



City of Sweet Home
Water Management and Conservation Plan
2026-2036
FINAL DRAFT

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2026-2036 Water Management and Conservation Plan

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Section 1: Introduction

1.1 Background

The City of Sweet Home is located in Linn County in the Willamette Valley, 50 miles southeast of Salem and 44 miles northeast of Eugene, adjacent to the South Santiam River and Foster Lake. Sweet Home is bordered to the north and northwest by the South Santiam River, to the east by Foster Lake, and to the south and southwest by the Chandler Mountains. Santiam Highway (US 20) is the main access road to the City and it passes through Sweet Home approximately 20 miles east of Interstate 5.

The City of Sweet Home lies at the foot of the Cascade Mountains and is bordered on the North by the pristine South Santiam River. Sweet Home is the third (3rd) largest city in Linn County, encompassing 6.5 square miles and was incorporated in 1893.

The City of Sweet Home owns the public water system (PWS ID 41 00851) which is currently operated by the City. The City relies on the Santiam River for its drinking water source, with the point of diversion at Foster Dam, and has three storage reservoir sites with approximately 4.61 million gallons of storage capacity.

The City of Sweet Home adopted its current Water Master Plan on December 10, 2024; a link to this plan is provided in the Appendix. The City's current Water Management and Conservation Plan (WMCP) was completed in 2016 (also provided in the Appendix) and needs to be updated in 2026.

1.2 Authorization

The City submitted a draft WMCP to OWRD in 2016, for which a Final Order was received September 12, 2016, approving the City's WMCP until March 2, 2026. The approved final order requires the City to submit an updated WMCP, due by March 2, 2026, to OWRD.

Per OAR 333-061-0060(5), community water systems serving 300 or more service connections must maintain a current Water Master Plan that has been reviewed and approved by the Oregon Health Authority (OHA). Due to the information overlap required of WMCP's and Master Water Plans, water suppliers are encouraged to consider updating Master Water Plans while creating a WMCP and wrapping the WMCP within the Master Water Plan.

The City updated the current Water Master Plan in March 2024; City Council reviewed and approved the new Water Master Plan in December 2024 and the City received approval from OHA in August 2025.

The current WMCP is required to be updated by March 2, 2026, with a draft to be submitted to OHA by that March 2, 2026 deadline.

1.3 Purpose

The purpose of this plan is to guide the development and implementation of water management conservation programs and policies to ensure sustainable use of water resources for municipal water uses. It will document the City's use, management, and conservation of water resources as required to satisfy conservation and management requirements. It will serve as a guide to the City in its efforts to manage and conserve water resources.

Section 2: Area and Planning Considerations

2.1 Area

The City of Sweet Home is located in Linn County in the Willamette Valley, 50 miles southeast of Salem and 44 miles northeast of Eugene, adjacent to the South Santiam River and Foster Lake. The Willamette Valley is located between the Oregon Coast on the west and the Cascade Mountains to the east. It covers about 3,900 square miles from Eugene in the south to Portland in the north.

Sweet Home is bordered to the north and northwest by the South Santiam River, to the east by Foster Lake, and to the south and southwest by the Chandler Mountains, which serve as a natural Urban Growth Boundary and city limit. Santiam Highway (US 20) is the main access road to the City and it passes through Sweet Home approximately 20 miles east of Interstate 5. The highway connects Sweet Home with the cities of Lebanon to the northwest and Cascadia to the east. Other access roads to Sweet Home are State Route 228 and Route 3, which connect to Crawfordville and Brownsville. A main east-west rail line also passes through the City.

The area for this report is consistent with the Urban Growth Boundary (UGB) established by the City's Comprehensive Plan. Although there are several properties outside the current city limits that receive municipal water service, the City has a current policy of only servicing residents with municipal water that are within the city limits.

The city and surrounding unincorporated rural area, locally known as the Sweet Home Valley, encompass approximately 18 square miles (11,520 acres). Land use and development is governed largely by the local topography. The city is bordered by hills, resulting in the town layout occurring in an east-west orientation.

