



# Water Management and Conservation Plan



April 2023

Prepared by:

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**BEFORE THE WATER RESOURCES DEPARTMENT  
OF THE  
STATE OF OREGON**

In the Matter of the Proposed Water                    )     FINAL ORDER APPROVING A WATER  
Management and Conservation Plan for                )     MANAGEMENT AND CONSERVATION  
the City of Gearhart, Clatsop County                 )     PLAN

**Authority**

OAR Chapter 690, Division 086, establishes the process and criteria for approving water management and conservation plans required under the conditions of permits, permit extensions and other orders of the Department.

**Findings of Fact**

1. The City of Gearhart submitted a Water Management and Conservation Plan (plan) to the Water Resources Department (Department) on October 13, 2022. The required statutory fee for review of the plan was received by the Department on October 13, 2022. The plan was required by a condition set forth under the City's previously approved plan (Sp. Or. Vol. 88, Pg. 498 issued on September 6, 2012).
2. The Department published notice of receipt of the plan on October 25, 2022, as required under OAR Chapter 690, Division 086. No comments were received.
3. The Department reviewed the plan, and finds that the plan is consistent with the relevant requirements under OAR Chapter 690, Division 086.

**Conclusion of Law**

The Water Management and Conservation Plan submitted by the City of Gearhart is consistent with the criteria in OAR Chapter 690, Division 086.

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.



**Now, therefore, it is ORDERED:**

**Duration of Plan Approval:**

1. The City of Gearhart Water Management and Conservation Plan is approved and shall remain in effect until **April 12, 2033**, unless this approval is rescinded pursuant to OAR 690-086-0920.

**Plan Update Schedule:**

2. The City of Gearhart shall submit an updated plan meeting the requirements of OAR Chapter 690, Division 086 (effective December 23, 2018) within **Ten (10) years and no later than October 12, 2032**.

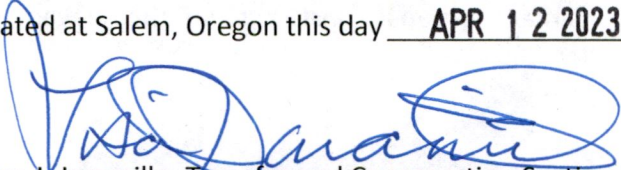
**Progress Report Schedule:**

3. The City of Gearhart shall submit a progress report containing the information required under OAR 690-086-0120(4) by **April 12, 2028**.

**Other Requirements for Plan Submittal:**

4. The deadline established herein for the submittal of an updated Water Management and Conservation Plan (consistent with OAR Chapter 690, Division 086) shall not relieve the City of Gearhart from any existing or future requirement(s) for submittal of a Water Management and Conservation Plan at an earlier date as established through other final orders of the Department.

Dated at Salem, Oregon this day APR 12 2023

  
Lisa J. Jaramillo, Transfer and Conservation Section Manager for  
DOUGLAS E. WOODCOCK, ACTING DIRECTOR  
Oregon Water Resources

Mailing date: APR 13 2023

**Notice Regarding Service Members:** Active-duty service members have a right to stay these proceedings under the federal service members Civil Relief Act. For more information, contact the Oregon State Bar at 800-452-8260, the Oregon Military Department at 503-584-3571 or the nearest United States Armed Forces Legal Assistance Office through <http://legalassistance.law.af.mil>. The Oregon Military Department does not have a toll-free telephone number.



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- A. Letter to Affected Local Government and Comment Received
- B. Intergovernmental Agreements

# 1. Municipal Water Supplier Plan Element

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*This section satisfies the requirements of OAR 690-086-0125.*

## 1.1 Overview

The City of Gearhart (City or Gearhart) is located on the North Oregon Coast, along Highway 101, north of the adjacent City of Seaside (Seaside), and approximately 10 miles south of the City of Warrenton (Warrenton). Gearhart operates under the Public Water System Identification Number of 00318.

The City had approximately 1,627 accounts in 2021, primarily made up of residential customers with a 2021 service area population estimate of 2,493. Gearhart historically has purchased wholesale water from Warrenton to meet system demands. In 2008, the Oregon Water Resources Department (OWRD) issued Gearhart water right Permit G-16390 to appropriate groundwater from a wellfield located within the City limits. The City began obtaining water from its wells in 2012 following construction of the wellfield, water treatment plant (WTP), and other associated infrastructure. The City relies on this water right to meet system demand; however, due to seasonal limitations on the availability of this right, the City must supplement this source with wholesale water purchases from Warrenton.

During the summer, the City's population swells with nearly all residences occupied. The City observes a lull in occupancy in the winter where up to 60 percent of the residences are unoccupied. The effects of this peak season population increase are seen in water demand, which increases significantly as a result.

## 1.2 Plan Driver, Organization and Sources of Information

Gearhart is submitting this Water Management and Conservation Plan (WMCP) to meet a condition of OWRD's final order approving the City's previous (2012) WMCP. The Final Order requires the City to submit an updated plan within 10 years of OWRD's final order issuance date, by March 5, 2022. Submittal of Gearhart's previous WMCP was a condition of the final order issued by OWRD approving Permit G-16390.

This WMCP fulfills the requirements of the Oregon Administrative Rules adopted by the Water Resources Commission in November 2018 (OAR Chapter 690, Division 86). It describes water management, water conservation and curtailment programs to guide the wise use and stewardship of Gearhart's water supply.



The plan is organized into the following sections, each addressing specific sections of OAR Chapter 690, Division 86:

Section	Requirement
Section 1 – Introduction	OAR 690-086-0125
Section 2 - Water Supplier Description	OAR 690-086-0140
Section 3 - Water Conservation	OAR 690-086-0150
Section 4 – Curtailment Plan	OAR 690-086-0160
Section 5 - Water Supply	OAR 690-086-0170

### 1.3 Affected Local Governments

This plan may affect the following local governmental agency:

- Clatsop County

Thirty days prior to submitting this WMCP to OWRD, the draft plan was made available for review by the affected local government listed above along with a request for comments relating to consistency with the local government’s comprehensive land use plan. A sample of the letter requesting this input, and any responses received are provided in Appendix A.

The City also submitted a draft of this WMCP to the Cities of Seaside and Warrenton as courtesy copies.

### 1.4 Plan Update Schedule

Gearhart anticipates submitting an update of this plan within 10 years of plan approval. As required by OAR Chapter 690, Division 86, a progress report will be submitted within five years from the approval of this plan.

## 2. Municipal Water Supplier Description

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*This section includes an overview of Gearhart's water system, presents historical demand and consumption, and describes the City's sources of supply. This section satisfies the requirements of OAR 690-086-0140.*

### 2.1 Terminology

*System demand or demand* refers to the total volume of raw (untreated) water produced under Gearhart's groundwater permit and wholesale water purchases from Warrenton.

Specific demand terms include:

- Average day demand (ADD): total annual demand divided by 365 days.
- Maximum day demand (MDD): the highest demand in a day during a calendar year.
- Maximum monthly demand (MMD): the demand measured during the calendar month with the highest total demand.
- Monthly demand: Monthly demand is expressed either as a total volume of demand per month or as an average daily demand per month by dividing the monthly volume by the number of days in the month.
- Peaking factor: a ratio of one demand to another. The most common peaking factor and the peaking factor used in this WMCP is MDD to ADD.

MDD is an important value for water system planning. The City's supply facilities and water right must be capable of meeting MDD. If MDD exceeds Gearhart's supply capacity on any given day, finished water storage levels will be reduced.

*Consumption* describes authorized uses, including metered and unmetered water uses.

Generally, demands and consumption in municipal systems are expressed in units of millions of gallons per day (mgd). They also may be expressed in cubic feet per second (cfs) or gallons per minute (gpm). One mgd is equivalent to 1.55 cfs or 694 gpm. For annual or monthly values, it is typical to refer to the total quantity of water in million gallons (MG). Water use per person (per capita use) is expressed in gallons per person per day (gpcd).

### 2.2 Sources of Supply

#### **OAR 690-086-0140(1)**

Gearhart utilizes groundwater and wholesale water purchases from Warrenton as a supplemental source to meet system demand. Historically the City relied entirely on wholesale purchases from Warrenton to meet demand. In 2009, the City began development of its own water supply in the form of eight production wells (Well Nos. 1, 3, 5, 7, 9, 11, 13,

and 14). These wells are located in a wellfield area within the City, stretching north to south along the coast and are completed in the Neacoxie Creek Basin. The wells are completed in an unconsolidated sand aquifer. The City also may receive water from Seaside during a water supply emergency when the City's primary water sources cannot meet demand. The location of infrastructure associated with these sources of supply are found in Exhibit 2-1.

## 2.3 Service Area Description and Population

### **OAR 690-086-0140(2)**

The City is located in Clatsop County, along the coast and on Highway 101. The City is due north of the adjacent city of Seaside and south of Warrenton by approximately 10 miles. The City's service area includes all areas within the City's municipal boundary, which is contiguous with the City's Urban Growth Boundary (UGB), and an area due north of City limits and an area east of City limits. The City's service area is depicted in Exhibit 2-1.

The 2020 U.S. Census identified a population for the City of 1,793 persons. To account for the population located outside of City limits and the City's UGB, the City added a population of 700 to the City's population estimate for a total service area population of 2,493. This population located outside of the City limits and UGB was calculated by multiplying the number of residences located outside of the City's limits, estimated using 288 water service connections by 2.43 persons per household. The persons per household estimate was obtained from the results of the American Community survey conducted by the U.S. Census Bureau using Clatsop County data from 2016 through 2020.<sup>1</sup>

The 2020 Decennial Census conducted by the U.S. Census Bureau estimated that 51 percent of the residential units within the City were occupied (49 percent unoccupied). Most of these "unoccupied" homes are occupied at least periodically during the summer, however homes with short-term occupancy are not considered "occupied" by the U.S. Census Bureau.<sup>2</sup>

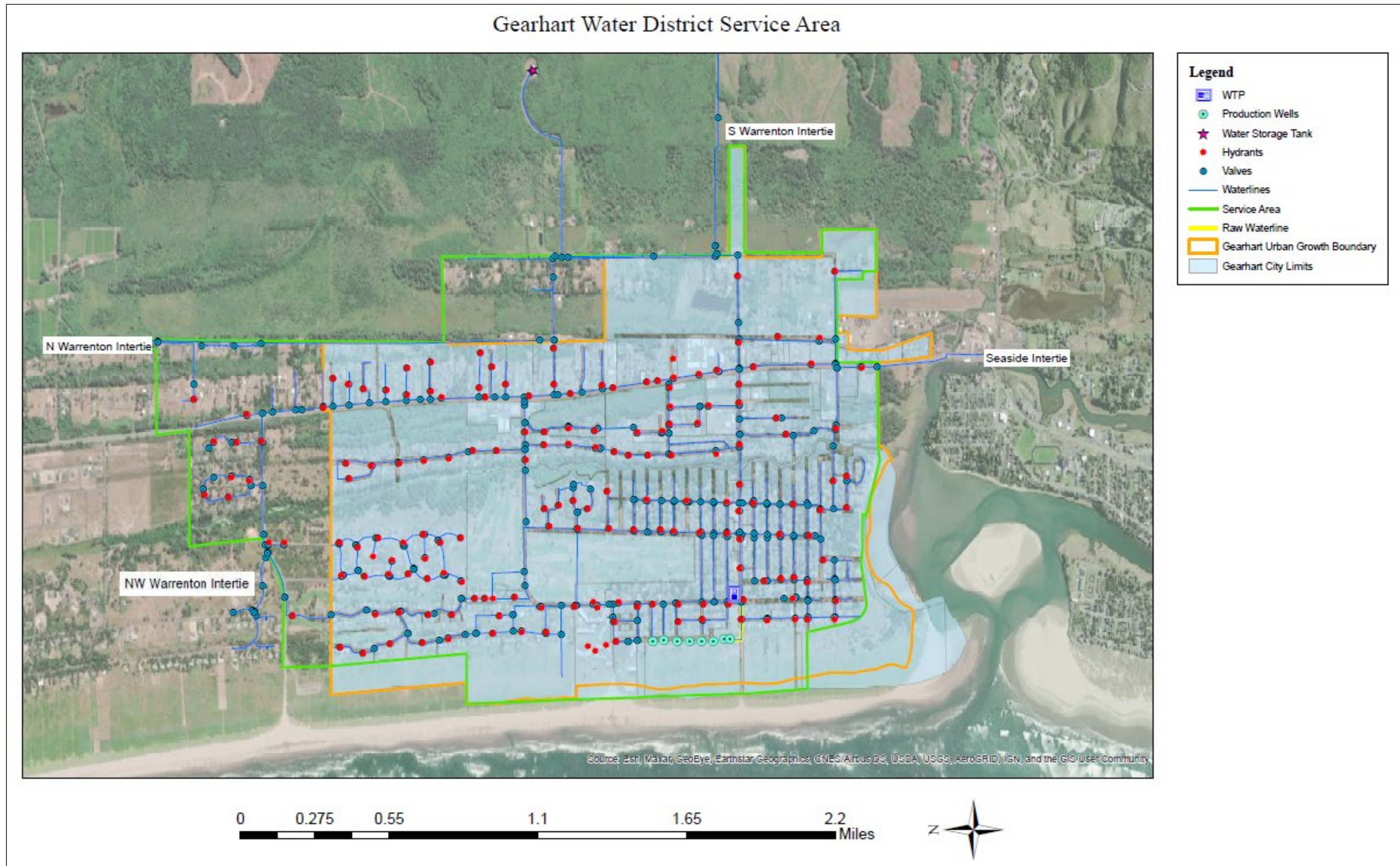
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<sup>1</sup> *American Community Survey (ACS)*, U.S. Census Bureau.  
<https://www.census.gov/quickfacts/fact/table/clatsopcountyoregon/PST045221>

<sup>2</sup> U.S. Census Bureau website, Housing Vacancies and Homeownership, *Definitions and Explanations*.  
<https://www.census.gov/housing/hvs/definitions.pdf>



Exhibit 2-1. Water System Schematic



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## 2.4 Interconnections with Other Systems

### **OAR 690-086-0140(7)**

The City can obtain water from the City of Warrenton through two interconnections located to the south, and north of Gearhart. Gearhart receives wholesale water from Warrenton through the north and south Warrenton interties. The northwest Warrenton connection is a one-way emergency fire flow intertie for Gearhart to supply Pinehurst Estates, which is normally supplied by Warrenton and is not considered an intertie for Gearhart water consumption.

