Ductile Iron	False
964	WP-20(2)(1)	291	N40	N35	0.19	12.0	Ductile Iron	False
965	WP-20(2)(2)	235	N35	J-32	0.19	12.0	Ductile Iron	False
969	WP-22(2)	90	N65	N60	0.00	8.0	Ductile Iron	False
971	WP-22(1)(1)	85	PRV-3 (Bsn)	N70	0.00	8.0	Ductile Iron	False
972	WP-22(1)(2)	108	N70	N65	0.00	8.0	Ductile Iron	False
974	WP-123(1)	148	J-141	N75	0.00	8.0	Ductile Iron	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?
975	WP-123(2)	28	N75	PRV-3 (Bsn)	0.00	8.0	Ductile Iron	False
977	WP-67(1)	295	J-204	N82	0.01	8.0	Ductile Iron	False
980	WP-120(1)	207	J-139	N80	0.07	12.0	Asbestos Cement	False
981	WP-120(2)	52	N80	J-90	0.07	12.0	Asbestos Cement	False
983	WP-67(2)(1)	434	N82	N83	0.01	8.0	Ductile Iron	False
984	WP-67(2)(2)	136	N83	J-89	0.01	8.0	Ductile Iron	False
986	WP-68(1)	86	J-94	N86	0.02	8.0	Ductile Iron	False
987	WP-68(2)	431	N86	N87	0.02	8.0	Ductile Iron	False
989	WP-69(1)	203	N87	N88	0.04	8.0	Ductile Iron	False
992	WP-69(2)(1)	381	N88	N89	0.04	8.0	Ductile Iron	False
993	WP-69(2)(2)	394	N89	J-97	0.04	8.0	Ductile Iron	False
995	WP-21 A(1)	73	J-29	N110	0.10	12.0	PVC	False
996	WP-21 A(2)	110	N110	J-190	0.10	12.0	PVC	False
998	WP-60(1)	93	J-29	N105	0.00	8.0	Ductile Iron	False
1001	WP-60(2)(1)	444	N105	N100	0.00	8.0	Ductile Iron	False
1002	WP-60(2)(2)	104	N100	J-86	0.00	8.0	Ductile Iron	False
1004	WP-25(1)	324	N210	N215	0.03	10.0	Asbestos Cement	False
1007	WP-25(2)(1)	480	N215	N220	0.03	10.0	Asbestos Cement	False
1008	WP-25(2)(2)	158	N220	J-24	0.03	10.0	Asbestos Cement	False
1011	WP-197(1)	158	N237	N240	0.01	8.0	Asbestos Cement	False
1014	WP-197(2)(1	225	N240	N270	0.01	8.0	Asbestos Cement	False
1017	WP-197(2)(2	105	N270	N265	0.01	8.0	Asbestos Cement	False
1018	WP-197(2)(2	208	N265	N260	0.01	8.0	Asbestos Cement	False
1020	WP-198(1)	172	N260	N250	0.01	8.0	Asbestos Cement	False

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

ID	Label	Length (Scaled) (ft)	Start Node	Stop Node	Velocity (ft/s)	Diameter (in)	Material	Has Check Valve?	Flow (gpm)	Flow (Maximum) (gpm)
1024	WP-198(2)(1	60	N250	N245	0.01	8.0	Asbestos Cement	False	-12.91	-12.91
1027	WP-198(2)(2	121	N245	N235	0.01	8.0	Asbestos Cement	False	1,168.24	1,168.24
1028	WP-198(2)(2	68	N235	J-21	0.01	8.0	Asbestos Cement	False	1,150.42	1,150.42
1030	WP-57 A(1)	62	J-21	N230	0.01	10.0	Asbestos Cement	False	14.75	14.75
1031	WP-57 A(2)	106	N230	J-218	0.01	10.0	Asbestos Cement	False	98.57	98.57
1033	WP-28(1)	69	J-20	N225	0.00	10.0	Asbestos Cement	False	-10.51	-10.51
1034	WP-28(2)	152	N225	J-19	0.00	10.0	Asbestos Cement	False	-34.20	-34.20
1036	WP-4(1)	1,094	J-208	C3	0.33	10.0	Ductile Iron	False		
1037	WP-4(2)	872	C3	J-6 (Ag)	0.33	10.0	Ductile Iron	False		
1039	WP-179(1)	1,531	C6	C5	1.83	16.0	PVC	False		
1040	WP-179(2)	1,773	C5	C4	1.83	16.0	PVC	False		
1043	WP-181(2)	271	C7	C6	1.83	16.0	PVC	False		
1045	WP-181(1)(1	1,132	J-183 (Hydrant)	C8	1.83	16.0	PVC	False		
1046	WP-181(1)(2	1,209	C8	C7	1.83	16.0	PVC	False		
1048	WP-183(1)	394	J-184	SB2	2.28	4.0	PVC	False		
1049	WP-183(2)	1,967	SB2	J-6 (Ag)	2.28	4.0	PVC	False		
1051	WP-189 A(1)	268	J-188	SB4	1.03	4.0	PVC	False		
1052	WP-189 A(2)	63	SB4	J-210	1.03	4.0	PVC	False		
1054	WP-187(1)	526	J-180	SB5	0.60	4.0	Asbestos Cement	False		
1055	WP-187(2)	821	SB5	J-187	0.60	4.0	Asbestos Cement	False		

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-22.46	-22.46
11.06	11.06
-16.36	-16.36
0.14	0.14
-27.97	-27.97
6.88	6.88
-139.85	-139.85
-0.45	-0.45
17.26	17.26
10.98	10.98
-10.90	-10.90
25.91	25.91
-18.79	-18.79
-42.04	-42.04
-21.18	-21.18
-35.95	-35.95
0.82	0.82
865.57	865.57
865.11	865.11
860.39	860.39
859.22	859.22
2.42	2.42
1.14	1.14
216.94	216.94
-98.35	-98.35
-63.23	-63.23
-54.43	-54.43
4.45	4.45
-5.48	-5.48
0.00	0.00
-3.61	-3.61
4.90	4.90
4.02	4.02
18.82	18.82
4.01	4.01
3.36	3.36
0.00	0.00
5.05	5.05
-9.90	-9.90
-10.40	-10.40
-10.40	-10.40
0.00	0.00
0.00	0.00
-67.38	-67.38
0.00	0.00
17.68	17.68

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
4.77	4.77
10.02	10.02
-6.03	-6.03
3.46	3.46
-21.22	-21.22
-38.90	-38.90
7.77	7.77
-41.18	-41.18
-44.88	-44.88
-25.63	-25.63
-29.56	-29.56
0.80	0.80
-22.36	-22.36
-17.03	-17.03
-8.10	-8.10
7.16	7.16
5.10	5.10
0.00	0.00
0.00	0.00
0.00	0.00
-16.81	-16.81
0.00	0.00
-189.08	-189.08
-216.28	-216.28
0.55	0.55
0.00	0.00
0.00	0.00
0.55	0.55
61.35	61.35
12.08	12.08
-21.26	-21.26
11.66	11.66
30.33	30.33
-6.02	-6.02
-9.53	-9.53
21.31	21.31
6.09	6.09
58.00	58.00
0.00	0.00
0.00	0.00
-72.66	-72.66
-79.03	-79.03
-23.75	-23.75
1.79	1.79
9.13	9.13
3.74	3.74

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
871.50	871.50
869.42	869.42
11.49	11.49
11.66	11.66
0.00	0.00
0.00	0.00
-21.75	-21.75
-21.75	-21.75
26.51	26.51
-27.42	-27.42
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
56.69	56.69
55.31	55.31
55.31	55.31
35.85	35.85
821.03	821.03
984.05	984.05
26.70	26.70
-163.02	-163.02
13.52	13.52
189.72	189.72
841.83	841.83
821.03	821.03
17.02	17.02
-61.76	-61.76
-71.69	-71.69
-9.69	-9.69
-101.75	-101.75
-110.27	-110.27
-6.33	-6.33
2.43	2.43
-2.69	-2.69
-3.07	-3.07
31.48	31.48
182.70	182.70
1,141.87	1,141.87
-13.50	-13.50
1,149.52	1,149.52
-75.69	-75.69
-3.10	-3.10
-2.11	-2.11

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
6.15	6.15
-50.48	-50.48
-69.61	-69.61
71.24	71.24
0.00	0.00
9.12	9.12
0.00	0.00
9.12	9.12
0.00	0.00
0.00	0.00
-139.85	-139.85
1.53	1.53
-8.35	-8.35
-13.57	-13.57
3.66	3.66
34.19	34.19
33.11	33.11
0.93	0.93
0.11	0.11
4.20	4.20
2.15	2.15
-2.05	-2.05
(N/A)	(N/A)
843.00	843.00
1,125.18	1,125.18
201.83	201.83
-923.11	-923.11
35.81	35.81
3.32	3.32
358.97	358.97
0.00	0.00
-64.89	-64.89
7.11	7.11
3.36	3.36
2.47	2.47
-17.87	-17.87
-18.19	-18.19
1.91	1.91
982.72	982.72
972.30	972.30
0.80	0.80
-2.87	-2.87
-12.19	-12.19
-13.96	-13.96
-13.96	-13.96
0.00	0.00

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
-24.98	-24.98
-24.98	-24.98
-30.94	-30.94
-30.94	-30.94
70.97	70.97
70.97	70.97
358.97	358.97
358.97	358.97
-54.68	-54.68
-54.68	-54.68
-216.39	-216.39
-216.39	-216.39
-26.29	-26.29
-26.29	-26.29
-26.29	-26.29
0.00	0.00
0.00	0.00
-82.57	-82.57
-82.57	-82.57
-13.60	-13.60
-13.60	-13.60
-67.38	-67.38
-67.38	-67.38
-15.05	-15.05
-15.05	-15.05
-16.87	-16.87
-16.87	-16.87
67.14	67.14
67.14	67.14
67.14	67.14
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2.16	2.16
23.01	23.01
23.01	23.01
2.16	2.16
2.16	2.16
3.82	3.82
3.82	3.82
-5.78	-5.78
-5.78	-5.78
-5.78	-5.78
34.86	34.86

FlexTable: Pipe Table

Active Scenario: BASE-PHD-2035

FlexTable: Pipe Table

Flow (gpm)	Flow (Maximum) (gpm)
34.86	34.86
0.00	0.00
0.00	0.00
0.00	0.00
7.32	7.32
7.32	7.32
7.32	7.32
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
0.80	0.80
1.91	1.91
1.91	1.91
0.00	0.00
0.00	0.00
80.11	80.11
80.11	80.11
1,145.85	1,145.85
1,145.85	1,145.85
1,146.98	1,146.98
1,146.98	1,146.98
1,146.98	1,146.98
-89.21	-89.21
-89.21	-89.21
40.37	40.37
40.37	40.37
-23.43	-23.43
-23.43	-23.43

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	76.3	0.00	189.9	(N/A)
666	C4	13.5	<None>	76.4	3.53	190.2	(N/A)
1038	C5	13.5	<None>	76.8	0.00	191.1	(N/A)
675	C6	13.5	<None>	77.2	1.00	191.9	(N/A)
1041	C7	13.5	<None>	77.3	0.00	192.1	(N/A)
1044	C8	13.5	<None>	77.5	0.00	192.7	(N/A)
85	J-1	15.5	Zone	66.3	2.55	168.9	(N/A)
86	J-2	15.5	Zone	66.4	1.16	169.1	(N/A)
87	J-3	15.5	Zone	68.1	17.00	172.9	(N/A)
88	J-5	13.5	Zone	69.5	2.69	174.1	(N/A)
89	J-6 (Ag)	13.5	Zone	76.3	3.39	189.9	(N/A)
90	J-7	13.5	Zone	76.3	1.04	189.9	(N/A)
92	J-9	13.5	Zone	76.4	3.36	190.1	(N/A)
95	J-12	13.5	Zone	78.2	0.80	194.2	(N/A)
96	J-13	13.5	Zone	78.2	15.85	194.3	(N/A)
97	J-15 (Ag)	13.5	Zone	73.8	0.00	184.2	(N/A)
98	J-16	13.5	Zone	73.4	0.26	183.2	(N/A)
99	J-17	11.0	Zone	74.4	1.18	182.9	(N/A)
100	J-18	9.0	Zone	75.0	1.98	182.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	1.70	165.3	(N/A)
103	J-21	15.5	Zone	64.8	2.98	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.20	165.3	(N/A)
106	J-24	15.5	Zone	64.8	1.64	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.88	165.3	(N/A)
114	J-32	9.0	Zone	75.0	0.65	182.4	(N/A)
118	J-36	6.5	Zone	72.0	3.84	173.0	(N/A)
119	J-37	8.5	Zone	71.2	0.00	173.0	(N/A)
120	J-38	8.5	Zone	75.3	0.98	182.4	(N/A)
126	J-45	43.0	Zone	56.2	3.08	173.0	(N/A)
133	J-52	9.0	Zone	71.0	1.30	173.0	(N/A)
137	J-56	64.0	Zone	47.2	6.97	173.0	(N/A)
141	J-60	26.0	Zone	63.6	0.81	173.1	(N/A)
143	J-62	47.0	Zone	54.5	6.45	173.0	(N/A)
145	J-64	12.4	Zone	69.6	0.00	173.2	(N/A)
146	J-66	8.0	Zone	74.4	0.41	180.0	(N/A)
147	J-67	8.0	Zone	71.8	3.55	173.9	(N/A)
148	J-68	6.1	Zone	72.6	9.56	173.8	(N/A)
150	J-70	6.0	Zone	75.6	3.42	180.7	(N/A)
152	J-72	7.0	Zone	72.2	6.49	173.8	(N/A)
154	J-74	8.0	Zone	71.8	1.02	173.8	(N/A)
156	J-76	40.0	Zone	62.0	0.00	183.2	(N/A)
157	J-77	20.0	Zone	65.0	0.00	170.2	(N/A)
162	J-82	21.5	Zone	70.0	13.11	183.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	72.0	1.94	174.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	69.9	1.24	173.0	(N/A)
167	J-88	13.0	Zone	69.1	4.35	172.8	(N/A)
168	J-89	9.5	Zone	74.8	15.07	182.4	(N/A)
169	J-90	8.5	Zone	75.3	0.00	182.4	(N/A)
170	J-91	9.5	Zone	74.8	1.81	182.4	(N/A)
171	J-94	9.0	Zone	75.0	0.17	182.4	(N/A)
173	J-96	8.0	Zone	75.5	4.49	182.4	(N/A)
174	J-97	8.5	Zone	75.3	0.22	182.4	(N/A)
175	J-99	8.5	Zone	71.2	2.99	173.0	(N/A)
176	J-100	8.5	Zone	71.2	0.00	173.0	(N/A)
178	J-102	10.0	Zone	70.5	0.00	173.0	(N/A)
179	J-103	10.0	Zone	70.5	0.45	173.0	(N/A)
181	J-105	10.0	Zone	70.5	0.00	173.0	(N/A)
182	J-106	9.0	Zone	71.0	0.00	173.0	(N/A)
185	J-109	8.0	Zone	71.4	2.20	173.0	(N/A)
187	J-112	9.5	Zone	70.7	3.07	172.9	(N/A)
188	J-113	8.0	Zone	71.4	35.99	173.0	(N/A)
189	J-114	9.0	Zone	71.0	3.29	173.0	(N/A)
190	J-115	9.0	Zone	71.0	2.58	173.0	(N/A)
191	J-116	8.0	Zone	71.4	4.20	173.0	(N/A)
192	J-117	11.0	Zone	70.1	4.53	173.0	(N/A)
193	J-118	13.3	Zone	69.1	0.20	173.0	(N/A)
194	J-119	13.3	Zone	69.1	1.57	173.0	(N/A)
195	J-120	7.0	Zone	71.8	6.37	173.0	(N/A)
198	J-122	8.0	Zone	71.4	14.94	173.0	(N/A)
199	J-123	9.0	Zone	70.9	0.00	173.0	(N/A)
201	J-125	27.0	Zone	63.2	6.33	173.1	(N/A)
202	J-126	20.0	Zone	66.2	0.10	173.1	(N/A)
203	J-127	8.0	Zone	71.9	0.00	174.3	(N/A)
206	J-130	11.0	Zone	73.1	0.00	180.0	(N/A)
207	J-131	10.0	Zone	73.6	0.00	180.0	(N/A)
210	J-134	15.0	Zone	68.4	1.10	173.0	(N/A)
211	J-135	49.0	Zone	53.7	2.69	173.0	(N/A)
213	J-137	9.0	Zone	70.9	0.88	173.0	(N/A)
215	J-139	8.5	Zone	75.3	1.15	182.4	(N/A)
217	J-141	12.0	Zone	73.7	1.16	182.4	(N/A)
218	J-142	7.0	Zone	71.8	0.39	173.0	(N/A)
219	J-143	7.0	Zone	71.8	0.25	173.0	(N/A)
220	J-144	40.0	Zone	57.9	5.41	173.9	(N/A)
197	J-145	8.0	LP	71.9	0.00	174.3	(N/A)
221	J-146	8.0	HP	75.8	0.00	183.2	(N/A)
407	J-148	15.5	Zone	68.5	1.27	173.8	(N/A)
417	J-149	10.0	Zone	70.5	1.59	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	70.5	0.86	173.0	(N/A)
422	J-151	37.0	Zone	58.9	0.50	173.0	(N/A)
423	J-152	48.0	Zone	54.1	0.33	173.0	(N/A)
429	J-154	9.0	Zone	70.9	3.33	173.0	(N/A)
449	J-158	7.0	Zone	75.8	1.85	182.1	(N/A)
453	J-159	7.0	Zone	76.2	10.36	183.2	(N/A)
470	J-161	10.0	Zone	70.5	0.00	173.0	(N/A)
473	J-162	10.0	Zone	74.6	0.00	182.4	(N/A)
480	J-163	13.5	Zone	73.1	1.23	182.4	(N/A)
490	J-165	12.0	Zone	74.1	0.00	183.2	(N/A)
493	J-166	12.0	Zone	74.1	0.00	183.2	(N/A)
633	J-168	8.0	<None>	77.1	8.89	186.1	(N/A)
636	J-169	8.0	<None>	77.1	3.36	186.1	(N/A)
640	J-170	10.0	<None>	73.4	4.20	179.6	(N/A)
642	J-172	34.0	<None>	60.2	0.21	173.0	(N/A)
646	J-173	49.0	<None>	53.7	13.20	173.0	(N/A)
650	J-174	49.0	<None>	53.7	2.16	173.0	(N/A)
663	J-178 (Ag)	9.9	<None>	76.8	17.00	187.4	(N/A)
672	J-180	15.5	<None>	66.5	8.83	169.2	(N/A)
679	J-183 (Hydrant)	13.5	<None>	77.8	2.26	193.3	(N/A)
682	J-184	13.5	<None>	72.4	12.01	180.9	(N/A)
748	J-185	40.0	<None>	57.5	4.58	173.0	(N/A)
753	J-187	15.5	<None>	66.7	11.01	169.7	(N/A)
756	J-188	15.5	<None>	67.0	8.99	170.5	(N/A)
764	J-190	14.0	<None>	65.5	0.60	165.3	(N/A)
783	J-191	9.6	<None>	72.0	0.00	176.1	(N/A)
811	J-192	7.0	<None>	72.1	0.00	173.6	(N/A)
814	J-193	0.0	<None>	75.1	8.11	173.6	(N/A)
818	J-195	0.0	<None>	74.9	0.00	173.2	(N/A)
826	J-198	8.2	<None>	71.3	1.39	173.0	(N/A)
829	J-199	0.0	<None>	74.8	3.25	172.9	(N/A)
836	J-202	13.9	<None>	65.5	0.13	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.83	165.3	(N/A)
841	J-204	9.5	<None>	74.8	0.00	182.4	(N/A)
849	J-207	0.0	<None>	74.8	2.20	172.9	(N/A)
852	J-208	13.5	<None>	76.4	0.00	190.0	(N/A)
855	J-209	13.4	<None>	76.4	0.21	190.0	(N/A)
859	J-210	15.5	<None>	66.9	1.10	170.2	(N/A)
862	J-211	0.0	<None>	73.6	2.95	170.0	(N/A)
871	J-214	7.9	<None>	71.8	3.66	173.9	(N/A)
875	J-215	8.5	<None>	71.2	1.13	173.0	(N/A)
879	J-216	9.6	<None>	70.7	0.29	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	74.5	9.27	182.8	(N/A)
902	J-225	15.5	<None>	66.4	8.28	169.1	(N/A)
911	J-226	39.0	<None>	58.0	0.00	173.0	(N/A)
914	J-227	39.0	<None>	58.0	0.00	173.0	(N/A)
116	N5	7.0	Zone	71.8	3.93	173.0	(N/A)
117	N10	8.0	Zone	71.4	3.19	173.0	(N/A)
184	N15	7.0	Zone	71.8	2.57	173.0	(N/A)
180	N20	10.0	Zone	70.5	0.00	173.0	(N/A)
115	N25	9.0	Zone	70.9	5.16	173.0	(N/A)
113	N27	8.0	Zone	71.4	0.00	173.0	(N/A)
209	N30	8.5	Zone	75.2	2.98	182.4	(N/A)
963	N35	8.8	<None>	75.1	0.00	182.4	(N/A)
960	N40	8.6	<None>	75.2	0.00	182.4	(N/A)
186	N43	8.0	Zone	71.4	6.57	173.0	(N/A)
957	N44	8.3	<None>	71.2	0.00	173.0	(N/A)
177	N45	8.5	Zone	71.2	1.11	173.0	(N/A)
112	N60	14.0	Zone	68.8	3.21	173.0	(N/A)
967	N65	14.0	<None>	68.8	0.00	173.0	(N/A)
970	N70	14.0	<None>	68.8	0.00	173.0	(N/A)
973	N75	13.7	<None>	73.0	0.00	182.4	(N/A)
979	N80	8.5	<None>	75.3	0.00	182.4	(N/A)
844	N81	9.2	<None>	74.9	0.00	182.4	(N/A)
976	N82	9.5	<None>	74.8	0.00	182.4	(N/A)
982	N83	9.5	<None>	74.8	0.00	182.4	(N/A)
163	N85	9.0	Zone	75.0	0.01	182.4	(N/A)
985	N86	9.0	<None>	75.0	0.00	182.4	(N/A)
172	N87	9.0	Zone	75.0	8.53	182.4	(N/A)
988	N88	8.9	<None>	75.1	0.00	182.4	(N/A)
991	N89	8.7	<None>	75.2	0.00	182.4	(N/A)
483	N90	15.0	Zone	65.0	17.30	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	75.4	0.00	183.2	(N/A)
110	N200	14.5	Zone	65.2	15.34	165.3	(N/A)
109	N205	13.5	Zone	65.7	4.33	165.3	(N/A)
107	N210	18.5	Zone	63.5	3.25	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	69.2	761.60	170.2	(N/A)
159	S8	14.5	Zone	67.4	2.15	170.2	(N/A)
155	S10	11.1	Zone	71.9	1.04	177.2	(N/A)
926	S15	9.0	<None>	72.0	0.00	175.4	(N/A)
153	S20	13.5	Zone	69.4	5.86	173.9	(N/A)
916	S21	6.7	<None>	72.3	0.00	173.8	(N/A)
919	S22	6.8	<None>	72.3	0.00	173.8	(N/A)
151	S23	6.1	Zone	72.6	1.33	173.8	(N/A)
923	S25	10.1	<None>	70.9	0.00	173.9	(N/A)
160	S30	7.0	Zone	72.1	0.00	173.6	(N/A)
149	S35	6.0	Zone	72.5	5.91	173.6	(N/A)
929	S40	7.2	<None>	72.1	0.00	173.9	(N/A)
204	S45	10.0	Zone	70.6	0.00	173.2	(N/A)
208	S50	10.0	Zone	70.6	0.49	173.2	(N/A)
205	S52	11.0	Zone	73.1	0.00	180.0	(N/A)
942	S55	10.3	<None>	73.4	0.00	180.0	(N/A)
144	S60	47.0	Zone	54.5	4.30	173.0	(N/A)
945	S65	7.0	<None>	72.0	0.00	173.3	(N/A)
936	S70	23.0	<None>	64.9	0.00	173.1	(N/A)
933	S72	17.7	Zone	67.2	0.00	173.1	(N/A)
142	S75	33.0	Zone	60.6	0.83	173.0	(N/A)
135	S80	8.0	Zone	71.4	15.17	173.0	(N/A)
136	S85	7.0	Zone	71.8	4.47	173.0	(N/A)
939	S90	16.2	<None>	67.9	0.00	173.0	(N/A)
138	S95	50.0	Zone	53.2	3.97	173.0	(N/A)
134	S100	8.0	Zone	71.4	4.65	173.0	(N/A)
139	S105	55.0	Zone	51.1	1.30	173.0	(N/A)
140	S110	10.0	Zone	70.5	13.68	173.0	(N/A)
128	S115	10.0	Zone	70.5	1.82	173.0	(N/A)
824	S117	0.0	<None>	74.9	2.33	173.0	(N/A)
457	S120	7.0	Zone	71.8	0.82	173.0	(N/A)
127	S130	48.5	Zone	53.9	1.36	173.0	(N/A)
125	S135	8.0	Zone	71.4	2.49	173.0	(N/A)
183	S136	10.0	Zone	70.5	0.00	173.0	(N/A)
124	S137	9.0	Zone	71.0	5.23	173.0	(N/A)
123	S140	8.0	Zone	71.4	6.58	173.0	(N/A)
954	S145	8.0	<None>	71.4	0.00	173.0	(N/A)
121	S150	10.3	Zone	70.4	5.34	173.0	(N/A)
161	S155	10.0	Zone	70.5	1.64	173.0	(N/A)
951	S160	12.8	<None>	69.3	0.00	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	71.4	4.10	173.0	(N/A)
657	S170	92.2	<None>	35.0	2.73	173.0	(N/A)
948	S175	57.5	<None>	50.0	0.00	173.0	(N/A)
1047	SB2	13.5	<None>	73.1	0.00	182.5	(N/A)
760	SB3	10.4	<None>	70.7	1.45	173.8	(N/A)
1050	SB4	15.5	<None>	66.9	0.00	170.3	(N/A)
1053	SB5	15.5	<None>	66.6	0.00	169.4	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1035	C3	13.5	<None>	76.3	0.00	189.9	(N/A)
666	C4	13.5	<None>	76.4	3.53	190.2	(N/A)
1038	C5	13.5	<None>	76.8	0.00	191.1	(N/A)
675	C6	13.5	<None>	77.2	1.00	191.9	(N/A)
1041	C7	13.5	<None>	77.3	0.00	192.1	(N/A)
1044	C8	13.5	<None>	77.5	0.00	192.7	(N/A)
85	J-1	15.5	Zone	66.3	2.55	168.9	(N/A)
86	J-2	15.5	Zone	66.4	1.16	169.1	(N/A)
87	J-3	15.5	Zone	68.1	17.00	172.9	(N/A)
88	J-5	13.5	Zone	69.5	2.69	174.1	(N/A)
89	J-6 (Ag)	13.5	Zone	76.3	3.39	189.9	(N/A)
90	J-7	13.5	Zone	76.3	1.04	189.9	(N/A)
92	J-9	13.5	Zone	76.4	3.36	190.1	(N/A)
95	J-12	13.5	Zone	78.2	0.80	194.2	(N/A)
96	J-13	13.5	Zone	78.2	15.85	194.3	(N/A)
97	J-15 (Ag)	13.5	Zone	73.8	0.00	184.2	(N/A)
98	J-16	13.5	Zone	73.4	0.26	183.2	(N/A)
99	J-17	11.0	Zone	74.4	1.18	182.9	(N/A)
100	J-18	9.0	Zone	75.0	1.98	182.5	(N/A)
101	J-19	18.5	Zone	63.5	0.00	165.3	(N/A)
102	J-20	15.5	Zone	64.8	1.70	165.3	(N/A)
103	J-21	15.5	Zone	64.8	2.98	165.3	(N/A)
105	J-23	15.5	Zone	64.8	0.20	165.3	(N/A)
106	J-24	15.5	Zone	64.8	1.64	165.3	(N/A)
111	J-29	13.5	Zone	65.7	0.88	165.3	(N/A)
114	J-32	9.0	Zone	75.0	0.65	182.4	(N/A)
118	J-36	6.5	Zone	72.0	3.84	173.0	(N/A)
119	J-37	8.5	Zone	71.2	0.00	173.0	(N/A)
120	J-38	8.5	Zone	75.3	0.98	182.4	(N/A)
126	J-45	43.0	Zone	56.2	3.08	173.0	(N/A)
133	J-52	9.0	Zone	71.0	1.30	173.0	(N/A)
137	J-56	64.0	Zone	47.2	6.97	173.0	(N/A)
141	J-60	26.0	Zone	63.6	0.81	173.1	(N/A)
143	J-62	47.0	Zone	54.5	6.45	173.0	(N/A)
145	J-64	12.4	Zone	69.6	0.00	173.2	(N/A)
146	J-66	8.0	Zone	74.4	0.41	180.0	(N/A)
147	J-67	8.0	Zone	71.8	3.55	173.9	(N/A)
148	J-68	6.1	Zone	72.6	9.56	173.8	(N/A)
150	J-70	6.0	Zone	75.6	3.42	180.7	(N/A)
152	J-72	7.0	Zone	72.2	6.49	173.8	(N/A)
154	J-74	8.0	Zone	71.8	1.02	173.8	(N/A)
156	J-76	40.0	Zone	62.0	0.00	183.2	(N/A)
157	J-77	20.0	Zone	(N/A)	(N/A)	(N/A)	(N/A)
162	J-82	21.5	Zone	70.0	13.11	183.2	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
164	J-84	8.0	Zone	72.0	1.94	174.3	(N/A)
165	J-86	13.5	Zone	65.7	0.00	165.3	(N/A)
166	J-87	11.5	Zone	69.9	1.24	173.0	(N/A)
167	J-88	13.0	Zone	69.1	4.35	172.8	(N/A)
168	J-89	9.5	Zone	74.8	15.07	182.4	(N/A)
169	J-90	8.5	Zone	75.3	0.00	182.4	(N/A)
170	J-91	9.5	Zone	74.8	1.81	182.4	(N/A)
171	J-94	9.0	Zone	75.0	0.17	182.4	(N/A)
173	J-96	8.0	Zone	75.5	4.49	182.4	(N/A)
174	J-97	8.5	Zone	75.3	0.22	182.4	(N/A)
175	J-99	8.5	Zone	71.2	2.99	173.0	(N/A)
176	J-100	8.5	Zone	71.2	0.00	173.0	(N/A)
178	J-102	10.0	Zone	70.5	0.00	173.0	(N/A)
179	J-103	10.0	Zone	70.5	0.45	173.0	(N/A)
181	J-105	10.0	Zone	70.5	0.00	173.0	(N/A)
182	J-106	9.0	Zone	71.0	0.00	173.0	(N/A)
185	J-109	8.0	Zone	71.4	2.20	173.0	(N/A)
187	J-112	9.5	Zone	70.7	3.07	172.9	(N/A)
188	J-113	8.0	Zone	71.4	35.99	173.0	(N/A)
189	J-114	9.0	Zone	71.0	3.29	173.0	(N/A)
190	J-115	9.0	Zone	71.0	2.58	173.0	(N/A)
191	J-116	8.0	Zone	71.4	4.20	173.0	(N/A)
192	J-117	11.0	Zone	70.1	4.53	173.0	(N/A)
193	J-118	13.3	Zone	69.1	0.20	173.0	(N/A)
194	J-119	13.3	Zone	69.1	1.57	173.0	(N/A)
195	J-120	7.0	Zone	71.8	6.37	173.0	(N/A)
198	J-122	8.0	Zone	71.4	14.94	173.0	(N/A)
199	J-123	9.0	Zone	70.9	0.00	173.0	(N/A)
201	J-125	27.0	Zone	63.2	6.33	173.1	(N/A)
202	J-126	20.0	Zone	66.2	0.10	173.1	(N/A)
203	J-127	8.0	Zone	71.9	0.00	174.3	(N/A)
206	J-130	11.0	Zone	73.1	0.00	180.0	(N/A)
207	J-131	10.0	Zone	73.6	0.00	180.0	(N/A)
210	J-134	15.0	Zone	68.4	1.10	173.0	(N/A)
211	J-135	49.0	Zone	53.7	2.69	173.0	(N/A)
213	J-137	9.0	Zone	70.9	0.88	173.0	(N/A)
215	J-139	8.5	Zone	75.3	1.15	182.4	(N/A)
217	J-141	12.0	Zone	73.7	1.16	182.4	(N/A)
218	J-142	7.0	Zone	71.8	0.39	173.0	(N/A)
219	J-143	7.0	Zone	71.8	0.25	173.0	(N/A)
220	J-144	40.0	Zone	57.9	5.41	173.9	(N/A)
197	J-145	8.0	LP	71.9	0.00	174.3	(N/A)
221	J-146	8.0	HP	75.8	0.00	183.2	(N/A)
407	J-148	15.5	Zone	68.5	1.27	173.8	(N/A)
417	J-149	10.0	Zone	70.5	1.59	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
418	J-150	10.0	Zone	70.5	0.86	173.0	(N/A)
422	J-151	37.0	Zone	58.9	0.50	173.0	(N/A)
423	J-152	48.0	Zone	54.1	0.33	173.0	(N/A)
429	J-154	9.0	Zone	70.9	3.33	173.0	(N/A)
449	J-158	7.0	Zone	75.8	1.85	182.1	(N/A)
453	J-159	7.0	Zone	76.2	10.36	183.2	(N/A)
470	J-161	10.0	Zone	70.5	0.00	173.0	(N/A)
473	J-162	10.0	Zone	74.6	0.00	182.4	(N/A)
480	J-163	13.5	Zone	73.1	1.23	182.4	(N/A)
490	J-165	12.0	Zone	74.1	0.00	183.2	(N/A)
493	J-166	12.0	Zone	74.1	0.00	183.2	(N/A)
633	J-168	8.0	<None>	77.1	8.89	186.1	(N/A)
636	J-169	8.0	<None>	77.1	3.36	186.1	(N/A)
640	J-170	10.0	<None>	73.4	4.20	179.6	(N/A)
642	J-172	34.0	<None>	60.2	0.21	173.0	(N/A)
646	J-173	49.0	<None>	53.7	13.20	173.0	(N/A)
650	J-174	49.0	<None>	53.7	2.16	173.0	(N/A)
663	J-178 (Ag)	9.9	<None>	76.8	17.00	187.4	(N/A)
672	J-180	15.5	<None>	66.5	8.83	169.2	(N/A)
679	J-183 (Hydrant)	13.5	<None>	77.8	2.26	193.3	(N/A)
682	J-184	13.5	<None>	72.4	12.01	180.9	(N/A)
748	J-185	40.0	<None>	57.5	4.58	173.0	(N/A)
753	J-187	15.5	<None>	66.7	11.01	169.7	(N/A)
756	J-188	15.5	<None>	67.0	8.99	170.5	(N/A)
764	J-190	14.0	<None>	65.5	0.60	165.3	(N/A)
783	J-191	9.6	<None>	72.0	0.00	176.1	(N/A)
811	J-192	7.0	<None>	72.1	0.00	173.6	(N/A)
814	J-193	0.0	<None>	75.1	8.11	173.6	(N/A)
818	J-195	0.0	<None>	74.9	0.00	173.2	(N/A)
826	J-198	8.2	<None>	71.3	1.39	173.0	(N/A)
829	J-199	0.0	<None>	74.8	3.25	172.9	(N/A)
836	J-202	13.9	<None>	65.5	0.13	165.3	(N/A)
839	J-203	0.0	<None>	71.5	0.83	165.3	(N/A)
841	J-204	9.5	<None>	74.8	0.00	182.4	(N/A)
849	J-207	0.0	<None>	74.8	2.20	172.9	(N/A)
852	J-208	13.5	<None>	76.4	0.00	190.0	(N/A)
855	J-209	13.4	<None>	76.4	0.21	190.0	(N/A)
859	J-210	15.5	<None>	66.9	1.10	170.2	(N/A)
862	J-211	0.0	<None>	73.6	2.95	170.0	(N/A)
871	J-214	7.9	<None>	71.8	3.66	173.9	(N/A)
875	J-215	8.5	<None>	71.2	1.13	173.0	(N/A)
879	J-216	9.6	<None>	70.7	0.29	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
883	J-218	15.5	<None>	64.8	0.00	165.3	(N/A)
886	J-219	10.6	<None>	74.5	9.27	182.8	(N/A)
902	J-225	15.5	<None>	66.4	8.28	169.1	(N/A)
911	J-226	39.0	<None>	58.0	0.00	173.0	(N/A)
914	J-227	39.0	<None>	58.0	0.00	173.0	(N/A)
116	N5	7.0	Zone	71.8	3.93	173.0	(N/A)
117	N10	8.0	Zone	71.4	3.19	173.0	(N/A)
184	N15	7.0	Zone	71.8	2.57	173.0	(N/A)
180	N20	10.0	Zone	70.5	0.00	173.0	(N/A)
115	N25	9.0	Zone	70.9	5.16	173.0	(N/A)
113	N27	8.0	Zone	71.4	0.00	173.0	(N/A)
209	N30	8.5	Zone	75.2	2.98	182.4	(N/A)
963	N35	8.8	<None>	75.1	0.00	182.4	(N/A)
960	N40	8.6	<None>	75.2	0.00	182.4	(N/A)
186	N43	8.0	Zone	71.4	6.57	173.0	(N/A)
957	N44	8.3	<None>	71.2	0.00	173.0	(N/A)
177	N45	8.5	Zone	71.2	1.11	173.0	(N/A)
112	N60	14.0	Zone	68.8	3.21	173.0	(N/A)
967	N65	14.0	<None>	68.8	0.00	173.0	(N/A)
970	N70	14.0	<None>	68.8	0.00	173.0	(N/A)
973	N75	13.7	<None>	73.0	0.00	182.4	(N/A)
979	N80	8.5	<None>	75.3	0.00	182.4	(N/A)
844	N81	9.2	<None>	74.9	0.00	182.4	(N/A)
976	N82	9.5	<None>	74.8	0.00	182.4	(N/A)
982	N83	9.5	<None>	74.8	0.00	182.4	(N/A)
163	N85	9.0	Zone	75.0	0.01	182.4	(N/A)
985	N86	9.0	<None>	75.0	0.00	182.4	(N/A)
172	N87	9.0	Zone	75.0	8.53	182.4	(N/A)
988	N88	8.9	<None>	75.1	0.00	182.4	(N/A)
991	N89	8.7	<None>	75.2	0.00	182.4	(N/A)
483	N90	15.0	Zone	65.0	17.30	165.3	(N/A)
1000	N100	13.5	<None>	65.7	0.00	165.3	(N/A)
997	N105	13.5	<None>	65.7	0.00	165.3	(N/A)
994	N110	13.7	<None>	65.6	0.00	165.3	(N/A)
214	N157	9.0	Zone	75.4	0.00	183.2	(N/A)
110	N200	14.5	Zone	65.2	15.34	165.3	(N/A)
109	N205	13.5	Zone	65.7	4.33	165.3	(N/A)
107	N210	18.5	Zone	63.5	3.25	165.3	(N/A)
1003	N215	17.5	<None>	63.9	0.00	165.3	(N/A)
1006	N220	16.0	<None>	64.6	0.00	165.3	(N/A)
1032	N225	16.5	<None>	64.4	0.00	165.3	(N/A)
1029	N230	15.5	<None>	64.8	0.00	165.3	(N/A)
1026	N235	15.5	<None>	64.8	0.00	165.3	(N/A)
897	N237	15.5	<None>	64.8	0.00	165.3	(N/A)
1010	N240	15.5	<None>	64.8	0.00	165.3	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
1023	N245	15.5	<None>	64.8	0.00	165.3	(N/A)
1019	N250	15.5	<None>	64.8	0.00	165.3	(N/A)
104	N260	15.5	Zone	64.8	0.00	165.3	(N/A)
1016	N265	15.5	<None>	64.8	0.00	165.3	(N/A)
1013	N270	15.5	<None>	64.8	0.00	165.3	(N/A)
158	S7	10.3	Zone	69.2	761.60	170.2	(N/A)
159	S8	14.5	Zone	67.4	2.15	170.2	(N/A)
155	S10	11.1	Zone	71.9	1.04	177.2	(N/A)
926	S15	9.0	<None>	72.0	0.00	175.4	(N/A)
153	S20	13.5	Zone	69.4	5.86	173.9	(N/A)
916	S21	6.7	<None>	72.3	0.00	173.8	(N/A)
919	S22	6.8	<None>	72.3	0.00	173.8	(N/A)
151	S23	6.1	Zone	72.6	1.33	173.8	(N/A)
923	S25	10.1	<None>	70.9	0.00	173.9	(N/A)
160	S30	7.0	Zone	72.1	0.00	173.6	(N/A)
149	S35	6.0	Zone	72.5	5.91	173.6	(N/A)
929	S40	7.2	<None>	72.1	0.00	173.9	(N/A)
204	S45	10.0	Zone	70.6	0.00	173.2	(N/A)
208	S50	10.0	Zone	70.6	0.49	173.2	(N/A)
205	S52	11.0	Zone	73.1	0.00	180.0	(N/A)
942	S55	10.3	<None>	73.4	0.00	180.0	(N/A)
144	S60	47.0	Zone	54.5	4.30	173.0	(N/A)
945	S65	7.0	<None>	72.0	0.00	173.3	(N/A)
936	S70	23.0	<None>	64.9	0.00	173.1	(N/A)
933	S72	17.7	Zone	67.2	0.00	173.1	(N/A)
142	S75	33.0	Zone	60.6	0.83	173.0	(N/A)
135	S80	8.0	Zone	71.4	15.17	173.0	(N/A)
136	S85	7.0	Zone	71.8	4.47	173.0	(N/A)
939	S90	16.2	<None>	67.9	0.00	173.0	(N/A)
138	S95	50.0	Zone	53.2	3.97	173.0	(N/A)
134	S100	8.0	Zone	71.4	4.65	173.0	(N/A)
139	S105	55.0	Zone	51.1	1.30	173.0	(N/A)
140	S110	10.0	Zone	70.5	13.68	173.0	(N/A)
128	S115	10.0	Zone	70.5	1.82	173.0	(N/A)
824	S117	0.0	<None>	74.9	2.33	173.0	(N/A)
457	S120	7.0	Zone	71.8	0.82	173.0	(N/A)
127	S130	48.5	Zone	53.9	1.36	173.0	(N/A)
125	S135	8.0	Zone	71.4	2.49	173.0	(N/A)
183	S136	10.0	Zone	70.5	0.00	173.0	(N/A)
124	S137	9.0	Zone	71.0	5.23	173.0	(N/A)
123	S140	8.0	Zone	71.4	6.58	173.0	(N/A)
954	S145	8.0	<None>	71.4	0.00	173.0	(N/A)
121	S150	10.3	Zone	70.4	5.34	173.0	(N/A)
161	S155	10.0	Zone	70.5	1.64	173.0	(N/A)
951	S160	12.8	<None>	69.3	0.00	173.0	(N/A)

