

Appendix K

Consumer Confidence Report

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THE DISTRICT DISPATCH

Spring 2024 Edition

Annual Water Quality Report and Water Use Efficiency Data Inside



Happy Retirement to a Community Superstar

The Boards and staff of Manchester Water District and the Port of Manchester would like to congratulate Dennis O'Connell on his retirement that occurred at the end of 2023.

Dennis started with the water district in April of 1995 and has been instrumental in creating the community organization that the District is today. Over the years, he played an important role behind the transformation of the Port's boat launch, Pomeroy Park, and the construction of the District's Banner water tank and shop facility.

As General Manager, Dennis encouraged and set an example for staff on how to lead local government with integrity and responsibility. He accomplished this by making sure staff had fun while learning new skills so they enjoyed coming to work every day. He could lighten any moment with his smile, sense of humor, and he could tell a good occasional joke.

Dennis will be greatly missed by all who had the chance to work or collaborate with him over the years. Keep an eye out as he will still be around to lend a hand to the community at local events such as the Salmon Bake and Celebrate Manchester.

Thank you Dennis for all the wonderful years you dedicated to the District, Port, and surrounding Manchester Community...
Enjoy your retirement, you deserve it!!



Per- and Polyfluoroalkyl Substance (PFAS) Testing

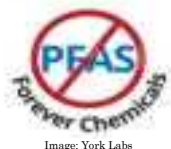


Image: York Labs

You may have heard from various news outlets or District communications, per- and polyfluoroalkyl substances, or PFAS, continue to be a hot topic of discussion of water utilities and consumers across the nation. PFAS chemicals are a large family of human-made chemicals that have been in use since the 1950s to make a wide variety of stain resistant, water resistant, and non-stick consumer products. It is more widely known for its use in certain types of fire fighting foam. Over time, these chemicals have the potential to leach into surface or groundwater supplies affecting water quality and the environment. All the District's water resources come

from groundwater wells and have been tested for PFAS chemicals on multiple occasions in 2023, at the Federal and State level. Testing has occurred two (2) times for the Environmental Protection Agency (EPA) as part of the fifth Unregulated Contaminant Monitoring Rule (UCMR5), and one (1) time for the Washington State Department of Health as part of the District's continued regulatory compliance. Independent laboratory samples have resulted in "Non-Detection (ND)" of PFAS chemicals in all of the District's water sources. Continued testing will occur every three (3) years as mandated by the Department of Health. The District will notify customers of any changes in these results as further testing occurs.



PO BOX 98
MANCHESTER, WA 98353
(360) 871-0500

2023 Water Quality Report—Water System ID #507002

The Board of Commissioners and staff of Manchester Water District are proud to present the 2023 Consumer Confidence Report. This report includes water quality data that conforms to federal regulations set forth in the Safe Drinking Water Act (SDWA). Under the SDWA, water utilities must provide water quality information to each customer annually. This report demonstrates that ***your drinking water meets or exceeds state and federal drinking water quality standards.***

Manchester Water District was formed in 1942, under Chapter 57 of the Revised Code of Washington, and is located in Port Orchard, Washington. The District is governed by an elected three-member Board of Commissioners and is staffed by eight full-time employees. The District currently serves 3,473 accounts, which represents a population of approximately 10,000 consumers. The distribution system covers approximately 38 miles of water pipe, and in 2023 delivered 219 million gallons of water to customers in the Manchester, Yukon Harbor, South Colby, Harper, and Southworth neighborhoods. To ensure that sufficient water is available during peak demands and to maintain fire protection, the District stores roughly 3.3 million gallons of water in the five reservoirs located through the service area.

Manchester Water District sources water from ten groundwater wells. The deep wells are located throughout the District's service area. Depending on location, some District customers may receive water from a single source, while others may be supplied by multiple sources. Manchester Water District treats all water with trace amounts of chlorine. This disinfection process is required by the Department of Health to provide a barrier of protection against bacterial growth in the distribution system. Chlorine also helps minimize the effects of hydrogen sulfide that can naturally occur in groundwater sources. Hydrogen sulfide causes what is typically referred to as a "rotten egg smell". In addition to chlorine, sodium fluoride is added to all District water. District customers voted to add fluoride to their drinking water in 1969, and have repeatedly upheld this decision since that time. District staff works diligently to maintain a fluoride level of .70 parts per million throughout the distribution system.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Manchester Water District Sources of Supply		
Department of Health Source Number	Manchester Water District Name	Approximate Location
S01	Well 1	Manchester Village
S02	Well 2	Manchester Village
S04	Well 4	Bulman Road
S09	Well 9	Sedgwick Road
S10	Well 10	Manchester Heights
S11	Well 11	Manchester Heights
S13	Wells 5 & 8	Sedgwick Road
S14	Wells 6 & 7	Garfield Avenue

A *Source Water Assessment Program (SWAP)* was compiled by the Washington State Department of Health to highlight significant sources of contamination for community water systems in Washington State, if available. An interactive map of the assessment data and Manchester Water District's susceptibility rating can be found at <https://fortress.wa.gov/doh/swap/index.html>

Contaminants that may be included in source water include:

Microbial Contaminants	Such as viruses, parasites, and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.
Inorganic Contaminants	Such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
Pesticides & Herbicides	Which may come from various sources such as agriculture, urban stormwater runoff, and residential uses.
Organic Chemical Contaminants	Including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.
Radioactive Contaminants	Which can occur naturally or result from oil and gas production and mining activities.

Listed within this report are the few substances that were detected in Manchester Water District's most recent set of sampling results. Manchester Water District takes hundreds of samples each year. We have not listed the substances that were tested, but NOT detected. The Department of Health has granted complete waivers for dioxin, endoathall, glyphosate, diquat, and insecticides. While we strive to make this report as user-friendly as possible, we understand that some questions may arise. For additional water quality questions or concerns, please contact General Manager — Tony Lang at (360) 871-0500. There are certified Service Technicians who are more than happy to assist with any questions as well.

Manchester Water District Sampling Schedule	
Parameter	Monitoring Schedule
Chlorine Residual	Daily Monitoring
Fluoride Residual	Daily Monitoring
Total Coliform—E Coli	Monthly Monitoring
Lead & Copper	Every 3 Years
Asbestos	Every 9 Years
Total Trihalomethane (THM)	Annual Monitoring
Halo-Acetic Acids (HAA5)	Annual Monitoring
Nitrates	Annual Monitoring
Inorganic Chemicals	Every 9 Years
Volatile Organic Chemicals	Every 6 Years
Herbicides	Every 9 Years
Pesticides	Every 9 Years
Soil Fumigants	Every 3 Years
PFAS	Every 3 Years
Radionuclides	Every 6 Years

2023 Water Quality Analysis

The table below lists all the drinking water contaminants that were detected between January 1 and December 31, 2023. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented represents water quality testing performed during the 2023 calendar year. Washington State requires Manchester Water District to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Data that is not from 2023 will be noted with the most recent sample date.

Parameter	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Potential Sources	Average or Highest Level Detected in Most Recent Samples	Range of Levels Detected in Most Recent Samples	Meets Standards
Sampled in the Distribution System						
Asbestos <i>2019 Sample</i>	7 MFL	7 MFL	Decay of asbestos cement (AC) water mains; Erosion of natural deposits	ND	N/A	YES
Halo-Acetic Acid <i>Monitored Annually</i>	60 ppb	N/A	By-product of drinking water disinfection	5.3 ppb	ND—5.3 ppb	YES
Trihalomethanes <i>Monitored Annually</i>	80 ppb	N/A	By-product of drinking water disinfection	10.0 ppb	ND—10.0 ppb	YES
Chlorine <i>Monitored Daily</i>	4 ppm	4 ppm	Water additive used to control microbes	.48 ppm	.31—.68 ppm	YES
Fluoride <i>Monitored Daily</i>	4 ppm	4 ppm	Water additive to promote dental health	.71 ppm	.46—1.10 ppm	YES
Total Coliform <i>Monitored Routinely</i>	0	0	Naturally occurring organism	No coliform was detected in any of the 120 samples taken in 2023		YES
Sampled at Groundwater Sources						
Nitrates <i>Monitored Annually</i>	10 ppm	10 ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits	.31 ppm	ND—1.67 ppm	YES
Gross Alpha <i>2022 Sample</i>	15 pCi/L	0	Erosion of natural deposits	3.10 pCi/L	N/A <i>Single Site—No Range</i>	YES
Radium 228 <i>2022 Sample</i>	5 pCi/L	0	Erosion of natural deposits	.53 pCi/L	N/A <i>Single Site—No Range</i>	YES
Iron* <i>2022 Sample</i> <i>SMCL</i>	.3 ppm	N/A	Erosion of natural deposits	ND	N/A <i>Single Site—No Range</i>	YES
Manganese* <i>2022 Sample</i> <i>SMCL</i>	.05 ppm	N/A	Leaching from natural deposits	.150 ppm*	N/A <i>Single Site—No Range</i>	YES
Sampled at Customer Taps						
Lead** <i>2022 Sample</i>	15 ppb <i>Action Level</i>	0	Corrosion of household plumbing systems; Erosion of natural deposits	2.7 ppb <i>90th Percentile</i>	0 sample sites out of 20 exceeded the Action Level	YES
Copper** <i>2022 Sample</i>	1.3 ppm <i>Action Level</i>	1.3 ppm	Corrosion of household plumbing systems; Erosion of natural deposits	.17 ppm <i>90th Percentile</i>	0 sample sites out of 20 exceeded the Action Level	YES
Explanation of Terms				Units of Measurement		
MCL	Maximum Contaminant Level—Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.			ppm	Parts per Million	
MCLG	Maximum Contaminant Level Goal—The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.			ppb	Parts per Billion	
SMCL	Secondary Maximum Contaminant Level—Secondary Contaminant standards are developed to protect the aesthetic qualities of drinking water and are not health based.			pCi/L	Picocuries per Liter	
				MFL	Millions of Fibers per Liter	
Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.			ND	Not Detected in laboratory samples	
Lead & Copper <i>90th Percentile</i>	Specific to Lead & Copper Testing—Out of every 10 homes sampled, 9 were at or below this level.			N/A	Not Applicable	
**A Note about Lead & Copper in Drinking Water from the Environmental Protection Agency				*Iron & Manganese in Drinking Water		
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Manchester Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in internal plumbing components. When your water has been sitting for hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water you can have your water tested by a certified laboratory. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the <i>Safe Drinking Water Hotline</i> , or at www.epa.gov/safewater/lead				Iron & Manganese standards are achieved through blending of other drinking water sources.		
				There are no adverse health effects from Iron & Manganese in drinking water at the levels detected. The primary impact of Iron & Manganese in drinking water is aesthetic quality. Elevated levels may cause discoloration in water. This can stain laundry and porcelain fixtures, promote bacterial growth in the distribution system, and in high concentrations customers may notice a metallic taste.		
				Manchester Water District employs various methods to reduce the impact of Iron & Manganese on drinking water quality. This includes, but is not limited to; blending drinking water sources and annually flushing the distribution system.		

General Manager Update!!

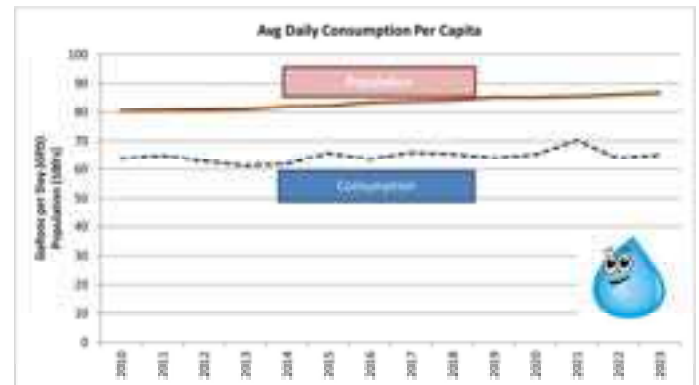
In August of 2023, a new General Manager was welcomed to the District to replace retiring General Manager - Dennis O'Connell. Tony Lang comes from the City of Port Orchard where he served the community in many different capacities through his career at the city. He was originally hired in the Public Works Department as a meter reader for the city in 2011 and progressed through various roles within the organization until his departure in 2023. He also served as



the Sewer System Coordinator, Public Works Foreman, Operations Manager, and concluded his employment as the Public Works Director. Tony grew up in Port Orchard, graduated from South Kitsap High School, and then went on to attend Pacific Lutheran University, Washington State University, and Olympic College. He has a Bachelor of Applied Science in Organizational Leadership and Technical Management and brings a wide range of experience to the team operationally as well as administratively. We welcome our customers and community to drop-in to the office to meet Tony, or if you have any questions. **Welcome to the team, Tony!!**

Water Conservation Trends

According to the U.S. Geological Survey (USGS), the average American consumes approximately 80-100 gallons of water per day (gpd) for culinary, sanitary, and other uses. In 2021, Manchester Water District billed 3,422 accounts for 219,030,227 gallons consumed, or an average daily consumption of 70 gpd per capita. In 2022, this figure dropped to 64 gpd among District customers. In 2023, the District billed 3,473 accounts for 206,490,352 gallons, or an average daily consumption of 65 gpd. This is a 1.5-percent increase in per capita consumption over 2022 data. In 2023, the District produced 236,939,167 gallons of water with a calculated authorized consumption (billing, flushing, water main leaks, etc.) equaling 219,177,380 gallons. This resulted in a 7.5-percent unaccounted-for-production total in 2023. According to the Department of Health, 10-percent or less unaccounted for water production over a 3-year average is considered acceptable. The District's current 3-year rolling annual average is 8.6-percent. We encourage customers to be mindful of this precious natural resource and conserve whenever possible.



Payment Options

Customers are finding great success using Xpress Bill Pay for making and scheduling payments, checking their balance due, and setting up paperless billing options. The efficiency and ease of the service, along with the security of Xpress Bill Pay has proven to be a popular option among customers. Xpress Bill Pay has options for email and text message notifications, automatic and one-time payments, as well as a free app for your phone or mobile device.

For more information, please contact the office or visit www.manchesterwater.org.

xpress BILL PAY

Manchester Water District Board of Commissioners

Steve Pedersen	James Strode	Robert Ballard
Chairman	Secretary	Commissioner
General Manager—Tony Lang		

The Manchester Water District Board of Commissioners meet on the second Tuesday of every month at 5:30 PM. Meetings are held at the Field Operations Workshop at 2082 Spring Street, unless otherwise posted. Meetings are open to everyone, and public participation is encouraged.

Water Efficient Appliance Rebates

Manchester Water District offers rebate incentives for customers who have purchased new, water-efficient appliances. If you have purchased a water-efficient toilet, washing machine, and/or dishwasher in the past six months—you may be eligible for a rebate up to \$50!! For more information, please contact (360) 871-0500, or click on the “Forms” tab at www.manchesterwater.org

Manchester Water District Administrative Office Location & Hours

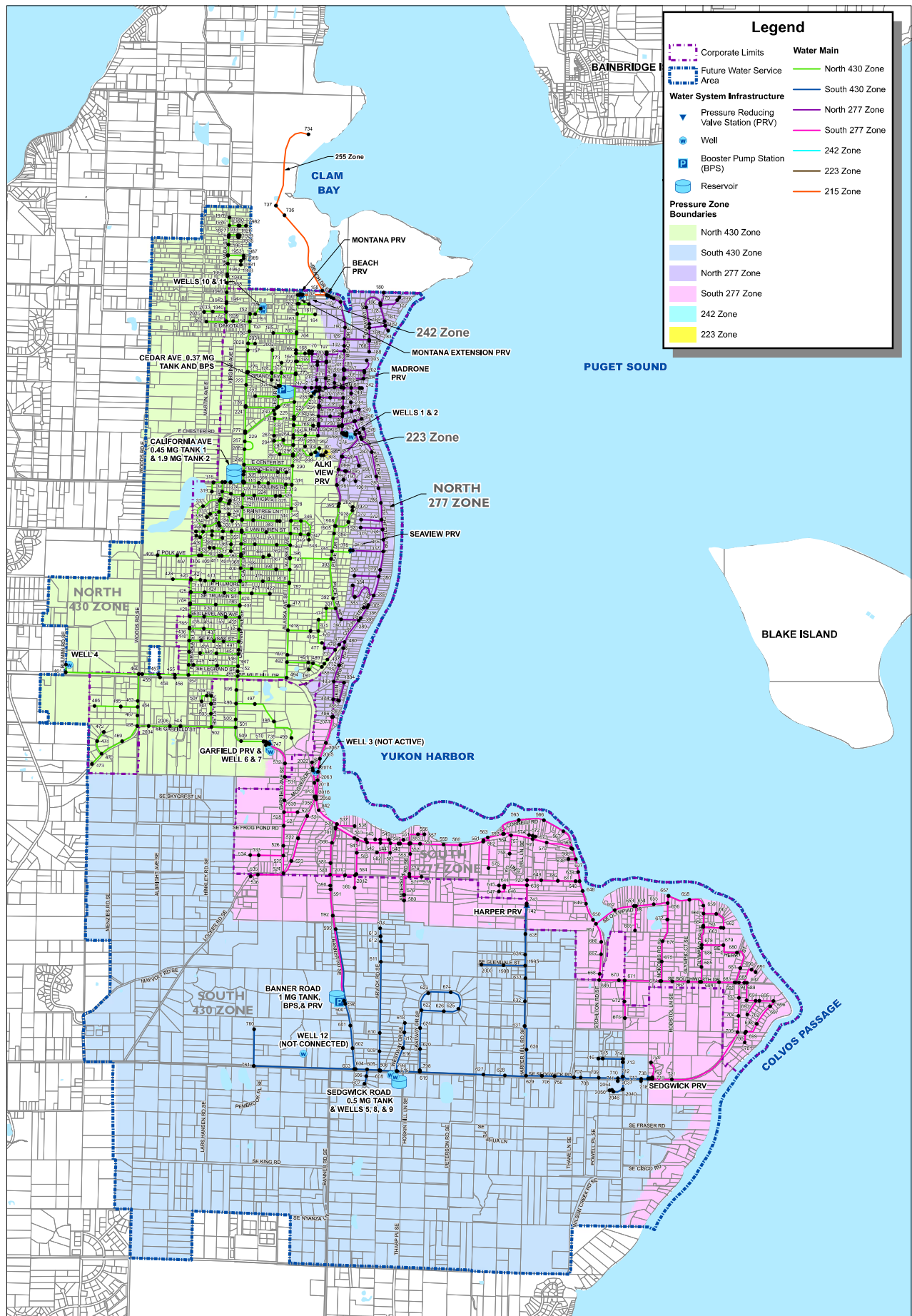
8185 E Daniels Loop, Suite 111 Port Orchard, WA 98366
Monday through Friday, 8:00 AM—4:30 PM



Appendix L

Hydraulic Model Node Diagram

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J:\DATA\MWD\312-050\GIS\MAPS\MWC-NODE_DIAGRAM.MXD BY: GDAVIDSON PLOT DATE: OCT 29, 2018 COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

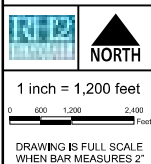
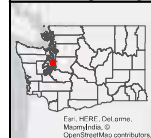


Figure A Node Diagram

Manchester Water District Water System Plan

Vicinity Map



This map is a graphic representation derived from the Manchester Water District Geographic Information System. It was designed and intended for Manchester Water District staff use only; it is not guaranteed to survey accuracy. This map is based on the best information available on the date shown on this map.

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Appendix M

Water Resolutions

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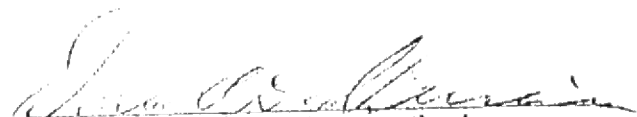


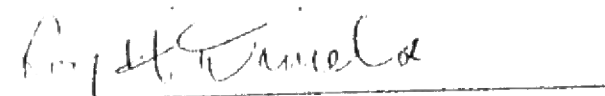
RESOLUTION #506

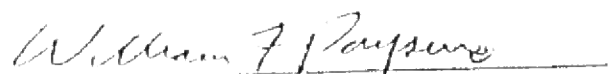
WHEREAS, WE THE BOARD of Commissioners of Manchester Water District are desirous of adequately operating and maintaining a Cross Connection Control Program to protect the customers of the District from potential contamination by unnamed sources, now, therefore,

BE IT RESOLVED to adopt the document entitled "Cross Connection Control Program" attached hereto and to empower the employees of the District to carry out its directives and intent.

SIGNED at the Manchester Water District, Kitsap County, State of Washington, this 8th day of September, 1992.


Donald G. Winslow, Chairman


Roy H. Daniels, Secretary


William F. Paysano, Commissioner

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Manchester Water District
PO Box 98
Manchester, Washington 98353-0098
360-871-0500

MANCHESTER WATER DISTRICT
Resolution # 2002-05

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF Manchester Water District modifying the rate schedule and increasing the base and commodity rates for domestic water supply.

WHEREAS, the Board of Commissioners of Manchester Water District has recently reviewed costs associated with the operations and maintenance of the District with the aid of a citizen's advisory committee to assist them in this endeavor; and

WHEREAS, the costs to operate and maintain the District have increased in recent years; and

WHEREAS, the District is compelled by law to establish rates to produce revenues sufficient to take care of the costs of maintenance and operation, revenue bond and warrant interest and principal amortization requirements, and all other charges necessary for efficient and proper operation of the system; and

WHEREAS, the Board of Commissioners of Manchester Water District has determined it necessary to increase rates to accommodate for the increased costs of operating and maintaining the District to meet the requirements of the law; and

WHEREAS, the Board of Commissioners of Manchester Water District has received comments from the public during a public meeting regarding the proposed modifications to the rate schedule and increases in the base and commodity rates for water.

NOW THEREFORE, BE IT RESOLVED, the Board of Commissioners of Manchester Water District does hereby modify the rate schedule and increase rates effective September 1, 2002, as follows:

Usage and Base Rate Amounts
Per Two (2) Month Billing Cycle

<u>Rate Tier</u>	<u>Usage per Hundred Cubic Feet (HCF) 100-CF = 748 Gallons</u>	<u>In District</u>	<u>Out of District</u>
Base Rate	0	22.50	24.50
<i>Lifeline</i>	0 – 800	1.20 HCF	1.20 HCF
Tier 1	801 – 3,000	1.60 HCF	1.60 HCF
Tier 2	3,001 – 6,000	2.40 HCF	2.40 HCF
Tier 3	6,001 – Above	3.00 HCF	3.00 HCF

THIS RESOLUTION was duly considered, approved, and signed by the Commissioners in an open public meeting, Kitsap County, State of Washington, this 9th day of July 2002.

Steve Pedersen,
Chair

James E. Strode,
Secretary

Kyle Galpin,
Commissioner

Approved as to Form:

Richard A. Gross, PS
Legal Counsel for Manchester Water District

Manchester Water District
PO Box 98
Manchester WA 98353
Telephone: 360 871.0500

RECEIVED

MAY 14 2004

AUDITOR
KITSAP COUNTY

**MANCHESTER WATER DISTRICT
Resolution No. 2004-09**

**A RESOLUTION OF THE BOARD OF COMMISSIONERS
AMENDING THE CAPITAL IMPROVEMENT PLAN SECTION OF
THE COMPREHENSIVE WATER SYSTEM PLAN**

WHEREAS, the Manchester Water District in Resolution No. 99-03, dated February 9, 1999, adopted a Comprehensive Water System Plan; and

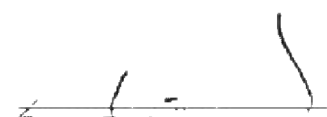
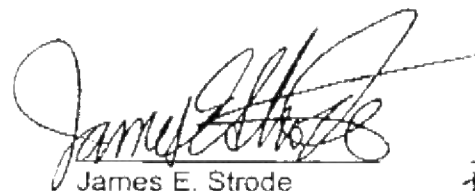
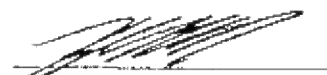
WHEREAS, the Board of Commissions desires to formally amend Section 8.1 of the Comprehensive Water System Plan in order to update its Capital Improvement Program.

NOW BE IT RESOLVED, that the Board of Commissioners of Manchester Water District hereby amends its Comprehensive Water System Plan to include an updated schedule of Capital Improvement Projects, as follows:

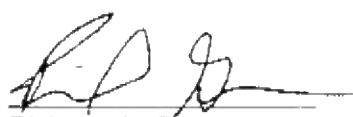
1. Section 8.1, Capital Improvement Projects, is amended to reflect an updated schedule of projects as listed on Exhibit A, Capital Improvement Program, and 6-Year Financial Projections, as depicted on Exhibit B, attached hereto and incorporated by reference.
2. That all other sections of the Comprehensive Water System Plan is hereby reaffirmed and is conditioned upon final approval of this amendment by Kitsap

considered a Capital Improvement Program described after the determination of the
the

THIS RESOLUTION was duly considered and approved by the Commissioners in a regularly scheduled open public meeting on May 11, 2004.


Steve Pedersen
Chairperson
James E. Strode
Secretary
Kyle D. Galpin
Commissioner

Approved As To Form;


Richard A. Gross
Attorney at Law

RECEIVED

MAY 14 2004

AUDITOR
KITSAP COUNTY

**MANCHESTER WATER DISTRICT
RESOLUTION No. 2004-10**

**A RESOLUTION ESTABLISHING WATER SYSTEM CONNECTION CHARGES
FOR GENERAL AND LOCAL FACILITIES, AND; REPEALING RESOLUTION
NO. 99-07, WHICH PREVIOUSLY ESTABLISHED CONNECTION CHARGES.**

PREAMBLE:

Recently, the Manchester Water District ("District") Board of Commissioners retained Financial Consulting Solutions Group, Inc. ("FCSG"), a firm specializing in municipal financial and economic consulting, to aid the District in updating its schedule of connection charges and assessments in a manner that would accurately and fairly reflect what these charges should be in order to better meet District needs and serve the needs of its citizens. After studying the District's applicable history, financial situation, and prior connection charges, FCSG has now prepared its report, "General and Local Facilities Charges Findings," FCSG, June 4, 2004, (hereinafter referred to as the "Findings") in which it recommends new connection charges.

Calculation of the charges in the Findings are consistent with the guidelines set forth in RCW 57.08.005(10) for the establishment of water system rates and charges.

The District's Board of Commissioners have now fully reviewed and discussed the Findings and have determined to adopt the charges calculated therein as hereinafter set forth. Now, therefore, based upon the foregoing, it is hereby

RESOLVED AS FOLLOWS:

1. General Facility Charge for New Connections. The District hereby establishes General Facilities Charges (GFC) for new connections to the District's water system identified in Table-1 as follows:

TABLE-1:

<u>Meter Size</u>	<u>ERU Equivalent Factor</u>	<u>General Facilities Charge</u>
5/8"	1.0	\$ 2,099
1"	2.5	\$ 5,247
1½"	5.0	\$ 10,495
2"	8.0	\$ 16,792
3"	16.0	\$ 33,584
4"	25.0	\$ 52,475
6"	50.0	\$ 104,950
8"	80.0	\$ 167,920

Annual Indexing Adjustment. The GFCs listed in TABLE-1 are calculated on current year dollars. It shall be the policy of the District to index and adjust these charges annually according to the information contained in the "Engineering and News Record 20 City Construction Cost Index" each fiscal year. The indexing adjustment should take place in the first quarter of each fiscal year and will occur by action of the District's Board of Commissioners.

For informational purposes, in accordance with RCW 57.08.005(10), the basis for the GFC is the capital cost the District will or has incurred to provide capacity in the water service will be in accordance with the District's published Schedule of Fees and Charges, as amended, in effect at the cost of the existing water utility system, plus interest for up to 10 years. Future cost elements are determined by the District's adopted 10 Year Capital Improvement Plan. These calculations of existing and future costs elements are calculated using Equivalent Residential Units (ERU). ERUs are established meter equivalent ratios that have been tabulated based on American Water Works Association Standards, as set forth in Manuals M1 and M6.

2. Local Facilities Charge. The District hereby establishes a Local Facilities Charges ("LFC"), in the alternative as hereinafter explained, which reflect the actual cost to connect a service to the District's water system, identified in Table-2 as follows:

TABLE-2

Local Facilities Charge	\$ 1,194 per Connection
Alternative Charge Minimum	\$ 20.08 per Front-Foot to District Funded Lines

For informational purposes, the LFC reflects the cost of local connections, and in the absence of extenuating circumstances, is generally based on an average cost per service unit.

Application of Front Footage Charge. In the case of unusual lot size or configuration, or for larger non-residential development, the front-footage charge set forth in Table-2 shall be applied rather than the standard LFC identified therein. Examples of "unusual lot size or configuration" would include a lot with over 150 linear feet of front-footage and/or a

large oblong lot that has frontage to a local facility on multiple sides, in which instance the side with the greater amount of footage would apply. An example of a large non-residential development would include a connection greater than a 1-inch meter size.

District Application of LFC- Factors to Consider In administering the LFC, the District shall evaluate whether the average charge per ERU is appropriate or whether the connection warrants application of the alternate front-footage fee.

Application of Local Facilities Charge A new customer is charged the LFC when connecting to a District funded water main. If connection is made to a developer-funded water main, the connection would pay an LFC equal to the amount established in the reimbursement agreement for the developer extension entered into between the District and developer. If the new connection is made to a property that has previously paid an LFC by way of satisfying a Utility Local Improvement District assessment, or other like assessment, the LFC shall be considered paid in full.

3. Meter Installation Charge The amount charged for the actual installation of a water meter is a separate charge from the General Facilities and Local Facilities Charges, and is based on the actual construction time incurred and materials used in installing a water service. The meter installation charge shall be in accordance with the District's published Schedule of Fees and Charges in effect at the time of installation.

4. Effective Date of New Charges / Termination of Resolution No. 99-07 Resolution No. 99-07, and all other preceding Resolutions that set capital and front-footage charges and assessments covered by this Resolution are hereby terminated as of the implementation date of the General and Local Facility Charges set forth in this resolution, which implementation date shall be September 1, 2004.

THIS RESOLUTION was duly considered and approved by the Commissioners in a regularly scheduled open public meeting on July 13, 2004.

Steve Pedersen
Board Chair

James E. Strode
Secretary

Kyle D. Galpin
Commissioner

Approved As To From:

Richard A. Gross,
District Lawyer

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Manchester Water District
PO Box 98
Manchester WA 98353-0098
(360) 871-0500

MANCHESTER WATER DISTRICT

Resolution No. 2004-11

A RESOLUTION AMENDING SCHEDULE OF FEES

WHEREAS, the Manchester Water District Board of Commissioners adopted Resolution 2004-06, which established a schedule of Fees and Charges for various services the District provides; and

WHEREAS, Manchester Water District has reviewed the costs for a number of services it provides and has determined that certain fees and charges should be adjusted; and

WHEREAS, a the schedule of General Fees & Charges has been created that displays the current costs of the listed services and that the designation "TMO" is meant to establish a fee or charge by computing the actual time, materials, equipment, and overhead costs of the named service.