Gearhart's water distribution system is also interconnected with Seaside's water distribution system on the south side of Gearhart for bi-directional emergency supply. All interties are identified on Exhibit 2-1.

## 2.5 Intergovernmental Agreements

### **OAR 690-086-0140(1)**

Gearhart has two intergovernmental agreements for water supply. The City's IGA with Warrenton was executed in 2012 and provides Gearhart with a supplemental source of supply to help Gearhart meet peak season demands and provides Gearhart with an emergency source of supply. The agreement sunset in 2022 and the City will be seeking an extension of this IGA with Warrenton. Gearhart continues to receive water from Warrenton in the interim.

A Gearhart-Seaside IGA was signed in 2012 and sunset in February 2022. The previous IGA allows for Seaside to provide surplus supplies from July 1 to October 31 to help meet Gearhart's peak demands and enables Seaside to provide emergency supplies to Gearhart during a water shortage. The City expects a new agreement with Seaside to be executed in 2022 with similar terms.

The final order issued by OWRD approving the City's Permit G-16390 included a condition in Section 8 that requires the City to provide the City's most recent copy of an alternate water supply plan with any future WMCPs. This plan is comprised of the intergovernmental agreements with Warrenton and Seaside. The Gearhart-Warrenton IGA and expired Gearhart-Seaside IGA are included in Appendix B. A current Gearhart-Seaside IGA will be included in the next update of Gearhart's WMCP when the IGA has been executed.

## 2.6 Historical Water Demands

### **OAR 690-086-0140(4)**

Exhibit 2-2 presents the City's historical water demands from 2013 through 2021. Total demand is the sum of well production volumes, as obtained from the City's water use reports submitted to OWRD, and the volume of wholesale water purchases from Warrenton.



The City does not have MDD for wholesale purchases because Warrenton nor the City reads wholesale meters on a daily basis. For this WMCP, MDD values were calculated by dividing the highest monthly volume of the year by 30 days, resulting in an average MMD of 1.9 mgd from 2017 through 2021. The resulting value underestimates the City’s actual MDD. As a comparison, the City’s 2018 Water Master Plan (WMP) identified a peaking factor of 2.7 for 2016.<sup>3, 4</sup> Since the peaking factor is typically calculated using MDD, the peaking factor shown in Exhibit 2-2 is also likely underestimated. The MMD was calculated from the City’s water use reports and Warrenton wholesale purchases and consistently occurred during the peak season months of July and August during the nine year period.

**Exhibit 2-2. Historical Demand (MG)**

Year	Wells	Wholesale Purchases	Total (MG)	ADD (MGD)	MDD (MGD) <sup>1</sup>	Peaking Factor	MMD
<b>2013</b>	78.83	23.30	102.13	0.28	0.35	1.26	10.77
<b>2014</b>	85.80	30.08	115.88	0.32	0.46	1.45	14.00
<b>2015</b>	75.74	29.92	105.66	0.29	0.45	1.55	13.70
<b>2016</b>	84.73	26.48	111.21	0.30	0.55	1.80	16.75
<b>2017</b>	80.90	29.70	110.60	0.30	0.62	2.04	18.87
<b>2018</b>	82.81	29.48	112.29	0.31	0.64	2.07	19.40
<b>2019</b>	86.81	25.17	111.98	0.31	0.54	1.77	16.56
<b>2020</b>	85.48	29.00	114.48	0.31	0.61	1.94	18.56
<b>2021</b>	93.89	23.38	117.27	0.32	0.55	1.70	16.64
<b>2017-2021 Avg</b>	<b>85.98</b>	<b>27.35</b>	<b>113.32</b>	<b>0.31</b>	<b>0.59</b>	<b>1.90</b>	<b>18.01</b>

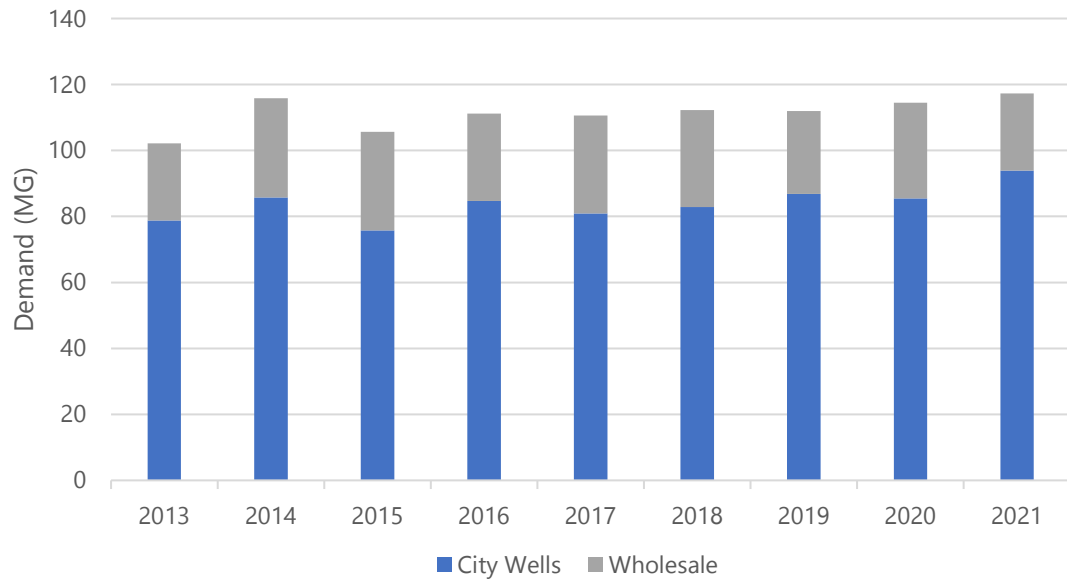
<sup>1</sup> MDD day data estimated by averaging the daily use during the month with the greatest volume of the year.

Total demand ranged from 102.13 MG (2013) to 117.27 MG (2021). Exhibit 2-3 graphs the total demands from 2013 to 2021 presented in Exhibit 2-2 by the source of demand volumes in the form of City well production and wholesale purchases from Warrenton. The City observed a slightly increasing trend of total demand over time.

<sup>3</sup> *City of Gearhart Water Master Plan*, Kennedy/Jenks Consultants (August 23, 2018)

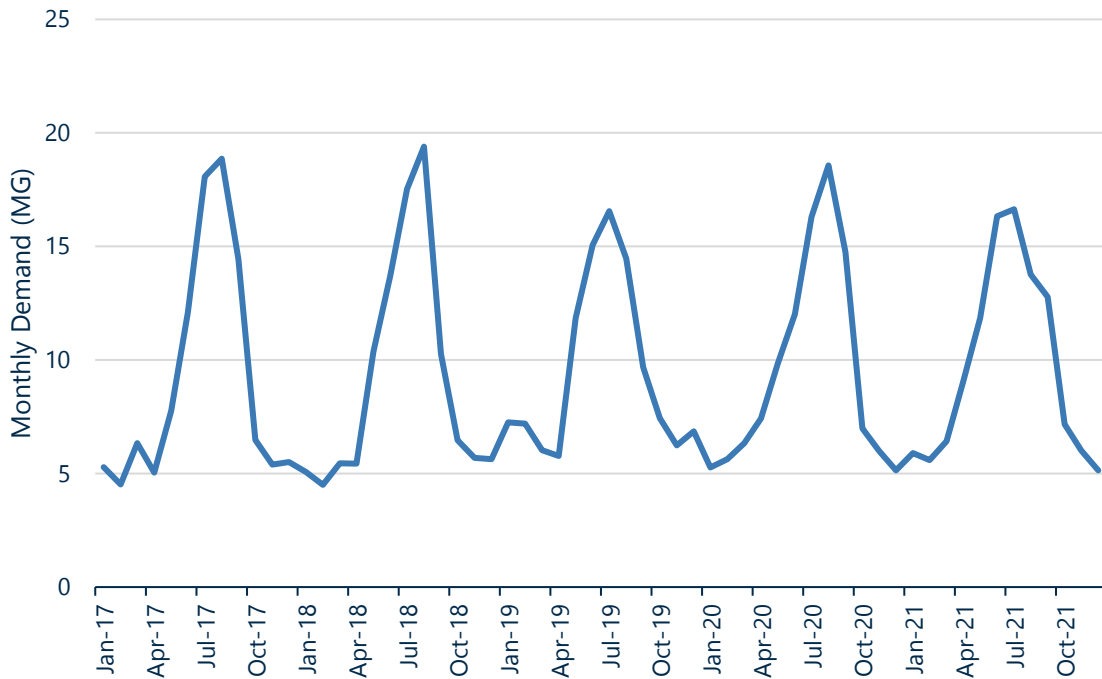
<sup>4</sup> The Water Master Plan based the peaking factor on the MDD of 2016; the plan does not describe how the MDD was calculated.

### Exhibit 2-3. Total Historical Demand Graph



Demand by month is shown in Exhibit 2-4 and includes both wholesale purchases and volumes produced at the City’s wells. The changes in monthly demand reflect the seasonal nature of water use by the City’s customers. In the warmer season, typically June through September, demand is at its highest due to outdoor uses of water and a large influx of transient residents and tourists. This influx impacts summer demand significantly. For comparison, a water provider in the Willamette Valley that does not enjoy a large summer tourist season, but does observe typical seasonal increases in outdoor uses of water, may experience a 2 to 2.5-fold increase in demand from winter to summer generally; Gearhart regularly observes a 3.5 fold increase in seasonal demand.

**Exhibit 2-4. Five-Year Monthly Demand, 2017-2021**



## 2.7 Customer Description and Use Characteristics

### **OAR 690-086-0140(6)**

The City has three customer classes: Residential, Commercial, and Condos. Of the City’s estimated 1,627 customer accounts, approximately 1,556 (96 percent) fall within the Residential class with the remainder in the Commercial and Condo classes. Of the total accounts, 288 (17.7 percent) of these are located outside of City limits.

Some of the City’s own connections that were previously unmetered were recently metered (2021 and 2022), including City Hall, City Shop, the water treatment plant, and the municipal fire department connections. For 2016 through 2021, the volume of use from these locations was estimated, as discussed below.

The Commercial class includes high density, multiple occupancy dwellings on the west side of Gearhart and restaurants, bars, and retail establishments. The City’s own accounts that are metered also are classified in the Commercial class.

Annual consumption volumes are presented in Exhibit 2-5.

**Exhibit 2-5. Consumption, 2016-2021 (MG)**

<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
144.5	84.8	133.9	142.6	115.5	110.4



Annual volumes of consumption ranged from 84.8 MG (2017) to 144.5 MG (2016) over this six-year period. In comparison to the City's 2012 WMCP, the City reported an average of 74 MG annual consumption based on data from 2007 to 2010 and the City's 2018 WMP estimated consumption of 75 MG based on consumption volumes from 2013 to 2015. Consumption volumes from 2016 to 2021 exceed the volumes reported in these other plans. Annual consumption volumes for this WMCP were obtained from the City's utility billing system reports and the City believes these reports are inaccurate and over count volumes of consumption for most of the years identified in Exhibit 2-5. The City is uncertain why these reports are erroneous and has spent considerable time trying to determine the cause. The City anticipates that a solution to rectify the errors will be identified by the City's next WMCP progress report and will be able to report accurate volumes in that report.