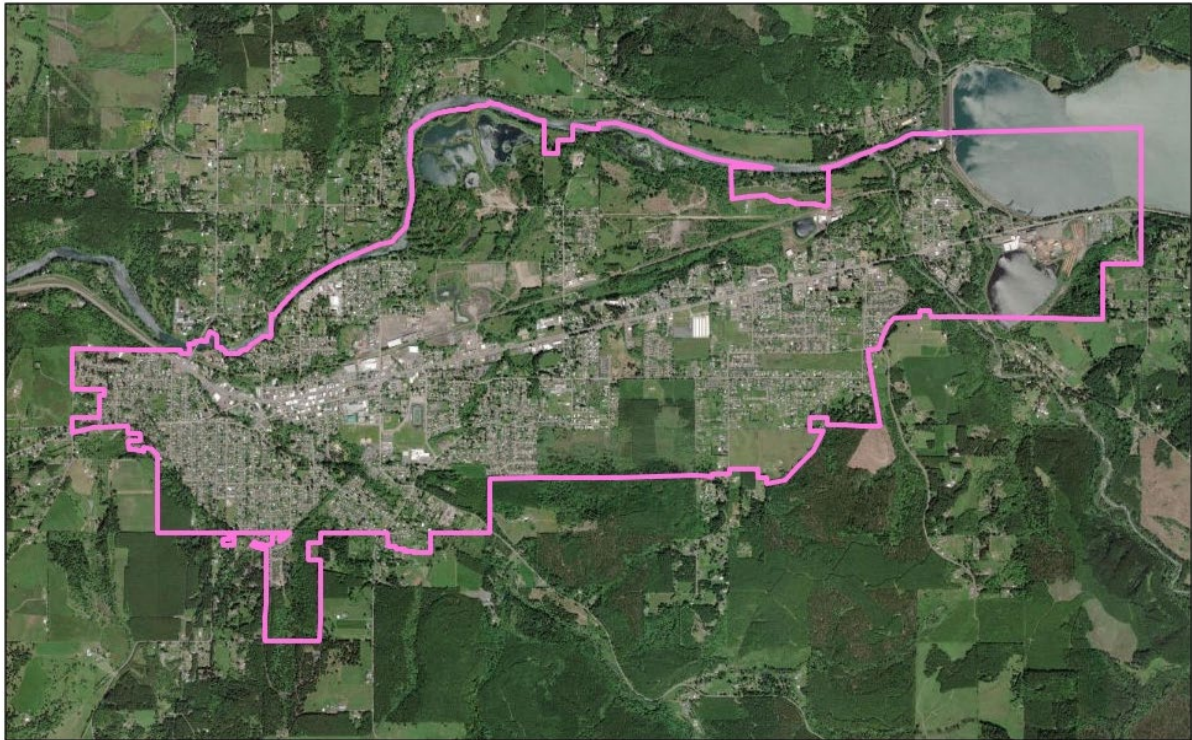
2.2 Planning Considerations

Approximately 15% of the vacant land within the city is unsuitable for development and the majority of the undeveloped land has been designated for urban residential development. The commercial district extends along U.S. Highway 20 and is concentrated in downtown Sweet Home between 18th and 9th avenues. This commercial district is bordered by high- and medium-density residential areas. Industrial land uses are concentrated along the highways through the center of town, but outside of the commercial areas.

The UGB for Sweet Home encompasses approximately 3,689 acres with roughly 3,282 acres within the city limits. The land use within the UGB is comprised of approximately 50% residential; 8% industrial; 6% commercial; 25% Planned Recreational; 5% Public; and 6% water.

The planning area for this plan is limited to the land within the present UGB. The improvements recommended in this plan are based on development of land with the UGB in its present location. It is assumed that no significant development will occur within the study area which will require major changes to the existing zoning, and that there will be no significant expansion of the UGB within the study period. Changes in any of these assumptions could change the recommendations contained in this plan. Should significant changes in any of the above occur, this plan should be updated accordingly.

Figure 2-1. Distribution Service Area.

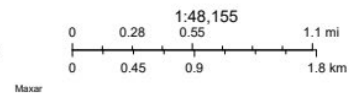


9/9/2025

- City Limits
- World Imagery
- Low Resolution 15m Imagery

- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

9.6m Resolution Metadata



Section 3: Description of Existing System

3.1 Source Water

The source of water for the City of Sweet Home is Foster Reservoir, a flood control Dam placed on the South Santiam River, a tributary of the Santiam River, which is in turn a tributary of the Willamette River. The South Santiam River runs from east to west and serves as both the northern city limit and the northern Urban Growth Boundary (UGB) for the City of Sweet Home. It is situated in the Willamette Basin of Western Oregon and is recharged by precipitation from a 557-square mile area, which receives drainage for Quartzville Creek, the Middle Santiam River, and South Santiam River, which are high up in the Cascade Mountains. Wiley Creek also flows into the South Santiam River downstream of Foster Dam Reservoir.

The source water provided to the treatment plant property is received from Foster Reservoir through a supply pipe installed in Foster Dam, a rock-fill dam constructed by the U.S. Army Corps of Engineers in 1968, in which a 42" high-capacity raw water intake screen was placed. The City diverts South Santiam River water from the Foster Reservoir through a 24-inch connection at the Foster Dam. Water supply flows via gravity through approximately 5,200 linear feet of supply line to a pump house at the Water Treatment plant located at 1500 47th Avenue, approximately one mile to the west of Foster Dam.

Figure 3-1 shows the location of Foster Reservoir, the raw water facilities, and water treatment plant (WTP).

The official point of diversion for the raw water supply is described as follows:

NW1/4 NE1/4, SECTION 27, T 13 S, R 1 E, W.M.; 1048 FEET SOUTH AND 697 FEET EAST FROM THE N1/4 CORNER OF SECTION 27.

3.2 Treatment Facility

In April 2008, the City began the official bid process for the construction of a new 6.0 million gallons per day (MGD) water treatment plant including 17,280 sq. ft. building, consisting of three (3) 1,400 gallons per minute filter units; a clear-well, backwash ponds, holding pond and pump station; 2,000 ft. of raw water lines; and 3,150 ft. finished water lines. The project was efficiently and effectively completed and went online in August 2009.

The treatment plant contains three filter trains and three finished water pumps. Each filter train is independent of one another, and each designed to produce 2 MGD. The approved maximum discharge rate into the distribution system is 2,600 gallons per minute (GPM) as per Oregon Health Authority. This is equivalent to 3.7 MGD and is equivalent to two finished water pumps running continuously.

This "3-train system" is designed to meet 67% capacity (4 MGD) should one filter train be out of service for repairs or maintenance. This also allows the system to use only enough source water necessary to meet consumer demand.