NOW THEREFORE BE IT RESOLVED by the Manchester Water District Board of Commissioners that Resolution 2004-06 and any other preceding Resolutions that set Fees and Charges covered by this Resolution are hereby superceded, and the following Schedule of Fees and Charges are adopted and effective September 1, 2004:

MANCHESTER WATER DISTRICT
Schedule of Fees & Charges
Effective September 1, 2004

<u>Service</u>	<u>Fee/Charge</u>
Water Service Installation:	
Developer Installed Pre-run Service ¾-inch	\$200.00
Developer Installed Pre-run Service 1-inch	\$300.00
MWD Full Install ¾-inch	\$750.00
MWD Full Install 1-inch	\$850.00
1½ -inch & Above	TMO
General Facilities Charge (Per ERU)	\$2,099.00
Local Facilities Charge	\$1,194.00
Alternate Foot Front Footage Charge (Non-residential, large lot, etc.)	\$20.08 Foot
Meter Test (If accuracy test within Standards)	TMO
Bacteriological Water Quality Test	\$35.00
Plan Check/Inspection	TMO (5% Depo)
Inspection	TMO (5% Depo)
Project Administration	TMO (5% Depo)
Research	TMO (5% Depo)
Copier Fees:	
Per Page	\$0.10
After 15 Minutes	TMO
Document Charges	TMO
MWD-Developer Extension Manual	\$25.00
Specifications (MWD projects)	TMO
Service Termination (District allows up to \$250 in removal costs. Customer pays Time, Materials, and Overheads above \$250)	TMO ((\$250.00 Allowance)
Recording Fee (Includes Labor & Travel)	Per County
Other Requested Services	TMO
Street Lighting (Bimonthly Charge)	\$3.75
Account Set Up (New Customer)	\$20.00
Account Maintenance – Final Bill Estimate for Escrow	\$20.00
Water Availability Letter	\$20.00
Late Payments (10% of Outstanding Balance)	10%
Shut Off Notice/Hanger	\$10.00
Collection at Door Prior to Physical Disconnect	\$20.00
Restore Service During Business Hours	\$40.00
After Hours (Non-emergency) Call Out	\$100.00
NSF Fee	\$40.00
Illegal Meter Operation	\$100.00
Meter Reinstallation	\$100.00
Damage to Equipment (Minimum)	\$50.00

Damage to Equipment	TMO
Unauthorized (Illegal) Connection (per occurrence):	
1 st Offense	\$200.00
2 nd Offense & Above	\$300.00

<u>Service</u>	<u>Fee/Charge</u>
Fire Hydrant Use – <i>Unauthorized</i> :	
Unauthorized Hydrant & Equipment Use	\$500.00
Non-Approved Tank/Truck Use	\$1,000.00
Failure to Record / Report Water Use (Per Day)	\$50.00 Day

Fire Hydrant Use – <i>Authorized</i> :	
Hydrant Meter Deposit (Refundable)	\$500.00
Hydrant Meter Daily Rental & Monthly Maximum Usage (Per 100-Cubic Feet)	\$5.00/\$75.00
	\$3.00 HCF

Job Costs (Per Hour Unless Otherwise Shown):	
Labor – Straight Time	\$25.00
Labor – Overtime	\$35.00
Dump Truck	\$30.00
Backhoe	\$35.00
Pick Up Truck	\$10.00
Service Truck (With Tools)	\$30.00
Pipe Push	TMO
Materials (Cost + 10% Handling)	TMO

Satellite System Management:	
Water Testing	TMO
W.Q. Labor (Per Hour)	TMO
Materials (+10%)	TMO

ADOPTED by the Manchester Water District Board of Commissioners on August 10, 2004.

Steve Pedersen,
Board Chair

James E. Strode,
Secretary

Kyle D. Galpin,
Commissioner

Approved as to Form:

Richard Gross,
Attorney at Law

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**MANCHESTER WATER DISTRICT
Resolution No. 2005-01**

**A RESOLUTION OF THE BOARD OF COMMISSIONERS
ESTABLISHING WATER CONSERVATION REBATE PROGRAM**

WHEREAS, the Board of Commissioners of Manchester Water District (District) recognize the importance of water efficiency and conservation in managing our natural resources; and

WHEREAS, the Board of Commissioners seek to expand the District's Water Conservation Program in order to achieve cost-effective means of lowering indoor water use; and

WHEREAS, the US Environmental Protection Agency and Department of Energy administer the ENERGY STAR program that promotes superior energy and water use efficiency and sets strict energy efficiency standards for household products; and

WHEREAS, the Board of Commissioners have determined that the use of ENERGY STAR rated clothes washers can save up to 50% in water use over conventional machines; and

WHEREAS, the Board of Commissioners recognize that lowering indoor water use has a direct benefit to the District's water system capacity and the construction of capital facilities needed for delivering water to its customers.

NOW THEREFORE, BE IT RESOLVED that the Board of Commissioners of Manchester Water District hereby establish a Water Conservation Rebate Program for residential customers purchasing a qualifying ENERGY STAR Clothes Washer in the amount of \$50.00 per household, effective February 1, 2005, as follows:

Qualifying Equipment. The following conditions must be met in order to qualify for the rebate program:

Recognized ENERGY STAR standards must be met, including:

- Compliance with the US EPA and DOE administered program.
- Use of the regularly updated listings of qualifying equipment.
- Limited to clothes washers only.
- Customer may couple Rebate with other non-District rebate programs.

Eligibility & Guidelines. The following conditions must be met for the customer to qualify for the rebate:

- Customer shall be in good standing in payment of all District billings and in compliance with all duly enacted District regulations at time of application, and when the machine was purchased.
- Customer shall be a residential customer of the District (Apartments, condominiums, commercial establishments, or multiple duplexes on a single water meter do not currently qualify).
- The machine used shall be permanently located in a qualifying residence within the District's service area.
- The machine shall have been purchased on or after February 1, 2005.
- The machine purchased must appear on the ENERGY STAR list.
- Customer shall provide proof of purchase in the form of a sales receipt or purchase invoice.
- Customer shall allow for physical inspection of the new machine by a District representative to confirm the make and model of the washing machine.

Formal Application Required. At a minimum, the customer shall include the following information on or with the District's applicable rebate application form submitted to the District:

- Name of Customer(s) and Account Number with District;
- Installation Address;
- Mailing Address of Customer;
- Telephone number(s) of Customer;
- Name of Manufacturer of Machine;
- Model information of Machine;
- Date of Purchase
- Proof of Purchase

Budgeted Program Funds:

- Monies used to fund this program shall be determined in the District's Annual Budget.
- The Program shall be funded through General Facility Charges (Capital Fund) that are collected to expand system capacity.

THIS RESOLUTION was considered and adopted by the Board of Commissioners of Manchester Water District, in an open public meeting, Kitsap County, State of Washington, January 11, 2005.

Steve Pedersen,
Chair

James E. Strode,
Secretary

Kyle D. Galpin,
Commissioner

Approved As To Form:

Richard Gross, Attorney At Law

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MAR 28 2006

AUDITOR
KITSAP COUNTY

MANCHESTER WATER DISTRICT
Resolution No. 2006-03

**A RESOLUTION OF THE BOARD OF COMMISSIONERS
EXPANDING THE WATER CONSERVATION REBATE PROGRAM**

WHEREAS, the Board of Commissioners of Manchester Water District (District) established a Water Conservation Rebate Program for clothes washers in Resolution No. 2005-01, as a cost-effective means of lowering indoor water use; and

WHEREAS, the Board of Commissioners seeks to expand the District's Water Conservation Rebate Program to include dishwashers; and

WHEREAS, the US Environmental Protection Agency and Department of Energy administer the ENERGY STAR program that promotes superior energy and water use efficiency and sets strict energy efficiency standards for household appliances; and

WHEREAS, the Board of Commissioners have determined ENERGY STAR rated dishwashers can save in excess of 40% in water use over conventional machines; and

WHEREAS, the Board of Commissioners recognize that lowering indoor water use has a direct benefit to the District's water system capacity and the construction of capital facilities needed for delivering water to its customers.

NOW THEREFORE, BE IT RESOLVED that the Board of Commissioners of Manchester Water District hereby modifies its Water Conservation Rebate Program for residential customers, to provide a \$25.00 rebate per qualifying household, for those customers purchasing a qualifying ENERGY STAR rated Dishwasher (herein also referred to as "machine") , effective March 1, 2006, according to the following terms and conditions:

1. Qualifying Standards to Obtain Rebate. The following conditions must be met in order to qualify for this rebate program:

Recognized ENERGY STAR standards must be met concerning the machine, including:

- Compliance with the US EPA and DOE administered program; and
- The appliance must be listed on the product schedule of qualifying equipment at time of purchase.

2. Eligibility & Guidelines. The following conditions must be met for the customer to qualify for this rebate:
 - Customer shall be in good standing in payment of all District billings and in compliance with all duly enacted District regulations at time of application, and when the machine was purchased;
 - Customer shall be a residential customer of the District (Apartments, condominiums, commercial establishments, or multiple duplexes on a single water meter do not currently qualify);
 - The machine used shall be permanently located in a qualifying residence within the District's service area;
 - The machine shall have been purchased on or after March 1, 2006;
 - The machine purchased must appear on the ENERGY STAR list at the time of purchase;
 - Customer shall provide proof of purchase in the form of a sales receipt or purchase invoice; and
 - Customer shall allow for physical inspection of the new machine by a District representative to confirm its make and model.
3. Rebate in addition to non-District Rebate Programs. The customer may couple the Rebate provided herein with other non-District rebate programs.
4. Formal Application Required. To qualify for this rebate program, at a minimum, the customer shall include the following information on (or with) the District's applicable rebate application form submitted to the District:
 - Name of Customer(s) and Account Number with District;
 - Installation Address;
 - Mailing Address of Customer;
 - Telephone number(s) of Customer;
 - Name of Manufacturer of Machine;
 - Model information of Machine;
 - Date of Purchase;
 - Proof of Purchase.
5. Budgeted Program Funds:
 - Monies used to fund this program shall be determined in the Annual Budget.
 - This Program shall be funded through the District's General Facility Charges that are collected to expand the District's water system capacity.

THIS RESOLUTION was considered and adopted by the Board of Commissioners of Manchester Water District, in an open public meeting, Kitsap County, State of Washington, February 14, 2006.

Kyle D. Galpin,
Chair

James E. Strode,
Secretary

Steve Pedersen,
Commissioner

RECEIVED

JUN 13 2013

AUDITOR / ELECTIONS
KITSAP COUNTY

MANCHESTER WATER DISTRICT

Resolution No. 2013-03

**A RESOLUTION ADOPTING THE REVISED
CROSS-CONNECTION CONTROL PROGRAM**

WHEREAS, the Federal Safe Drinking Water Act of 1974 and the statutes of the State of Washington Title 43 RCW and WAC 246-290-490 require that water purveyors protect public water systems from contamination; and

WHEREAS, Manchester Water District has prepared a Cross-Connection Control Program (also referred to herein simply as "Program"), which Program is attached hereto as "EXHIBIT A". The purpose of the Program is to comply with state law and mitigate the potential of contamination to the Manchester Water District's ("District") public water system caused by a backflow of contamination or pollutants into the system; and

WHEREAS, the Program has been updated to ensure consistency with Title 43 RCW and WAC 246-290-490; and

WHEREAS, it is recommended the Program be approved and adopted for implementation to aid in preventing potential backflow contamination to the District's water system;

NOW THEREFORE BE IT RESOLVED BY the District Board of Commissioners that the revised Cross-Connection Control Program attached hereto as "EXHIBIT A" is hereby adopted.

ADOPTED by the Manchester Water District Board of Commissioners on February 12, 2013.


Steve Pedersen,
Board Chair


James E. Strode,
Secretary


Kyle Galpin,
Commissioner

EXHIBIT A

MANCHESTER WATER DISTRICT

Cross-Connection Control Program

INTRODUCTION

A Cross-Connection Control (CCC) program is a proactive and ongoing effort of a water purveyor to protect the health of its customers by preventing contamination and pollution of the municipal water supply, which is done by preventing backflow of contaminants or pollutants through cross-connection. A cross-connection is any physical connection, actual or potential, between a water system and any source of non-potable substance. All public water systems in Washington State are required to implement a CCC program. The purpose of a purveyor's CCC program shall be to protect the public water system from contamination via cross-connections. All required elements of a local CCC program must be documented and included in either the Comprehensive Water System Plan (applicable to the District) or Small Water System Management Program document (not applicable to the District). Although general CCC rules have been in effect for over 20 years, the State mandate for CCC program and the required elements of a CCC program are contained in WAC 246-290-490 Cross-Connection Control, which became effective in April 1999. The following are the minimum required elements in a CCC program.

- Adopt a local ordinance, resolution or code that establishes the purveyor's legal authority, describes operating policies and the corrective actions of a CCC program.
- Develop and implement procedures and schedules for evaluating new and existing service connections to assess hazards.
- Develop and implement procedures and schedules that eliminate or control cross-connections and ensure approved backflow preventers are properly installed.
- Ensure that personnel, including one certified Cross-Connection Control Specialist (CCS), are provided to develop and implement the CCC program.
- Develop and implement procedures to ensure approved backflow preventers are properly inspected and tested.
- Develop and implement a backflow prevention assembly testing quality control assurance program.
- Develop and implement procedures for backflow incident response.
- Include CCC program information in customer education materials.
- Develop and maintain CCC program records.
- Meet any additional CCC requirements if reclaimed water is distributed or received in the water

PURPOSE AND SCOPE

This document establishes minimum standards for Manchester Water District (District) to protect the public water supply from possible contamination from backflow. This document also describes minimum CCC program operating policies, provides guidelines for installation, testing and maintenance of approved backflow assemblies. In addition, permitting and inspection requirements for existing and new backflow prevention assemblies are described.

AUTHORITY

The Federal Safe Drinking Water Act of 1974 and the statutes of the State of Washington Title 43 RCW require purveyors to protect the public water systems from contamination. In addition, WAC 246-290-490 establishes CCC program requirements for the State. In Washington State, the Department of Health (DOH) is the lead agency for the development and administration of the State's CCC program. The District adopted a formal CCC program with Resolution No. 506, dated 9/8/1992, and is in the process of updating both the program and the resolution.

RESPONSIBILITY

The District is responsible for protecting its public water supply from contamination due to backflow of pollutants through water service connections. If the District determines that a backflow prevention assembly is necessary at a customer's premise, the District will notify the customer to install an approved backflow assembly on the premise. Installation of said backflow assembly shall be a condition of continued water service from the District. Upon installation, the customer shall arrange for inspection and testing of said assembly. The customer will be responsible for all applicable testing and inspection fees.

FAILURE TO COMPLY

Any person, firm, or corporation who violates any of the provisions of this document or future CCC resolutions may be punished in accordance with the District Code. Any person, firm or corporation who violates any provisions and requirements of this document shall be subject to discontinuance of supply of District water to the premise. Discontinuance of the District's potable supply to the premise shall remain in effect until corrective action, as required by the District, is completed, tested and approved.

CROSS-CONNECTION CONTROL PROGRAM

The District has implemented the required elements of the CCC program as listed above. The District is committed to protecting the public water supply from contamination by eliminating potential cross-connections. The District's CCC program that follows includes a statement of its goals and objectives, the evaluation of CCC elements, the program implementation schedule, and recommendations.

CCC Program Goals and Objectives

The goals and objectives of the District's CCC Program consist of:

- Preventing contamination or pollution of the public water supply by eliminating or properly protecting actual or potential cross-connection;
- Taking inventory of all potential cross-connections; and

Maintaining the inspection and testing program for all backflow prevention assemblies. Inspection shall include inspection of backflow prevention assembly installations, annual inspection of air gaps, and annual survey of high-hazard facilities. The District will notify customers when testing is due.

The District will achieve these goals and objectives through the implementation of the CCC program that follows.

Evaluation of CCC Program Elements

The District is required to develop and implement a CCC program. All required elements of a local CCC program must be documented and included in the District's Comprehensive Water System Plan. The evaluation of these CCC program elements and current level of implementation are presented below.

Cross-Connection Control Resolution

This CCC program element requires that the purveyor "adopt a local ordinance, resolution, code, bylaw, or other written legal instrument" outlining the purveyor's program. In addition, this document must establish the purveyor's legal authority to implement a CCC program. Operating policies, technical provisions and corrective actions of the CCC program must also be addressed in the legal document. The District originally adopted a CCC resolution, Resolution No. 506 in 1992; however, this resolution was written prior to the requirements contained in WAC 246-290. This document updates the District's CCC program in order to comply with the WAC 246-290 requirements.

The District updated the resolution in 2013 to address the regulation in WAC 246-290 and the current CCC program contained in this document.

Evaluation of Service Connections

This CCC program element requires that the purveyor develop and implement procedures for evaluating existing and new service connections to assess the risk of connecting the consumer's premises to the District's public water system. This element also requires that the purveyor notify the consumer within a reasonable time frame of the evaluation results. New connections are required to be evaluated prior to service. Existing connections shall be inspected on a schedule acceptable to DOH.

*The District has an established procedure for evaluating new service connections for potential cross connection. This risk assessment evaluation is performed during the building permit or utility service agreement application review process for new water service applicants. Existing customers are evaluated during the building permit review process for structure alterations or additions and during the business license review process. If a backflow assembly is required as a result of this evaluation, the assembly, owner's name, property address, and other pertinent information is recorded in a database that is maintained by the District. The District has developed and implemented an evaluation program that assesses the risk of existing water service connections. Potential high-risk cross-connection premises have been evaluated. The District regularly evaluates other premises, based on potential risk to the water system and budget availability. The evaluation program for existing connections was implemented in 2007, as shown in the District's Capital Improvement Program schedule in **Table 9-5** of the Comprehensive Water System Plan.*

Table 1 lists standard abbreviations for backflow prevention assemblies. These abbreviations will be used in the tables that follow.

Table 1
Abbreviations

Abbreviation	Description	Level of Protection
AG	Air Gap	1
RPBA	Reduced Pressure Backflow Assembly	2
RPDA	Reduced Pressure Detector Assembly	2
DCVA	Double Check Valve Assembly	3
DCDA	Double Check Detector Assembly	3
PVBA	Pressure Vacuum Breaker Assembly	4
AVB	Atmospheric Vacuum Breaker	5
SVBA	Spill Resistant Vacuum Breaker	5

Table 2 lists the premises that are required to have isolation by an air gap or reduced pressure backflow assembly to prevent contamination to the public water system. **Table 3** shows various facilities that require or recommend back flow prevention devices.

Table 2
Premises Requiring Mandatory Service Isolation by AG or RPBA

Premises	Premises
Agricultural (farms and dairies)	Mortuaries
Beverage Bottling Plants	Nursing Homes
Car Washes	Petroleum Processing or Storage Plants
Chemical Plants	Piers and Docks
Commercial Laundries	Radioactive Material Processing Plants
Premises with Potable and Reclaimed Water	Nuclear Reactors
Film Processing Facilities	Survey Access Denied or Restricted
Food Processing Plants	Wastewater Lift Stations
Hospitals and Medical Centers	Wastewater Treatment Plants
Laboratories	Unapproved Auxiliary Supply
Metal Plating Industries	

Currently the District requires RPBA's at industrial facilities, DCVA's at commercial facilities, DCVA's at multi-family building greater than or equal to three stories, and DCVA's or AVB's for irrigation and DCVA's for fire sprinkler systems.

Table 3
Backflow Protection Requirements and Recommendations

Required Service Isolation
Premises with Approved Auxiliary Supply
Premises with Fire Sprinkler Systems or Private Hydrants
Tall Buildings (Over 30 feet)
Recommended Service Isolation
Mobile Home Parks
Shopping Centers

Table 4 lists fixtures, equipment, and areas that have the potential to contaminate the public drinking water system. The table also shows the minimum protection required by the District to prevent such contamination.

Table 4
Fixtures, Equipment and Areas with Backflow Potential

Fixtures, Equipment and Areas	Protection	Fixtures, Equipment Areas	Protection
Air Compressors	DCVA	Janitor Sinks	AVB
Air Conditioning Systems	RPBA	Kitchen Equipment	AVB
Air Washers	RPBA	Laboratory Equipment	RPBA
Aquarium Make-Up Water	AG/RPBA	Laundry Machines, Commercial	RPBA
Aspirators, Medical	AVB	Lavatories	AVB
Aspirators, Vault Drain	RPBA	Livestock Drinking Tanks	DCVA
Aspirators, Weedicide/Herbicide/Pesticide	RPBA	Make-Up Tanks	AG/RPBA
Autoclaves	RPBA	Mobile Carpet Cleaners	RPBA
Autopsy Tables	RPBA	Mop Sinks	AVB
Baptismal Fountain	RPBA/AG/AVB	Outboard Motor Test Tanks	AG/RPBA
Bathtub, Below Rim Filler	Not Allowed	Perchloroethylene Reclaim	AG/RPBA
Bedpan Washers	RPBA	Pesticide Applicator Trucks	AG/RPBA
Beverage Dispensers using CO2	RPBA	Photo Developing Tanks and Sinks	RPBA
Bidets	AVB/AG-Internal	Photostat Equipment	RPBA
Boat Lifts	RPBA	Pipette Washers	AVB
Boiler Feed Lines	AG/RPBA	Potato Peelers	AVB
Bottle Washing Equipment	RPBA	Poultry Feeders	RPBA
Box Hydrants	DCVA	Private Hydrants	DCVA
Brine Tanks	AG/DCVA	Processing Tanks	AG/RPBA
Can Washing Equipment	RPBA	Pump Seal Water	AG/RPBA
Chemical Feeder Tanks	AG/RPBA	Pumps, Pneumatic Ejector	RPBA
Chilled Water Systems	RPBA	Pump Prime Lines	RPBA/DCVA

Continued on Next Page

Table 4 (Continued)
Fixtures, Equipment and Areas with Backflow Potential

<i>Table Continued</i>			
Chlorinators	RPBA	Pumps, Water Operated Ejector	RPBA
Coffee Urns	AG/AVB	Radiator Flushing Equipment	RPBA
Computer Cooling Lines	AG/RPBA	Recreational Vehicle Dump Stations	RPBA
Condensate Tanks	AG/RPBA	Serrated Faucets	AVB
Cooking Kettles	AG/AVB	Service Sinks	AVB
Cooling Towers	AG/RPBA	Sewer Connected Equipment	AG
Decorative Ponds	AG/RPBA	Sewer Flushing	AG
Degreasing Equipment	RPBA	Shampoo Basins/Hose Rinse	AVB
Demineralized Water System	RPBA	Showers, Telephone	AVB
Dental Cuspidors	RPBA	Sitz Baths	AVB
Detergent Dispensers (Dishwasher)	AVB	Soap Mixing Tanks	AG/RPBA
Dialysis Equipment	RPBA	Solar Heating Systems	RPBA
Dishwashers	AVB	Solution Tanks	AG/RPBA
Drinking Fountains	AG	Spas	AG/RPBA
Dye Vats and Tanks	AG/RPBA	Specimen Tanks	AG/RPBA
Dynamometers	DCVA	Starch Tanks	AG/RPBA
Emergency Generators	RPBA	Stream-Air Sprays	RPBA
Etching Tanks	AG/RPBA	Steam Cleaners	RPBA
Fermenting Tanks	AG/RPBA	Steam Ejectors	RPBA
Fertilizer Injection Equipment	RPBA	Steam Generating Facilities	RPBA
Film Processors	RPBA	Sterilizers	RPBA
Fire Department Connections w/o chemicals	DCVA/DCDA	Stills	RPBA
Fire Department Connections with chemicals	RPBA/RPDA	Sumps	AG
Fire Sprinkler Systems w/o chemicals	DCVA/DCDA	Swimming Pools	AG/RPBA
Fire Sprinkler Systems with chemicals	RPBA/RPDA	Toilets (Internal)	AG
Floor Drains	AG	Trap Primers	AG
Flushing Floor Drains	AVB	Ultrasonic Baths	AG
Foamite Systems	RPBA/RPDA	Urinals (Internal)	AG
Fountains, Ornamental	AG/RPBA	Used Water Systems	RPBA
Fume Hoods	RPBA	Vats	AG/RPBA
Garbage Can Washers	RPBA	Washing Pools	AG/RPBA
Garbage Disposals	RPBA	Wall Hydrants	AVB
Heat Exchangers	RPBA	Wash Basins	AG/AVB
Heat Pumps	RPBA	Wash-Up Sinks	AG/AVB
High Pressure Washers w/o chemicals	DCVA	Wash Tanks	AG/RPBA
High Pressure Washers with chemicals	RPBA	Wastewater Lines	AG
Hose Bibs	AVB	Water-Air Sprays	DCVA
Hoses, Kitchen Rinse	AVB	Water Closets (Internal)	AG
Hot Tubs	AG/RPBA	Water Cooled Equipment	RPBA
Hot Water Heating Systems	RPBA	Water Ejectors	RPBA
Hot Water Boilers	RPBA	Water Recirculating Systems	DCVA
Humidifier Tanks and Boxes	AG	Water Setting	RPBA
Hydraulically Operated Equipment	RPBA	Water Treatment Tanks	AG/RPBA
Hydrotherapy Baths	RPBA	Water Trucks	AG/DCVA
Ice Makers	RPBA	Wet Vacuum Systems	RPBA
Industrial Fluid Systems	RPBA	Whirlpool Baths	AVB/DCVA
Interties (Looped) Water Systems	DCVA	Windshield Washer Fluid Aspirators	RPBA
Irrigation Systems w/o chemicals	DCVA	X-Ray Processors	RPBA
Irrigation Systems with chemicals	RPBA		

Table 5 summarizes the number of each type of backflow prevention assembly protecting the distribution system as of December 2012.

Table 5
Summary of Backflow Prevention Assemblies

Type of Device	Quantity
AG	1
RPBA	37
DCVA	44
PVBA	0
SVB	0
AVB	0
Other	0

Cross-Connection Control and Elimination

This CCC program element requires that the purveyor eliminate existing cross-connections wherever possible. If elimination is not possible, then approved backflow prevention assemblies should be installed properly by a certified CCC specialist to reduce the risk of contamination in each of the following circumstances.

If the nature and extent of any activity on the premises, or the material used in connection with any activity on the premises, or materials stored on the premises, could contaminate or pollute the drinking water supply in any way.

On premises having any one or more cross-connections.

Internal cross-connections that are not correctable, or intricate plumbing arrangements which make it impractical to ascertain whether or not cross-connections exist.

A repeated history of cross-connections being established or re-established.

Unduly restricted entry so that inspections for cross-connections cannot be made with sufficient frequency or with sufficient notice to assure that cross-connections do not exist.

Materials of a toxic or hazardous nature being used such that, if back siphoning should occur, a health hazard could result.

Any mobile apparatus which uses water from the system or water from any premises within the system-service boundaries.

Any irrigation system.

Any fire service and/or fire sprinkler.

All new construction, remodels, commercial, business, industrial, and private homes shall be evaluated to determine the necessity of an approved assembly.

On any premise where installation of an approved assembly is deemed to be necessary to accomplish the purpose of these regulations in the District's judgment.

On any premise where an appropriate cross-connection report has not been filed with the District.

The District will endeavor to eliminate cross-connection where possible. In addition, owners shall be responsible for the elimination or protection of all cross-connections on their premises. The District will continue to maintain an inventory of existing backflow assemblies that it currently operates, maintains, and inspects. A separate inventory will include all assemblies on customer's premises that are the responsibility of the customer to maintain. The District will keep these inventories on file at the District Office, and shall update the inventory as necessary.

The District shall continue to eliminate potential cross-connections at existing facilities and require installation of backflow assemblies at all premises deemed to be "high-risk," such as water service connections at sewage facilities. Once potential "high-risk" cross-connections are eliminated, the District will concentrate its efforts on reducing potential medium- and low-risk cross-connections.

Installation Requirements

To ensure proper operation and accessibility of all approved assemblies, the following requirements shall apply to the installation of these devices.

- No part of the approved assembly shall be submerged under water or installed on a location subject to flooding. If installed in a vault or basement, adequate drainage shall be provided.

- Approved assemblies must be installed at the point of use. Alternate locations must be approved in writing by the District prior to installation.

- The approved assembly must be protected from freezing and other severe weather conditions.

- All approved assemblies installed shall be of a type and model pre-approved by DOH and the District.

- The approved assembly shall be readily accessible with adequate room for maintenance and testing. Approved assemblies 2 inches and smaller shall have a minimum clearance of 6 inches on all sides of the device. Approved assemblies larger than 2 inches shall have a minimum clearance of 12 inches on the back side, 24 inches on the test cock side, 12 inches plus the nominal size of the assembly below the device, and 36 inches above the assembly.

- If the approved assembly is installed inside a building, the assembly shall be readily accessible at all times and an emergency after hours contact phone number and person shall be provided to the District.

- If the approved assembly is installed inside a building and it is installed 5 feet above the floor, it must be equipped with rigidly and permanently installed scaffolding acceptable to the District. This installation must also meet the requirements set forth by the U.S. Occupational Safety and Health Administration and the State of Washington Occupational Safety and Health Codes.

- Reduced pressure backflow assemblies may be installed in a vault only if the relief valve discharge can be drained to daylight through a "boresight" type drain. The drain shall be of adequate capacity to carry the full rated flow of the assembly and shall be screened at both ends. An approved air gap shall be located at the relief valve orifice. This air gap shall be least twice the inside diameter of the incoming supply line as measured vertically above the top rim of the drain and in no case less than 1 inch.

- Where an approved assembly is deemed necessary, the model of the assembly and installation plans shall be submitted to the District for approval prior to installation.

- Upon completion of the installation, the District shall be notified and an inspection will occur for approval of the installation. All approved assemblies must be registered with the District. Registration shall consist of installation, make, model, and serial number of the assembly, and initial test report.

If any user refuses access to a premise, or to the interior of a structure, at reasonable times and with reasonable notice for inspection by the District, an RPBA will be required to be installed at the service connection to that premise.

Any variances from these installation requirements shall be requested in writing by the owner and must be approved by the District prior to installation.

The District will continue to enforce these installation requirements.

Personnel Certification

WAC 246-290-490 requires that personnel, including one certified Cross-Connection Control Specialist (CCS), are provided by the purveyor to develop and implement a CCC program. **Table 6** shows the District's personnel certifications. Mr. Dennis O'Connell, Mr. Don Hoskinson, Mr. Steven Ward and Mr. Scott Wolf are all certified as Cross-Connection Control Specialists.

The District has the properly certified staff to implement and maintain a CCC program as outlined by the State. The District will continue to provide properly certified personnel to implement the CCC program.

Table 6
Personnel Certification

Name	Position	Certificate Number	Certification
Dennis O'Connell	General Manager	7777	WDM-3, CCS
Scott Wolf	Operations Foreman	6147	WDM-3, CCS
Don Hoskinson	Lead Service Technician	3650	WDM-2, CCS
Steven Ward	Service Technician 2	10317	WDM-2, CCS
Certification Definitions WDM - Water Distribution Manager WTPO - Water Treatment Plant Operator CCS - Cross Connection Control Specialist			

Backflow Assembly Inspection and Testing

DOH requires that all backflow assemblies are routinely inspected and tested by certified personnel. Inspections are required at the time of installation, annually thereafter, after a backflow incident, and/or after the assembly is repaired, reinstalled, or relocated. All assemblies found not functioning properly shall be promptly repaired or replaced by the owner. If any such assembly is not promptly repaired or replaced, the District may deny or discontinue service to the premise.

The District is responsible for administering those assemblies that are installed on the public water distribution system, not including those assemblies installed after a meter on private premises. For assemblies installed on customers' premises, the customer shall arrange for testing of said assemblies by a backflow prevention assembly tester approved by the District. The District will notify customers annually of required testing and the testing must be completed before a corrective action date passes. The customer will be subject to all applicable testing, maintenance and repair fees. On new installations, the District will: (1) provide on-site evaluation and/or inspection of plans in order to determine the type of backflow assembly, if any, that will be required; and (2) will perform inspection. For existing premises, the District will perform evaluations and inspections of plans and/or premises and inform owners by letter of any corrective action deemed necessary, the method of achieving the correction, and the time allowed for the correction to be made. Ordinarily, corrections must be made within 60 days; however, the District may adjust this time period depending on the degree of hazard involved and the history of the assembly in question. Service may be discontinued immediately if necessary. The District will then inspect the premises on or after the expiration date of the required action to correct a cross-connection. If the premise is found not to be in compliance with the District's request, the owner shall receive written notice that water service to the premises will be discontinued. If the owner informs the District of extenuating circumstances as to why the correction has not been completed within five working days of receipt of the notice of termination, the District may grant a time extension.

Inspection and testing of assemblies shall be done: (1) during the initial installation; (2) during on-site reviews of existing installations; (3) after any repairs or maintenance; (4) after any relocation; and (5) on an annual basis, but may be required more frequently for certain high hazard premises. When an initial installation or annual test indicates that a backflow assembly is not functioning properly, the owner shall correct the malfunction within five working days as directed by the District. After correcting the problem, the owner shall arrange for re-inspecting and testing of the assembly.