The City's 2012 WMCP does not provide a breakdown of consumption by customer class and therefore a historical comparison to consumption data previous to 2016 is not possible. In addition, due to the inaccurate consumption volumes and an inability by the City to create needed reports, the City is not able to provide accurate consumption volumes by customer class or seasonal consumption.

## 2.8 Water Loss

### OAR 690-086-0140(9)

The City's water loss calculations are provided in Exhibit 2-6.

#### Exhibit 2-6. Water Loss, 2016 – 2021 (MG)

	2016	2017	2018	2019	2020	2021
Demand	111.2	110.6	112.3	112.0	114.5	117.3
Billed Consumption	144.5	84.8	133.9	142.6	115.5	110.4
WTP Backwash	7.8	7.7	7.9	7.8	8.0	8.2
Other Consumption <sup>1</sup>	1.3	1.3	1.3	1.3	1.3	1.3
Water Loss	-42.4	16.8	-30.8	-39.8	-10.4	-2.7
Loss Percent	-38%	15%	-27%	-35%	-9%	-2%

<sup>1</sup> Includes uses for irrigation at the City's WTP, City Hall, municipal fire station, and line flushing activities

"WTP Backwash" is water used at the City's WTP to clean the WTP filters. The annual volume is not captured in the Billed Consumption category and is therefore called out separately from that category. The City analyzed historical records of consumption related to backwash water generated at the WTP and estimated that backwash water represents approximately 7 percent of all demand—this percentage was applied to demand and reported in Exhibit 2-6.

The "Other Consumption" category includes consumption also not captured within the Billed Consumption category. Specifically, the City's WMP identified consumption for five uses by relying on estimates of average consumption obtained from the City's 2018 WMP for the years 2013 to 2015. These uses include irrigation at the WTP and consumption at City Hall, City Shop, the fire station, and for distribution system line flushing.

From 2016 through 2021, excluding 2017, water loss is shown to be negative. This negative water loss is a result of inaccurate accounting of consumption generated from the City's billing software. Section 3 discusses this negative water loss in further detail.

The City reported in its WMP water losses ranging from 18 percent to 34 percent from 2013 to 2015 and presented in its 2012 WMCP a range of loss of 10.6 percent to 38.3 percent. The City assumes its recent historical losses still are within the ranges provided in these other documents.

## **2.9 Water Right**

### ***OAR 690-086-0140(5)***

Gearhart has one water right, Permit G-16390. The permit authorizes Gearhart to appropriate water from 14 wells in the Neacoxie Creek Basin for year-round, municipal use. Eight of these wells have been completed. Due to the proximity to adjacent water bodies, the permit includes a monitoring and action plan to help maintain the aquifer water quality and avoid impacts on a creek in close proximity to the aquifer. The City continues to implement this plan under the terms the permit. See Section 2.9.2 for more details of the plan. Exhibit 2-16 provides additional information about this water right. The City submitted a claim of beneficial use for this right in 2014, which is awaiting OWRD review.

**Exhibit 2-7. Water Rights Table**

Source	Priority Date	Application, Permit, and Certificate Numbers	Maximum Authorized Rate	Type of Use	Authorized Date for Completion	Max. Rate of Withdrawal to Date	Max. Annual Volume of Withdrawal to Date	Monthly Diversions, 2021	Daily Diversions, 2021	Five-Year Avg. Monthly Withdrawal (2017-2021)	Five-Year Avg. Daily Withdrawal (2017-2021)	Notes
14 Wells in the Neacoxie Creek Basin <sup>1</sup>	6/28/2005	Application G-16489 Permit G-16390	2.18 cfs <sup>2</sup>	Municipal	November 3, 2013	2.18 cfs	93.9 MG	7.8 MG	0.26 mgd	7.2 MG	0.24 mgd	Right developed and COBU submitted 10/11/2014

<sup>1</sup> The permit includes a condition requiring a monitoring and action plan.

<sup>2</sup> Further limited to 0.443 cfs from July 1 through July 31, 0.289 cfs from August 1 through August 31, 0.410 cfs from September 1 through September 30, and 0.485 cfs from October 1 through October 31.

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## 2.9.1 Aquatic Resource Concerns

### **OAR 690-086-0140(5)(i)**

OAR 690-086-140(5) requires municipal water suppliers to identify the following for each of its water sources: 1) any listing of the source as water quality limited (and the water quality parameters for which the source was listed); 2) any streamflow-dependent species listed by a state or federal agency as sensitive threatened or endangered that are present in the source. Gearhart holds a water right for groundwater. Therefore, this portion of the rule does not apply.

This rule also requires municipal water suppliers to identify any designation of the source as being in a critical groundwater area. The City's groundwater sources are not located within an OWRD designated Critical Groundwater Area or Groundwater Limited Area.

## 2.9.2 Evaluation of Water Supply

### **OAR 690-086-0140(3)**

The City's water right, Permit G-16390, authorizes appropriation of up to 2.18 cfs, but limits appropriations to 0.443 cfs from July 1 through July 31, 0.289 cfs from August 1 through August 31, 0.410 cfs from September 1 through September 30, and 0.485 cfs from October 1 through October 31.

The permit conditions restrict the City's use of this source of supply during the City's peak season, typically June through September, resulting in a deficit of supply. The City has historically offset this difference with wholesale purchases from Warrenton.

Gearhart understands that Warrenton has sufficient capacity to continue to provide supplemental supply in the future under non-drought conditions from its existing sources of surface water supply (Lewis and Clark River and tributaries). Specifically, Warrenton's WMP concluded that Warrenton's supply can continue to meet demand (primary and wholesale) at least through 2037.<sup>5</sup> Further water supply analyses conducted by Warrenton in 2021 confirmed this result<sup>6</sup>, however periods of drought could require Warrenton, and by extension Gearhart, to curtail use. Warrenton is considering pursuing several options to improve the availability of its water supply such as infrastructure improvements, among other potential options, to reduce the impacts of droughts on the availability of its water supply.

The City's wells are completed in an unconsolidated sand aquifer within the Neacoxie Creek Basin and located in a wellfield adjacent to the western boundary of the City. Immediately to the west of the wellfield is the coastline of the Pacific Ocean. Neacoxie Creek is located approximately 2,300 feet to the east of the wellfield in a north-south orientation. Due to the proximity of the City's wells to these water bodies, the City's groundwater permit requires the City to monitor the water quality and quantity impacts of well use on the aquifer and Neacoxie Creek. The City tracks these impacts via monitoring wells and surface water monitoring stations in Neacoxie Creek on an ongoing basis. Monitoring efforts measure for aquifer saltwater intrusion, aquifer static levels, and surface water quality and quantity. The

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<sup>5</sup> *City of Warrenton Water Master Plan*, Murraysmith (2018)

<sup>6</sup> *City of Warrenton Raw Water Facilities Evaluation Technical Memorandum*, Murraysmith (2021)



City understands that the results of the City's ongoing monitoring indicate that the use of these wells has not negatively impacted the aquifer nor creek based on the monitoring parameters. Furthermore, the aquifer has proven productive and stable, and the City has been able to produce the maximum rates of appropriation when needed to meet demand as allowed under permit conditions. As a result, the City considers this source reliable.

## 2.10 System Description

### ***OAR 690-086-0140(8)***

As described in the City's WMP, the City's water system consists of eight production wells, a water treatment plant (WTP), transmission and distribution lines, and a reservoir. The eight production wells were constructed to overall depths of 119 to 159 feet below ground surface. Each operating well is equipped with a fixed speed drive pump and a magnetic flow meter, providing the City an ability to monitor the individual well flow rates. Water from these wells is combined and conveyed to the WTP through an 8-inch transmission line. Periodically at the WTP, the City backwashes the filters as part of a filter cleaning process and sends this backwash water to a field near the wellfield for aquifer recharge.

The water treatment process utilizes coagulation assisted membrane filtration to remove arsenic from the water. The water is then disinfected in a 0.54 MG clearwell which provides chlorine contact time and water storage for fire flow. Water booster pumps located at the treatment plant pump the treated water from the WTP to a one MG reservoir, which feeds into the City's single pressure zone.

The City's water distribution system includes approximately 23 miles of pipe, ranging from 2-inch to 14-inch diameter. A schematic of the City's water system is provided in Exhibit 2-1.

## 3. Water Conservation Element

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*This section satisfies the requirements of OAR 690-086-0150 by describing Gearhart's historical water conservation program over the previous ten years and through the establishment of new or maintenance of existing measures over the next ten years.*

### 3.1 Conservation Measures Progress Report

#### **OAR 690-086-0150 (1)**

The final order approving the City's 2012 WMCP stipulated that the City submit a progress report by September 5, 2017. The City unintentionally missed this due date, therefore this WMCP serves the purpose of meeting the requirements of progress reports under OAR 690-086-120 (3) and (4).

Table 3-1 describes the City's progress in meeting its conservation measure benchmarks established in Gearhart's 2012 WMCP and provides examples of the City's efforts.

**Exhibit 3-1. Conservation Benchmark Progress**

Conservation Measure	2012 WMCP Benchmarks	2022 Benchmark Progress
Annual water audit	The City will begin performing a system audit annually starting in 2013 in order to estimate water losses.	The City performed historical water audits associated with its Water Master Plan (2018) and this WMCP.
System metering	After the City's new water supply and treatment facilities are completed, the City will measure the amount of water produced from the individual wells, meter the amount of water pumped into the distribution system after treatment, and meter each connections usage.	The City meters water produced at the wellheads and water treated at the WTP. The City meters all customer service connections.
	Based on metered data, develop conservation plans based on usage characteristics.	Given the challenge of extracting aggregated consumption data from the City's UB software, the City does not have access to accurate consumption data and therefore has not formally developed conservation measures based on this data. However, the City implemented various measures designed to improve the efficiency of the City's water use, as described below.
	Each well will be metered and routinely inspected and tested per manufacturer specifications.	Production from the City's wells is metered at each individual well. Given that the well meters are only 10 years old, the City has not established a master meter testing program.
Meter testing and maintenance	All customer meters will be replaced by end of 2013.	The City continues to replace its oldest meters through its proactive meter replacement program. The City regularly budgets approximately \$50K/yr for meter install and has allocated \$300,000 for this effort since 2014. Since City staff communicate with residents face-to-face prior to install, health precautions prevented the City from implementing this replace program during the pandemic in 2020 and 2021, slowing installation progress. Outside contractors hired to perform these installs have not met the City's installation schedules, further delaying the City's efforts. As noted in the City's 2018 WMP, a large portion of meters have not been replaced, however the meters of the largest 10 customers, as identified in the City's WMP, were replaced.

	Customer meters will be tested every 5 years.	The City has determined that it is more cost effective to replace meters rather than test them. As a result, the City continues to implement its proactive meter replacement program.
	Meters determined to have failed will be replaced.	The City continues to replace failed meters upon discovery.
Leak detection	The City will perform a leak detection survey every five years.	The City has not performed a leak detection survey since 2012, however has committed to performing surveys in the near future as defined in one of its 2022 water conservation measure benchmark.
	If the water audit reveals water loss greater than 10%, the City will undertake a leak detection program.	The City's water audits conducted for the 2018 Water Master Plan revealed loss above 10 percent. The City intends to establish a leak detection program in the near future as defined in one of its 2022 water conservation measure benchmarks.
Leak repair or line replacement	Emergency pipeline ruptures repaired w/in 24 hours typically and other line leaks are addressed through annual operation and maintenance budgets.	The City continues to repair and replace leaking water lines upon discovery.
	If water audit or future leak detection survey shows that substantial water loss reductions can be cost effectively achieved by modification of this program, the City will revise its leak repair approach accordingly.	The City has not performed a leak detection survey since 2012, however has committed to performing surveys in the near future as defined in one of its 2022 water conservation measure benchmark.
Rate structure	The City uses a water rate structure that is based, in part, on the quantity of water consumed.	The City continues to use a water rate structure that is based, in part, on the quantity of water consumed.
Public education	The City distributes public information packets.	Due to change in City staff, the City does not know if public information packets were distributed to meet this benchmark, however the City has committed to implementing a conservation education campaign as described in a 2022 conservation measure benchmark.
	The City provides guidance to its water users for both indoor water conservation (low flow shower heads, full loads only for dishes and laundry, shorter showers attention to dripping faucets and indoor leaks) and outdoor water conservation (irrigation timing and volume, volume minimization for vehicle washing and outdoor leaks in faucets and hoses).	The City is delayed in meeting this benchmark, however has committed to providing conservation education opportunities to its clients as noted in a 2022 conservation measure benchmark (see Section 3.4.6).
	Additional literature promoting water conservation shall be available at City Hall and the public library.	The City is delayed in meeting this benchmark, however has committed to distributing a brochure focused on water conservation to customers.