3.3 Reservoirs

There are five finished water storage reservoirs with a total capacity of 4.61 million gallons (MG) available within the City system at three separate locations. Three in-ground type concrete reservoirs are located on 10th Avenue in the southwestern part of the City and in total hold 2.5 MG finished water. The largest of all the reservoirs, with a capacity of 2 MG, is located on 49th Avenue in the southeast part of the City and is an above-ground reinforced concrete reservoir.

Figure 3-1. Existing water system from current Water Master Plan.

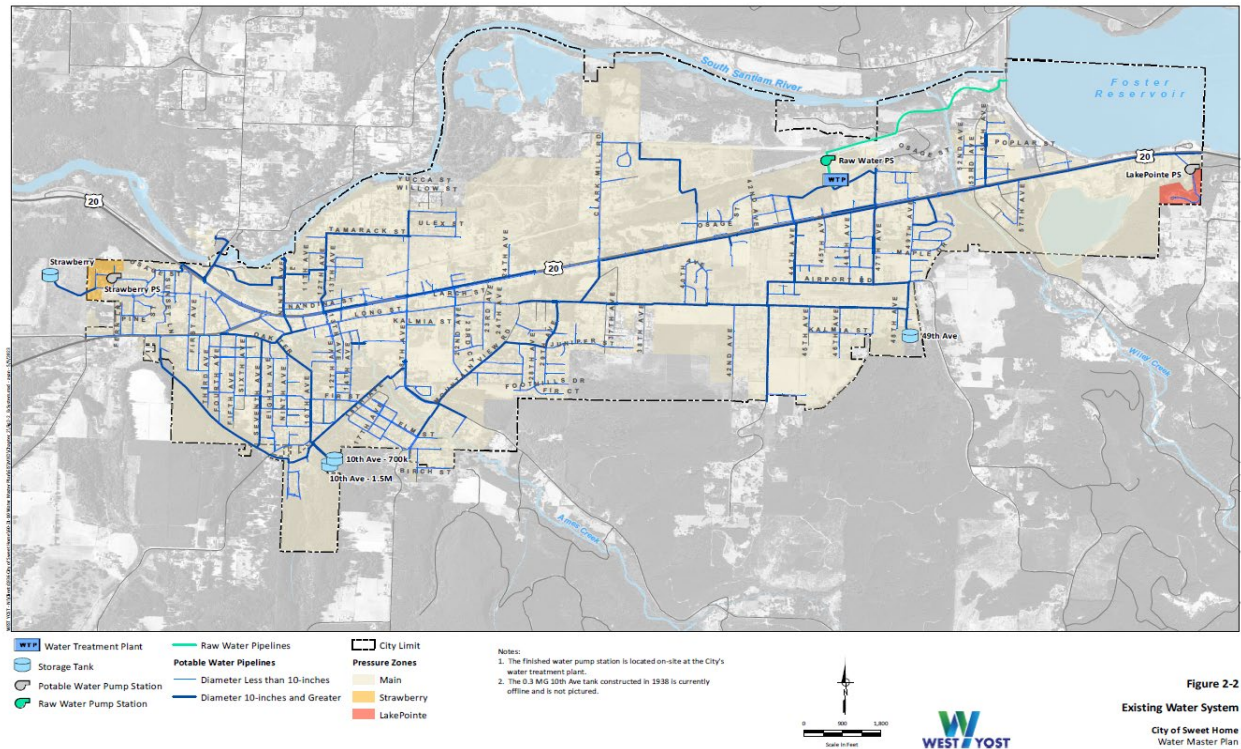


Figure 2-2
Existing Water System
City of Sweet Home
Water Master Plan

The City complies with OAR Chapter 690, Division 85 by recording monthly water production at the water treatment facility and submitting this information to Oregon Water Resources Department. The City submits the data online annually via the department's website online www.wrd.state.or.us for the previous water year (October-September). Table 3-1 represents the last 10 years of water production from the City's water treatment plant.

Table 3-1. 10-year water production rates, 2015-2025.

YEAR	Jan (MG)	Feb (MG)	Mar (MG)	April (MG)	May (MG)	June (MG)	July (MG)	Aug (MG)	Sept (MG)	Oct (MG)	Nov (MG)	Dec (MG)	Annual Water Production (MG)
2015	29.8	26.7	28.9	29.5	31.6	39.3	42.2	41.3	32.2	31.7	30.0	32.6	395.8
2016	32.7	31.0	32.9	30.8	33.0	37.8	41.1	43.5	35.9	32.6	30.4	33.6	415.3
2017	36.6	30.8	34.6	32.7	34.0	36.5	45.2	46.2	37.3	34.5	32.9	33.9	435.2
2018	34.2	32.8	35.5	34.7	38.4	43.2	48.3	44.5	36.5	34.3	32.1	35.6	450.1
2019	34.9	26.4	37.3	35.3	38.9	38.0	44.7	45.5	31.1	32.2	32.4	34.4	431.133
2020	33.9	28.8	34.0	29.2	24.0	25.1	31.3	31.7	26.0	22.5	22.6	25.8	334.78
2021	30.8	23.3	26.3	30.3	34.0	34.1	40.1	38.7	28.7	27.0	25.2	27.9	366.391
2022	27.1	23.9	26.5	24.1	25.1	28.0	32.9	36.8	32.5	28.9	27.0	25.9	338.661
2023	28.3	25.3	24.6	24.4	31.1	37.6	41.8	40.2	33.6	30.2	31.4	29.3	377.743
2024	32.1	27.7	29.4	29.2	31.5	36.4	44.5	40.1	36.3	31.8	26.9	31.0	396.843
2025	29.0	27.7	30.3	29.1	37.3	43.3	46.3	44.8	38.3	33.0	28.8	29.3	417.337

3.4 Water Rights

A water right can be perfected once the user completes construction of the facilities necessary to divert and use the water for the authorized use. Once the user submits evidence showing the water has been used in compliance with the permit conditions, OWRD issues a water right certificate. Table 3-2 summarizes the City’s four existing water rights to the South Santiam River and Ames Creek.