The owner shall be responsible for the payment of all fees: (1) for annual or semi-annual assembly inspection/testing; (2) for re-testing if the assembly fails to operate correctly; and (3) for any re-inspections for non-compliance with District requirements. The District will continue to maintain records of backflow assembly inspections.

Testing Quality Control Assurance Program

This program element requires development and implementation of a quality control assurance program for the testing of backflow prevention assemblies. Successful implementation of this program element assures that all backflow prevention assemblies are tested in a similar manner and kept in optimal condition.

The District shall ensure that all testing procedures are completed in a consistent manner. Only certified personnel shall be utilized to test all backflow assemblies. The District has a process for approving backflow assembly testers and only approved testers appearing on the District's approved list may be used for testing and repair. Personnel shall be trained as outlined by the State, fulfilling all necessary requirements in order to comply with WAC 246-290-490.

Testing shall be recorded on the proper forms and maintained at the District Office. Examples of testing forms can be found in the AWWA "Recommended Practice for Backflow Prevention and Cross-Connection Control" manual. In the future, the District will provide forms to their customers with the annual testing notification.

Testing personnel shall adhere to the following steps: (1) use only properly operating and calibrated gauge equipment; (2) follow proper field test procedure; (3) consult the manufacturer's repair and maintenance manual when disassembly is required; (4) use only original manufacturer spare parts; and (5) retest the backflow assembly immediately after repair or maintenance. Testers can only perform tests and repairs allowed by the Washington State Backflow Assembly Tester certification and all other repairs and installations require a Specialty Plumber's License. All persons performing tests, repairs, or installations shall have all required certifications and licenses and shall furnish the District with copies upon request.

In addition to the above steps, testing procedures performed by certified test personnel shall be in compliance with current test procedures approved by the DOH, the AWWA yellow manual or the USCS manual, which may include the following: (1) advise customer of an impending test/inspection so that the customer's staff may participate; (2) notify the fire department when shut down of a fire service is necessary; (3) flush residual dirt through test cocks before attaching test gauges; (4) ensure that the high and low pressure bypass hoses of the test kit are connected to the proper test cocks; open test cocks slowly when bleeding air through the bypass hoses; (5) test gauges shall be properly calibrated by a certified testing agency; and (6) assemblies should be tested before the warranty expiration date.

Incident Response

This CCC program element requires that the purveyor develop a backflow incident response plan. The following paragraph outlines the District's response to a backflow incident. Other emergency response procedures are included in the Manchester Water District Emergency Response Plan.

Emergency Condition: Water System Contamination and Pollution Due to a Backflow Incident

Impact on System: Potentially major impact. Water not suitable for potable use - loss of supply. Potential irreversible damage to water mains and pipes.

Emergency Response

1. Shut down the affected mains if possible to contain the affected contaminants.
2. Notify the General Manager.
3. Notify DOH of the backflow incident.
4. Notify all customers of the problem and instruct them to boil all water to be used for consumption and cooking or issue a no-drinking warning.
5. Flush affected water mains to remove contaminants.
6. Disinfect storage tanks and water mains, as necessary, to remove contaminated residuals.
7. Analyze water quality in other parts of the distribution system to ensure that all contaminants were contained.

This document (and the Manchester Water District Emergency Response Plan) outlines procedures to be followed if an emergency arises. When a CCC emergency is called into the Kitsap County Sheriff's Department, or other emergency responder during non-business hours, the responder will notify the District's on-call person. This person will assess the emergency and then notify any District personnel qualified to deal with cross connection contamination issues as deemed necessary, depending on the severity of the emergency. All emergencies shall be reported to Dennis O'Connell, General Manager, or his designee, as soon as reasonably possible. The District personnel notified to respond to the emergency will be responsible for coordinating the response with other District personnel, as well as other emergency responders, as deemed necessary.

Public Education

Another CCC program requirement is that educational information of the CCC program be included in existing water system materials that are distributed to customers. Educational materials can be included in pamphlets, brochures, bill inserts, public service announcements, and consumer confidence reports.

The District will develop CCC program education materials and will include them in bill inserts and District-wide newsletters.

Record Keeping

Purveyors must also develop and maintain records of their CCC program, as mandated by DOH. At a minimum, purveyors must maintain the following records.

- Master list of service connections and/or premises where backflow prevention assemblies are protecting the public water system or fixtures.

- Assessed hazard level of each backflow assembly.

- Inventory information on approved air gaps, including location, degree of hazard, installation date, inspection history, inspection results, and personnel conducting inspections.

- Backflow assembly inventory information including location, assembly description, installation date, inspection history, test and repair history, test results, and inspecting personnel.

- Atmospheric Vacuum Breaker (AVB) and Spill Resistant Vacuum Beaker (SRVB) inventory including location, description, installation date, inspection history, and inspecting personnel.

- Program summary and backflow incident reports.

The District will continue to keep records as required by the CCC program. At a minimum, the District will maintain the following information: (1) installation date of assemblies; (2) location of backflow assemblies; (3) inspection and testing reports of backflow assemblies; (4) performances of backflow assemblies; and (5) performance of licensed testers. All records will be on file at the District Office to allow access by District personnel.

Reclaimed Water Requirements

The final CCC program requirement is for systems that distribute or receive reclaimed water within their water service area. For these systems, additional CCC requirements may be imposed by DOH in any permits issued in accordance with Chapter 90.46 RCW.

The District currently does not distribute or receive reclaimed water within its service area. Therefore these requirements, as they relate to reclaimed water are not applicable at present to the District. However, if reclaimed water is utilized in the future by the District, then the District will follow all requirements of the permits issued under Chapter 90.46 RCW dealing with reclaimed water.

Manchester Water District
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(360) 871-0500

MANCHESTER WATER DISTRICT
Resolution No. 2025-01

**A RESOLUTION UPDATING DISTRICT WATER USE
EFFICIENCY (WUE) GOALS**

WHEREAS, in 2003, Washington State legislature passed the Municipal Water Law which requires municipal water suppliers to develop water use efficiency goals in accordance with the Water Use Efficiency (WUE) Rule; and

WHEREAS, the WUE Rule intends to reduce the demand growing communities, agriculture, and industry have placed on our state's water resources, and better manage these resources for fish and wildlife; and

WHEREAS, municipal water suppliers are obligated under the WUE Rule to enhance the efficient use of water by the system and/or its consumers; and

WHEREAS, on March 12, 2019, the District Board updated its WUE Goals with an emphasis to reduce average per capita consumption by 5-percent over a 10-year period using 2015 as the beginning year; and

WHEREAS, WAC 246-290-830 requires WUE Goals to be evaluated and established at least every 6-years through a public process; and

WHEREAS, a public forum was scheduled for February 11, 2025, providing an opportunity for consumers and the public to participate in establishing the District's new WUE goals; and

WHEREAS, on January 27, 2025, public notice was issued at least two weeks in advance of the public meeting utilizing the District website, physically posted meeting notices, and through the Department of Health website; and

WHEREAS, public notice included the purpose of the meeting, date, time and place, including where materials supporting the rationale for the proposed goals can be reviewed; and

WHEREAS, the Board reviewed and considered all comments received from the public prior to adopting the District's new goals; and

WHEREAS, on February 11, 2025, after discussion and evaluation of public comments and the results from the previously established goals, the Board has determined the new WUE Goals shall be as follows:

1. Reduce per capita consumption by 5% over 10-years, utilizing 2022 as the base year (64gpd).
2. Continue to educate residents about water conservation practices through outreach programs, advocacy groups, bill stuffers, and local events.
3. Maintain a 3-year Distribution System Leakage (DSL) average below 9% through improved leak detection audits and improved record keeping.
4. Improve indoor conservation kit messaging and distribution.

NOW THEREFORE BE IT RESOLVED that the Board of Commissioners of the Manchester Water District hereby adopts the following Water Use Efficiency Goals for the next 6-years or when goals have not been met and need to be reevaluated.

THIS RESOLUTION was duly considered and approved by the Manchester Water District Board of Commissioners in a regularly scheduled open public meeting on February 11, 2025.

1. **Ratification**. Any act consistent with the authority granted pursuant to this Resolution occurring prior to the effective date of this Resolution is hereby ratified and affirmed; and
2. **Severability**. The provisions of this Resolution are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section or portion of this resolution or the invalidity of the application thereof to any person or circumstances, shall not affect the validity of the remainder of the resolution, or the validity of its application to other persons or circumstances; and
3. **Effective Date**. This resolution shall become effective immediately upon

adoption and signature as provided by law.

ADOPTED by the Manchester Water District Board of Commissioners on
February 11, 2025.

A stylized signature in blue ink, consisting of a large 'S' and a 'P'.

Steve Pedersen
Board Chair

A signature in blue ink, appearing to read 'James Strode'.

James E. Strode
Secretary

A signature in blue ink, appearing to read 'Robert Ballard'.

Robert Ballard
Commissioner

MANCHESTER WATER DISTRICT
Resolution No. 2025-10

A RESOLUTION ADOPTING THE DISTRICT WATER SHORTAGE RESPONSE PLAN

WHEREAS, Washington State requires public water systems serving 1,000 or more connections to develop a Water Shortage Response Plan (WSRP) as part of their Water System Plan (WSP); and

WHEREAS, District Management confirmed the need to develop a WSRP as the District is currently updating its WSP and lacks a formal water shortage response plan; and

WHEREAS, a WSRP outlines how a water system will manage and respond to water shortages, addressing both supply and demand; and

WHEREAS, key requirements of the WSRP include evaluating supply and demand, identifying potential shortages of events, establishing response stages, and implementing demand measures; and

WHEREAS, after plan development and review, District management confirmed the Washington State key requirements were incorporated into the presented plan.

NOW, THEREFORE BE IT RESOLVED that the Board of Commissioners of the Manchester Water District hereby adopt the Water Shortage Response Plan (WSRP), attached hereto as Exhibit A.

THIS RESOLUTION was duly considered and approved by the Manchester Water District Board of Commissioners in a regularly scheduled open public meeting on June 17, 2025.

1. **Ratification**. Any act consistent with the authority granted pursuant to this Resolution occurring prior to the effective date of this Resolution is hereby ratified and affirmed; and
2. **Severability**. The provisions of this Resolution are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section or portion of this resolution or the invalidity of the application thereof to any person or circumstances, shall not affect the validity of the remainder of the resolution, or the validity of its application to other persons or circumstances; and

3. **Effective Date.** This resolution shall become effective immediately upon adoption and signature as provided by law.

ADOPTED by the Manchester Water District Board of Commissioners on
June 17, 2025.



Steve Pedersen
Board Chair



James E. Strode
Secretary



Robert Ballard
Commissioner

Approved as to Form:

Ken Bagwell, District Attorney



Water Shortage Response Plan

June 17, 2025

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Water Shortage Response Plan

1.0 PURPOSE

This Water Shortage Response Plan (WSRP) was developed in conjunction with Manchester Water District's Resolution 2025-10. The resolution advocates and promotes water conservation practices through education and regulation and provides for enforcement. The implementation of this plan involves five response stages. The stages are based on the severity of the problem of the water source (well) supply or drought condition. Initiating one or more response stages may be appropriate under a drought or other long-range supply disruption. The five stages include a variety of communications, internal operations, and supply and demand management strategies as appropriate, and are characterized as follows:

- **Advisory Stage** – The public is informed as early as meaningful data are available indicating that a possible water shortage may occur.
- **Voluntary Stage** – If supply conditions worsen, the plan moves to the Voluntary Stage which relies on voluntary cooperation and support of customers to meet target consumption goals. During this stage, specific voluntary actions are suggested for both residential and commercial customers. Consumption reduction goal is 5 – 10%.
- **Mandatory Stage** – If the Voluntary Stage does not result in the reduction needed, the Mandatory Stage prohibits or limits certain actions, with possible fines. This stage would be accompanied by an enforcement plan. Consumption reduction goal is 10 – 20%.
- **Emergency Curtailment Stage** – This addresses the most severe need for demand reduction and could include a combination of mandatory measures and monetary fines. This could be used as the last stage of a progressive situation, such as a drought of increasing severity, or to address an immediate crisis, such as a facility failure or contamination. Consumption reduction goal is greater than 20%.
- **Immediate Emergency Curtailment** – Utilized if there is a lack of preparation time due to an urgency that requires immediate large-scale demand reductions. Consumption reduction goal is greater than 20%.

The District Manager or the District's Board of Commissioners could initiate any stage. The District Manager would most likely determine when to initiate a response stage or stages for a potential or actual "short term" or immediate water shortage situation. Under a potential or actual "long term" water deficiency scenario, the District Manager would advise the Commissioners of the need to implement the WSRP and provide recommendations on how to manage the water shortage. The following factors should be considered in making these recommendations:

- Total supply availability

- The rate of decline in total reservoir storage compared with the normal operating curve
- Groundwater aquifer level declines and reductions in well pumping capacity
- Short- and long-term weather forecasts by the national weather service
- The trends and forecasts of the system's daily water demands
- The estimated margin of safety provided by the demand reduction, compared with the level of risk assumed if no action is taken
- The value of lost water sales revenue compared with the increased margin of reliability
- Consultation with elected officials and state resource agencies
- The length of time between stage changes (abrupt starts and stops are to be avoided), and required time lags to shift administrative "gears" and institute program (printing, purchasing, etc.)
- Current events
- Customer response

Based on the recommendations, the Commissioners would decide when and how the WSRP would be implemented.

In making decisions concerning the allocation of water between conflicting interests, the highest priority will be given to the allocation necessary to support human life and health (the minimum amount of water necessary for drinking, prevention of disease, fire prevention, etc).

The guidelines in Table 1 below outline the criteria for deciding which stage to implement and actions to be taken.

Table 1
Guidelines for Triggering the Response Stages of the WSRP

Trigger	Stage	Target Water Use Reduction	Actions
Well or pumping capacity below 85%.	Advisory	0 - 5%	Initiate public education and plan for other stages of the WSRP.
Well or pumping capacity below 75%	Voluntary	5 - 10%	Increase public education. Seek voluntary use reductions. Emphasize reduction in outdoor uses.
Well or pumping capacity below 60%	Mandatory	10 - 20%	Phase as appropriate mandatory restrictions with enforcement.
Conditions worse than above have occurred or are predicted.	Emergency Curtailment	>20%	Implement all available demand reduction and source maximization tools.
Facility failure, contamination, or other catastrophe	Immediate Emergency Curtailment	>20%	Would happen suddenly rather than phased. Could affect only a portion of the system.

A description of each stage, with proposed actions, is provided in the following sections.

2.0 ADVISORY STAGE

2.1 OBJECTIVES

The objective of this stage is to:

- Prepare the District and its customers for a potential water shortage.

Public and internal actions to help all parties adequately plan and execute this stage are included in this section. Initiating this stage may minimize the need for more stringent demand or supply management actions under other stages.

2.2 TRIGGERS

There are a variety of weather and other conditions that may influence water availability and provide an opportunity for a potential water shortage. The primary conditions for an "Advisory" would be

1. If the total well or pumping capacity fell below 85 percent of normal.
2. Predicted inflows are significantly below historical "norms" for the current time of year and indications are that expected demands may not be met if this trend continues or worsens.

The Advisory will be withdrawn when the projected water supply trends follow the normal water supply conditions.

2.3 KEY PUBLIC MESSAGES

Under the advisory stage, three public messages will be announced. They are:

1. Potential exists for lower-than-normal water supply.
2. Conditions may return to normal but, if not, water consumption may need to be reduced.
3. Public updates to keep consumers informed via website, social media, and bill stuffers.

2.4 ADVISORY STAGE ACTIONS

The advisory stage actions are divided into two types; communication actions and internal operation actions. The communication actions address how the District will inform the public of

the potential water shortage. The internal actions outline the District's operating procedures for monitoring the situation.

Communication Actions

- The District Manager meets with District personnel as often as appropriate to evaluate conditions, determine actions, coordinate actions with other staff, and make assignments.
- Brief District Commissioners.
- The District Commissioners, on the recommendation of the District Manager, formally activate the Advisory Stage.
- Remind District personnel about conservation needs to ensure a consistent message to customers.
- Initiate status report to entities with special interests (e.g., large water users, Kitsap County Wastewater Treatment Plant, schools, parks, and organizations providing health care).
- Prepare and distribute public information materials explaining the Water Shortage Response Plan stages and range of actions; prepare "Questions and Answers" for all customer groups.
- Emphasize reduction of outdoor water use.
- Intensify coordination with other regional water suppliers to learn what conditions they are projecting for their systems.
- Intensify communication and coordination with state and federal resource agencies about water supply conditions and projections.
- Explain the existence of an exemption to a watering ban early in the response process.
- Evaluate the District's ability, resources, and plans to move into the Voluntary Stage; as appropriate, begin preparatory measures.

Internal Operating Actions

- Intensify data collection actions and monitoring weather forecasts.
- Intensify modeling and forecasting of projected supply, storage and demand scenarios.
- Evaluate effect of increased well use on electrical costs.
- Intensify supply side management techniques to optimize existing sources.
- If applicable, assess current water main flushing and reservoir cleaning activities to determine whether they should be accelerated to be completed prior to the peak season or reduced to conserve supply.
- Assess water quality in reservoirs and distribution system to target correction areas that may be predicted to experience degradation with reduced consumption.

- Ensure water system components are well maintained and that appropriate spare parts and equipment are available to ensure system reliability.

Initiate planning and preparation for Voluntary Stage actions, including an assessment of potential staffing impacts, training needs, costs, and communications strategies.

3.0 VOLUNTARY STAGE

3.1 OBJECTIVES

The objectives of this stage are to:

- Maintain or reduce demand to meet target consumption levels by customer voluntary actions.
- Prevent or minimize the need for more stringent demand or supply management actions.
- Minimize the disruption to customers' lives and businesses while meeting target consumption goals.
- Maintain the highest water quality standards throughout the shortage.

3.2 TRIGGERS

The "Voluntary Stage" is implemented when one or both of the following factors apply:

1. Supply conditions identified in the Advisory Stage have not improved or are forecasted not to improve and the total well or pumping capacity is less than 75%.
2. Demand levels indicate the need for a more systematic response to manage the situation.

The District's water distribution system is designed to meet peak demands during summer months. With significantly lowered demand during this stage, water flow through the system is below optimum. The slower moving water, in combination with higher summer temperatures, means there is an increased likelihood that water quality problems may become an issue. Consideration will be given to potential water quality issues in defining the supply and demand management strategies.

3.3 KEY PUBLIC MESSAGES

Three public messages will be announced under this stage. They are:

1. The District is relying on support and cooperation of all customers to curtail water use and stretch the available water supply.

2. Demand needs to be reduced by at least 10%. Customers are responsible for determining how they will meet that goal. Water waste is not allowed.
3. With customer cooperation, we may avoid imposing more stringent restrictions.

3.4 VOLUNTARY STAGE ACTIONS

The District Manager will frequently re-evaluate the water supply situation based on current and projected supply conditions, the season, and determine appropriate actions and strategies. The Manager will determine possible consumption actions to be taken on a voluntary basis which may be revised as necessary. These actions may include:

- Fewer toilet flushes
- Prohibit irrigation except on new landscapes
- Reduced shower times
- Eliminate partial loads for clothes washing and dishwashing
- All watering ban
- Utilize recycled-water car washes
- Restrict hydrant meter rentals to only crucial health and safety needs

The General Manager will present the recommended actions to the Commissioners for their review and approval.

Based on the consumption goal, some or all of the following communication, internal, and management actions will be taken if voluntary measures implemented fail to deliver targeted water savings.

Communication Actions

- Continue actions in Advisory Stage.
- District Manager communicates the nature and scope of voluntary measures and strategy to the District Commissioners.
- Initiate public information, media and advertising campaign such as:
 - Port Orchard Independent newspaper- publish and promote consumption goals and previous week's consumption.
 - Promote consumption goals for typical households and commercial customers (See Attachment B for a list of recommended actions for customers to take to reduce consumption).
 - Develop and implement a marketing plan, including paid advertising on KITZ 1400 AM radio, to keep customers informed about supply and demand conditions. This reinforces desired customer actions; recommends customer actions to reduce demand sufficiently; and, depending on conditions, reminds customers that if goals are not achieved, restrictions may be necessary.

- Identify what potential next steps will be needed to reduce demand including timing and what type of restrictions will be imposed.
 - Establish routine timing for press releases (e.g., every Monday morning) that provides current status and outlook and presents the information in a standardized format that becomes familiar to media and public.
 - Include water quality information in public information so that if flushing is necessary, the public understands that it is essential for water quality management.
- Continue and increase coordination and communication with local, state and federal resource agencies about supply conditions and demand management actions.
 - Contact largest customers to request percentage reduction.
 - Prepare a list of commercial car wash facilities that recycle water.
 - Curtail water sales to surplus water customers if not already initiated in Advisory Stage.
 - Establish regular communication with District personnel on up-to-date goals, conditions, and actions.
 - Implement remaining plan and prepare for Mandatory Stage.

Internal Operating Actions

- Continue actions listed in the Advisory Stage.
- Eliminate all operating system water uses determined not to be essential to maintain water quality operations which may include pipeline flushing and facility irrigation.
- Complete cleaning of any reservoirs known to be vulnerable to warm weather taste and odor concerns.
- Increase water quality monitoring actions.
- Implement staffing reassignments as needed, hire temporary staff, and plan staffing changes which may be needed for the Mandatory Stage, including staff to enforce mandatory restrictions.

Supply and Demand Management Actions

- Restrict hydrant meter rentals for essential purposes.
- Request South Kitsap Fire & Rescue (SKFR) limit training exercises that use water.
- Request that personnel eliminate washing District fleet vehicles unless recycling car wash facilities are utilized.
- Request that hosing sidewalks, driveways, parking lots, etc. be limited to situations that require it for public health and safety.

- Send educational letters or door hangers to customers who are observed wasting water with specific actions to take (i.e., don't water during the day, maintain sprinkler heads, etc).
- Evaluate ability to accelerate, enhance, or expand long term conservation practices and implement as appropriate.

4.0 MANDATORY STAGE

4.1 OBJECTIVES

The objectives of this stage are to:

- Achieve targeted consumption reduction goals by restricting defined water use.
- Ensure that adequate water supply will be available during the duration of the situation to protect public health and safety.
- Minimize the disruption to customers' lives and businesses while meeting target consumption goals.
- Maintain the highest water quality standards throughout the shortage.
- Promote equity among customers by establishing clear restrictions that affect all customers.

4.2 TRIGGERS

The “Mandatory Stage” action will be implemented when:

1. Supply conditions identified in the Voluntary stage have not improved, or are forecasted not to improve, and predicted total well or pumping capacity is below 60% of capacity.

The District Manager would approve progression to this stage if time does not allow for a review and approval from the Commissioners, and if goals established in the "Voluntary Stage" have not been met and more stringent actions are needed. The specific restrictions imposed during the Mandatory Stage would be determined based on the season of the year, targeted demand levels, and other considerations previously mentioned. Variations of the specific restrictions may be applied based on water supply conditions. For example, lawn-watering restrictions may simply consist of time-of-day restrictions; or, if conditions warrant, lawn watering could be restricted to certain times of day or certain days of the week.

4.3 KEY PUBLIC MESSAGES

The key public messages are:

1. It is necessary to impose mandatory restrictions to reduce demand because the voluntary approach has not resulted in lower consumption.
2. The District is continuing to rely on the support and cooperation of the public to comply with these restrictions.
3. Certain water uses will be restricted to ensure that throughout the duration of this shortage, an adequate supply of water is maintained for public health and safety.

4.4 MANDATORY STAGE ACTIONS

Under this stage, various types of actions may be taken. They include implementing communication, internal and management actions, imposing water restrictions, and enforcement.

Communication Actions

- If time is available, the District Manager will recommend implementing the Mandatory Stage to the Commissioners. The recommendation will include the nature, scope and timing of the restrictions. The Manager will also determine if water supply and demand management strategies will result in unacceptable water quality levels.
- The District Commissioners adopt a resolution to start mandatory restrictions if not already done so by the District Manager.
- The public is informed about the nature and scope of the mandatory restrictions through a press conference, paid advertising and other means, including direct mail. The enforcement mechanisms, target consumption goals, projections for how long restrictions will be in place, reasons for imposing restrictions, and possible consequences if goals are not met.
- Any exemptions from restrictions will be clearly identified.
- In communicating mandatory restrictions to the public, a clear distinction will be made between lawn/turf watering and watering gardens and ornamental plantings since most established lawns can go dormant. The type and amount of watering allowed will be clearly defined.
- District field personnel will "tag" observed obvious water waste such as hoses without shutoff nozzles, gutter flooding, home car washing, etc. with notice that informs customer about the supply conditions and need to conserve.
- Customers who irrigate with private wells will be urged to install signs to let the public know that private well water is being used.
- Plans will be made to move into the fourth stage – Emergency Curtailment – and to begin preparatory measures as appropriate.

Internal Operating Actions

- Continue appropriate actions from previous stages.

- Finalize and implement procedures for exemptions from restrictions.
- Finalize and implement enforcement procedures for restrictions including highly visible "Water Watchers." See Attachment C for enforcement procedures.
- Increase water quality monitoring actions at storage reservoirs.

Supply and Demand Management Actions

Overall, supply conditions will be considered by the District Manager in evaluating which restrictions to impose. If supply conditions continue to deteriorate and irrigation is still occurring, lawn watering will be banned. The nature of the restrictions used will depend on the situation, and may change as severity of the situation changes. Possible water restrictions and exemptions are described below.

Water Restriction Alternatives

- Implement use of a watering calendar that allows watering every specified number of days. These calendars have been used countywide since 1995. There is much debate regarding the effectiveness of this approach and its agronomic appropriateness; however, implementing the calendars can provide demand leveling, discourages people from watering every day, is an easy way to provide customers with additional outdoor conservation information, and provides a baseline for restrictions.
- Prohibit all watering during the warmest hours of the day, for example between 10:00 a.m. and 7:00 p.m. This approach can be coupled with the preceding bullet.
- Limit all watering to a specific number of days per week or per month. This choice will depend on target consumption goals, the time of year and the extent to which watering is occurring, and how much demand has already decreased. (In Seattle, for example, they found in 1992 that if demand has already been reduced by 15% through other measures, then during July and August, limiting turf watering to two days a week on a region-wide basis would further reduce average daily demand by approximately 10%).
- Prohibit use of any ornamental fountain using drinking water for operation or make-up.
- Encourage car washing at commercial car wash facilities that recycle water.
- Rescind hydrant meter rentals.
- Prohibit washing of sidewalks, streets, decks or driveways except as necessary for public health and safety.
- Limit pressure washing of buildings to situations that require it as part of scheduled building rehabilitation project (e.g., painting).
- Prohibit water waste including untended hoses without shut-off nozzles, obvious leaks, and water being wasted such as gutter flooding and sprinklers/irrigation whose spray pattern unnecessarily and significantly hits paved areas.

Exemptions from Water Use Restrictions

Newly installed lawns may be exempted from a ban if the procedures listed below are followed. Those wishing to use this exemption would need to contact the District as directed in advance of the exemption being granted, providing their name, address, phone number, size of lawn and type of watering system. This information would allow the District to quantify the amount of water used under this exemption and to spot check for compliance. The procedures relating to the exemption and the requirements of the exemption would be clearly outlined at the time of the ban. The following procedures are subject to change:

- Each applicant would be mailed a packet stating the requirements.
- Once the requirements are met, an authorization packet would be mailed to the customer including a sign to be posted indicating that utility requirements are being complied with.
- New lawns must be properly installed, meaning that two inches of organic soil amendment, such as composted yard waste, is cultivated into the top six inches of existing soil, at a minimum.
- New lawns must be watered according to guidelines to be provided in the packet mentioned above.
- For purposes of this exemption, "new lawn" refers to a lawn newly installed during the current water year only. Overseeded or otherwise renovated lawns would not be exempt.

In the event that the shortage continues to worsen and the Emergency Curtailment Stage is invoked, this exemption would be revoked. It would also be revoked on a case-by-case basis if the rules stated above are not followed, or in the case of a water system emergency. Monitoring and enforcement are at the discretion of the District. The existence of an exemption to a watering ban would be announced early in the response process, for example when the Advisory Stage is invoked.

Other exemptions from water use restrictions could include:

- Hand watering of vegetable and flower gardens will be allowed.
- For purposes of dust control, water may be applied to construction areas or other areas needing to comply with air quality requirements. If reclaimed water is available, consider requiring or promoting that it be used for dust control, if feasible.
- Ball fields and play fields may be watered at the minimum rate necessary for dust control and safety purposes.

Enforcement

Customers who waste water or use water in violation of mandatory restrictions are subject to service disconnections or monetary fines. All District personnel can be authorized as "Water

Watchers." Each District employee authorized as a Water Watcher will receive a briefing and materials.

Once a water waste practice has been identified, the District Manager directive for elimination of water waste shall be in writing, specifying the category or categories of practice being eliminated, and be posted at the services in the relevant area, together with a copy of any relevant watering calendar. If water waste continues, the following is the phasing of enforcement:

First Violation	No charge but the service shall be posted with a notice of water waste practice identifying the date and practice including a copy of the notification previously given.
Second Violation	Post the door with a notice of charge for \$50.00, together with a copy of the notification.
Third Violation	Post the door with a notice of charge for \$100.00, together with a copy of the notification.
Fourth or More Violation	Post the door with a notice of charge for \$200.00, together with the notification. In addition, a 24-hour disconnect notice shall also be posted, calling for immediate payment.

5.0 EMERGENCY CURTAILMENT STAGE

5.1 OBJECTIVES

At this stage, the District recognizes that a critical water situation exists. Without additional significant curtailment actions, a shortage of water for public health and safety will be imminent.

This stage is characterized by two basic approaches. First, increasingly stringent water use restrictions are established and enforced. Secondly, significant monetary fines are used to encourage customer compliance.

5.2 TRIGGERS

This stage is implemented because worse conditions than the above three stages have occurred or are predicted.

5.3 KEY PUBLIC MESSAGES

The key public messages are:

1. A critical water shortage situation exists.

2. Although customer response to-date is appreciated, without additional significant curtailment actions, a shortage of water for public health and safety will be imminent.
3. Increasingly stringent water use restrictions will be established and enforced.

5.4 EMERGENCY CURTAILMENT STAGE ACTIONS

The communication and internal actions for this stage are:

Communication Actions

- Continue all previous, applicable actions.
- Define the problem to the public as an emergency and institute formal procedures to declare a water shortage emergency.
- Inform customers of the monetary fines and how they will affect them. Provide information on an appeal process.
- Coordinate with Police and Fire Departments requesting their assistance in enforcing prohibition of water waste.
- Inform customers that taste and odor water quality problems may occur with system-wide reduced water consumption.
- Inform customers about possible pressure reductions and associated problems.
- Define and communicate exemptions for medical facilities and other public health situations.

Internal Operating Actions

- Continue and enhance "Water Watcher" patrols.
- Continue actions listed in prior stages.
- Curtail fire line testing unless it can be shown essential to protect the immediate public health and safety.
- Further enhance water quality monitoring actions as needed.
- Prohibit lawn and turf irrigation.
- Require that all fire-fighting agencies discontinue the use of water in training exercises until emergency is over.
- Rescind all hydrant meter rentals.

6.0 IMMEDIATE EMERGENCY CURTAILMENT STAGE

6.1 STAGE DESCRIPTION

Although many of the demand reduction measures employed would be similar to those used during a progressive, weather-related shortage, immediate emergencies are unique because of a lack of preparation time and the urgency of immediate large-scale demand reductions. Each emergency scenario is different, but most of them require major curtailment actions by customers. In addition, unlike drought, some emergencies would be localized, requiring demand reduction for only a limited geographic area.

There are several criteria by which to decide which demand management measures are appropriate to initially reduce demand during an emergency:

- **Timing:** can the measure(s) or action(s) deliver the necessary savings in the necessary timeframe, i.e., are immediate savings needed or can the system support a gradual reduction in demand;
- **Magnitude of savings:** will the measure produce enough savings to make a meaningful difference i.e., reduce demand to the level the impaired water system can handle;
- **Season:** does the action make any impact at the time of year that the emergency occurs, i.e., banning lawn watering will have little impact in November;
- **Costs:** How severe are the cost implications of the measure to the customer, including local business and industry.