<p>Technical and financial assistance</p>	<p>The City will develop a customer request program to assist customers with ideas for water saving opportunities such as replacing existing water fixtures with efficient fixtures, outdoor irrigation needs, modifying old fixtures without replacement, and household water use practices. A visual and audio inspection for leaks will be conducted and water conservation literature will be provided. This service will be promoted through the City’s Water Conservation Public Education Program materials.</p>	<p>The City provides a service to check for outdoor leaks upon customer requests using the leak indicator dials on meter heads.</p>
<p>Supplier financed retrofit or replacement of fixtures</p>	<p>The City will consider the following programs: distribution of low-flow shower heads, toilet tank bags and rain gauges. Each of these programs will include the method of implementation tracking to determine effectiveness.</p>	<p>The City considered these measures and has not implemented these due to cost considerations.</p>
<p>Water reuse, recycling, and non-potable water</p>	<p>The City will identify potential users, ability to deliver, and cost/benefit of producing reclaimed water for irrigation and industrial uses. The City will also investigate the cost/benefit of filter backwash and filter-to-waste recycling at the water treatment plants.</p>	<p>The City relies on private septic sewer systems to manage wastewater, therefore the City has not identified opportunities for water reuse, recycling, and non-potable water. The City's water treatment plant backwash water is discharged at the plant for infiltration and recharges the aquifer.</p>
	<p>The City Public education program will include information household uses of grey water.</p>	<p>Due to change in City staff, the City does not know if this benchmark was met, however the City is not currently tracking household uses of greywater.</p>



## 3.2 Other Conservation Measures

### ***OAR 690-086-0150(3)***

The City assists its customers perform leak detection onsite upon request. During these visits, City staff communicate with its customers about how to check for leaks and inspects customers' leak indicator dials on meter heads to identify potential leaks. Another conservation measure includes the City's water line repair and replacement program. When leaks are discovered, the City either repairs or replaces leaking water lines within 24 hours typically as a means to quickly reduce the losses associated with these leaks.

## 3.3 Measurement and Reporting Program

### ***OAR 690-086-0150(2)***

The City's water measurement and reporting program complies with the measurement and reporting standards in OAR Chapter 690, Division 85. Gearhart measures the water appropriated from its groundwater sources via its telemetry system using magnetic flow meters at each wellhead. These meters were installed in approximately 2012. The City is establishing a testing program as part of this WMCP and will calibrate, repair, or replace these meters as needed so that they fall within industry accuracy standards.

Annually, the City submits monthly water use measurements to OWRD. OWRD publishes this data at [https://apps.wrd.state.or.us/apps/wr/wateruse\\_query/](https://apps.wrd.state.or.us/apps/wr/wateruse_query/).

## 3.4 Required Conservation Programs

### ***OAR 690-086-0150(4)***

The Administrative Rules for Water Management and Conservation Plans require that all water suppliers establish five-year benchmarks for implementing the following required conservation measures:

- Annual water audit
- System-wide metering
- Meter testing and maintenance
- Unit-based billing program
- Water loss
- Public education

During the next five years, Gearhart plans to initiate, continue, or expand these conservation measures to meet these requirements, as described below.

### **3.4.1 Water Audit**

OWRD defines a water audit as an analysis of the water system that includes a thorough accounting of all water entering and leaving the system. The City uses the information and estimates described in Section 2 to capture all usage and demand. The audits calculated for this WMCP revealed negative water losses in 2016 and 2018 through 2021. The City suspects that the Billed Consumption volumes

obtained from the City's utility billing reports are higher for 2016 and 2018 through 2021 than the actual billed volumes. This is confirmed by a comparison of water loss calculations published in the City's 2018 WMP and 2012 WMCP. In the WMP, Billed Consumption from 2013 to 2015 averaged 75 MG and in the 2012 WMCP, consumption ranged from 55 MG to 81 MG (an average was not provided). In comparison, the "Billed Consumption" category volume calculated for this WMCP averaged 122 MG from 2016 to 2021. The City is investigating the reasons for the recent reporting errors. However, the City intends to replace its utility billing system with a new system within the next two years, which should enable the City to generate consumption reports with accurate consumption volumes. With these volumes, the City's water loss estimates should show water losses in line with estimates provided in the City's 2018 WMP, which showed an average water loss of 28 percent from 2013 to 2015, and the 2012 WMCP, which showed a range of water losses from 11 to 38 percent from 2007 to 2011.

The City continually seeks ways to improve the efficiency of its own use of water. For example, the City performs annual irrigation system checks at City parks to ensure these systems are operating at maximum efficiency for the irrigation season.

#### *Five-Year Benchmarks*

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- Continue to investigate errors in annual consumption reports generated by the utility billing system and correct these errors upon discovery.
- Perform annual water audits upon resolution of consumption volume errors.
- Continue seeking ways to increase the efficiency of the City's own uses of water.

### **3.4.2 System-Wide Metering**

All customers served by Gearhart are metered, and meters are required for all new development within the City's service area.

#### *Five-Year Benchmarks*

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- Continue to require meters for all customer service connections within Gearhart's service area.

### **3.4.3 Meter Testing and Maintenance**

The City has meters located at its wellheads (master meters) and meters at the service connection of its customers. The City's master meters located at the wellheads and WTP were installed in approximately 2012 and are within the expected life span of these meters. Historically, the City has informally assessed the accuracy of these meters by checking meter volumetric reads against expected usage. The City recognizes the need to ensure the meters maintain a range of accuracy consistent with manufacturer's specifications. Within the next two years, the City will establish a master meter testing schedule based on manufacturer's recommendations of meter testing frequency or American Water Works Association's Manual M6, *Water Meters* in order to ensure the ongoing accuracy of these meters and implement this program by 2025. Any master meters that fall outside of manufacturer specifications for accuracy will be calibrated, repaired, or replaced as needed.

For meters located at customers' service connections, the City has been replacing the oldest and largest of these meters since 2013 as part of its proactive meter replacement program. Progress implementing

this program was hampered by the coronavirus pandemic and contractor delays. As noted in the 2018 WMP, most of the City's meters had not been replaced. However, since the City prioritized replacement of these older meters based on meter size and consumption volumes, meters located at the service connections of the City's ten largest customers were replaced. As resources allow, the City will continue this meter replacement program, prioritizing replacement of meters two inches in size and greater, then focusing on meters less than two inches.

In addition to its ongoing proactive meter replacement program, the City will begin to identify and inspect meters that are registering zero use during peak season as identified by the City's utility billing staff and system. Due to the City's high transient population, meters registering zero use is common during the winter (non-peak) since many residences are not occupied year-round. A reading of zero is not necessarily indicative of failed meters, explaining why the City has not actively pursued meters registering no consumption in the recent past. Following inspection of these meters, the City will replace meters suspected of malfunctioning. (The City has not found it cost-effective to test service connection meters.)

Within the next two years, the City intends to install a new utility billing software. This new software will enable the City to more easily flag meters that may have malfunctioned, thereby increasing the speed at which the City can inspect these meters and more quickly replace malfunctioning meters. When implemented, these actions will reduce estimates of loss.

### *Five-Year Benchmarks*

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- By 2025, identify a testing schedule for wellhead master meters and begin testing per this schedule and calibrate, repair, or replace meters determined to be out of the acceptable accuracy range as needed.
- Continue the proactive meter replacement program, focusing on the meters two inches and greater initially, then begin replacing smaller meters as resources allow.
- Starting in 2023, periodically create list of meters with a reading of zero during peak season and inspect to determine if the meter has failed or the reading is a result of an unoccupied residence. Replace malfunctioning meters immediately.

### **3.4.4 Unit-Based Billing**

Gearhart has a rate structure in place for all customer classes under Ordinance No. 852 that is based, in part, on the quantity of water used. Under this structure, all customers are charged for water bi-monthly based on meter size and the volume of usage. The water rate for in-City customers (customers located within the City limits) is \$6.44 per 100 cubic feet (CF) over the minimum bi-monthly allowance and \$9.66 per 100 CF for out-of-City customers over the minimum allowances. These allowances are based on meter size, as shown in Exhibit 3-2.

**Exhibit 3-2. Water Rates**

Meter Size	Bi-Monthly Allowance (CF)	Water Rate Above Allowance (per CF)
5/8" to 3/4"	500	In-city users: \$6.44 Out-of-city users: \$9.66
1"	1000	
1 1/2"	1000	
2"	1000	
3"	1000	
4"	1000	
6"	1000	

The City will perform a water rate study by 2024 that will evaluate options to change rates or the rate structure to assist in encouraging customers to use water more efficiently.

*Five-Year Benchmark*

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- Continue use of a rate structure that is based, at least in part, on the quantity of water used.
- By 2024, perform a rate study to evaluate options that may encourage efficient uses of water.

**3.4.5 Water Loss**

As presented in Section 2.8, the City’s water audits have revealed negative water loss (annual consumption volumes exceed annual demand volumes) in 2016 and 2018 through 2021. Negative water losses appear to be the result of excessive volumes of annual billed consumption. The City suspects that the methodology used by the City’s utility billing system to generate consumption reports may be double counting some consumption volumes; however, attempts to work with the utility billing software company to identify and rectify the issue(s) have not been fruitful.

The City intends to purchase a new billing system within the next two years, likely solving the inaccurate water consumption report errors. If water audits continue to show water loss above 10 percent two years following issuance of the final order approving this WMCP, the City will provide a description and analysis identifying potential factors for the loss per OWRDs rules at OAR 690-086-150(4)(e)(A) and implement water loss measures to attain a water loss of 10 percent or less. If, within five years of approval of this WMCP, the City has not attained water loss of 10 percent or less, the City will implement a regularly scheduled and systematic program to detect and repair leaks in the transmission and distribution systems using methods and technologies appropriate to the size and capabilities of the City, a line replacement program detailing the size and length of pipe to be replaced each year or develop and implement a water loss control program consistent with American Water Works Association’s standards as described in OAR 690-086-150(4)(e)(B).

### *Five-Year Benchmarks*

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- If loss exceeds 10 percent within two years, describe and analyze potential factors for the loss to OWRD and implement water loss measures to reduce loss.
- If loss remains above 10 percent within five years, the City will implement one of the required measures identified in the rule.

#### **3.4.6 Public Education**

Gearhart will establish a public education program to encourage efficient indoor and outdoor water use by its customers. The transient nature of a large portion of the City's summer population suggests that benefits gained from a public education campaign aimed at this set of temporary residents would be short-lived. Instead, the City's intends to focus its efforts primarily on educating permanent single-family residents and owners of commercial properties in the hospitality industry, such as hotels, motels, and management organizations of condominiums, about efficient indoor and outdoor uses of water. Several elements of the program will be implemented annually prior to summer peak season as a means to encourage efficient uses of water outdoors, and in particular, during irrigating lawns and landscaping. Other elements will address efficient uses of water indoors.

The program will include the following seven elements:

- Developing a conservation web page on the City's website offering tips on efficient uses of indoor and outdoor water.
- Using the City's blog to periodically post conservation messaging.
- Add a conservation message in the City's Consumer Confidence Report (May or June distribution)
- Periodically including conservation messages on customers' bills when the new utility billing system is installed.
- Include a conservation brochure along with plumbing and building permits.
- Place a conservation brochure at City Hall in a location available to the public.
- Staff a booth at the Earth Day festival (April) that includes water conservation information.

Following implementation of this phase of its conservation education program, the City will devise and initiate conservation education focused on its transient populations; however, this phase of the program is not discussed as part of this WMCP.

### *Five-Year Benchmark*

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- Within five years, implement the seven elements of the City's conservation program targeting permanent residents and businesses.

## 3.6 Additional Conservation Measures

### **OAR 690-086-0150(5)**

OAR 690-086-0150(5) requires municipal water suppliers that either: (a) serve a population greater than 1,000 and propose to expand or initiate diversion of water under an extended permit for which resource issues have been identified, or (b) serve a population greater than 7,500, to provide a description of the specific activities, along with a five-year schedule to implement several additional conservation measures.

The City is not proposing to expand or initiate diversion of water under an extended permit and its population is less than 7,500, therefore this rule does not apply. However, the City has committed to establishing a distribution system leak detection survey program in light of the historical rates of water loss as published in its previous WMCP and WMP, both of which indicated a water loss of greater than 10 percent. The City will test the oldest lines in its distribution system for leaks within 3 years and any leaks found will be repaired or lines replaced immediately. If a future water audit or future leak detection survey show that substantial water loss reductions can be cost effectively achieved by modification of the City's leak repair or line replacement program, the City will revise its leak repair approach accordingly.

#### ***Five-Year Benchmark***

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- Within three years, perform a leak detection survey on the City's oldest distribution system water lines and immediately repair any leaks or replace lines or segments of lines found to have leaks.