Table 3-2. Summary of existing water rights.

Permit No.	Certificate No.	Point of Diversion	Priority Date	Permitted Water Right		Certified Water Right	
				cfs	mgd	cfs	mgd
S-13151	88300	South Santiam River	7/14/1938	0.60	0.39	0.60	0.39
S-20525	88301	South Santiam River	4/16/1951	7.00	4.52	7.00	4.52
S-49959	88302	South Santiam River	4/08/1986	5.50 ^(a)	3.55	3.51	2.27
S-10140	95551	Ames Creek ^(b)	4/24/1931	0.076	0.049	0.076 ^(c)	0.05
Total Available Water Right:				13.18	8.52	11.19	7.23
Total Available Water Right – Potable Use:				13.10	8.47	11.11	7.18
<p>(a) Certificate No. 88302 is only partially perfected for 3.51 cfs of the 5.50 cfs under Permit No. S-49959. The City must apply the remaining 1.99 cfs to full beneficial use by October 1, 2050, to fully perfect the water right permit.</p> <p>(b) Ames Creek surface water was previously used for non-potable irrigation at Sweet Home High School.</p> <p>(c) Certificate No. 95551 limits the City to a maximum annual volume of 10 AF/yr (3.26 MG/yr) from Ames Creek.</p>							

The City’s primary water supply is surface water from the South Santiam River. As shown in Table 3-2, the City holds three existing water rights permits to the South Santiam River for municipal use that total 13.10 cubic feet per second (cfs), or approximately 8.47 million gallons per day (mgd). The City holds corresponding water rights certificates that total 11.11 cfs, or approximately 7.18 mgd. The difference in the quantities between the water rights permits and certificates is due to Permit Number (No.) S-49959, which is only partially perfected and has an associated certificate that is limited to 3.51 cfs (2.27 mgd). The City must demonstrate beneficial use of the remaining water right quantity of 1.99 cfs by October 1, 2050, to fully perfect Permit S-49959. Water rights Permit No. S-13151 and S-20525 are fully perfected.

Projected water use at the end of this 10-year plan period will not put the unperfected water right to full beneficial use. Therefore, the City of Sweet Home will use the October 1, 2050 date as the target date for applying water to full beneficial use. This schedule will need to be reviewed and revised based upon updated projected water demands revised in the complete 10-year update of this plan.

Section 4: Water Conservation

4.1 System Meters

The City's water distribution system is fully metered. All individual water services were previously read and recorded manually monthly by contracting partner "Meter Readers, LLC" of Lake Oswego, Oregon. In 2020, the City invested \$800,000 to perform a complete water meter change-out to install radio frequency meters. The Kamstrup meters provide readouts automatically when City staff drive past. Residential and commercial water leaks are detected after the meters are read, allowing immediate communication with customers to prevent loss of additional water and preventing excess water bills.

4.2 Meter Testing and Maintenance

The City's current meters are digital analog and if they fail, City staff replaced the meter at no cost to the customer. This replacement is completed through annual replacement program and/or when a meter shows abnormal use or failure in reading. City staff now performs all meter reading and customer interaction as needed. A service meter can be changed out at the request of City staff and/or the customer. If a customer requests the meter to be checked for accuracy and the meter is less than ten years in service, the meter can be replaced. The customer's account is credited accordingly when it is to the customer's benefit to do so.