6.2 SUPPLY AND DEMAND MANAGEMENT DURING EMERGENCIES

No single strategy can be created which will meet the needs of the District's emergency scenarios. The criteria listed above create a framework for decision-making. Emergencies initially require quick and immediate response. Once an assessment is made as to how long it will take to restore the system, the immediate response strategy may change if it appears that the repair process will be lengthy. The emergency assessment and response strategy will be made by the District Manager.

The strategy for most emergencies can be narrowed to measures having the immediate impact on water supply and consumption. The type(s) of water saving measures depends on factors including the season, weather conditions, how effectively and urgently the message is communicated

6.3 KEY PUBLIC MESSAGES

The key public messages are:

1. Due to the emergency, a critical water shortage situation exists. The emergency situation would be explained in detail.
2. Without additional significant curtailment actions, a shortage of water for public health and safety will be imminent.
3. The District appreciates the public's understanding of the need for stringent water use restrictions which will be established and enforced.

7.0 Response Stage

After the water shortage situation is over, a post-event evaluation of the benefits and drawbacks of the actions taken can improve the District's next water shortage response. The Manager should keep a file of the shortage situation to determine how the supplies were managed, how demands were reduced, and to document correspondence and press response. A formal evaluation report should be prepared.

The following questions can help guide the evaluation:

- What were the climactic aspects of the water shortage?
- What actions/activities worked particularly well?
- What actions/activities did not work?
- How did the media respond?
- How did the customers respond?
- What was the effect on staffing and budget?
- What purchased items can we particularly keep on hand to aid us in the next water shortage situation?
- What recommendations do we have for future research?
- What activities need to occur to prepare us for the next water shortage?
- If we had an opportunity to deal with the water shortage situation again, what would we do differently?
- What did we learn that could be applied to the next water shortage situation?
- What changes to the WSRP need to be made?

After the evaluation, the WSRP would be updated as appropriate.

APPENDIX A

Possible Voluntary Customer Actions

POSSIBLE VOLUNTARY CUSTOMER ACTIONS

Residential Indoors

- Flush the toilet less often. Each flush uses 1.6 to 7 gallons of water depending on age of toilet.
- Use dish and clothes washing machines only when full. Top loading washers use 15 to 40 gallons per load. Front loading washing machines use approximately 30% less water than residential top loading models.
- Keep drinking water cold in the refrigerator rather than running the faucet until the water is cold.
- Take shorter showers; for every minute of reduced showering time, 2 to 5 gallons are saved.
- Don't let the faucet run while shaving or brushing teeth; when washing vegetables, use a pan or bowl of water instead of letting water run.

Outdoor Use Measures – Commercial and Residential

- Wash cars less often; instead of using the hose, consider a commercial car wash that recycles water.
- Always use shut-off nozzle on hoses for window washing and other outdoor uses.
- Water lawns and gardens only early in the morning or late in the evening to reduce evaporation.
- Consider letting established lawns go dormant until the shortage is over. Homes that normally water lawns will save from 25% to 50% by not watering lawns.
- If it is raining, don't water lawns.
- Eliminate outdoor water play, i.e., running through the sprinkler, plastic water slides, and wading/swimming pools that require frequent re-filling.
- Eliminate all hosing of sidewalks, driveways, and decks.
- Water established plants only when necessary: Probe into the soil to see if the root zone is dry. Mulch—from two to four inches—in planting beds will help retain moisture.
- Create "wells" around trees to minimize runoff when they are watered.
- If there is an automatic irrigation system, have it audited to ensure that it is using water efficiently. Learn how to change the program that controls the system in order to cut back on irrigation time. Equip it with a rain sensor that will override the system during rainfall.

Commercial

- Set goals for reduced water use and inform employees. Give employees ideas for curtailing water use and ask them for theirs.
- Repair all leaks and dripping faucets. Urge employees to report leaks.
- Reduce or eliminate routine vehicle cleaning during shortage. Use local commercial car wash facility that recycles water.
- Ensure that all hoses are fitted with shut-off nozzles.
- Eliminate all hosing of walkways, parking lots, and loading docks. Pressure washers use substantially less water.
- Postpone routine building washing until after shortage.
- Post signs informing customers of the nature of the water shortage and ask for cooperation in reducing water use.
- Turn off all nonrecirculating fountains. On windy days, where there is significant water loss, turn off all fountains.
- Restaurants: provide water only on request.
- Update restrooms by replacing older toilets with 1.6 gallon per flush models.
- Parks: limit wading pool hours to days that are forecasted to be 70 degrees or warmer (wading pools are generally emptied and refilled daily for public health reasons).

APPENDIX B

Enforcement Procedures Checklist

ENFORCEMENT PROCEDURES CHECKLIST FOR MANDATORY RESTRICTIONS

- _____ Develop written policies and procedures.
- _____ Self-duplicating "Notice of Violation" forms printed; one copy to leave at property, one to record violation with billing.
- _____ Staff with customer service, communication, and field experience assigned to "Water Watch".
- _____ Establish procedures for "Water Watchers" to record warnings and penalties so administrative staff can reflect information on customer accounts.
- _____ Establish "hotline" for customers to complain about violations and to help avoid frivolous complaints. Recorded message should note that only complaints with name and address information on the recording can be responded to.
- _____ Vehicles for "Water Watch" to be made available; vehicles that are signed as "Water Watchers" will increase visibility and effectiveness of enforcement.
- _____ High priority routes established, e.g., areas with large irrigation properties and/or developments.
- _____ All field and customer service staff provided "fact sheets"; Question and Answer sheets; briefed on restrictions, enforcement procedures. Field staff trained on tagging obvious violations.

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Appendix N

Operator Daily Logs

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Daily Rounds Sheet

Operator: STEVE

Date: 12.12

M T W T F S S

	Production	Fl, Residual	Time	Fl, Meter	Hour Meter	Hour Meter	Cl, Barrel	Free / Total	Sys Press	Alarms	Remarks
Well 1	On / ☒	14479700	800	290.21	914.1				102	☒	
Cedar Street Tank			825		11 3/4	feet					
Well 10	On / ☒	55176 00	830		417.0						
Well 11	On / ☒	5169816	.01	830	29.62	539.3			88	☒	
California Tank			840		85	feet					
Well 4	On / ☒	5557600	900		485.7		9	.191	100	☒	
Wells 5 & 7	On / ☒	587046 00	.41	920	712.85	467.7	247.5	13 1/2	801	110	☒
Sedgwick Road Tank			930		69	feet					
Wells 5 & 8	On / ☒	663804 00	1.52	930	274.64	142.9	846.7	7 1/4	13	34	
Distribution System Residual			Address: 4631 Stanton Rd			441					
Banner Rd. Tank			945		15	feet					
Well 2	On / ☒	734691 00	.50	950	140.48	924.6			102		
Reminders: Pump Log Oil - ORDER											

Daily Rounds Sheet

Operator: JR
Date: 12-16-06
M T W T H F S S

	Production	Fl ₂ Residual	Time	Fl ₂ Meter	Hour Meter	Hour Meter	Cl ₂ Barrel	Free / Total	Sys Press	Alarms	Remarks
Well 1	On / Off	4685900	.43	10:44	274.41	921.8			101	OK	
Cedar Street Tank			9:34		12.5	feet					
Well 10	On / Off	5645860	9:20		186.1				OK		
Well 11	On / Off	5223560	9:20	24.82	552.1				89	OK	
California Tank			9:37		87	feet					
Well 4	On / Off		9:05					1			
Wells 6 & 7	On / Off	5899920	.86	9:45	777.85	698.2	247.5	11 1/4	.231	107	OK
W-6 Subtotal:											
W-7 Subtotal:											
Sedgwick Road Tank					63 1/2	feet					
Wells 5 & 8	On / Off	4670820	.40	10:15	276.54	169.3	857.5	6	.241	87	OK
Well 9	On / Off										
Distribution System Residual											
Address	9650 Santa calby Post office 181										
Banner Rd. Tank					15	feet					
Well 2	On / Off	42683800	.93	10:39	142.43	960.0			101	OK	
Reminders:	NR60 NEW Log Sheet AT 687										

Chlorine Report

month of **December 2006**

submitted by **Manchester Water District**
Manchester, Wa.

system name **Manchester Water District**
source name: **Wells 6 & 7**

date	Quantity of Water Treated		12% Sodium Hypochlorite Used		Residual Tests	
	mtr read	volume	pounds	Inches in Barrel	free	total
30/31	55987100			Level	Inches used	
1	56182400	215300	1795602	11.00	0.00	0.96
2	56358100	173700	1448658	8.75	2.25	0.58
3	56513200	257100	2144214	5.50	3.25	0.73
4	56818600	205400	1713036	3.75	1.75	0.26
5	57055100	236500	1972410	26.50	1.75	0.13
6	57230400	175300	1462002	24.25	2.25	0.26
7	57409700	179300	1495362	22.00	2.25	0.28
8	57594100	184400	1537896	20.00	2.00	0.27
9	57782400	188300	1570422	18.00	2.00	0.29
10	57997100	214700	1790598	15.75	2.25	0.38
11	58204600	207500	1730550	13.50	2.25	0.56
12	58432600	228200	1903188	11.00	2.50	0.59
13	58589800	157000	1309380	15.50	2.75	0.18
14	58712700	123900	1033326	14.50	1.00	
15	58959200	285500	2381070	11.25	3.25	0.23
16	59204200	205000	1709700	9.00	2.25	
17	59204200	0	0	9.00	0.00	0.81
18	59397300	193100	1610454	6.50	2.50	0.07
19	59620900	223500	1863990	4.50	2.00	0.11
20	59790400	175600	1464504	26.50	2.00	0.35
21	59985100	189700	1582098	24.25	2.25	0.08
22	60200300	214200	1786428	22.00	2.25	0.16
23	60412900	212600	1773084	20.00	2.00	0.31
24	60647400	234500	1955730	17.50	2.50	0.30
25	60795200	147800	1232652	16.00	1.50	0.31
26	60920600	197400	1646316	14.00	2.00	0.38
27	61124600	202000	1684680	12.00	2.00	0.35
28	61315200	180600	1506204	10.00	2.00	0.21
29	61562400	187200	1561248	14.00	2.00	0.19
30	61768100	206000	1718040	11.50	2.50	0.37
31	61983200	214800	1791432	9.00	2.50	0.16
totals		6016100				



Fluoridation Monthly Operations Report Form

DOH Form 331-496
May 2016

for Sodium Fluoride Saturators

System Name : Manchester Water District

System ID: 50700

FIP No: 02- Well #2

Month/Year: December / 2017

Contact Name: Scott Wolf

Phone #: (360) 871-0500

Date	Water Production		Fluoride Additive			Monitoring	
	Meter Reading (1000 gals)	Volume Treated (1000 gals)	Added To (lbs)	Meter Reading (cu. ft)	Volume Used (gals)	Calculated Dosage (mg/L)	Test Results*
Prev.	137677			973.12			
1	137699	22		973.20	0.60	0.55	0.73
2	137728	29		973.35	1.12	0.75	0.64
3	137758	30		973.49	1.05	0.68	0.61
4	137787	29		973.61	0.90	0.61	0.57
5	137817	30		973.75	1.05	0.68	0.54
6	137847	30		973.90	1.12	0.73	0.62
7	137879	32		974.12	1.65	0.98	0.56
8	137906	27		974.27	1.12	0.80	0.77
9	137936	30		974.47	1.50	0.95	0.76
10	137967	31		974.66	1.42	0.88	0.81
11	137983	16		974.76	0.75	0.90	0.78
12	138013	30		974.95	1.42	0.91	0.74
13	138042	29		975.09	1.05	0.71	0.75
14	138072	30		975.32	1.72	1.09	0.71
15	138120	48		975.58	1.94	0.79	0.80
16	138137	17		975.68	0.75	0.85	0.79
17	138173	36		975.91	1.72	0.92	0.71
18	138187	14		975.98	0.52	0.73	0.70
19	138229	42		976.28	2.24	1.02	0.63
20	138275	46		976.55	2.02	0.85	0.80
21	138290	15		976.63	0.60	0.77	0.79
22	138332	42		976.90	2.02	0.92	0.75
23	138353	21		977.00	0.75	0.70	0.72
24	138385	32		977.14	1.05	0.65	0.69
25	138417	32		977.41	2.02	1.19	0.84
26	138452	35		977.63	1.65	0.90	0.76
27	138480	28		977.80	1.27	0.87	0.83
28	138511	31		978.00	1.50	0.92	0.81
29	138530	19		978.10	0.75	0.76	0.78
30	138549	19		978.22	0.90	0.91	0.80
31	138579	30		978.38	1.20	0.77	0.79
Total		902	0		39.34		
Min						0.55	0.54
Max						1.19	0.84
Avg						0.83	0.73
Count Total						31	31
Count within Range						20	31
% within Range						65%	100%

The Department of Health supports water fluoridation as a sound population-based public health measure, and supports communities in their efforts to maintain and fluoridate community water supplies.

Raw Water Data:		
Date of last Sample:	07/18/16	
Lab Result:	0.056	mg/L

Fluoride Additive Data:	
Manufacturer:	Solvay Fluorides, LLC
ANSI- NSF Standard 60 Approved	

Testing and Monitoring:	
*Instrument used in field testing (Make/Model)	
Hach Pocket Colorimeter II	
Method used:	SPADNS

Weekly Instrument Calibration:		
Date	Standard mg/L	Result mg/L
12/04/17	1.00	0.99
12/11/17	1.00	1.01
12/18/17	1.00	1.00
12/26/17	1.00	1.00
Date Split Sample Taken: 12/10/17		
Split Sample Result mg/L:		0.92

Process Interruption(s) (date/time):		
1st Start:		
End:		
2nd Start:		
End:		
3rd Start:		
End:		
4th Start:		
End:		

Explain cause and corrective actions taken for interruption(s) on back of page.

Please send your report to us by the 10th day of the following month.



Fluoridation Monthly Operations Report Form for Sodium Fluoride Saturators

DOH Form 331-496
May 2016

System Name : Manchester Water District

System ID: 50700

FIP No: 05- Wells #5 & #8

Month/Year: December / 2017

Contact Name: Scott Wolf

Phone #: Office (360) 871-0300, Cell (360) 340-7014

The Department of Health supports water fluoridation as a sound population-based public health measure, and supports communities in their efforts to maintain and fluoridate community water supplies.

Raw Water Data:

Date of Last Sample: 03/15/17
Lab Result: Y 0.040 mg/L

Fluoride Additive Data:

Manufacturer: Solvay Fluorides, LLC
ANSI-NSF Standard 60 Approved

Testing and Monitoring:

*Instrument used in field testing (Make/Model)
Hach Pocket Colorimeter II
Method used: SPADNS

Weekly Instrument Calibration:

Date	Standard mg/L	Result mg/L
12/04/17	1.00	0.99
12/11/17	1.00	1.01
12/18/17	1.00	1.00
12/26/17	1.00	1.00

Date Split Sample Taken: 12/10/17

Split Sample Result mg/L: 0.81

Process Interruption(s) (date/time):

1st Start:		
End:		
2nd Start:		
End:		
3rd Start:		
End:		
4th Start:		
End:		

Explain cause and corrective actions taken for interruption(s) on back of page.

Date	Water Production		Fluoride Additive			Monitoring	
	Meter Reading (1000 gals)	Volume Treated (1000 gals)	Added To (lbs)	Meter Reading (cu. ft.)	Volume Used (gals)	Calculated Dosage (mg/L)	Test Results*
Prev.	268347			423.85			
1	268443	96		424.39	4.04	0.80	0.81
2	268558	115		425.02	4.71	0.78	0.77
3	268679	121		425.69	5.01	0.79	0.72
4	268793	114		426.33	4.79	0.80	0.66
5	268858	65		426.67	2.54	0.74	0.65
6	269009	151	50	427.53	6.43	0.81	0.69
7	269134	125		428.16	4.71	0.72	0.72
8	269218	84		428.62	3.44	0.78	0.67
9	269328	110		429.23	4.56	0.79	0.68
10	269464	136		429.98	5.61	0.78	0.73
11	269568	104		430.56	4.34	0.79	0.72
12	269666	98		431.11	4.11	0.80	0.74
13	269771	105		431.70	4.41	0.80	0.71
14	269865	94		432.24	4.04	0.81	0.74
15	270011	146		433.05	6.06	0.79	0.74
16	270105	94		433.59	4.04	0.81	0.80
17	270217	112		434.23	4.79	0.81	0.82
18	270337	120		434.90	5.01	0.79	0.83
19	270452	115		435.55	4.86	0.80	0.70
20	270570	118		436.22	5.01	0.80	0.72
21	270639	69		436.59	2.77	0.76	0.74
22	270779	140		437.33	5.54	0.75	0.70
23	270877	98		437.85	3.89	0.75	0.69
24	271001	124		438.55	5.24	0.80	0.70
25	271130	129		439.33	5.83	0.85	0.73
26	271250	120		440.00	5.01	0.79	0.78
27	271339	89		440.49	3.67	0.78	0.78
28	271448	109		441.10	4.56	0.79	0.77
29	271565	117		441.75	4.86	0.79	0.73
30	271687	122		442.43	5.09	0.79	0.76
31	271807	120		443.10	5.01	0.79	0.75
Total		3460	50		144		
Min						0.72	0.65
Max						0.85	0.83
Avg						0.79	0.73
Count Total						31	31
Count within Range						31	31
Percent within Range						100%	100%

Certified Operator Signature:

Date:

This and other publications are available at: <http://www.doh.wa.gov/drinkwater>

Fluoridation Monthly Operations Report - Supplemental Form

Explain cause and corrective actions taken for each interruption/overfeed.

(Use this page to the report if these occurred during the month. Add additional pages, if needed.)

System Name : Manchester Water District

System ID: 50700

FIP No: 05- Wells #5 & #8

Month/Year: November 2017

Contact Name: Scott Wolf

Phone #: Office (360) 871-0500, Call (360) 340-7014

[illegible]

Certified Officer Signature:

Date:

(Use additional pages, if needed.)

Please send report to: Fluoride@doh.wa.gov (preferred) OR PO BOX 47822, Olympia, WA 98504-7822 OR Fax: 360-236-2252

System Name : Manchester Water District

System ID: 50700

FIP No: 06- Wells #6 & #7

Month/Year: December / 2017

Contact Name: _____ **Scott Wolf**

Phone #: Office (360) 871-0500, Cell (360) 340-5317

	Water Production		Fluoride Additive			Monitoring	
Date	Meter Reading	Volume Treated	Added To	Meter Reading	Volume Used	Calculated Dosage	Test Results*
	(1,000 gals)	(1,000 gals)	(lbs)	(cu. ft.)	(gals)	(mg/L)	(mg/L)
Prev.	96797			303.34			
1	96956	159		304.13	5.91	0.73	0.74
2	97080	124		304.74	4.56	0.72	0.75
3	97319	239		305.97	9.20	0.75	0.65
4	97522	203		306.99	7.63	0.74	0.61
5	97681	159		307.81	6.13	0.75	0.62
6	97863	182	100	308.30	3.67	0.42	0.58
7	98023	160		309.47	8.75	1.04	0.57
8	98144	121		310.08	4.56	0.74	0.70
9	98361	217		311.18	8.23	0.74	0.72
10	98597	236		312.40	9.13	0.76	0.71
11	98748	151		313.16	5.68	0.74	0.72
12	98911	163		313.96	5.98	0.72	0.69
13	99097	186		332.07	135.46	13.17	0.71
14	99106	9		332.11	0.30	0.66	0.74
15	99408	302		333.65	11.52	0.75	0.72
16	99555	147		334.41	5.68	0.76	0.76
17	99754	199		335.43	7.63	0.75	0.81
18	99950	196		336.44	7.55	0.75	0.77
19	100106	156		337.30	6.43	0.80	0.71
20	100193	87		337.63	2.47	0.57	0.78
21	100346	153		338.44	6.06	0.77	0.77
22	100609	263		339.77	9.95	0.74	0.75
23	100732	123		340.33	4.19	0.67	0.72
24	100988	256		341.66	9.95	0.76	0.69
25	101154	166		342.53	6.51	0.77	0.70
26	101362	208		343.57	7.78	0.73	0.77
27	101522	160		344.42	6.36	0.78	0.73
28	101689	167		345.27	6.36	0.75	0.75
29	101883	194		346.24	7.26	0.73	0.70
30	102039	156		347.06	6.13	0.77	0.71
31	102260	221		348.15	8.15	0.72	0.77
Total		5242	100		327		
Min						0.42	0.57
Max						13.17	0.81
Avg						1.14	0.71
Count Total						31	31
Count within Range						28	31
% within Range						90%	100%

The Department of Health supports water fluoridation as a sound population-based public health measure, and supports communities in their efforts to maintain and fluoridate community water supplies.

Raw Water Data:

Date of Last Sample: 03/15/17

Lab Result	Y	0.060	mg/L
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Fluoride Additive Data:

Manufacturer: Solvay Fluorides, LLC

ANSI-NSF Standard 60 Approved

Testing and Monitoring:

*Instrument used in field testing (Make/Model)

Hach Pocket Colorimeter II

Method used: SPADNS

Weekly Instrument Calibration:

Date	Standard mg/L	Result mg/L
12/04/17	1.00	0.99
12/11/17	1.00	1.01
12/18/17	1.00	1.00
12/26/17	1.00	1.00

Date Split Sample Taken:	12/10/17
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Split Sample Result mg/L:	0.80
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Process Interruption(s) (date/time):

1st Start:	12/14/17	1:00:00 PM
End:	12/15/17	9:00:00 AM
2nd Start:		
End:		
3rd Start:		
End:		
4th Start:		
End:		

Explain cause and corrective actions taken for interruption(s) on back of page.

Please send report to: Fluoride@doh.wa.gov (preferred) OR PO BOX 47822, Olympia, WA 98504-7822 OR Fax: 360-236-2252



Fluoridation Monthly Operations Report Form

DOH Form 331-496
May 2016

for Sodium Fluoride Saturators

System Name: Manchester Water District

System ID: 50700

FIP No: 11- Well #11

Month/Year: December / 2017

Contact Name: Scott Wolf

Phone #: Office (360) 871-0500, Cell (360) 340-5317

Date	Water Production		Fluoride Additive			Monitoring	
	Meter Reading (1000 gals)	Volume Treated (1000 gals)	Added To (lbs)	Meter Reading (cu. ft.)	Volume Used (gals)	Calculated Dosage (mg/L)	Test Results*
Prev.	153744			241.80			
1	153775	31		241.95	1.12	0.69	0.69
2	153800	25		242.08	0.97	0.74	0.72
3	153843	43		242.29	1.57	0.70	0.60
4	153865	22		242.39	0.75	0.65	0.61
5	153899	34		242.55	1.20	0.67	0.55
6	153931	32		242.69	1.05	0.63	0.64
7	153963	32		242.89	1.50	0.88	0.62
8	153989	26		243.02	0.97	0.71	0.69
9	154026	37		243.22	1.50	0.77	0.71
10	154063	37		243.42	1.50	0.77	0.67
11	154091	28		243.56	1.05	0.71	0.63
12	154120	29		243.70	1.05	0.69	0.69
13	154157	37		243.91	1.57	0.80	0.69
14	154263	106		244.34	3.22	0.59	0.72
15	154292	29		244.63	2.17	1.39	0.73
16	154320	28		244.78	1.12	0.76	0.72
17	154362	42		244.99	1.57	0.71	0.81
18	154397	35		245.18	1.42	0.77	0.71
19	154450	53		245.44	1.94	0.70	0.67
20	154534	84		245.88	3.29	0.75	0.71
21	154565	31		246.06	1.35	0.82	0.72
22	154617	52		246.33	2.02	0.74	0.71
23	154640	23		246.45	0.90	0.74	0.69
24	154688	48		246.66	1.57	0.63	0.68
25	154719	31		246.84	1.35	0.82	0.76
26	154757	38		247.03	1.42	0.71	0.71
27	154792	35		247.22	1.42	0.77	0.72
28	154834	42		247.44	1.65	0.75	0.76
29	154870	36		247.60	1.20	0.64	0.70
30	154901	31		247.76	1.20	0.73	0.66
31	106078	-48823		247.95	1.42	0.04	0.65
Total		-47666	0		46		
Min						0.04	0.55
Max						1.39	0.81
Avg						0.73	0.69
Count Total						31	31
Count within Range						29	31
Percent within Range						94%	100%

The Department of Health supports water fluoridation as a sound population-based public health measure, and supports communities in their efforts to maintain and fluoridate community water supplies.

Raw Water Data:

Date of 1st Sample: 03/15/17
Lab Result: 0.040 mg/L

Fluoride Additive Data:

Manufacturer: Solvay Fluorides, LLC
ANSI-NSF Standard 60 Approved

Testing and Monitoring:

*Instrument used in field testing (Make/Model):
Hach Pocket Colorimeter II
Method used: SPADNS

Weekly Instrument Calibration:

Date	Standard mg/L	Result mg/L
12/04/17	1.00	0.99
12/11/17	1.00	1.01
12/18/17	1.00	1.00
12/26/17	1.00	1.00

Date Split Sample Taken:	12/10/17
Split Sample Result mg/L:	0.77

Process Interruption(s) (date/time):

1st Start:		
End:		
2nd Start:		
End:		
3rd Start:		
End:		
4th Start:		
End:		

Explain cause and corrective actions taken for interruption(s) on back of page.

Please send your report to us by the 10th day of the following month.

Certified Operator Signature: Scott Wolf

Date: 10/11/17



Fluoridation Monthly Operations Report Form

DOH Form 931-496
May 2016

for Sodium Fluoride Saturators

System Name : Manchester Water District

System ID: 50700

FIP No: 01- Well #1

Month/Year: December / 2017

Contact Name: Scott Wolf

Phone #: (360) 871-0500

	Water Production		Fluoride Additive			Monitoring	
Date	Meter Reading	Volume Treated	Added To	Meter Reading	Volume Used	Calculated Dosage	Test Results*
	(1000 gals)	(1000 gals)		(lbs)			
Prev.	102690			932.81			
1	102796	106		933.44	4.71	0.86	0.72
2	102901	105		933.89	3.37	0.63	0.74
3	103008	107		934.46	4.26	0.77	0.68
4	103102	94		934.82	2.69	0.57	0.64
5	103210	108		935.44	4.64	0.83	0.66
6	103317	107	50	935.89	3.37	0.62	0.65
7	103426	109		936.15	1.94	0.38	0.59
8	103534	108		936.63	3.59	0.65	0.65
9	103644	110		937.18	4.11	0.73	0.71
10	103812	168		937.96	5.83	0.68	0.69
11	103882	70		938.36	2.99	0.83	0.68
12	103989	107		938.50	1.05	0.23	0.70
13	104094	105		939.50	7.48	1.34	0.72
14	104201	107		939.50	0.00	0.06	0.72
15	104366	165		940.50	7.48	0.87	0.68
16	104434	68		940.57	0.52	0.19	0.74
17	104540	106		941.50	6.96	1.24	0.77
18	104614	74		941.72	1.65	0.46	0.75
19	104747	133		942.00	2.09	0.34	0.61
20	104906	159		943.14	8.53	1.02	0.67
21	104961	55		943.51	2.77	0.96	0.75
22	105104	143		944.22	5.31	0.72	0.71
23	105185	81		944.70	3.59	0.85	0.70
24	105299	114		945.22	3.89	0.67	0.69
25	105410	111		945.50	2.09	0.40	0.78
26	105523	113		946.50	7.48	1.25	0.78
27	105637	114		947.50	7.48	1.24	0.75
28	105747	110		947.50	0.00	0.06	0.67
29	105890	143		14.00	0.00	0.06	0.67
30	105974	84		14.46	3.44	0.79	0.68
31	106078	104		14.95	3.67	0.69	0.65
Total		3388	50		116.99		
Min						0.06	0.59
Max						1.34	0.78
Avg						0.68	0.70
Count Total						31	31
Count within Range						16	31
% within Range						52%	100%

The Department of Health supports water fluoridation as a sound population-based public health measure, and supports communities in their efforts to maintain and fluoridate community water supplies.

Raw Water Data:

Date of Last Sample: 07/18/16

Lab Result: 0.056 mg/L

Fluoride Additive Data:

Manufacturer: Solvay Fluorides, LLC

ANSI-NSF Standard 60 Approved ☒

Testing and Monitoring:

*Instrument used in field testing (Make/Model)

Hach Pocket Colorimeter II

Method used: SPADNS

Weekly Instrument Calibration:

Date	Standard mg/L	Result mg/L
12/04/17	1.00	0.99
12/11/17	1.00	1.01
12/18/17	1.00	1.00
12/26/17	1.00	1.00

Date Split Sample Taken: 12/10/17

Split Sample Result mg/L: 0.76

Process Interruption(s) (date/time):

1st Start:		
End:		
2nd Start:		
End:		
3rd Start:		
End:		
4th Start:		
End:		

Explain cause and corrective actions taken for interruption(s) on back of page.

Please send your report to us by the 10th day of the following month.



SOURCE DISINFECTION TREATMENT PLANT REPORT FORM

Water System Name Manchester Water District		Month/Year December / 2017	
County Kitsap	ID# 597002	Report submitted by Scott Wolf	
Treatment Plant # 50700086	Source(s)# 11	Operator Certificate# 8147	
Requirements:		Telephone #	Signature: <i>Scott Wolf</i>
Maximum flow rate: 70 gpm		360-340-5317	
Cl2 Residual: 0.2 mg/L in distribution			
Monitoring required: 5 days per week			

Date	Water Production Gallons or ft ³	Chlorine Solution Used		Treated Water Quality				
	Source Meter Reading	Tank Level (inches)	Volume Used (inches)	Cl ₂ Residual or Entry (mg/L)	Distribution Cl ₂ Residual (mg/L)	Distribution Sample Location	Troubleshooting Notes Also record additional residual readings following a low or zero residual reading	Sample Result
10/11	153744000							
1	153,775,000	14.00	0.25	0.72	0.30	3166 Alaska		DH
2	153,800,000	13.75	0.26	0.72	0.36	2334 Yukon Harbor		JL
3	153,843,000	13.25	0.50	0.64	0.36	2282 California		JL
4	153,865,000	13.00	0.25	0.63	0.74	7433 Mile Hill		JL
5	153,899,000	12.75	0.25	0.82	0.38	3166 Alaska		KR
6	153,931,000	12.50	0.25	0.76	0.47	2334 Yukon Harbor		KR
7	153,963,000	12.25	0.25	0.88	0.75	2282 California		DH
8	153,999,000	12.00	0.25	0.77	0.70	7433 Mile Hill		DH
9	154,026,000	11.50	0.50	0.80	0.46	3166 Alaska		DH
10	154,063,000	11.00	0.50	0.82	0.44	2334 Yukon Harbor		DH
11	154,091,000	11.00	0.00	0.88	0.74	2282 California		JL
12	154,120,000	10.50	0.80	0.71	0.68	7433 Mile Hill		KR
13	154,157,000	10.25	0.25	0.81	0.38	3166 Alaska		KR
14	154,203,000	9.50	0.75	0.81	0.46	2334 Yukon Harbor		BW
15	154,292,000	8.75	0.75	0.81	0.81	2282 California		KR
16	154,320,000	8.50	0.25	0.82	0.82	7433 Mile Hill		BW
17	154,362,000	8.25	0.25	0.85	0.52	3166 Alaska		BW
18	154,397,000	7.75	0.50	0.80	0.38	2334 Yukon Harbor		BW
19	154,450,000	7.25	0.50	0.84	0.73	2282 California		BW
20	154,534,000	12.75	1.00	0.86	0.46	7433 Mile Hill	Added Cl ₂ now @ 13.75	DH
21	154,566,000	12.50	0.25	0.70	0.71	3166 Alaska		DH
22	154,617,000	12.00	0.80	0.66	0.40	2334 Yukon Harbor		KR
23	154,646,000	11.75	0.25	0.79	0.62	2282 California		SW
24	154,666,000	11.50	0.25	0.69	0.55	7433 Mile Hill		SW
25	154,719,000	11.00	0.50	0.85	0.57	3166 Alaska		SW
26	154,757,000	10.50	0.50	0.75	0.44	2334 Yukon Harbor		DH
27	154,792,000	10.25	0.25	0.20	0.69	2282 California	Cl ₂ pump leaking, turned pump off	BW
28	154,834,000	9.75	0.50	0.50	0.26	7433 Mile Hill		BW
29	154,876,000	9.50	0.25	0.57	0.25	3166 Alaska		DH
30	154,901,000	9.25	0.25	0.92	0.58	2334 Yukon Harbor		DH
31	154,941,000	9.00	0.25	0.85	0.25	2282 California		DH
Total	1,157,000			31	31	← Total number of measurements collected		
Max				1.0	0.8			
Min				0.20	0.3			

Send report by the 10th of the following month to your Regional Office. See instructions page.