FlexTable: Junction Table

Active Scenario: BASE-PHD

FlexTable: Junction Table

ID	Label	Elevation (ft)	Zone	Pressure (psi)	Demand (gpm)	Hydraulic Grade (ft)	Fire Flow (Available) (gpm)
122	S165	8.0	Zone	71.4	4.10	173.0	(N/A)
657	S170	92.2	<None>	35.0	2.73	173.0	(N/A)
948	S175	57.5	<None>	50.0	0.00	173.0	(N/A)
1047	SB2	13.5	<None>	73.1	0.00	182.5	(N/A)
760	SB3	10.4	<None>	70.7	1.45	173.8	(N/A)
1050	SB4	15.5	<None>	66.9	0.00	170.3	(N/A)
1053	SB5	15.5	<None>	66.6	0.00	169.4	(N/A)

APPENDIX D – RATE STUDY

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TOWN OF LA CONNER
UTILITY RATE STUDY SUMMARY
Final Recommendations 2009

EXECUTIVE SUMMARY

Katy Isaksen & Associates was contracted to complete a rate study for the water and sewer utilities, including sewer compost. The goal was to develop a balanced six-year plan to include operating expenses, debt repayment, capital improvements and reserves for 2009-2014 along with the rates necessary to fund the program.

KI&A presented a draft outlook in November, 2008 that indicated revenue was not sufficient to meet the expenses. The rate study committee worked hard to refine assumptions and capital improvement plans to be reasonably conservative and result in a balanced six-year rate outlook, focusing on 2009 & 2010. On March 24, 2009, the recommendations were presented to the Council.

Rate Study Recommendations:

- **Long Term Outlook**
- **Stable Rates Over Time**
- **Sustainable Plan**
- **Reasonably Conservative Assumptions**
- **Revenue & Expenditures Are Balanced**
- **Maintain Reserves For Known Future Large Project**
- **Debt Paid By Rates Each Year**
- **Focus On 2009 & 2010, Review For 2011 Anacortes Rate**

The Town has a long-term contract for the City of Anacortes to supply water to meet the Town's needs. The price is adjusted every three years with the next adjustment for 2011. The recommended monthly rates at this time are focused on 2009 & 2010 to be reviewed when the Anacortes adjustment is known during fall 2010.

Recommended Monthly Rates

Recommended Monthly Rates	Existing	2009	2010
WATER			
Base (for ¾" Meter)		16.34	17.84
Volume (per 100 cf)		2.32	2.53
Average Single Family* - WATER	**$ 27.48**	**$ 30.26**	**$ 33.04**
SEWER			
Base		14.20	15.45
Volume (per 100 cf)		3.87	4.21
High Strength Volume (per 100cf)		5.16	5.60
Average Single Family* - SEWER	**$ 34.13**	**$ 37.42**	**$ 40.72**
TOTAL WATER + SEWER	**$ 61.61**	**$ 67.68**	**$ 73.76**
Monthly Increase		$ 6.07	$ 6.08

**Average Single Family uses 600 cubic feet (cf) of water per month.*

Water

In addition to changes in the Water base and volume rates, two other recommendations were provided to phase in adjustment of larger meter sizes to become more equitable. First, to adjust the base rates with a multiplier that represents the comparison to a 3/4-inch typical residential meter. Second, to begin reducing the water allowance for larger meter sizes and continue reducing over several years to increase

the equity among meter sizes. Both of these adjustments should continue to be phased in over the next several years to increase equity.

Other Adjustments to Water for 2009 & 2010:		
1. Adjust Larger Meter Multiplier to 3/4" Meter		
2. Begin Reducing Allowance for Larger Meters		
Meter Size	Multiplier	Allowance (cf)
1"	2.0	500
1.5:	3.0	1200
2"	4.0	1800
3"	6.0	2600
4" (no customers)	25.0	0
6"	by negotiation	

The Town also provides water to the Shelter Bay community according to the terms of a contract. The rates are to be adjusted annually based on the change in the consumer price index and to be further adjusted when the Anacortes rates change every three years.

Sewer

In addition to the recommended changes in the base, volume and high-strength volume rates the sewer program is supported by the sewer compost program. Should the sewer compost program change in a significant manner and result in less revenue, the sewer rates could ultimately be affected.

The Town provides wastewater treatment and disposal services to the Swinomish Tribe per contract. This was not reviewed as part of the rate study.

Sewer Compost

The sewer and sewer compost programs have recently been split into two separate funds for accounting. The sewer compost program supports the sewer program by paying $170,000 per year for sewer service. Should the sewer compost program change significantly and result in reduced revenue, the sewer rates may be affected and require additional adjustment. The sewer compost fees and charges are market-based and were not reviewed as part of this rate study.

Target Minimum Fund Balances

The target minimum fund balance for water and sewer include 20% of operating expense. Water includes an additional $225,000 set aside for the local match on the large capital project to replace a 12" transmission main. Sewer Compost includes six-months of operating expense to provide time for the sewer program to adjust should it be necessary.

Next Planned Update

The next planned update is scheduled for the latter part of 2010 when the new Anacortes rates are known. Of course, the Town will review annually during the budget process to ensure the outlook remains reasonable.

BACKGROUND

The Town of La Conner had been adjusting utility rates annually based on the change in the Consumer Price Index (CPI) for a number of years. This allowed the utility rates to keep up with inflation-based cost increases but did not address additional cost increases in recent years due to the dramatic change in fuel costs. From another perspective, some wondered whether the Town was setting its utility budget to meet the revenue anticipated instead of setting the budget according to prioritized need. The Town was also updating the Water System Plan and anticipated a list of capital improvements that would need to be prioritized and funded.

Katy Isaksen & Associates was contracted to complete a utility rate study for water, sewer and sewer compost. The goal was to develop a balanced six-year plan to include operating expenses, debt repayment, capital improvements and reserves for 2009-2014 along with the rates necessary to fund the program.

During the fall of 2008, the rate study committee met several times and Ms. Isaksen developed a draft six-year outlook based on the budget, past and anticipated expenditures, capital improvements and conservative assumptions. The revenue was clearly not sufficient to meet the needs in water or sewer and sewer compost had a surplus. A draft summary report was presented to the Town Council in November 2008 to help the Council understand the outlook.

The level of rate differential was not acceptable and a number of policy alternatives were discussed to provide input in adjusting the assumptions. The rate study committee continued to meet, refine assumptions and adjust the capital program to result in a reasonably conservative outlook for the utilities. The final recommendations were presented to the Town Council at its March 24, 2009 meeting.

This report summarizes the key assumptions included in the rate outlook and is provided as a reference for Town staff to carry out the plan and adjust as necessary.

RATE STUDY METHODOLOGY

The rate model was developed to estimate future revenues and expenditures based on the 2008 budget, actual experience, known differences and key assumptions. A six-year projection of revenue and expenditures was made and a revenue sufficiency test was applied to determine whether revenue and expenses were in balance. The bottom line is either an increase or use of reserves for each year in the study period. On an annual basis, any surplus revenue goes to increase reserves and any deficiency is covered by using reserves.

UTILITY REVENUE SUFFICIENCY
Operating Revenue
- Operating Expense
= Net Operating Income
+ Transfer in from Cumulative Reserve
- Capital Outlay
= Annual Increase/(Use) of Reserves

Using reserves on an annual basis is not a sustainable utility practice. This would be the same as paying your monthly bills from your savings account. Once it has been depleted, there is no more to spend. Certainly this may happen from time to time to accomplish capital improvements after reserves have been built up over a period of years but this practice is limited to the cash in reserve.

In developing the rate outlook, care is taken to match ongoing revenue sources (i.e. operating revenue) with ongoing expenditures (i.e. operating expense) to ensure that each utility will be able to support itself on an annual basis. The primary sources of ongoing operating revenue in each utility are the service charges.

If revenue is not sufficient to meet planned needs, the utility has several options to consider: reduce expenses, review assumptions to be not as conservative, borrow for capital projects or delay, reduce reserves or increase rates.

The Town Council is required to adopt a balanced budget each year. The budget specifies revenue, expenditures and transfers. With a budget, the expenditures are constrained by the anticipated revenue. The rate study asks what is necessary to best manage the system for this year and into the future, and then determines what the impact on rates would be to achieve such a scenario. It is then the responsibility of the Town Council to adopt the rates they determine to be best.

UTILITY OPERATING FUNDS

The Town has established an operating fund for each utility. Revenue and expenditures are accounted for in the following funds:

- Fund 401 Water
- Fund 409 Sewer
- Fund 412 Sewer Compost

Reserves are held in the operating fund balances to provide for cash flow. In addition, the reserves for future capital or replacement are typically transferred to the Cumulative Reserve Fund 301 and identified as water or sewer.

The sewer compost operations with market-based rates has been supporting the sewer program and helping to keep sewer rates low. In order to provide time to adjust should market forces change, the compost fund maintains at least 6-months of operating expense in the fund balance. Water and sewer each maintain 2-months of operating expense in the minimum fund balance. These target minimum fund balances were set as part of the rate study process. In addition, water maintains a set aside of $225,000 in the fund balance to provide the local match for a costly replacement project of approximately $4.5 million in 2015.

There is no existing debt outstanding for the water, sewer or sewer compost.

SUMMARY OUTLOOK BY UTILITY

The full six-year outlook is included at the end of this report. This section describes the elements and focuses on the outlook and rate recommendations for 2009 and 2010.

Operating Revenue – The primary source of operating revenue is from service charges. Other sources include penalties, temporary hydrant sales, permit and plan checking or engineering fees, investment interest, sale of assets and other miscellaneous revenue.

Operating Expense – Operations, maintenance, administration and debt repayment are included in the Operating Expense portion of the rate model. Capital improvements are separated in the rate model.

Net Operating Income – The model subtracts the operating expense from the operating revenue to indicate the Net Operating Income in each year. A healthy utility will have a positive net operating income (bring in more money than it spends) each year. This is used to invest in capital improvements and replacement, or set into reserves for future capital replacement.

Available For Capital Outlay – This line includes the Net Operating Income and any other capital-related funding source planned to support capital outlay. A transfer in from Cumulative Reserve is the other key element in funding capital outlay. The model may vary from the Town's budget for transfers from cumulative reserve in order to tie the funding source with the planned capital expenditure.

Capital Outlay – The capital expenditures include ongoing capital outlay, capital improvements identified in the comprehensive plans and anticipated set-asides for capital replacement that may not yet be specifically identified. It is important to fund a certain level of ongoing capital replacement to ensure that

reserves are built up to avoid emergencies and reduce the need for borrowing (detail in 6-Year CIP Section).

Annual Increase/(Use) Of Reserves – This is essentially the bottom line for each utility in the rate model, either the Town is adding to, or using, reserves at the end of each year. In a perfect world, this number would be zero and all of the needs would be specifically identified prior to this bottom line. The goal is to avoid negative numbers whenever possible in this line.

Additional Revenue from Rate Adjustments – This line provides an estimate of the additional revenue that is anticipated to be generated from the recommended rate adjustments. The calculation assumes the new rates are in place for 12-months each year.

Revised Increase/(Use) of Reserves – This is the revised bottom line after considering rate adjustments.

Estimated Ending Balance This Scenario – This line provides an estimate of the anticipated ending balance in the operating fund of each utility. In an effort to keep rate increases down, the estimated ending balance is compared to the target minimum balance described below.

Target Minimum Balance – The water, sewer and sewer compost operating funds all carry a fund balance. A target minimum fund balance is determined and tested in the rate model to ensure each utility remains healthy. The target minimum fund balance for water and sewer include 20% of operating expense. Water includes an additional $225,000 set aside for the local match on the large capital project to replace a 12" transmission main. Sewer Compost includes six-months of operating expense to provide time for the sewer program to adjust should it be necessary.

Average Single Family per Month – The average single family customer in La Conner uses 600 cubic feet of water per month. This line indicates what this customer would pay per month.

Water

The Net Operating Income for Water remains positive through 2009 and is anticipated to be negative in 2010. After adding capital outlay activity, the Annual Increase or Use of Reserves shows that additional revenue or reserves will be required for 2009 and 2010 ($48,714 and $148,172 respectively).

WATER SUMMARY OUTLOOK	Est. 2008	Base Yr 2009	Projected 2010
Operating Revenue	453,472	431,291	431,786
Operating Expense	438,400	425,442	441,139
Net Operating Income	15,072	5,849	(9,353)
Available for Capital Outlay	70,135	32,786	(9,353)
Capital Outlay	73,033	81,500	138,819
Annual Increase/(Use) of Reserves	*(2,898)*	*(48,714)*	*(148,172)*
Add'l Revenue from Rate Adjustments	0	66,138	116,595
Revised Increase/(Use) of Reserves	*(2,898)*	*17,424*	*(31,577)*
Est. Ending Balance This Scenario	**348,381**	**365,806**	**334,229**
Target Minimum Balance		310,000	313,000
Test End Bal. to Target Min.		Ok	Ok
Average Single Family / Month	**$27.48**	**$30.26**	**$33.04**

The additional revenue from rate adjustments includes estimated revenue from Shelter Bay, adjustment for the base factors and beginning to eliminate allowances on larger meter sizes, and the recommended rate increases. While the revised increase or use of reserves after rate adjustment is negative at ($31,577) in 2010, the Ending Balance remains above the target minimum and meets the test.

The largest water expense is the cost of purchased water from Anacortes. The purchase rates are adjusted every three years with the current agreement in place for 2008-2010. The Anacortes rates include both a fixed and variable component along with a capital element based on the capital improvements planned by Anacortes that contractual customers participate in funding. Because this element is estimated in the model with a 12% anticipated increase in 2011, it is recommended that the rate outlook be updated when the Anacortes rates are known. This will avoid either charging too much or too little and is a good timeframe for planning rates.

The Town also has a contract with Shelter Bay to provide water from Anacortes. This is a separate agreement that allows the capital charges from Anacortes to be passed on and the operating rates to be adjusted annually to keep up with inflation. As the Water System Plan has identified capital improvements that Shelter Bay should contribute to, it would be good to begin discussions with Shelter Bay.

Sewer

The sewer operating expenses are exceeding operating revenue, thus the sewer utility is not currently self-sufficient. The Town recently split the sewer and sewer compost operations into separate funds. Beginning 2009, the sewer revenue includes sewer service charges of $170,000 from sewer compost. This results in a positive net operating income for 2009.

SEWER SUMMARY OUTLOOK	Est. 2008	Base Yr 2009	Projected 2010
Total Sewer Operating Revenue	385,332	524,507	525,121
Sewer Operating Expenses	441,011	508,780	546,160
Net Operating Income	(55,679)	15,727	(21,039)
Available for Capital Outlay	60,252	150,727	(21,039)
Capital Outlay	43,480	185,000	30,000
Annual Increase/(Use) of Reserves	*16,772*	*(34,273)*	*(51,039)*
Add'l Revenue from Rate Adjustments	0	34,238	67,861
Revised Increase/(Use) of Reserves	16,772	(36)	16,821
Est. Ending Balance This Scenario	**105,175**	**105,140**	**121,961**
Target Minimum Balance		101,756	109,232
Test End Bal. to Target Min.		ok	ok
Average Single Family / Month	**$34.13**	**$37.42**	**$40.72**

After adding the capital activity, it is anticipated that the sewer utility will be short an estimated $34,273 in 2009 and $51,039 in 2010. The rate adjustment was calculated to bring this positive by 2010. The sewer rates should also be reviewed in late 2010 along with water to ensure a healthy utility. If the compost activities were to generate less revenue, the sewer rates could be affected.

The Town provides wastewater treatment and disposal services to the Swinomish Tribe per contract. This was assumed to continue per contract and was not reviewed as part of the rate study.

Combined Water + Sewer Impact on Average Single Family

Average Single Family / Month using 600 cubic feet per month	2008	2009	2010
Water	**$27.48**	**$30.26**	**$33.04**
Sewer	**$34.13**	**$37.42**	**$40.72**
Combined Water + Sewer	**$61.61**	**$67.69**	**$73.76**
Increase in Avg. Sing Fam / Mo.		*$ 6.07*	*$ 6.07*

The average single family customer will see an increase of $6.07 per month for water and sewer.

Sewer Compost

The sewer compost fees are market-based and were not reviewed with the rate study. The summary indicates that the sewer compost operation is generating a surplus. In the past, this has been used to keep the sewer rates low. Now that the two operations are separately accounted for, the Town anticipates charging the compost operation for sewer service. The base summary includes a $170,000 annual charge that shows as revenue in the sewer fund.

SEWER COMPOST SUMMARY OUTLOOK	2008	2009	2010
Operating Revenue	458,776	451,900	451,900
Operating Expense	87,476	294,730	311,613
Net Operating Income	371,301	157,170	140,287
Capital Outlay	33,763	133,000	172,000
Annual Increase/(Use) of Reserves	*337,538*	*24,170*	*(31,713)*
One-time transfers from Compost Fund		*(520,000)*	
Estimated Ending Balance	**859,263**	**363,433**	**331,720**
Target Minimum Balance	43,738	147,365	155,806
Test End Bal. to Target Min.	ok	ok	ok

A one-time transfer is anticipated from the Compost fund for $520,000 ($350,000 to police services and $170,000 to sewer service). The estimated ending balance is well above the target minimum however the reserves are contributing $31,713 to the capital outlay planned in 2010. As the outlook is expanded in the future, this situation should be monitored to ensure that the compost operation remains healthy and not living on reserves. The target ending balance is set at 6-months of operating expense to provide a buffer should the market conditions change. Such a change also has the potential to negatively affect the sewer rates so it should be reviewed annually during the budget process.

SIX-YEAR CAPITAL IMPROVEMENT PROGRAM (CIP)

The planned six-year capital improvements and funding sources are detailed for each utility in this section. These were included in the summary outlook above as capital outlay.

Water

The six-year water capital improvements will be funded by rates, reserves or debt. Projects C, D, E and F are assumed to be funded with a Public Works Trust Fund (PWTF) loan to be repaid over 20 years. The other projects are assumed to be funded by rates or cumulative reserve.

WATER 6-YEAR CIP	2009	2010	2011	2012	2013	2014
A. Trans Isolation Valves	10,000					
B. 4th St No Replacement						62,607
C. 2nd St So Main Extension		171,356				
D. 2nd St Main Extension		72,858				
E. 4th St So Replacement			236,932			
F. 3rd St No Upsizing				252,350		
G. 1st St So Replacement					341,700	
H. Rainier St Replacement						81,415
Total 6-Year CIP	**$10,000**	**$244,214**	**$236,932**	**$252,350**	**$341,700**	**$144,022**
CIP Funding Source	*Rates/ Reserve*	*PWTF Loan*	*PWTF Loan*	*PWTF Loan*	*Rates/ Reserve*	*Rates/ Reserve*

The rate model includes the anticipated local match of $36,675 (5%) in 2010 and annual debt for the PWTF loan of $50,611 beginning 2012. In addition, the average annual set aside of $97,144 to cumulative reserves to fund projects A, B, G and H. Just beyond the six-year CIP, a $4.5 Million 12"

transmission main replacement project is scheduled for 2015. The current water fund balance includes $225,000 for the local match required for a second PWTF loan.

It should be noted that the State legislature as a result of the economic downturn put the PWTF program on hold for two years. There was no PWTF construction application cycle in May 2009. It is anticipated that the next round of construction applications will be in May 2010. Attention should be paid to the process at the beginning of 2010 to determine the possibilities. In the meantime, funds collected through rates and identified to fund capital improvements may be transferred to the cumulative reserve while waiting to proceed. The Town will manage the CIP projects based on the funding available and prioritized need.

The legislature did provide a new Rural Counties Grant Program to promote the creation of jobs. The PWTF staff is developing the process with application anticipated out in August 2009 and due in early September 2009. This is a one-time program with a total of $9.5 Million.

Sewer

The 2009 sewer capital improvements are funded by rates and reserves. Future improvements will be reviewed and determined as the identified projects are completed. An annual set aside for future capital improvements is included to ensure that funds are available within the sewer utility to fund replacement projects.

SEWER 6-YEAR CIP	2009	2010	2011	2012	2013	2014
Marina Lift Station	95,000	-	-	-	-	-
Digester 1 Aeration	30,000	-	-	-	-	-
Washdown Water Improvements	20,000	-	-	-	-	-
Biosolids Dewatering	40,000	-	-	-	-	-
Future Capital Improvements	-	30,000	30,000	30,000	30,000	30,000
Total Sewer CIP	**$185,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**	**$30,000**
CIP Funding Source	*Rates/ Reserve*	*Rates/ Reserve*	*Rates/ Reserve*	*Rates/ Reserve*	*Rates/ Reserve*	*Rates/ Reserve*

An annual set aside of $30,000 will be used for improvements or moved to cumulative reserves each year. This annual amount will continue to be reviewed to ensure that sufficient funding is available in the future.

Sewer Compost

The sewer compost improvements have been identified through 2011 and are intended to be funded by sewer compost fees or reserves. Specific replacement projects are not anticipated beyond 2011, so an annual set aside has been included.

SEWER COMPOST 6-YR CIP	2009	2010	2011	2012	2013	2014
Improvements-Buildings	8,000	8,000	8,000	8,000	8,000	8,000
Machinery/Equip-Sewer Compost	15,000	15,000	15,000	15,000	15,000	15,000
Digester 1 Aeration	30,000	-	-	-	-	-
Biosolids Dewatering (Ph 1)	80,000	-	-	-	-	-
Biosolids Dewatering (Ph 2)	-	100,000	-	-	-	-
Compost Cover	-	49,000	-	-	-	-
Septage Receiving	-	-	185,000	-	-	-
Future Capital Improvements	-	-	-	80,000	80,000	80,000
Total Sewer Compost CIP	**$133,000**	**$172,000**	**$208,000**	**$103,000**	**$103,000**	**$103,000**
CIP Funding Source	*Compost Fees*	*Compost Fees*	*Compost Fees*	*Compost Fees*	*Compost Fees*	*Compost Fees*

In addition to the specific CIP projects, the following annual capital programs will be funded with compost fee revenue: improvements to buildings at $8,000, machinery and equipment replacement at $15,000, and future capital improvement set aside of $80,000 beginning 2012.

OTHER RATE ISSUES

Water Rate Structure – The water rates include a base rate that increases by meter size and a volume charge on water usage in excess of an allowance. The allowance increases as the meter size increases. The majority of meters are ¾" and do not include any allowance. While this increasing allowance sounds fair, it essentially equalizes all rates so the customers are paying the same regardless of meter size. Because larger meter sizes demand more water instantaneously, the larger meters should pay more than the smaller meters that demand less just to turn on the tap. Removing the allowance will increase the equity in the water rates.

In addition to the water allowances, the base rates were reviewed in comparison to the typical ¾" meter. The factor (base rate per meter size divided by base rate for ¾" meter) was calculated. A target was established and the first step in moving toward equity has been included in the recommended 2009 rates as shown below.

Water Rates	2009 factor to 3/4" meter	Target factor to 3/4" meter	2009 Allowance incl in Base	Target Allowance incl in Base
3/4" Meter	1.00	1.00	0	0
1" Meter	2.00	2.00	500	0
1-1/2" Meter	3.00	3.00	1,200	0
2" Meter	4.00	5.00	1,800	0
3" Meter	6.00	12.00	2,600	0
4" Meter (no customers)	25.00	25.00	0	0
6" Meter	negotiate	Negotiate	negotiate	negotiate
			cubic feet	cubic feet

The Town should continue to move toward the targets as the opportunity arises. The goal is to remove all allowances, other than those included in specific contracts, and to adjust the base rates in relation to the ¾" typical single family meter in La Conner. Because these adjustments will affect the customers in addition to any general rate adjustments, care should be taken to phase in the equity. One opportunity would be to adjust for equity during the Non-Anacortes change years by say 10-15% per year.

There are water customers outside of Town that receive water service. The rates are the same as the in-town customers, however the outside of Town customers are responsible for the cost of keeping their system up to code and any replacements that may be necessary. This has been implemented through the use of surcharges for the appropriate customers when the Town has made the improvements.

Agricultural Rates – The Town provides water for certain agricultural uses through temporary meters. Discussions about this type of use resulted in the idea of contacting Anacortes to look into direct wheeling of water specific to the agricultural uses instead of using temporary meters from La Conner's supply. This may be more direct and could result in lower costs but would be up to the agricultural community to pursue with Anacortes.

Sewer Rate Structure – The sewer rates include a base rate per customer plus a volume rate on either normal strength or high strength waste discharged to the system. This is an equitable system that is clear and makes sense. No additional adjustments are recommended at this time.

Sewer Compost Fees – The sewer compost fees are market-based and were not reviewed in this rate study.

Connection Charges - The Town anticipates new connections equivalent to three new single family homes per year. The connection charges are low for the area and should be further reviewed. The Town's investment into each system should be determined and will require research.

COMPARISON TO OTHER JURISDICTIONS

While it is always nice to see how your rates compare to other jurisdictions, it is important to remember that each system must be self-sufficient in the short- and long-term. Single family customers in La Conner average 600 cubic feet of water per month. The rates for this average single family customer are compared in the following table that was prepared in November 2008.

Single Family Monthly Rates @ 600 cf/Mo			
SFR 600 cf	**Water**	**Sewer**	**Water + Sewer**
Concrete	$20.80	$79.87	$100.67
Sedro-Woolley*	$30.35	$48.50	$78.85
Langley	$37.16	$35.36	$72.52
LaConner Recommended	**$30.26**	**$37.42**	**$67.68**
Burlington*	$30.35	$31.65	$62.00
LaConner	**$27.48**	**$34.13**	**$61.61**
Anacortes	$10.04	$41.29	$51.33
*Skagit PUD	$30.35		$30.35

**Skagit PUD provides water service to Burlington & Sedro-Woolley.*

The recommended combined rate in La Conner for water and sewer is $67.68 per month for the average single family customer. While this is an increase, La Conner's relative position does not change much with some rates higher and some lower around Skagit County cities. It is interesting to note that population alone does not dictate the higher or lower rates. The 2007 population in Concrete was very similar to La Conner and yet their sewer rates are more than double.

The connection charges were also compared for the same Skagit County communities. The connection fees for single family include the capital buy-in for the general system. They do not include permit fees, installation, inspection or local facilities required to serve the property. La Conner has the lowest combined water and sewer connection fees as show in the following table.

Single Family Connection Fees			
	Water	**Sewer**	**Water + Sewer**
Langley	$9,932	$5,191	$15,123
Sedro-Woolley*	$2,340	$8,926	$11,266
Anacortes	$2,827	$6,675	$9,502
Concrete	$6,303	$2,655	$8,958
Burlington*	$2,340	$3,754	$6,094
LaConner	**$1,010**	**$2,432**	**$3,442**
*Skagit PUD	$2,340		$2,340

**Skagit PUD provides water service to Burlington & Sedro-Woolley.*

FULL SCENARIOS TO FOLLOW:

- Final Scenarios (pages 11-14)
- Detailed Operating Revenue & Expense (pages 15+)

Town of La Conner Utility Rate Study	KI EST. 2008	PRE BDGT 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	3/24/2009 Comments
WATER - PREFERRED SCENARIO: MEET OPERATIONS + CIP WITH DEBT & RATES								3/24/2009
Water Operating Revenue								
Water Sales	422,687	423,181	423,676	424,171	424,665	425,160	425,655	avg. sing fam = $27.48 (600cf)
Other Water Revenue	30,785	8,110	8,110	8,110	8,110	8,110	8,110	
Total Water Operating Revenue	**453,472**	**431,291**	**431,786**	**432,281**	**432,775**	**433,270**	**433,765**	
Water Operating Expenses	**438,400**	**425,442**	**441,139**	**475,689**	**496,555**	**518,666**	**562,434**	
Net Operating Income	**15,072**	**5,849**	(9,353)	(43,408)	(63,780)	(85,396)	(128,670)	
Percent of Water Sales	*n/a*	*n/a*	*2%*	*10%*	*15%*	*20%*	*30%*	*Cumulative %*
Transfer In from Cum. Reserve	55,063	26,937	-	-	-	-	-	09=Remain 2nd St. (82-55)
Total Revenue for Capital Outlay	**70,135**	**32,786**	(9,353)	(43,408)	(63,780)	(85,396)	(128,670)	
Computer Hardware/Software	3,388	-	-	-	-	-	-	
2nd St - Morris to Washington	-	68,000	-	-	-	-	-	
Machinery/Equip-Water	1,147	-	2,000	2,000	2,000	2,000	2,000	
Water - Truck/Snow Plow	-	3,500	3,000	3,000	3,000	3,000	3,000	
Rate-funded CIP	19,814	10,000	97,144	97,144	97,144	97,144	97,144	to Cum. Res. For CIP
New Debt For CIP			36,675	50,611	50,611	50,611	50,611	Local Match in '10, Debt in '11+
Contributions to Cumulative Reserve	48,684							
Total W Capital Outlay	**73,033**	**81,500**	**138,819**	**152,756**	**152,756**	**152,756**	**152,756**	
Rate Structure Adjustments								
Est. Increase - Shelter Bay		19,269	23,351	28,236	33,124	38,015	42,909	Base/Vol by CPI, Cap by Anac.
Add'l Revenue: Adj. Base & Allowance		3,600	7,200	11,700	15,500	15,500	15,500	Adj. lrg meter base & allowance
Total W Rate Adjustment	**0**	**22,869**	**30,551**	**39,936**	**48,624**	**53,515**	**58,409**	
Annual Increase/(Use) of Reserves	*(2,898)*	*(25,844)*	*(117,621)*	*(156,228)*	*(167,911)*	*(184,637)*	*(223,017)*	
Percent of Water Sales	*1%*	*6%*	*28%*	*37%*	*40%*	*43%*	*52%*	*Cumulative %*

Test Alternative Rate Scenario								
Increase in Monthly Base Rate		$1.50	$1.50	$2.25	$0.75	$0.50	$1.50	
Increase in Volume Rate /100 cf		$0.21	$0.21	$0.32	$0.11	$0.07	$0.21	same % as base
Proposed Rate Sched - Base	14.84	16.34	17.84	20.09	20.84	21.34	22.84	
Proposed Rate Sched - Vol /100cf	2.11	2.32	2.53	2.85	2.96	3.03	3.24	
Average Single Family / Month	**$27.48**	**$30.26**	**$33.04**	**$37.21**	**$38.60**	**$39.52**	**$42.30**	**Avg. 600 cf per mo.**
Increase in Avg. Sing Fam / Mo		*$2.78*	*$2.78*	*$4.17*	*$1.39*	*$0.93*	*$2.78*	
Add'l Rate Revenue this Scenario		43,269	86,044	150,205	171,592	185,850	228,625	
Est. Ending Balance This Scenario	***348,381***	***365,806***	***334,229***	***328,207***	***331,888***	***333,101***	***338,709***	
Target Minimum Balance		310,000	313,000	320,000	324,000	329,000	337,000	20% oper exp:85k+ $225k=$310k
Test End Bal. to Target Min.		Ok	ok	ok	ok	ok	ok	incl. 225k local match 12" trans
Cumulative Reserve - Water	110,419	83,482	180,626	277,771	374,915	130,360	83,482	Target Minimum = $50k

SIX-YR WATER CIP	FUNDING	2009	2010	2011	2012	2013	2014	
A. Trans Isolation Valves	R	10,000						
B. 4th St No Replacement	R						62,607	Delay Until 2014
C. 2nd St So Main Extension	DEBT		171,356					PWTF Loan - Apply in 09, $ in 10
D. 2nd St Main Extension	DEBT		72,858					PWTF Loan - Apply in 09, $ in 10
E. 4th St So Replacement	DEBT			236,932				PWTF Loan - Apply in 09, $ in 10
F. 3rd St No Upsizing	DEBT				252,350			PWTF Loan - Apply in 09, $ in 10
G. 1st St So Replacement	R					341,700		
H. Rainier St Replacement	R						81,415	
Total 6-Year CIP	**1,229,218**	**10,000**	**244,214**	**236,932**	**252,350**	**341,700**	**144,022**	
Six-Yr CIP – Delayed Beyond 2014	0	0%						
Six-Yr CIP - Rate Funded	495,722	40%			35k '09 then 5-Yr Avg:		97,144	Add to cum res, use in latter yrs
Six-Yr CIP - Debt Funded	733,496	60%	Local Match at 5% =		36,675	*50,611*	=Average	*Annual Debt PWTF 20-yr, 2%*
	1,229,218							
FUTURE WATER CIP								
I. 12" Transmission Main	DEBT							Est. 2015 = $4,466,870
J. Water Comp Plan	R							Est. 2016/2017 = $60,000

R=Rates/Reserves

Funding for 12" Trans. Main: assume PWTF loan

223,344	*Local Match at 5%***
308,214	*Assume PWTF 20-yr, 2%*

*** Set aside $225k currently in water fund balance for local match when needed*

The Six-Year Water CIP is recommended to be funded with rates, reserves and debt. It is assumed that the four projects (C, D, E, F) totaling approximately $734,000 will be funded with a Public Works Trust Fund (PWTF) loan. The financing plan includes the local match of $36,675 in 2010 and the estimated annual debt repayment of $50,611 each year thereafter. A five-year average of $97,144 will be funded by rates each year for the remainder of the projects. The funds will be added to the cumulative reserve until used in 2013 and 2014 for the 3 remaining projects (B, G, H).