## 4. Water Curtailment Element

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*This section satisfies the requirements of OAR 690-086-0160 by describing Gearhart's capacity limitations and episodes of supply deficiencies, performing a capacity assessment, and describing elements of the City's curtailment plan, including the stages of alert, potential initiating conditions, and associated curtailment actions.*

### 4.1 Introduction

Gearhart has prepared this water curtailment plan to address water shortages resulting from natural, human-made, or technological disasters. Gearhart has identified several specific events that are more likely than others to cause Gearhart to enter into curtailment. These include drought, aquifer contamination resulting from acts of terrorism or accidental releases of polluting chemicals, and tsunamis. Other events were considered as well during development of this curtailment plan in order to ensure this plan could be useful in a wide variety of water shortage situations. The goal of this plan is to extend Gearhart's water supply during water shortages caused by one of these events through voluntary reductions, restrictions, and equitable usage, and protect supplies for public health, fire protection and domestic use.

### 4.2 Capacity Limitations and Supply Deficiencies

#### **OAR 690-086-0160 (1)**

Gearhart does not have infrastructure capacity limitations associated with the diversion, treatment, or distribution of its groundwater source or with its interconnection with Warrenton that may cause supply deficiencies. Permit G-16390 includes limitations on use and rate of appropriation however; the City has been able to meet any deficiencies through the use of water from neighboring water suppliers to which it has interconnections. As a result, the City has not experienced supply deficiencies within the last ten years.

### 4.3 Capability Assessment

#### **OAR 690-086-0160 (1)**

For this plan, Gearhart performed an assessment of its capability to maintain water supply delivery during source shortages due to emergency events that the City is mostly likely to experience. These events include drought, source contamination, and tsunamis.

A short-term drought is unlikely to have an immediate effect on the City's groundwater supply. Multi-year droughts may reduce the availability of groundwater, however because the City closely monitors its groundwater levels, the City would have ample forewarning of potential reductions in the availability of this supply and therefore time to address an impending shortage without the need to implement curtailment.

Another event that could impinge Gearhart's ability to meet demand is the contamination of the aquifer resulting from acts of terrorism or accidental releases of polluting chemicals, such as fuel or oil spills. In

any of these events, the City may not be able to draw from the contaminated aquifer and may be required to rely entirely on supply from Warrenton.

In addition, Permit G-16390 incorporates a Monitoring and Action plan that includes, for example, measures to track landward migration of the saline and fresh water interfaces, elevated levels of water quality parameters, or reductions in aquifer head. If these occur at the thresholds identified in Permit G-16390, OWRD may cause the City to implement voluntary or mandatory measures, consistent with the City's WMCP, up to and including cessation of the use of the aquifer.

Gearhart has multiple options to address a variety of events that could lead to shortages, including the use of emergency storage volumes and interconnections with other water suppliers.

Gearhart's in-line distribution system reservoir holds 1 MG of treated water that could be used to meet demand for up to 3 days based on Gearhart's historical average ADD of 0.31 mgd, assuming full capacity of the reservoir. This stored water could be used as a short-term source of supply during a water shortage. Interconnections with other water providers can also be relied upon during shortages to help meet demand. Gearhart has emergency supply agreements with Warrenton and Seaside. Both entities rely on surface water to meet demand. These supplies are also susceptible to short and long-term droughts. As noted in Section 2, Warrenton analyzed its ability to meet demand during a drought of similar recent historical proportions and determined that its supply likely would be adequate at least through 2037, and potentially longer with system improvements. A drought more severe than anticipated in this analysis, however, could impinge Warrenton's ability to fully meet the supplemental supply needs of Gearhart. Similarly, Seaside may not be able to meet Gearhart's water supply needs if a drought impacts Seaside's water supply.

Though Gearhart has planned to address some supply shortages through emergency storage volumes and interties with other water providers, the possibility exists that these solutions may not prevent a supply shortage. In response, the City has created this curtailment plan to be implemented during a water shortage in order to extend available water supplies until normal production and delivery can be resumed. In addition to addressing the shortage through curtailment, the City may also bring in water by tank trucks to meet basic health and safety needs. Water would be dispensed from these trucks to the customers in small containers or, if supply was sufficient, added to the City's reservoir.

## 4.4 Curtailment Stages

### ***OAR 690-086-0160 (2) & (3)***

Gearhart's curtailment plan has four curtailment stages and each of these stages have initiating conditions, or triggers, that define when these stages are implemented. The City uses "water service difficulty", as noted in the OWRD WMCP rule, as triggers for curtailment actions. Specifically, the City will rely on the percentage of water system demand relative to system capacity as a trigger for each stage of curtailment. Water system capacity is the sum total of the production capacity of the City's groundwater supply, the capacities of the transmission and distribution systems, and the availability of wholesale water. The transmission and distribution system capacity will be determined based on storage volume in the City's reservoir and capabilities of the transmission and distribution system to supply water to customers. With respect to available wholesale supplies from Warrenton, notifications

from Warrenton of the potential of reduced supply available to Gearhart will be factored into the City's decision to implement any of the stages of alert.

The curtailment stages are organized based on the level of severity of the water shortage event, such that the least severe impact of an event is addressed by the first stage of alert. Gearhart's response to a water shortage may escalate successively through each stage. Alternatively, a later stage could be implemented directly, bypassing earlier stages (e.g. moving from stages 1 to 3), depending upon the event at hand. The four stages are listed in Exhibit 4-1. The City's triggers or initiating conditions are also presented in Exhibit 4-1. The City recognizes that there may be other factors that could trigger this curtailment plan and reserves the flexibility to consider other factors (such as lack of chemical needed for treatment processes) and modify this plan in response.

As summarized in Section 4.3, the triggers are also influenced by mandates from OWRD requiring the City to implement curtailment elements of the City's Monitoring and Action Plan when the City observes exceedances of thresholds to water quality and aquifer head parameters. These thresholds are described in Permit G-16390.

**Exhibit 4-1. Water Curtailment Stages and Triggers**

Stage	Stage Type	Triggers/Initiating Conditions
Stage 1	Voluntary	<ul style="list-style-type: none"> <li>• Use reaches or is anticipated to reach 85 percent of system capacity for three consecutive days</li> <li>• Exceedance of thresholds identified in the Monitoring and Action Plan of Permit G-16390</li> </ul>
Stage 2	Mandatory	<ul style="list-style-type: none"> <li>• Use reaches or is anticipated to reach 90% of system capacity for three consecutive days</li> <li>• Exceedance of thresholds identified in the Monitoring and Action Plan of Permit G-16390</li> </ul>
Stage 3	Mandatory	<ul style="list-style-type: none"> <li>• Use reaches 100% of system capacity for two or more consecutive days</li> <li>• Exceedance of thresholds identified in the Monitoring and Action Plan of Permit G-16390</li> </ul>
Stage 4	Mandatory	<ul style="list-style-type: none"> <li>• Use exceeds or is anticipated to exceed 100% of system capacity for two or more consecutive days</li> <li>• Exceedance of thresholds identified in the Monitoring and Action Plan of Permit G-16390</li> </ul>

## 4.5 Curtailment Measures

### **OAR 690-086-0160 (4)**

The plan includes both voluntary and mandatory curtailment measures associated with each stage. These measures are intended to reduce demand during water shortages, thereby extending Gearhart's water supply to meet basic domestic needs and the needs to maintain the health and safety of the community. The City may modify, add, or remove measures based upon the cause, severity, anticipated duration of the shortage, and other factors associated with the event. Moreover, the scope of the water shortage will determine if the measures are applied to the entire system, to specific water use sectors,

or in those geographic areas that are directly impacted. The measures associated with each stage of alert are described below.

While most of the following measures prohibit specific nonessential uses of water, any prohibition may be disregarded if the use meets public health or safety requirements, including but not limited to abatement of fire or sanitation hazards or to meet air quality standards mandated by the Oregon Department of Environmental Quality (e.g. dust suppression), and the use's primary function is used to maintain the public health, safety, and welfare of the City's customers.

### 4.5.1 Stage 1

Under the Stage 1, Gearhart will inform customers of the potential for a water shortage and the need for voluntary reductions in consumption by all water users. Stage 1 curtailment actions include the following:

- Reduce or eliminate Gearhart's non-essential uses of water, i.e. irrigation, flushing, etc.
- Request fire department suspend trainings
- Request customers implement voluntary water conservation measures for indoor and outdoor as promoted through the City's conservation program. The City will expand methods and frequency of notifications beyond those currently used for the conservation program
- Request customers irrigate only between 8 pm to 8 am
- Ready emergency interconnections for activation and notify emergency water suppliers

### 4.5.2 Stage 2

Stage 2 prohibits certain activities, including making activities identified in Stage 1 mandatory. This stage emphasizes reduction or elimination of nonessential water uses. Stage 2 curtailment actions prohibit or limit water use as follows.

- Irrigate only between 8:00 pm and 8:00 am
- No water use for washing vehicles (cars, motorbikes, boats, etc.) except at a commercial washing facility that recycles wash water and for vehicles that must be cleaned to maintain public health and safety, such as food carriers and solid waste transfer vehicles
- No washing of sidewalks, walkways, driveways, parking lots, tennis courts, and other hard-surfaced areas
- Limit City uses of water and discontinue hydrant flushing, reduce nonessential cleaning using water, and curtail temporary access (e.g., for construction-related activities) to water at hydrants
- No washing of building and structure surfaces (e.g. roofs, decks, siding, gutters), except as needed for painting or construction
- No water use for a fountain or pond for aesthetic or scenic purposes, except for recirculating systems and where necessary to support fish life
- No water for dust control unless approved by the City

In addition to the above mandatory water use restrictions, depending on the timing and duration of the shortage event, Gearhart may request that the City's customers with high water use due to irrigation to

limit watering to three days per week from 8 pm to 8 am, specifying which days the customers can irrigate. The intention of this measure enables the City to ensure that these irrigators do not irrigate concurrently, thereby contributing to peak demands.

### 4.5.3 Stage 3

The actions included in Stage 3 builds upon the restrictions of Stage 2 by expanding the suite of mandatory prohibitions on non-essential water use. Under Stage 3, the City may introduce the following additional mandatory water reduction measures.

- Maintain Stage 2 mandatory measures, unless modified below.
- Prohibit all outdoor irrigation (exceptions include new lawn, grass or turf planted after March 1 of the calendar year in which restrictions are imposed, sod farms, high-use athletic fields or park and recreation areas specifically designated by the Public Works Director)
- No water used to fill, refill, or add to any indoor or outdoor pools, ponds, fountains, hot tubs, or water-using features that hold water
- No washing of building and structure surfaces (e.g. roofs, decks, siding)
- No water from hydrants for construction-related activities (except on a case-by case basis), fire drills, or any purpose other than fire-fighting
- Develop and implement voluntary or mandatory limitations on top 10 large commercial and industrial users of water, with limitations tailored to these users.

### 4.5.4 Stage 4

Stage 4 represents the most severe water shortage stage of alert that Gearhart can issue. When Stage 4 is declared, all outdoor and indoor water uses not necessary to maintain the health, safety, and welfare of the City's customers is prohibited. For Stage or earlier stages, the City may coordinate with other water suppliers to initiate a joint response to a regional water shortage.

The City's response to the event that caused implementation of Stage 4 may include purchasing emergency supplies from other water providers, directing residents to a pre-designated water distribution location(s), supplying bottled water, and utilizing mobile water tanks to meet basic health and sanitation needs.

## 4.6 Curtailment Communication

Communication of a water shortage and the associated curtailment actions is critical to ensure timely and effective response by water users. Gearhart will communicate specific actions users can take to reduce usage and may include a summary of the current water situation, the reasons for the requested reductions, and a warning that additional cutbacks may be required if voluntary or mandatory measures do not sufficiently reduce water usage. The following list identifies methods that the City may use to communicate curtailment stages and actions to its customers.

- Social media platforms to keep the public informed of curtailment need and actions that can be taken to reduce water use.



- Contact local media outlets and request they notify the public about the potential for water shortages or temporary interruptions to normal service delivery.
- Provide notice on water bills and through utility bill inserts.
- Write and send water curtailment letters to customers.
- Activate a water conservation hotline that includes a pre-recorded message providing current status of the water shortage and references sources of water conservation tips.
- Instruct field personnel to remind customers of voluntary or mandatory measures and shortage status during customer contacts.
- Use reader boards to direct users to sources of information about the water shortage and conservation measures.

## 4.7 Drought Declaration

If a declaration of a severe drought is declared by the Governor per ORS 536.720, the Oregon Water Resources Commission may order political subdivisions within any drainage basin or subbasin to implement a water conservation or curtailment plan or both, approved under ORS 536.780. The conservation and curtailment elements of this WMCP meet these requirements. If Gearhart is within a severe drought area declared by the Governor, such as Clatsop County, the City will consider whether curtailment measures are needed to meet system demands. If ordered to implement a water conservation or curtailment plan during a declared drought, the City will comply by implementing the water conservation and curtailment provisions of this WMCP. Regardless of whether curtailment is needed, Gearhart will continue to encourage customers to conserve water.