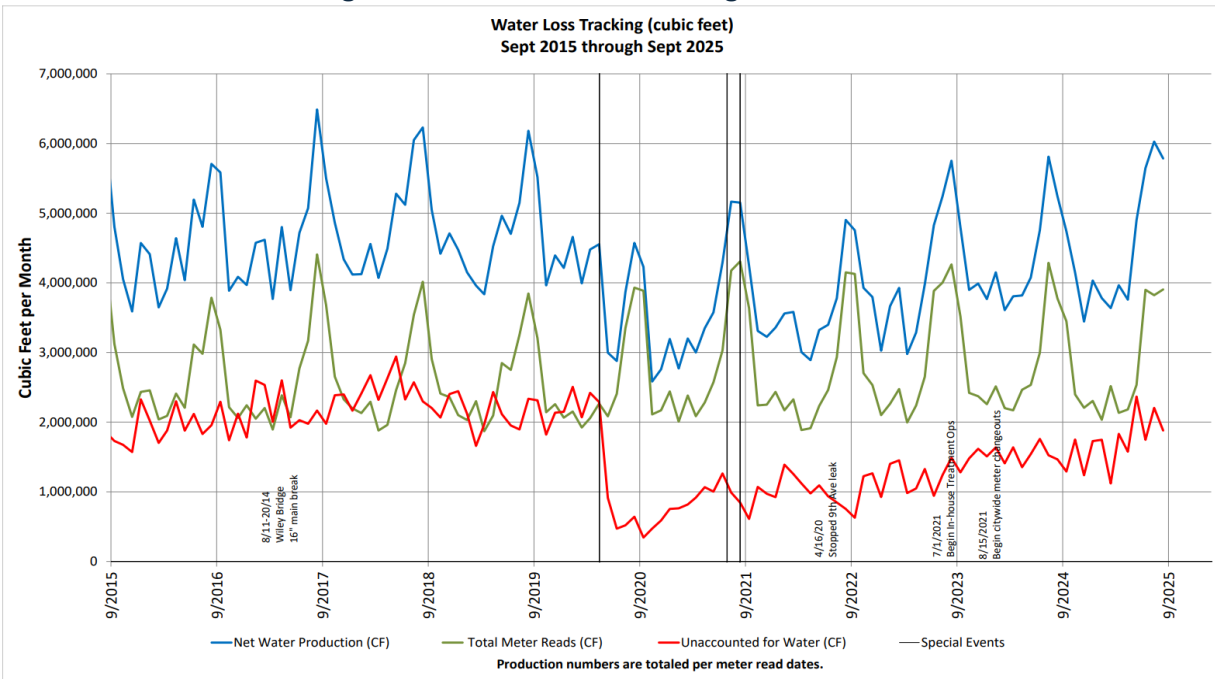
The anticipated useful life of the meters is approximately 20 years; the City is currently developing a replacement program to phase in replacements in the years around this expected lifespan.

4.3 Annual Water Audit

The City has an annual water loss audit program to track the amount of water diverted as well as to determine the amount of unaccounted-for water more accurately. The program as implemented in 2007, has improved over time, and remains an effective and easy system.

The water loss audit program is an Excel spreadsheet in which values are input based upon monthly reports from customer usage, both billed and unbilled consumption, as well as water treatment production records. It also includes data from fire hydrant rental usage (including Fire District usage for emergency as well as training purposes), and water utilized for filter "backwash" purposes. Figure 4-1 shows water loss tracked from September 2015 to September 2025.

Figure 4-1. Water loss tracking, 2015-2025.



A review of the Figure 3-2 above indicates that the City’s water loss program efforts by staff have been successful in reducing water loss. As an example, in 2020, City staff located and repaired a large water leak estimated at 375,000 gallons per day, which resulted from the water main resting directly on top of a storm drain segment below subsurface grade. This number was verified by stormwater monitoring, daily water production, and monthly water product averages.

The City’s methodology for accounting for un-metered authorized use and unauthorized use (water loss) is as follows:

1. The City utilizes Springbrook Utility Billing Software for its account billing and usage purposes. For each calendar month, a “UB – Summary by Service Rate” report is generated to identify all “billed” consumption. This monthly total is then subtracted from the “UB – Consumption” report to determine the amount of “unbilled” consumption.
2. Monthly water production and run-time reports are generated with relevant information from treatment plant staff and provided in a monthly water read report. This information is also utilized for its annual “Water Use” reporting to the State that is required for water rights purposes.
3. Authorized water use that is metered and unmetered (system flushing, fire district use, City use, etc.) is estimated by the City and/or read from meters where applicable.
4. Information gathered in the above three steps is inputted in columnar form into the audit spreadsheet. Unaccounted for water (lost water) is calculated by subtracting the known usage quantities (billed, unbilled, authorized use, filter backwash, storage, fire hydrant, etc.) from the total amount water produced. The information is calculated on a monthly as well as annual basis.

In 2025, the City finished the change out of the old SCADA system, to a new SCADA system which improves alarm communications to staff, improves detailed trending throughout the water

treatment plant and distribution system. With the improved water meters and the updated SCADA system, staff have better tools to respond to water loss conditions much more quickly.

4.4 Leak Detection Program

In 2019, the City purchased leak detection survey equipment and trained City staff in its use. Staff perform ongoing water leak surveys in progressive segments of the water distribution system utilizing listening equipment, with survey to be performed on major pipe mains, fire hydrants, and valves. Any service connections, meters, and service lines that show indications of leaks will also be surveyed. Leaks found during the surveys will be repaired as soon as possible by City staff. Figure 3-2 demonstrates the ongoing identification of water leaks and system repairs.

Historically, the distribution system has contained a large amount of two-inch galvanized iron piping, thought to be the cause of significant water leaks in the system. The City has an ongoing program to replace all 2-inch galvanized iron piping which is supported by the Water Master Plan.

4.5 Rate Structure and Billing

Annually, the City of Sweet Home is authorized to complete a rate analysis for the water and sewer utilities that aimed to determine the revenue requirements for the water and sewer utilities; to determine the cost of the two services; and also to study and help set water and sewer rates.

The rates are based on meter size and water use, as summarized in the table below. Water use fees are charged per 100 cubic feet (cu ft) for commercial and bulk services and per 100 cu ft that exceed 300 cu ft for residential services within the City limits. A service factor rate of 1.5 times equivalent City rates is assessed for services outside the City limits. The City’s water rates result in larger water bills the more water a service uses.