The future water CIP includes the replacement of a 12" transmission main with an estimated cost of approximately $4.5 Million in 2015. The financing plan assumes obtaining a second PWTF loan for this project. The required local match of 5% is approximately $225,000. This amount is already available in the water fund balance and is assumed to be set aside to make the local match in 2015. The remainder 90% will be borrowed, with an estimated annual debt repayment of $308,000 for 20 years at 2% interest.

SEWER		2009	2010	2011	2012	2013	2014	3/24/2009
Sewer Operating Revenue								
Sewer Service Charges		348,337	348,951	349,565	350,179	350,793	351,407	avg. sing fam = $34.11 (600cf)
Compost Sewer Service Charges		170,000	170,000	170,000	170,000	170,000	170,000	sewer service to compost facil
Other Sewer Operating Revenue		6,170	6,170	6,170	6,170	6,170	6,170	
Total Sewer Operating Revenue		**524,507**	**525,121**	**525,735**	**526,349**	**526,963**	**527,577**	
Sewer Operating Expenses		**508,780**	**546,160**	**577,512**	**611,683**	**648,067**	**686,822**	
Net S Operating Income		**15,727**	(21,039)	(51,777)	(85,334)	(121,104)	(159,246)	
Percent of Sewer Sales		*n/a*	*6%*	*15%*	*24%*	*35%*	*45%*	*Cumulative*
Transfer In from Cumulative Reserve		135,000	-	-	-	-	-	
Total S Revenue for Capital Outlay		**150,727**	(21,039)	(51,777)	(85,334)	(121,104)	(159,246)	
Sewer Capital Outlay								
Machinery/Equipment		-	-	-	-	-	-	
Marina Lift Station		95,000	-	-	-	-	-	
Digester 1 Aeration		30,000	-	-	-	-	-	60k total, 50% split w/compost
Washdown Water Improvements		20,000	-	-	-	-	-	
Biosolids Dewatering		40,000	-	-	-	-	-	120k total, 33% split w/compost
Future Capital Improvements		-	30,000	30,000	30,000	30,000	30,000	Set schedule for future
Total S Capital Outlay		**185,000**	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**	
Annual Increase/(Use) of Reserves		*(34,273)*	*(51,039)*	*(81,777)*	*(115,334)*	*(151,104)*	*(189,246)*	
Percent of Sewer Sales		*10%*	*15%*	*23%*	*33%*	*43%*	*54%*	*Cumulative*

Test Alternative Rate Scenario								
Increase in Monthly Base Rate		$1.25	$1.25	$1.00	$1.00	$1.00	$1.50	
Increase in Volume Rate /100 cf		$0.34	$0.34	$0.27	$0.27	$0.27	$0.41	same % as base
Proposed Rate Sched - Base	12.95	14.20	15.45	16.45	17.45	18.45	19.95	
Proposed Rate Sched - Vol /100cf	3.53	3.87	4.21	4.48	4.76	5.03	5.44	
Average Single Family / Month	**$34.13**	**$37.42**	**$40.72**	**$43.35**	**$45.99**	**$48.63**	**$52.58**	**Avg. 600 cf per mo.**
Increase in Avg. Sing Fam / Mo		*$3.29*	*$3.29*	*$2.64*	*$2.64*	*$2.64*	*$3.95*	
Add'l Rate Revenue this Scenario		34,238	67,861	94,760	121,658	148,557	188,905	
Est. Ending Balance This Scenario		***105,140***	***121,961***	***134,943***	***141,267***	***138,720***	***138,379***	
Target Minimum Balance		101,756	109,232	115,502	122,337	129,613	137,364	20% oper exp
Test End Bal. to Target Min.		ok	ok	ok	ok	ok	ok	

COMBINED WATER & SEWER								
Average Single Family / Month	**$61.61**	**$67.69**	**$73.76**	**$80.56**	**$84.58**	**$88.15**	**$94.88**	**Avg. 600 cf per mo.**
Increase in Avg. Sing Fam / Mo.		*$ 6.07*	*$ 6.07*	*$ 6.80*	*$ 4.02*	*$ 3.56*	*$ 6.73*	

SEWER COMPOST	2009	2010	2011	2012	2013	2014	3/24/2009
Total SWR Compost Oper Rev	**451,900**	**451,900**	**451,900**	**451,900**	**451,900**	**451,900**	
Total SWR Compost Oper Exp	**294,730**	**311,613**	**318,354**	**325,896**	**333,847**	**342,232**	Incl. Sewer Service $170k per yr.
Net SWR Compost Operating Income	**157,170**	**140,287**	**133,546**	**126,004**	**118,053**	**109,668**	
S Compost Capital Outlay							
Improvements-Buildings	8,000	8,000	8,000	8,000	8,000	8,000	
Machinery/Equip-Sewer Compost	15,000	15,000	15,000	15,000	15,000	15,000	
Digester 1 Aeration	30,000	-	-	-	-	-	60k total, 50% split w/sewer
Biosolids Dewatering (Ph 1)	80,000	-	-	-	-	-	120k total, 67% split w/sewer
Biosolids Dewatering (Ph 2)	-	100,000	-	-	-	-	
Compost Cover	-	49,000	-	-	-	-	
Septage Receiving	-	-	185,000	-	-	-	
Future Capital Improvements	-	-	-	80,000	80,000	80,000	
Total S Compost Cap Outlay	**133,000**	**172,000**	**208,000**	**103,000**	**103,000**	**103,000**	
Annual Increase/(Use) of Reserves	***24,170***	*(31,713)*	*(74,454)*	***23,004***	***15,053***	***6,668***	

Beginning Compost Fund Balance	*859,263*	*363,433*	*331,720*	*257,267*	*280,271*	*295,324*	
One-time transfer to Sewer Operations	*(170,000)*						
One-time transfer for Police Services	*(350,000)*						
Est. Ending Balance	***363,433***	***331,720***	***257,267***	***280,271***	***295,324***	***301,992***	
Target Minimum Balance	147,365	155,806	159,177	162,948	166,924	171,116	6 months operating expense
Test End Bal. to Target Min.	ok	ok	ok	ok	ok	ok	

CAUTION: THIS SCENARIO RELIES ON COMPOST FUND BALANCE TO MEET CAPITAL IMPROVEMENTS IN YEARS 2010-2011.
IN ADDITION, $170,000 EACH YEAR IS CHARGED TO THE COMPOST FUND TO MAINTAIN LOW SEWER RATES.
ANY REDUCTION IN COMPOST REVENUE OR INCREASES IN COSTS MAY HAVE AN AMPLIFIED EFFECT ON BOTH COMPOST AND SEWER.

DETAILED OPERATING PROJECTIONS

The scenarios on the previous pages present the final scenarios and recommended rates. This section provides the detailed operating revenue and expense from the rate model. Any rate study is a projection of revenue and expenses based on a series of assumptions. Actual experience may be higher or lower but the intent is to apply reasonably conservative assumptions to provide the six-year outlook and allow the utilities to be managed while avoiding drastic impacts on customers.

KEY ASSUMPTIONS	2009	2010	2011	2012	2013	2014	Comments
New Customer ERUs	3	3	3	3	3	3	Assume 6 mos in 1st yr
Annual Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Salary/Benefit Escalation	5.0%	5.0%	5.0%	7.0%	7.0%	7.0%	Same as General
General Cost Escalation	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Fuel/Utilities Cost Escalation	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Water Purchased from Anacortes	0.0%	0.0%	12.0%	0.0%	0.0%	12.0%	contract every 3-yrs: 08, 11, 14

Town of La Conner Utility Rate Study	BUDGET 2008	KI EST. 2008	PreBdgt 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	FINAL VERSION Comments
WATER									FINAL VERSION
Water Operating Revenue - 401			*ki est*						avg. single family=600cf
Water Sales	454,000	422,687	423,181	423,676	424,171	424,665	425,160	425,655	avg. sing fam = $27.48
Water Hydrant Meter -Temp	6,000	19,103	6,000	6,000	6,000	6,000	6,000	6,000	Flat
Water Meter – New Const	0	4,733	1,000	1,000	1,000	1,000	1,000	1,000	Flat
Utility Billing Penalties	300	2,911	300	300	300	300	300	300	Flat
Investment Interest, LGIP	0	1,092	810	810	810	810	810	810	flat,council to set policy
Misc. (reimb,asset sale, misc.)	0	2,945	0	0	0	0	0	0	Flat
Total Water Operating Revenue	**460,300**	**453,472**	**431,291**	**431,786**	**432,281**	**432,775**	**433,270**	**433,765**	
Annual Percent Change	*-4.5%*	*-6.3%*	*-4.9%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*	
Water Operating Expense - 401									
Salaries & Wages	106,600	95,703	105,500	110,775	116,314	124,456	133,168	142,489	by salary/benefit + growth
Overtime/Other Earnings	4,000	2,132	4,000	4,200	4,410	4,719	5,049	5,402	by salary/benefit + growth
FICA	8,200	7,999	8,100	8,505	8,930	9,555	10,224	10,940	by salary/benefit + growth
PERS Retirement	6,600	6,585	8,600	9,030	9,482	10,145	10,855	11,615	by salary/benefit + growth
Medical/Dental	30,000	27,998	30,100	31,605	33,185	35,508	37,994	40,653	by salary/benefit + growth
Labor & Industries	3,000	2,008	3,433	3,605	3,785	4,050	4,333	4,637	by salary/benefit + growth
Unemployment Compensation	1,000	300	350	368	386	413	442	473	by salary/benefit + growth
Office & Operating Supplies	2,500	3,241	2,500	2,625	2,756	2,894	3,039	3,191	by gen'l cost + growth
Fuel	10,000	11,905	12,000	13,200	14,520	15,972	17,569	19,326	by fuel/util + growth

Town of La Conner Utility Rate Study	BUDGET 2008	KI EST. 2008	PreBdgt 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	FINAL VERSION Comments
Purchase of Wholesale Water	120,000	117,838	144,000	144,000	161,280	161,280	161,280	180,634	by water in 11/14+ growth all yrs
Small Tools & Equipment	2,000	379	2,000	2,100	2,205	2,315	2,431	2,553	by gen'l cost + growth
Professional Services	70,000	53,342	10,000	10,500	11,025	11,576	12,155	12,763	by gen'l cost + growth
Audit Fees	1,347	157	1,350	1,418	1,488	1,563	1,641	1,723	by gen'l cost + growth
Communications	4,500	4,340	4,500	4,725	4,961	5,209	5,470	5,743	by gen'l cost + growth
Postage	1,000	1,422	1,100	1,155	1,213	1,273	1,337	1,404	by gen'l cost + growth
Advertising	250	0	250	263	276	289	304	319	by gen'l cost + growth
Insurance	9,500	12,641	10,300	10,815	11,356	11,924	12,520	13,146	by gen'l cost + growth
Public Utility Services	3,700	3,352	3,700	4,070	4,477	4,925	5,417	5,959	by fuel/util + growth
Repair & Maintenance	17,750	25,069	12,000	12,600	13,230	13,892	14,586	15,315	by gen'l cost + growth
Vehicle Repair & Maintenance	3,500	1,092	3,500	4,000	4,500	5,000	5,500	6,000	step up-$500 per year
System Repair & Maintenance	40,000	39,625	34,400	36,900	39,400	41,900	44,400	46,900	step up-$2500 per year
Dues & Subscriptions	2,500	3,022	2,500	2,625	2,756	2,894	3,039	3,191	by gen'l cost + growth
Training & Meetings	1,000	0	1,000	1,050	1,103	1,158	1,216	1,276	by gen'l cost + growth
External Taxes	21,600	18,248	20,259	21,007	22,652	23,645	24,698	26,783	5% x oper expenses
Water Operating Expenses	**470,547**	**438,400**	**425,442**	**441,139**	**475,689**	**496,555**	**518,666**	**562,434**	
Percent Annual Change	*37%*	*12%*	*-3.0%*	*3.7%*	*7.8%*	*4.4%*	*4.5%*	*8.4%*	
Net Operating Income	(10,247)	**15,072**	**5,849**	(9,353)	(43,408)	(63,780)	(85,396)	(128,670)	
Percent of Water Sales	*2%*	*n/a*	*n/a*	*2%*	*10%*	*15%*	*20%*	*30%*	*Cumulative %*

Town of La Conner Utility Rate Study	BUDGET 2008	KI EST. 2008	PreBdgt 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	FINAL VERSION Comments
SEWER									FINAL VERSION
Sewer Operating Revenue - 409									
Side Sewer Permit	350	400	300	300	300	300	300	300	Flat
Sewer Service Charges	373,000	347,723	348,337	348,951	349,565	350,179	350,793	351,407	avg. sing fam = $34.11
Compost Sewer Service Charges			170,000	170,000	170,000	170,000	170,000	170,000	sewer svcs to comp facil
Sewer Svc-Tribe Fair Share Adj	0	20,781	0	0	0	0	0	0	Flat
Plan Checking/Engineering fee	700	12,126	0	0	0	0	0	0	Flat
Investment Interest	4,500	1,379	5,870	5,870	5,870	5,870	5,870	5,870	Flat
Miscellaneous Revenue	0	2,923	0	0	0	0	0	0	Flat
Total Sewer Operating Revenue	**378,550**	**385,332**	**524,507**	**525,121**	**525,735**	**526,349**	**526,963**	**527,577**	
Annual Percent Change	*-0.3%*	*0.7%*	*36.1%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*	
Sewer Operating Expense - 409									
Salaries & Wages	29,000	24,343	24,600	25,830	27,122	29,020	31,051	33,225	by salary/benefit + growth
FICA	2,250	1,985	1,900	1,995	2,095	2,241	2,398	2,566	by salary/benefit + growth
PERS Retirement	1,800	1,637	2,050	2,153	2,260	2,418	2,588	2,769	by salary/benefit + growth
Medical/Dental	8,700	7,667	8,100	8,505	8,930	9,555	10,224	10,940	by salary/benefit + growth
Labor & Industries	220	103	205	215	226	242	259	277	by salary/benefit + growth
Unemployment Compensation	270	75	75	79	83	88	95	101	by salary/benefit + growth
Office & Operating Supplies	4,120	4,878	5,600	5,880	6,174	6,483	6,807	7,147	by gen'l cost + growth
Lab Supplies	6,000	11,651	10,900	11,445	12,017	12,618	13,249	13,911	by gen'l cost + growth
U.V.	4,000	5,763	6,100	6,405	6,725	7,062	7,415	7,785	by gen'l cost + growth
Fuel	3,000	5,906	5,700	6,270	6,897	7,587	8,345	9,180	by fuel/util + growth
Professional Services	88,000	1,049	10,000	10,500	11,025	11,576	12,155	12,763	by gen'l cost + growth
Legal Services	0	0	0	0	0	0	0	0	by gen'l cost + growth
Extra Labor	5,000	0	5,000	5,250	5,513	5,788	6,078	6,381	by gen'l cost + growth
Plant Operator	134,660	122,728	139,000	145,950	153,248	160,910	168,955	177,403	by gen'l cost + growth
Engineering	5,000	21,069	7,000	7,350	7,718	8,103	8,509	8,934	by gen'l cost + growth
Compost Operator	16,121	14,786	16,700	17,535	18,412	19,332	20,299	21,314	by gen'l cost + growth
Audit Fees	1,687	157	1,700	1,785	1,874	1,968	2,066	2,170	by gen'l cost + growth
Pile Grinding	0	0	6,000	6,300	6,615	6,946	7,293	7,658	by gen'l cost + growth
Communications	2,400	2,935	2,400	2,520	2,646	2,778	2,917	3,063	by gen'l cost + growth
Postage	1,000	1,422	1,500	1,575	1,654	1,736	1,823	1,914	by gen'l cost + growth
Advertising	250	0	1,000	1,050	1,103	1,158	1,216	1,276	by gen'l cost + growth
Insurance	6,400	8,439	6,750	7,088	7,442	7,814	8,205	8,615	by gen'l cost + growth
Public Utility Services	64,000	52,039	65,000	71,500	78,650	86,515	95,167	104,683	by fuel/util + growth
Plant Repair & Maintenance	30,000	52,310	55,000	57,750	60,638	63,669	66,853	70,195	by gen'l cost + gro, 10k I&I

Town of La Conner Utility Rate Study	BUDGET 2008	KI EST. 2008	PreBdgt 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	FINAL VERSION Comments
Pipe Repair & Maintenance	40,000	6,365	50,000	52,500	55,125	57,881	60,775	63,814	by gen'l cost + gro, 10k I&I
Biosolids Compost Material/Test	40,000	80,180	62,000	65,100	68,355	71,773	75,361	79,129	by gen'l cost + growth
Dues & Subscriptions	2,500	1,614	2,500	2,625	2,756	2,894	3,039	3,191	by gen'l cost + growth
External Taxes	14,750	11,909	12,000	21,006	22,212	23,526	24,926	26,416	4% x oper expenses
Sewer Operating Expenses	**511,128**	**441,011**	**508,780**	**546,160**	**577,512**	**611,683**	**648,067**	**686,822**	
Percent Annual Change	*16%*	*5%*	*15%*	*7%*	*6%*	*6%*	*6%*	*6%*	
Net S Operating Income	(132,578)	(55,679)	**15,727**	(21,039)	(51,777)	(85,334)	(121,104)	(159,246)	
Percent of Sewer Sales	*36%*	*16%*	*n/a*	*6%*	*15%*	*24%*	*35%*	*45%*	*Cumulative*

Town of La Conner Utility Rate Study	BUDGET 2008	KI EST. 2008	PreBdgt 2009	PROJ. 2010	PROJ. 2011	PROJ. 2012	PROJ. 2013	PROJ. 2014	FINAL VERSION Comments
SEWER COMPOST									FINAL VERSION
S Compost Oper Revenue – 412									
Septage Receivables	379,000	450,936	443,800	443,800	443,800	443,800	443,800	443,800	Flat
Compost Punchcards/Sales	41,500	7,834	8,100	8,100	8,100	8,100	8,100	8,100	Flat
Investment Interest	0	0	0	0	0	0	0	0	Flat
Miscellaneous Revenue	0	7	0	0	0	0	0	0	Flat
Total SWR Compost Oper Rev	**420,500**	**458,776**	**451,900**	**451,900**	**451,900**	**451,900**	**451,900**	**451,900**	
Annual Percent Change	*-1.9%*	*7.0%*	*-1.5%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
S Compost Oper Expense - 412									
Salaries & Wages	13,700	12,243	14,100	14,805	15,545	16,633	17,798	19,044	by salary/benefit + growth
FICA	1,050	943	1,075	1,129	1,185	1,268	1,357	1,452	by salary/benefit + growth
PERS Retirement	850	834	1,180	1,239	1,301	1,392	1,489	1,594	by salary/benefit + growth
Medical/Dental	3,000	3,020	3,750	3,938	4,134	4,424	4,733	5,065	by salary/benefit + growth
Labor & Industries	100	42	100	105	110	118	126	135	by salary/benefit + growth
Unemployment Compensation	150	38	50	53	55	59	63	68	by salary/benefit + growth
Audit Fees	1,050	0	1,100	1,155	1,213	1,273	1,337	1,404	by gen'l cost + growth
Compost Operator	11,448	10,351	12,000	12,600	13,230	13,892	14,586	15,315	by gen'l cost + growth
Septage Operator	44,250	44,083	45,600	47,880	50,274	52,788	55,427	58,198	by gen'l cost + growth
Pile Grinding	12,000	6,667	6,000	6,300	6,615	6,946	7,293	7,658	by gen'l cost + growth
Advertising	0	0	1,000	1,050	1,103	1,158	1,216	1,276	by gen'l cost + growth
Sewer Service			170,000	170,000	170,000	170,000	170,000	170,000	by gen'l cost + growth
Building R & M	18,750	3,571	2,500	2,625	2,756	2,894	3,039	3,191	by gen'l cost + growth
Compost Materials/Testing	20,000	4,535	35,000	36,750	38,588	40,517	42,543	44,670	by gen'l cost + growth
External Taxes	1,000	1,148	1,275	11,985	12,244	12,534	12,840	13,163	4% x oper expenses
Total SWR Compost Oper Exp	**127,348**	**87,476**	**294,730**	**311,613**	**318,354**	**325,896**	**333,847**	**342,232**	
Percent Annual Change	*57%*	*1%*	*237%*	*6%*	*2%*	*2%*	*2%*	*3%*	
Net Compost Operating Income	**293,152**	**371,301**	**157,170**	**140,287**	**133,546**	**126,004**	**118,053**	**109,668**	
Percent of Septage Sales	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	

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APPENDIX E – CCR, PERMIT, AND WUE DOCUMENTATION

Town of La Conner Water Department
Consumer Confidence Report

January 1 - December 31, 2024

Introduction: In 1996, Congress re-authorized the Safe Drinking Water Act (**SDWA**) which requires the EPA to set regulations limiting the amounts of certain contaminants in water provided by public water systems. As a part of this we will be providing you, our customers, with information on a yearly basis regarding the types of testing done and contaminants that were detected during the previous year. The purpose of these reports is to provide consumers with information, which will allow them to make informed choices regarding their drinking water.

Service and Quality: The La Conner Water Department is committed to providing our customers with a safe and reliable supply of high-quality drinking water, along with superior customer service. Together with the Anacortes Water Department and various governmental agencies, we are working to utilize the latest information and technologies to provide you with safe drinking water. In 2024, the Town of La Conner Water Department had no violations of EPA water quality standards.

Sources: The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water moves through the air, over the surface of the land and through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can also pick up substances resulting from the activities of humans and the presence of animals.

Our water comes from a surface water source, originating at the City of Anacortes water treatment plant on the Skagit River near Mount Vernon. The Skagit River basin covers over 3,100 square miles from British Columbia, Canada to Skagit Bay near La Conner. It passes through portions of Skagit, Snohomish, and Whatcom counties, and through dams, forests, farms and several cities and towns with numerous businesses and industries along the way.

The La Conner water system extends from the O'Donnell's restaurant at SR 20, along La Conner-Whitney Rd. to the Town of La Conner, and provides water to the Skagit Beach community as well as wholesale water to Shelter Bay community. Our system has 20.9 miles of piping ranging from 1½-inches to 16 inches in diameter. We have a 1.5-million-gallon reservoir which provides fire protection, pressure balancing and up to 3 days of water supply under normal conditions in the event of a disruption of water from Anacortes.

Contaminants that may be present in source water include:
Microbial contaminants: such as viruses and bacteria from sewage and septic tanks, livestock or wildlife;
Inorganic contaminants: such as salts and metals, that can be naturally occurring or resulting from urban storm- water runoff, industrial or domestic wastewater, petroleum production, mining or farming;
Pesticides and Herbicides: that may come from residential, urban storm-water runoff and agriculture;
Organic chemical contaminants: including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, gas stations, urban storm-water runoff, and septic systems; and
Radioactive contaminants: that can be naturally occurring, or the result of petroleum production or mining activities.

Facts
Drinking water, both bottled and tap may be reasonably expected to contain at least small amounts of some contaminants. **The presence of contaminants does not necessarily indicate that your water poses a health risk.** More information about contaminants and potential health effects can be obtained by calling the EPA's *Safe Drinking Water Act (SDWA)* hotline at 1-800-426-4791 or their website: http://www.epa.gov/safewater/hfacts.html. Additional information can be found at www.doh.gov/ and www.awwa.org/. In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. *The Food & Drug Administration (FDA)* establishes regulations for bottled water. A contaminant is defined as any substance or matter in water. Not all contaminants are harmful and some are of concern only above certain levels. The EPA has established both primary and secondary standards for drinking water.

Total Coliform Bacteria Maximum Contaminant Level (**MCL**) is based on the occurrence of a condition that includes routine and repeat samples. For total **coliforms** (TC), Public Water Systems must conduct a Level 1 or Level 2 assessment of their system when they exceed a specified frequency of total **coliform** occurrences. None of the 24 samples taken in 2024 showed the presence of coliform bacteria. Also, all of the (HPC) Heterotrophic Plate Count test that were taken were within compliance.

Definitions/Abbreviations

ADD: Average Day Demand (gallons/day/ERU)

AL: Action level, the concentrations of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.
DOH: Washington State Department of Health
EPA: Environmental Protection Agency, a federal agency
Finished Water: Treated water entering the distribution system
MCL: Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to MCLG's as feasible using the best available treatment technology.
MCLG: Maximum Contaminant Level Goal, the level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLG's allow for a margin of safety.
MRCL: Maximum Residual Contaminant Level.
MFL: Million Fibers per Liter: Decay of asbestos cement water mains; Erosion of natural deposits. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Microbiological: Potentially harmful microorganisms, which may be naturally occurring or introduced by humans or animals. Cryptosporidium and Giardia are microscopic organisms that when ingested, can cause fever, diarrhea, vomiting, and abdominal pain that can last from a few days to months, with onset of symptoms within 2 to 12 days after exposure. Ingesting the organism in contaminated water or food, person-to-person contact and other exposure routes can transmit the disease. The disease cryptosporidiosis can be fatal to young children, the elderly or immune-compromised individuals.
ppm: Parts per million, the approximate equivalent of one drop in 22 gallons
ppb: Parts per billion, the approximate equivalent of one drop in 22,000 gallons
Primary Standards: Mandatory standards established and enforced by the State of Washington Department of Health and the Environmental Protection Agency. These include maximum contaminant levels, and maximum contaminant level goals, action levels, and treatment techniques.
TT: Treatment technique, a required process intended to reduce the level of a contaminant in drinking water.
HPC: Heterotrophic Plate Count**.**
ML: Million Liters**.**
MPN: Most Probable Number**.**
CFU: Colony-Forming Unit**.**

Questions and Answers

Is our water fluoridated? No, our water does not contain fluoride, the City of Anacortes fluoridates their water at the entrance to their system in Anacortes but La Conner does not.

What treatment is done to our water? Simply put, our water is filtered and chlorinated at the Anacortes Water Treatment Plant and no further treatment is done by La Conner Water Department.

Do I need to boil my water after a temporary water disruption? No, following a disruption of service for repairs you do not need to boil your water. The La Conner Water Department is required to disinfect all pipes and materials used in repairs. In the event of a flood or other major catastrophe, you would be notified by the La Conner Public Works Department of any necessary precautions.

Where can I go for answers?
By telephone:

Regarding this report	Public Works Department	360-466-3933
Billing and/or water leaks/maintenance	Town Hall	360-466-3125

By mail: Town of La Conner PO Box 400 La Conner WA 98257
Water Conservation Hotline: Our water supply in droughts and floods 360-299-1973
Additional information is also available on our website at www.townoflaconner.org and City of Anacortes www.cityofanacortes.org under Public Works, Water Treatment Plant
For more information, or to discuss issues and get involved, the La Conner Town Council meets on the 2nd and 4th Tuesday of each month at 6 PM in Lower Maple Center located on Commercial St.
Este informe contiene información muy importante sobre agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons undergoing chemotherapy, people with transplanted organs, people with AIDS/HIV or other immune system disorders, some elderly and infants can be particularly at risk for infections. These people should seek advice from their health care providers. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4971.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Lead Statement:

If present, elevated levels of lead can cause serious health problems especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Town of La Conner is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead

2024 La Conner Water Quality Data

Compounds Units	MCL	Average Level Detected	Range of Detection	Violations	Date of Sample	Typical Source of Contamination
Chlorine (ppm)	MRDL 4	0.64	0.26-1.13	NONE	2024	NA
Coliform Bacteria	1	0%	0.0	NONE	2024	Environment, Naturally Present
Trihalomethanes (ppb)	80	11.3	11.3	NONE	2024	By-product Chlorination
Halo Acetic Acids (ppb)	60	9.5	9.5	NONE	2024	By-product Chlorination
Asbestos (MFL)	7	ND	ND	NONE	2018	Decay of Asbestos Cement Pipe
Heterotrophic Plate Count	< 500 CFU/ml	1.89	0.2-10.0	NONE	2024	N/A

Compounds and Units	MCL	90th Percentile Level	Homes Exceeding Action Level	Date of Sample
Lead (ppm)	.015	N. D	0 out of 10	2023
Copper (ppm)	1.3	0.08	0 out of 10	2023

**Parts Per Million (ppm) is the same as Milligrams Per Liter (MG/L)*

Water Conservation Goals

La Conner adopted 2 water conservation goals as a result of Washington State's 2007 Water Use Efficiency Rule (WUE Rule). The WUE Rule requires that the Town's goal be re-established at a minimum of every six years, and that progress towards the goal be reported annually to the State and to La Conner's customers.

In 2022, La Conner set two WUE goals:

Goal #1: Maintain unaccounted-for water to less than 10%. Continue all current measures. Formalize sub-goal of keeping annual loss below 8%. Implement administrative review followed by distribution system check.

Goal #2: Reduce residential summer irrigation by 5% by 2028. Promote this by encouraging low water/drought tolerant landscaping and by identifying efficient irrigation measures and equipment. Inform ratepayers through 2 bill inserts (March & June) and by using the Town's website. Review progress after 2 years before considering additional measures.

2024

TOTAL WATER PURCHASED	AUTHORIZED CONSUMPTION	DISTRIBUTION SYSTEM LEAKAGE
116,163,756 gal	113,130,384 gal.	-2.6%

GOAL MET
(Distribution Leakage Standards)

<10%

2024 City of Anacortes Water Quality Data

Compounds and Units	Average Level Detected or Highest Result	Range of Detections	Violations
RAW WATER			
Total Organic Carbon (ppm)	0.61	0.43-0.85	NONE
FINISHED WATER			
Nitrate (ppm)	0.12	N/D-0.12	NONE
Total Coliform Bacteria	Absent	Absent	NONE
Chlorine (ppm)	1.21 AVG	1.13-1.32	NONE
Halo-acetic Acids 5 (ppb)	15.8 AVG	9.0-23.8	NONE
Total Trihalomethanes (ppb)	19.1 AVG	12.3-33.4	NONE
Fluoride (ppm)	N/D	N/D	NONE
Turbidity (NTU)	0.014	0.012-0.021	NONE
Total Organic Carbon (ppm)	0.39	0.28-0.50	NONE
Sodium (ppm)	3.9	3.8-4.0	NONE
Barium (ppm)	0.0120	0.0087-0.0150	NONE

Compounds and Units	90th Percentile Level	Homes Exceeding Action Level	Date of Sample
Lead (ppb)	0.00015	0 out of 32	2019
Copper (ppm)	0.041	0 out of 32	2019

PROTECTING THE PUBLIC HEALTH

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. A contaminant is defined as any substance or matter in water. However, not all contaminants are harmful and some contaminants are of a concern only above certain levels. The EPA has established primary and secondary standards for drinking water. All treatment plant operators are certified as required by Washington State Department of Health (DOH). All of the Wastewater Treatment Plants located above our river intake are regulated and permitted by the Department of Ecology (DOE). The Water Treatment Plant maintains good communication with the upstream Wastewater Treatment Plants to assure timely notification of any potential discharge concerns. Also, the DOE is aware of the need to protect our drinking water Intake Structure and assures this through the secondary standards that are incorporated into the wastewater permits.

Secondary Standards are non-enforceable guidelines that relate to the taste, odor, and appearance of drinking water

TOWN OF LA CONNER

RESOLUTION NO. 601

A RESOLUTION AMENDING THE WATER USE EFFICIENCY GOALS OF THE 2009 COMPREHENSIVE WATER SYSTEM PLAN

WHEREAS, the Washington State Legislature passed the Engrossed Second Substitute House Bill 1338 known as the "Municipal Water Law"; and

WHEREAS, the "Municipal Water Law" establishes that all municipal suppliers must use water more efficiently in exchange for water right certainty; and

WHEREAS, the Washington Administrative Code (WAC) 246-290 includes final rules mandating the development of a water use efficiency (WUE); and

WHEREAS, the La Conner Comprehensive Water System Plan identifies and prioritizes the water use efficiency goals and measures in Chapter 4 of the Comprehensive Water Plan; and

WHEREAS, the Town of La Conner considers it in the best public interest to maintain and implement the Water Use Efficiency Program.

NOW, THEREFORE, BE IT RESOLVED that the Town of La Conner adopts 2009 Water Use Efficiency Goal Setting recommendations below as presented and approved by the Town Engineer, Public Works Director and Planning Director in Chapter 4 of the 2009 Comprehensive Water System Plan. Recommended revised goals are:

Goal 1 – Maintain unaccounted-for water to less than 10%

- Continue all current measures.
- Formalize sub-goal of keeping annual loss below 8%
- Implement administrative review followed by distribution system check.

Goal 2 - Reduce Residential Summer Irrigation by 5% by 2028

- Promote by encouraging low water / drought tolerant landscaping
- Promote by identifying efficient irrigation measures and equipment. Inform ratepayers through 2 (March & June) bill inserts and Town Website
- Review 2 years progress results before considering additional measures.

Add by a vote of the La Conner Town Council this 24th day of May, 2022.

Ramon Hayes, Mayor

ATTEST:

Maria DeGoede, Finance Director

Approved to Form:

Scott Thomas, Town Attorney

Town of La Conner Public Meeting
May 24, 2022 at 6:00 p.m.

Water Use Efficiency Goal Setting

Overview

Water is a critical resource with increasing demand coming from all sectors of society. Encouraging efficient use will increase the availability and affordability for all uses.

Background

- Washington State Department of Health (DOH) requires that the water system must set Water Use Efficiency (WUE) goals through a public process at least every 6 years (WAC 246-290).
- Town's last WUE goal was set through a public process and adopted in May, 2016.
- Town is required to set goal(s) through a public process by May, 2022.
- La Conner purchases all of it's potable water from the City of Anacortes, which withdraws water from the Skagit River

Previous WUE Goals and Results

Town set 2 goals:

Maintain unaccounted-for water to less than 10%

Result: Success, losses have ranged from 5% to 8%

Reduce gpd/ERU by 2% by 2022

Result: Success, Equivalent Residential Units (average household) have reduced their water consumption from 170 GPD to 140 GPD (-18%). Some of the credit is due to the building codes requiring low flow toilets, showerheads, etc.

Potential Goals – Discussion

Repeat Past Goals

Maintain unaccounted-for water to less than 10%

Good candidate, this is an ongoing effort that requires constant attention.

Reduce gpd/ERU by 2% by 2028

Poor candidate, as most of the code level reductions are already in place and the level of demand is moderately low (140 GPD) compared to a typical value of 150 to 160 GPD

New Goals

Reduce Residential Summer Irrigation by 5% by 2028

Measure by comparing winter vs summer period use.

Promote by encouraging low water / drought tolerant landscaping

May be difficult to anticipate or separate the effects of weather patterns on irrigation.
Otherwise good candidate, easily measured, support through informational bill inserts and planning policies.

Promote by establishing a summer surcharge on water use over winter usage baselines.
Although financial disincentives can be effective, they are often deemed less desirable by the rate payers.
Promote by identifying efficient irrigation measures and equipment (ie. Use of timers of irrigation systems) and informing customers via Town website or billing inserts.
Will require staff time to research and prepare information.
Observe and Inform by notifying homeowners of excessive irrigation overspray or runoff into the public Right-Of-Way.
Will require assignment of duty to operations staff and/or code enforcement staff. Development of a form letter notification may be beneficial.

Recommendation

Goal 1 – Maintain unaccounted-for water to less than 10%

- Continue all current measures.

Goal 2 - Reduce Residential Summer Irrigation by 5% by 2028

- Promote by encouraging low water / drought tolerant landscaping
- Promote by identifying efficient irrigation measures and equipment. Inform ratepayers through 2 (March & June) bill inserts and Town Website
- Review 2 years progress results before considering additional measures.