Water Treatment Summary (completed by the operator)

Number of days treatment plant produced water:	31
Number of days entry point free chlorine residual fell below minimum residual:	0
Number of days distribution free chlorine residual fell below minimum residual:	0



SOURCE DISINFECTION TREATMENT PLANT REPORT FORM

Water System Name Manchester Water District		Month/Year December / 2017	
County Kitsap	ID# 507002	Report submitted by Scott Wolf	
Treatment Plant # 50700005	Source(s)# 01	Operator Certificate# 8147	
Requirements:		Telephone # 360-340-5317	
Maximum flow rate: 250 gpm		Signature:	
Cl2 Residual: 0.2 mg/L in distribution			
Monitoring required: 5 days per week			

Date	Water Production Gallons or ft ³	Chlorine Solution Used		Treated Water Quality				
	Source Meter Reading	Tank Level (Inches)	Volume Used (Inches)	Cl ₂ Residual w/ Entry (mg/L)	Distribution Cl ₂ Residual (mg/L)	Distribution Sample Location	Troubleshooting Notes Also record additional residual readings following a low or zero residual reading	Sampler Initial
30/31	102890800							
1	102,796,000	10.00	0.75	0.55	0.30	3166 Alaska		DH
2	102,801,000	9.25	0.75	0.60	0.36	2334 Yukon Harbor		JL
3	103,008,000	8.50	0.76	0.56	0.36	2282 California		JL
4	103,102,000	8.00	0.50	0.63	0.74	7433 Mile Hill		JL
5	103,210,000	7.25	0.75	0.61	0.38	3166 Alaska		KR
6	103,317,000	6.50	0.75	0.67	0.47	2334 Yukon Harbor		KR
7	103,426,000	12.25	0.25	0.56	0.75	2282 California	Added Cl2 12.5	DH
8	103,534,000	11.50	0.75	0.62	0.70	7433 Mile Hill		DH
9	103,644,000	10.75	0.75	0.66	0.46	3166 Alaska		DH
10	103,812,000	8.50	1.25	0.63	0.44	2334 Yukon Harbor		DH
11	103,882,000	9.25	0.25	0.56	0.74	2282 California		JL
12	103,989,000	8.50	0.75	0.56	0.68	7433 Mile Hill		KR
13	104,084,000	7.75	0.75	0.56	0.38	3166 Alaska		KR
14	104,201,000	7.00	0.75	0.61	0.46	2334 Yukon Harbor		BW
15	104,366,000	6.00	1.00	0.63	0.61	2282 California		KR
16	104,434,000	5.50	0.50	0.52	0.62	7433 Mile Hill		BW
17	104,540,000	4.75	0.75	0.61	0.52	3166 Alaska		BW
18	104,614,000	4.25	0.50	0.78	0.38	2334 Yukon Harbor	Added Cl2 10.25"	BW
19	104,747,000	9.50	0.75	0.60	0.73	2282 California		BW
20	104,806,000	8.25	1.25	0.56	0.46	7433 Mile Hill		DH
21	104,961,000	8.00	0.25	0.52	0.71	3166 Alaska		DH
22	105,104,000	6.75	1.25	0.60	0.40	2334 Yukon Harbor		KR
23	105,185,000	6.00	0.75	0.62	0.62	2282 California		SW
24	105,286,000	5.50	0.50	0.59	0.55	7433 Mile Hill		SW
25	105,410,000	4.50	1.00	0.61	0.57	3166 Alaska		SW
26	105,523,000	16.50	1.00	0.49	0.44	2334 Yukon Harbor	Added Cl2 17.5	DH
27	105,637,000	15.75	0.75	0.56	0.69	2282 California		BW
28	105,747,000	15.25	0.50	0.50	0.26	7433 Mile Hill		BW
29	105,860,000	14.25	1.00	0.45	0.26	3166 Alaska		DH
30	105,974,000	13.25	1.00	0.67	0.58	2334 Yukon Harbor		DH
31	106,078,000	13.00	0.25	0.51	0.25	2282 California		DH
Total	3,388,000			31	31	← Total number of measurements collected		
Max				0.8	0.8			
Min				0.5	0.5			

Send report by the 10th of the following month to your Regional Office. See instructions page.

Water Treatment Summary (completed by the operator)

Number of days treatment plant produced water:	31
Number of days entry point free chlorine residual fell below minimum residual:	0
Number of days distribution free chlorine residual fell below minimum residual:	0



SOURCE DISINFECTION TREATMENT PLANT REPORT FORM

Water System Name Manchester Water District			Month/Year December 2017	
County Kitsap	ID# 507002	Report submitted by Scott Wolf		
Treatment Plant # 80700002	Source(s)# 13	Operator Certificate# 6147		
Requirements:		Telephone # 360-340-5317		
Maximum flow rate: 320 gpm		Signature: 		
Cl2 Residual: 0.2 mg/L in distribution				
Monitoring required: 5 days per week				

Date	Water Production Gallons or ft ³	Chlorine Solution Used		Treated Water Quality				
	Source Meter Reading	Trunk Line (Inches)	Volume Used (Inches)	Cl ₂ Residual at Entry (mg/L)	Distribution Cl ₂ Residual (mg/L)	Distribution Sample Location	Troubleshooting Notes Also record additional residual readings following a low or zero residual reading	Sampler Initial
10/11	26847000							
1	268,443,000	10.00	0.50	0.65	0.39	4031 Stohilton		DH
2	268,558,000	9.50	0.50	0.45	0.48	11150 Tola		JL
3	268,679,000	9.00	0.50	0.37	0.48	10566 Sedgwick		JL
4	268,793,000	8.25	0.75	0.42	0.37	3451 Nokomis		JL
5	268,858,000	8.00	0.25	0.36	0.39	4031 Stohilton		KR
6	268,008,000	7.50	0.50	0.36	0.35	11150 Tola		KR
7	269,134,000	13.00	0.50	0.45	0.49	10566 Sedgwick	ADDED Cl2 13.5	DH
8	269,218,000	12.50	0.50	0.41	0.36	3451 Nokomis		DH
9	269,328,000	12.00	0.50	0.40	0.44	4031 Stohilton		DH
10	269,484,000	11.00	1.00	0.43	0.41	11150 Tola		DH
11	269,588,000	10.50	0.50	0.48	0.41	10566 Sedgwick		JL
12	269,688,000	10.00	0.50	0.38	0.44	3451 Nokomis		KR
13	269,771,000	9.50	0.50	0.46	0.34	4031 Stohilton		KR
14	269,885,000	9.00	0.50	0.40	0.37	11150 Tola		BW
15	270,011,000	8.00	1.00	0.40	0.40	10566 Sedgwick		BW
16	270,105,000	7.50	0.50	0.39	0.48	3451 Nokomis		BW
17	270,217,000	7.00	0.50	0.36	0.35	4031 Stohilton	ADDED Cl2 12.5"	BW
18	270,337,000	11.75	0.75	0.49	0.45	11150 Tola		BW
19	270,432,000	11.00	0.75	0.39	0.47	10566 Sedgwick		BW
20	270,570,000	17.00	0.75	0.44	0.42	3451 Nokomis	Added Cl2 now @ 17.75	DH
21	270,639,000	16.75	0.25	0.48	0.39	4031 Stohilton		DH
22	270,779,000	16.00	0.75	0.45	0.47	11150 Tola		JL
23	270,877,000	15.50	0.50	0.36	0.46	10566 Sedgwick		SW
24	271,001,000	14.75	0.75	0.36	0.40	3451 Nokomis		SW
25	271,130,000	14.25	0.50	0.39	0.38	4031 Stohilton		SW
26	271,250,000	13.75	0.50	0.42	0.44	11150 Tola		DH
27	271,339,000	13.25	0.50	0.42	0.43	10566 Sedgwick		BW
28	271,448,000	12.50	0.75	0.38	0.44	3451 Nokomis		BW
29	271,565,000	12.00	0.50	0.38	0.41	4031 Stohilton		DH
30	271,667,000	11.25	0.75	0.45	0.46	11150 Tola		DH
31	271,807,000	10.50	0.75	0.45	0.47	10566 Sedgwick		DH
Total	3,364,000			31	31	← Total number of measurements collected		
Max				0.7	0.5			
Min				0.4	0.3			

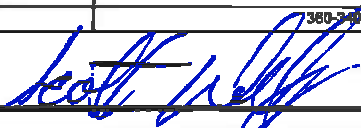
Send report by the 10th of the following month to your Regional Office. See instructions page.

Water Treatment Summary (completed by the operator)

Number of days treatment plant produced water:	31
Number of days entry point free chlorine residual fell below minimum residual:	0
Number of days distribution free chlorine residual fell below minimum residual:	0



SOURCE DISINFECTION TREATMENT PLANT REPORT FORM

Water System Name		Manchester Water District		Month/Year	December / 2017
County	Ketchikan	ID#	807002	Report submitted by	Scott Wolf
Treatment Plant #	8070003	Source(s)#	14	Operator Certificate#	8147
Requirements:			Telephone #	360-245-6317	
Maximum flow rate:			600 gpm		
C12 Residual:			0.2 mg/L in distribution		
Monitoring required:			5 days per week		
					

Date	Water Production Gallons	Chlorine Solution Used		Treated Water Quality					Sampler Initial
		Residual Meter Reading	Residual Level (inches)	Volume Used (inches)	C12 Residual (p Entry (mg/L))	Distribution C12 Residual (mg/L)	Distribution Sample Location	Monitoring Notes Also record additional residual readings (below avg or zero residual reading)	
10/31	9677000								
1	96,858,000	30.25	1.75	1.20	0.30	3185 Alaska			DH
2	97,080,000	28.00	1.25	1.34	0.36	2334 Yukon Harbor			JL
3	97,319,000	26.75	2.25	1.33	0.36	2282 California		filled to 66.0"	JL
4	97,522,000	27.00	2.00	1.40	0.74	7433 Mile Hill			JL
5	97,661,000	25.25	1.75	0.74	0.38	3185 Alaska			KR
6	97,883,000	23.50	1.75	0.66	0.47	2334 Yukon Harbor			KR
7	98,023,000	21.75	1.75	0.74	0.75	2282 California			DH
8	98,144,000	20.50	1.25	0.58	0.70	7433 Mile Hill			DH
9	98,381,000	18.50	2.00	0.96	0.45	3185 Alaska			DH
10	98,597,000	16.50	2.50	0.79	0.44	2334 Yukon Harbor			DH
11	98,748,000	14.50	1.50	0.71	0.74	2282 California			JL
12	98,911,000	12.75	1.75	1.42	0.66	7433 Mile Hill			KR
13	99,067,000	11.00	0.75	0.78	0.38	3185 Alaska			KR
14	99,108,000	11.00	0.00	0.94	0.46	2334 Yukon Harbor			BW
15	99,405,000	47.75	3.25	0.96	0.81	2282 California			KR
16	99,555,000	46.50	1.25	0.69	0.82	7433 Mile Hill			BW
17	99,754,000	44.25	2.25	1.85	0.82	3185 Alaska		filled carboy now @ 43.25"	BW
18	99,950,000	41.25	2.00	0.88	0.35	2334 Yukon Harbor			BW
19	100,105,000	39.75	1.50	0.56	0.73	2282 California			BW
20	100,193,000	34.00	0.75	0.45	0.46	7433 Mile Hill		Filed Car Boys now @ 34.75	DH
21	100,348,000	32.50	2.00	0.15	0.71	3185 Alaska			DH
22	100,608,000	29.50	2.50	0.38	0.40	2334 Yukon Harbor			KR
23	100,732,000	28.50	1.50	0.34	0.82	2282 California			SW
24	100,858,000	25.00	3.00	1.60	0.85	7433 Mile Hill			SW
25	101,154,000	22.00	3.00	0.34	0.37	3185 Alaska			SW
26	101,382,000	20.00	2.00	0.84	0.44	2334 Yukon Harbor			DH
27	101,522,000	20.50	1.50	0.95	0.88	2282 California			BW
28	101,689,000	18.00	2.50	0.50	0.88	7433 Mile Hill			BW
29	101,883,000	15.50	2.50	0.45	0.25	3185 Alaska			DH
30	102,038,000	13.50	2.00	0.20	0.38	2334 Yukon Harbor			DH
31	102,280,000	11.50	2.00	0.59	0.25	2282 California			DH
Total	5,242,000			31	31	← Total number of measurements collected			
Max				1.7	0.8				
Min				0.2	0.3				

Send report by the 15th of the following month to your Regional Office. See instructions page.	Water Treatment Summary (completed by the operator)	
	Number of days treatment plant produced water:	30
	Number of days entry point free chlorine residual fell below minimum residual:	0
	Number of days distribution free chlorine residual fell below minimum residual:	0



SOURCE DISINFECTION TREATMENT PLANT REPORT FORM

Water System Name Manchester Water District		Month/Year December / 2017	
County Kitsap	ID# 507902	Report submitted by Scott Wolf	
Treatment Plant # 50790005	Source(s)# 02	Operator Certificate# 5147	
Requirements:		Telephone # 360-540-5317	
Maximum flow rate: 180 gpm		Signature:	
Cl2 Residual: 0.2 mg/L in distribution			
Monitoring required: 5 days per week			

Date	Water Production Gallons or ft ³	Chlorine Solution Used		Treated Water Quality				
	Source Water Reading	Fack Level (inches)	Volume Used (inches)	Cl ₂ Residual in Entry (mg/L)	Distribution Cl ₂ Residual (mg/L)	Distribution Sample Location	Trickling/filtering flow Also record additional residual readings following a low or zero residual reading	Sample Initial
30-31	137,770,000							
1	137,698,000	10.00	0.25	0.13	0.86	3166 Alaska		DH
2	137,728,000	10.00	0.00	0.43	0.36	2334 Yukon Harbor		JL
3	137,758,000	9.75	0.25	0.45	0.36	2282 California		JL
4	137,787,000	9.50	0.25	0.45	0.74	7433 Mile Hill		JL
5	137,817,000	9.50	0.00	0.40	0.38	3166 Alaska		KR
6	137,847,000	9.25	0.25	0.48	0.47	2334 Yukon Harbor		KR
7	137,879,000	9.00	0.25	0.43	0.75	2282 California		DH
8	137,906,000	9.00	0.00	0.44	0.70	7433 Mile Hill		DH
9	137,936,000	9.00	0.00	0.45	0.45	3166 Alaska		DH
10	137,967,000	8.50	0.50	0.42	0.44	2334 Yukon Harbor		DH
11	137,993,000	8.50	0.00	0.42	0.74	2282 California		JL
12	138,013,000	8.00	0.50	0.47	0.68	7433 Mile Hill		KR
13	138,042,000	8.00	0.00	0.54	0.38	3166 Alaska		KR
14	138,072,000	7.75	0.25	0.37	0.46	2334 Yukon Harbor		BW
15	138,120,000	7.50	0.25	0.41	0.81	2282 California		KR
16	138,137,000	7.50	0.00	0.40	0.82	7433 Mile Hill		BW
17	138,173,000	7.25	0.25	0.48	0.52	3166 Alaska	ADDED CL2 13.5"	BW
18	138,187,000	13.50	0.00	0.51	0.38	2334 Yukon Harbor		BW
19	138,229,000	13.00	0.50	0.42	0.73	2282 California		BW
20	138,275,000	12.75	0.25	0.50	0.40	7433 Mile Hill		DH
21	138,290,000	12.50	0.25	0.47	0.71	3166 Alaska		DH
22	138,332,000	12.25	0.25	0.49	0.40	2334 Yukon Harbor		KR
23	138,353,000	12.00	0.25	0.47	0.62	2282 California		SW
24	138,385,000	12.00	0.00	0.48	0.55	7433 Mile Hill		SW
25	138,417,000	12.00	0.00	0.41	0.57	3166 Alaska		SW
26	138,452,000	11.75	0.25	0.44	0.44	2334 Yukon Harbor		DH
27	138,480,000	11.50	0.25	0.58	0.69	2282 California		BW
28	138,511,000	11.25	0.25	0.42	0.26	7433 Mile Hill		BW
29	138,530,000	11.25	0.00	0.45	0.25	3166 Alaska		DH
30	138,549,000	11.25	0.00	0.46	0.58	2334 Yukon Harbor		DH
31	138,579,000	11.00	0.25	0.46	0.25	2282 California		DH
Total	902,000			31	31	← Total number of measurements collected		
Max				0.6	0.9			
Min				0.1	0.3			

Send report by the 10th of the following month to your Regional Office. See instructions page.	Water Treatment Summary (completed by the operator)	
	Number of days treatment plant produced water:	31
	Number of days entry point free chlorine residual fell below minimum residual:	1
	Number of days distribution free chlorine residual fell below minimum residual:	0

Appendix O

Agency Review Correspondence

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July 19, 2019

Scott Wolf
Post Office Box 98
Manchester Washington 98353

Subject: Manchester Water District, ID #507002, Kitsap County; Water System Plan, ODW Project #19-0410

Dear Scott Wolf:

On April 24, 2019, the Office of Drinking Water (ODW) received a Water System Plan (WSP) for Manchester Water District (District). We are requesting additional clarification on the following submitted items. Please address the comments below:

GENERAL

1. **The Washington Water/Wastewater Agency Response Network (WAWARN) is designed to provide a utility-to-utility response during an emergency. If you are not yet a member, please consider becoming one. The Federal Emergency Management Agency (FEMA) states that prior to any reimbursement, they will ask for mutual aid documentation. Becoming a WAWARN member demonstrates both managerial and financial capacity and satisfies this FEMA requirement.**
2. **Throughout this document, data from 2015 and earlier is used, without any more recent data being integrated into the analyses. Please update to integrate newer data or provide valid explanation as to why old data is being relied on.**
3. **The cover letter dated April 1, 2019, states that a copy of this WSP, along with the Local Government Consistency (LGC) checklist, has been provided to Kitsap County Department of Community Development for a consistency review. Please provide the completed LGC checklist.**
4. **Prior to ODW approval, a meeting of the consumer and approval by the board must occur. Please provide signed copies of the minutes and agenda of the meeting or meetings when these occurred.**

CHAPTER 2 - WATER SYSTEM DESCRIPTION

5. **Page 2-3, Satellite System Management. This section states that the District is a Satellite Management Agency (SMA). In order to be an SMA, ODW requires that an SMA plan be submitted for review and approval every five years. I have attached a handout titled "SMA Checklist for Ownership." If you would like this WSP to fulfill the SMA plan requirements please either include the information requested from the attached handout in an appendix, or direct me to where each element has already been addressed in the existing plan.**

6. Page 2-4, Supply Facilities. The water system is supplied by ten wells, not 11 wells. Well 3 no longer counts as a supply source. **Please revise.**
7. Page 2-4, Supply Facilities. Manchester is required to disinfect their entire distribution due to Total Coliform violations. Also, by disinfecting most of their wells, the water system is required to monitor disinfection residual concentration in all parts of the distribution, not just the southern pressure zones. With the adoption of the Group A WAC changes in January 2017, detectable residual disinfectant concentration has been defined and must be at least 0.2 milligrams per liter (mg/L). **Please revise throughout the report and appendices.**
8. Page 2-5, Supply Facilities. Manchester currently monitors disinfection residuals throughout their water system – South 277 Zone, South 430 Zone, North 277 Zone, and North 430 Zone. **Please revise.**
9. Page 2-5, Supply Facilities, Wells 1 and 2 Well Field. Wells 1 and 2 no longer create a wellfield. **Please revise throughout the WSP and appendices.**
10. Page 2-5, Supply Facilities, Wells 1 and 2 Well Field. **Provide the source numbers for each source. Please repeat for all the other source paragraphs.**
11. Page 2-6, Supply Facilities, Well 3. Please note this well should be decommissioned or used as a monitoring well.
12. Figure 2-1, Existing Water System & Figure 2-3, Service Area and Adjacent Systems. The future service areas in these maps do not match. It appears that Manchester State Park is being served by the District and is not its own independent water system. If this is the case, it should be within the District's retail service area. **Please update maps.**
13. Figure 2-1, Existing Water System. **Please revise the pressure zone designation for the line serving the state park.**
14. Figure 2-3, Service Area and Adjacent Systems. This map has a service area, future service area, and existing service area. Municipal Water Suppliers are required to clearly define where their retail service area is. This is the area where the water system has the duty to serve and should represent where the city wants to serve within this planning cycle. **Please update this map to clearly define the required service areas: retail service area, future service area, and service area.** The service area identified in this WSP service area map may now represent the "place of use" for this system's water rights.

CHAPTER 3 – LAND USE AND POPULATION

15. Figure 3-1, Land Use. I am unable to determine the Rural Village Boundary on this map. **Please provide one map with service areas and another map with land uses so that every boundary is distinguishable.**

CHAPTER 4 – WATER DEMANDS

16. Page 4-1, Certificate of Water Availability. This section references a handbook titled *Guidelines for Determining Water Availability for New Buildings*. This is an obsolete guidance and has been replaced by Publication #331-597 *Guidance for Local Government: Physical and Potable Water Availability*. 
17. Page 4-10, Table 4-7, Distribution System Leakage Breakdown. **Please explain why sewer and storm drainage flushing drastically increased in 2015.**

18. Page 4-10, Table 4-6 and Table 4-7. The total non-revenue authorized water consumption for years 2010 and 2013 in Table 4-7 does not agree with the other authorized consumption in Table 4-6 for these years. **Please clarify.**
19. Page 4-11, Equivalent Residential Units (ERU). The average day demand (ADD) per ERU of 169 is not used in the forecasting. Calculations and hydraulic model use 168 for forecasted ADD. **Please clarify.**
20. Page 4-13, Table 4-9, Peak Day Demands and Peaking Factors. **Please provide the footnotes indicated by the numbers in the table.**

CHAPTER 5 – POLICIES AND DESIGN CRITERIA

21. Page 5-2, Fire Flow. **Please provide documentation from the Kitsap County Fire Marshall stating that the District meets the County's fire flow and fire storage requirements.**
- ~~22.~~ Page 5-3, Regional Participation. This section states that the District will supply all customers within the water service area. Municipal water suppliers have a duty to serve all new customers within their retail service area except when it cannot meet the four threshold criteria. **Please provide the policies surrounding how the District fulfills their duty to serve.** I have included Publication #331-366, *Duty to Provide Service Requirement* for your information. Many of your Customer Service Policies realistically could be used to fulfill these requirements.
23. Page 5-4, Water Service and Connection. This section states that individual wells may be installed on existing platted lots within the District's service area if the District cannot provide a direct connection. **Does the District have any policies requiring connection to the District once a water line extends to their location or direct connection becomes feasible?**
- ~~24.~~ ^{24.} Page 5-5, Satellite System Management. This section states that the District will consider providing SMA services within the District's water service area. Is this "service area" referring to the District's SMA service area or the water system's future service area?
25. Page 5-9, Maintenance. This section is traditionally addressed in the policies of an asset management program. An asset management program can be implemented in various ways, but they all include an asset inventory addressing the installation date, life expectancy, condition rating, criticality number, original cost, and the replacement cost. Asset management is quickly becoming the industry standard, **please detail where the District is at with implementing it. At the very least, please provide an asset inventory.**
26. Page 5-10, Financial Policies. This section states that separate rates will be established for customers outside of the District's service area. Connections outside of the service area are not permitted without an approved expanded service area. **Please amend to clarify. (NO LONGER APPLIES)**

CHAPTER 6 – WATER SOURCE AND QUALITY

27. Page 6-1, Existing Water Sources and Treatment. **Please revise narrative per comment #7 above.**
28. Page 6-16, Fluoride Concentration Monitoring. The Environmental Protection Agency (EPA) has set a target for fluoride concentration at 0.7 mg/L. **Please revise.**

CHAPTER 7 – WATER SYSTEM ANALYSIS

29. Page 7-15, Table 7-7, Pressure Analysis Summary. This table indicates existing low pressures during peak demand. **Please discuss the modeling margin of error and if the low pressures fall within that margin.**

30. Page 7-15, Table 7-7, Pressure Analysis Summary. It appears the hydraulic model uses Existing ERUs of 3,380. This number does not allow room for additional growth within the water system. **Please clarify the true capacity of the distribution system by using the maximum demand that the existing water system can support.** If the distribution system (hydraulic model) is limited to 3,380 ERUs, this will be the limiting factor for the water system.
31. Page 7-16, Table 7-8, Fire Flow Analysis Summary. **Please confirm with the fire marshal or fire authority that low fire flows are acceptable until improvements are made to address these low pressures.**

CHAPTER 8 – OPERATIONS AND MAINTENANCE

32. Page 8-3, Table 8-1, Personnel Certification. **Update table with current staff.**
33. Page 8-3, Operations Manager. **Revise title to agrees with Figure 8-1.**

CHAPTER 10 – FINANCIAL PROGRAM

- IGNORE* ✗
- Page 10-2, Table 10-1, Historical Income and Expense Reports. This table has a line item for street lights, but the street light program is not explained. **Please clarify.**
 35. Page 10-16, Affordability and Sample Bills. This section makes the case that there are no affordability concerns for the District. While that may be true for the entirety of the District, it is most likely that there are individual customers sometimes unable to pay their bill. **Please explain any customer assistance program or other method the District may implement to address these concerns.**

APPENDIX B – WATER FACILITIES INVENTORY FORM

36. Prior to approval of this WSP, please submit an **updated Water Facilities Inventory (WFI).**

APPENDIX E – WATER USE EFFICIENCY PROGRAM

37. Page 4, Water Supply Characteristics. This section discusses the Water Resource Inventory Area (WRIA) 15's watershed planning as an unsuccessful process from the past. **Please update to include discussion of the current WRIA 15 process.**
38. Page 5, Water Use Efficiency (WUE) Goals and the Public Process. This section states that a public forum was held for the District's new WUE goals. **Please provide proof of public notification, signed minutes of the meeting and agenda, and the new goals that were established.**
39. Page 10, Table 2, WUE Program Schedule and Budget. The WUE program does not appear integrated into your overall budget (Chapter 10). **If this is a part of your overall budget, please provide a more detailed ~~6-year~~ ^{10-year} balanced budget showing the different line items, if it is not, please include it.**

APPENDIX F – CROSS CONNECTION CONTROL PROGRAM

40. Page 9, Table 6, Personnel Certification. **Please update the table with current staff.**

APPENDIX G – WATER SYSTEM CONSTRUCTION STANDARDS

41. Section D4, Water Works Construction Standard Plans. It appears the drawings were converted as there are numerous formatting issues with the standard plans. **Please submit a full set of drawings without errors.**

APPENDIX I – WATER QUALITY MONITORING PLAN

42. Pages 6 and 7, Section Source Water Quality Monitoring. There are many inconsistencies with actual water quality monitoring and waivers. **Refer to the Water Quality Monitoring Schedule (WQMS), which is updated monthly online.**
43. Page 9, Disinfection Residual Concentration. **See comment #7, above.**
44. Coliform Monitoring Plan. Coliform sample sites A-2, A-10, and B-7 appear to be directly adjacent to wells and storage tanks. These sites likely do not represent the water customers are receiving in the distribution system. **Please adjust these sites to be more representative of the distribution system, or submit information on why you believe these to be adequate sample locations.**

APPENDIX J – WELLHEAD PROTECTION PROGRAM

45. Page 2, Summary of 1998 Wellhead Protection Program. WAC 246-290-135 states that wellhead protection programs must have a wellhead protection area for the 6-month, 1-, 5-, and 10-year time of travel zones. This section only identifies the 1-, 5-, and 10-year zones. **Please update the wellhead protection program to include the 6-month time of travel. Please include clear boundaries and measurements on the provided map.**

APPENDIX M – WATER RESOLUTIONS

46. I was unable to locate a resolution allowing for the implementation of water shortage response measures. **If there is a resolution giving the District the authority to implement that program, please inform us, if the District does not have that resolution in place, please consider passing one.**

DEPARTMENT OF ECOLOGY

ODW's review of your WSP does not confer or guarantee any right to a specific quantity of water. Our review is based on your representation of available water quantity. If the Washington Department of Ecology (Ecology), a local planning agency, or other authority responsible for determining water rights and water system adequacy determines that you have use of less water than you represent, the number of approved connections may be reduced commensurate with the actual amount of water and your legal right to use it.

A copy of this document was sent to Ecology on April 30, 2019. Ecology issued a comment letter on July 15, 2019, stating that "records show the system has a Qi of 2,550 gpm with 1,217.7 ac-ft/yr additive and 811 ac-ft/yr non-additive Qa. Plenty enough for the size of the system and reasonable growth."

CONCLUSION

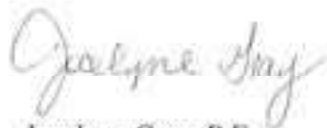
Please submit three copies of the revised pages and respond to all comments. To expedite our review, please summarize your responses to the comments and where each response is located. Please include page numbers.

Scott Wolf
July 19, 2019
Page 6

Regulations establishing a schedule of fees for review of planning, engineering, and construction documents were adopted March 18, 2012 (WAC 246-290-990). Enclosed are an invoice and a list of itemized fees. The total amount due is \$3,705.

If you have any questions, please contact Fern Schultz at (360) 236-3031 or by e-mail at fern.schultz@doh.wa.gov or Jocelyne Gray at (360) 236-3034 or by e-mail at jocelyne.gray@doh.wa.gov.