## 5. Municipal Water Supply Element

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*This section satisfies the requirements of OAR 690-086-0170.*

*This rule requires descriptions of the providers current and future service area and population projections, demand projections for 10 and 20 years, and the schedule for when the provider expects to fully exercise their water rights. The rule also requires comparison of the provider's projected water needs and the available sources of supply, an analysis of alternative sources of water, and a description of required mitigation actions.*

### 5.1 Delineation of Service Area

#### **OAR 690-086-0170 (1)**

Gearhart's current service area is shown in Exhibit 2-1. Future growth within the City's service area is expected to occur as a result of infill defined as development of vacant properties or redevelopment of existing properties. Goal 14 of the City's Comprehensive Plan<sup>7</sup> allows the City to expand water service into the UGB and existing service area, but does not allow for service area expansion outside of the UGB. As such, the City anticipates additional growth over the planning period of this WMCP inside and outside of City limits, but within the UGB. The exact location and timing of this growth is uncertain since the City is not aware of any specific development plans. The Oregon *Regional Housing Needs Analysis* notes a need for 134 additional housing units over the next 20 years in order to support forecasted population increases projected for the City (see below).<sup>8</sup> This WMCP assumes the City will accommodate the population increase by providing adequate opportunities for additional housing units inside and outside its current service area boundary.

### 5.2 Population and Water Use Projections

#### **OAR 690-086-0170 (2) & (3)**

Gearhart projected its population through 2042 by applying an annual average growth rate (AAGR) to its existing population. The AAGR was calculated using historical population estimates within City limits from 2010 to 2020 published by the U.S. Census Bureau. The City calculated an AAGR of 2.26% over this 10 year period. The City applied this AAGR to the 2021 population estimate to the service area of 2,493 (see Section 2 for a description of the methodology used to calculate this estimate) to arrive at the population for 2022. A similar process was performed for each year through 2042. The results of this forecast is shown in Exhibit 5-1.

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<sup>7</sup> *Gearhart Comprehensive Plan, Goals and Policies*, Ordinance 677, with amendments through September 2019.

<sup>8</sup> *Implementing a Regional Housing Needs Analysis Methodology in Oregon: Approach, Results, and Initial Recommendations*, EcoNorthwest (March 2021)

**Exhibit 5-1. Service Area Population and Demand Projections, 2021-2042**

	<b>Population Projection</b>	<b>ADD (mgd)</b>	<b>MDD (mgd)</b>	<b>ADD (cfs)</b>	<b>MDD (cfs)</b>
<b>2021</b>	2,493	0.29	0.79	0.45	1.22
<b>2032</b>	3,188	0.37	1.01	0.58	1.57
<b>2042</b>	3,986	0.47	1.27	0.72	1.96

By 2042, the City’s service area population is projected to reach 3,986 persons. Note that this methodology assumes that the population located outside of City limits (estimated at 700 in 2021) that receives City water service will increase at the same rate as the population within the City.

To forecast the City’s future water demand, the City applied a per capita water use factor by the populations projected for 2032 and 2042. The water use factor was calculated by averaging water demand from 2016 to 2021, which rounded to 107 MG, and dividing this value by the 2021 population estimate of 2,493. This calculation produced a water use factor of 117.55 gallons per capita per day (gpcd). The City multiplied this water use factor by the projected populations in 2032 and 2042 to project an ADD of 0.37 mgd and 0.47 mgd respectively. To calculate MDD, the City multiplied ADD by a peaking factor of 2.7—the same factor used in the City’s demand forecast published in the City’s 2018 WMP—to arrive at an MDD of 1.01 mgd in 2032 and 1.27 mgd by the end of the planning period (2042). These projections are provided in Exhibit 5-1.

**5.3 Schedule to Exercise Permits and Comparison of Projected Need to Available Sources**

***OAR 690-086-0170 (2) and (4)***

Gearhart holds one groundwater water right authorizing use of up to 2.18 cfs from December 1 through June 30, and further limited to 0.443 cfs (0.29 mgd) during July, 0.289 cfs (0.19 mgd) during August, 0.410 cfs (0.27 mgd) during September, and 0.485 cfs (0.31 mgd) during October. The City beneficially used the entirety of this right and submitted a claim of beneficial use to OWRD on October 11, 2014, within one year of the permit’s completion date of November 3, 2013.

The City’s projected 2042 MDD is 1.96 cfs (1.27 mgd) which is less than the maximum authorized rate of appropriation under G-16390 of 2.18 cfs (1.4 mgd), but more than the rates of supply from groundwater available during peak season. The City intends to continue to rely on its groundwater permit as its primary source of supply, however the permit conditions limiting the City’s ability to fully utilize its groundwater supply result in the need to continue to rely on other sources of supply, particularly during the months when the City historically has observed MDDs. As a result, the City will rely on supplemental supply from other water providers over the 20-year planning period to meet a large portion of its maximum day demand. Combined, the City’s primary and supplemental sources of supply will enable the City to meet these demands through 2042.

## 5.4 Alternative Sources

### ***OAR 690-086-0170 (5)***

OAR 690-086-0170(5) requires an analysis of alternative sources of water if any expansion or initial diversion of water allocated under existing permits is necessary to meet future water demand. The City completed construction and completed application of Permit G-16390 on October 11, 2013, which was within five years of the date of issuance of the permit November 3, 2013. Consequently, this rule does not apply.

## 5.5 Quantification of Maximum Rate and Monthly Volume

### ***OAR 690-086-0170(6)***

OAR 690-086-0170(6) requires a quantification of the maximum rate and maximum monthly volume of water to be diverted if expansion or initial diversion of water allocated under an existing permit is necessary to meet demands in the 20-year planning horizon. As noted previously, the City fully beneficially used water under Permit G-16390. Consequently, this rule does not apply.

## 5.6 Mitigation Actions under State and Federal Law

### ***OAR 690-086-0170(7)***

Under OAR 690-086-0170(7), for expanded or initial diversion of water under an existing permit, the water supplier is to describe mitigation actions it is taking to comply with legal requirements of the Endangered Species Act (ESA), Clean Water Act, and other applicable state or federal environmental regulations. As noted in Section 5.5, the City fully beneficially used water under Permit G-16390. Consequently, this rule does not apply.

## 5.7 New Water Rights

### ***OAR 690-086-0170(8)***

Under OAR 690-086-0170(8), an analysis of alternative sources of additional water is required if acquisition of new water rights will be necessary within the next 20 years to meet the projected water demands. The City does not intend to acquire new water rights to meet its demands within the next 20 years, so the provisions of this section are not applicable.

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**Appendix A**

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**Letter to Affected Government and Comments  
Received**







September 8, 2022

Gail Henrikson, Community Development Director  
Clatsop County  
800 Exchange St., Ste. 410  
Astoria, OR 97103

Subject: Water Management and Conservation Plan for City of Gearhart

Dear Ms. Henrikson,

The City of Gearhart has developed a draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rules Chapter 690, Division 86 of the Oregon Water Resources Department.

Under these rules, the water supplier will make its draft WMCP available for review by any affected local government and seek comments related to consistency with the local governments' comprehensive land use plans. We have provided you with an electronic version by email of the draft WMCP for your review.

Please provide any comments to me by October 8<sup>th</sup>, 2022. If the WMCP appears consistent with your Comprehensive Land Use Plan, a letter or email response to that effect would be appreciated. You may send your comments to me at [thenkle@gsiws.com](mailto:thenkle@gsiws.com).

If you have any questions, please feel free to contact me at 971-236-2550. Thank you for your interest.

Sincerely,  
GSI Water Solutions Inc.

A handwritten signature in black ink that reads "Tim Henkle". The signature is written in a cursive, flowing style.

Tim Henkle  
Water Resources Consultant

Enclosure



# Clatsop County

Community Development – Planning

800 Exchange St., Suite 100  
Astoria, OR 97103  
(503) 325-8611 phone  
(503) 338-3606 fax  
[www.co.clatsop.or.us](http://www.co.clatsop.or.us)

October 3, 2022

Tim Henkle, Water Resources Consultant  
GSI Water Solutions, Inc.  
1600 SW Western Boulevard, Suite 240  
Corvallis, OR 97333

**RE: CITY OF GEARHART 2022 DRAFT WMCP**

Dear Mr. Henkle:

Clatsop County staff have reviewed the 2022 draft WMCP for the City of Gearhart and have the following comments:

- Section 1.1, 1<sup>st</sup> paragraph: The City of Gearhart is north of the City of Seaside
- Why does the WMCP skip from Exhibit 2-6 to 2-16? Where are the intervening exhibits?
- Does the WMCP take into consideration future housing that is identified and recommended in the [Oregon Housing Needs Analysis](#) and the Regional Housing Needs Analysis, which identified the need for 134 additional dwelling units? This also affects the cities of Warrenton and Seaside, which each have a projected additional housing need of 1,107 and 765 new residential units, respectively.
- Neacoxie Creek is identified as a Goal 17 coastal wetland in the Clatsop County Comprehensive Plan. Exhibit 3-1 indicates that the City has not fully implemented all conservation benchmarks identified in the 2012 WMCP. While it is understood that Permit G-16390 requires ongoing monitoring, no information was provided regarding the action plan and the monitoring results. Section 2.9 states that this information is provided in Section 2.11, but the WMCP does not contain a Section 2.11. Due to the environmentally-sensitive nature of Neacoxie Creek, and the creek's inclusion in the Clatsop County Comprehensive Plan as a Goal 17 coastal wetland, the County has concerns regarding how Gearhart's water system may be impacting this water body.

Staff appreciates the opportunity to review and comment on the WMCP. Please feel free to contact me if you have any questions regarding these comments or if you need any additional information.

Sincerely,

Gail Henrikson, AICP, CFM  
Community Development Director

For project information and updates, visit us on the web!

[www.co.clatsop.or.us/landuse/page/comprehensive-plan-update](http://www.co.clatsop.or.us/landuse/page/comprehensive-plan-update) | [www.facebook.com/ClatsopCD](https://www.facebook.com/ClatsopCD)

**Appendix B**

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**Intergovernmental Agreements**

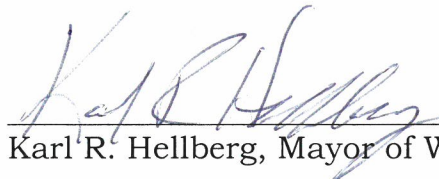


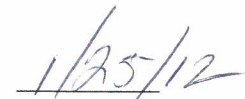
**MEMORANDUM OF UNDERSTANDING**  
**PROVIDING SHORT TERM WATER SERVICE BETWEEN**  
**THE CITIES OF**  
**WARRENTON AND GEARHART**

The City of Warrenton has provided water service to the City of Gearhart since 1948 beginning with a surplus water agreement. In 1984 a twenty year agreement for domestic water was approved by the two cities. That agreement expired in 2004 and Warrenton has been providing water to Gearhart at the same "Gearhart Rate". Gearhart is developing a domestic groundwater system which will eliminate the need for domestic water delivery from Warrenton other than for emergency purposes after August 2012. The city of Gearhart shall notify the City of Warrenton 90 days prior to reduction of domestic water delivery and shall provide an estimate for the required amount for summer delivery for the months of June, July and August 2012.

The City of Warrenton agrees to continue to supply water at the same rate as currently exists for Gearhart. This agreement may be extended with approval by both governing bodies.

Separate and apart from this Memorandum of Understanding, the two cities anticipate negotiating an agreement providing emergency water for both communities on a long term basis.

  
\_\_\_\_\_  
Karl R. Hellberg, Mayor of Warrenton

  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Kent Smith, Mayor of Gearhart

\_\_\_\_\_  
Date



*"Making a difference through excellence of service"*



## CITY OF WARRENTON

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January 26, 2012

Chad Sweet  
City of Gearhart  
P.O. Box 2510  
698 Pacific Way  
Gearhart, OR 97138

RE: Memorandum of Understanding Providing Short Term Water Service  
Between the Cities of Warrenton and Gearhart

Dear Chad:

Enclosed please find two originals of the Memorandum of Understanding for  
the Short Term Water Service Between our cities.

Please have the Memorandum signed and mail back to us; retain the executed  
copy is for your records.

If you have any questions, please feel free to give me a call.

Sincerely,

A handwritten signature in blue ink that reads "Linda Engbretson". The signature is fluid and cursive, with the first name being more prominent.

Linda Engbretson  
City Recorder/Asst. to the City Manager

Encl.