Meter Charge (Base Rate)

Meter Size	Base Rate
¾ Inch	\$20.59
1 Inch	\$26.03
1 ½ Inch	\$33.28
2 Inch	\$53.22
3 Inch	\$200.06
4 Inch	\$254.44
6 Inch	\$381.34
8 Inch	\$526.36

Water Use Charge (Commodity)

Customer Class	Commodity Charge
Residential (First 300 cu ft included in base charge)	\$9.53 per 100 cu ft AFTER first 300
Commercial	\$9.50 per 100 cu ft usage
Bulk	\$9.41 per 100 cu ft usage

As demonstrated in the two tables above, the City’s water rates are based in part on the quantity of water metered at the service connection as required by OAR 690, Division 86 rules. Basing the rest of the charges on the size of the customer service water meter serves as an indirect method of charging larger water users more since larger water meters are usually required by larger water users. This varying charge, based on the meter size, is also seen by the City as a way to tie water charges more closely to the amount of water used by water customers.

4.6 Public Education Program

The City continues with a public education program that will be targeted toward water customers, particularly residential customers, in order to help in the City’s conservation effort. The program will include the following:

- Attempt to make regular visits to schoolchildren at local schools, making presentations and/or providing material on the importance of water conservation. This program shows children simple ways to conserve water at home and at school by turning off the faucet while brushing their teeth in the morning, not using the toilet as a garbage disposal unit, taking short instead of long showers, and avoiding frequent use of the bathtub. It is expected that these visits to schools, plus the literature they take home, will help meet immediate conservation needs and develop better lifetime water use habits in children.
- Conservation messages on the City website. Simple to implement conservation practices and tips will continue to be available in a “Conservation Tips Newsletter” that can be found on the City website at www.sweethomeor.gov/publicworks/page/water-conservation-tips-information. Information on how to obtain conservation brochures will be included in the messages. The messages will be regularly updated.
- Distributing the water conservation tips at least two times annually with customer water bills. These brochures will emphasize the importance of water conservation and list some simple steps that can be used to conserve water in the home. The brochures will include a simple demonstration of how customers can check for water leaks in their service meters and report them to the water utility. These mailers will remind water customers about the need to conserve water and demonstrate how simple conservation steps can go a long way in reducing water use.
- Comparison of current water use with the previous year’s water use on customers’ bills. This should help customers determine if their water conservation efforts are in fact helping them reduce the overall amount of water they use. Hopefully water use comparisons will encourage customers who notice significant hikes in their water use to want to conserve water.

- The City believes that public education will be an important tool in its effort to encourage responsible water use among its water customers. Children who are exposed to education that encourages conservation are more likely to be responsible water users when they grow up. In addition, coordination with the local watershed council may be a method to expand educational opportunities.

Section 5: Water Curtailment

5.1 General

OAR 690, Division 86 rules require that all public water suppliers such as the City of Sweet Home have an emergency curtailment plan. The City recognizes the need for such a plan to improve its preparedness and help it cope with an emergency condition. Conditions that are likely to cause a water emergency shortage in Sweet Home include a fire emergency or equipment failure at the treatment plant, water contamination events, major system damage, and multiple equipment failures. All these situations are highly unlikely to occur, but if one of them does, the City may not be able to provide water to customers in an acceptable manner. In that case, the City of Sweet Home will rely on its emergency plan summarized in Table below.

5.2 Assessing Water Supply and Storage

No major emergencies that have prevented the City of Sweet Home from supply potable water to its residents have occurred within the last 10 years. There is currently 5.9 MG of water storage, with approximately three days of operating capacity before boil notices will be required.

5.3 Curtailment Strategy

The City of Sweet Home currently has an Emergency Response Plan (ERP) for dealing with water shortages that relies on one of five different conditions to trigger activation of various responses. The last Water Management and Conservation Plan indicated that there were six conditions that triggered activation of the curtailment plan, where gaseous chlorine was identified. Gaseous chlorine has been removed offsite from the WTP and currently disinfects production potable water with 12.5% sodium hypochlorite. The current five trigger conditions are:

- Loss of potability
- Water contamination
- Major system damage
- Water use restrictions
- Power outage

Each of the conditions has specific responses to help the city handle the emergency situation. The City recognizes some shortcomings in the existing plan, as follows. The triggers listed above lack a clear definition of the point when a condition can be called an emergency in relation to the ability of the City to provide water to customers. The existing plan also centers on the event of declaring an emergency, but does not include any process to provide water subsequent to declaration of the emergency. Acknowledging the above-mentioned shortcomings of the existing plan, the City recognized the need for an improved emergency/curtailment system and plans to present this report to the City Council so that it can be used as the basis for a City water emergency curtailment ordinance.

Under the emergency plan, any condition including the six listed above that is expected to prevent the city from providing water to 40% of the population for the duration of six hours or more shall be declared as an emergency by the City Manager. The emergency shall be declared a Category A or a Category B, based on whether the condition is expected to cause a total or partial outage in the water system.

Category A

All emergencies that a water supplier such as the City of Sweet Home is likely to experience fall under two categories. Category A involves the loss of potability of the supplier's water, or a failure of the system to supply water. The supplier's ability to produce water may remain, but due to certain circumstances, the water is not high enough quality to be supplied to the water customers for use. Category A emergencies are more likely to render most, if not all, of the water unusable. They include contamination events and over-chlorination of the water supply. Adding excessive amounts of other treatment agents may also cause this kind of emergency. In such a situation, where a total outage is expected, the City Manager shall authorize public radio and/or television announcements of the emergency condition and request the state's Emergency Management Division to provide water from external sources by tank trucks. In that event water will be distributed directly to customers at schools, the City Hall, Fire District locations, and other public areas. The U.S. Army Corps of Engineers resources may also be requested by the City Manager, depending on the extent of the emergency. If a complete failure of the water system occurs, severe rationing may result.