Sincerely,



Fern Mary Schultz
Office of Drinking Water, Regional Planner

Jocelyne Gray, P.E.
Office of Drinking Water, Regional Engineer

Enclosures

cc: Michelle R. Campbell, RH2 Engineering
Ria Berns, Ecology
Melina Knoop, Kitsap County Health District



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
P.O. Box 47822 □ Olympia, WA 98504
Tel: (360) 236-3100 □ Fax: (360) 236-2253 □ 711 Washington Relay Service

September 25, 2025

Tony Lang
Manchester Water District
2081 Spring Street
Port Orchard, Washington 98366

Subject: Manchester Water District Water System, ID #50070, Kitsap County; Water System Plan Update, ODW Project #19-0410

Dear Tony Lang:

Thank you for submitting the draft Manchester Water District Water System Plan (WSP) Update, received by the Office of Drinking Water (ODW) on June 24, 2025. The following comments must be addressed before ODW can approve the WSP:

1. Original Comment 10. *Page 2-5, Supply Facilities, Wells #1 and #2 Well Field*. Provide the source numbers for each source. Please repeat for all the other source paragraphs.
 - Thank you for adding the Ecology well tag numbers, but this comment referred to the ODW Source Numbers in the Sentry database as shown in the table below:

DOH Source Number	Name:
1	WELL #1 APO507
2	WELL # 2 AAB484
4	WELL #4 AAB486
9	WELL #9 AAB491
10	WELL #10 AAC743
11	WELL #11 AAB493
14	Garfield WF (S06,S07)
-6	WELL #6 WW AAB488
-7	WELL #7 WW AAB489
15	WELL #5R BCS880

2. Original Comment 11. *Page 2-6, Supply Facilities, Well #3*. Please note this well should be decommissioned or used as a monitoring well.
 - Thank you for clarifying this section. However, references to Well #3 remain in other sections of the document, including in *Figure 2-2. Hydraulic Profile and Appendix I. Water Quality Monitoring Plan*. Please fully review and remove references to the inactive well throughout the document.
3. Original Comment 30. *Page 7-15, Table 7-7, Pressure Analysis Summary*. It appears the hydraulic model uses Existing Equivalent Residential Units (ERUs) of 3,380. This number does not allow room for additional growth within the water system. Please clarify the true capacity of the distribution system by using the maximum demand that the existing water system can support. If the distribution system (hydraulic model) is limited to 3,380 ERUs, this will be the limiting factor for the water system.
 - Pressure in the South 277 and South 430 zones does not meet the minimum pressure requirements during peak hour demand (PHD) conditions and rely on completing projects PZ1 and PZ3 in your Capital Improvement Plan to meet future demands. Therefore it appears your system is at capacity based on the ability to deliver the PHD while maintaining 30 pounds per square inch (psi) in the distribution system. If further discussion is needed please schedule a meeting with our office.
4. Original Comment 41. *Section D4, Water Works Construction Standard Plans*. It appears the drawings were converted because there are numerous formatting issues with the standard plans. Please submit a full set of drawings without errors. Thank you for submitting the full plans; since our original review did not cover this document, the following are new comments:
 - Backflow assemblies. Please clarify if you require that all backflow assemblies appear on the University of Southern California Foundation for Cross-Connection and Hydraulic Research List of approved assemblies and installed in the approved orientation.
 - Please clarify if all materials require National Sanitation Foundation (NSF) 61 certification and if chlorine used for disinfection of water mains requires NSF 60 certification.
 - Standard Plan 7. Please confirm this standard plan for a Double Detector Check Valve Assembly (DCDA) backflow assembly installed below-grade allows enough space for the Backflow Assembly Tester to easily access for testing. The standard plans do not include a drawing for a Reduced Pressure Backflow Assembly, but please note this must be installed above grade.
5. Appendix I. Water Quality Monitoring Plan, Disinfection Byproducts (DBP). It appears your plan was developed when your population was lower; since your population is now greater than 10,000 you are required to take 2 dual sample sets annually for reduced monitoring. These samples should be taken at the locations and during the quarter with the highest results. Please revise the DBP monitoring plan using our latest template: [Disinfection Byproduct Monitoring Plan Template \(331-464\)](#)

6. The water system must meet the consumer input process outlined in WAC 246-290-100(8). Please include documentation of a consumer meeting discussing the WSP prior to its approval.
7. When ODW is ready to approve the document, we will notify you. At that time, the governing body will need to officially approve the WSP and send ODW documentation of plan approval by the governing body, like a copy of the signed meeting minutes or a copy of the signed resolution. When the documentation is received, we will send a letter documenting ODW approval.

DEPARTMENT OF ECOLOGY

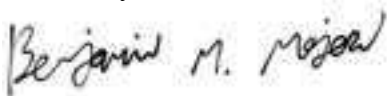
The Department's review of your planning document and design does not confer or guarantee any right to a specific quantity of water. Our review is based on your representation of available water quantity. If the Washington Department of Ecology, a local planning agency, or other authority responsible for determining water rights and water system adequacy determines that you have use of less water than you represent, the number of approved connections may be reduced commensurate with the actual amount of water and your legal right to use it.

CLOSING

Please submit a copy of the revised .pdf in its entirety to the Box.com folder you originally submitted to. If you do not have a Box.com folder with us, please contact our admin team at ODWoperations@doh.wa.gov prior to submittal so that one can be set up to drop your revised planning document and respond to all comments. To expedite our review, please provide a summary of your response to comments and a complete planning document that is bookmarked and hyperlinked.

If you have any questions, please contact Ben Majors by phone at (564) 669-0855 or by e-mail at ben.majors@doh.wa.gov, or Candida Granillo-Dodds by phone at (564) 669-3170 or by e-mail at candida.granillo-dodds@doh.wa.gov.

Sincerely,



Benjamin M. Majors
Office of Drinking Water Planner



Candida Granillo-Dodds, P.E.
Office of Drinking Water Engineer

Enclosures

cc: Peter Cunningham, BHC Consultants
Melina Knopp, Kitsap County Health District
Doug Wood, Department of Ecology

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Appendix P

Satellite Management Agency Checklist

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Manchester Water District
2/6/2025

SMA CHECKLIST MANAGEMENT & OPERATION

WAC 246-295-060 SMA plan content for management and operation. The SMA plan shall address the following elements at a minimum in a manner acceptable to the department.

- | YES | NO | (1) | <u>SMA management & operation, including at a minimum:</u> |
|-------------------------------------|--------------------------|-----|---|
| ☒ | ☐ | | A statement of intent to manage and operate public water systems;
a) <i>This doesn't need to be done again, would have been done in early plans. This is discussed in 2.4.</i> |
| ☒ | ☐ | | Current organizational structure of the SMA, legal authority, mailing address, responsible party, and contact person;
b) <i>This is discussed in Chapter 1.A</i> |
| ☒ | ☐ | | Documentation showing that at least one staff person has, at a minimum, three years of water utility ownership and/or management experience.
c) <i>Tony Lang has more than three years of management experience as documented in Appendix K.</i> |
| ☒ | ☐ | | Identification of existing Public Water System number and number of connections for each system the applicant currently operates;
d) <i>Included in Section 2.4.</i> |
| | | (2) | <u>SMA service area information including at a minimum:</u> |
| ☒ | ☐ | a) | A map of the SMA service area;
<i>The District only serves two Group B water systems as described in Section 2.4. A map of the locations of the systems is included in Appendix P.</i> |
| ☒ | ☐ | b) | A general written description of the SMA service area
<i>Included in Section 2.4</i> |
| | | (3) | <u>Conditions of service, including at a minimum:</u> |
| ☒ | ☐ | a) | Operation decision criteria
<i>The District is not accepting new system as described in Section 2.4.</i> |
| ☐ | ☐ | b) | Service request process overview flowchart including time frames; and |

The District has on-call employees 24 hours a day for emergency dispatch.

- ☐ ☐ c) A list of available services

The District provides inspections, bi-annual water sampling, valve maintenance, annual well level monitoring, meter readings, preventative maintenance, and emergency response.

(4) Operation and maintenance program, including at a minimum:

- ☒ ☐ a) Documentation that at least one staff person is certified at a water distribution manager 2 (WDM2) level or above;

Covered in Appendix F and Chapter 8 Table 8-1

- ☒ ☐ b) Operation and maintenance program (i.e., routine and preventative maintenance common throughout all water system operated by the SMA) including an Emergency response plan;

Included in Chapter 8. Emergency Response Plan is described in Section 8.3.2.

- ☐ ☐ c) A copy of model contract for operation and maintenance services, if applicable; And

The District will not be operating any additional satellite systems.

- ☐ ☐ d) Two copies of all applicable operations contracts in effect.

The contracts are included in Appendix P.

- ☒ ☐ e) Satellite Management Agency Contact Information Form Publication 331-590
Included in Appendix P.

(5) Status

- ☐ ☐ a) Documentation that all Group A systems operated by the potential SMA on the date of request have obtained their operating permit and are not classified in the red operating permit category pursuant to Chapter 246-294 WAC. ***The current operating permit is included in Appendix P.***

- ☐ ☐ b) If Group B systems are also managed and operated by the potential SMA, provide documentation that such systems are in compliance with Chapter 246-291 WAC.

The contracts with the Group B systems state they are in compliance with applicable regulations. Manchester Water District continues to operate and maintain them in accordance with applicable regulations.

- ☐ ☐ c) A special provision pursuant to WAC 246-295-110 may be

utilized in the determination of compliance.

The current operating permit is included in Appendix P.

WAC 246-295-070 Requests for water service.

The county or city agency responsible for determining water availability shall direct an individual or other entity proposing a new system or requesting water service to contact one or more approved SMAs designated for the service area where the new system is proposed. Such contact shall take place prior to construction of a new public water system and shall be documented in writing to the appropriate county or city

[Statutory Authority: RCW 70.116.134. 94-18-108, 246-295-070, filed 9/6/94, effective 10/7/94.]

WAC 246-295-080 Management and operations agreements.

(1)An SMA providing satellite management and operation services only shall have a written agreement with each public water system being served, which shall, at a minimum, address the necessary requirements to comply with applicable regulations regarding management and operation of a public water system; and

(2)The SMA shall submit two copies of all new and renewed agreements to the department within thirty days of the effective date of the contract.

[Statutory Authority: RCW 70.116.134. 94-18-108, 246-205-080, filed 9/6/94, effective 10/7/94]

WAC 246-295-090 Periodic review.

The SMA shall ensure that a SMA plan is submitted to the department for review and approval every five years or more frequently as required by the secretary. The secretary shall review each approved SMA for compliance with the elements identified in WAC 246-295-050 and 2460295-060. The secretary may request that additional information be submitted to assist in the evaluation of the SMA.

[Statutory Authority: RCW 70.116.134.94-18-108 246-295-090, filed 9/6/94, effective 10/7/94.]

WAC 246-295-100 SMA Compliance

(1) A SMA:

- (a) Shall comply with all statutes and regulations governing public water systems including but not limited to chapters 70.116, 70.119 and 70.119A RCW and chapters 246-290, 246-291, 246-292, 246-293 and 246-294 WAC and the requirements of this chapter; and
- (b) Shall adhere to its SMA plan.

(2) The department may revoke, suspend, modify or deny the certification or application of any SMA or applicant which:

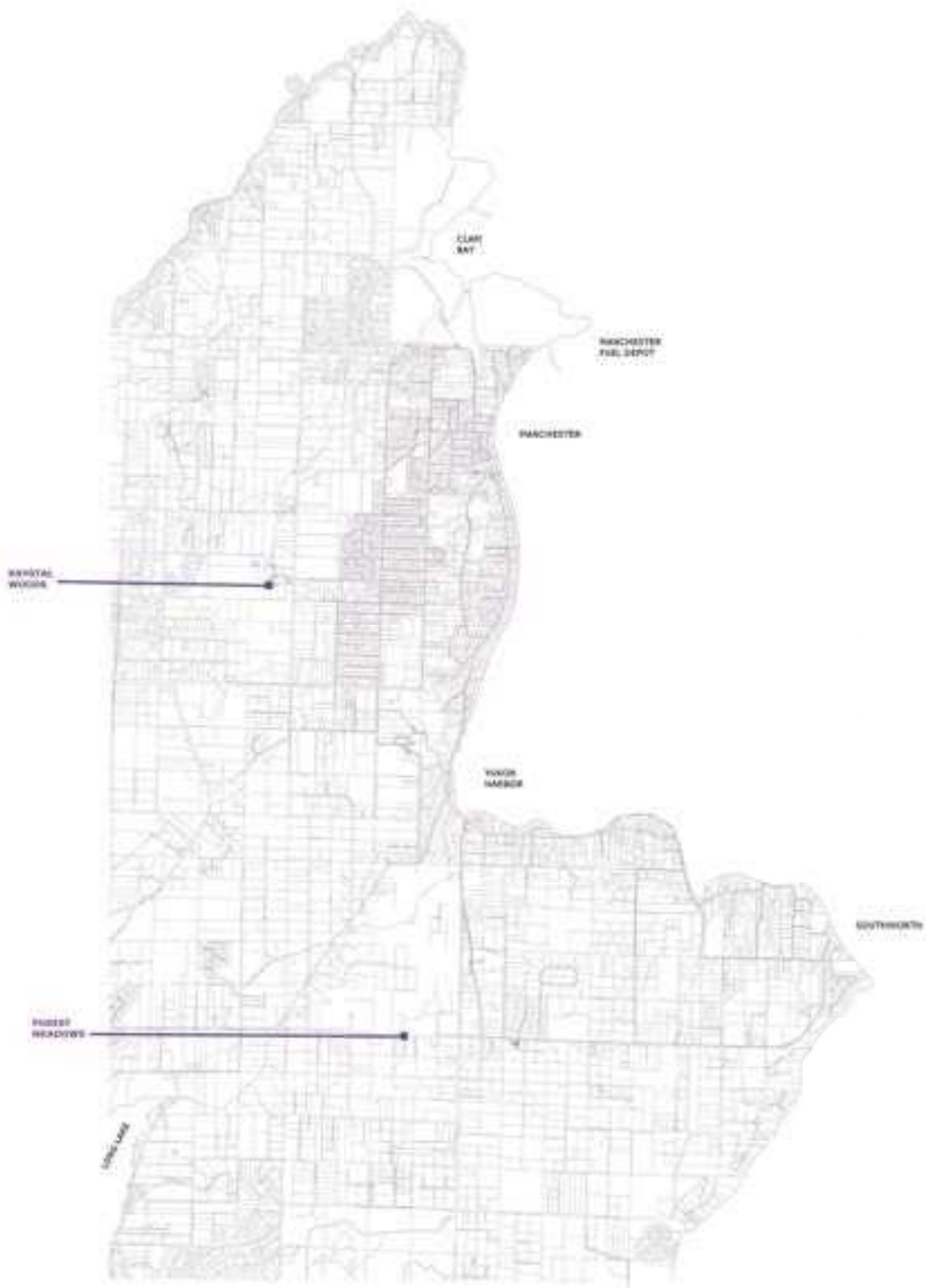
- (a) Fails to timely submit required information;
 - (b) Has been subject to departmental enforcement action for violation of statutes or regulations governing public water systems;
 - (c) Violates or has violated statutes or regulations governing public water systems;
 - (d) Fails to comply with its SMA plan;
 - (e) Fails to have or maintain required staff;
 - (f) Fails to comply with all applicable local ordinances, regulations, plans and policies;
 - (g) Fails to demonstrate financial viability whether at the time of application or subsequently;
 - (h) Fails to bring a noncomplying system into regulatory compliance within the time frame established under WAC [246-295-110](#); or
 - (i) Operates in a manner that threatens public health.
- (3) Any SMA or applicant aggrieved by the department's decision to revoke, suspend, modify or deny their approval or application may appeal such decision in accordance with chapter [246-10](#) WAC and chapter [34.05](#) RCW.
- (4) An approved SMA that files a timely appeal of a decision to revoke, suspend or modify its approval under chapter [246-10](#) WAC and/or chapter [34.05](#) RCW may continue to operate until a final departmental decision is issued, unless protection of the public health, safety and welfare requires summary action.
- (5) If a SMA is removed from the approved list and desires reinstatement, the SMA must submit a new notice of intent to become an approved SMA and follow the process outlined in WAC 246-295-040, provided that the reapplication shall be subject to any limitations imposed by final departmental order or if applicable, order on judicial review.

WAC 246-295-110 Special Provisions

(1) SMAs willing to take ownership of systems which have not obtained their operating permit or are classified in the red operating permit category pursuant to chapter [246-294](#) WAC, may be allowed a "special provision" whereby they are given time to bring the system into regulatory compliance. This "special provision" is subject to an agreement among the SMA, the department and, if applicable, the public water system that documents how and within what time frame the SMA will bring the noncomplying system into compliance.

(2) Extensions to the time frame may be granted if agreed upon between the SMA and the secretary. If the agreed upon time frame passes and no extension has been granted, the system at issue shall remain out of compliance and the SMA shall be removed from the approved SMA list.

[Statutory Authority: RCW [70.116.134](#). WSR 94-18-108, § 246-295-110, filed 9/6/94, effective 10/7/94.]





Notice of Intent

331-590 • Revised January 2022

Please complete this form and include it with your submittal

SATELLITE MANAGEMENT AGENCY Information

Manchester Water District

132

Name of entity/organization/individual

SMA ID #

Submittal date

Tony Lang

General Manager

Name

Position

tlang@manchesterwaer.org

360.871.0500

E-mail address

Phone

PO Box 98

Manchester

WA

98353

Mailing address

City

State

Zip

COUNTY Information (Check all counties you are seeking approval in)**Eastern**

- | | | | | | | |
|---------------------------------------|-----------------------------------|----------------------------------|--------------------------------------|------------------------------------|----------------------------------|-----------------------------------|
| ☐ Adams | ☐ Asotin | ☐ Benton | ☐ Chelan | ☐ Columbia | ☐ Douglas | ☐ Franklin |
| ☐ Ferry | ☐ Garfield | ☐ Grant | ☐ Kittitas | ☐ Klickitat | ☐ Lincoln | ☐ Okanogan |
| ☐ Pend Oreille | ☐ Spokane | ☐ Stevens | ☐ Walla Walla | ☐ Whitman | ☐ Yakima | |

Northwest

- | | | | | | | |
|---------------------------------|-------------------------------|---------------------------------|-----------------------------------|---------------------------------|------------------------------------|----------------------------------|
| ☐ Island | ☐ King | ☐ Pierce | ☐ San Juan | ☐ Skagit | ☐ Snohomish | ☐ Whatcom |
|---------------------------------|-------------------------------|---------------------------------|-----------------------------------|---------------------------------|------------------------------------|----------------------------------|

Southwest

- | | | | | | | |
|----------------------------------|----------------------------------|-----------------------------------|---------------------------------------|------------------------------------|--|--------------------------------|
| ☐ Clallam | ☐ Clark | ☐ Cowlitz | ☐ Grays Harbor | ☐ Jefferson | ☒ Kitsap | ☐ Lewis |
| ☐ Mason | ☐ Pacific | ☐ Skamania | ☐ Thurston | ☐ Wahkiakum | | |

PRIMARY ADMINISTRATIVE Information

Tony Lang

General Manager

Name

Position

tlang@manchesterwater.org

360.871.0500

E-mail address

Phone

PO Box 98

Manchester

WA

98353

Mailing address

City

State

Zip

CERTIFIED OPERATOR Information

Cody Hodge

14940

Name1

Certification Number

chodge@manchesterwater.org

WDM 3

E-mail address

Certification level

Beau Watson

14903

Name2

Certification Number

bwatson@manchesterwater.org

WDM 2

E-mail address

Certification level

Sean Steele

16147

Name3

Certification Number

ssteele@manchesterwater.org

WDM1

E-mail address

Certification level

Signature: _____



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



Operating Permits

Report Create Date: 02/03/2025

WS Id(s): 50700

STATE OF WASHINGTON
Public Water System
Operating Permit

The Department of Health Office of Drinking Water issues a permit to operate:

MANCHESTER WATER DISTRICT (ID# 50700 2)

to owner: MANCHESTER WATER DISTRICT County: KITSAP

┌ MANCHESTER WATER DISTRICT PO BOX 98 MANCHESTER, WA 98353 └	┐ └
--	--------------------

This Permit is valid through: 31 May 2025

PERMIT CATEGORY: **** Green ****

The permit category may be modified or the permit revoked subject to water system compliance with applicable State of Washington drinking water rules and regulations and the following statements.

The system operating permit color category is based on information on file with the Department at the time this permit was printed.

System is substantially in compliance with applicable drinking water requirements



Explanation of Permit Categories

1. **Green** - This category means your system is substantially in compliance with applicable drinking water requirements. Placement in this category indicates the system is adequate for growth up to approved number and existing uses.
2. **Yellow** - This category means your system is substantially in compliance except water system notified to submit water system plan, but has not satisfied planning requirement and/or is under a compliance agreement for a state significant non-complier (SSNC) violation. Placement in this category indicates the system is adequate for growth up to approved number unless otherwise limited by compliance agreement and adequate for existing uses.
3. **Blue** - This category means your system is substantially in compliance except water system does not meet design approval or has exceeded number of approved connections. Placement in this category means the system is adequate for existing uses, but not adequate for growth.
4. **Red** - This category means your system is in substantial non-compliance with applicable drinking water requirements. Placement in this category indicates the system is not adequate for growth or existing uses. **This could result in building permits, on-site sewage disposal permits, food service permits, liquor licenses and other permits and licenses being denied for properties connected to or to be connected to the water system. In addition, lending institutions may choose not to finance loans associated with these properties.**

If you have questions about your operating permit or wish to formally appeal the permit category through an adjudicative proceeding, contact the appropriate Drinking Water Regional Office;

Northwest Regional Office
Kent
(253) 395-6750

Southwest Regional Office
Tumwater
(360) 236-3030

Eastern Regional Office
Spokane
(509) 329-2100

**** End of Report ****



MANCHESTER WATER DISTRICT
SATELLITE SYSTEM PROCEDURE & AGREEMENT

Date of Initial Agreement: _____
Name of Satellite System: _____
Date of Finalization of Agreement: _____

Parties: MANCHESTER WATER DISTRICT

Property Owners:	<u>D. A. VanderStaay</u>	<u>A. June VanderStaay</u>
	<u>Mark Mercer</u>	<u>Doni Mercer</u>
	<u>Ron Bishop</u>	<u>Judy K. Bishop</u>
	<u>Roger Brown</u>	<u>Helen A. Brown</u>
	_____	_____
	_____	_____
	_____	_____
	_____	_____

Authorized Agent of Property Owners: D. A. VanderStaay

THIS IS AN AGREEMENT entered into between
MANCHESTER WATER DISTRICT, a Washington Municipal Corporation,
hereinafter referred to as "District" and

<u>D. A. VanderStaay</u>	<u>A. June VanderStaay</u>
<u>Mark Mercer</u>	<u>Doni Mercer</u>
<u>Ron Bishop</u>	<u>Judy K. Bishop</u>
<u>Roger Brown</u>	<u>Helen A. Brown</u>

who are the real property owners seeking to have the District takeover and manage the water system serving their respective properties. These said individuals will hereinafter be referred to simply as "property owners". The property owners hereby appoint D. A. VanderStaay, hereinafter referred to as "Agent", to act as their true and lawfull attorney-in-fact to fully and completely represent them regarding this agreement, all matters touching upon it, all decisions required from the property owners now and in the future regarding it, and its implementation, and all future matters arising as a result of it, as though they were each fully acting and representing themselves.

EXHIBIT A

ROGER A. AND HELEN A. BROWN

Lot A of Kitsap County Short Subdivision No. 25998-R1, as recorded in Volume 8 of Short Plats, at Page 17, under Auditor's File No 9203190146, records of Kitsap County, Washington.

Subject to a non-exclusive easement for ingress, egress, and utilities purposes over and under the West 30 feet of the following described parcel of land:

The West half of the Northeast Quarter of the Northwest Quarter of the Northeast Quarter of Section 9, Township 23 North, Range 2 East, W.M., in Kitsap County, Washington; EXCEPT the North 30 feet thereof conveyed to Kitsap County for road purposes by right-of-way deed recorded under Auditor's File No. 718979.

D. ALSON VANDERSTAAY and A. JUNE VANDERSTAAY
RONALD H. BISHOP and JUDY K. BISHOP

Lots B, C, & D, of Kitsap County Short Subdivision No. 2598-R-1, as recorded in Volume 8 of Short Plats, at Page 17, under Auditor's File No. 9203190146, records of Kitsap County, Washington.

Together with and subject to a non-exclusive easement for ingress, egress, and utilities purposes over and under the West 30 feet of the following parcel of land:

The West half of the Northeast Quarter of the Northwest Quarter of the Northeast Quarter of Section 9, Township 23 North, Range 2 East, W.M., in Kitsap County, Washington; EXCEPT the North 30 feet thereof conveyed to Kitsap County for road purposes by right of way deed recorded under Auditor's File No. 718979.

MARK MERCER and DONI MERCER

The Southeast Quarter of the Northwest Quarter of the Northeast Quarter of Section 9, township 23 North, Range 2 Est, W.M., in Kitsap County, Washington.

Subject to an easement for ingress, egress, and utility prurposes over, under and across the following described portion of the Mercer Property ("easement property") for the benefit of the Southwest Quarter of the Northwest of the Northeast Quarter of Section 9, Township 23 North, Range 2 East, W.M.:

Beginning at the Northwest corner of the Mercer Property; thence South 0 degrees 57' 19" West along the West line thereof a distance of 45.00 feet; thence North 46 degrees 36' 58" East 41.95 feet; thence North 0 degrees 57' 19" East 15.00 feet to the North line therof; thence North 87 degrees 44' 17"

West along said North line a distance of 30.01 feet to the point of beginning.

D. ALSON VANDERSTAAY and A. JUNE VANDERSTAAY

The Southwest one quarter of the Northwest one quarter of the Northeast one quarter of Section 9, Township 23 North, Range 2 East. W.M., in Kitsap County, Washington.

The Property Owners collectively own 8 parcels of real property served, or to be served, by the Water System hereinafter described. No other parcels of real property are currently being served by this Water System or are entitled to be served by this Water System and not more than 8 service connections to this System shall occur without the prior written approval of the District. The legal description for each individual property owner's parcel of real property, identifying the property owner as to each parcel, is set forth on the attached "EXHIBIT A", which by this reference is incorporated herein and made a part hereof.

The property owners own (free and clear of any encumbrances of any kind and nature in others) and operate the above named Satellite System which will hereinafter be referred to simply as "Water System" or "System". The legal description of the real property (or easement as appropriate) where the Water System is located, and all easements associated therewith will be supplied by the Property Owners and added to this agreement as "EXHIBIT B" at a time to be determined by the Manager of the District.

The Water System consists of the property and easements on which the System is located, all buildings associated with the Water System, well(s), pumps, piping to the boundaries of the various property owners' real property served by the Water System, water tanks associated with the main System, Water Rights held by the System, all bookkeeping systems, accounts receivable, and all other appurtenances related thereto.

Because of the relatively small size of the Water System, the Property Owners have determined it is not feasible for them to operate and maintain the Water System in a profitable and efficient manner now and in the future. The parties also recognize that the lack of adequate revenue results in the inability of small water systems such as this one to hire qualified management and operational staff, renew and expand facilities, and generally operate and maintain their systems in a satisfactory manner. As a result, small water systems are frequently confronted with both water quality and operational problems. As enforced by state and federal regulations, the procedures and liability associated with providing adequate water service are often too complex or restrictive to be fulfilled by communities, homeowners associations, or individually owned systems.

A study was completed in 1982 which concluded that the implementation of Satellite Water System Support Services would provide county-wide benefit. Basically, a satellite support system provides for the transfer (through either ownership or contract) of the operation and maintenance responsibilities from the owner of a small water system to an organization, either public or private, capable of providing these services. Since

the organization would own and/or operate a number of water systems, the economies of scale would make it possible to (1) employ qualified personnel, (2) provide good system management and operation, and in doing so (3) meet the requirements of the Safe Drinking Water Act.

The District has developed a Satellite System Program as set forth in this agreement. This program will allow the District to provide all operation, maintenance, and control functions of the Water System by fully taking over said system. This is known by the District as Direct Ownership. The District, after concluding its study of this Water System, however, may determine it does not wish to own the System, but only to Manage it. In that event, physical ownership of the System would remain with the Property Owners but full management of the system, as determined by the District in its sole discretion, now and in the future, would be provided by the District. The District's decision as to whether it will own and manage, or only manage the System will be made after it concludes its study of the System.

As this agreement is implemented various decisions will have to be made by the District and Agent on behalf of the property owners. That said checklist is attached hereto as "EXHIBIT C" and will be completed and initialled by the District's representative and the Agent as the implementation of this agreement continues. Exhibit C, by this reference, is incorporated herein and made a part hereof.

The property owners understand that with either direct System ownership by the District, or management only of the System by the District, all costs associated with bringing the System up to the District's standards, and thereafter in maintaining and operating the System (in all respects) according to the District's standards, will be borne by the property owners. The property owners also understand it is the District's policy not to pay for Water Systems; in most cases the Water Systems to be operated by the District will be conveyed to the District at no cost to the District.

The property owners understand the District follows the following policy considerations in making its determination as to whether to own and/or manage a Water System:

A. System Size. Direct ownership and/or management of a system will generally be limited to systems having four (4) or more customers unless exceptions are warranted based on the cost-effectiveness of providing service to systems of smaller size.

B. Cost effective operation. Direct ownership and/or system management will be limited to systems where the transfer of ownership and/or management is cost-effective to the District and the Property Owners. When feasible, the District favors system ownership over management of a system.

C. No Payments for Systems. As a general policy, the District will not make cash payments to acquire existing or new systems and transfer of ownership will occur at no cost to the District.

D. Improvement of System prior to acceptance. Before the District will accept a system for ownership or management purposes, the system must be brought up to the District's standards. Capital improvements will be financed by the system's customers by or through a combination of rate surcharges, customer assessments, system development charges, and District financing. District financing options may include state and federal grants, cash contributions, and ULID bonds.

E. ULID Formation. ULID's will be considered and formed if it is determined necessary improvements cannot be locally financed by existing customers using a combination of direct assessments or increased monthly water rates.

F. Cost of Improvements. An estimate of the cost of improvements and operation must be defined to existing customers before the District will assume ownership or operational responsibilities.

G. New System Standards. New systems must be installed in accordance with the District's "Developer's Manual for Constructing Extensions to the Water Systems of Manchester Water District", and any amendments and changes thereto.

In Consideration of the foregoing recitals and the promises and covenants hereinafter set forth, it is agreed as follows:

1. Initial contact. By signing this agreement the property owners are authorizing the District to study the feasibility of either taking over direct ownership and operation of the Water System or to only operate and manage the System. The cost charged by the District in conducting this study is \$ 0-waived which shall be paid by the property owners at the time this agreement is initially signed by all parties. Initially, by signing this agreement, the District is only signifying its intent to conduct the said study. By initially signing this agreement, the District is not signifying its agreement to own and/or manage the Water System.

2. System Study. After the study's cost has been paid by the property owners as set forth in Section 1. hereof, the District and Agent will identify all information to be delivered by the property owners to the District regarding the System so the District may begin its evaluation. Without limiting the generality of the foregoing, this information shall include:

A. The full legal description for the Water System real

property and all easements associated therewith;

B. All information regarding the Water System property, i.e., pump, tanks, water lines, and other property associated therewith;

C. All information regarding prior, present, and expected future governmental decisions regarding the Water System;

D. All problems of every kind and nature the property owners have experienced in the past, and presently, in operating and maintaining the Water System, ownership problems regarding the same, and problems in dealing with any governmental entities;

E. A brief history of the Water System, i.e., when it was installed, who installed it, its cost, the authority under which it operates and levies payments from its customers, and an "as built" sketch showing the location of all the Water System's appurtenances and piping.

F. All information regarding the past and present costs of operating the system, a brief summary of how the system is maintained and managed, who is in charge of the System, how many properties it serves (and has the capability of serving) and all written information (i.e., property covenants, homeowner agreements, and System regulations) detailing the governing rules and procedures regarding the current management, ownership, and operation of the System. It is understood by the property owners that if the District determines to own and/or manage the System, all of the District's rules and regulations regarding the operation of its main water system shall supersede and replace the present governing rules and regulations adopted by the property owners for the operation, ownership, and management of the System, except as otherwise determined by the District's Commissioners.

G. The District shall be fully advised of the names and addresses and phone numbers of all property owners/residents being served by the System and payment problems associated with any of these property owners/residents, and what action has been taken or is contemplated against any such individual for any reason.

H. All operational records including financial data regarding the System.

I. Documentation which demonstrates the signing representatives on behalf of the property owners have the authority to enter into this agreement and to eventually convey good title to the Water System to the District and bind the properties served by the System to the terms of this agreement and the general ongoing operating regulations (as amended from

time to time and added to) of the District.

3. Property Owners' Representative. At the time this agreement is initially signed by all parties, the property owners designate D. A. VanderStaay (hereafter referred to as "Agent") to fully represent them and to be their contact person with the District regarding the implementation of this agreement and all matters associated herewith. The Agent's mailing address is: D. A. VanderStaay, P.O. Box 589,

Port Orchard, WA 98366;
Phone #(home): 871-2779; (work) 769-3333.

4. Notices. All notices occasioned by this agreement shall be in writing and sent by the District to the Agent on behalf of the property owners regarding this agreement at the Agent's address by certified mail, return receipt requested, or personally delivered to the Agent. And all notices hereunder from the property owners to the District shall be in writing and sent by the Agent to the District at its headquarters by certified mail, return receipt requested, or personally delivered to the District's Manager or Secretary on duty.

All contacts from the property owners to the District regarding this agreement and all matters associated herewith shall be made through the Agent. If the property owners ever select a replacement Agent, notice of his/her name, mailing address and phone number(s) shall be supplied to the District within five (5) days of his/her selection. Until such time as the District receives notice of the replacement Agent, the District shall have the right to continue dealing with the Agent on file with it as the acting Agent under this agreement.

5. Study Results. At the completion of its initial study of the Water System, the District will determine the estimated costs of system improvements to meet District standards, and anticipated operation and maintenance expenses. At the conclusion of this stage, if the District does not wish to proceed further, it shall so notify the Agent, and this agreement shall terminate.