**WATER SUPPLY AGREEMENT  
CITY OF WARRENTON TO CITY OF GEARHART**

THIS AGREEMENT is made and entered into this 4<sup>th</sup> day of August 1993,  
between the CITY OF WARRENTON, a municipal corporation of the State of Oregon,  
hereinafter referred to as "WARRENTON", and the CITY OF GEARHART, a municipal  
corporation of the State of Oregon, hereinafter referred to as "GEARHART",

**W I T N E S S E T H :**

WHEREAS, WARRENTON has been supplying the water requirements of  
GEARHART from the WARRENTON water system under an agreement dated June 18,  
1984, and under an earlier agreement dated June 3, 1964, and

WHEREAS, both parties recognize the mutual benefits of their continued, long-term  
water supply agreement, and

WHEREAS, both parties desire to revise and amend certain provisions of their  
existing agreement dated June 18, 1984, and intend for this Agreement to replace and  
supersede their existing agreement for the remainder of its specified term, now, therefore,

**IT IS HEREBY AGREED THAT:**

(1) WARRENTON shall furnish GEARHART with its water supply requirements  
from the WARRENTON water system for the period of time and in the manner hereinafter  
set forth.

(2) GEARHART operates its own water distribution system and may withdraw  
water from the WARRENTON system at the points shown on Exhibit "A". Each connection  
to the WARRENTON supply system shall be equipped with a master meter installed at the  
expense of GEARHART. The cost of maintenance of the master meters is the responsibility  
of WARRENTON. GEARHART is responsible for all pipelines and other water system

facilities on its distribution system side of the master meters. Except for maintenance of the master meters as provided above, WARRENTON assumes no responsibility whatsoever for any construction, reconstruction or maintenance of any GEARHART water system facilities by virtue of this Agreement, all of which are entirely the responsibility of GEARHART. Both parties have the right to inspect and insist that the master meters are kept in continued good repair so as to maintain their accuracy. Inspection shall occur at least annually.

(3) GEARHART is allowed, at its own expense, to construct and maintain a bypass water main around each master meter to connect directly to WARRENTON's water supply line. This bypass connection shall be used only in cases of emergency or when the master meter is being repaired or is out of order in order to assure the water supply to GEARHART. GEARHART shall not operate the bypass connection, except in an emergency, without receiving prior written approval from WARRENTON. GEARHART shall pay for the estimated usage during the period when the bypass is in use as determined from GEARHART's average daily usage for corresponding days for the three previous years.

(4) GEARHART shall pay for water received from WARRENTON under this agreement at the in-City rates set forth in Warrenton's Resolution No. 800, and as such rates may be revised by WARRENTON from time to time.

(5) WARRENTON shall read the master meters delivering water to GEARHART and bill Gearhart on a monthly basis. GEARHART agrees to pay each bill within thirty (30) days of its receipt.

(6) GEARHART shall have the first right of refusal to resell water supplied by WARRENTON to any person, firm or corporation within Gearhart's Urban Growth Boundary and water service area as shown on Exhibit "B". Any such resale by GEARHART shall be independent and separate from this Agreement and any revenue received therefrom

shall remain the exclusive property of GEARHART. In the event Gearhart refuses to sell or provide water to a user outside its City limits, but within its Urban Growth Boundary then Warrenton may do so.

(7) GEARHART shall comply with all ordinances, rules and regulations of Warrenton governing the use of the water. GEARHART shall likewise operate and maintain its system in good condition to prevent both waste and contamination of water.

(8) WATER SUPPLY SHORTAGE: GEARHART and WARRENTON agree to adopt a plan regarding rationing of water in the event of a shortage. The plan shall first curtail outside use of water, such as watering of lawns, car washing, etc., on a system-wide basis, and may include such other rationing methods as the parties may agree. However, in the event that the plan adopted is insufficient to deal with a particular water shortage, then WARRENTON may limit GEARHART's water consumption to no more than GEARHART's average monthly consumption for the period October through April of the three previous years.

In the event of a supply shortage or other emergency that causes interruption or curtailment of the supply, WARRENTON assumes no legal liability due to its inability to supply the GEARHART water requirements, and Gearhart will indemnify and hold Warrenton harmless from any such claims by Gearhart or its resale customers.

(9) It is further stipulated and agreed between the parties hereto that in the event of failure or refusal of GEARHART to make any of the payments herein provided for, or for a claimed breach of any of the conditions of this Agreement on the part of GEARHART, WARRENTON shall notify GEARHART thereof; and if such breach shall continue for a period of thirty (30) days after such notice, WARRENTON may discontinue delivery of water to GEARHART without any further notice whatsoever. GEARHART agrees that

under these conditions, it waives any and/or all rights of action for damages or otherwise against WARRENTON by reason of the discontinuance of delivery. Furthermore, in the event of a breach of any of the covenants herein set forth to be kept and performed by GEARHART, GEARHART shall be liable to WARRENTON for any unpaid balance due under the terms of this Agreement.

(10) In the event of a break in GEARHART's pipeline or a fire in the GEARHART system, WARRENTON agrees to make an equitable adjustment for the water lost or used on account of such break or fire. The usage due to a break or fire will be determined from the average water use taken from meter readings for corresponding days for the previous three (3) years. GEARHART shall promptly repair any break. WARRENTON's duty to adjust is only if such repairs are promptly accomplished by Gearhart.

(11) This Agreement shall remain in full force and effect until June 18, 2004. It is further agreed, however, that both parties may review this Agreement annually on the anniversary date of the execution hereof and, if appropriate, negotiate in good faith any amendments hereto.

(12) In the event suit or action is instituted to enforce any of the terms of this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorney's fees at trial or on appeal of such suit or action, in addition to all other sums provided by law.

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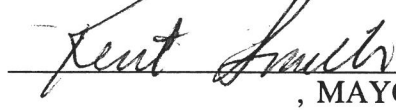
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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by the appropriate authorized officials.

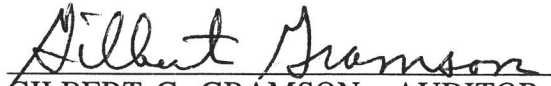
CITY OF WARRENTON, a municipal corporation  
of the State of Oregon


  
\_\_\_\_\_  
LESLIE W. NEWTON - MAYOR

CITY OF GEARHART, a municipal corporation  
of the State of Oregon

  
\_\_\_\_\_  
, MAYOR

ATTEST:

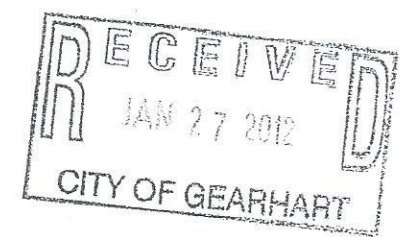
  
\_\_\_\_\_  
GILBERT G. GRAMSON - AUDITOR &  
POLICE JUDGE, CITY OF WARRENTON

  
\_\_\_\_\_  
BRUCE F. MALTMAN - AUDITOR &  
POLICE JUDGE, CITY OF GEARHART



# CITY of SEASIDE

OREGON'S  
FAMOUS  
ALL-YEAR  
RESORT



989 BROADWAY  
SEASIDE, OREGON 97138  
(503) 738-5511

January 25, 2012

Chad Sweet, City Administrator  
CITY OF GEARHART  
PO Box 2510  
Gearhart, OR 97138

Dear Chad,

Enclosed you will find the two amended copies of the agreement between the City of Seaside and City of Gearhart for peaking and emergency water supply. If approved by you please sign the agreements and return one copy to the City of Seaside, 989 Broadway, Seaside, OR 97138, attention Kim Jordan. Please include with the agreement Exhibit A (page 1 section 1.2) for our records.

If you have any questions please feel free to contact me at 738-5511.

Sincerely,

A handwritten signature in cursive script that reads "Kim Jordan".

Kim Jordan  
Administrative Assistant



## AGREEMENT FOR PEAKING AND EMERGENCY WATER SUPPLY

THIS AGREEMENT ("Agreement") for Peaking and Emergency Water Supply is dated effective this 10 day of January, 2012, between the CITY OF GEARHART ("Gearhart") and the CITY OF SEASIDE ("Seaside"), sometimes collectively referred to as the "parties" or to any one singly as a "party."

### RECITALS

- A. Seaside is a municipality adjacent to Gearhart and operates its own, independent water system (the "Seaside System").
- B. Gearhart has recently obtained a permit from the Oregon Water Resources Department for the development of a well field to supply its citizens with water when the well field becomes fully operational (the "Gearhart System").
- C. After Gearhart System becomes fully operational, there is the possibility that Gearhart may need access to additional sources of water in the peak demand months from July through the end of October, or in the event limitations on its groundwater supply, for whatever reasons, require supplemental source augmentation.
- D. Seaside has agreed to provide a peaking surplus water supply to Gearhart, subject to the terms and conditions of this Agreement, to help Gearhart meet the potential water supply needs of its customers during periods of peak water usage, and for emergencies.
- E. This Agreement is intended to provide the framework for a long-term supplemental water supply for Gearhart for its peaking and emergency needs, subject to the availability of water from the Seaside system.

### AGREEMENT

In consideration of their mutual covenants, the payment for the water provided for herein, and other good and valuable consideration, the receipt of which is hereby acknowledged, Seaside and Gearhart agree to the following:

1. **Definitions.** The following definitions will apply to this Agreement:
  - 1.1 **Available Water.** The quantity of water from the Seaside System, determined by Seaside, which at any given time is in excess of the amount of water then needed by the citizens of Seaside.
  - 1.2 **Connection.** The point, shown in Exhibit A attached hereto and made a part hereof, where Gearhart's pipe connects or may connect with the Seaside System.

- 1.3 Effective Date. The date on which the last signatory of this Agreement has executed and delivered this Agreement.
- 1.4 Effective Date for Water Delivery. The date, commencing on the Gearhart System Start Date, on which this Agreement becomes effective for the delivery of water, under Sections 2 through 11 hereunder.
- 1.5 Emergency Need. A condition, determined by Gearhart, when the public welfare of the citizens of Gearhart requires access to Seaside Supplemental Source due to a Gearhart System Limitation occurring outside the Peaking Period.
- 1.6 Force Majeure. Any cause beyond a party's control and without its fault or negligence. Such causes may include, but are not necessarily limited to, acts of God or the public enemy, acts of the federal, state, or local governments (other than the party in question), fires, floods, epidemics, volcanic eruptions, quarantine restriction, strikes, freight embargoes, and unusually severe weather or emergency that causes interruption of supply. An event of Force Majeure shall be limited to the time during which such event occurs.
- 1.7 Gearhart Request for service. A written notice from Gearhart to Seaside, pursuant to a reasonable protocol to be established between them, that states Gearhart's need for Available Water during the Peaking Period or during a time of Emergency Need, and estimating the approximate quantity and duration of need for Available Water.
- 1.8 Gearhart System. The groundwater supply being developed by Gearhart pursuant to Oregon Water Resources Department Permit G-16390 issued to Gearhart, and its related infrastructure.
- 1.9 Gearhart System Start Date. The date, determined by Gearhart, on which Gearhart notifies Seaside in writing that the Gearhart System is fully operational and capable of supplying all or substantially all of the water needs of the citizens
- 1.10 Gearhart System Limitation. A limitation due to any cause on the ability of the Gearhart System to supply all water required at any given time by the citizens of Gearhart.
- 1.11 Master Meter. A water meter at or near the connection to be installed by Gearhart.
- 1.12 Peaking Period. July 1<sup>st</sup> through October 31<sup>st</sup> of each year, during the term of this Agreement.
- 1.13 Seaside Supplemental Source. Water from Seaside System.



- 1.14 Seaside System. Seaside's existing water supply system and related infrastructure.
- 1.15 Seaside System Limitation. A limitation due to any cause on the ability of the Seaside System to supply all water required at any given time by the citizens of Seaside.
2. **Seaside's Obligation to Supply Water.** Pursuant to a Gearhart Request for Services, and except during a Seaside System Limitation, Seaside shall furnish an uninterrupted supply of Available Water to Gearhart at the rate provided below during the Peaking Period and at other times during an Emergency Need.
3. **Gearhart's Right to Withdraw Water from Seaside System.** Gearhart may withdraw Available Water supplied by Seaside under this Agreement at the Connection, which shall remain in place.
4. **Rates.** Available Water supplied to Gearhart under this Agreement shall be sold at the in-City rates as set forth in Seaside's Resolution No. 3737 and Gearhart's Resolution No. \_\_\_\_\_, and as such rates may be revised by mutual agreement of Seaside and Gearhart from time to time.
5. **Measurement of Water Use.** The Connection will be equipped with a Master Meter to be installed by Gearhart at its cost prior to the Effective Date for Water Delivery. The Master Meter will be used to measure the volume of Available Water sold by Seaside to Gearhart. Seaside shall read the Master Meter each month for the purpose of computing its bill to Gearhart. Seaside shall notify Gearhart not less than twenty four hours before a meter reading. Representatives of Gearhart may be present at the meter readings.
- 5.1 **Failure of the Master Meter.** If the Master Meter at any time fails to accurately measure the water passage through though it, the charge for water used during the time the Master Meter is out of order shall be based upon the average consumption as shown by the Master Meter when in proper operating condition during a comparable period of service.
- 5.2 **Meter Records.** Seaside shall freely share all of Seaside's Master Meter measurement records with Gearhart upon Gearhart's request for same.
6. **Billing for Water.** Seaside shall bill Gearhart on a monthly basis based exclusively on the meter readings of the quantity of water used by Gearhart during the previous month times the applicable Seaside rate per unit quantity for such water set forth in this Agreement.