Category B

Category B emergencies include situations such as power outages, major system damage, multiple equipment failures, or fire emergencies at the water treatment plant. These emergencies may or may not cause total system outages, and may only be expected to last for a day or two at most. In cases where they cause overall system outages for a long period, these emergencies will be treated just like category A emergencies. If total outage is not expected, then the following curtailment steps will be implemented.

Summary of Emergency Response Plan

EMERGENCY	RESPONSE
Any condition that prevents the City from being capable of providing water to 40% of the water customers for six or more hours.	Category A or Category B emergency is declared.
<p>Category A: Full-Service Outage Causes may include:</p> <ol style="list-style-type: none"> 1. Water Contamination 2. Over-chlorination 3. Extreme situations of Category B Emergency 4. Massive equipment failures 5. Flooding 6. Earthquakes 	<ol style="list-style-type: none"> 1. Inform residents by posters, radio, web-based outlets, and/or television about emergency conditions. 2. Request state's Emergency Management Division to provide water from external sources by tank trucks. 3. If necessary, request more water from the U.S. Army Corps of Engineers. 4. Distribute water to City residents at schools, City Hall, Fire District locations, and other public areas.
<p>Category B: Reduction of Service Capacity Causes may include:</p> <ol style="list-style-type: none"> 1. Power outages 2. Major system damage 3. Multiple equipment failure 4. flooding 	<ol style="list-style-type: none"> 1. Inform residents by posters, radio, web-based outlets, and/or television about emergency conditions. 2. Based on how much water consumption is as a percentage of treatment plant capacity, implement conservation alert, moderate alert, or critical alert as appropriate.

The City has not had any major emergencies that prevented the City of Sweet Home from supplying potable water to its residents have occurred within the last 10 years. As of 2023, the US Army Corps is required to operate the Green Peter Reservoir to a lower surface elevation for safe fish passage. This dam operation method started in 2023, drawing down lake elevation beginning in November and lasting through December. The method of operation causes fluctuations in turbidity and operational disruption in the City's water treatment plant. The City three water filters are able to treat higher levels of turbidity in the water supply at an increased cost for energy, chemicals, and labor.

The intention of this plan is to lay out a framework of actions to implement in an emergency situation that does not render the total of Sweet Home's water distribution system unusable. The course of action will depend on the extent and severity of each emergency situation and be based on the ability of the water utility to provide sufficient potable water for customers. The three emergency stages are:

- Conservation Alert
- Moderate Alert
- Critical Alert

A conservation alert is aimed at reducing water use within the City through voluntary actions of the residents. Its goal is to reduce water use to less than 80 percent of the water treatment plant's capacity, hence frequent declarations of this alert signify the need for the expansion of the water treatment plant. A moderate alert is intended to further reduce water consumption, with a goal of 10% reduction in water use within the City. A critical alert calls for drastic reduction in the water use within the City.

The trigger for this stage of alert occurs when water usage reaches 80% of treatment plant capacity for three consecutive days. The City Manager shall declare a conservation alert emergency and request voluntary conservation measures by customers. A State-declared drought for the Sweet Home area will also be considered a trigger for the conservation alert stage. The response for this stage will require the city manager to:

- Distribute brochures that encourage conservation;
- Request customers to water lawns every other day instead of daily;
- Request customers north of Highway 20 to irrigate lawns in the morning and those south of Highway 20 to irrigate lawns during the evening;
- Request irrigation time to be limited between 7:00 AM and 7:00 PM;
- Turn City fountains off and post signs explaining the reason;
- Request customers to postpone non-essential hosing of sidewalks, walls, driveways, parking lots, open grounds, streets and roofs except when required before painting; and
- Request voluntary reduction in car, boat, and trailer & recreation vehicle washing except in facilities that recycle wash water.

A moderate alert stage is triggered when water consumption reaches 90% of treatment capacity for two consecutive days. The City Manager shall at this stage call for a continuation of the conservation measures listed in the conservation alert stage. However, the City Manager shall declare several of those measures as compulsory during the moderate alert stage. Compulsory measures during this stage include:

- Prohibiting lawn irrigation between 7:00 AM and 7:00 PM;
- Mandatory adherence to every other day watering schedule;
- Mandatory adherence to evening or morning irrigation schedule, depending on whether customers live north or south of Highway 20; and
- Restrict other non-essential outdoor water use as determined by the City Manager.

A critical alert shall be declared by the City Manager when water consumption reaches 95% of treatment capacity, when total production capability is lost, or when deemed necessary by the City Manager. The following will be prohibited during the alert:

- Watering, sprinkling or irrigating lawns without explicit City approval in writing. The City will approve watering, sprinkling or irrigating of lawns, grass or turf only in the following situations:
 - New lawns, turf and grasses that were seeded before issuance of the critical alert and are less than 12 months since first planting.
 - Such grass, turf and lawn shall only be watered until established.
 - Grass, turf and lawn that are part of a commercial sod farm.
 - Golf course greens and tees.
 - Other areas that may be deemed to be essential by the City.
- Use of City-supplied water for filling private swimming pools.
- Use of City-supplied water for washing, hosing and spraying of walls, roofs, sidewalks, driveways and other hard surfaces, except where deemed necessary for health and safety reasons by the Oregon Department of Human Services - Drinking Water Program and Oregon Department of Environmental Quality and where necessary prior to painting during repairs, reconstruction and remodeling of buildings.
- Washing boats, land vehicles, including but not limited to cars, buses, trailers, and trucks, except where public health, safety and welfare depend on frequent vehicle cleaning, such.