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Operating Permits

Report Create Date: 07/14/2025

WS Id(s): 43350

STATE OF WASHINGTON
Public Water System
Operating Permit

The Department of Health Office of Drinking Water issues a permit to operate:

LA CONNER WATER DEPT (ID# 43350 0)

to owner: LA CONNER, TOWN OF County: SKAGIT

LA CONNER, TOWN OF
PO BOX 400
LA CONNER, WA 98257

This Permit is valid through: 31 May 2026

PERMIT CATEGORY: **** Green ****

The permit category may be modified or the permit revoked subject to water system compliance with applicable State of Washington drinking water rules and regulations and the following statements.

The system operating permit color category is based on information on file with the Department at the time this permit was printed.

System is substantially in compliance with applicable drinking water requirements

Washington State Department of Health

Explanation of Permit Categories

1. **Green** - This category means your system is substantially in compliance with applicable drinking water requirements. Placement in this category indicates the system is adequate for growth up to approved number and existing uses.

2. **Yellow** - This category means your system is substantially in compliance except water system notified to submit water system plan, but has not satisfied planning requirement and/or is under a compliance agreement for a state significant non-complier (SSNC) violation. Placement in this category indicates the system is adequate for growth up to approved number unless otherwise limited by compliance agreement and adequate for existing uses.

3. **Blue** - This category means your system is substantially in compliance except water system does not meet design approval or has exceeded number of approved connections. Placement in this category means the system is adequate for existing uses, but not adequate for growth.

4. **Red** - This category means your system is in substantial non-compliance with applicable drinking water requirements. Placement in this category indicates the system is not adequate for growth or existing uses. **This could result in building permits, on-site sewage disposal permits, food service permits, liquor licenses and other pemits and licenses being denied for properties connected to or to be connected to the water system. In addition, lending institutions may choose not to finance loans associated with these properties.**

If you have questions about your operating permit or wish to formally appeal the permit category through an adjudicative proceeding, contact the appropriate Drinking Water Regional Office;

Northwest Regional Office
Kent
(253) 395-6750

Southwest Regional Office
Tumwater
(360) 236-3030

Eastern Regional Office
Spokane
(509) 329-2100

APPENDIX F – OPERATING PROCEDURES AND OPERATOR CERTIFICATIONS

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Brian W Lease

is hereby certified as a Waterworks Operator in the State of Washington.
This individual has met the established qualifications of the Washington State Department of Health
and has passed the Waterworks Operator Certification exam for this classification.

Classification: **WDM 4 - Water Distribution Manager 4**

Certification Number: **007950**

Deni Gray, Program Manager,
Waterworks Operator Certification Program

March 31, 2017
Date

This certificate shall be in full force and effect when accompanied by an annual validation card.

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

The State of Washington

Department of Health

Certificate of Competency

The Department of Health, Water Works Operator Certification Program for the State of Washington
Hereby Recognizes

BRIAN W. LEASE

as a

Cross Connection Control Specialist 1

and certifies that this individual has met the established qualifications and has passed the above water works operator certification examination.

Witnessed under my hand this 2nd day
of June, 19 99

Cheryl L. Bergener

Cheryl L. Bergener
Water Works Operator Certification Program Manager

CERTIFICATE NO. 7950

This certificate shall be in full force and effect when accompanied by an annual renewal card.

DOH 331-007 (Rev 12/95)

Certificate of Competency

Albert R Sherman

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

WDM 1 - Water Distribution Manager 1

Effective February 10, 2022

Certification Number 015569

Holly Myers
Director, Office of Drinking Water

Deni Gray, Program Manager
Waterworks Operator Certification

This certificate shall be in full force and effective when accompanied by an annual validation card.

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Albert R Sherman

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

CCS - Cross-Connection Control Specialist

Effective February 13, 2023

Certification Number 015569

This certificate shall be in full force and effective when accompanied by an annual validation card.

Holly Myers
Director, Office of Drinking Water

Deni Gates, Program Manager
Waterworks Operator Certification

Washington State Department of HEALTH

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

WASHINGTON STATE CERTIFIED WATERWORKS OPERATOR

Certificate of Competency

Christopher Smith

has met the established qualifications of the Washington State Department of Health,
has passed a Waterworks Operator Certification exam,
and is hereby certified as a:

WDM 1

This certificate shall be in full force and effective only when accompanied by an annual validation card.
This certificate was issued 4/15/2024.
Certification Number 17087

Holly Myers
Director, Office of Drinking Water

Deni Gates, Program Manager
Waterworks Operator Certification

Washington State Department of HEALTH

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

Emergency Response Guide for Town of La Conner Public Drinking Water System

November 2024

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Section 1.
Emergency Response Mission and Goals

Use the mission statement and goals to help focus emergency planning and response.

Emergency response mission and goals

Mission statement for emergency response	In an emergency, the mission of the Town of La Conner water system is to protect the health, property and the environment of our customers by being prepared to respond immediately to a variety of events that may result in contamination of the water or disruption of water supply.
Goal 1	Be able to quickly identify an emergency and initiate timely and effective response actions.
Goal 2	Be able to quickly notify local, state, and federal agencies to assist in the response.
Goal 3	Protect public health by being able to quickly determine if the water is unsafe to drink or use and being able to immediately notify customers effectively of the situation and advise them of appropriate protective action.
Goal 4	To be able to quickly respond and repair damages to minimize system down time.

Section 2.
System Information

Keep this basic information readily available for when you need it for emergency responders, repair people, and the news media.

System information

System identification number	433500	
System name and address	Town of La Conner Public Works 604 North Third St. La Conner WA 98257	
Directions to the system	From I-5 South, Exit 221 (Conway) left (West) onto Pioneer Highway 534, Right (West) through Conway on Fir Island Rd which becomes Best Rd, Left on Chilberg Rd. To round about .Go through round about stay on Morris St. Take a right on Third St. Public Works shop is located at 604 North Third St. LaConner Washington 98257.	
Basic description and location of system facilities	The Town of La Conner owns and operates a municipal Group A water distribution system consisting of a single steel above-grade 1.5 MG storage reservoir, approximately 20 miles of ¾" to 16" diameter distribution water mains and valves, fire hydrants, pressure reducing valves and water services. The source is an intertie and purchase with Anacortes that delivers treated water.	
Location/Town	Skagit County, section 36, T 34 N, R 2 E	
Population served and service connections from Division of Drinking Water records.	968 people as of 2020 census.	733 connections as of 5/30/2024
System owner (the owner should be listed as a person's name)	Town of La Conner	
Name, title, and phone number of person responsible for maintaining and implementing the emergency plan.	Brian Lease Public Works Director	360-466-3933 Phone 360-840-3001 Cell

Section 3.
Chain of Command – Lines of Authority

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions.

Chain of command – lines of authority

Name and title	Responsibilities during an emergency	Contact numbers
Brian Lease Public Works Director CCS,WDM1,WDM4	Responsible for overall management and decision making for the water system. The PW Director is the lead for managing the emergency, providing information to Town Officials, regulatory agencies, the public and news media. All communications to external parties are to be approved by the PW Director.	Work: 360-466-3933 Cell: 360-840-3001 Emergency on call 360-929-5631
Chris Smith Public Works Foreman WDM1	The PW Foreman reports to the PW Director, and assumes the Director's responsibilities should the Director be unreachable in an emergency. The Foreman is responsible for maintaining the water system, performing inspections, maintenance,sampling , relaying critical information, assessing and providing recommendations to the Director.	Cell: 360-929-1004
Todd Park Public works Maintenance WDM1	Reports to Foreman. Assists the Pulic Works Foreman performing inspections, maintenance and sampling and relaying critical information, assessing and providing recommendations to the Foreman. Delivers door hangers and supports water system Foreman.	Cell; 360-770-4536
Albert Sherman Public Works Maintenance WDM1,CCS	Reports to Foreman. Assists the Public works Foreman performing inspections, maintenance and sampling and relaying critical information,assessing and providing recommendations to Foreman.	Cell: 360-840-3684
Kevin Paluaniuk Public Works Maintenance WDS	Reports to Foreman. Delivers door hangers and supports water system operators with inspections and testing on water system components.	Cell: 360-630-4401
Tony Pena Public works Maintenance	Reports to Foreman. Delivers door hangers and supports water system Foreman.	Cell: 360-840-9012
Town Engineer Andi Thompson	Reports to PW Director. Provides engineering assessment and support to the water utility.	Work: 425-519-6561 Cell: 845-797-3570

Section 4.
Events that Cause Emergencies

The events listed below may cause water system emergencies. They are arranged from highest to lowest probable risk.

Events that cause emergencies

Type of event	Probability or risk (High-Med-Low)	Comments
Broken Water Main	High	While infrequent (avg. once per year) this is the most common event to effect the system.
Earthquake	High	2001 Nisqually earthquake resulted in several minor water main breaks. While very infrequent, an earthquake has the potential to severely damage the water system and disrupt the source supply.
Floods	Med	Primary risk is at the supply source - Anacortes
Drought	med	Primary risk is at the supply source - Anacortes
Cross Connections	Low	
Cold Weather	Low	
Windstorm	Low	
Terrorism	Low	
Disease	Low	

Section 5.
Severity of Emergencies

Decisions on severity should be collaborative among system personnel, but are ultimately made by the person in charge of the emergency. The information for making such a decision will accumulate over time, and may result in changes in the assessment of severity.

Communicate each assessment of severity immediately to all those dealing with the emergency. Make sure staff have cell phones or radios when they are in the field.

Level I – Normal

Description: The Town of La Conner water system considers the following as level I emergencies: La Conner Public Works handles this level of tasks

- **Distribution and service line breaks**

The system has specific response activities identified for these types of emergencies, including proper sampling, disinfection, and pressure testing activities. System personnel are advised and are directed to work on the problem and are usually capable of resolving the problem within 24 hours. If it is determined that the problem will take longer than 24 hours to resolve and storage is likely to be drawn down below a safe operating level, the situation will be elevated to level II.

Level II – Minor

Description: The Town of La Conner water system considers the following as level II emergencies: La Conner Public Works handles this level of tasks

- Disruption in supply such as a transmission main line break, backflow, and loss of pressure.
- Storage is not adequate to handle disruption in supply.
- An initial positive coliform or E. coli sample.
- An initial primary chemical contaminant sample.
- A minor act of vandalism.
- Drought, with a noticeable and continuing decline of source water level.

Level III – Significant

Description: The Town of La Conner water system considers the following as level III emergencies: La Conner Public Works will need to contact mutual aid for this level.

- A verified acute confirmed coliform MCL or E. coli/fecal positive sample requiring immediate consideration of a health advisory notice to customers.
- A confirmed sample of another primary contaminant requiring immediate consideration of a

health advisory notice to customers.

- A loss or complete malfunction of the water treatment facilities for the surface water source, including chlorination.
- A major line break or other system failure resulting in a water shortage or requiring system shutdown.
- An act of vandalism or terrorist threat such as intrusion or damage to a primary facility.
- An immediate threat to public health of the customers and an advisory is required.
- Severe drought significantly affecting source.

Level IV – Catastrophic Disaster/Major Emergency

Description: The Town of La Conner water system considers the following as level IV emergencies: La Conner Public Works will need to contact mutual aid for this level

- Earthquake that shuts down the system or impacts sources, lines, etc.
- Act of terrorism possibly contaminating the water system with biological or chemical agents.
- Flood that infiltrates system facilities and sources.
- Storm that significantly damages power grid and system facilities.
- Mudslide or other earth shift that causes failure of transmission line.

Section 6.
Emergency Notification

Notification call-up lists

Use these lists to notifying important parties during of an emergency.

Local notification list

Local Law Enforcement day Skagit County Sheriff-911	Local Law Enforcement night Skagit County Sheriff-911
Fire Dept day La Conner Fire Dept-911	Fire Dept night La Conner Fire Dept-911
Ambulance service day 911	Ambulance service night 911
Local Health Jurisdiction day Skagit County Health Dept 360-416-1500	Local Health Jurisdiction after hours Skagit County Health Dept 360-416-1500
Water Testing Laboratory day Edge Analytical 360-755-9295	Water Testing Laboratory after hours Edge Analytical 360-755-9295 or 360-770-1054

Local emergency management day 360-416-1850	Local emergency management after hours 911 or 360-416-1850
Water System Operator day 360-840-3001 Emergency on call 360-929-5631	Water System Operator night 360-840-3001 Emergency on call 360-929-5631
Neighboring Water System day Anacortes WP 360-428-1598 PW 360-293-1919	Neighboring Water System night Anacortes WP 360-428-1598 PW 360-293-1919
Neighboring Water System day Shelter Bay 360-466-3805	Neighboring Water System night Shelter Bay 360-466-3805
Local News Media Contact	Local Radio Station KBRC 360-424-1430 Local Radio Station KAPS 360-424-0660
Town of La Conner's web site.	

State notification list

State Police day Washington State Patrol 911	State Police night Washington State Patrol 911
Division of Drinking Water Regional Office day 253-395-6750	Division of Drinking Water after hours 253-395-6750 or 1-877-481-4901
State testing laboratory day	▪ State testing laboratory after hours

Service/repair notification list

Electrician day Ackerman Electric 360-336-6188	
Electric Utility day PSE 888-225-5773	Electric Utility night PSE 888-225-5773
David Evens and Associates Andi Thompson 425-519-6561 Cell:845-797-3570	
Pumps and Water Parts Specialist HD Fowler 360-734-8400 Cell 360-815-2639	Pumps and Water Parts Specialist ICONIX 360-770-5958
Soil Excavator day La Conner Public Works 360-466-3933	Soil Excavator night La Conner Public Works 360-840-3001 On Call: 360-929-5631
Equipment Rental day Birch Equipment 360-293-7788	Equipment Rental night Birch Equipment 360-293-7788
C Johnson Construction 360-941-7132	SRV Construction 360-941-7660
G C Systems Control Valve Services 253-939-8322 1-800-525-9425	Arne Svendson Trucking 360-424-0258

Notification procedures

Notifying water system customers

Who is Responsible:	The **Public Works Director** is ultimately responsible for making the decision to notify customers regarding potential water Emergency. The Public Works Director should consult with field staff to make the decision. Once the decision is made procedures for notification will be initiated.
Procedures:	• Public Works Director confers with key staff to verify problems. • Public Works Director organizes staff to develop the message to be delivered to the customers. • Public Works Director consults with state drinking water staff regarding the problem. • Public Works Director with assistance from staff prepares door hangers, signs and radio message. • Water system Foreman continues to investigate problem and make repairs as necessary. • Water system Foreman continuously updates the water system manager on water shortage. • Once water Emergency is resolved, re-notify customers.

Alerting local law enforcement, state drinking water officials, and local health

Who is Responsible:	The **Public Works Director** is ultimately responsible for making the decision to notify State and local officials regarding water Emergency. The Public Works Director should consult with field staff to make the decision. Once the decision is made procedures for notification will be initiated.
Procedures:	• Public Works Director confers with key staff to verify problems. • Public Works Director organizes staff to develop the message to be delivered to state and local officials. • Public Works Director alerts local law enforcement, state drinking water officials, and local health regarding the problem.

Contacting service and repair contractors

Who is Responsible:	**The Town of La Conner Public Works Director and/or Town Engineer**
Procedures:	After assessing the nature of repairs needed, Public Works Director and/or the Town Engineer will refer to the Town's Small Works Roster and direct the mitigation/repair with the selected available contractor.

Contact neighboring water systems, if necessary

Who is Responsible:	**Public Works Director, Public Works Foreman**
Procedures:	Phone call to Anacortes and Shelter Bay and inform of the event and isolation of the water systems.

Procedures for issuing a health advisory

Who is Responsible:	**Public Works Director and Public Works Foreman**
Procedures:	After a level III or IV is determined contacting local agencies such as DOH. • Call Radio stations with public information. • Inform staff to prepare and hand deliver door hangers • Add all information to Town of La Conner 's web site.

Other procedures, as necessary

Who is Responsible:	**Public Works Director and Public Works Foreman**
Procedures:	Monitor water reservoir level

Section 7.
Water Quality Sampling

If contamination is suspected, notify and work with the local health jurisdiction and State DOH, Division of Drinking Water (DDW) regional office to help identify what testing should be done. This may help prevent illness or even death.

Water quality sampling

Sampling parameter	Do we have procedures? Yes/No	Basic steps to conduct sampling (sites, frequency, procedures, lab requirements, lab locations, contacts, etc.)
Coliform Bacteria	Yes	Two samples per month.
Hetertrophic Plate Count (HPC)	Yes	One sample per month.
Chlorine Residual	Yes	Daily.
Chlorine Demand	No	
Nitrate/Nitrite	No	
Total Organic Carbon (TOC)	No	
Total Halogenated Organic Carbon (TOX)	No	
Cyanide	No	

Section 8.
Effective Communication

Communication with customers, the news media, and the general public is a critical part of emergency response.

Designated public spokesperson

Designate a spokesperson (and alternates) for delivering messages to the news media and the public (see Section 6 for news media contacts in local notification list).

Designate a spokesperson and alternates

Spokesperson	Alternate 1	Alternate 2
Mayor	Administrator	Public Works Director

Key messages

Develop possible messages in advance, and update them as the emergency develops:

-
- We are taking this incident seriously and doing everything we can to resolve it.
- Our primary concern is protecting our customers' health.
- Another important concern is keeping the system operational and preventing damage.
- What we know right now is _____
- The information we have is incomplete. We will keep you informed as soon as we know more.
- We have contacted state and local officials to help us respond effectively.
- If you think you may be ill or need medical advice, contact a physician.
- We are sampling the water and doing tests to determine whether there is contamination.

Etc.

Health advisories

During events when water quality and human health are in question, it may be necessary to issue a health advisory that gives advice or recommendations to water system customers on how to protect their health when drinking water is considered unsafe. These advisories are issued when the health risks to the consumers are sufficient, in the estimation of the water system or state or local health officials, to warrant such advice.

Health advisories usually take the form of a drinking water warning or boil water advisory. Communication during these times is critical. Health advisories should always be well thought out and provide very clear messages.

The Division of Drinking Water has put together a number of tools, including fact sheets, brochures, forms, and templates to help prepare for a health advisory. These are on the Web at: http://www.doh.wa.gov/ehp/dw

Section 9.
The Vulnerability Assessment

This is an evaluation of each water system component to identify weaknesses or deficiencies that may make them susceptible to damage or failure during an emergency. It also assesses facilities for security enhancements that may guard against unauthorized entry, vandalism, or terrorism.

Facility vulnerability assessment and improvements identification

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Source	Purchased intertie with Anacortes, one valve isolation	Long transmission lines subject to earth movement or excavation damage	Ensure isolation valves are properly functioning and locations are easily accessible and identifiable.	
Storage	1.5 MG steel tank Storage reservoir is in sound condition, but reservoir hatches could be accessed and locks could be broken.	Vandals could access reservoir hatches. Also, the reservoir could be prone to shaking and settling resulting from an earthquake.	Frequent inspections of locks and signs of unauthorized entry	Security Cameras
Distribution	Approximately 20 miles of water main with a number of valves, PRVs, ARVs, Fire Hydrants	Possible injection points	Frequent inspections of locks and signs of unauthorized entry	

Section 10.
Response Actions for Specific Events

In any event there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

The following tables identify the assessment, set forth immediate response actions, define what notifications need to be made, and describe important follow-up actions.

A. Power outage/Energy Shortage

Assessment	La Conner Water system does not require power for daily in-system operation. The Town's pressure source, Anacortes, does have emergency power generators to keep their pumps operating during most short term power outages. Loss of power may result in a loss of pressure and would require that the water system begin drawing solely from the stand-by water reserves stored in the hill top reservoir.
Immediate actions	Confirm status of power/pressure with Anacortes. If outage is going to persist for longer than 12 hours: Notify Shelter Bay of condition and request that they immediately begin conservation measures. Dispatch crews to shut down all temporary and/or irrigation connections.
Notifications	Depending upon estimate of length of time – prepare public notification of need for conservation and/or rationing. Add all Information to Town of La Conner's web site.
Follow-up actions	Following supply restoration, allow the reservoir to fill before restoring all connections.

B. Transmission or main break

Assessment	High probability of at least one significant break per year.
Immediate actions	Assess likely impact. Locate and isolate, confirm positive pressure, sanitize parts, repair and flush, also the nature of the break may require testing before its back in service. If location and/or volume will impact total supply, treat as a loss of supply and initiate conservation measures.
Notifications	Notify Town Administrator, Shelter Bay, Fire Department and Public as appropriate.
Follow-up actions	Update all as new information and schedules are available.

C. Distribution line break

Assessment	Due to a concerted effort by the Town, most of the distribution lines are looped and breaks can be isolated to maintain a majority of connections in service.
Immediate actions	Locate and isolate, confirm positive pressure, sanitize parts, repair, and flush also the nature of the break may require testing before its back in service.
Notifications	Notify Town Administrator and inform the customers affected by the service disruption when service will be restored.
Follow-up actions	

D. Chlorine treatment equipment failure

Assessment	La Conner purchases pretreated water from Anacortes. La Conner does not require additional treatment.
Immediate actions	Contact water supplier (Anacortes) for briefing and time line. Scheduled testing for Chlorine Residual, upon notification of loss of disinfection – increase sampling schedule for bacteria.
Notifications	Notify Shelter Bay.
Follow-up actions	Depending on time line, begin conservation and/or public notification.

E. Treatment equipment

Assessment	La Conner purchases pretreated water from Anacortes. La Conner has no treatment equipment.
Immediate actions	Contact water supplier (Anacortes) for briefing and time line. Depending on time line, consider isolating system from supply and drawing on reserves.
Notifications	Notify Shelter Bay.
Follow-up actions	Depending on time line, begin conservation and/or public notification.

F. Source pump failure

Assessment	La Conner does not use booster pumps in its water system. See assessment for Power Failure.
Immediate actions	
Notifications	
Follow-up actions	

G. Microbial (coliform, E. coli) contamination

Assessment	The water is tested for coliform bacteria weekly and any test result that gives a positive indication of coliform requires additional sampling. After a sample failure, 3 repeat samples must be collected. The Department of Health must be notified within 10 days of any sample indicating the presence of coliform and by the end of the workday when the Town has been notified of the presence of fecal coliform or E-Coli. Upon notification by the Health Department of a non-acute maximum contaminant level violation for coliform bacteria, the Town has 30 days to report the violation to the local newspaper. This report shall provide a clear, concise, and simple explanation of the violation. There must be a discussion of potential adverse health effects and any segment of the population that may be at a higher risk, and the steps the Town has taken, or is taking to remedy the situation. If fecal coliform or E. coli is present, then an acute violation of the total coliform rule exists and the Town has to notify the customers within 24 hours. After bad samples have been confirmed, don't assume that the source water is contaminated. Water draws, new construction or a possible cross-connection may be the cause of the problem.
Immediate actions	
Notifications	
Follow-up actions	

H. Volcanic Activity

Assessment	La Conner's location does not put it at high risk of a direct exposure to volcanic activity. The Mt. Baker system does have the potential to have a severe impact on the Skagit River and the Anacortes water intake and treatment facility.
Immediate actions	See Power Failure.
Notifications	
Follow-up actions	

I. CIVIL DISORDER/TERRORISM/BOMB THREAT

Assessment	The Federal Bureau of Investigation has defined terrorism as "the unlawful use of force or violence against persons or property to intimidate or coerce a government; the civilian population; or any segment of it, in furtherance of political or social objectives." The potential occurrences could be the result of actions from domestic or international groups. The terrorist actions could be expected to come about as a result of grievances, real or imagined, toward activities of some governmental entity, or as retaliation for some governmental act. Although Town facilities are secured, it would not be difficult to inflict damage if someone was intent upon doing so. Town employees are also at risk due to their exposure to the public, either as targets or innocent passersby.
Immediate actions	
Notifications	
Follow-up actions	

J. Severe Cold

Assessment	Our area of the Puget Sound region rarely sees the severe cold that occurs in other parts of the country. We do, however, see temperatures below freezing last for a week to ten days at a time. Long periods of below freezing weather can have a huge impact upon the Town. Meters that are not well protected will start freezing, as may some service lines. This will create long hours for the field crew, under harsh working conditions, creating the chances of fatigue, sickness, or injury.
Immediate actions	Dispatch crews to repair lines.
Notifications	Seasonal reminder to public to protect pipes wherever possible.
Follow-up actions	

K. Drought

Assessment	Drought is defined as a "condition of climatic dryness that is severe enough to reduce soil moisture and water below the minimum necessary for sustaining plant, animal, and human life systems." A lengthy drought combined with extremely hot weather could create a cause for concern. Severe problems could occur in the event water shortages require rationing. In addition to the inconvenience of being without water for daily needs, it would become difficult to fight any fires should they occur. Grass and brush fires could spread rapidly due to the lack of moisture content in the vegetation. Historically, drought has not been a major concern for this area. Over the past ten years we have been experiencing higher than average temperatures in the summer months. The most recent drought of concern in the summer of 2024 Did nothing more than cause minor inconvenience for the customers and create minor economic hardships. During times of water shortages the Town follows procedures established in the City of Anacortes Water Shortage Response Plan. A prolonged emergency would require conservation measures by the Town. This would involve contacting the local news media and mailing notices to the customers. Also putting all water conservation information on the Towns web site. The Department of health and the city of Anacortes water treatment department would be kept informed so water quality could be closely monitored. The phone number foe Skagit county Department of Health is 360-416-1500 and the number for the Anacortes water treatment plant is 360-428-1598 Emergency water supply points would depend upon the extent of the disaster. Pre-planned points may be unusable after an emergency, so none should be specifically listed. A general location of supply points would be to use schools and churches as they have large parking lots and grass areas. In a major emergency, This would be coordinated through skagit county office of Emergency Management and their Emergency operations center. their number is 360-416-1850
Immediate actions	Initiate the Water Shortage Plan
Notifications	
Follow-up actions	

L. Flood

Assessment	Of all the natural hazards that affect this area, floods are the most common and cause the most property damage. Flooding in this area usually occurs between October and February. Long periods of heavy rainfall and mild temperatures are normally the cause. Runoff of low elevation snow often contributes to flooding. The impact upon the Town during a flood would be minimal. The greatest concerns would be from plugged storm drains and the possible washout associated with them. Water quality from the City of Anacortes could suffer during times of heavy rains due to increased turbidity in the water. Employees may not be able to get to work in a timely manner due to impassable roads.
Immediate actions	
Notifications	
Follow-up actions	

M. Earthquake

Assessment	An earthquake is the shaking of the ground caused by an abrupt shift of rock along a fracture in the earth called a fault. The greatest numbers of earthquakes in Washington are felt in the Puget Sound area. The principal ways that earthquakes cause damage are by strong ground shaking and by secondary effects of ground failures such as landslides, liquefaction, subsidence, and tsunamis. The risk of earthquakes is high in Washington, but not the same in all areas. Site conditions and the type of soil or rock affect the amount of shaking and the potential for damage. Solid rock or bedrock does not increase the shaking. Soft materials such as mud, artificial fill and layers of sand and clay make the consequences of ground shaking much worse. Many steep slopes will experience landslides, while flood plain and areas of artificial fill will be subject to liquefaction. Fire, a disaster in itself, frequently accompanies earthquakes. Fire usually occurs as a result of damaged electrical equipment, broken gas lines, fuel spills, disrupted heating equipment or any combination of these. These fires can break out in multiple locations in a short period of time causing the fire-fighting resources to be over-extended. Additional impacts would come from transportation route interruptions and the lack of water due to broken main lines. The Town could be severely affected by an earthquake. Water lines could be broken, the facilities damaged, and the source of water from the City of Anacortes disrupted or made not fit for human consumption. Each of these problems requires a different approach for solution. For broken main lines, the crew would start to valve off affected areas to stop the leakage and to conserve water for the rest of the community. Outside help would be needed to help make repairs to the main lines so that water would be available. In a worse case scenario, water would have to be brought in for people to drink. If the main lines could not be repaired quickly, fire protection would not be available and the chances of increased property damage would be greater. If the water supply were to be contaminated or to turbid for consumption, "boil water" notices would need to be made to the public, or potable water would need to be brought into the area. Additional staff members would be needed to alert

customers of the problems with the water, take water quality samples, and to flush main lines after the system is restored.

The loss of the office facilities would not impact operations as severely. The staff could find other buildings in which to work and the equipment could be stored inside any fenced and secure area. The greatest concern would be for the preservation of Town records and their restoration.

The intensity of an earthquake is a measure of the amount of ground shaking at a particular site. The Modified Mercali Intensity Scale is now the scale most commonly used to rank quakes.

1. Not felt except by a few persons under especially favorable circumstances.
2. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
3. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing cars may rock slightly. Vibration similar to the passing of a truck.
4. Felt indoors by many, outdoors by a few during daylight. At night, some awakened. Dishes, windows, doors disturbed, walls make a cracking sound. Sensations like a heavy truck striking the building. Standing cars rock noticeably.
5. Felt by nearly everyone, many awakened. Some dishes, windows broken. Unstable object overturned. Pendulum clocks may stop.
6. Felt by all, many frightened. Some heavy furniture moved a few instances of fallen plaster. Damage slight.
7. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures, some chimneys broken. Noticed by persons driving cars.
8. Damage slight in specially designed structures, considerable in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned.
9. Damage considerable in specially designed structures, well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse.

	Buildings shifted off foundations. 10. Some well built wooden structures destroyed, most masonry and frame structures destroyed with foundations. Rails bent. 11. Few, if any masonry structures remain standing. Bridges destroyed. Rails bent greatly. 12. Damage total. Lines of sight and level distorted. Objects thrown into the air.
Immediate actions	Isolation and assessment of damage.
Notifications	
Follow-up actions	

N. Hazardous materials spill in vicinity of sources or system lines

Assessment	Hazardous materials incidents may occur at any time or place, when and where such materials are present under circumstances in which they may be released in sufficient volume and proximity to sensitive receptors and/or environments. The potential impact is dependent upon the nature of the material, conditions of the release, and area involved. The Town has few materials that could be classified as hazardous, and these are in very small quantities. The greatest hazard would come from someone transporting materials through the Town or from another source. The only major impact upon the Town in a hazardous materials spill would be if the substance penetrated the reservoir. This would cause contamination of the water supply and force the Town to stop supplying water until the contaminant could be neutralized and the water made safe for consumption. Minor impacts could occur to employees as they may be forced to evacuate the area, or detour to other routes in traveling to or from work.
Immediate actions	Isolate impacted area.
Notifications	Notify affected parties.
Follow-up actions	

O. Wind Storm

Assessment	The problems arising from a windstorm are two fold. First is the damage that occurs in the form of downed trees, power lines, signs, and to buildings. The secondary hazard that occurs is with power and other utility failures. Winds of destructive velocity occur quite often in this region with damage ranging from local areas to the entire Puget Sound region. The National Weather Service classifies winds from 38 to 55 MPH as being gale force; from 56 to 74 MPH as storm force winds; and in excess of 75 MPH as hurricane force winds. Destructive winds like these normally occur between October and March, and approach from the south or southwest. The most recent windstorm of significance was the February 22, 2022 wind storm. Winds were clocked at over 65 MPH and caused hundreds of thousands of dollars in damage. This storm resulted in thousands of dollars in damage and left skagit county citizens with out power for up to 24 hours. A windstorm of destructive velocity could strike this area with little warning. Because of the nature of these storms, there is no one area that is more at risk than any other is, so everyone must be prepared. The major disruption to Town services would come in the form of power outages, damage to facilities from falling trees, and the inability of crews to travel due to debris on the roads. Without power, the office functions would cease as the computer system and phones would not operate.
Immediate actions	See Power Failure
Notifications	
Follow-up actions	

P. TELECOMMUNICATION INTERRUPTION OR FAILURE

Assessment	Communications systems may suffer disruptions from natural or technological disasters. Transmission stations, landlines, satellites, cellular systems, and other facilities cannot be made completely secure and, therefore, are vulnerable to disruptions. Satellites are vital in that they provide communication capabilities outside of our local area. Although they are not subject to natural disasters, they are subject to system failures like any other communication device. While interruptions in communications would create inconveniences for the public, it could raise far more serious consequences with emergency services. Poor or non-existent communications could turn what is a minor emergency into a disaster situation.
Immediate actions	Assemble staff and initiate emergency communications procedures
Notifications	Police and Fire services.
Follow-up actions	

Q. Other

Assessment	
Immediate actions	
Notifications	
Follow-up actions	

Section 11.
Alternative Water Sources

Intertie to adjacent water supply system

Water systems within one-quarter mile of our system	Feasibility of connecting
PUD	Costly $1,250,000 as per Mike Fox ruff estimate as of 11/15/2024

Alternate source(s) of water

Alternative sources	Names	Phone	Availability	Is the water safe for drinking?
Bottled Water Suppliers.	Costco Burlington	360-757-5703	Monday-Friday 10:00am-8:30pm Saturday 9:30am-7:00pm	Yes
HWWT LLC/DBA Have water will travel.	John LaCount	360-661-5353	3 type 2 food grade water trucks	Yes

Section 12.
Curtailing Water Usage

Curtailing water use

Water curtailment measures	Actions
Restrict outside water usage including watering lawns, washing cars, etc. Request curtailment of inside usage.	• Upon making the decision that curtailment is needed: • Draft door hanger with curtailment messages. • Post on customer doors. • Contact KBRC AM news and KAPS AM to announce curtailment message. • Monitor system usage and spot check meter usage if time is available. • Add info to Town of La Conner 's web site. Continue message as long as curtailment is warranted.
Shut off all temporary and irrigation meters.	

Section 13.
Returning to Normal Operation

Returning to normal operations

Action	Description and actions
Inspect, flush, and disinfect the system,	Water system operator and support staff inspect all system facilities, ensure all water quality tests have been done and the system has been flushed and disinfected if necessary. Water system operator makes a report to the water system manager. Water system manager makes decision on current condition of system.
Verification of water quality	Water system manager verifies water quality sampling results.
Coordinate with DOH	Water system manager coordinates with DOH on system condition and water quality results.
Notify customers	Water system manager meets with water system operator and communications lead to write notice to customers. Water system manager directs communications lead to distribute public notice, and add all information to Town of La Conner's web site.

Section 14.
Training and Rehearsals

Training

Identify staff position training needs and expectations.

Position	Training needs and expectations
Water System Manager	Emergency response communications, emergency response planning, issuing health advisories
Water System Foreman	Emergency response communications, emergency response planning, suspicious activity training
Field support	Emergency response communications, suspicious activity training
Administrative Support	Emergency response communications, emergency response planning,

Emergency rehearsals

Schedule for drills, tabletop exercises, and other ways to practice emergency response:

Event	Description	People and organizations involved	Date
Quarterly Training	**Review the Emergency Response Plan with Staff, focusing on lines of communication and targeting a different specific event each quarter**	**Public works staff**	**Every 3 months**

Section 15.
Plan Approval

Plan approval

This plan is officially in effect when reviewed, approved, and signed by the following people:

Name/Title	Signature	Date
Brian Lease – Public Works Director	BL	11/25/2024

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

CONSTRUCTION COMPLETION REPORT FORM

In accordance with WAC 246-290-120 (5), a ***Construction Completion Report*** is required for all approved construction projects. Operators **must** submit a Construction Completion Report to us within sixty (60) days of completion and before use of any water system facility. This includes any source, water quality treatment, storage tanks, booster pump facilities, and distribution projects.

Please type or print legibly in ink:

LA CONNNER WATER DEPT
Name of Water System

DOH System ID No.: **43350 0**

PUBLIC WORKS DIRECTOR
Name of Purveyor (Owner or System Contact)

DOH Project No.: _____ (if applicable)

12154 CHILDBERG RD; STE C
Mailing Address

Date Construction Documents Approved by DOH _____ (If applicable)

LA CONNER **WA** **98257**
City State Zip

PROJECT NAME AND DESCRIPTIVE TITLE: _____

***CHECK ONE*:** ☐ Entire Project Completed. ☐ Description of Portions Completed.

PROFESSIONAL ENGINEER'S ACKNOWLEDGMENT *(Complete items below–Attach additional sheets as needed)*

The undersigned professional engineer (PE), or their authorized agent, has inspected the above-described project which, as to layout, size and type of pipe, valves and materials, reservoir and other designed physical facilities, has been constructed and is substantially completed in accordance with construction documents reviewed by the purveyor's engineer or approved by the Department of Health. In the opinion of the undersigned engineer, the installation, physical testing procedures, water quality tests, and disinfection practices were carried out in accordance with state regulations and principles of standard engineering practice.

I have reviewed the disinfection procedures ☐, pressure test results ☐, and results of the bacteriological test(s) ☐ for this project and certify that they comply with the requirements of the construction standards/specifications approved by the Department of Health. (Check all boxes that apply that are consistent with the nature of the project.)

This project changes the physical capacity of the system to serve consumers. The system is now able to serve _____ equivalent residential units (ERUs.) ☐ Not applicable

P.E.'s Seal

_____
Date Signed

_____
Name of Engineering Firm

_____
Name of PE Acknowledging Construction

_____
Mailing Address

_____
City State Zip

_____
Engineer's Signature

State/Federal Funding Type (if any) _____

Please return completed form to your regional office checked below.

☐ **NWRO Drinking Water**
Department of Health
20425 72nd Ave. S, Ste 310
Kent, WA 98032-2388
253-395-6750

☐ **SWRO Drinking Water**
Department of Health
PO Box 47823
Olympia, WA 98504-7823
360-236-3030

☐ **ERO Drinking Water**
Department of Health
16201 E. Indiana Ave, Suite 1500
Spokane Valley, WA 99216
509-329-2100

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

The operator must attach a completed Water Facilities Inventory (WFI) form in accordance with WAC 246-290-120(6), if applicable. Contact your regional office for WFI forms or additional Construction Completion Report forms.