6. Review of Study Results. After its study, if it determines to continue with its consideration of owning and/or managing the System, the District shall schedule a public meeting or determine another appropriate method of reviewing its study results with the property owners or their Agent to verify the accuracy of the study results and evaluate the preliminary cost estimates. At the conclusion of this meeting the Agent may either withdraw the property owners' request for District ownership and/or management of the System or authorize the District at the property owners' expense (in addition to the initial study fee paid as hereinbefore identified) to prepare an engineering report for the System. This fee must be paid prior

to preparation of the engineering report. This report and the fee associated therewith may be waived by the District if the System was initially inspected and approved by the District at the time of its construction pursuant to the terms of the District's "Developer's Manual for Constructing Extensions to the Water Systems of Manchester Water District".

7. Engineering Report. If the Engineering work proceeds as set forth in section 5. hereof, the report generated as a result thereof shall include a detailed analysis of the system operation, the required capital improvements, the projected cost of operation and maintenance, and a preliminary financing plan and rate structure. The financing plan for improvements will consider:

A. Minimum improvements required to meet health standards and provide reliable service;

B. Source, storage, metering, fire flow, and other improvements;

C. Improvements required to upgrade the system to the Developer Water System Regulations of the District.

8. Determination to Proceed. After a review of the engineering report is conducted with the Agent and/or property owners, the Agent on behalf of the property owners may withdraw their request for service, or agree to continue with the process. If it agrees to continue with the process, the District will then determine whether it desires to own and manage the System, manage the System only, or not proceed in which event this agreement would terminate at this stage.

9. Cost & General Operation of System. In general, the property owners understand and agree that all costs of upgrading and operating the System, now and in the future, will be determined by the District and borne in full by the property owners in a manner determined by the District.

The District will not pay from its general District funds for any improvements to the System or operation expenses associated therewith unless a satisfactory method of repayment is reached with the property owners. The property owners also realize that because their System is not connected into the District's main distribution system they may not receive the same standard, level, and type of service as the District's other customers, but subject to the limitations of the System, the District will attempt to provide the highest level of service reasonably possible according to its general service policies.

The property owners also realize they and their respective properties shall be subject to the rules, resolutions, regulations, and operating procedures of the District as amended

and enacted from time to time to the extent such amendments and additions are not in direct conflict with the terms of this Agreement; provided, however, a different rate and/or payment structure may be put in place regarding this System, and amended from time to time by the District, than is in effect for the District's primary water service customers.

Also, if the property owners shall fail to pay for the upgrades to the System in the manner and at the times determined by the parties as required by the District, the District shall have the right to terminate this agreement by providing notice of its intent to do so to the Agent if corrective action as set forth in the notice is not fully performed by the deadline set forth in the notice. If the corrective action is not fully performed within the time period set forth in the notice, the District shall send out a second formal notice of termination.

10. System Improvements. Improvements required to upgrade the system to District standards will be accomplished at the time and in the manner specified by the District. All improvement work will be accomplished through the District and at the District's direction. If health or reliability deficiencies exist, the District will make every reasonable effort to complete the improvements as soon as possible. The Agent will be appraised of all improvements as they occur. Any cost overruns shall be borne by the property owners. The District, however, shall use all reasonable efforts to insure cost overruns do not occur.

11. Management / Ownership of System.

A. Management. If the District determines to manage the system, its management duties shall be as follows:

1. Monitor and record: Volume of water treated, chemicals consumed,
and chemical-residual levels in the distribution system weekly.
2. Take one treated water bacteriological analysis yearly
Take one raw water bacteriological analysis every three months
Take one inorganic chemical and physical analysis every three years
3. Order and administer chemicals and flush lines monthly,

IN ACCORDANCE WITH EXHIBIT D, EXHIBIT A, BY REFERENCE IS INCORPORATED HEREIN
The District's management duties shall not extend beyond those and make
management services specifically identified in this section 11.A. part
11.207.

B. Assumption of Risk & Liability for System. All risk, liability, and responsibility, of every kind and nature, regarding the operation, maintenance, safety, control, and ownership of the System shall remain with the property owners until such time as the District shall issue its final written

approval of the System in which it states it is accepting ownership and/or management thereof. In the event it accepts management thereof, the District's liability regarding the system shall be expressly limited to the management services it provides and no other aspects of the system.

C. Ownership. If the District determines to own the System, a partial list of items which may be necessary to properly accomplish a transfer or ownership are as follows:

1. Bill of Sale;
2. Title Report and Property Deeds;
3. Assignment of Easement(s) and Franchises;
4. New Easements if required by District;
5. Assignment of Water Rights;
6. Authorization to collect rates and fees;
7. Hold Harmless Clause regarding any damage that may occur as a result of the District's ownership and operation of the System;
8. List of Owners, Customers, and Addresses;
9. Maps, records, equipment data, and other information.

12. Possible ULID Formation. If found to be financially and economically feasible, the District may create a new ULID in accordance with Chapter 57, RCW. Once a ULID is formed, ownership of all existing facilities, equipment, and data would be transferred to the ownership of the District.

13. Future Support of District Action. In the event a utilities local improvement district (ULID), or pipeline extension for a water line, water main, or a water service is initiated from the District's main water lines affecting the property served by this Water System, the property owners agree to support any petitions or other action therefore and not to contest the formation of any said ULID or pipeline extension and to pay their share of the costs thereof ultimately assessed by the District. The property owners served by the System also understand the District, at its option, may require water meters to be moved to the new water main at the property owner's expense. No credit will be supplied to the property owners by the District for improvement/upgrade/maintenance expenses previously paid, at the time of the new assessment.

14. Fire protection. The District cannot and does not make any representations or warranties that adequate water pressure and/or volume for fire protection purposes will be available to the System's water customers.

15. Agreement runs with the land. All provisions of this agreement, including the benefits and burdens run with the properties covered hereby (the property on which the System is located and the various properties served by the System) and are

binding upon and inure to the heirs, assigns, successors, tenants, and personal representatives of these parties.

16. Warranty of Title & Representations. The property owners and the agent represent, that to the best of their knowledge, they have made a diligent search for all information to deliver to the District on which the District has based its decision to enter into this agreement and that such information is complete. The property owners further represent that they, or the Water System owner(s), or the Homeowner's Association, has full and complete authority to transfer good and clear title to the Water System as hereinbefore defined to the District.

17. Termination of Agreement.

A. Ownership of System. If the District has taken over ownership of the System and wishes to terminate its involvement with the Water System, it shall provide written notice to this effect to the Agent setting forth the termination date, which date shall be at least ninety (90) days from the date the notice was mailed or personally delivered. Concurrent with the termination date, the District shall convey the Water System back to the party(s) which initially conveyed the System to the District, and the District's involvement with the Water System thereafter shall cease. The grantee(s) shall pay no sums for the return of the Water System, except the District shall have the right to collect any and all sums due it because of its ownership and operation of the System to the date of its transfer of the System and it shall have all rights and be entitled to take all necessary steps to collect all said sums.

B. Management of System. If the District has opted to manage and not own the System, either party may terminate the District's Management of the System by providing written notice to the other party setting forth the termination date which shall be at least ninety (90) days from the date the notice is mailed or personally delivered.

18. Cooperation of Parties. The parties hereto, including the property owners, shall strive to cooperate with one another in effectuating the terms and spirit of this agreement. This agreement shall be given a reasonable construction, and shall not be construed in favor of either party for the reason

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that all parties have had the opportunity to fully review and negotiate the terms of this agreement.

INITIAL ENTRY INTO AGREEMENT:

DATED this 1st day of August, 1994.

Manchester Water District

by: Janne Screws
District Manager

Property Owners:

D. A. VanderStaay
A. June VanderStaay
Mark Mercer
Doni Mercer
Ron Bishop
Judy K. Bishop
Roger Brown
Helen A. Brown

D. A. VanderStaay
A. June VanderStaay
Mark Mercer
Doni Mercer
Ron Bishop
Judy K. Bishop
Roger Brown
Helen A. Brown

FINAL AGREEMENT REACHED FOR DISTRICT TO OWN &/OR MANAGE THE WATER SYSTEM:

Dated this 3rd day of August, 1994.

Manchester Water District

by: William F. Payson
District Commissioner

by: Joseph E. Hession
District Commissioner

District Commissioner

I also Vash Itay

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

SIGNED AND SWORN TO before me this 26 date of July, 1994. *Michael L. Milman*

My Commission Expires: 8-31-97

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

MANCHESTER WATER DISTRICT /
SATELLITE SYSTEM PROCEDURE & AGREEMENT

mentioned.
SIGNED AND SWORN TO before me this 29th date of
July, 1994.

My Commission Expires: 8-31-97

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

SIGNED AND SWORN TO before me this 29th date of July, 1994.

My Commission expires: 8-31-97

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

SIGNED AND SWORN TO before me this 26th date of July, 1994.

Notary Public in and for the State of
Washington, residing in Port Orchard.
My Commission expires: 8-31-97

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

On this day personally appeared before me
A. June VanderStacy, to me known to be the
individual(s) described in and who executed the within and
foregoing instrument, and acknowledged that he/she/they signed
the same as his/her/their free and voluntary act and deed, for
the purposes therein mentioned.

SIGNED AND SWORN TO before me this 28th date of
July, 1994.

Sheila L. Gibson
Notary Public in and for the State of
Washington, residing in Port Orchard.

My Commission expires: 8-31-97

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

On this day personally appeared before me
Ron Bishop, to me known to be the
individual(s) described in and who executed the within and
foregoing instrument, and acknowledged that he/she/they signed
the same as his/her/their free and voluntary act and deed, for
the purposes therein mentioned.

SIGNED AND SWORN TO before me this 27th date of
July, 1994.

Sheila L. Gibson
Notary Public in and for the State of
Washington, residing in Port Orchard.

My Commission expires: 8-31-94

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

On this day personally appeared before me
Judy K. Bishop, to me known to be the
individual(s) described in and who executed the within and
foregoing instrument, and acknowledged that he/she/they signed
the same as his/her/their free and voluntary act and deed, for

SIGNED AND SWORN TO before me this 26th date of July, 1994.

Sheila J. Silson
Notary Public in and for the State of
Washington, residing in Port Orchard.
My Commission expires: 8-31-94

On this day personally appeared before me Rodger Brown and Helen A Brown, to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that ~~he/she~~/they signed the same as ~~his/her~~/their free and voluntary act and deed, for the purposes therein mentioned.

My Commission expires: Apr. 14, 1997

On this day personally appeared before me _____, to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that he/she/they signed the same as his/her/their free and voluntary act and deed, for the purposes therein mentioned.

My Commission expires: _____

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

On this day personally appeared before me _____, to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that he/she/they signed the same as his/her/their free and voluntary act and deed, for the purposes therein mentioned.

SIGNED AND SWORN TO before me this ____ date of _____, 199__.

Notary Public in and for the State of
Washington, residing in Port Orchard.

My Commission expires: _____

STATE OF WASHINGTON)
) ss
COUNTY OF KITSAP)

On this day personally appeared before me _____, to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that he/she/they signed the same as his/her/their free and voluntary act and deed, for the purposes therein mentioned.

SIGNED AND SWORN TO before me this ____ date of _____, 199__.

Notary Public in and for the State of
Washington, residing in Port Orchard.

My Commission expires: _____

manchester wd disk:\manch.sst

EXHIBIT B

LEGAL DESCRIPTION for Well Site Easement

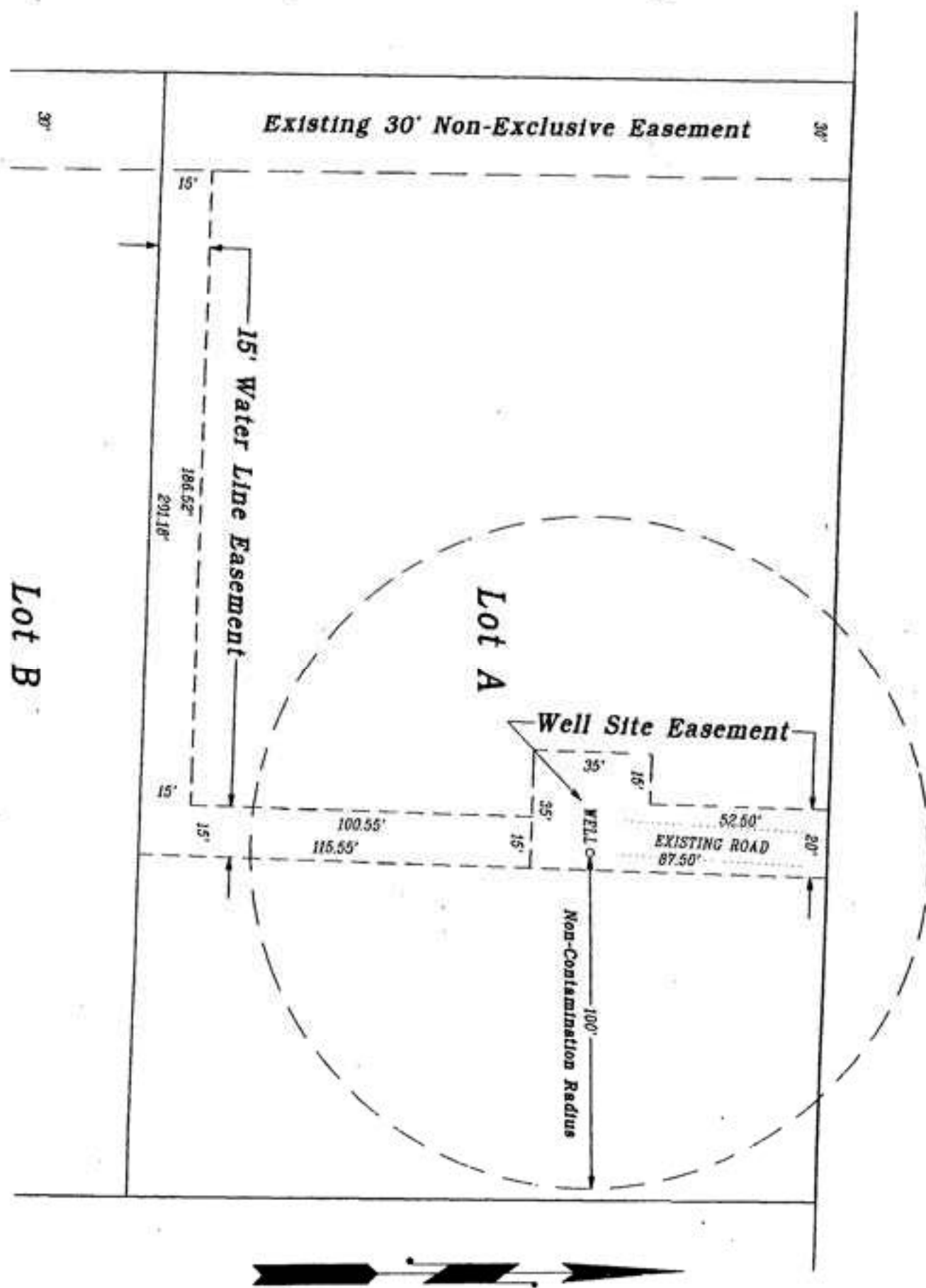
A non-exclusive easement over, under and across that portion of the West half of the Northeast quarter of the Northwest quarter of the Northeast quarter of Section 9, Township 23 North, Range 2 East, W.M., in Kitsap County, Washington, for ingress, egress and utilities purposes, and for the installation, operation, repair and maintenance of a well for domestic water supply, including pumping and storage facilities, pumphouse, water service lines and other water system appurtenances, being more particularly described as follows:

Beginning at the Northwest corner of Lot A of Kitsap County Short Subdivision No. 2598-R1, as recorded in Volume 8 of Short Plats, at Page 17, under Auditor's File No. 9203190146; thence South 87°44'15" East, along the North line of said Lot A, a distance of 205.82 feet to the TRUE POINT OF BEGINNING; thence continuing South 87°44'15" East a distance of 20.00 feet; thence South 2°15'43" West a distance 87.50 feet; thence North 87°44'17" West a distance of 35.00 feet; thence North 2°15'43" East a distance of 35.00 feet; thence South 87°44'17" East a distance 15.00 feet; thence North 2°15'43" East a distance of 52.50 feet to the true point of beginning.

LEGAL DESCRIPTION for Water Line Easement

A non-exclusive easement over, under and across a strip of land 15.00 feet in width, situated within the West half of the Northeast quarter of the Northwest quarter of the Northeast quarter of Section 9, Township 23 North, Range 2 East, W.M., in Kitsap County, Washington, for ingress, egress and utilities purposes, and for the installation, operation, repair and maintenance of a domestic water line and other water system appurtenances, being more particularly described as follows:

Beginning at the Northwest corner of Lot A of Kitsap County Short Subdivision No. 2598-R1, as recorded in Volume 8 of Short Plats, at Page 17, under Auditor's File No. 9203190146; thence South 87°44'15" East, along the North line of said Lot A, a distance of 235.82 feet; thence South 2°15'43" West a distance 87.50 feet to the TRUE POINT OF BEGINNING; thence continuing South 2°15'43" West a distance of 115.55 feet to the South line of Lot A of said Kitsap County Short Subdivision No. 2598-R1; thence North 87°44'17" West, along said South line, a distance of 201.18 feet to the East line of the West 30 feet of Lot A of said Kitsap County Short Subdivision No. 2598-R1; thence North 0°57'19" East, along the East line of said West 30 feet, a distance of 15.00 feet; thence South 87°44'17" East a distance of 186.52 feet; thence North 2°15'43" East a distance of 100.55 feet; thence South 87°44'17" East a distance of 15.00 feet to the true point of beginning.



3.0 System Operation

3.1 Customer Notification

Washington DOH policy requires that customers be notified that the water system employs sequestering treatment for management of iron and/or manganese problems in the system. The notification must state that the customer may experience problems in the hot water portion of their home plumbing and that customers located in more remote portions of the water distribution system may experience iron/manganese problems if their water is not routinely flushed through their lines.

3.2 Materials

Consumable supplies required to operate the system are tabulated below

Item	Quantity	Source	Telephone
AquaMag	5 gallons	Kjell Corporation	1-800-356-0422
5-1/4% Sodium Hypochlorite	1 gallon	Grocery Store	
Pulsa-Feeder DPD Chlorine Kit model 8800410	1 kit	United Pipe & Supply	745-5700
Chemetrics Phosphate Test Kit K8510	1 kit	Utility Supply of America	1-800-548-1234

3.3 Equipment Adjustment

The hypochlorite solution pump (first pump) dial should be set to 7 and the second solution pump (sequestrant pump) dial should be set at 10.

3.4 Solution Mixing

Based on the above solution pump settings and the water analysis performed at the time of system design, the solution concentrations should be as indicated in the following table. The amount of mixture to add to the solution tanks at a monthly service event will depend on the water demand at that time. With eight houses connected to the system and each house consuming 800 gallons/day the mixing instructions are given below.

Mixing Data	Sequestrant	Disinfectant
Source Chemical	Kjell Corp. AquaMag	Chlorox 5-1/4% Sodium Hypochlorite
Concentration in Main Flow: Testable Orthophosphate AquaMag	1.27 ppm 5.84 ppm	0.3 ppm
Concentration in Tank	0.25:1	Undiluted
AquaMag Mixing Ratio	21 cups / 5 gallons solution	N/A

3.5 Record Keeping and Reports

The treatment system should be routinely monitored and records kept concerning its operation, volume of water treated, chemicals consumed and chemical residual levels in the distribution system. The weekly record of these observations should be kept on the premises and be available for inspection by health agency representatives. The system journal should show the date, name of observer, flowmeter reading, level of solution in both tanks, phosphate measurement, and all free chlorine measurements. In addition, the mixture ratios used during replenishment of the solution tanks should be noted.

Free chlorine measurements - State of Washington Department of Health Drinking Water Regulations require that water systems using chlorination must periodically monitor chlorine residual at representative points in the system. For small systems under the supervision of the County health agency routine free chlorine measurements should be taken weekly, one sample from a sample tap downstream of the injector, and other samples from representative points in the system; all results should be recorded in a journal kept on the premises.

Treated Water Bacteriological Analysis - State of Washington Department of Health Drinking Water Regulations require that Group B water systems (less than 15 connections) take a minimum of one routine coliform sample from a representative point in the system every year.

Raw Water Bacteriological Analysis - Unless more frequent testing is required by the cognizant health agency, it is recommended that a minimum of one raw water sample be taken for total coliform analysis every 3 months. Any significant increase in coliform count should be reported to the County health agency.

Inorganic Chemical and Physical Analysis - State of Washington Department of Health Drinking Water Regulations requires that all community water systems have one complete Inorganic Chemical and Physical Analysis from each ground water source or well field every thirty six months. It also requires community systems to have one complete Inorganic Chemical and Physical Analysis from each surface water source every twelve months.

MANCHESTER WATER DISTRICT
SATELLITE SYSTEM CONTRACT

Sidgwick Rd

IT IS AGREED by and between Manchester Water District ("the District") and the undersigned ("the owners" [now and future]) as follows:

1. Parties. The District is a municipal corporation organized under and existing by virtue of Title 57 of the Revised Code of Washington. The owners are, collectively, the owners (now and future) and persons provided water service by a water source and distribution system which is independent of and unconnected to another public or private water system (the "satellite system").

2. Legal Description. The property presently served, and to be served in the future, by the satellite system is located in Kitsap County, Washington and is legally described as follows:

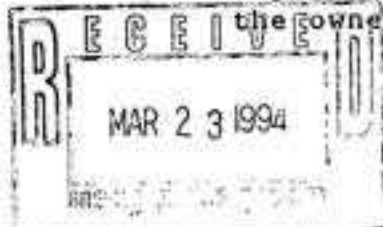
NW⁴, NE⁴, SECT. 9, T23N, R2E

The above property is ☒ inside ☐ outside the District's service area under the Kitsap County Coordinated Water System Plan.

3. District Services. The District will provide services to the satellite system checked below. The items not checked shall be the responsibility of the owners.

- ☐ Operation and management of the satellite system, including all services described below.
- ☐ Routine inspection, maintenance and repair of the satellite system in accordance with reasonable and accepted standards and practices for public water systems.
- ☐ Emergency repairs, within a reasonable time after the owners (now and future) have notified the District that repairs are needed.
- ☐ Preparation and filing of reports and other data (including water sample testing) required by other governmental bodies. If not checked, the owners (now and future) or SSMA will furnish copies of all reports, etc. to the District in a timely manner.
- ☐ Other: _____

☒ The District will not provide any satellite system services. The Satellite System Management Agency (SSMA) is to be *PUO #1 OF KITSAP COUNTY*.
(Letter of intent attached.) The District reserves the right to assume rights to and responsibility for the satellite system at any time, at its sole discretion, by sending written notice to the owners (now and future) and to the SSMA.



4. District Charges. The owners (now and future) agree to pay the following to the District:

- (a) Service Charges. The District will charge for the above services on a time, materials and administrative overhead basis as set forth by the Board of Commissioners. The charges will be:

☐ Billed to _____

☐ Divided by the number of then connections to the satellite system, and billed in equal shares to each owner (now and future) connected to the satellite system.

- (b) Connection Charges. All persons connecting to the District's water system are obligated to pay the District's Connection Charges (including the meter installation charge). These Connection Charges shall be paid:

☐ \$_____ in cash at the time of signing this Agreement, for each water service connected or to be initially connected to the satellite system. Persons seeking to connect to the satellite system in the future are obligated to pay the District's then standard Connection Charges before connection to the satellite system.

☐ As follows: \$_____ now, and hereafter in _____, bi-monthly installments of \$_____ plus accrued interest.

☒ At the time of connection to Manchester Water District (see Addendum A)

☐ Other: _____

- (c) Administrative Fee. The owners have paid \$ 50⁰⁰¢ to the District for the District's initial administrative and record keeping set-up charges.

- (d) Reserve Account. All present and future owners shall pay the District \$_____ per owner as a reserve account (or security deposit) against payment for services provided to the satellite system, as follows:

☐ \$_____ in cash at the time of signing this Agreement. Persons seeking to connect to the satellite system in the future are obligated to pay the District this or the current amount, as determined by the Board of Commissioners, before connection to the satellite system.

☐ \$_____ now, and _____ monthly installments of \$_____ payable on the 1st day of each month commencing _____.

The owners (now and future) are not entitled to interest on the reserve account, and the money in the account may be comingled with other District funds. If any of the District's charges to the owners (now and future) are so charged against the reserve account, then the District shall increase the monthly charges to all owners (now and future) to reimburse the reserve account for the amount charged against it. The amount and duration of such increased monthly charges shall lie within the sole discretion of the District.

If at any time in the future the reserve account is not adequate to pay the District's charges, the District may at its sole discretion: (a) Terminate this Contract or suspend District services hereunder; and (b) File a lien or liens against all of the properties served by the satellite system or against the property of those owners (now and future) who have not paid their monthly charges in full.

The District's charges are rates and charges for water supplied, and the lien or liens may be foreclosed in the manner provided by statute.

If, in the future, the District's system is extended to serve the satellite system area, the then balance of the reserve account shall be applied to any amount then owed the District, including Connection Charges, and the balance shall be divided and paid equally to all the owners (now and future) receiving water service.

The District may, in its sole discretion, increase or reduce the amount required in the reserve account and the monthly amounts billed therefore, based on the District's past charges, anticipated future charges, and increased cost to the District to provide services hereunder.

5. Terms and Conditions. The owner(s) agree to cause installation of said satellite system to be according to generally accepted water distribution procedures and practices as interpreted by District personnel. The owners shall pay an inspection fee of \$ 35.00 per hour and shall notify the District prior to commencement of work. It is further agreed as follows:

(a) The District does not own the satellite system. The District's responsibility is limited to the services set forth above, performed in accordance with accepted public utility practices.

(b) The District has no responsibility in the event that the satellite system water source is interrupted, the volume thereof is reduced, or the water is contaminated.

(c) If Paragraph 3, above, provides that the owners (now and future) are to perform any of the services required by the satellite system, the owners (now and future) agree to do so in accordance with accepted public utility practices, and in accordance with all applicable laws and regulations.

(d) The owners (now and future) hereby grant the District an irrevocable license to enter onto the well site and their properties in performance of the District's responsibilities under this Agreement, and to inspect the water system even though this Agreement may not provide that the District will provide any services to the satellite system.

(e) The District shall not be responsible or liable for damages of any kind or nature caused by the satellite system or its personnel to the properties or persons or third parties or the owners (now and future). The owners (now and future) agree to pay the District for all amounts it is required by law to pay including the District's legal fees and costs in defending any such action.

6. Annexation. The satellite system [] is ☒ is not within the District's corporate boundaries. If it is not, then attached hereto is an irrevocable petition to annex the owners' (now and future) property to the District at such time as the District deems appropriate. (Addendum A)

7. Waiver of Right to Protest Formation of a U.L.I.D. The owners (now and future) waive any and all rights granted by statute or otherwise, to object to or protest against formation by the District of Utility Local Improvement District for the purpose of constructing water mains extending the District's system to provide District water to the owners (now and future). The foregoing does not waive the owners' (now and future) right to object to the amount of the owners' assessment, in the manner provided by statute.

8. Transfer of Ownership. It is agreed that the owner(s) (now and future) of the satellite system shall transfer ownership of said system to the District at the District's request (including but not limited to mains and appertenances). Said system shall be transferred to the District at no cost whatsoever to the District.

9. Future Connection to District System. If and when the District's water system is extended to provide District water in lieu of the present satellite system source, the present and future owners of the property agree to connect to the District's system, at their expense, in accordance with the terms and conditions of duly enacted District resolutions. Thereupon, the service area of the satellite system shall automatically become part of the District's service area.

10. Duration. This Agreement shall remain in full force and effect until the District's system is extended to serve the satellite system area. Neither party may terminate this Agreement except at the District's discretion as outlined above.

11. Integration. This Agreement constitutes the entire agreement between the parties. There are no other verbal or written agreements or representations which modify or affect this Agreement.

12. Covenant Running With the Property. It is agreed that this Contract is a covenant running with the property described in Paragraph 2 above and any other properties receiving water in the future from the satellite system, and shall be binding on the owners of all such property, their heirs, assigns, and successors.

DATED this 14TH day of March, 1992.

Manchester Water District

By Jacki Martini
Title General Mgr.

OWNERS (The owners of the satellite system, and of all property served by it, must sign).

Name (Please Print)

Signature

Mailing Address

MARK MERCER	<i>Mark Mercer</i>	5039 Anderbar Rd SE
D.A. VANDERSTAY	<i>D.A. Van Stay</i>	3100 S.E. Mule Hill
RON BISHOP	<i>Ron Bishop</i>	PORT ORCHARD

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Mark Mercer is/are the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14 1992.

Jan A. Schuss
Notary Public in and for the State of
Washington residing Port Orchard
My commission expires 05-18-94

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that DA Vanderstad is/are the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-94

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Ron Bishop is/are the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-92

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Mark Mercer is/are the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-94

MANCHESTER WATER DISTRICT

OUTSIDE BOUNDARIES CUSTOMERS ON SATELLITE SYSTEMS AGREEMENT FOR SUPPORT OF
ANNEXATIONS, LOCAL IMPROVEMENT DISTRICTS OR PIPELINE EXTENSIONS

The undersigned owners or purchasers, lying outside the boundaries of Manchester Water District, a municipal corporation of the State of Washington, in consideration of the allowing of water service by a satellite system to the property hereinafter described do hereby agree that they will pay the cost of piping and installation thereof at such time the District may deem appropriate. The property is described as follows:

Legal Description: NW⁴, NE⁴, SECTION 9, T23N, R2E

Street Address:

The undersigned owners of the above described property, for themselves, their heirs, executors and assigns, do hereby covenant to support and petition for annexation to Manchester Water District applicable to the area within which the above described property is located, and further covenant for themselves, their heirs, executors and assigns, that should a Utilities Local Improvement District or a pipeline extension for a water improvement line, water mains or water service be initiated affecting the described real property or any portion thereof, the undersigned owners of the above described property, for themselves, their heirs, executors and assigns, do hereby covenant to support any petitions, therefore, not to contest the formation of said Utilities Local Improvement District or pipeline extension and to pay their share of the cost thereof ultimately and lawfully assessed by the Board of Commissioners of Manchester Water District.

Manchester Water District does not necessarily guarantee fire protection to properties not fronting on water mains at least six inches in diameter and served by Manchester Water District.

This agreement shall be binding upon the heirs, assigns and successors of said owners or purchasers.

Dated this 14th day of April, 1992.

Ronald H. Bishop
Dale W. Stang

STATE OF WASHINGTON
COUNTY OF KITSAP

On this day personally appeared before me DA Vanderstacy & Ronald Bishop to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that the same was signed as their free and voluntary act and deed, for the use and purpose therein mentioned.

Given under my hand and seal this 14th day of April, 1992.

Jean A. Screws
Notary Public in and for the State of
Washington residing at Port Townsend
My commission expires 05-18-94

MANCHESTER WATER DISTRICT

Sedgwick Ed

SATELLITE SYSTEM CONTRACT

IT IS AGREED by and between Manchester Water District ("the District") and the undersigned ("the owners" [now and future]) as follows:

1. Parties. The District is a municipal corporation organized under and existing by virtue of Title 57 of the Revised Code of Washington. The owners are, collectively, the owners (now and future) and persons provided water service by a water source and distribution system which is independent of and unconnected to another public or private water system (the "satellite system").

2. Legal Description. The property presently served, and to be served in the future, by the satellite system is located in Kitsap County, Washington and is legally described as follows:

NW⁴, NE⁴, SECT. 9, T23N, R2E

The above property is ☒ inside ☐ outside the District's service area under the Kitsap County Coordinated Water System Plan.

3. District Services. The District will provide services to the satellite system checked below. The items not checked shall be the responsibility of the owners.