A severe loss of water production which is expected to last more than two days may include more drastic water restrictions, such as the following:

- Prohibition of all unauthorized water use, including any irrigation, swimming pools, or any form of car or truck washing.
- Restrictions on taking showers or baths.
- Restrictions on flushing toilets.

Water contamination events may also result in boil water notices.

The following staff members will have the tasks listed in a water curtailment event:

- Public Works Director or designee:
 - Coordinate staff and effort to improve emergency situation. Coordinate all direct and indirect media outreach.
- Public Works Department:
 - Coordinate with major water users to reduce consumption.
- Police Chief and Police Department:
 - Enforce water curtailment measures.

Section 6: Water Supply

6.1 Current and Future Service Areas

Determining present and future water demands is the first step in assessing the City's water facilities. It is critical that current demands are evaluated to determine if existing facilities are able to meet demands. If a system is unable to successfully meet the current needs of the community, system upgrades become a high priority. A determination of the future demand is also a critical step because it establishes the capacity and size of water system components needed in the future.

The City's water service area is generally contiguous with the City limits; the service area was previously depicted in Figure 2-1. The City has a current population of 10,206, with population projected to grow to 12,800 by 2043, the 20-year horizon of this WMCP. The City utilizes surface water from Foster Reservoir as the primary potable water sources and treats it at the City's WTP before distributing it to the water system. The City's historical water production has averaged 311 million gallons per year (MG/yr) for the period from 2016 through 2020, equivalent to an average daily production of 0.85 million gallons per day (mgd).

6.2 Population and Water Demand Projections

The City's average daily water use is expected to increase to 1.10 mgd by 2043 due to population growth and future development distributed throughout the City limits and the City's Urban Growth Boundary (UGB). Projected water demands were proportionally distributed among the buildable vacant parcels and future developments based on the parcel's and/or project's area.

Total water production for the City of Sweet Home from 2015 through 2025 is shown previously in Table 3-1. The City averages a monthly production of 33.065 MG, with July as the month of the most production with an average of 46.30 MG and February as the lowest month with an average production of 27.70 MG produced.

According to the 2020 PSU PRC population forecast, the City's 2040 population is projected to increase to 11,010. However, future population estimates were developed for the City's Wastewater Facilities Plan, dated December 2016, using the 1.168 percent annual average growth rate (AAGR) predicted for Linn County, in accordance with OAR 660-032-0040(6), to project a 2040 population of 12,259. The approved System Development Charge (SDC) Methodology Report, dated December 2020, is consistent with the Wastewater Facilities Plan and assumes a 2040 population of 12,259. For the purposes of this WMCP, the City's 2040 population projection consistent with other adopted planning documents is used. Therefore, the City's 2040 population is assumed to be 12,259. Population estimates presented for the five-year increments between 2020 and 2040 were interpolated assuming an average annual growth rate of 1.3 percent per year. Finally, as the City's Water Master Plan (WMP) encompasses a 20-year planning horizon, the 2043 (future) population was extrapolated using the average annual growth rate of 1.3 percent per year. Table 6-1 presents the City's projected future population of 12,758.

Table 6-1. Historical and projected population.

Year	PSU PRC Estimates ^(a)	City Planning Documents ^(b)	US Census ^(c)
Historical Population			
2010	8,945	--	8,925
2011	9,005	--	--
2012	9,025	--	--
2013	9,065	--	--
2014	9,060	9,060	--
2015	9,090	--	--
2016	9,090	--	--
2017	9,090	--	--
2018	9,225	--	--
2019	9,340	9,340	--
2020	9,415	--	9,828
Projected Population			
2025	10,046	10,058	--
2030	10,455	10,745	--
2035	10,759	11,479	--
2040	11,010	12,259	--
2043	--	12,758	--
<p>(a) Yearly estimates obtained from the 2020 Annual Oregon Population Report Tables, PSU PRC, revised July 1, 2020. Projected population obtained from the Current Forecast Summaries for All Areas, revised 2021.</p> <p>(b) The City used a 20-year future population of 12,259 people in its 2020 SDC Methodology Report, consistent with the Wastewater Facilities Plan. Five-year incremental future population estimates shown in Table 3-2 were linearly interpolated between the 2020 PSU PRC population estimate (9,415) and the 2040 future population in other City planning documents (12,259).</p> <p>(c) United States Census Population Estimates. April 1, 2020.</p>			

Section 7: Summary

7.1 General

The City of Sweet Home, Oregon is the local government that is affected by this plan, and although it is not required, notice of this plan will be provided to Linn County for their review and comment.

7.2 Plan Update

The City of Sweet Home proposes to submit an updated plan ten (10) years from the submittal of this plan, approximately 2036. The City will evaluate progress on water curtailment and water conservation efforts set forth in this plan at that time. No major improvements to the City's water system or source water supply are anticipated prior to the end of this 10-year period.

Appendix

[City of Sweet Home Water Master Plan & Appendices](#) (Adopted 2024)

[Water Conservation & Master Plan](#) (2016)

[Water Conservation & Master Plan Amendment](#) (2016)