Wash. Admin. Code Northwest Clean Air Agency, 500, 570

Section 570 - ASBESTOS CONTROL STANDARDS

570.1 The Board of Directors of the Northwest Clean Air Agency recognize that asbestos is a serious health hazard. Any asbestos fibers released into the air can be inhaled and can cause lung cancer, pleural mesothelioma, peritoneal mesothelioma or asbestosis. The Board has, therefore, determined that any asbestos emitted to the ambient air is air pollution. Because of the seriousness of the health hazard, the Board of Directors has adopted this regulation to control asbestos emissions from asbestos removal projects in order to protect the public health. In addition, the Board has adopted these regulations to coordinate with the EPA asbestos NESHAP, the OSHA asbestos regulation, the Washington Department of Labor and Industries asbestos regulations, the Washington Department of Ecology Dangerous Waste regulation, and the solid waste regulations of Island, Skagit and Whatcom Counties.

570.2 DEFINITIONS

AHERA BUILDING INSPECTOR - A person who has successfully completed the training requirements for a building inspector established by EPA Asbestos Model Accreditation Plan (40 CFR Part 763, Appendix C to Subpart E, I.B.3) and whose certification is current.

AHERA PROJECT DESIGNER - A person who has successfully completed the training requirements for an abatement project designer established by EPA regulations (40 CFR 763.90(g)) and whose certification is current.

ASBESTOS - The asbestiform varieties of actinolite, amosite (cummingtonite-grunerite), tremolite, chrysotile (serpentinite), crocidolite (riebeckite), or anthophyllite.

ASBESTOS-CONTAINING MATERIAL - Any material containing more than one percent asbestos as determined using the method specified in EPA regulations Appendix A, Subpart F, 40 CFR Part 763, Section l, Polarized Light Microscopy.

ASBESTOS-CONTAINING WASTE MATERIAL - Any waste that contains or is contaminated with asbestos-containing material. Asbestos-containing waste material includes asbestos waste from control equipment, materials used to enclose the work area during an asbestos project, asbestos-containing material collected for disposal, asbestos-contaminated waste, debris, containers, bags, protective clothing, or HEPA filters. Asbestos-containing waste material does not include samples of asbestos-containing material taken for testing or enforcement purposes.

ASBESTOS PROJECT - Any activity involving the abatement, renovation, demolition, removal, salvage, clean up, or disposal of asbestos-containing material, or any other action that disturbs or is likely to disturb any asbestos-containing material. It includes the removal and disposal of stored asbestos-containing material or asbestos-containing waste material. It

does not include the application of duct tape, rewettable glass cloth, canvas, cement, paint, or other non-asbestos materials to seal or fill exposed areas where asbestos fibers may be released.

ASBESTOS SURVEY - A written report describing an inspection using the procedures contained in EPA regulations (40 CFR 763.86), or an alternate method that has received prior written approval from the Control Officer, to determine whether materials or structures to be worked on, renovated, removed, or demolished (including materials on the outside of structures) contain asbestos.

COMPETENT PERSON - A person who is capable of identifying asbestos hazards and selecting the appropriate asbestos control strategy, has the NWCAA to take prompt corrective measures to eliminate them, and has been trained and is currently certified in accordance with the standards established by the Washington State Department of Labor & Industries, the federal Occupational Safety & Health Administration, or the United States Environmental Protection Agency (whichever agency has jurisdiction).

COMPONENT - Any equipment, pipe, structural member, or other item covered or coated with, or manufactured from, asbestos-containing material.

DEMOLITION - Wrecking, razing, leveling, dismantling, or burning of a structure, making all or part of the structure permanently uninhabitable or unusable.

FRIABLE ASBESTOS-CONTAINING MATERIAL - Asbestos-containing material that, when dry, can be crumbled, disintegrated, or reduced to powder by hand pressure or by the forces expected to act upon the material in the course of demolition, renovation, or disposal. Such materials include, but are not limited to, thermal system insulation, surfacing material, and cement asbestos products.

LEAK-TIGHT CONTAINER - A dust-tight and liquid-tight container, at least 6-mil thick, that encloses asbestos-containing waste material and prevents solids or liquids from escaping or spilling out. Such containers may include sealed plastic bags, metal or fiber drums, and sealed polyethylene plastic.

NONFRIABLE ASBESTOS-CONTAINING MATERIAL - Asbestos-containing material that, when dry, cannot be crumbled, disintegrated, or reduced to powder by hand pressure or by the forces expected to act on the material in the course of demolition, renovation, or disposal.

OWNER-OCCUPIED, SINGLE-FAMILY RESIDENCE - Any non-multiple unit building containing space for uses such as living, sleeping, preparation of food, and eating that is currently used by one family who owns the property as their primary or seasonal residence. This term includes houses, mobile homes, trailers, detached garages, houseboats, and houses with a "mother-in-law apartment" or "guest room". This term does not include rental property or multiple-family units, nor does this term include any mixed-use building, structure, or installation that contains a residential unit.

PERSON - Any individual, firm, public or private corporation, association, partnership, political subdivision, municipality, or government agency.

RENOVATION - Altering a facility or a component in any way, except demolition.

SURFACING MATERIAL - Material that is sprayed-on, troweled-on, or otherwise applied to surfaces including, but not limited to, acoustical plaster on ceilings, paints, fireproofing materials on structural members, or other materials on surfaces for decorative purposes.

SUSPECT ASBESTOS-CONTAINING MATERIAL - Material that has historically contained asbestos including, but not limited to, surfacing material, thermal system insulation, roofing material, fire barriers, gaskets, flooring material, and siding.

THERMAL SYSTEM INSULATION - Material applied to pipes, fittings, boilers, tanks, ducts, or other structural components to prevent heat loss or gain.

570.3 ASBESTOS SURVEY REQUIREMENTS

(A) Requirements for Renovations

It shall be unlawful for any person to cause or allow a renovation unless the property owner or the owner's agent determines whether there are suspect asbestos-containing materials in the work area and obtains an asbestos survey of any suspect asbestos-containing materials by an AHERA building inspector. An AHERA building inspector is not required for asbestos surveys associated with the renovation of an owner-occupied, single-family residence.

(1) If there are no suspect materials in the work area, this determination shall either be posted at the work site or communicated in writing to all contractors involved in the renovation.

(2) It is not required that an AHERA building inspector evaluate any material presumed to be asbestos-containing material.

(3) Except for renovations of an owner-occupied, single-family residence, only an AHERA building inspector may determine that a suspect material does not contain asbestos.

(4) A summary of the results of the asbestos survey shall either be posted by the property owner or the owner's agent at the work site or communicated in writing to all persons who may come into contact with the material.

(B) Requirements for Demolitions

It shall be unlawful for any person to cause or allow any demolition unless the property owner or the owner's agent obtains an asbestos survey by an AHERA building inspector of the structure to be demolished.

(1) It is not required that an AHERA building inspector evaluate any material presumed to be asbestos-containing material.

(2) Only an AHERA building inspector may determine that a suspect material does not contain asbestos.

(3) A summary of the results of the asbestos survey shall either be posted by the property owner or the owner's agent at the work site or communicated in writing to all persons who may come into contact with the material.

570.4 NOTIFICATION REQUIREMENTS

(A) General Requirements

It shall be unlawful for any person to cause or allow any work on an asbestos project or demolition unless a complete notification, including the required fee and any additional information requested by the Control Officer, has been submitted to the NWCAA on approved forms, in accordance with the advance notification period requirements contained in 570.4(D) of this Regulation.

(1) The duration of an asbestos project shall be commensurate with the amount of work involved.

(2) Notification is not required for asbestos projects involving less than 10 linear feet or 48 square feet (per structure, per calendar year) of any asbestos-containing material.

(3) Notification is not required for removal and disposal of the following nonfriable asbestos-containing materials: caulking, window glazing, or roofing. All other asbestos project and demolition requirements remain in effect except as provided by Section 570.

(4) Notification is required for all demolitions of structures with a greater than 120 square feet footprint even if no asbestos-containing material is present. All other demolition requirements remain in effect.

(5) The written notification shall be accompanied by the appropriate nonrefundable fee as set forth in 324.8 of this Regulation unless prior arrangements for payment have been made with the NWCAA.

(6) A copy of the notification, all amendments to the notification, the asbestos survey, and any Order of Approval for an alternate means of compliance shall be available for inspection at all times at the asbestos project or demolition site.

(7) Notification for multiple asbestos projects or demolitions may be filed by a property owner on one form if all the following criteria are met:

(a) The work will be performed continuously by the same contractor; and

(b) A work plan is submitted that includes: a map of the structures involved in the project including the site address for each structure; the amount and type of asbestos-containing material in each structure; and the schedule for performing asbestos project and demolition work. For projects where a detailed work schedule cannot be provided the asbestos contractor and/or the demolition contractor shall participate in the NWCAA's work schedule fax program and will continue to participate in the program throughout the duration of the project.

(8) Annual Notification

A property owner may file one annual notification for asbestos projects to be conducted on one or more structures, vessels, or buildings during each calendar year if all of the following conditions are met:

(a) The annual notification shall be filed with the NWCAA before commencing work on any asbestos project included in an annual notification;

(b) The total amount of asbestos-containing material for all asbestos projects from each structure, vessel, or building in a calendar year under this section is less than 260 linear feet on pipes or less than 160 square feet on other components; and

(c) The property owner submits quarterly written reports to the Control Officer on NWCAA-approved forms within 15 days after the end of each calendar quarter.

(B) Mandatory Amendments

An amendment shall be submitted to the Control Officer for the following changes in a notification:

(1) Increases in the project type or job size category that increase the fee or change the advance notification period;

(2) Changes in the type of asbestos-containing material that will be removed; or

(3) Changes in the start date, completion date, or work schedule, including hours of work. Asbestos contractors or property owners participating in the NWCAA work schedule fax program are not required to submit amendments for work schedule changes occurring between the start and completion dates.

(C) Emergencies

The Control Officer may waive the advance notification period, if the property owner submits a written request that demonstrates to the Control Officer that an asbestos project or demolition must be conducted immediately because of any of the following:

(1) There was a sudden, unexpected event that resulted in a public health or safety hazard;

(2) The project must proceed immediately to protect equipment, ensure continuous vital utilities, or minimize property damage;

(3) Asbestos-containing materials were encountered that were not identified during the asbestos survey; or

(4) The project must proceed to avoid imposing an unreasonable burden.

(D) Notification Period

Project	Notification Period

Asbestos Project	Prior Notice
Residential -Owner-Occupied -Single Family Residence	3 days
10 - 259 linear feet or 48 - 159 square feet)*	10 days
260 - 999 linear feet or 160 - 4999 square feet	10 days
> 1000 linear feet or > 5000 square feet)	
Demolitions with no Asbestos Project	10 days
Emergency Classification (NWCAA 570.4(C))	Prior Notice
Amendments (NWCAA 570.4(B))	Prior Notice
Annual Notification (NWCAA 570.4(A)(8))	Prior Notice

*Demolitions with asbestos projects involving less than 10 linear feet or less than 48 square feet may submit an asbestos project notification under this project category and will be eligible for the 3-day notification period.

The Control Officer may waive the notification period, by written authorization, for disposal of unused and intact or abandoned (without the knowledge or consent of the property owner) asbestos-containing materials. All other asbestos project and demolition requirements remain in effect.

570.5 ASBESTOS REMOVAL REQUIREMENTS PRIOR TO RENOVATION OR DEMOLITION

(A) Removal of Asbestos Prior to Renovation or Demolition

Except as provided in 570.6(C) of this Regulation, it shall be unlawful for any person to cause or allow any demolition or renovation that may disturb asbestos-containing material or damage a structure so as to preclude access to asbestos-containing material for future removal, without first removing all asbestos-containing material in accordance with the requirements of this regulation. Asbestos-containing material need not be removed from a component if the component can be removed, stored, or transported for reuse without disturbing or damaging the asbestos.

(B) Exception for Hazardous Conditions

Asbestos-containing material need not be removed prior to a demolition, if the property owner demonstrates to the Control Officer that it is not accessible because of hazardous conditions such as: structures or buildings that are structurally unsound and in danger of imminent collapse, or other conditions that are immediately dangerous to life and health. The property owner must submit the written determination of the hazard by an authorized government official or a licensed structural engineer, and must submit the procedures that will be followed for controlling asbestos emissions during the demolition or renovation and disposal of the asbestos-containing waste material.

570.6 PROCEDURES FOR ASBESTOS PROJECTS

(A) Training Requirements
It shall be unlawful for any person to cause or allow any work on an asbestos project unless it is performed by persons trained and certified in accordance with the standards established by the Washington State Department of Labor and Industries, the federal Occupational Safety and Health Administration, or the United States Environmental Protection Agency (whichever agency has jurisdiction) and whose certification is current. This certification requirement does not apply to individuals who work on asbestos projects on their own single family residence(s), no part of which is used for any commercial purpose.

(B) Asbestos Removal Work Practices
Except as provided in 570.6(C) of this Regulation, it shall be unlawful for any person to cause or allow the removal of asbestos-containing material unless all the following requirements are met:

(1) The asbestos project shall be conducted in a controlled area, clearly marked by barriers and asbestos warning signs. Access to the controlled area shall be restricted to authorized personnel only.

(2) If a negative pressure enclosure is employed it shall be equipped with transparent viewing ports, if feasible, and shall be maintained in good working order.

(3) Absorbent, asbestos-containing materials, such as surfacing material and thermal system insulation, shall be saturated with a liquid wetting agent prior to removal. Any unsaturated, absorbent, asbestos-containing materials exposed during removal shall be immediately saturated with a liquid wetting agent.

(4) Nonabsorbent, asbestos-containing materials, such as cement asbestos board or vinyl asbestos tile, shall be continuously coated with a liquid wetting agent on any exposed surface prior to and during removal. Any dry surfaces of nonabsorbent, asbestos-containing materials exposed during removal shall be immediately coated with a liquid wetting agent.

(5) Metal components (such as valves, fire doors, and reactor vessels) that have internal asbestos-containing material are exempt from the requirements of 570.6(B)(3) and 570.6(B)(4) if all access to the asbestos-containing material is welded shut or the component has mechanical seals, which cannot be removed by hand, that separate the asbestos-containing material from the environment.

(6) Except for surfacing materials being removed inside a negative pressure enclosure, asbestos-containing materials that are being removed, have been removed, or may have fallen off components during an asbestos project shall be carefully lowered to the ground or a lower floor, not dropped, thrown, slid, or otherwise damaged.

(7) All asbestos-containing waste material shall be sealed in leak-tight containers as soon as possible after removal but no later than the end of each work shift.

(8) All absorbent, asbestos-containing waste material shall be kept saturated with a liquid wetting agent until sealed in leak-tight containers while saturated with a liquid wetting agent. All nonabsorbent, asbestos-containing waste material shall be kept coated with a liquid wetting agent until sealed in leak-tight containers while coated with a liquid wetting agent.

(9) The exterior of each leak-tight container shall be free of all asbestos residue and shall be permanently labeled with an asbestos warning sign as specified by the Washington State Department of Labor and Industries or the federal Occupational Safety and Health Administration.

(10) Immediately after sealing, each leak-tight container shall be permanently marked with the date the material was collected for disposal, the name of the waste generator, and the address at which the waste was generated. This marking must be readable without opening the container.

(11) Leak-tight containers shall not be dropped, thrown, slid, or otherwise damaged.

(12) The asbestos-containing waste material shall be stored in a controlled area until transported to an approved waste disposal site.

(C) Method of Removal for Nonfriable Asbestos-Containing Roofing Material
The following asbestos removal method shall be employed for asbestos-containing roofing material that has been determined to be nonfriable by a Competent Person or an AHERA Project Designer:

(1) The nonfriable asbestos-containing roofing material shall be removed using methods such as spud bar and knife. Removal methods such as sawing or grinding shall not be employed;

(2) Dust control methods shall be used as necessary to assure no fugitive dust is generated from the removal of nonfriable asbestos-containing roofing material;

(3) Nonfriable asbestos-containing roofing material shall be carefully lowered to the ground to prevent fugitive dust;

(4) After being lowered to the ground, the nonfriable asbestos-containing roofing material shall be immediately transferred to a disposal container; and

(5) Each disposal container shall have a sign identifying the material as nonfriable asbestos-containing roofing material.

570.7 COMPLIANCE WITH OTHER RULES
Other government agencies have adopted rules that may apply to asbestos projects regulated under these rules including, but not limited to, the U.S. Environmental Protection Agency, the Occupational Safety and Health Administration, and the Department of Labor and Industries. Nothing in the Agency's rules shall be construed as excusing any person from complying with any other applicable local, state, or federal requirement.

570.8 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

(A) Except as provided in 570.8(C) of this Regulation, it shall be unlawful for any person to cause or allow the disposal of asbestos-containing waste material unless it is deposited within 10 days of removal at a waste disposal site authorized to accept such waste.

(B) Waste Tracking Requirements

It shall be unlawful for any person to cause or allow the disposal of asbestos-containing waste material unless the following requirements are met:

(1) Maintain waste shipment records, beginning prior to transport, using a form that includes the following information:

(a) The name, address, and telephone number of the waste generator;

(b) The approximate quantity in cubic meters or cubic yards;

(c) The name and telephone number of the disposal site operator;

(d) The name and physical site location of the disposal site;

(e) The date transported;

(f) The name, address, and telephone number of the transporter; and

(g) A certification that the contents of the consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition to transport by highway according to applicable international and government regulations.

(2) Provide a copy of the waste shipment record to the disposal site at the same time the asbestos-containing waste material is delivered.

(3) If a copy of the waste shipment record, signed by the owner or operator of the disposal site, is not received by the waste generator within 35 calendar days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the disposal site to determine the status of the waste shipment.

(4) If a copy of the waste shipment record, signed by the owner or operator of the disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter, report in writing to the Control Officer. Include in the report, a copy of the waste shipment record and a cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

(5) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(C) Temporary Storage Site

A person may establish a facility for the purpose of collecting and temporarily storing asbestos-containing waste material if the facility is approved by the Control Officer and all the following conditions are met:

(1) Accumulated asbestos-containing waste material shall be kept in a controlled storage area posted with asbestos warning signs and accessible only to authorized persons;

(2) All asbestos-containing waste material shall be stored in leak-tight containers and the leak-tight containers shall be maintained in good condition;

(3) The storage area must be locked except during transfer of asbestos-containing waste material; and

(4) Storage, transportation, disposal, and return of the waste shipment record to the waste generator shall not exceed 90 days.

(D) Disposal of Asbestos Cement Pipe
Asbestos cement pipe used on public right-of-ways, public easements, or other places receiving the prior written approval of the Control Officer may be buried in place if the pipe is covered with at least 3 feet or more of non-asbestos fill material. All asbestos cement pipe fragments that are 1 linear foot or less and other asbestos-containing waste material shall be disposed of at a waste disposal site authorized to accept such waste.

Wash. Admin. Code Northwest Clean Air Agency, 500, 570

PASSED: November 12, 1998 AMENDED: July 14, 2005, November 8, 2007, September 11, 2014

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TOWN OF LA CONNER
APPLICATION FOR NEW
WATER METER SERVICE INSTALLATION

Date of Application_____ File #_____

Installation Address_____ Tax Parcel Number_____

Property Owner's Name_____

Property Owner's Address_____

Legal Description of Property_____

The undersigned applicant hereby applies for a water connection to the property described above. The applicant is the owner of the described property or authorized agent of said owner. By signing this application the applicant agrees, as a condition of the La Conner Public Works Department providing and continuing service to the above described property, to comply with all provisions of the current Ordinance No. 1182 or the latest revision thereof, and other such rules and regulations now existing or which may be established from time to time governing the public water system. The applicant specifically agrees to install and maintain at all times their plumbing system in compliance with the most current edition of the plumbing code having jurisdiction as it pertains to the prevention of water system contamination, prevention of pressure surges and thermal expansion in the water piping. For thermal expansion, it shall be assumed that a check valve is installed by the La Conner Public Works Department on the meter service pipe. Further, the applicant agrees not to make a claim against the La Conner Public Works Department or its agents or employees for damages and/or loss of production sales or service in case of water pressure variations or the disruption of the water supply for water system repair, routine maintenance, power outages, and other conditions normally experienced in the operation of a water system.

Additional Charges for Asphalt/Concrete Removal/Install and Road Crossings.

Service Size	**Installation Charge**
_____ ¾ inch	$ $3,360.00
_____ 1 inch	$ $3,590.00
_____ 1 ½ inch	$ $6,855.00
_____ 2 inch	$ $7,010.00
_____ Larger than 2 inch	Actual cost for materials, labor, and equipment plus 15% admin. Charge

.The following water general facilities charge shall apply for any new connection to the water system of the Town of La Conner. The factors used to determine the RCE (residential customer equivalent) shall be the same as for sewer charges. These factors can be found at Section 12.10.010 of the La Conner Municipal Code. Fees are based on each residential unit at $1,010.00 per unit. Backflow prevention requirements; LCMC Chapter 12.25 CROSS CONECTION

Water RCE Fee(s): _____ $_____
Meter Installation Fee: $_____
Plan Review Fee: $_____
Inspection Fee: $_____
Total Due $_____

Applicant Signature_____ Date_____

OFFICE USE ONLY

Fee Paid:_____ Receipt Number:_____ Date_____

Approved:_____ Projected Installation Date_____

Public Works Director New Account #_____

What is a Cross Connection?

A cross connection is a point in a plumbing system where the potable water supply is connected to a non-potable source. Briefly, a cross connection exists whenever the drinking water system is or could be connected to any non-potable source (plumbing fixture, equipment used in any plumbing system). Pollutants or contaminants can enter the safe drinking water system through uncontrolled cross connections when backflow occurs.

Backflow is the unwanted flow of non-potable substances back into the consumer's plumbing system and/or public water system (i.e., drinking water).

There are two types of backflow: ***backsiphonage*** and ***backpressure***. ***Backsiphonage*** is caused by a negative pressure in the supply line to a facility or plumbing fixture. Backsiphonage may occur during waterline breaks, when repairs are made to the waterlines, when shutting off the water supply, etc.

Backpressure can occur when the potable water supply is connected to another system operated at a higher pressure or has the ability to create pressure. Principal causes are booster pumps, pressure vessels and elevated plumbing.

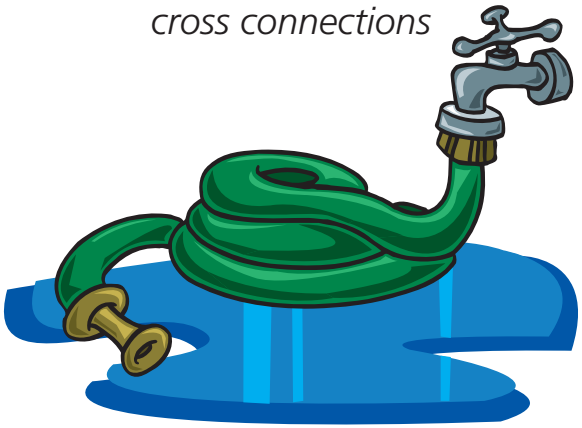
Backflow preventers are mechanical devices designed to prevent backflow through cross connections. However, for backflow preventers to protect as designed, they must meet stringent installation requirements.

For further information contact your local water purveyor or the PNWS/AWWA Cross-Connection Control Committee through the PNWS office at (877) 767-2992 or on the web at www.pnws-awwa.org

© 2003 R 06/03 [Brochure #2]

Cross Connections can create Health Hazards

Drinking water systems may become **Polluted** *or* **Contaminated** *through uncontrolled cross connections*



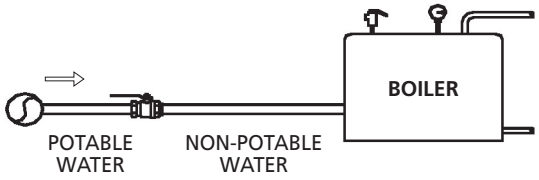
American Water Works Association
Pacific Northwest Section

Why Be Concerned?

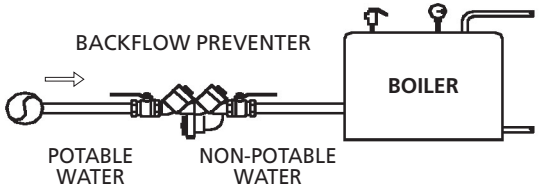
Most water systems in the United States and Canada have good sources of water and/or sophisticated treatment plants to convert impure water to meet drinking water standards. Millions of dollars are spent to make the water potable before it enters the distribution system so most water purveyors think that their supplies are not in jeopardy from this point on. Studies have proven this to be wrong. Drinking water systems may become polluted or contaminated in the distribution system through uncontrolled cross connections.

Cross connections are installed each day in the United States because people are unaware of the problems they can create. Death, illness, contaminated food products, industrial and chemical products rendered useless are some of the consequences of such connections. As a result, many hours and dollars are lost due to ***cross connections***.

Wrong:
Uncontrolled Cross Connection



Right:
Controlled Cross Connection



Where are Cross Connections Found?

Cross connections are found in all plumbing systems. It is important that each cross connection be identified and evaluated as to the type of backflow protection required to protect the drinking water supply. Some plumbing fixtures have built-in backflow protection in the form of a physical air gap. However, most cross connections will need to be controlled through the installation of an approved mechanical backflow prevention device or assembly. Some common cross connections found in plumbing and water systems include:

1. Wash basins and service sinks.
2. Hose bibs.
3. Irrigation sprinkler systems.
4. Auxiliary water supplies.
5. Laboratory and aspirator equipment.
6. Photo developing equipment.
7. Processing tanks.
8. Boilers.
9. Water recirculating systems.
10. Swimming pools.
11. Solar heat systems.
12. Fire sprinkler systems.

Every water system has cross connections. Plumbing codes and State drinking water regulations require cross connections to be controlled by approved methods (physical air gap) or approved mechanical backflow prevention devices or assemblies. The various types of mechanical backflow preventers include: reduced pressure backflow assembly (RPBA), reduced pressure detector assembly (RPDA), double check valve assembly (DCVA), double check detector assembly (DCDA), pressure vacuum breaker assembly (PVBA), spill resistant vacuum breaker assembly (SVBA) and atmospheric vacuum breaker (AVB).

For a backflow preventer to provide proper protection, it must be approved for backflow protection, designed for the degree of hazard and backflow it is controlling, installed correctly, tested annually by a State certified tester, and repaired as necessary. Some states require mandatory backflow protection on certain facilities where high health-hazard-type cross connections are normally found. The following is a partial list of those facilities:

1. Hospitals, mortuaries, clinics.
2. Laboratories.
3. Food and beverage processing centers.
4. Metal plating and chemical plants.
5. Car washes.
6. Petroleum processing and storage plants.
7. Piers and docks.
8. Sewage treatment plants.

What to Do?

It is impossible to cover all of the information pertaining to cross connections in a pamphlet. We hope the preceding information will inspire you to further educate yourself on the hazards of unprotected cross connections. Cross connection control manuals and training schools are offered throughout the Northwest. Information on manuals, schools and cross connection control can be obtained from:

Washington

Department of Health
Airdustrial Way, Bldg. 3
P.O. Box 47822
Olympia WA 98504-7822
(360) 236-3133

Oregon

Oregon Health Division
3420 Cherry Av NE, #110
Keizer OR 97303
(503) 373-7201

British Columbia, Canada

BC Water & Waste Association
Ste. 342 – 17 Fawcett Road
Coquitlam B.C. V3K 6V2
(604) 540-0111

Idaho

Idaho Division of Environment
1410 N Hilton
Boise ID 83706
(208) 373-0275

Additional sources of information may be found on the PNWS-AWWA web site:
www.pnws-awwa.org

TOWN OF LA CONNER
WATER DEPARTMENT
HYDRANT PERMIT APPLICATION

APPLICANT:

NAME_____

MAILING ADDRESS_____

CITY_____STATE_____ZIP CODE_____

PHONE_____

Permission is hereby given to _____ for the use of hydrant meter number_____. The hydrant will only be used at the following location_____

NOTE: Current water rate is _____ per one hundred cubic feet.

Hydrant or standpipe is to be used with the following understanding.

1. Any damage to public and/or private property caused by the permittee's withdrawal of water, in the judgment of the Town, will be charged to the permittee, who agrees to pay all costs for repairs and claims for damages.

2. Fire hydrants will be used during regular working hours unless otherwise instructed by Public Works as follows: _____

3. A standard hydrant wrench is to be used when opening and closing the hydrant and a gate valve placed on the 2 ½ inch port of the hydrant. The hydrant will be completely opened and the flow of water regulated with the gate valve. The gate valve is to be removed and the hydrant completely closed at the end of each day.

4. Any damage incurred to hydrant, standpipe and/or appurtenance apparently caused by the permittees use, in the judgment of the permitting agency, will be charged to the permittee, who agrees to pay all costs or repairs.

Permit is valid from_____ to _____
(Maximum term is one year)

Applicant Signature _____ Date_____

Application Fee - $75.00 **Deposit Fee $100.00**

OFFICE USE ONLY

Permit Fee_____ Date Paid:_____

Deposit _____ Date Paid:_____

Refund Returned to Applicant_____ Check Number_____ Date Returned_____

Approved:_____
Public Works Department

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Engineering Design Review Report
(For Distribution-Related Project Submittal Exceptions)

In accordance with WAC 246-290-125(3), an ***Engineering Design Review Report*** form **must** be completed for each distribution-related project (other than new distribution mains) constructed per the submittal exception process. The form must be completed prior to the construction of the project. Purveyors **must** maintain the form on file and submit it to the Department of Health (DOH) when requested. Furthermore, in accordance with WAC 246-290-125(3)(e)(vii)(A), the form **must** bear the seal, date, and signature of a professional engineer (PE) licensed in the state of Washington prior to the start of construction of the project.

In accordance with WAC 246-290-125(2), this form is **not** required for distribution main projects constructed according to a current, DOH-approved, water system plan that includes standard construction specifications for distribution mains.

Please type or print legibly in ink:

DOH Water System ID No.: 43350 0

LA CONNER WATER DEPT
Name of Water System

PUBLIC WORKS DIRECTOR
Name of Purveyor (Owner or System Contact)

12154 CHILBERG RD; STE C
Mailing Address

LA CONNER WA 98257
City State Zip

Type of Project (check all that apply):
- ☐ Booster Pump Stations
- ☐ Pressure Tanks
- ☐ Reservoirs and Storage Tanks
- ☐ Transmission Mains
- ☐ Other (specify): _____

_____

_____
Name of Engineering Design Firm*

_____
Name of PE on Design Documents

_____
Mailing Address*

_____
City State Zip*

_____
Name of Engineering Review Firm*

_____
Name of PE Performing Design Review*

_____
Mailing Address*

_____
City State Zip*

***** Complete only if the professional engineer is not employed directly by the water system.
NOTE: The design engineer and review engineer may both be employed directly by the water system or work for the same engineering firm, but the same engineer may not be responsible for both the design and review responsibilities.

NOTE: In accordance with WAC 246-290-125(4), source-of-supply projects, including interties, and water quality treatment projects are **not** eligible for the submittal exception process. Project reports and construction documents for these types of projects **must** be submitted to DOH for review and approval in accordance with chapter 246-290 WAC.

Also, for new storage tanks and booster pump stations, a Construction Completion Report **must** be submitted to the department in accordance with WAC 246-290-125(3)(f). Construction Completion Reports for other distribution-related projects requiring engineering design, and completed under the submittal exception process, **must** be on file with the water system in accordance with WAC 246-290-125(2)(b) and -125(3)(f).

A DOH project checklist may assist you in your review of project reports and/or construction documents. Checklists are available from the regional office in your area (see page 2).

Engineering Design Review Report Form (continued)

Proposed Project Name and Descriptive Title:

Reviewing Engineer's Comments (Per WAC 246-290-125(3)(e)(vii)(B), provide a descriptive reference to the completed project report or construction documents reviewed):
(Attach additional sheets as necessary)

Professional Engineer's Acknowledgment

The undersigned professional engineer (PE), or their authorized agent, has reviewed the project report or construction documents for the above-described proposed project. The project's design documents bear the seal and dated signature of the design engineer identified above. In the opinion of the undersigned engineer the design is in accordance with both the DOH regulations and appropriate principles of standard engineering practice.

PE's Seal

_____
Review Engineer's Signature

_____
Date Signed

The water system purveyor is to retain this completed form on file and make it available to DOH upon request. For additional information please contact one of the DOH Drinking Water regional offices identified below.

☐ Northwest Drinking Water
Department of Health
PO Box 47800
Olympia WA 98504
Phone: 253-395-6750
Fax: 253-395-6760

☐ Southwest Drinking Water
Department of Health
PO Box 47823
Olympia, WA 98504-7823
Phone: 360-236-3030
Fax: 360-664-8058

☐ Eastern Drinking Water
Department of Health
16201 E Indiana Ave, Suite 1500
Spokane Valley, WA 99216
Phone: 509-329-2100
Fax: 509-329-2104

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Cross-Connection Control Program

BACKFLOW INCIDENT REPORT FORM

Note: *Use this form to comply with WAC 246-290-490(8)(g).*

Part 1: Public Water System (PWS) Information

PWS ID: 43350 0	PWS Name: LA CONNER WATER DEPT	County: SKAGIT

Part 2: Backflow Incident Information

A. Incident Identification

Incident date:	Time of incident:	Incident ID (DOH use):

B. Information on Premises where Backflow Originated

Name of premises:		
Premises physical address:		
City: ,WA		Zip:
Premises type: non-residential ☐ residential ☐		
Premises category/description (Table 9 category*, if applicable):		
Most recent hazard evaluation prior to incident (mm/dd/yyyy): None ☐		
PWS's assessed hazard level:	*Premises isolation* required by PWS? Yes ☐ No ☐	
Type of backflow preventer required by PWS:	PWS relies on *in-premises protection*? Yes ☐ No ☐	
Other hazard evaluation information:		

*See WAC 246-290-490(4)(b)(i).

C. Method of Discovery of Backflow

How the backflow was discovered (check all that apply):	Direct observation ……. ☐ Meter running backwards …….. ☐ Water use decrease …… ☐ Disinfectant residual monitoring ... ☐ Water quality monitoring …….. ☐	Water quality complaint ……..... ☐ Illness/injury complaint ……..... ☐ Result of Investigation ……... ☐ Other (Describe): ☐
Incident reported to the public water system by:	PWS Personnel ☐ Premises Owner/Occupant ☐ Other PWS Customer ☐ Backflow Assembly Tester ☐ Other (Specify):	

D. Contaminant Information

Contaminant type (check all that apply):	Microbiological ☐ Chemical ☐ Physical ☐
Describe contaminant (for example, the organism name, chemical, etc.). Please attach lab analysis or MSDS, if available.	

E. Extent and Effects of Contamination

Estimated extent of contamination:	Contained within premises ☐ Entered PWS distribution system ☐
Estimated number of connections affected:	Residential Non-residential
Estimated population affected or at risk:	Residential Non-residential
Number water quality complaints:	Describe water quality complaints:
Number illnesses reported:	Describe illnesses/irritation (specific illnesses, if known):
Number physical injuries(e.g. burns) or irritation(e.g. rashes) cases reported:	

Part 3: Cross-Connection Control Information at Backflow Site

A. Source of Contaminant

Source of contaminant or fixture type (check all that apply):	Air conditioner/heat exchanger …..… ☐ Auxiliary water supply ……... ☐ Beverage machine ……..…… ☐ Boiler, hot water system ……..…… ☐ Chemical injector/aspirator ……..... ☐ Fire protection system ……..….. ☐ Irrigation system (PWS supplied) ….. ☐	Industrial/commercial process water/fluid……. ☐ Medical/dental fixture ……..…… ☐ Reclaimed water system……..….. ☐ Swimming pools, spa ….……..……. ☐ Wastewater (sewage) system …..….. ☐ Other (specify): ……. ☐ ……..

B. Distribution System Pressure Conditions in the Vicinity of the Backflow Incident

Type of backflow:	Backsiphonage ☐ Backpressure ☐	**Typical distribution system pressure in vicinity of incident** (if range, enter lower end of range)**:** psi
Main/pressure status at time of incident (check all that apply):	Normal ……..... ☐ Main break ……..... ☐ Fire fighting …… ☐ Other high usage ……. ☐ Power outage …… ☐	Source/plant outage …… ☐ Scheduled water shutoff by PWS ….. ☐ Unscheduled/emergency shutoff …… ☐ Unknown ...……..... ☐ Other (specify) ☐

Describe causes and circumstances leading to backflow:

C. Backflow Preventer Information/Installation/Approval Status at Site of Backflow

Complete the tables in C and D for the ***premises isolation*** preventer for either of the following situations:

- If a premises isolation backflow preventer is installed ***and*** the contaminant entered the PWS distribution system.
- If the premises isolation assembly is the only backflow preventer at the site.

In all other cases, complete tables in C and D for the ***in-premises*** backflow preventer installed at the fixture. If more than one backflow preventer was involved in the backflow incident, copy tables C and D and complete them for the additional preventer(s).

If no backflow preventer was installed at the time the incident occurred, check this box ☐ and go directly to Part 4. Don't fill out the tables below (in C and D).