7. **Payment for Water.** Gearhart shall pay Seaside for all water passing through Seaside's transmission lines and measured at the Master Meter. Gearhart shall pay for the water received within thirty (30) days of receiving Seaside's bill.
8. **Maintenance of Master Meters.** Gearhart shall keep the Master Meter in continued good repair and shall test and calibrate the Master Meter annually. The cost of maintaining, testing, and calibrating the Master Meter is the responsibility of Gearhart.
9. **Other Maintenance.** The parties shall be responsible for maintaining and repairing their own respective water supply and distribution systems and shall not have any responsibility or liability to the other for same.
10. **Other Costs.** All costs incurred with respect to performance under this Agreement shall be paid by the party that incurred the cost, unless otherwise agreed by both parties in writing.
11. **Limitation of Liability.** Neither party shall be deemed responsible or liable to the other on account of either a Gearhart System Limitation or a Seaside System Limitation. Seaside shall not be liable for Seaside's failure to supply Available Water to Gearhart under this Agreement due to an event of Force Majeure.
12. **Laws.** Both parties shall comply with all ordinances, rules, and regulations of the other governing use of water.
13. **Assignment.** Neither party shall assign this Agreement, in whole or in part, or any other right or obligation under this Agreement, without the prior written approval of the other.
14. **Breach of Agreement.**
  - 14.1 **Definition of Breach:** A party shall breach this Agreement if it fails to perform any substantial obligation under this Agreement. A party shall not breach this Agreement, however, if its failure to perform a substantial obligation under the Agreement is caused by an event of Force Majeure.
  - 14.2 **Remedies for Breach.**
    - 14.2.1 In the event of a breach of this Agreement by one party, the other party shall be entitled to any remedies that are available to it at law or in equity, provided it first gives notice and opportunity to cure to the other party as specified below.



14.2.2 Without limitation to the foregoing, the non-breaching party shall be entitled to termination of this Agreement provided the procedures set forth in Section 15.2 are followed.

14.3 Notification. The party alleging a breach of this Agreement shall give the other party written notice of the breach, specifying the nature of the alleged breach.

14.4 Opportunity to Cure. The breach shall give rise to the remedies for breach in this Agreement unless the following occurs:

14.4.1 The party receiving the notice has entirely cured the breach within 10 days of receipt of the notice, and so notifies the other party in writing within the 10 day period; or,

14.4.2 If cure within the 10 day period is not reasonably possible, the party against whom the breach is alleged has taken the following actions within the 10 day period:

14.4.2.1 Initiated such cure;

14.4.2.2 Notified the other party in writing of its intent to pursue such cure in good faith and with due diligence until the breach is entirely cured;

14.4.2.3 Has in such notice specified a reasonable completion date for completion such cure; and,

14.4.2.4 Has completed cure within the completion date specified in the above notice.

14.5 Non-Waiver: Neither party shall be deemed to have waived any breach of this Agreement by the other except by an express waiver in writing. Any express written waiver as to one breach shall not be deemed in a waiver of any other breach not expressly identified, even though the other breach may be of the same nature that waived

15. **Early Termination.**

15.1 Mutual Agreement. The parties may terminate this Agreement at any time by mutual written agreement.

15.2 For Breach of Agreement. Either party may terminate this Agreement in the event of a breach of the Agreement by the other which remains uncured after following the procedures set forth in Section 14 of this Agreement.

16. **Arbitration.**

16.1 Arbitration of Disputes. Any dispute over an interpretation of this Agreement and which is not settled by mutual agreement of the parties within 60 days of notification in writing by either party shall be submitted to an arbitrator mutually agreed upon by the parties. If the parties cannot agree on an arbitrator within 10 days after the expiration of the 60-day period, then the arbitrator shall be appointed as soon as practicable by the presiding judge of the Clatsop County Circuit court. The arbitrator shall be selected within 30 days from the expiration of the 60-day period following notification of the dispute. The arbitration shall be as speedy as is reasonably possible. The arbitrator shall render a decision within 45 days of the arbitrator's first meeting with the parties. Insofar as they legally may be bound, the parties agree to be bound by the decision of the arbitrator. The parties shall each pay one half of the arbitrator's compensation and shall bear their own costs and attorney's fees.

16.2 Continued Performance Pending Dispute Resolution. Notwithstanding the existence of any dispute over the interpretation of this Agreement, whether or not the same is in arbitration, both parties shall continue to perform their obligations under this Agreement pending resolution of the dispute.

16.3 Exclusion for Arbitration. Notwithstanding the foregoing provisions of this Section 16, a breach of this Agreement under Section 14 shall not be deemed a "dispute", subject to arbitration, No party currently in breach of this Agreement may demand arbitration.

17. **Notices.** Any notice under this Agreement must be in writing, and shall be sufficient as notice if (a) delivered personally to the following addressee; or (b) if deposited in the United States Mail, postage prepaid certified mail, return receipt requested, addressed as provided below; (c) sent via fax to the number provided below; or (d) sent via email to the email to the email address provided below;

or in all such cases to such other address/fax/number/email address as the receiving party hereafter shall specify by written notice. Notification is deemed effective upon date of delivery if by delivery, on the date of transmission if by email or fax, and upon receipt if by U.S. Mail. Addressees are stated below, and are valid unless changed by written notice to the other party:

If to Seaside:

Mark J. Winstanley  
989 Broadway, Seaside, Oregon 97138  
Phone - (503) 738-5511  
Fax - (503) 738-5514  
mwinstanley@cityofseaside.us

If to Gearhart:

Chad Sweet  
698 Pacific Way (PO Box 2510) Gearhart, Oregon, 97138  
Phone - (503) 738-5501  
Fax - (503) 738-9385  
citymgr@ci.gearhart.or.us

18. **Representations and Warranties.** Neither party makes any representations or warranties under or related to this Agreement.
19. **Effective Date and Term.** The Effective Date of this Agreement shall be the date of execution and delivery of the Agreement by the last of the parties to sign this Agreement, as indicated in the signature block at the end of the Agreement. The Effective Date shall be filled in on the first page of this Agreement. The Effective Date for Water Delivery shall be as defined in Section 1 of this Agreement.
20. **Term.** The term of this Agreement shall be ten (10) years from the Effective Date for Water Delivery unless terminated or amended in accordance with the provisions of this Agreement.
21. **Amendments.** The parties may amend or supplement this Agreement only by written agreement between them.
22. **Entire Agreement.** This Agreement is the entire agreement of the parties on the subject matter hereof.
23. **No Third-Party Beneficiaries.** No third-party beneficiaries are intended by this Agreement, No persons other than the parties hereto may enforce this Agreement.



24. **Governing Law.** This Agreement shall be governed and construed under the laws of the State of Oregon.

IN WITNESS WHEREOF, the parties have executed this Agreement on the respective dates provided below after signature.

CITY OF GEARHART  
By: Kent A. Smith

Print name: Kent A. Smith

Date: 2-21-12

CITY OF SEASIDE  
By: Don Larson

Print name: DON LARSON

Date: July 10, 2012

# RESOLUTION #3737

## A RESOLUTION OF THE CITY OF SEASIDE, OREGON, INCREASING WATER ACCESS/DEMAND CHARGES.

THE SEASIDE CITY COUNCIL RESOLVES AS FOLLOWS:

That in accordance with Sections 52.61 and 52.62 of the Seaside Code of Ordinances, the following fees for water access/demand and consumption charges are adopted:

**SECTION 1. ACCESS/DEMAND CHARGE.** The Access/demand charges are hereby established, determined and declared to be as follows:

The access/demand charge is based on meter size. All water customers connected to the city water system shall pay an access/demand monthly charge as follows:

5/8"-3/4" meter	<del>\$18.00</del>	\$19.33
1" meter	<del>\$23.99</del>	\$25.76
1 1/2" meter	<del>\$31.44</del>	\$33.76
2" meter	<del>\$47.63</del>	\$51.15
3" meter	<del>\$79.41</del>	\$85.28
4" meter	<del>\$134.11</del>	\$144.02
6" meter	<del>\$254.09</del>	\$272.86

**SECTION 2. CONSUMPTION CHARGE.** The Consumption Charge is established, determined and declared to be as follows:

In addition to the above base charge, each customer shall pay ~~\$2.34~~ \$2.51 for each 100 cubic feet (750 gallons) of water used above 400 cubic feet per bi-monthly billing period.

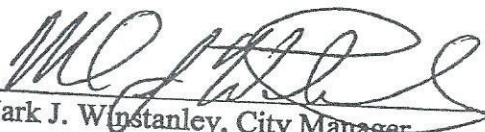
**SECTION 3. EFFECTIVE DATE.** The rate increases will become effective June 15, 2011, and will first be reflected in the August 2011 billing.

PASSED by the City Council of the City of Seaside this 13 day of June, 2011.

SUBMITTED to the Mayor and APPROVED by the Mayor on this 14 day of June, 2011.

  
DON LARSON, MAYOR

ATTEST:

  
Mark J. Winstanley, City Manager

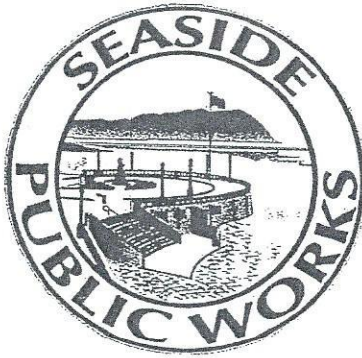
**SEASIDE, OREGON  
UTILITY RATE LIST  
Effective 6/15/2011**

**WATER RATES**

Rate Code	Description	Minimum Billing	Rate After Base Cons. 4 CF
10	In City Access Demand	38.66	2.51
11	In City H20 5/8"	38.66	2.51
12	In City H20 3/4"	38.66	2.51
13	In City H20 1"	51.52	2.51
14	In City H20 1.5"	67.52	2.51
15	In City H20 2"	102.30	2.51
16	In City H20 3"	170.56	2.51
17	In City H20 4"	288.04	2.51
18	In City H20 6"	545.72	2.51
20	Out City H20--1 Fam Dem	77.32	5.02
21	Out City H20 5/8"	77.32	5.02
22	Out City H20 3/4"	77.32	5.02
23	Out City H20 1"	103.04	5.02
24	Out City H20 1.5"	135.04	5.02
25	Out City H20 2"	204.60	5.02
26	Out City H20 3"	341.12	5.02
27	Out City H20 4"	576.08	5.02
28	Out City H20 6"	1091.44	5.02

**SEWER RATES**

Rate Code	Description	Minimum Billing	Rate After Base Cons. 14 CF
1	Residential Sewer Access	62.46	
2	Sewer Connection Access	31.23	
10	Sewer Charge Commercial	62.46	4.17
20	Flat Sewer Fee--Commercial	31.23	
99	Flat Sewer Charge	62.46	



## MEMO

January 9, 2012

From: Neal Wallace

To: The Honorable Mayor and City Council

Re: City of Gearhart Water Use Agreement

The City of Gearhart holds groundwater rights in the Clatsop Plains Basin to supply raw water to their new treatment plant. Initially the maximum well capacity will be limited seasonally to ensure that the well field does not impact the surface water level of Neacoxie Creek. It is anticipated that the well field will not have a negative impact on the Neacoxie and that pumping rates will be increased in future years.

In the meantime, Oregon Water Resources Department is requiring Gearhart to have a backup source of water to provide the expected shortfall between July 1<sup>st</sup> and October 31<sup>st</sup>. The projected maximum shortfall per month is:

July	6.7 million gallons
August	9.7 million gallons
September	7.0 million gallons
October	5.8 million gallons

During August, the shortfall based on peak daily demand would be approximately 300,000 gallons per day. The City of Seaside is able to provide this water to the City of Gearhart based on normal water levels in the Necanicum. It is acknowledged that the agreement is based on the City's ability to provide the water. The rate of \$2.51 per 100 cubic feet has been agreed to by both cities.



RESOLUTION NO. 909

A RESOLUTION TO PURCHASE WATER


WHEREAS, the City of Gearhart may need access to additional sources of water in the peak demand months from July through the end of Oct., or in the event limitations on its groundwater supply, for whatever reasons require supplemental source augmentation; and

WHEREAS, the City of Gearhart shall purchase water from the City of Seaside at the rate of \$2.51 for each 100 cubic feet, set forth in City of Seaside's resolution #3737.

NOW, THEREFORE, BE IT RESOLVED by the Gearhart City Council, hereby adopts this resolution for purchasing water.:

This resolution is effective immediately upon passage.

PASSED: This 15<sup>th</sup> day of Feb. 2012.

  
\_\_\_\_\_  
Mayor Kent Smith

ATTEST:

  
\_\_\_\_\_  
Chad Sweet, City Administrator