Backflow preventer information:	Type installed: Installed for: Make: Model: Size: Serial number: Date installed:	
Installation status (check all that apply):	Properly installed/plumbed ☐ Improperly protected bypass present ☐ Improperly installed/plumbed ☐ If so, explain:	
Commensurate with assessed degree of hazard?	Yes ☐ No ☐	If not, explain:
DOH/USC-approved at time of backflow incident?	Yes ☐ No ☐	If not, approved when installed? Yes ☐ No ☐

D. Backflow Preventer Inspection/Testing Information at Site of Backflow

Most recent inspection/test information *prior* to backflow incident. Attach test report(s), if available.	No test report on record …..... ☐	
	Date tested/inspected: Passed test/inspection *without* repairs …… ☐ Failed initial test/inspection, passed *after* repair …… ☐ Failed test/inspection, no repairs made …….. ☐	
Inspection/test information *after* backflow incident [per WAC 246-290-490(7)(b)]. Attach test report.	Not tested/inspected …..... ☐	
	Date tested/inspected: Passed test/inspection *without* repairs …… ☐ Failed initial test/inspection, passed *after* repair……. ☐ Failed test/inspection, no repairs made……... ☐	
Preventer failure information , if applicable (check all that apply):	Fouled check ……. ☐ Debris …… ☐ Weather-related damage …... ☐	Damaged seat …. ☐ Other: ☐
If preventer failed inspection/test, did failure allow backflow?	Yes ☐ No ☐ If yes, explain:	

Part 4: Corrective Action/Notifications

Action *taken* by PWS to restore water quality (check all that apply):	None …… ☐ Flushed/cleaned mains …… ☐ Flushed/cleaned plumbing… ☐ Disinfected mains …… ☐ Disinfected plumbing ……... ☐	Other treatment (describe): ☐ Replaced mains …… ☐ Replaced plumbing …….. ☐ Other: ☐
Action *ordered* by PWS to correct cross-connection (check all that apply):	None ……..…… ☐ Eliminate cross-connection... ☐ Remove by-pass ……... ☐ Install **new** preventer … ☐ For *premises isolation* ☐ For *fixture protection* ☐	Change **existing** preventer ☐ Repair/replumb …..…… ☐ Reinstall correctly …..... ☐ Replace with same type ☐ Upgrade type .....……. ☐ Other: ☐
Action ordered accomplished?	Yes ☐ Date: No ☐ If no, explain:	
Agency notifications per WAC 246-290-490(8)(f) (check all that apply):	DOH ☐ Local Health Agency ☐ Local Adm. Authority ☐ Issued by end of next business day:	
Notifications of consumers in area of incident (check all that apply):	Population at risk ☐ Public notification (PN per DOH regs.) ☐ Boil Water Advisory ☐ Other (describe):	
Other enforcement/corrective actions (describe):		

Part 5: Cost of Backflow Incident (optional)

Item	PWS Personnel Hours Expended	Cost to PWS ($)	Cost to Premises Owner ($)
Investigation			
Restoration of water quality			
Correction of cross-connection situation			
Litigation and/or settlement			
Other not included in above			

Part 6: Further Information/Documentation

Additional information about this incident such as pictures, sketches, newspaper/journal articles, water quality analyses, epidemiological reports, etc. would be helpful. Information may be in electronic form or hard copy.

Part 7: Form Completion Information

Note: *Form should be completed by a person currently certified as a Cross-Connection Control Specialist.*

I certify that the information provided in this Backflow Incident Report is complete and accurate to the best of my knowledge.		
CCC Program Mgr. Name (print)**:**		Title:
Signature:	CCS Cert. Number:	Date:
Phone:	E-mail:	
I have reviewed this report and certify that the information is complete and accurate to the best of my knowledge.		
PWS Mgr./Representative Name (Print):		Title:
Signature:	Op. Cert. Number:	Date:

Please send completed backflow incident form:

By mail to:

Washington State Department of Health
Office of Drinking Water – CCC Program Manager
P O Box 47822
Olympia, WA 98504-7822

By email to: cccprogram@doh.wa.gov

Please send questions, comments, or suggestions about this form to us at the address above or e-mail them to cccprogram@doh.wa.gov

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

Office of Drinking Water
Third Party Sanitary Survey Form (Checklist)

System Name:	**LA CONNER WATER DEPT**			Survey Date:	
PWS ID#:	**43350 0**	County:	**SKAGIT**	System Type:	
Persons Attending Inspection:					
Inspector's Name:					

PART A: SUMMARY OF SIGNIFICANT DEFICIENCIES AND SIGNIFICANT FINDINGS

The following is a completed sanitary survey checklist and summary of inspection findings. This completed sanitary survey checklist is the basis for the cover letter you receive from your local health jurisdiction or from the WA Dept. of Health (DOH). The cover letter documents any significant deficiencies or significant findings that must be corrected. The cover letter may also summarize observations concerning compliance with certain rules, and offer recommendations you can use to make improvements to the operation and management of your water system. Contact your DOH regional office with any questions you have about this survey.

Bolded and highlighted checklist items represent significant deficiencies that, if left uncorrected, create a significant public health risk. Highlighted checklist items represent significant findings that, if left uncorrected, create a significant risk to the physical safety, security, or reliability of the public drinking water supply. You will be required to take some sort of corrective action for each checklist answer that is **bolded and highlighted**, or highlighted.

Significant deficiencies and significant findings identified during this sanitary survey:

Significant deficiencies or significant findings identified in the previous sanitary survey that remain unaddressed:

Observations and recommendations identified during this survey

PART B: GENERAL WATER SYSTEM DESCRIPTION

Provide a general description of the water system including changes, updates, connections, source(s), storage, number of pressure zones, treatment, and control system(s) and alarm(s). Make corrections and updates to the purveyor's water facilities inventory form (WFI).

PART C: OPERATIONS and MANAGEMENT

1. Was the system operator, who is most knowledgeable about the system's day-to-day operations, present for the survey?		☐Yes ☐No ☐NA
2. Were water system records available for your review?		☐Yes ☐No ☐Partial
3. Has the purveyor developed and implemented either a Small Water System Management Program or a Water System Plan?		☐Yes ☐No
3a. If no, are the following planning documents complete and up to date:		
	Service Area and Facility Map	☐Yes ☐No ☐Partial
	Cross-Connection Control Program	☐Yes ☐No ☐Partial
	Source Water Protection Program	☐Yes ☐No ☐Partial
	Emergency Response Plan	☐Yes ☐No ☐Partial
	Operation and Maintenance Program	☐Yes ☐No ☐Partial
	Coliform Monitoring Plan	☐Yes ☐No ☐Partial
	Component Inventory and Assessment	☐Yes ☐No ☐Partial
	Asset Replacement and Other System Improvements	☐Yes ☐No ☐Partial
	Budget	☐Yes ☐No ☐Partial
4. Does the purveyor plan to make capital improvements in the next 1-3 years? If yes, describe below		☐Yes ☐No
5. Is there a backup operator available if the regular one is not available? If yes, provide contact info below		☐Yes ☐No
6. Were the water system's current and future water quality monitoring requirements reviewed?		☐Yes ☐No
7. Was water quality sample results and trends reviewed with the purveyor?		☐Yes ☐No
8. Does the system have emergency power?		☐Yes ☐No
9. Does the system experience frequent power outages (>2 per year)? If yes, explain below		☐Yes ☐No
10. Does the system experience frequent water outages (>2 per year)? If yes, explain below		☐Yes ☐No
11. Does there appear to be adequate reliability provided for this system? If no, explain below		☐Yes ☐No

Describe the general level of planning and management documents developed by this water system and any recommendations for additional development, including updates, system management practices and processes, water rates, etc.

PART D: SOURCES (This page may be reproduced to add more sources)

12. Did you observe a source connected to the water system that is NOT listed on the WFI and in active use?					☐Yes ☐No
12a. If so, has the source received written DOH approval? (confirm with DOH post-survey)					☐Yes ☐**No**
13. DOH Source Number:				SO #	SO #
14. Source Name from the WFI: (For example, North Well; Well #2; ABC334.)					
15. Dept of Ecology Well Tag Number: (Use Well tag ID#, None or Not readable)					
16. Source Use:	P - Permanent	S - Seasonal	E - Emergency		
17. **If this is an emergency source, should it be disconnected?**				☐**Yes** ☐No ☐NA	☐**Yes** ☐No ☐NA

18. *Is the source a potential GWI source?*	☐*Yes* ☐*No*	☐*Yes* ☐*No*
WELL (if there is no well, skip to question 34)		
19. Is the Sanitary Control Area (SCA) free of unmitigated potential sources of contamination?	☐Yes ☐**No**	☐Yes ☐**No**
20. Is the wellhead located in a pit or vault?	☐Yes ☐No	☐Yes ☐No
21. Is the wellhead at risk of submergence?	☐**Yes** ☐No	☐**Yes** ☐No
22. Is the well cap sealed, watertight, and free of unprotected openings?	☐Yes ☐**No**	☐Yes ☐**No**
23. Is the well casing free of any unprotected openings?	☐Yes ☐**No**	☐Yes ☐**No**
24. Is there a vent on the well?	☐Yes ☐No	☐Yes ☐No
24a. If yes, is the vent protected? (24 non-corrodible mesh screen or slots)	☐Yes ☐**No**	☐Yes ☐**No**
25. Are conduits and junction boxes sealed to prevent contaminant entry?	☐Yes ☐**No**	☐Yes ☐**No**
26. Is the well unreasonably at risk to physical damage?	☐Yes ☐No	☐Yes ☐No
27. Is there a raw water source sample tap?	☐Yes ☐No	☐Yes ☐No
28. Is the source metered?	☐Yes ☐No	☐Yes ☐No
28a. If yes, is the source meter read at least monthly?	☐Yes ☐No	☐Yes ☐No
28b. If yes, are the water production records maintained?	☐Yes ☐No	☐Yes ☐No
29. Is the wellhouse properly constructed and maintained? If no, explain below	☐Yes ☐No	☐Yes ☐No
30. Is there any evidence of infestation by rodents or other pests?	☐Yes ☐No	☐Yes ☐No
31. Is the wellhouse and well adequately protected from unauthorized access and tampering?	☐Yes ☐No	☐Yes ☐No
32**. Is there a pump control valve or vacuum relief valve without an air gap on the valve discharge pipe?**	☐**Yes** ☐No ☐NA	☐**Yes** ☐No ☐NA
33. Are the source pump and pump controls operational and adequate to prevent chronic water outages or premature pump failure? If no explain below	☐Yes ☐**No**	☐Yes ☐**No**
SPRING (if there is no spring, skip to question 41)		
34. Is the springbox (structure, hatch, and overflow) constructed to prevent the entry of contaminants or direct surface drainage? If yes, describe below.	☐Yes ☐**No**	☐Yes ☐**No**
35. Is there a raw water source sample tap?	☐Yes ☐No	☐Yes ☐No
36. Is the source metered?	☐Yes ☐No	☐Yes ☐No
36a. If yes, is the source meter read at least monthly?	☐Yes ☐No	☐Yes ☐No
36b. If yes, are the water production records maintained?	☐Yes ☐No	☐Yes ☐No
37. Is the springhouse properly constructed and maintained? If no, explain below	☐Yes ☐No	☐Yes ☐No
38. Is there any evidence of infestation by rodents or other pests?	☐Yes ☐No	☐Yes ☐No
39. Is the springhouse and spring box adequately protected from unauthorized access?	☐Yes ☐No	☐Yes ☐No
40. **Is the Sanitary Control Area (SCA) free of unmitigated potential sources of contamination?**	☐Yes ☐**No**	☐Yes ☐**No**
Describe and evaluate the source facilities including maintenance, operations, sanitary and security observations and any major change made to the source such as pump replacement, deepening or reconstruction:		

PART E: DISINFECTION *(if no disinfection, answer question 41 and skip rest of Part E)*	
41. *Does the operator batch chlorinate the source, the distribution system, or the reservoir just before collecting routine or repeat coliform samples? If yes, provide details below.*	☐*Yes* ☐*No*
42. Did you observe disinfection treatment connected to the water system in active use that is NOT listed on the WFI? If yes, explain below	☐Yes ☐No
43. Is ultraviolet light (UV) used for disinfecting a drinking water source? If no, skip to question 46.	☐Yes ☐No
44. Is the UV unit sized for the maximum flow rate, and is there a UV transmittance sensor controlling a solenoid valve or other device to shut off supply if the UV light fails?	☐Yes ☐No

45. Describe the UV equipment including: UV manufacturer and model number: Rated capacity (gpm): Cleaning frequency of quartz sleeve : Mo/Yr UV light last replaced:	
46. Is there continuous chlorination? If no, skip to Part F	☐Yes ☐No
46a. If yes, please measure the free chlorine residual from a representative location in the distribution system.	
Location description: Free chlorine residual:	
47. **Is there a water supply line plumbed directly into a chlorine solution tank without a reduced pressure backflow assembly on the supply line?**	☐**Yes** ☐No
48. Is there a post-treatment sample tap?	☐Yes ☐No
49. Does the chlorine compound meet NSF/ANSI Standard 60? - household bleach is exempted	☐Yes ☐No
50. Is a backup chemical feed pump or spare parts for the operating chemical feed pump available onsite?	☐Yes ☐No
51. According to the operator, is there a DOH requirement for Chlorine Contact Time? If no, skip to Part F	☐Yes ☐No
51a. *If yes, measure and record the free chlorine residual at the CT6 compliance location:* *Describe compliance sampling location below – location must be prior to the first service connection downstream of chlorine addition.*	
52. *Is the chlorine pump and pump controls constructed and maintained to provide uninterrupted, reliable CT6 treatment? If no, describe below.*	☐*Yes* ☐*No*
Describe the chlorination facilities including purpose for chlorination, concerns with maintenance or operations, purveyor's record keeping of monthly reports, and sanitary and security observations:	

PART F: TREATMENT

53. Is there any treatment other than chlorination or UV in use? If no, skip Part F.	☐Yes ☐No
54. Did you observe a treatment process connected to the water system in active use that is NOT listed on the WFI? If yes, describe below.	☐Yes ☐No
55. **Is there a water supply line plumbed directly into a chemical solution tank (e.g., fluoride saturator) without a reduced pressure backflow assembly on the supply line?**	☐**Yes** ☐No ☐NA
56. Are primary contaminant treatment facilities (e.g., nitrate, corrosion control, arsenic) operating properly? If no, describe below	☐Yes ☐**No**
57. Do the water treatment chemicals meet NSF/ANSI Standard 60?	☐Yes ☐No ☐NA
58. Is there a post-treatment sample tap?	☐Yes ☐No
Describe the treatment facilities including purpose for treatment, concerns with maintenance or operations, purveyor's record keeping of monthly reports, and sanitary and security observations:	

PART G: BOOSTER PUMPING FACILITIES and CONTROLS

59. Are there any booster pumps in use? If no, skip Part G	☐Yes ☐No
60. Are the booster pumps in good working condition? If no, explain below	☐Yes ☐No
61. Are pump and pump controls operational and adequate to prevent chronic water outages or premature pump failure? If no explain below	☐Yes ☐**No**
62. If there is a booster pump house/pump station, is it secure against unauthorized entry? If no, explain below	☐Yes ☐**No** ☐NA
63. Is the booster pump house/pump station properly constructed and maintained? If no, explain below	☐Yes ☐No
Describe and evaluate the pump facilities and controls including maintenance, operations, sanitary and security observations:	

PART H: PRESSURE TANKS

64. Are there any pressure tanks in use? If no, skip Part H	☐Yes ☐No
65. For systems using an air compressor, is the compressor an oil-free type or does it use food-grade oil?	☐Yes ☐No ☐NA
66. Are valves present to isolate pressure tanks for maintenance or repair?	☐Yes ☐No

67. Is there an ASME pressure relief valve installed between each pressure tank and any shutoff valve? (see DOH publication #331-429)	☐Yes ☐No
68. Are the pressure tanks in good working condition? If no, explain below	☐Yes ☐No
Describe and evaluate the pressure tanks including maintenance, operational, sanitary and security observations:	

PART I: FINISHED WATER STORAGE

69. Is there a finished water storage tank in use? If no, skip Part I		☐Yes ☐No
70. If unable to physically inspect the storage tank hatch, vent, roof, or overflow outlet, select the method you discussed with the purveyor to document their condition:		
a ☐ Reviewed and discussed maintenance records and recent photos		
b ☐ Photos will be taken and mailed by purveyor; additional follow-up required by DOH		
c ☐ Purveyor unable or unwilling to document; additional follow-up required by DOH		
Insert Tank Names		
71. Is the storage tank protected from unauthorized entry or vandalism? If no, explain below	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
72. Is the reservoir roof free of any unprotected openings? If no, explain below	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk
73. Is the access hatch constructed and sealed to prevent the entry of contaminants? If no, explain below	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk
74. If able to open hatch, is the stored water free of visible contaminants? If no, explain below	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
75. Is there a dedicated air vent on the storage tank?	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
75a. If yes, is the air vent constructed to prevent the entry of contaminants? If no, explain below	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk
76. Is the overflow line constructed to prevent contaminants from entering the tank? If no, explain below	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk
77. Does the overflow line discharge near ground level?	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
78. Is the overflow line discharge area protected from potential erosion?	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
79. Does the overflow line discharge into a storm drain or surface water?	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
79a. If yes, is there an air gap at the discharge of the overflow OR does the overflow drop at least 34 vertical feet measured from the overflow connection to the reservoir down to the receiving water body?	☐Yes ☐**No** ☐unk	☐Yes ☐**No** ☐unk
80. Does the overflow line discharge directly into a sanitary sewer without an air gap?	☐**Yes** ☐No ☐unk	☐**Yes** ☐No ☐unk
81. Can the reservoir be isolated from the rest of the water system and be drained through a dedicated drain line?	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
82. When was the tank inspected last? Explain below if necessary		
83. What is the tank cleaning frequency? Explain below if necessary		
84. Does the tank size, operation, and internal piping configuration appear to provide adequate water turnover (i.e. separate inlet/outlet, baffling or mixing to reduce stagnant water)? If no, explain below	☐Yes ☐No ☐unk	☐Yes ☐No ☐unk
85. Does the tank show signs of excessive leakage, significant structural cracking, or an advanced concrete spalling?	☐Yes ☐No	☐Yes ☐No
Describe and evaluate the finished water storage facilities including volume, operational drawdown, configuration of the inlet/outlet piping, any concerns about operations and maintenance, and sanitary and security observations:		

PART J: DISTRIBUTION SYSTEM

86. Is a complete, up to date and accurate map of the distribution system maintained?	☐Yes ☐No
87. *Does the system provide adequate pressure throughout the distribution system? If no, explain below.*	☐Yes ☐No

88. Are proper procedures followed for disinfection of new construction or repairs?	☐Yes ☐No
89. *Are there any air relief or vacuum relief valves subject to submersion?*	☐Yes ☐No
90. Does the purveyor seasonally or annually flush the distribution system? If yes, describe below	☐Yes ☐No
91. Does the purveyor exercise its distribution system valves? If yes, describe below	☐Yes ☐No
Describe and evaluate the distribution system including maintenance, operational, sanitary and security observations:	

PART K: CROSS CONNECTION CONTROL (CCC)

92. Does the water system serve a single connection? If yes, refer the purveyor to the Uniform Plumbing Code and skip Part K	☐Yes ☐No
93. Is the water system known to serve one or more high health hazard premises, such as those listed in Table 9 in WAC 246-290-490? If yes, describe the premise(s) below.	☐Yes ☐No
94. Has the purveyor established the legal authority to implement a CCC program (i.e., formally adopted an ordinance, resolution, by-laws, or other document defining the purveyor's CCC program requirements, and empowering the purveyor to enforce them)?	☐Yes ☐No
95. Has the purveyor designated a CCC Specialist (CCS) to be in responsible charge of the CCC program?	☐Yes ☐No
95a. If yes, has the CCS conducted a hazard evaluation to identify high health hazard premises?	☐Yes ☐No
95b. If yes, has the purveyor completed installation of a backflow prevention assembly on the service line to each identified high health hazard premise?	☐Yes ☐No ☐NA
96. Has each testable backflow prevention assembly installed for premises isolation been tested by a DOH certified backflow assembly tester (BAT) within the past 12 months?	☐Yes ☐No ☐NA
97. Did you observe the end of a hose connected to the potable water system submerged in a pool, hot tub, watering trough, or other non-potable body of water observed during the survey?	☐**Yes** ☐No
98. <u>This question only applies to a facility operating a sewage dump station</u>: Is there a sewage dump station without a reduced pressure backflow assembly on the water supply at the dump station?	☐**Yes** ☐No ☐NA
Additional cross connection control program comments:	

PART L: OPERATOR

99. Is the operator of the water system certified?	☐Yes ☐No
100. Describe the operator's certification level (if certified), duration of employment with this water system, relationship with the system (e.g., contract operator, SMA, direct hire employee, volunteer, temporary, or owner), and duties and responsibilities.	
101. Does the operator conduct self-inspections of the water system? If yes, describe frequency and scope of these self-inspections below.	☐Yes ☐No
102. *Is the operator performing measurements and calibration of water treatment monitoring equipment consistent with manufacturer recommendations? If no, describe below.*	☐Yes ☐No ☐NA
103. *Is the operator using proper inputs to treatment plant operations reports, such as correct volume, peak flow rate, time, and making the proper calculations? If no, describe below.*	☐Yes ☐No ☐NA
104. *Does the operator take compliance water quality samples at the proper location? If no, describe below.*	☐Yes ☐No ☐NA
Additional operator comments:	

PART M: FIELD NOTES AND OTHER

Descriptions of any water quality tests, physical measurements, or simple repairs completed during the inspection:

PART N: SUPPLEMENTAL NOTES AND SAFETY CONCERNS

Supplemental comments from other parts of the checklist, and documentation of field safety concerns:

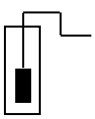
If you need this publication in an alternative format, call 800.525.0127 (TDD/TTY call 711). This and other publications are available at www.doh.wa.gov/drinkingwater.

PART O: WATER SYSTEM FACILITIES FIELD SCHEMATIC

Use the space below to sketch a simple schematic of the water system facilities. You may use the templates shown below to help build your schematic. The sketch should show location of sources, treatment, pressure tanks, booster pumps, storage tanks, and a simple representation of the distribution system. Include direction of flow (directional arrows) and brief description of how the controls function.

Source Name:		Source Number:	

Example templates you can use to build your schematic:





Pressure Switch



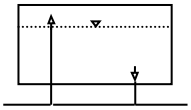
Chlorine Injection Point



Pressure Tank



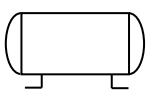
Booster Pump



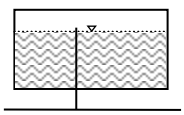
Reservoir



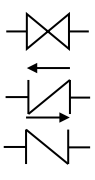
Distribution System

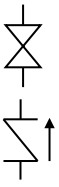


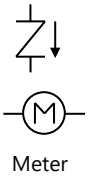
Pressure Tank



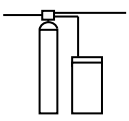
Reservoir



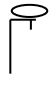




Meter



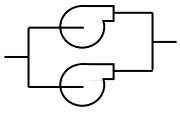
Ion exchange



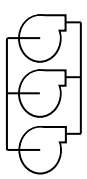
Sample Tap

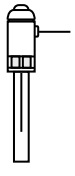


Cartridge Filtration



Booster Pumps



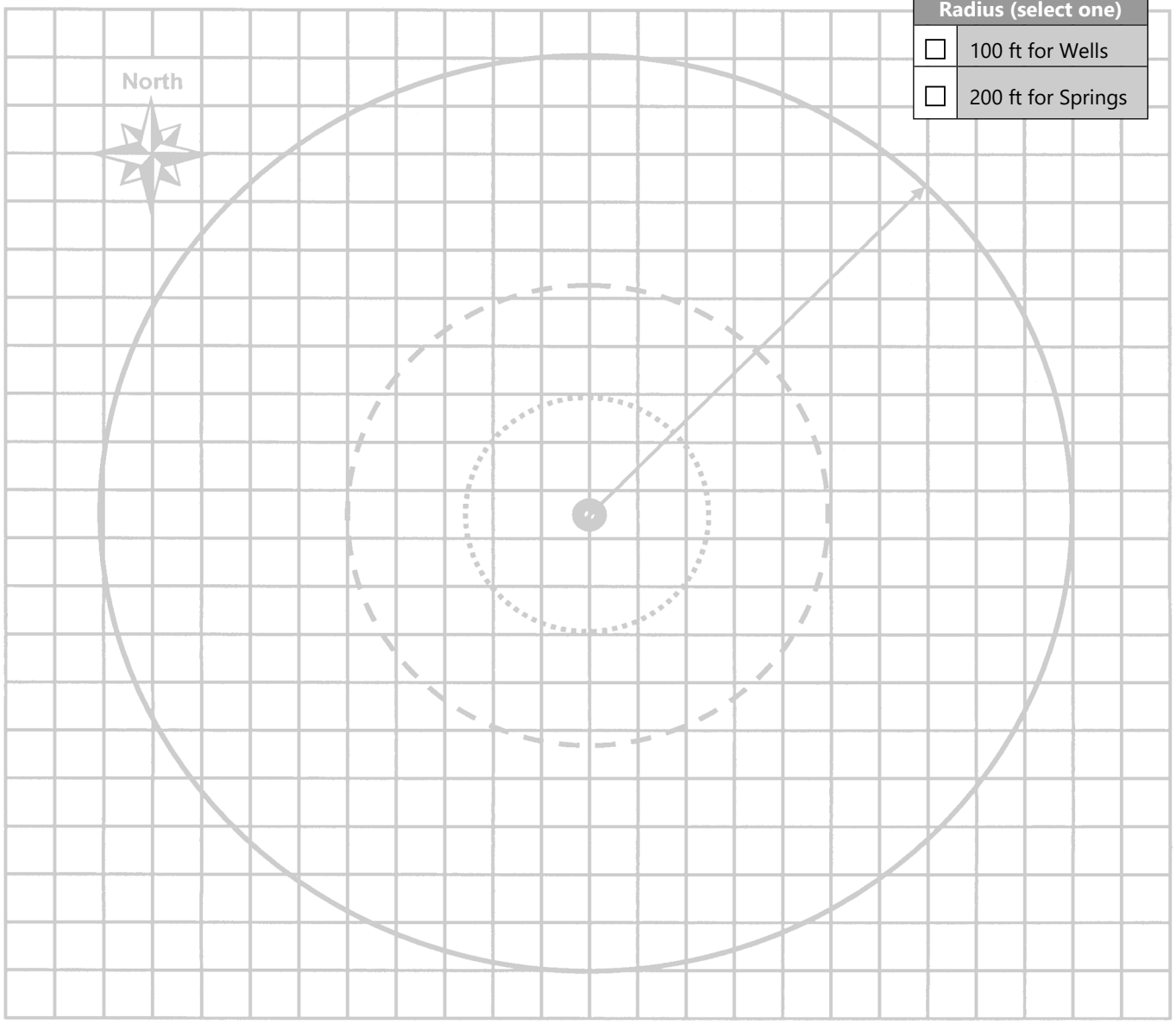


PART P: INVENTORY OF POTENTIAL SOURCES OF CONTAMINANTS WITHIN THE SANITARY CONTROL AREA

Use the graph below to locate any potential biological and chemical contaminants found within the source's Sanitary Control Area (SCA). The SCA is the protective area within 100 feet of wells or 200 feet of springs.

Source Name:		Source Number:	

Radius (select one)	
☐	100 ft for Wells
☐	200 ft for Springs



Description of Features Shown on the SCA Schematic					
A.		C.		E.	
B.		D.		F.	

Sources of Contamination	Feet	Sources of Contamination	Feet	Sources of Contamination	Feet
Abandoned water wells		Dumpsters		Pesticide storage	
Animal burial		Fuel tanks (above or below ground)		Roads and parking lots	
Biological contaminants		Graveyards		Sewer lines, gravity or pressure	
Buildings		Hazardous waste disposal site		Storm water catch basins	
Chemical contaminants		Hazardous waste facility		Surface water	
Drainfields and septic tanks		Irrigation canal		Wastewater spray irrigation	
Drug lab		Landfill, dump, disposal area		Other:	
Dry wells		Pesticide application			

Operations and Maintenance

Water Main Break Response Protocol for Chlorinated Systems

331-583 • Updated 2/22/2023

Our water infrastructure continues to age faster than it is replaced, resulting in ever-aging water distribution systems. Water main breaks remain a major issue for water utilities despite improved asset management and financial planning. By some estimates, over 700 water mains break in the United States every day and need repair. Water utilities repair these types of breaks quickly and without interruption in water service or risk to water quality. Some breaks, like those that make the news, can affect water service to many people and businesses and present a significant risk to public health.

The water industry recognizes the need to classify water main breaks in terms of public health significance. We established four categories of water main breaks to standardize communication and response efforts in Washington State. These categories describe public health risk across the spectrum of water main failure impacts to utility operations. They are consistent with the Water Research Foundation study—Effective Microbial Control Strategies for Main Breaks and Depressurization (Kirmeyer et al. 2014).

The attached tables describe the recommended response, communication, and repair procedures for each type of water main break. We recommend water utilities incorporate these protocols into their standard operating procedures. The guidance for responding to each type of break is consistent with the requirements of WAC 246-290-451(1).

For more information

Find our publications online.

Contact our nearest regional office from 8 a.m. to 5 p.m. Monday through Friday. If you have an after-hours emergency, call (877) 481-4901.

Eastern Region, Spokane Valley 509-329-2100 Adams, Asotin, Benton, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman, and Yakima counties.

Northwest Region, Kent 253-395-6750 Island, King, Pierce, San Juan, Skagit, Snohomish, and Whatcom counties.

Southwest Region, Tumwater 360-236-3030 Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Kitsap, Lewis, Mason, Pacific, Skamania, Thurston, and Wahkiakum counties.

Washington State Department of HEALTH

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.

Main Break Categories

Type I Break	Type II Break	Type III Break	Type IV Break
Positive pressure maintained through completion of repair.	Controlled pipe repair with limited depressurization during pipe segment shutdown.	Uncontrolled loss of pressure at break site or depressurization elsewhere in the system.	Catastrophic main break or water loss event resulting in the complete loss of water service.
Pressure maintained in pipe during repair, and pressure maintained throughout the distribution system.	Pressure maintained at break site until pipe is exposed and trench dewatered. Shutdown limited to immediate valved off area. No loss of pressure elsewhere.	Pressure loss at break site while pipe is still buried or submerged and/or pressure loss elsewhere in the system.	Extensive water loss compared to system capacity, with no pressure/no water. Storage loss leaves limited flushing capacity.
Contamination is unlikely.	Limited possibility of contamination.	Significant possibility of contamination.	Contamination likely or certain.

Type I Main Break Response
Assess environmental impacts and respond accordingly.
Call Washington 811.
Excavate to below break. Maintain pit water level below break.
Disinfect repair parts and repair site by swab/spray with 1% chlorine solution.
Complete repair with pipe still pressurized.
Restore residual disinfectant level at break to background levels by flushing.
Boil Water Advisory (BWA) and bacteriological sampling not needed.

Type II Main Break Response
Assess environmental impacts and respond accordingly.
Call Washington 811.
Excavate to below break. Maintain pit water level below break.
Isolate/shut off customer services in affected area.
Provide customer notification using door hanger, personal contact, email, or reverse 911.
Follow established utility procedures to perform controlled shutdown of broken pipe segment.
Disinfect repair parts and repair site by swab/spray with 1% chlorine solution. If pipe replacement, disinfect from both ends by swabbing.
Complete repair.
Conduct low velocity flush to displace water in affected piping. Discharge to waste.
Flush to restore residual disinfectant level at the break to background levels.
Advise customers to flush plumbing when water service returns. Verify service is restored to all isolated customers.
If utility shuts off customer services in affected area and positive pressure is maintained throughout the system prior to depressurizing the break site, a boil water advisory is not needed.
Collect bacteriological/heterotrophic plate count samples to validate repair procedures. The utility may restore service before getting results.

Type III Main Break Response
Assess environmental impacts and respond accordingly.
Call Washington 811.
Provide generic water main break notification and customer response steps on utility's website or directly to customers by door hanger, personal contact, email, or reverse 911 as soon as possible.
Review cross connection control program status, particularly compliance with premise isolation of high health hazards and assess risk of back siphon/backflow accordingly.
Call DOH and local health jurisdiction. Decide appropriate public notification message and methods.
Issue a boil water advisory and update the utility's website to show impacted area(s).
Evaluate firefighting capacity and sanitation impacts and communicate with appropriate entities.
Isolate/shut off customer services at the break site (if practical).
Disinfect repair parts and repair site—swab/spray with 1% chlorine solution. If pipe replacement, disinfect from both ends by swabbing.
Complete repair.
Complete post-repair disinfection of the distribution system, applying Water Research Foundation Project 4307 (CT 100 mg-min/L), AWWA Standard C651 Section 4.11.3.3, or other applicable standard for guidance on disinfectant levels, if: • Pressure is lost at the break before dewatering the trench and isolating the break. • The break results in loss of pressure at points beyond break site, depending on degree of risk associated with extent, duration, and type of services affected.
Conduct a scour flush (at least three feet/second) to remove break-related sediment. This may not be practical for pipes greater than a 12-inch diameter. Flush at maximum practical flow rate until at least three pipe volumes are displaced and flush water runs clear.
Conduct a low velocity flush throughout area(s) subject to low pressures to displace water and restore background chlorine residual.
Restore residual disinfectant level at the break to background levels.
Check residual disinfectant level throughout the distribution system.
Advise customers to flush household plumbing when water service returns.
Collect bacteriological samples to verify effectiveness of response and provide basis for lifting the boil water advisory. The number of samples should reflect the impacted service population and service area.
Rescind BWA based on water quality monitoring results.
Type IV Main Break Response
A Type IV break is a Type III break, with significant impact on system-wide performance. Follow Type III response plus the following.
Assess utility capacity to deal with event and seek aid as soon as possible.
Notify local fire authority of current and expected status of storage volume and system pressure.
Depletion of stored water may affect flushing capacity following repairs, delaying full restoration of water service and lifting the BWA.
Utility may need to include conservation messages with BWA notification.
Continually assess storage, source, and distribution capacity as related to post-repair flushing needs.

Coliform Monitoring Plan for: Town of La Conner Water Department

A. System Information

Plan Date: 12/2/2024

Water System Name Town of La Conner	**County** Skagit	**System I.D. Number** 43350
Name of Plan Preparer Todd Park	**Position** WDM1	**Daytime Phone** **360-770-4536**
Sources: DOH Source Number, Source Name, Well Depth, Pumping Capacity	City of Anacortes #02200C	
Storage: List and Describe	1.5 Million Gal. Water Reservoir	
Treatment: Source Number & Process	City of Anacortes #02200C	
Pressure Zones: Number and name	_____	
Population by Pressure Zone	_____	
Number of Routine Samples Required Monthly by Regulation:		2
Number of Sample Sites Needed to Represent the Distribution System:		5
***Request DOH Approval of Triggered Source Monitoring Plan?**		**Yes** ☐ **No x**

*If approval is requested a fee will be charged for the review.

B. Laboratory Information

Laboratory Name Edge Analytical Laboratory	**Office Phone 360-755-9295** **After Hours Phone 360-770-0154**
Address 1620 South Walnut St. Burlington 98233	**Cell Phone 360-770-0154** **Email** lab@edgeanalytical.com
Hours of Operation Monday-Friday 8:00Am- 5:00Pm	
Contact Name N/A	
Emergency Laboratory Name Edge Analytical Laboratory	**Office Phone 360-715-1212** **After Hours Phone 360-770-0154**
Address 805 West Orchard Dr. Suite 4	**Cell Phone 360-770-0154** **Email** micro@edgeanalytical.com
Hours of Operation Monday-Friday 8:00Am-5:00Pm	

C. Wholesaling of Groundwater

	Yes	No
We are a consecutive system and purchase groundwater from another water system.	☐	**x**
We sell groundwater to other public water systems.	☐	**x**

D. Routine, Repeat, and Triggered Source Sample Locations*

Location for routine sample sites	Location for repeat sample sites
X1. 622 Second St Garden Club	**1-1** 622 Second St
	1-2 704 Second St
	1-3 616 Second St
X2. 304 Morris St Public restrooms	**2-1** 304 Morris St
	2-2 306 Morris St
	2-3 220 Morris St
X3. 1218 Conner Way Waterfront Park	**3-1** 1218 Conner Way
	3-2 105 Sherman Ave
	3-3 1320 Conner Way
X4. 920 W Pearle Jensen Way La Conner Maritime Services	**4-1** 920 W Pearle Jensen Way
	4-2 900 W Pearl Jensen Way
	4-3 Commercial/Loading Dock
X5. 15003 Channel Ln On the east side of the road by hydrant	**5-1** 15003 Channel Ln
	5-2 15112 Channel Dr
	5-3 14594 Channel Ln

*NOTE: If you need more than three routine samples to cover the distribution system, attach additional sheets as needed.

**** When you collect the repeats, you must sample every groundwater source that was in use when the original routine sample was collected.**

Important Notes for Sample Collector:

Refer to DOH Coliform Sampling Procedure document 331-225 in Coliform Monitoring Plan folder. See General Sampling Procedure 331-219

E. Reduced Triggered Source Monitoring Justification (add sheets as needed):

N/A; no ground water

F. Routine Sample Rotation Schedule

Month	Routine Site(s)	Month	Routine Site(s)
January	X1, X2	July	X3, X4
February	X3, X4	August	X5, X1
March	X5, X1	September	X2, X3
April	X2, X3	October	X4, X5
May	X4, X5	November	X1,X2
June	X1, X2	December	X3, X4

G. Level 1 and Level 2 Assessment Contact Information

Name **Brian Lease**	**Office Phone 360-466-3933** **After Hours Phone 360-840-3001**
Address **604 North Third St. La Conner WA. 98257**	**Email** **publicworks@townoflaconner.org**
Name **Todd Park**	**Office Phone 360-466-3933** **After Hours Phone 360-770-4536**
Address **604 North Third St. La Conner WA.98257**	**Email pwwater@townoflaconner.org**

H. *E. coli*-Present Sample Response

Distribution System *E. coli* Response Checklist				
Background Information	**Yes**	**No**	**N/A**	**To Do List**
We inform staff members about activities within the distribution system that could affect water quality.	x	☐	☐	☐
We document all water main breaks, construction & repair activities, and low pressure and outage incidents.	x	☐	☐	☐
We can easily access and review documentation on water main breaks, construction & repair activities, and low pressure and outage incidents.	x	☐	☐	☐
Our Cross-Connection Control Program is up-to-date.	x	☐	☐	☐
We test all cross-connection control devices annually as required, with easy access to the proper documentation.	x	☐	☐	☐
We routinely inspect all treatment facilities for proper operation.	☐	☐	x	☐
We identified one or more qualified individuals who are able to conduct a Level 2 assessment of our water system.	x	☐	☐	☐
We have procedures in place for disinfecting and flushing the water system if it becomes necessary.	x	☐	☐	☐
We can activate an emergency intertie with an adjacent water system in an emergency.	☐	x	☐	☐
We have a map of our service area boundaries.	x	☐	☐	☐
We have consumers who may not have access to bottled or boiled water.	☐	x	☐	☐
There is a sufficient supply of bottled water immediately available to our customers who are unable to boil their water.	x	☐	☐	☐
We have identified the contact person at each day care, school, medical facility, food service, and other customers who may have difficulty responding to a Health Advisory.	☐	☐	x	☐
We have messages prepared and translated into different languages to ensure our consumers will understand them.	x	☐	☐	☐
We have the capacity to print and distribute the required number of notices in a short time period.	x	☐	☐	☐
Policy Direction	**Yes**	**No**	**N/A**	**To Do List**
We have discussed the issue of *E. coli*-present sample results with our policy makers.	x	☐	☐	☐
If we find *E. coli* in a routine distribution sample, the policy makers want to wait until repeat test results are available before issuing advice to water system customers.	x	☐	☐	☐
(Cont.)				

Distribution System *E. Coli* Response Checklist				
Potential Public Notice Delivery Methods	**Yes**	**No**	**N/A**	**To Do List**
It is feasible to deliver a notice going door-to-door.	**x**	☐	☐	☐
We have a list of all of our customers' addresses.	**x**	☐	☐	☐
We have a list of customer telephone numbers or access to a Reverse 9-1-1 system.	☐	**x**	☐	☐
We have a list of customer email addresses.	☐	**x**	☐	☐
We encourage our customers to remain in contact with us using social media.	**x**	☐	☐	☐
We have an active website we can quickly update to include important messages.	**x**	☐	☐	☐
Our customers drive by a single location where we could post an advisory and expect everyone to see it.	**x**	☐	☐	☐
We need a news release to supplement our public notification process.	x	☐	☐	☐

Distribution System *E. Coli* Response Plan

If we have *E. coli* in our distribution system we will immediately:

1. Call DOH.
2. Collect repeat and triggered source samples per Part D. Collect additional investigative samples as needed._____
3. Flush all dead-end water mains and blow offs.
4. Check all access points to distribution system
5. Take Three repeat samples. The first one from the same tap as the original unsatisfactory sample.
6. Second sample from an active connection upstream from the original unsatisfactory sample location.
7. Third sample from active connection downstream from original unsatisfactory sample location.
8. Review new construction activities, pipe breaks and pressure outages that may have occurred during the last month.
9. Review cross-connection control status.
10. Await repeat sample results and respond accordingly. If all repeat samples are ok, lift the HA. If at least one repeat sample is unsatisfactory, ask DOH for a system inspection and respond to inspection findings accordingly.
11. Discuss with DOH whether to issue a Health Advisory based on the findings of steps 3-6.

E. coli-Present Triggered Source Sample Response Checklist – All Sources				
Background Information	**Yes**	**No**	**N/A**	**To Do List**
We review our sanitary survey results and respond to any recommendations affecting the microbial quality of our water supply.	x	☐	☐	☐
We address any significant deficiencies identified during a sanitary survey.	x	☐	☐	☐
There are contaminant sources within our Wellhead Protection Area that could affect the microbial quality of our source water, and If yes, we can eliminate them.	☐ ☐	☐ ☐	x x	☐ ☐
We routinely inspect our well site(s).	☐	☐	x	☐
We have a good raw water sample tap installed at each source.	x	☐	☐	☐
After we complete work on a source, we disinfect the source, flush, and collect an investigative sample.	x	☐	☐	☐
Public Notice	**Yes**	**No**	**N/A**	**To Do List**
We discussed the requirement for immediate public notice of an *E. coli*-present source sample result with our water system's governing body (board of directors or commissioners) and received direction from them on our response plan.	x	☐	☐	☐
We discussed the requirement for immediate public notice of an *E. coli*-present source sample result with our wholesale customers and encouraged them to develop a response plan.	x	☐	☐	☐
We have prepared templates and a communications plan that will help us quickly distribute our messages.	x	☐	☐	☐

E. coli-Present Triggered Source Sample Response Plan – Source ___

If we have *E. coli* in Source ___ water we will immediately:

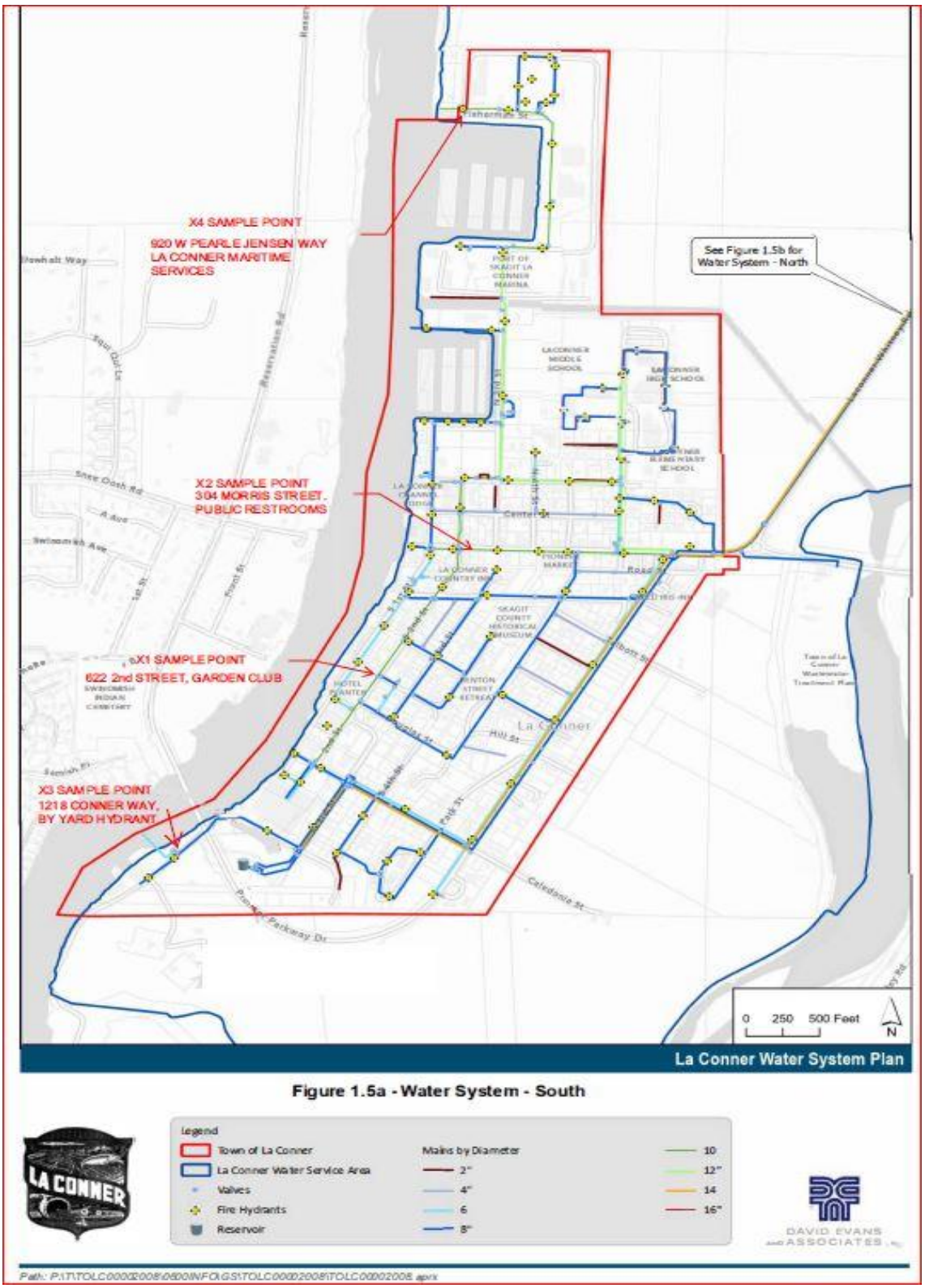
1. Call DOH.
2. Post required notice.
3. Interview staff.
4. In concert with DOH, begin work on corrective action plan. Corrective action options: discontinue use of contaminated source; provide 4-log virus treatment of the source.
5. _____
6. _____
7. _____
8. _____

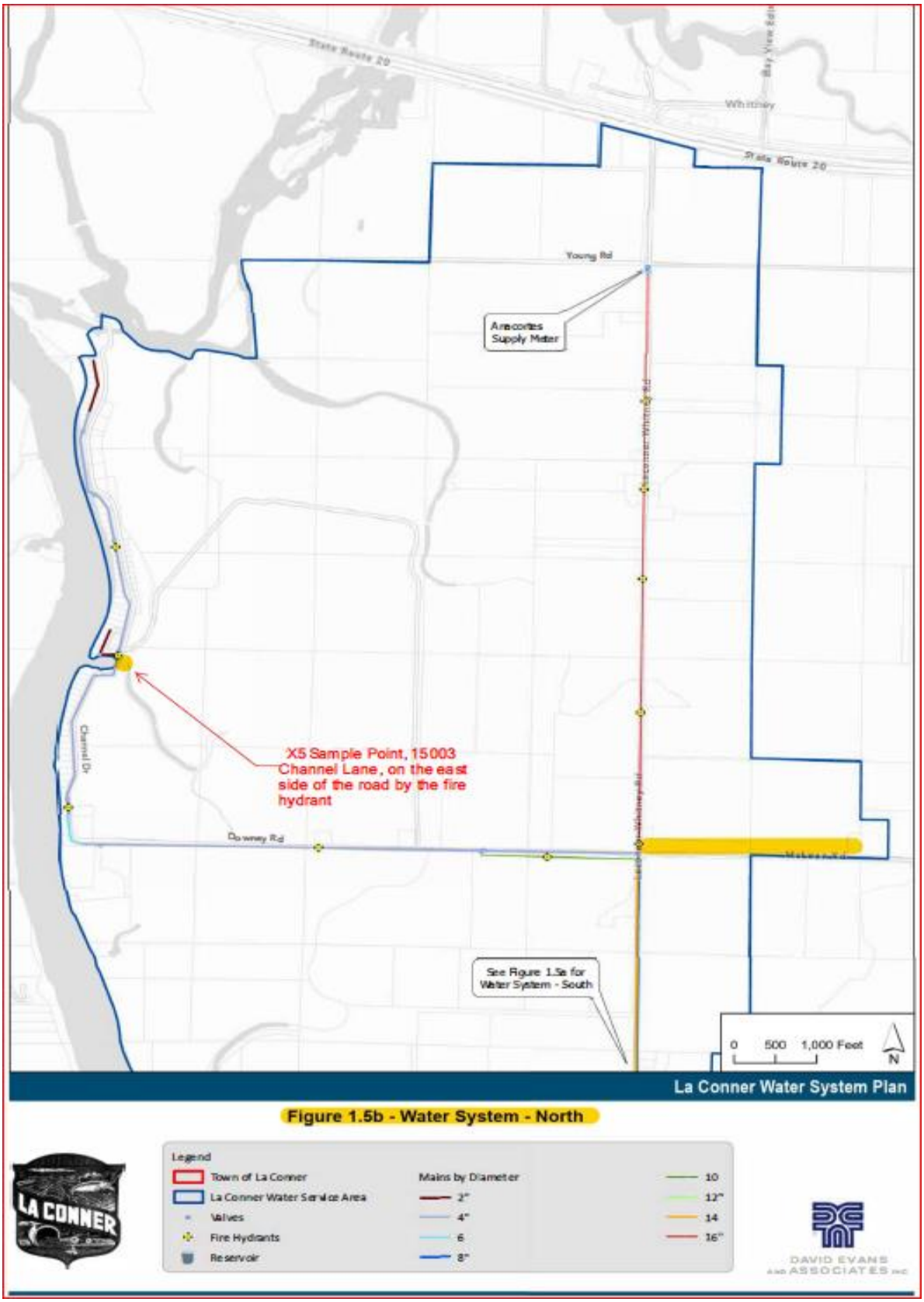
E. coli-Present Triggered Source Sample Response Checklist – Source S__*

Alternate Sources	**Yes**	**No**	**N/A**	**To Do List**
We can stop using this source and still provide reliable water service to our customers.	☐	x	☐	☐
We have an emergency intertie with a neighboring water system that we can use until corrective action is complete (perhaps for several months).	☐	x	☐	☐
We can provide bottled water to all or part of the distribution system for an indefinite period.	x	☐	☐	☐
We can quickly replace our existing source of supply with a more protected new source.	☐	x	☐	☐
Temporary Treatment	**Yes**	**No**	**N/A**	**To Do List**
This source is continuously chlorinated, and our existing facilities can provide 4-log virus treatment (CT = 6) before the first customer. If yes, at what concentration? _____ mg/L	x	☐	☐	☐
We can quickly introduce chlorine into the water system and take advantage of the existing contact time to provide 4-log virus treatment to a large portion of the distribution system.	x	☐	☐	☐
We can reduce the production capacity of our pumps or alter the configuration of our storage quantities (operational storage) to increase the amount of time the water stays in the system before the first customer to achieve CT = 6.	x	☐	☐	☐
We can alter the demand for drinking water (maximum day or peak hour) through conservation messages to increase the time the water is in the system prior to the first customer in order to achieve 4-log virus treatment with chlorine.	x	☐	☐	☐

*NOTE: If your system has multiple sources, you may want to complete a separate checklist for each source.

I. System Map


X4 SAMPLE POINT
920 W PEARLE JENSEN WAY
LA CONNER MARITIME SERVICES
See Figure 1.5b for Water System - North
X2 SAMPLE POINT
304 MORRIS STREET, PUBLIC RESTROOMS
X1 SAMPLE POINT
622 2nd STREET, GARDEN CLUB
X3 SAMPLE POINT
1218 CONNER WAY, BY YARD HYDRANT
0 250 500 Feet
N
La Conner Water System Plan
Figure 1.5a - Water System - South
Legend
Town of La Conner
La Conner Water Service Area
Valves
Fire Hydrants
Reservoir
Mains by Diameter
2"
4"
6
8"
10
12"
14
16"
DAVID EVANS and ASSOCIATES
Path: P:\T\TOLC00002008\0600INFO\GIS\TOLC00002008\TOLC00002008.aprx


State Route 20
Whitney
State Route 20
Young Rd
Anacortes Supply Meter
Channel Dr
X5 Sample Point, 15003 Channel Lane, on the east side of the road by the fire hydrant
Downey Rd
See Figure 1.5a for Water System - South
0 500 1,000 Feet
N
La Conner Water System Plan
Figure 1.5b - Water System - North
Legend
Town of La Conner
La Conner Water Service Area
Valves
Fire Hydrants
Reservoir
Mains by Diameter
2"
4"
6"
8"
10"
12"
14"
16"
LA CONNER
DAVID EVANS AND ASSOCIATES INC

APPENDIX G – SELF ASSESSMENT FORM

Water Right Self-Assessment Form for Water System Plan

Mouse-over any link for more information. Click on any link for more detailed instructions.

Water Right Permit, Certificate, or Claim # *If water right is interruptible, identify limitation in yellow section below	WFI Source # If a source has multiple water rights, list each water right on separate line	Existing Water Rights Qi= Instantaneous Flow Rate Allowed (GPM or CFS) Qa= Annual Volume Allowed (Acre-Feet/Year) This includes wholesale water sold				Current Source Production – Most Recent Calendar Year Qi = Max Instantaneous Flow Rate Withdrawn (GPM or CFS) Qa = Annual Volume Withdrawn (Acre-Feet/Year) This includes wholesale water sold				10-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold				20-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold			
		Primary Qi Maximum Rate Allowed	Non-Additive Qi Maximum Rate Allowed	Primary Qa Maximum Volume Allowed	Non-Additive Qa Maximum Volume Allowed	Total Qi Maximum Instantaneous Flow Rate Withdrawn	Current Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume Withdrawn	Current Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 10 Years	10-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 10 Years	10-Year Forecasted Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 20 Years	20-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 20 Years	20-Year Forecasted Excess or (Deficiency) Qa
1 N/A	N/A																
2																	
3																	
4																	
5																	
6																	
	TOTALS =																
Column Identifiers for Calculations:		A		B		C	=A-C	D	=B-D	E	= A-E	F	=B-F	G	=A-G	H	=B-H

PENDING WATER RIGHT APPLICATIONS: Identify any water right applications that have been submitted to Ecology.

Application Number	New or Change Application?	Date Submitted	Quantities Requested			
			Primary Qi	Non-Additive Qi	Primary Qa	Non-Additive Qa
N/A						

INTERTIES: Systems receiving wholesale water complete this section. Wholesaling systems must include water sold through intertie in the current and forecasted source production columns above.

Name of Wholesaling System Providing Water	Quantities Allowed In Contract		Expiration Date of Contract	Currently Purchased Current quantity purchased through intertie				10-Year Forecasted Purchase Forecasted quantity purchased through intertie				20-Year Forecasted Purchase Forecasted quantity purchased through intertie			
	Maximum Qi Instantaneous Flow Rate	Maximum Qa Annual Volume		Maximum Qi Instantaneous Flow Rate	Current Excess or (Deficiency) Qi	Maximum Qa Annual Volume	Current Excess or (Deficiency) Qa	Maximum Qi 10-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 10-Year Forecast	Future Excess or (Deficiency) Qa	Maximum Qi 20-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 20-Year Forecast	Future Excess or (Deficiency) Qa
1 City of Anacortes	**N/A**	**162 MG**	**Dec. 31, 2025**	**N/A**	**N/A**	**145.8 MG**	**16.2 MG**	**N/A**	**N/A**	**149.6 MG**	**12.4 MG**	**N/A**	**N/A**	**164.8 MG**	**-2.8 MG**
2															
TOTALS =															
Column Identifiers for Calculations:	A	B		C	=A-C	D	=B-D	E	=A-E	F	=B-F	G	=A-G	H	=B-H

INTERRUPTIBLE WATER RIGHTS: Identify limitations on any water rights listed above that are interruptible.

Water Right #	Conditions of Interruption	Time Period of Interruption
1		
2		
3		

ADDITIONAL COMMENTS:

Forecasted purchases based upon County planning value of 1% for the Town. Actual growth is lower with a 20-year forecasted demand of 151 MG, leaving a 11MG Excess.

APPENDIX H – REVIEW COMMENTS

2025 WATER SYSTEM PLAN
Town of La Conner
Skagit County, Washington
AGENCY COMMENTS AND RESPONSES, PLAN REVISIONS

Comprehensive Water System Plan (WSP) submitted to the following agencies on or before March 25, 2025:

- Skagit County Planning and Health Departments
- Skagit PUD
- State Department of Health
    - DOH submitted a copy to the Department of Ecology
- City of Anacortes
- Shelter Bay

Comments received from:

- Skagit County Planning – (email from Tara Satushek AICP, Senior Planner, Skagit County Planning and Development Services, dated April 21, 2025, including a signed Local Government Consistency Determination)
- State Department of Health (email from Orianna Clarke, June 20, 2025 with attached comment letter prepared by Krista Chavez, Regional Planner and Raquel Callans, PE, Regional Engineer), with additional clarification e-mails from Krista Chavez dated July 8, 2025 and July x, 2025.
- Department of Ecology – e-mail received from Alicia Smith on April 8, 2025 with a comment letter dated that day prepared by John Rose, LG, Hydrogeologist).
- The Town of La Conner (TOLC) and David Evans and Associates, Inc. (DEA) – in the course of further review by the Town and DEA, additional revisions were made and are documented herein.

No Comments received from the following agencies at the time of writing:

- Skagit PUD
- City of Anacortes
- Shelter Bay
- Skagit County Department of Health

FORMAT:

<u>Agency Comment numbered</u>

SC#:	Skagit County Planning
DOH#:	Washington State Department of Health Comments
ECY#	Washington State Department of Ecology
TOLC#	Association or DEA-initiated revisions

Italicized text: Town of La Conner (TOLC) response to agency comment, immediately following the comment, with revisions of the WSP, if any, noted therein.

SKAGIT COUNTY PLANNING

SC1: The County provided a completed local government consistency checklist, without conditions, and referenced that the plan was reviewed for content addressing long range planning, demographics, franchise agreements, public health and fire protection.

The subject form has been completed by Skagit County (12/8/2023) and a copy is included at the end of Chapter 1.

SC2: The County also provided comments relating to some typographic errors and name changes:

1. Chapter 1, Page 7, 1.3 Related Plans
   A. Should be listed as Skagit County Coordinated Water System Plan, 2000. I did not find any updates to the plan. https://skagitcounty.net/Departments/PlanningAndPermit/CWSP2000.htm
   B. Skagit County Unified Development Code recently amended on December 16, 2024.
2. Chapter 1, Page 13, 1.7, Government is misspelled in heading.
3. Chapter 1, Page 14, the updated information for Skagit County Public Health is Greg Geleynse, 301 Valley Mall Way, Suite 110, Mount Vernon, WA 98273. You can list my name for Skagit County Planning and Development Services.
4. Figure 1.3 Town of La Conner Zoning; is it correct to assume that the areas not identified as Commercial, Industrial, and Public Use are zoned Residential?
5. Figure 1.4, Skagit County Zoning; recommend changing "La Conner UGA" to "LC-UD". This is the formal zoning designation for this UGA, per SCC14.16.240 https://www.codepublishing.com/WA/SkagitCounty/html/SkagitCounty14/SkagitCounty1416.html#14.16.240:~:text=14.16.240%20La%20Conner%20UGA%20Urban%20Development%20District%20(LC%2DUD).

Chapter 1 areas have been revised as noted. Figure 1.3 has been revised for clarity, and 1.4 has been revised as noted.

WASHINGTON STATE DEPARTMENT OF HEALTH
Description of Water System

Chapter 1 Description of Water System

DOH1: When does the Town envision including the neighboring agricultural community into its future service area? Are they currently located in a service area of a neighboring

water system? Currently the Town has one wholesale customer, what plans are in place to create a wholesale agreement policy prior to exploring these additional customers?

The Town does recognize the potential for agricultural customers, both for irrigation and domestic services. Costs needed to extend the existing system as well as contractual obligations to Anacortes and Shelter Bay create a more complicated pathway to obtain these additional customers. Costs in particular continue to be the limiting factor. The Town will continue to work towards a solution, perhaps including USDA or other grants.

DOH2: Please label Shelter Bay as a wholesale customer in your service area map.

Service area map was updated as noted.

DOH3: Please provide signed local government consistency from Skagit County Planning and the Town of La Conner.

Consistency forms added to the end of Chapter 1

DOH4: Please include a copy of your service area agreements with your WSP.

A service area agreement with Skagit County discussed in 1.4.3 cannot be located by the Town or County. The agreement information with Skagit Beach is now in Appendix A. The agreement with Anacortes in Appendix A, coupled with the Skagit County Comprehensive Water Plan, references or infers La Conner's overall service area with no identified gaps or overlaps.

Chapter 2 Basic Planning Data

DOH5: Section 2.1.2C states the Shelter Bay and TOLC water agreement is for 70 million gallons per year (205,500 gpd), and 500 gpm. The agreement in Appendix A allocated 400,000 gpd. Section 2.4 says 75 million gallons per year is allocated. Please clarify the differences.

The Shelter Bay agreement in Appendix A limits the supply to 400,000 gpd. Sections 2.1.2C and 2.4 were revised for clarity.

DOH6: In Section 2.5 it is noted that source reliability is the responsibility of the City of Anacortes. DOH believe it is also the Town's responsibility. The Town should consider exploring avenues for source redundancy in case of emergency.

Section 2.5 is revised to clarify that it is Anacortes that bears sole responsibility for their water system up to the intertie, but does not alleviate the Town's responsibility to increase resiliency. Address the continued intent to pursue an intertie with Skagit PUD as well as open discussions with Anacortes for an additional delivery point for increased

redundancy. To date, it is understood those discussions have resulted in plans that are not cost effective.

DOH7: We recommend you continue to explore a future intertie with Skagit PUD as an option. Consider applying for the Drinking Water State Revolving Fund (DWSRF) Planning and Engineering loan to look into a feasibility study. Contact Jocelyne Gray at Jocelyne.gray@doh.wa.gov with questions. Or see our website here: Drinking Water State Revolving Fund (DWSRF) | Washington State Department of Health

As stated above, Section 2.5 is revised to include revisiting the intertie.

DOH8: It is noted that your current service agreement with Anacortes expires in December 2025. Does the Town plan to have an updated service agreement in place prior to the approval of this WSP? What is the status of negotiations?

An updated agreement with Anacortes was already executed but was not included in the Plan. An updated agreement that expires in 2032 is now included in place of the old contract.

DOH9: List the growth rate for ERU's on a yearly basis on both tables.

Tables updated to include growth rates.

DOH10: Define how the PHD multiplier of 1.90 X MDD is calculated.

Tables are updated to include sources of the peaking factors. Chapter 2.2 also defines these factors.

DOH11: In general, PHD values differ throughout the WSP. Please clearly define how calculated, and value for each year. Converting ADD to gpm does not accurately represent PHD.

Peaking factors have been revised for consistency.

DOH12: The year, corresponding ERU quantity, and calculated ADD have different values between table 2-7 and table 2-8. Please clarify.

The removal of Shelter Bay as a wholesale customer results in ERU changes. Tables have been reviewed and revised for enhanced clarity.

DOH13: Please explain where the 1.9 multiplier for MDD came from.

Tables are updated to include sources of the peaking factors.

DOH14: Explain how Conservation ADD is calculated.

Report updated to remove this reference and reduce confusion. Conservation ADD was intended to reflect what the water use would be should the goals be met. The terms has now been replaced with WUE Goal to help clarify intent.

DOH15: In Figure 2-1, what do the blue and purple lines represent? Please label.

Figure 2-1 legend updated to reflect what is shown.

Chapter 3 System Analysis and Asset Management

DOH16: Kudos on the investment of your new asset management program. A good program should include at minimum: the installation date/age of each asset, life expectancy, replacement cost in today's dollars and end of life dollars, criticality and level of service. It's also important to note that if you are hoping to apply for Drinking Water State Revolving Fund (DWSRF) funding, an asset management program is required. We encourage you to explore whether or not the PW Board funding has this same requirement. We recommend you include the program pieces above in your WSP.

The Plan is updated in Section 8.2 to reflect the additional information as noted. Asset management is encouraged by the PW Board and is used in scoring in more recent cycles. It may be required for larger projects. However, requirements change and are typically set for each funding cycle. Further, certain loans may have requirements for asset management.

To reiterate, the Town has incomplete information as to some asset information such as installation date. Estimates of the year of installation are required to fill in the missing information. It is likely that the management tracking would approach full potential in the long term, as old items are replaced.

DOH17: Detail Shelter Bay's estimated consumption in 2033 and 2044.

Section 3.4.3 (C) is updated to clarify growth (i.e. future consumptions) are to grow in a limited fashion since the service area is limited to the existing occupied lots. Similar wording is also included for Skagit Beach Tables are now updated to 2035 and 2045.

DOH18: Explain how following Eq. 3-1 represents both types of demands accurately with 60% of the demand being residential, and 40% being industrial, agricultural, or port use.

Section 3.4(B) is updated to reflect that meter readings of the Town were used to estimate maximum day flows as a peaking factor to the measured monthly flows. The Peak Hourly Demand was revised to follow a similar approach

DOH19: Please list inputs used for Eq 3-1 to calculate a PHD of 1,350 gpm.

The equation used was changed in response to prior comments.

DOH20: Section 3.4.3, Current Hydraulic Model, states that 212 gpm is for metered connections. Please explain how this value was calculated, what it represents, and how this value compares to the ADD values in Table 2-8.

Section updated as noted. The 212 gpm was calculated based off of the 2023 meter data where the Tables 2-7 and 2-8 were using the flow converted to gpm and increased by 1% per year in line with County projections, which are showing to be almost 100% greater than actual growth. Values were revised as needed to reflect the other Tables prior to re-running the models.

DOH21: Curious why pressures drops in the hydraulic model analysis without Shelter Bay demand/connection.

Models were re-run to confirm pressure drops after settings were updated and confirmed. The current models show more intuitive pressures with and without Shelter Bay. It is unknown as to the cause of the initial model runs anomalous pressures.

DOH22: Define the lowest level in the storage tank to keep minimum pressures during MDD+ FF (20 psi) condition and PHD condition (30 psi). Ensure the storage tank is modeled at this level in the hydraulic models.

Model inputs as noted were incorporated into the re-runs stated above. The reservoir elevation is such that there is no dead storage as indicated in Chapter 3.

DOH23: Explain whether the infrastructure modeled in the hydraulic analysis is existing or proposed.

All modeling is on existing piping. Plan updated to state this.

DOH24: Please include limiting factor analysis.

Analysis added using Table 4-1 of the DOH Design and Planning Guidebook as a reference.

DOH25: Model PRVs and/or various pressure zones within the hydraulic model. If multiple pressure zones, please delineate in figure.

The high-pressure transmission main has few connections and such connections are routed through a PRV to maintain the Town's singular pressure zone. The Town's customers operate under one pressure zone and that is modeled. The valves were present during the field testing to validate the model. This has been clarified in 3.4.3(B).

Chapter 4 Water Use Efficiency Program

DOH26: Please note that the supply side measures such as meter installation/replacement and leak detection listed in Section 4.3.9 do not count towards the number of required measures for your WUE program. For a utility your size, there is a minimum of 4 conservation measures needed. Reclaimed water use and customer education past the once annual requirement can count towards these four. Please include 4 measures your utility will implement. For more information or ideas, see our WUE guidebook: Water Use Efficiency Guidebook.

WUE updated as noted. Town is updating their rate evaluation as one step in ensuring compliance with WUE goals. Town is also looking to update their metering from a system that not only detects leaks as their current system does but also gives access to users via an app so users can see their consumption and possibly analytics. The Town is evaluating options to ensure competitive pricing. This is included in 4.3.1.

DOH27: Please include documentation that you have met the public notice and public forum requirements of WAC 246-290-830 WUE goal setting by including the public notice posting and meeting agenda for your current goal setting.

Documentation added to Appendix E.

Chapter 5 Source Water Protection

DOH28: No Comment

Chapter 6 Operation and Maintenance Program

DOH29: In O&M manual, list operator names, certification #s and expiration dates.

Section updated as noted.

DOH30: There are 10 air releases. Please include O&M for these to ensure they are working and draining properly.

A note about the air valves is added. The Town maintain the valves to manufacturer requirements as provided in the published IOM(s).

DOH31: Include Lead and Copper Monitoring Plan.

Plan is added, with monitoring information included in Table 6.1.

DOH32: Please see suggested improvements to your Coliform Monitoring Plan (listed later in this response letter).

Noted.

DOH33: Has the Town considered joining WAWARN as part of their emergency preparation?

The Town continues to evaluate their participation in WAWARN. It is possible that the Town could join this program in the next few years.

DOH34: Include Cross Connection Control Program. Along with: Names of CCS', List of devices with hazard and location, copy of most recent ASR.

The Cross Connection Control flyer is linked in the Section to help readers obtain the most up to date information. The program itself is codified in Chapter 12.25 of their municipal law. The link to this is added to the report. A list of backflow devices is included at the end of Chapter 6.

Chapter 7 Design and Construction Standards

DOH35: Include Standard Construction specifications if wanting to be exempted from submitting projects for new water mains.

The Infrastructure Manual is linked in the Section to help readers obtain the most up to date information on standards. This was seen as preferrable over hardcopy standards that may become obsolete within the planning period. A copy of the current standards is provided to your office under separate cover.

Chapter 8 Capital Improvement Program

DOH36: It appears Table 8-1 is included twice. Consider removing the table in PDF page 154 of 684.

Extraneous table removed.

DOH37: Please list any projects you have planned out for 20 years. All projects noted in your 10-year planning period need to be included in your budget in Chapter 9.

Funding continues to be limited. The Town intends to complete all CIP in the next 10 years as these projects were once on a 20-year timetable. The Town has no other plans to include in the 20-year forecast. Revisions to the Plan would be required if the CIP is completed and new projects came about.

DOH37A (subsequent e-mail clarification on June 27, 2025): Looking back at the comment letter we sent, I don't think I clarified one of my comments very well. Can you make it clear on the CIP table how the Town plans to pay for each project listed for the planning period?

The table is updated to show current plans for funding. The Town is limited in their bonding capacity and other non-water projects are currently incurring some of that capacity.

Chapter 9 Financial Program

DOH38: Please include a 10-year balanced budget that demonstrates the same planning period as your Chapter 3 projections and Chapter 8 CIP. Please ensure all deficiencies are financially planned for and included in your budget. Include all existing and future loan payments.

Budget updated. Town is updating their rate evaluation to help ensure a balanced budget moving forward in the planning period. Rates and debt service are the primary means the Town has to ensure that CIP is paid for. Limits to allowable debt service may delay CIP. Town does not intend to commit to CIP without a balanced budget that includes that CIP.

DOH39: Section 9.1 references a 6-year planning period, however the town is pursuing a 10-year planning period. Do the tests still show financial viability over the 10-year planning period?

The FVT covered the six-year planning period in place at the time it was completed. That still forms the basis for how the Town prepares its current budgets as well as future budgets. The language is revised to clarify this.

Chapter 10 Miscellaneous Documents

DOH40: Please include your SEPA checklist.

Checklist added to Appendix B

DOH41: Please include responses and comments you receive from neighboring water systems and tribes.

All comments received are added in Appendix H with this summary.

DOH42: Provide documentation of compliance with the meeting of consumers requirement that shows this WSP was presented at a public meeting.

Meeting minutes from the March 11, 2025 Town Council meeting is added. The public hearing was held, no comments were received. The meeting was closed and plan adopted pending review. Resolution 657 is included in Appendix A.

DOH43: Please incorporate any changes necessary based on Department of Ecology's review of your WSP.

Responses to Ecology are included herein.

Coliform Monitoring Program

DOH44: The following are suggested improvements to your coliform monitoring program for your consideration:

System Information
Source Name is listed as “City of Anacortes, 02200C” The City of Anacortes source is the Skagit River, providing a capacity of 3,500 gpm to La Conner.
Consider including additional context: define pressure zones and estimate population served within each zone. *Suggestion noted. The Town will review this and revise as they deem beneficial.*

Laboratory Information
Including the city location of the emergency laboratory would provide valuable clarity (e.g., “Emergency Lab – Anacortes, WA”). *Information updated.*

E. coli – Present Sample Response
Please review the following regarding potential public notice delivery methods...

> **Distribution System E. coli Response Plan**
> Below is a refined example of a comprehensive response plan...
>
> **E. coli – Present Triggered Source Sample Response Checklist**
> The intertie (treated water delivery point) is not technically a raw water source...
>
> **Temporary Treatment**
> Confirm whether La Conner can independently chlorinate intertie-delivered water.

The Town will review these suggestions and update their plan accordingly.

Closing Suggestions
DOH52: Regulatory Alignment: Ensure coordination with DOH is clearly stated and actionable.

As with the above response, revisions to explicitly require coordination with DOH during emergencies will be reviewed and plan updated to ensure future compliance.

DOH53: Public Communication: Tailor notice methods to system size and customer behavior.

Notification methods for the customers continue to be evaluated for effectiveness and timeliness and will be adjusted to maximize public health and safety.

DOH54: Technical Completeness: Verify whether treatment systems and disinfection capacities are adequate and documented

Statements regarding water quality have been updated Section 3.2 of the Plan. The Town maintains records for disinfection residual and coliform exceedances in accordance with WAC requirements.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

ECY1: No issues of concern were identified during review. Advisory comments identified possible discrepancies in ERU counts amongst the various Tables.

Tables were reviewed and updated to correct for any discrepancies. Note that Table 2-4 had ERU's based on the meter data up to the beginning of 2023. Table 2-8 begins the ERU count at an assumed value based on assumed growth which may have been a source of confusion. Although actual ERU counts in the planning period may have a slight error compared to the assumed values, the planning water demand (170 gpd/ERU) is approximately 17% higher and therefore should provide a conservative projected water demand estimate.

TOWN OF LA CONNER

TOLC1: Misc. Additional Changes

a. Revised Plan Date

The revised plan has been provided a revised date of July 2025 on the cover and title pages and dated as July 2025 in the report footers.

b. Proposed Plan Adoption Date

The proposed plan adoption date has been revised to be July 22, 2025, in the first paragraph of Chapter 1.

c. Review Comments

Chapter 1 and 10 have been updated where previously highlighted to document the plan submittal and review process.

d. System Mapping

System mapping updated to the latest version in the revised plan. Modeling noted earlier incorporated these changes.

e. Appendix A - Review Comments

Appendix A has been updated to include the following:

- *Department of Health comments*
- *Summary of Agency comments*
- *Department of Health Approval – letter pending*

DAVID EVANS
AND ASSOCIATES INC.

March 19, 2025

Orianna Clarke
Program Assistant
Washington State Department of Health, Skagit County

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Orianna or To Whom it May Concern,

On behalf of the Town of La Conner, we are enclosing for your review and approval one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10 year plan period.

We are concurrently submitting the plan to other agencies for review and comment. We understand that your office will be coordinating with the Department of Ecology for their comments. Please let me know if you need any support from this office in doing so.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP, Infrastructure Manual, WFI, PAA
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\WSDOH Cover Letter.docx

DAVID EVANS
AND ASSOCIATES INC.

March 25, 2025

Logan Lee, P.E.
City Engineer, Anacortes
904 6th Street
Anacortes, WA 98221

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Logan,

On behalf of the Town of La Conner, we are enclosing for your review one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10-year plan period.

We are concurrently submitting the plan to other agencies for review and comment as well as the Washington State Department of Health for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Anacortes Cover Letter.docx

DAVID EVANS
AND ASSOCIATES INC.

March 19, 2025

Bill Palmer
Shelter Bay Community
1000 Shoshone Drive
La Conner, WA 98257

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Mr. Palmer,

On behalf of the Town of La Conner, we are enclosing for your review one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10-year plan period.

We are concurrently submitting the plan to other agencies for review comment as well as the Washington State Department of Health for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Shelter Bay Cover Letter.docx

Andi Thompson

From: Bill Palmer <bpalmer@shelterbay.net>
Sent: Wednesday, March 19, 2025 2:36 PM
To: Andi Thompson
Subject: RE: La Conner 2025 Water System Plan

Hi Andi, thanks for sending this over. We will get back to you if we have questions.

Have a nice afternoon.

Bill Palmer
Community Manager
Shelter Bay Community, Inc.
(360)466-3805 ext. 5
bpalmer@shelterbay.net

From: Andi Thompson <Andi.Thompson@deainc.com>
Sent: Wednesday, March 19, 2025 2:20 PM
To: Bill Palmer <bpalmer@shelterbay.net>
Subject: La Conner 2025 Water System Plan

You don't often get email from andi.thompson@deainc.com. Learn why this is important

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Palmer,

On behalf of the Town of La Conner, please find the attached cover letter and use the link below to download a copy of the 2025 Water System Plan. Please let me know if you have any questions. Thank you.

https://deainc.filetransfers.net/downloadPublic/61iy3fu8sz4vrrg

Sincerely,

Andi Thompson, P.E. (NY & WA) | Senior Engineer IV, Water and Environment Business Unit
David Evans and Associates, Inc.
14432 SE Eastgate Way, Suite 400 | Bellevue, WA, 98007 | www.deainc.com
d: 425.519.6561 | c: 845.797.3570 | cisco: 22561 | andi.thompson@deainc.com Pronouns: she/her/hers
ENERGY | LAND DEVELOPMENT | MARINE SERVICES | SURVEYING AND GEOMATICS | TRANSPORTATION | WATER AND ENVIRONMENT



DAVID EVANS
AND ASSOCIATES INC.

March 21, 2025

Rachel Wilkens
Environmental Health Specialist I
Skagit County Department of Health

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Ms. Wilkens,

On behalf of the Town of La Conner, we are enclosing for your review and comment one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10 year plan period. We have also included as separate links the Town's Infrastructure Manual and cross connection control information for your reference. These documents are linked within the WSP.

We are concurrently submitting the plan to other agencies for review and comment and have provided a copy to WSDOH for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP, Infrastructure Manual, Cross Connection Control Program
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Skagit County DOH Cover Letter.docx

DAVID EVANS
AND ASSOCIATES INC.

March 19, 2025

Andrew Miller
Skagit County PUD No. 1
PO Box 1436
Mount Vernon, WA 98273

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Mr. Miller,

On behalf of the Town of La Conner, we are enclosing for your review one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10-year plan period.

We are concurrently submitting the plan to other agencies for review and comment as well as the Washington State Department of Health for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Skagit County PUD Cover Letter.docx

DAVID EVANS
AND ASSOCIATES INC.

March 19, 2025

Tara Satushek, AICP
Senior Planner
Skagit County Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Tara,

On behalf of the Town of La Conner, we are enclosing for your review and comment one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10-year plan period.

We are concurrently submitting the plan to other agencies for review comment as well as the Washington State Department of Health for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson

Andi Thompson, P.E.
Senior Engineer IV

Copies: Enter Copies
Attachments/Enclosures: 2025 WSP, Infrastructure Manual, WFI, PAA
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Skagit Planning Cover Letter.docx

DAVID EVANS
AND ASSOCIATES INC.

March 20, 2025

Mike Poppe
Swinomish Indian Tribal Community
P.O. Box 340
La Conner, WA 98257

SUBJECT: Town of La Conner 2025 Water System Plan

Dear Mr. Poppe,

On behalf of the Town of La Conner, we are enclosing for your use one electronic copy of the Town's 2025 Water System Plan (WSP). This WSP amends the Town's 2009 WSP. The intent of this plan is to provide updated information on the current operations of the Town as well as planning information for a 10-year plan period.

We are concurrently submitting the plan to other agencies for review and comment, as well as the Washington State Department of Health for their review and approval.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,
DAVID EVANS AND ASSOCIATES, INC.

Andi Thompson, P.E.
Senior Engineer IV

Copies:
Attachments/Enclosures: 2025 WSP
Project Number: TOLC0000-2008
File Path: P:\T\TOLC00002008\0600INFO\Prelim-2023 WSP Update\Draft 2023 WSP\Final for Distribution March 2025\Cover Letters\Swinomish Tribe Planning Cover Letter.docx

Drinking Water

Project Approval Application (PAA) Form

331-149 F • Revised 1/10/2022

Please complete all appropriate sections of this application form and include it with your project.

WATER SYSTEM Information

LA CONNER WATER DEPT	43350 0
Water System Name	PWS ID #
Enter text	Skagit
Submittal Description	County

A-Communinty	501 - 999
Classification	# of Service Connections

OWNER Information

PUBLIC WORKS DIRECTOR	Enter text
Name	Owner ID #
Enter text	Enter text
E-mail address	Phone

12154 CHILBERG RD; STE C	LA CONNER		
Mailing address	City	State	Zip

PROJECT CONTACT Information

BRIAN LEASE	Enter text
Name/Position	
PUBLIC WORKS DIRECTOR	360-466-3933
E-mail address	Phone

12154 CHILBERG RD; STE C	LA CONNER	WA	98257
Mailing address	City	State	Zip

CONSULTING/DESIGN ENGINEER Information

DAVID EVANS AND ASSOCIATES, INC.	Enter text
Name/Firm	
EVAN.HENKE@DEAINC.COM	425.519.6561
E-mail address	Phone

14432 SE EASTGATE WAY; STE 400	BELLEVUE	WA	980 07
Mailing address	City	State	Zip

SMA Information

Enter text	Enter text
Name/SMA	SMA #
Enter text	Enter text
E-mail address	Phone

Enter text	Enter text	WA	Zip
Mailing address	City	State	Zip

BILLING Information*

TOWN OF LA CONNER	
Name	
Enter text	360-466-3125
E-mail address	Phone

204 DOUGLAS ST	LA CONNER	WA	982 57
Mailing address	City	State	Zip

GENERAL Submittal Information

☐ Check here if you need a Box.com folder set up for transferring your project to us electronically. (You will receive an invite by email after we have received the PAA form.)

Do you have projects currently under review by us? ☐ Yes ☐ No

☐ This is a new water system (if so, include a completed Water Facilities Inventory Report Form with your project).

☐ DWSRF Loan
Application # Enter Number
Loan # Enter Number

☐ Enforcement
Docket # Enter Number
Type Enter Text

☐ Water System Plan (complete Planning Information)

☐ Small Water System Management Program (complete Planning Information)

☐ Engineering (complete Engineering Information)

☐ Group B (complete Engineering Information)

☐ Satellite Management Agency Plan (complete SMA Information)

☐ Alternate Technology (complete Engineering Information)

ENGINEERING Information

Choose Project Report	Choose Special Report or Plans
Project Report Type	Special Report or Plans
Choose Predesign Study	Choose Existing System Approval
Predesign Study	Existing System Approval
Choose Construction Documents	Choose Waiver

Construction Documents

Choose Other

Other

Waiver

PLANNING Information

How many connections does system currently have? ..... Enter Number

If system is private-for-profit, is it regulated by UTC? ..... ☐ Yes ☐ No

Is system expanding? ..... ☐ Yes ☐ No

- Expanding service area? ..... ☐ Yes ☐ No
- Increasing number of approved connections? ..... ☐ Yes ☐ No

If the number of connections is expected to increase, how many *new* connections are proposed in the next ten (10) years? ..... Enter Number

Is your system pursuing additional water rights from Department of Ecology in the next 20 Years? ..... ☐ Yes ☐ No

Is a new intertie proposed? ..... ☐ Yes ☐ No

Is the system located in a Critical Water Supply Service Area (is there a Coordinated Water System Plan)? ..... ☐ Yes ☐ No

- If yes, have you sent a copy of the plan to the county or responsible agency for the CWSP? ..... ☐ Yes ☐ No

Are you requesting distribution main project report and construction document submittal exception? ☐ Yes ☐ No

- If so, does the WSP contain standard construction specifications for distribution mains? ..... ☐ Yes ☐ No

The water system/purveyor is responsible for sending a copy of the plan to:

- Adjacent utilities for review or a letter notifying them that a copy is available for their review and where it is located. ..... ☐ Yes ☐ No
- All local governments within the service area ..... ☐ Yes ☐ No
- County and city planning departments, one or both if applicable, adjacent water systems, etc. ☐ Yes ☐ No

List who have you sent the WSP to for review other than ODW? ..... Enter Text

Are you proposing a change in the place of use of your water right? ..... ☐ Yes ☐ No

- If "yes," the purveyor must send a copy of the WSP or SWSMP to all local governments within the service area (county and city planning departments) for a local consistency determination. Has this been completed? ..... ☐ Yes ☐ No

What are the years of the requested plan approval period (for example 2022 to 2032)? ..... Enter Years

Does your plan follow your preplan checklist? ..... ☐ Yes ☐ No

SMA Information

☐ Ownership only ☐ Management and Operations only ☐ Ownership, Management & Operations

Where can we find the *SMA Notice of Intent* 331-590, in your plan ..... Enter Text

Please submit all documents electronically. We request one paper copy of planning documents be submitted to the address for your regional office below.

☐ **Eastern Regional Office**
Department of Health
eroadmin@doh.wa.gov
Phone: 509-329-2100

☐ **Northwest Regional Office**
Department of Health
dw.nwro.wsprojects@doh.wa.gov
Phone: 253-395-6750

☐ **Southwest Regional Office**
Department of Health
swro.admin@doh.wa.gov
Phone: 360-236-3030

Washington State Department of Health

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
NORTHWEST DRINKING WATER REGIONAL OPERATIONS
PO BOX 47800 ATTN: 47822 OLYMPIA, WA 98504-7800

June 20, 2025

BRIAN LEASE, PUBLIC WORKS DIRECTOR
TOWN OF LA CONNER
publicworks@townoflaconner.org

Subject: La Conner Water Dept (ID#43350)
Skagit County
Water System Plan – Review Letter
Submittal #25-0309

Dear Brian Lease:

The La Conner Water Department's (the Town) Water System Plan (WSP) was processed in this office in accordance with WAC 246-290 on March 19, 2025. We have reviewed the plan and offer the following comments. These comments must be adequately addressed prior to approval of the WSP.

Chapter 1 Description of Water System

1. When does the Town envision including the neighboring agricultural community into its future service area? Are they currently located in a service area of a neighboring water system? Currently the Town has one wholesale customer, what plans are in place to create a wholesale agreement policy prior to exploring these additional customers?
2. Please label Shelter Bay as a wholesale customer in your service area map.
3. Please provide signed local government consistency from Skagit County Planning and the Town of La Conner.
4. Please include a copy of your service area agreements with your WSP.

Chapter 2 Basic Planning Data

5. Section 2.1.2C states the Shelter Bay and TOLC water agreement is for 70 million gallons per year (205,500 gpd), and 500 gpm. The agreement in Appendix A allocated 400,000 gpd. Section 2.4 says 75 million gallons per year is allocated. Please clarify the differences.
6. In Section 2.5 it is noted that source reliability is the responsibility of the City of Anacortes. DOH believe it is also the Town's responsibility. The Town should consider exploring avenues for source redundancy in case of emergency. We recommend you

continue to explore a future intertie with Skagit PUD as an option. Consider applying for the Drinking Water State Revolving Fund (DWSRF) Planning and Engineering loan to look into a feasibility study. Contact Jocelyne Gray at Jocelyne.gray@doh.wa.gov with questions. Or see our website here: Drinking Water State Revolving Fund (DWSRF) | Washington State Department of Health

7. It is noted that your current service agreement with Anacortes expires in December 2025. Does the Town plan to have an updated service agreement in place prior to the approval of this WSP? What is the status of negotiations?
8. Table 2-7 & Table 2-8 Questions:
    a. List the growth rate for ERU's on a yearly basis on both tables.
    b. Define how the PHD multiplier of 1.90 X MDD is calculated.
    c. In general, PHD values differ throughout the WSP. Please clearly define how calculated, and value for each year. Converting ADD to gpm does not accurately represent PHD.
    d. The year, corresponding ERU quantity, and calculated ADD have different values between table 2-7 and table 2-8. Please clarify.
    e. Please explain where the 1.9 multiplier for MDD came from.
    f. Explain how Conservation ADD is calculated.
9. In Figure 2-1, what do the blue and purple lines represent? Please label.

Chapter 3 System Analysis and Asset Management

10. Kudos on the investment of your new asset management program. A good program should include at minimum: the installation date/age of each asset, life expectancy, replacement cost in today's dollars and end of life dollars, criticality and level of service. It's also important to note that if you are hoping to apply for Drinking Water State Revolving Fund (DWSRF) funding, an asset management program is required. We encourage you to explore whether or not the PW Board funding has this same requirement. We recommend you include the program pieces above in your WSP.
11. Detail Shelter Bay's estimated consumption in 2033 and 2044.
12. Peak Hour Demand Calculations:
    a. Explain how following Eq. 3-1 represents both types of demands accurately with 60% of the demand being residential, and 40% being industrial, agricultural, or port use.
    b. Please list inputs used for Eq 3-1 to calculate a PHD of 1,350 gpm.
13. Section 3.4.3, Current Hydraulic Model, states that 212 gpm is for metered connections. Please explain how this value was calculated, what it represents, and how this value compares to the ADD values in Table 2-8.
14. Curious why pressures drops in the hydraulic model analysis without Shelter Bay demand/connection.
15. Define the lowest level in the storage tank to keep minimum pressures during MDD+ FF (20 psi) condition and PHD condition (30 psi). Ensure the storage tank is modeled at this level in the hydraulic models.
16. Explain whether the infrastructure modeled in the hydraulic analysis is existing or proposed.

17. Please include limiting factor analysis.
18. Model PRVs and/or various pressure zones within the hydraulic model. If multiple pressure zones, please delineate in figure.

Chapter 4 Water Use Efficiency Program

19. Please note that the supply side measures such as meter installation/replacement and leak detection listed in Section 4.3.9 do not count towards the number of required measures for your WUE program. For a utility your size, there is a minimum of 4 conservation measures needed. Reclaimed water use and customer education past the once annual requirement can count towards these four. Please include 4 measures your utility will implement. For more information or ideas, see our WUE guidebook: Water Use Efficiency Guidebook
20. Please include documentation that you have met the public notice and public forum requirements of WAC 246-290-830 WUE goal setting by including the public notice posting and meeting agenda for your current goal setting.

Chapter 5 Source Water Protection

No Comment

Chapter 6 Operation and Maintenance Program

21. In O&M manual, list operator names, certification #s and expiration dates.
22. There are 10 air releases. Please include O&M for these to ensure they are working and draining properly.
23. Include Lead and Copper Monitoring Plan.
24. Please see suggested improvements to your Coliform Monitoring Plan below.
25. Has the Town considered joining WAWARN as part of their emergency preparation?
26. Include Cross Connection Control Program. Along with: Names of CCS', List of devices with hazard and location, copy of most recent ASR.

Chapter 7 Design and Construction Standards

27. Include Standard Construction specifications if wanting to be exempted from submitting projects for new water mains.

Chapter 8 Capital Improvement Program

28. It appears Table 8-1 is included twice. Consider removing the table in PDF page 154 of 684.
29. Please list any projects you have planned out for 20 years. All projects noted in your 10 year planning period need to be included in your budget in Chapter 9.

Chapter 9 Financial Program

30. Please include a 10 year balanced budget that demonstrates the same planning period as your Chapter 3 projections and Chapter 8 CIP. Please ensure all deficiencies are financially planned for and included in your budget. Include all existing and future loan payments.

31. Section 9.1 references a 6 year planning period, however the town is pursuing a 10 year planning period. Do the tests still show financial viability over the 10 year planning period?

Chapter 10 Miscellaneous Documents

32. Please include your SEPA checklist.
33. Please include responses and comments you receive from neighboring water systems and tribes.
34. Provide documentation of compliance with the meeting of consumers requirement that shows this WSP was presented at a public meeting.
35. Please incorporate any changes necessary based on Department of Ecology's review of your WSP.

Coliform Monitoring Program

The following are suggested improvements to your coliform monitoring program for your consideration:

A. System Information

a. Source Name is listed as "City of Anacortes, 02200C" The City of Anacortes source is the Skagit River, providing a capacity of 3,500 gpm to La Conner.
b. Consider including additional context: define pressure zones and estimate population served within each zone.

B. Laboratory Information

a. Including the city location of the emergency laboratory would provide valuable clarity (e.g., "Emergency Lab – Anacortes, WA").

H. E. coli – Present Sample Response

Please review the following regarding potential public notice delivery methods:

- For a small system where customers can drive by a single location to view posted advisories, reliance on a news release is not typically necessary.
- Conversely, issuing a news release might only be necessary if the system's size and customer base justify broader outreach.
- Consider adjusting the response to one of these two line items.

Distribution System E. coli Response Plan

Below is a refined example of a comprehensive response plan (please edit for consistency with La Conner's context):

1. Immediately notify the Department of Health (DOH).
2. Collect repeat samples per Part D; add investigative samples as needed. Request expedited preliminary lab results.
3. Thoroughly flush the affected distribution area.
4. Inspect all system facilities for proper operation and treatment efficacy.
5. Interview operations staff to identify any unusual events or changes since the previous sampling.

6. Investigate recent water main breaks, new construction, or pressure outages.
7. Review the status of the Cross-Connection Control Program.
8. Consult with DOH to determine if a Health Advisory (HA) is warranted; issue one if necessary.
9. Prepare for issuance of a boil-water advisory—including multilingual messaging, if applicable.
10. Be ready to implement temporary or batch chlorination, if necessary.
11. Await repeat sample results.
12. Respond based on repeat results:

- If all repeats are satisfactory, lift the HA (if issued).
- If any repeat is unsatisfactory:
    - Issue or maintain the HA.
    - Host a DOH inspection and respond to their findings accordingly.

Note: Step 2 in the current plan duplicates Step 5–7; Step 11 does not currently specify coordination with DOH. Adjustments have been made above for coherence and alignment with regulatory guidance.

E. coli – Present Triggered Source Sample Response Checklist

- The intertie (treated water delivery point) is not technically a raw water source; the Skagit River is the sole raw water supply. Therefore, E. coli presence in the river should be expected and cannot reasonably be treated at the source.
- The last question regarding background actions is likely **not applicable**, as no source work applies to the river itself.
- Similarly, public notice procedures tied to the source state are likely irrelevant—without wholesale customers and given chlorine disinfection of surface water, a template communication plan is hard to define.
- If E. coli were detected at the intertie, a response plan becomes necessary—particularly if additional disinfection capability is lacking.

Temporary Treatment

- Confirm whether La Conner can independently chlorinate intertie-delivered water.
- If so, specify the chlorine concentration required at the entrance to the distribution system, ensuring a 4-log virus inactivation standard is met.

Closing Suggestions

- **Regulatory Alignment**: Ensure coordination with DOH is clearly stated and actionable.
- **Public Communication**: Tailor notice methods to system size and customer behavior.

Technical Completeness: Verify whether treatment systems and disinfection capacities are adequate and documented.

We hope that you have found these comments to be clear, constructive and helpful in the development of your final WSP submittal. We ask that you submit the revised WSP on or before **September 17, 2025.** In order to expedite the review of your revised submittal, please include a

cover letter summarizing how each of the above comments was addressed in the revised WSP and where each response is located (i.e., page numbers, Appendices, etc.)

Regulations establishing a schedule for fees for review of planning, engineering and construction documents have been adopted (WAC 246-290-990). Please note that we have included an invoice in the amount of **$2,280.00,** for the review of the WSP. This fee covers our cost for review of the initial submittal, plus the review of one revised document. Please remit your complete payment in the form of a check or money order within thirty days of the date of this letter to: **DOH, Revenue Section, and P.O. Box 1099, Olympia, WA 98507-1099.** Or if you prefer, you can now pay online—follow the instructions at *Online Payment Guide* 331-688.(PDF).

DOH recognizes the significant effort and resource commitment involved in the preparation of your Planning document. Thank you for your cooperation. If you have any questions, please contact us at the numbers listed below.

Sincerely,

Krista Chavez
Regional Planner
564-669-0757

Raquel Callans, P.E.
Regional Engineer
360-800-7482

Enclosure: invoice

ec: Scott Thomas
Andi Thompson
Rachel Wilkens, Skagit County Health Department
Erin Langley, Skagit County Planning
John Rose, ECY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

April 8, 2025

La Conner Water Department, Skagit County
c/o Brian W. Lease, Public Works Director
PO Box 400
La Conner, WA 98257

Email: Publicworks@townoflaconner.org

RE: La Conner Water Department (Water System ID 43350)
2025 Comprehensive Water System Plan Update Comment Letter

Dear Brian Lease:

Thank you for the opportunity to review the La Conner Water Department Water System Plan Update (WSP), dated January 29, 2025, and received on March 24, 2025. Consistent with the Memorandum of Understanding between the Department of Health (DOH) and Department of Ecology (Ecology), regarding joint review and approval of WSPs, this letter is being sent to your office with Ecology's comments. Specific elements of the WSP review included the Water Rights Self-Assessment as well as additional documentation, including Ecology's files and previous La Conner Water Department WSPs and project reports, as applicable.

Ecology did not identify any issues of concern during review of the WSP and supplemental documentation.

Advisory Comments

During Ecology's review, it was noted that there appear to be inconsistent calculations for the #ERU's between Table 2-8 and Tables 2-4 and 2-7. For instance, in Table 2-7 the 2025 #ERU's is calculated at 2,209 (including the Shelter Bay connections) but in Table 2-8 for the same year it lists the #ERU's as 1,823. Please review the tables and either correct the data or provide additional explanation if the data included in these tables are correct.

General Information

Water Right Summary

La Conner Water Department currently has no water rights. Its sole water source is an intertie with the City of Anacortes from which it acquires water through a 2006 Water Supply Agreement that authorizes a transfer of up to 162 million gallons per year (497 acre-feet/year).

Future Demand

The La Conner Water Department WSP presents use and production data between 2020 and 2022, provided in Table 2.5. As of 2022, the approximate number of connections served by La Conner Water Department totaled 758 (chapter 2, pg. 8). Each connection was estimated by Ecology to serve, on average, approximately 2.9 equivalent residential units or ERUs. Therefore, La Conner Water Department is estimated by Ecology to serve a total of 2,165 ERUs as of 2022. Average daily demand of La Conner Water Department was calculated by dividing the average total gallons per day (368,055) of water delivered by the total ERUs (2,165). The per-ERU water use presented in the La Conner Water Department WSP for 2022 was 170 gallons per day.

The current maximum amount of water that can be acquired from City of Anacortes is 497 ac-ft/yr (162 million gallons/yr). Dividing this maximum amount by the current per-ERU water use (170 GPD) provides a projected future total number of ERUs possible of 2,610, based on the current water supply agreement. According to Ecology, full buildout is expected in 2041 based on a 1% estimated annual population increase, a growth rate established in the Town of La Conner Comprehensive Plan. However, in the narrative of the WSP, La Conner Water Department states that actual growth rates of the various types of users are expected to be less over the twenty-year planning period. According to the City of Anacortes's last water system plan (2011), forecasted water use indicates there is still significant additional water that La Conner Water Department could potentially purchase to meet future demands beyond the contractual amounts currently authorized.

Based on the information provided in Sections 2 and 3 of the WSP, dated January 29, 2025, capacity DOES NOT appear to be an issue.

Service Area

RCW 90.03.386(2) requires that water systems be in compliance with the terms of their WSP and that any alteration of the place of use not be inconsistent with any comprehensive plans or development regulations. An evaluation of any such change should be undertaken if a future expansion of the La Conner Water Department service area is planned.

Please contact me with any questions you may have at 425-531-8909 or john.rose@ecy.wa.gov.

Sincerely,

John Rose

John M. Rose, L.G.
Hydrogeologist
Water Resources Program
Northwest Region Office

ecc: Krista Chavez, Department of Health

Andi Thompson

From: Tara Satushek <taras@co.skagit.wa.us>
Sent: Monday, April 21, 2025 4:20 PM
To: Andi Thompson
Cc: Jack Moore; administrator; administrator
Subject: RE: La Conner Water System Plan
Attachments: Skagit County Local Government Consistency (003).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Andi,

Thank you for the opportunity to review the Town of La Conner's Comprehensive Water System Plan Update. Attached is the completed Skagit County Local Government Consistency Form.

Below are a couple of comments and questions.

1. Chapter 1, Page 7, 1.3 Related Plans
   A. Should be listed as Skagit County Coordinated Water System Plan, 2000. I did not find any updates to the plan. https://skagitcounty.net/Departments/PlanningAndPermit/CWSP2000.htm
   B. Skagit County Unified Development Code recently amended on December 16, 2024.
2. Chapter 1, Page 13, 1.7, Government is misspelled in heading.
3. Chapter 1, Page 14, the updated information for Skagit County Public Health is Greg Geleynse, 301 Valley Mall Way, Suite 110, Mount Vernon, WA 98273. You can list my name for Skagit County Planning and Development Services.
4. Figure 1.3 Town of La Conner Zoning; is it correct to assume that the areas not identified as Commercial, Industrial, and Public Use are zoned Residential?
5. Figure 1.4, Skagit County Zoning; recommend changing "LaConner UGA" to "LC-UD". This is the formal zoning designation for this UGA, per SCC14.16.240 https://www.codepublishing.com/WA/SkagitCounty/html/SkagitCounty14/SkagitCounty1416.html#14.16.240:~:text=14.16.240%20La%20Conner%20UGA%20Urban%20Development%20District%20(LC%2DUD).

Please don't hesitate to contact me if you have any questions or need any further documentation from Skagit County Planning & Development Services.

Sincerely,

Tara Satushek, AICP
Senior Planner

Planning and Development Services
1800 Continental Place
Mount Vernon, WA 98273
Direct (360) 416-2030 | Main (360) 416-1320

Email communications with county employees are public records and may be subject to disclosure, pursuant to RCW 42.56.

TOWN OF LA CONNER

Resolution No. 657

A RESOLUTION ADOPTING THE 2025 LA CONNER COMPREHENSIVE WATER SYSTEM PLAN UPDATE

WHEREAS, the Town of La Conner developed a Comprehensive Water System Plan for the purpose of establishing and maintaining a Water Utility around 1930; and

WHEREAS, the La Conner Comprehensive Water System Plan has undergone SEPA review under WAC 197-11-340(2) and a Determination of Non-Significance (DNS) issued on February 3, 2025; and

WHEREAS, Water Utility, facilities and capacities are described in the La Conner Comprehensive Plan with respect to Goals, Policies and Level of Service; and

WHEREAS, the Comprehensive Water System Plan identifies and prioritizes the capital facilities projects for inclusion in the 6-Year Capital Facilities Plan; and

WHEREAS, the Town of La Conner considers it in the best public interest to maintain and implement the 2025 La Conner Comprehensive Water System Plan, linked as Exhibit A; https://www.townoflaconner.org/DocumentCenter/View/2015/Final-Draft-2025-Comprehensive-Water-System-Plan-Update-PDF

NOW, THEREFORE, BE IT RESOLVED, that:

The Town of La Conner adopts the 2025 update to the La Conner Comprehensive Water System Plan as presented and approved the Town Engineer, Public Works Director and Planning Director.

ADOPTED BY VOTE of the La Conner Town Council this 25th day of February, 2025.

Marna Hanneman, Mayor

Attestation:

Maria DeGoede, Finance Director

Approved as to form:

Scott Thomas, Town Attorney

TOWN COUNCIL AGENDA

March 11, 2025, 6PM
Maple Hall.
204 Commercial Street

Skagit County Washington
Incorporated 1890
www.townoflaconner.org

I. **Call to Order**

II. **Pledge of Allegiance**

III. **Public Comments** (Limit: 3 minutes per person)

IV. **Presentations:** Councilmember Wohleb – 2025 Solarize Skagit

V. **CONSENT AGENDA**

A. **Consent Agenda (Approved without objection 5/0)**

1. Approval of the Minutes: Council Meeting of February 25, 2025

2. Finance:
   Approval of Accounts Payable
   Approval Payroll

B. **Items Removed from the Consent Agenda**

VI. **REPORTS**

1. Chamber Report
2. Revenue /Expenditure Report
3. Department Head Reports
4. Mayor's Report
5. Council Committee Reports

VII. **UNFINISHED BUSINESS:**

1. Resolution – Appreciation of Tom Robbins
2. Agreement – 6th Street Pump Control Panel Replacement (Quality Control Corp.)
3. Tribal 2025 Estimated Consumption Billing Recommendation

VIII. NEW BUSINESS

IX. **MAYOR ROUNDTABLE:**

X. **EXECUTIVE SESSION:**

There may be an executive session immediately preceding or following the meeting as allowed by RCW 42.30.110 and as announced by the presiding officer.

Town Hall Meetings are available for viewing only on our live portal at www.townoflaconner.com "technology permitting".

Ordinance 1258
Resolution 659

Consent Agenda

1) **Approval of Minutes**

2) **Approval of Accounts Payable**

3) **Approval of Payroll**

Town of La Conner

Town Council Meeting
February 25, 2025 – 6:00 p.m.

The meeting of the La Conner Town Council was called to order at 6:00 p.m. by Mayor Hanneman.
Present: Councilmembers Taylor, Carlson, Dole, Chamberlain and Wohleb.
Also present: Administrator Thomas, Finance Director DeGoede, Public Works Director Lease, Planner Davolio and WWTP Operator Wynn.

Public Comments:
Resident Linda Talman provided a letter to Council read by Kathy Shiner, regarding the Subarea Plan. She questioned how the Town would manage a PDA (public district association), as it would require a lot of staff time. She also asked for clarification of the subarea plan choices. When she worked for the State, the choices were simply accept, reject or modify.
Resident Kathy Shiner asked Council what their plans are for the removal of cars on First Street for the parades. She doesn't want to lose the Town parking lot per the Subarea Plan and she addressed the Council on their lack of discussions on topics.
Resident Debbie Aldrich also discussed her concerns of the Subarea Plan that includes losing the parking lot and the condos housing up to 400 additional people. First priorities are fire, flood and parking.

Consent Agenda:
Approval of Agenda
Approval of the Minutes of the February 11, 2025 Council Meeting.

Accounts Payable:	Checks	27838- 27879	$213,660.84
	Electronic Pmts.	2018312 – Excise Tax	$8,071.39
		Total Accounts Payable	**$221,732.23**

Payroll of February 20, 2025:	Checks 6049 - 6055	$2,083.67
	Payroll Auto Tax Payment #2018311	$9,283.07
	Payroll Auto Deposit	$27,069.21
	Total Payroll	**$38,435.95**

Councilmember Dole moved to approve the Consent Agenda as presented. Motion seconded by Councilmember Carlson. Motion carried 5/0.

Administrator's Report:
Administrator Thomas and Councilmember Carlson went to Olympia to meet with legislatures and addressed upcoming bills of concern as follows:

- The financial burden of changing the Water System Plan from every ten years to every three years.
- Restricts the regulation of Public Camping as reasonable with no guidelines
- Prohibiting any regulation of indoor emergency shelters and transitional housing in any zone classification.
- Requested to include towns and cities that contract policing in the sales and use tax to help pay for additional police officers through the contract.

Mayor's Report:
Mayor Hanneman attended a meeting with the Port of Skagit that included discussion on Town code changes and spoke at the Rotary's Merchant and Farmers Appreciation Dinner.

Council Committee Reports:
WAB Meeting:
Councilmember Taylor noted there will be a meeting on Thursday the 27th at 3pm to discuss the meter replacement and the 2024 billing.

Arts Commission:
Councilmember Taylor reported the Commission appointed Cynthia Elliott as chair and Don Wesley as pro-chair. The Commission has been discussing the possibility of forming an Arts Creative District and Maggie Wilder is talking about donating art to the Town.
Facility Committee Meeting:
Councilmembers Carlson and Chamberlain shared the meeting was to choose new chairs for Maple Hall. After discussions, it was decided to replace the seat and backs of the existing chairs for the lower floor events and select chairs with no cushions for the upper floor. Also, they decided to replace the damage Maple Hall floors with wood, in keeping with the historical nature of the building. Public Works Director Lease stated he checked into replacing the parts of the existing chairs and it can't be done. He is looking at other options.
Emergency Management Commission:
Emergency Management Commissioner Doug Asbe will meet with Fire Chief Reinstra and Public Works Director Lease to discuss coordinating emergency efforts to avoid duplication or counteracting each other.

Bid Recommendation – Washington and Road Streets Pedestrian Improvement Project:
Public Works Director Lease stated he received 13 bids with E&E Contracting coming in the lowest at $211,840. He is waiting for the bond information to complete the agreement, but is requesting Council to approve his recommendation of E&E Contracting.

Councilmember Wohleb moved to approve the Bid Recommendation for E&E Contracting for the Washington and Road Streets Pedestrian Improvement Project. Motion seconded by Councilmember Taylor. Motion carried 5/0.

Agreement – RCJ Engineering:
Public Works Director Lease stated this agreement is for the electrical engineering for the replacement of the 6th Street Pump Control Panel.

Councilmember Chamberlain moved to approve the Mayor to sign the Agreement with RCJ Engineering for the electrical engineering of the 6th Street Pump Control Panel. Motion seconded by Councilmember Wohleb. Motion carried 5/0.

PUBLIC HEARING – 2025 Water System Comprehensive Plan:
6:31 the Mayor opened the hearing.
Public Works Director Lease explained the last one was done in 2009. This update has been ongoing for the last three years. If Council approves it tonight, it will go the State for the 60-day review.
There were no public comments
6:36 the Mayor closed the hearing

Resolution 657 – Water System Comprehensive Plan:

Councilmember Dole moved to approve Resolution 657, the Water System Comprehensive Plan. Motion seconded by Councilmember Carlson. Motion carried 5/0.

Resolution 658 – Recognition of Art Commissioners:
Administrator Thomas explained we have four commissioners leaving for various reasons. This resolution acknowledges all their time and effort in the Town traditions and Art's Alive.

Councilmember Wohleb moved to approve Resolution 658, honoring the Arts Commission members. Motion seconded by Councilmember Chamberlain. Motion carried 5/0.

Mayor Roundtable:
Councilmember Dole addressed a letter that was inaccurate, regarding the owners plans to start renovations of the Moore Clark building. This is not true. Mayor Hanneman suggested the Town contact the City of Anacortes, who

has property owned by Triton, to work together on getting something started on the properties. Also, it was suggested to have another survey for just the South end of Town for property owners that are most impacted by the development of the Moore Clark Property.

Parking on First Street – Parades
Public Works Director Lease asked Council for guidance on the time of closure of First Street, signage and barriers for the Tulip Parade. He needs to get the materials ordered with costs estimated at $9000. After discussions, it was decided to close First Street parking from noon to 3pm and block Washington and Center Streets as well. There will be advance notification to the merchants and residents.

Executive Session:
Mayor Hanneman stated there will be an Executive Session regarding real estate. It is estimated to be about 15 minutes and there will be no decisions made.
6:57 Mayor Hanneman opened the Executive Session
7:16 Mayor Hanneman closed the Executive Session

There being no further business the meeting ended at 7:17 p.m.

Maria DeGoede, Finance Director

Marna Hanneman, Mayor



DAVID EVANS
AND ASSOCIATES INC.