- ☐ Operation and management of the satellite system, including all services described below.
- ☐ Routine inspection, maintenance and repair of the satellite system in accordance with reasonable and accepted standards and practices for public water systems.
- ☐ Emergency repairs, within a reasonable time after the owners (now and future) have notified the District that repairs are needed.
- ☐ Preparation and filing of reports and other data (including water sample testing) required by other governmental bodies. If not checked, the owners (now and future) or SSMA will furnish copies of all reports, etc. to the District in a timely manner.
- ☐ Other: _____

☒ The District will not provide any satellite system services. The Satellite System Management Agency (SSMA) is to be PUD #1 OF KITSAP COUNTY. (Letter of intent attached.) The District reserves the right to assume rights to and responsibility for the satellite system at any time, at its sole discretion, by sending written notice to the owners (now and future) and to the SSMA.

4. District Charges. The owners (now and future) agree to pay the following to the District:

- (a) Service Charges. The District will charge for the above services on a time, materials and administrative overhead basis as set forth by the Board of Commissioners. The charges will be:

☐ Billed to _____

☐ Divided by the number of then connections to the satellite system, and billed in equal shares to each owner (now and future) connected to the satellite system.

- (b) Connection Charges. All persons connecting to the District's water system are obligated to pay the District's Connection Charges (including the meter installation charge). These Connection Charges shall be paid:

☐ \$_____ in cash at the time of signing this Agreement, for each water service connected or to be initially connected to the satellite system. Persons seeking to connect to the satellite system in the future are obligated to pay the District's then standard Connection Charges before connection to the satellite system.

☐ As follows: \$_____ now, and hereafter in_____, bi-monthly installments of \$_____ plus accrued interest.

☒ At the time of connection to Manchester Water District (see Addendum A)

☐ Other: _____

- (c) Administrative Fee. The owners have paid \$ 50⁰⁰% to the District for the District's initial administrative and record keeping set-up charges.

- (d) Reserve Account. All present and future owners shall pay the District \$_____ per owner as a reserve account (or security deposit) against payment for services provided to the satellite system, as follows:

☐ \$_____ in cash at the time of signing this Agreement. Persons seeking to connect to the satellite system in the future are obligated to pay the District this or the current amount, as determined by the Board of Commissioners, before connection to the satellite system.

☐ \$_____ now, and _____ monthly installments of \$_____ payable on the 1st day of each month commencing _____.

The owners (now and future) are not entitled to interest on the reserve account, and the money in the account may be comingled with other District funds. If any of the District's charges to the owners (now and future) are so charged against the reserve account, then the District shall increase the monthly charges to all owners (now and future) to reimburse the reserve account for the amount charged against it. The amount and duration of such increased monthly charges shall lie within the sole discretion of the District.

If at any time in the future the reserve account is not adequate to pay the District's charges, the District may at its sole discretion: (a) Terminate this Contract or suspend District services hereunder; and (b) File a lien or liens against all of the properties served by the satellite system or against the property of those owners (now and future) who have not paid their monthly charges in full.

The District's charges are rates and charges for water supplied, and the lien or liens may be foreclosed in the manner provided by statute.

If, in the future, the District's system is extended to serve the satellite system area, the then balance of the reserve account shall be applied to any amount then owed the District, including Connection Charges, and the balance shall be divided and paid equally to all the owners (now and future) receiving water service.

The District may, in its sole discretion, increase or reduce the amount required in the reserve account and the monthly amounts billed therefore, based on the District's past charges, anticipated future charges, and increased cost to the District to provide services hereunder.

5. Terms and Conditions. The owner(s) agree to cause installation of said satellite system to be according to generally accepted water distribution procedures and practices as interpreted by District personnel. The owners shall pay an inspection fee of \$ 35.00 per hour and shall notify the District prior to commencement of work. It is further agreed as follows:

(a) The District does not own the satellite system. The District's responsibility is limited to the services set forth above, performed in accordance with accepted public utility practices.

(b) The District has no responsibility in the event that the satellite system water source is interrupted, the volume thereof is reduced, or the water is contaminated.

(c) If Paragraph 3, above, provides that the owners (now and future) are to perform any of the services required by the satellite system, the owners (now and future) agree to do so in accordance with accepted public utility practices, and in accordance with all applicable laws and regulations.

(d) The owners (now and future) hereby grant the District an irrevocable license to enter onto the well site and their properties in performance of the District's responsibilities under this Agreement, and to inspect the water system even though this Agreement may not provide that the District will provide any services to the satellite system.

(e) The District shall not be responsible or liable for damages of any kind or nature caused by the satellite system or its personnel to the properties or persons or third parties or the owners (now and future). The owners (now and future) agree to pay the District for all amounts it is required by law to pay including the District's legal fees and costs in defending any such action.

6. Annexation. The satellite system [] is [X] is not within the District's corporate boundaries. If it is not, then attached hereto is an irrevocable petition to annex the owners' (now and future) property to the District at such time as the District deems appropriate. (Addendum A)

7. Waiver of Right to Protest Formation of a U.L.I.D. The owners (now and future) waive any and all rights granted by statute or otherwise, to object to or protest against formation by the District of Utility Local Improvement District for the purpose of constructing water mains extending the District's system to provide District water to the owners (now and future). The foregoing does not waive the owners' (now and future) right to object to the amount of the owners' assessment, in the manner provided by statute.

8. Transfer of Ownership. It is agreed that the owner(s) (now and future) of the satellite system shall transfer ownership of said system to the District at the District's request (including but not limited to mains and appertenances). Said system shall be transferred to the District at no cost whatsoever to the District.

9. Future Connection to District System. If and when the District's water system is extended to provide District water in lieu of the present satellite system source, the present and future owners of the property agree to connect to the District's system, at their expense, in accordance with the terms and conditions of duly enacted District resolutions. Thereupon, the service area of the satellite system shall automatically become part of the District's service area.

10. Duration. This Agreement shall remain in full force and effect until the District's system is extended to serve the satellite system area. Neither party may terminate this Agreement except at the District's discretion as outlined above.

11. Integration. This Agreement constitutes the entire agreement between the parties. There are no other verbal or written agreements or representations which modify or affect this Agreement.

12. Covenant Running With the Property. It is agreed that this Contract is a covenant running with the property described in Paragraph 2 above and any other properties receiving water in the future from the satellite system, and shall be binding on the owners of all such property, their heirs, assigns, and successors.

DATED this 14TH day of March, 1992.

Manchester Water District

By Jacki Martens
Title General Mgr.

OWNERS (The owners of the satellite system, and of all property served by it, must sign).

Name (Please Print)

Signature

Hailing Address

MARK MERCER	<i>Mark Mercer</i>	5039 Anderbar Rd SE.
DA VANDERSTAN	<i>D.A. Van Stang</i>	3100 S.E. Mile Hill
RON BISHOP	<i>Ron Bishop</i>	Port Orchard

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Mark Mercer is/are the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14 1992.

Jan A. Screws
Notary Public in and for the State of
Washington residing Port Orchard
My commission expires 05-18-94

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that DA Vamerstaay is/are the person who appeared before me and said person acknowledged that ne signed this instrument and acknowledged it to be NIS free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-94

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Ron Bishop is/are the person who appeared before me and said person acknowledged that ne signed this instrument and acknowledged it to be NIS free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-92

STATE OF WASHINGTON)

) SS.

COUNTY OF KITSAP)

I hereby certify that I know or have satisfactory evidence that Mark Mercer is/are the person who appeared before me and said person acknowledged that ne, VOID signed this instrument and acknowledged it to be NIS free and voluntary act for the uses and purposes mentioned in this instrument.

DATED: April 14, 1992.

Juan A. Schewe
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-94

MANCHESTER WATER DISTRICT

OUTSIDE BOUNDARIES CUSTOMERS ON SATELLITE SYSTEMS AGREEMENT FOR SUPPORT OF ANNEXATIONS, LOCAL IMPROVEMENT DISTRICTS OR PIPELINE EXTENSIONS

The undersigned owners or purchasers, lying outside the boundaries of Manchester Water District, a municipal corporation of the State of Washington, in consideration of the allowing of water service by a satellite system to the property hereinafter described do hereby agree that they will pay the cost of piping and installation thereof at such time the District may deem appropriate. The property is described as follows:

Legal Description: NW⁴, NE⁴, Section 9, T23N, R2E

Street Address:

The undersigned owners of the above described property, for themselves, their heirs, executors and assigns, do hereby covenant to support and petition for annexation to Manchester Water District applicable to the area within which the above described property is located, and further covenant for themselves, their heirs, executors and assigns, that should a Utilities Local Improvement District or a pipeline extension for a water improvement line, water mains or water service be initiated affecting the described real property or any portion thereof, the undersigned owners of the above described property, for themselves, their heirs, executors and assigns, do hereby covenant to support any petitions, therefore, not to contest the formation of said Utilities Local Improvement District or pipeline extension and to pay their share of the cost thereof ultimately and lawfully assessed by the Board of Commissioners of Manchester Water District.

Manchester Water District does not necessarily guarantee fire protection to properties not fronting on water mains at least six inches in diameter and served by Manchester Water District.

This agreement shall be binding upon the heirs, assigns and successors of said owners or purchasers.

Dated this 14th day of April, 1992.

Ronald H. Bishop
Nelson Vanhook Stang

STATE OF WASHINGTON
COUNTY OF KITSAP

On this day personally appeared before me DA Varnersday & Ronald Bishop to me known to be the individual(s) described in and who executed the within and foregoing instrument, and acknowledged that the same was signed as their free and voluntary act and deed, for the use and purpose therein mentioned.

Given under my hand and seal this 14th day of April, 1992.

Alan A. Screws
Notary Public in and for the State of
Washington residing at Port Orchard
My commission expires 05-18-94

SATELLITE SYSTEM APPROVAL CHECKLIST

SEBASTIAN / VANDERSTAY

- ☒ Plans submitted (must include tax acct. numbers for all lots).
- ☒ Administrative fee received \$ 50.00.
- ☒ Plan accepted. revised to 8"
- ☐ Commitment letter for SSNA received, MUST INCLUDE:
 1. Who will manage.
 2. Who will maintain to usual & customary standards.
 3. Acknowledgement of turning system over to Manchester Water District upon demand, with no fees.
- ☒ Satellite system contract signed.
- ☐ Denial of service letter reserving future rights.
- ☐ Notification before commencement of construction.
- ☐ Inspection fee received \$ _____.
- ☐ As-built drawings received (must be engineering drawings).

DATE	ARRIVAL TIME	DEPARTURE TIME	TOTAL HOURS	SIGNATURE OF CONTRACTOR
TOTAL HOURS _____ AT \$ _____ /HR = \$ _____				

NAME/TITLE

MANCHESTER WATER DISTRICT

**Manchester Water District
Satellite Management Contract
For Water System
Management and Operation**

IT IS AGREED by and between MANCHESTER WATER DISTRICT, a Washington municipal corporation (hereinafter also referred to as "Satellite Management Agency" or "SMA") located at 2081 Spring Street East, (P.O. Box 98), Manchester, WA. 98353-0098 and DIVERSIFIED DEVELOPMENT GROUP (hereinafter referred to simply as "Diversified") as follows:

Recitals:

These parties agree to have SMA manage the private water system ("Water System") as set forth in this Contract, which Water System is hereinafter identified and owned by Diversified. Diversified's mailing address for the receipt of all notices from SMA regarding this Contract is:

Diversified Development Group
PO Box 3016
San Rafael, CA 94912
(415) 457-2800

Diversified's form of ownership is as a General Partnership formed in the state of Washington. Its general partner representing it in the formation of this Contract, and his contact address are

Name: Jack Krystal
Address: PO Box 3016
San Rafael CA 94912
(415) 457-2800

The names and addresses of all of Diversified's other general partners are as follows:

<u>Jack Krystal</u>	_____
<u>1299 Fourth St #202</u>	_____
<u>San Rafael, CA 94901</u>	_____
<u>Karen Melchers</u>	_____
<u>1299 Fourth St. #202</u>	_____
<u>San Rafael, CA 94901</u>	_____

Diversified represents and warrants the Water System is independent of and unconnected to any other water system in any respect, and is currently in good standing with the State of Washington, and in compliance with all State and local rules and regulations regarding the operation of water systems of its class and size. Any statements or representations hereinafter set forth regarding the Water System's makeup, condition, or status, are deemed herein to be made by Diversified.

Effective Date: The effective date of this Contract shall be the execution date of this contract, however, billed services will commence upon active management of the Water System by SMA.

Legal Description:

The property presently served by the Water System ("Water System Property") is located within Kitsap County, Washington, and is legally described on the attached "**EXHIBIT A**", which by this reference is incorporated herein. An accurate sketch of the Water System Property showing the approximate location of all components of the Water System (i.e., wells, pumps, reservoirs, mains, resident connection points, etc.) is set forth on the attached "**EXHIBIT B**", which by this reference is incorporated herein.

The Water System Property is ☐ inside ☒ outside SMA's DOH approved service area as identified in the CWSF and on file with Kitsap County.

Now therefore, based upon the foregoing recitals, and the promises and covenants of the parties hereinafter set forth, they agree as follows:

1. **General Services / Water System Representation / Present Condition of Water System:** SMA shall become acquainted with the Water System including all appurtenances thereto (transmission lines, valves, pumps, storage facilities, source(s), controls, treatment equipment and monitoring equipment, etc.) and its operation and maintenance requirements.

Diversified hereby designates Jack Krystal as its "Contact Person" to represent Diversified in its dealings with SMA regarding the Water System and all terms of this Contract, and to aid SMA in all reasonable respects and at all reasonable times in becoming fully acquainted with the Water System and all of its components. The Contact Person is hereby provided with the right to fully represent Diversified and the Water System regarding the implementation of this Contract and the negotiation(s) of any changes hereto, including signing on behalf of Diversified any amendment documents hereto. All services supplied to SMA from Diversified's Contact Person shall be at Diversified's sole expense.

SMA hereby designates the District General Manager or his/her designee employee of SMA, to represent SMA in all dealings with Diversified regarding the Water System and the terms of this Contract.

Diversified represents the Water System and all its physical facilities and components are presently in good condition and repair except as set forth on the attached "EXHIBIT C", which by this reference is incorporated herein.

2. **Service Charges:** SMA will charge for services provided in **Services I** hereof, a flat rate of TWO HUNDRED TWENTY-FIVE DOLLARS AND NO-CENTS (\$225.00) per bi-monthly billing period. The services provided in **Services II** hereof will be on a time, material, and overhead cost basis. The hourly rates for labor, equipment, and materials will be shown in the SMA's published **SCHEDULE OF FEES & CHARGES**, as amended each year, a copy of which is attached as "EXHIBIT D", which by this reference is incorporated herein. Payments for work done under **Services II**, shall be due immediately upon billing being tendered Diversified at the following address:

Diversified Development Group
Atten: Jack Krystal
1299 Fourth St, #202
San Rafael, CA 94901

or Billed directly to the customers of the Water System if the initials of the Water System contact person are set forth here- (Initials: _____). Copies of material invoices will be forwarded with invoices for **Services II** work. Materials will be charged at cost plus 10%.

3. **Scope of Services I:** SMA, at and after the effective date of this Contract, shall perform scheduled operation and maintenance of the Water System per SMA's procedures and accepted public health practices. Operation and maintenance shall include:
 - A. **Inspections.** Monthly inspection of the Water System for proper operation and to collect source meter readings.
 - B. **Bi-Annual Water Sample.** Twice annually, one water sample will be collected for the purpose of coliform monitoring. The sample shall be turned into the Kitsap County Health District or State approved laboratory for bacteriological analysis. If the routine sample fails, the first set of repeat samples shall be at the SMA's cost with no labor charge assessed. If repeat samples fail and chlorination and/or flushing of the system is/are required, the work will be performed by SMA on a Time and Material basis and paid by Diversified. SMA will retain all records of bacteriological test results for a reasonable period of time.
 - C. **Valve Maintenance.** Annually, SMA will perform Water System valve maintenance.
 - D. **Annual monitoring of Static Well Levels.** Annually, SMA will take and record static well water levels (if a sounding tube is installed).

- E. **Emergency Response:** SMA employees are on call 24 hours per day, weekends, and holidays, for emergency dispatch purposes. In case of emergency regarding the Water System or service, (360) 871-0500 should be called and directions followed as to dispatching a technician. (See Section II, General & Emergency Repairs.)
 - F. **Preventative Maintenance:** SMA will perform scheduled preventive maintenance, i.e., well amp readings and electrical/mechanical equipment checks. Parts required to complete preventive maintenance or repairs shall be charged to Diversified at SMA's cost, plus 10% Overhead.
 - G. **Record Meter Readings:** Log source meter readings on appropriate data spreadsheets.
 - H. **Analyze Data:** SMA shall: analyze recording instrument readings and laboratory tests; determine sites and causes of any malfunctions; adjust various treatment processes or other water system components accordingly; ensure proper records are maintained; and determine remedial actions in emergencies.
4. **Scope of Services II:** The Services provided by SMA under "Scope of Services II," shall be as follows:
- A. **Monitoring / Testing:** Testing for chemicals, lead, copper, etc. will be completed per all federal, state, and local health requirements. All Water Quality Monitoring including Inorganic Chemicals, Volatile Organic Chemicals, Radionuclide, Synthetic Organic sampling required (excluding coliform during the term of this contract).
 - B. **General & Emergency Repairs:** Complete all appropriate general repairs and emergency repairs, within a reasonable time after the Water System Contact Person has notified SMA of his/her belief that repairs are needed. Such repairs shall also be made after taking into consideration the other demands then placed on SMA's staff and the costs and complexity thereof.
 - C. **Reports:** Prepare and file reports and other data (including water sample testing, nitrates, etc.) required by other governmental bodies.
 - D. **Notification Requirements:** Meet public notification requirements.
 - E. **Connection Work:** Make appropriate service connections and disconnections.
 - F. **Customer Response:** Respond to appropriate customer complaints and/or informational requests.
 - G. **Cross Connection Program:** Provide planning and technical assistance within its budgetary constraints in developing and implementing a cross-connection control program.
 - H. **Coliform Monitoring:** Develop and implement a coliform monitoring program, when appropriate.
 - I. **Capital Improvement:** Determine and develop capital improvement programs and projects within its budgetary constraints as appropriate.
 - J. **Construction Management:** Perform construction management of private contractors.
 - K. **Maintain As-Builts:** Prepare and maintain as-builts of the Water System as required by new construction or other modifications to the existing Water System.
 - L. **System Plan:** Prepare and/or update the Water System's Water System Plan, when appropriate.
 - M. **WFI Revision:** Revise the Water System Inventory (WFI) and submit it to WSDOH.
 - N. **Meter Reading & Billing:** Perform all Meter reading and billing tasks, if applicable.
5. **SMA Charges:** Diversified agrees to pay the following to SMA:

- A. **Administrative Fee:** Diversified ☐ has paid, ☒ will pay, within 30 days TWENTY DOLLARS AND NO-CENTS (\$20.00) per billed account to SMA for SMA's initial administrative and record keeping setup charge in managing the Water System as herein set forth.
- B. **Reserve Account:** Diversified shall pay the SMA ONE THOUSAND THREE HUNDRED FIFTY DOLLARS AND NO-CENTS (\$1,350.00), an amount equal to one year's service to be held in reserve as a security deposit to insure (and apply towards payment as deemed appropriate by SMA) payment for services provided to the Water System, as follows:
- ☒ Diversified shall pay THREE HUNDRED FIFTY DOLLARS AND NO-CENTS (\$350.00) at the time the original Contract is signed and ONE THOUSAND DOLLARS AND NO-CENTS (\$1,000.00) when services commence.

After two (2) years of a satisfactory payment history and/or if either party terminates this Contract, the remaining funds in the reserve account will be returned to Diversified. However, Diversified shall not be entitled to interest on the sum(s) held in the reserve account, and the money in the account may be co-mingled with other SMA funds.

If any of SMA's charges to Diversified are so charged against the reserve account, then SMA shall, with the approval of Diversified, increase the monthly charges to all of the Water System's customers to reimburse the reserve account for the amount charged against it. The amount and duration of such increased monthly charges shall be determined through agreement between SMA and Diversified.

If at any time in the future the reserve account is not adequate to pay SMA's charges, SMA may, in its sole discretion, terminate this Contract or suspend services hereunder at the conclusion of any calendar month upon first providing advance written notice of at least thirty (30) days to this effect to Diversified's Contact Person.

SMA may, in its sole discretion, increase or reduce the amount required in the reserve account and the monthly amounts billed therefore, based on SMA's past charges, anticipated future charges, and the increased cost to SMA to provide services hereunder.

6. **Complete Agreement / Miscellaneous Provisions.**

- A. **Complete Agreement.** This Contract represents the complete agreement of the parties as to the matters set forth herein and shall supercede and replace any prior verbal or written understandings or agreements. Any amendments or changes hereto shall be set forth in writing and signed by the parties.
- B. **Additional Provisions.** Without limiting the foregoing, it is agreed as follows:
- (a) SMA does not own the Water System; it is wholly owned by Diversified. SMA's responsibility is limited to the services it is to provide as specifically identified in this Contract.
 - (b) SMA has no responsibility in the event the Water System water source is interrupted for any reason whatsoever, or if the volume thereof is reduced, or if the water is or becomes contaminated.
 - (c) SMA has no responsibility under this Contract to pay operating costs associated with the Water System, including but not limited to electrical power and equipment panels, chemicals, specialized water treatment equipment, replacement of pumps, motors, and appendages, natural gas, garbage collection, building maintenance and repairs, inspection fees, Washington State DOE, DOH, and/or DOR fees, charges, and excise taxes.
 - (d) Diversified hereby grants to SMA an irrevocable license to enter onto the well site and all other Water System properties and all easements associated therewith in performance of SMA's responsibilities under this Contract, and to inspect and maintain the Water System and all its components at all times.

- C. **Possible ULID Formation.** If found to be financially and economically feasible, SMA may create a new ULID in accordance with Chapter 57, RCW which encompasses or affects the Water System. Once a ULID is formed, ownership of all existing Water System facilities, real property, equipment, and data would be transferred to the ownership of SMA.
- D. **Future Support of District Action.** In the event a utilities local improvement district (ULID), or pipeline extension for a water line, water main, or a water service is initiated from SMA's main water lines affecting the property served by this Water System, Diversified agrees (and it will actively seek the support of the Water System's customers) to support any petitions or other action therefor and not to contest the formation of any said ULID or pipeline extension and to pay its/their share of the costs thereof ultimately assessed by SMA. Diversified also understands SMA, at its option, may require water meters to be moved to the new water main at the Water System Property Owners' expense. No credit will be supplied to the Property Owners by SMA for improvement/upgrade/maintenance expenses previously paid, at the time of the new assessment.
- E. **Fire protection.** SMA does not make any representations or warranties that adequate water pressure and/or volume for fire protection purposes will be available to the Water System's customers.
- F. **Agreement runs with the land.** All provisions of this Contract, including the benefits and burdens run with the Water System Property (the property on which the System is located and all properties served by the System) and are binding upon and inure to the heirs, assigns, successors, tenants, and personal representatives of these parties.
7. **Water System Repairs and Improvements: NOTWITHSTANDING THE EFFECTIVE DATE OF THIS CONTRACT** set forth in the recital section hereof, this Contract shall not become effective until repairs and improvements to the water system are (CHECK ONE):
- ☐ performed by SMA after the Water System has deposited with the SMA sufficient funds to cover the full-anticipated cost thereof
- ☒ performed by Diversified at its sole expense
- ☐ no repairs are required
- ☐ performed by Diversified as set forth on the attached "**EXHIBIT E**", which by this reference is incorporated herein.
8. **Duration / Termination Provisions:** This Contract shall terminate on the year subsequent to the effective date hereof on December 31 of that year; PROVIDED, HOWEVER, it shall automatically be renewed for each subsequent yearly period from January 1 to December 31 of each year thereafter, unless terminated by either party by sending written notice to the other party of its intent to terminate the Contract at the completion of that yearly period, which notice shall be tendered at least sixty (60) days prior to the end of the year for which termination is sought. This Contract may also be terminated pursuant to the provisions of section 5 hereof.
- The party who terminates this Contract shall forward a copy of the Contract termination notification to WSDOH and Kitsap County Health District prior to the actual termination date.
9. **Indemnification / Water System Insurance Requirements:** Diversified shall assume the risk of, be liable for, and pay all damages, losses, costs, and expenses of every kind and nature whatsoever of SMA or Diversified arising out of the performance of this Contract unless such damage, loss, cost or expense is caused solely by the gross negligence or willful misconduct of SMA and its employees. Subject to the conditions set forth in the preceding sentence, Diversified shall also indemnify and hold SMA harmless from all claims, losses, suits, actions, costs, counsel fees, litigation, litigation costs, expenses, damages, judgments, or decrees by reason of damage to any property or business and/or death, injury or disability to any person or party arising out of or suffered directly or indirectly by reason of or in connection with the performance of this Contract or any action, effort or omission of Diversified, Diversified's employees, agents or subcontractors, whether by negligence or otherwise.

Diversified shall carry insurance to cover all foreseeable liability referred to in this Section 9. Said insurance shall also name SMA as a covered insured. A copy of the insurance policy, and all renewals thereof, shall be delivered to SMA when issued. The minimum insurance requirements shall be as follows:

- A. Comprehensive General Liability. ONE MILLION DOLLARS AND NO-CENTS (\$1,000,000.00) combined single limit per occurrence for bodily injury personal injury and property damage;
- B. Automobile Liability. THREE HUNDRED THOUSAND DOLLARS AND NO-CENTS (\$300,000.00) combined single limit per vehicle accident for bodily injury and property damage;
- C. Workers' Compensation. Workers' compensation limits as required by the Workers Compensation Act of Washington.

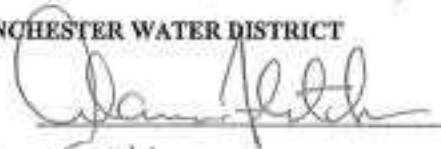
Insurance to be provided by Diversified shall be with a Bests rating of no less than "A:VII", or if not rated by Bests, with minimum surpluses the equivalent of Bests' "VII" rating.

- 10. Legal Action / Legal Costs. The court and venue for any legal action brought to enforce the terms of this Contract, or with regard to the matters covered in this Contract, shall be the Superior Court of Kitsap County, Washington. The party who substantially prevails in any said legal action shall be entitled to receive from the party who substantially loses, all of its reasonable attorney fees and court costs of every kind and nature. The parties further agree that once a court action has been initiated hereunder, they shall initially submit their dispute into arbitration as required by the mandatory arbitration rules for Superior Court, and they shall provide the arbitrator appointed by the court with full power to fully and completely settle any and all disputes, even if such power(s) is/are not provided in the court arbitration rules. The decision of the arbitrator may be appealed to superior court as provided in the said rules.
- 11. Cooperation of Parties / Reasonable Interpretation. The parties shall make all reasonable efforts to fully and completely cooperate with one another in all reasonable ways, and at all times during the term of this Contract, so the provisions hereof may be fully implemented in a reasonable fashion. This Contract shall be provided with a reasonable interpretation.
- 12. Authority of Signing Parties. The individual signing this Contract on behalf of its respective party represents he or she has full and complete authority to sign this Contract on behalf of SMA or Diversified as the case may be, and to fully bind it to the terms and conditions hereof.

DIVERSIFIED DEVELOPMENT GROUP

By: 
Title: President
Date: 8-9-2004

MANCHESTER WATER DISTRICT

By: 
Title: GM
Date: 8/12/04

Emergency Contact Person(s) For Water System:

Dennis O'Connell, Operations Supervisor
Don Hoskinson, Lead Service Tech

Phone No. 360 871-0500
Phone No. 360 871-0500

**MANCHESTER WATER DISTRICT
Satellite Management Contract
For Water System
Management and Operation**

EXHIBIT A

**Short Plat No. 5902, Located off Woods Road SE in the SE ¼
of the NE ¼ of Section 29, Township 24N, Range 2E, W. M.
Kitsap County, Washington.**

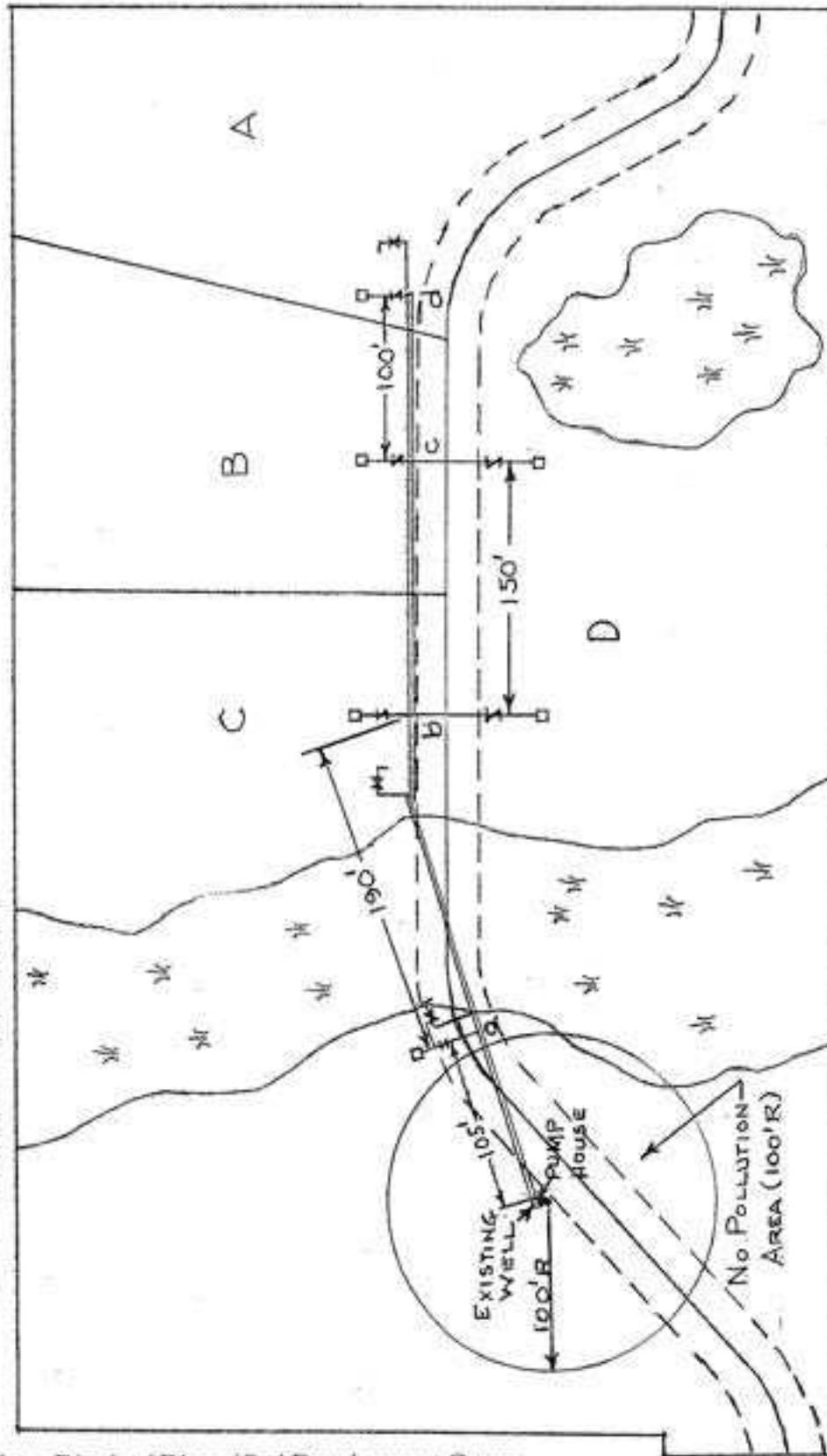
**Consisting of Tax Lots: 272402-1-032-2003
 292402-1-033-2002
 292402-1-034-2001
 292402-1-035-2000**

EXHIBIT B

**CRYSTAL WOODS WATER DISTRIBUTION SYS.
AND SITE PROTECTION MAP**

✓✓ = CHECK VALVE BETWEEN METER & SERVICE (6 EA.)
✓✓ = 2" GATE BLOW OFF VALVES (3 EA)

SCALE: 1" = 100'
== = 3" SCH 40 PVC WTR MAIN
--- = 1" 200 PVC SERVICE LINES
□ = SERVICE CONNECTION



**MANCHESTER WATER DISTRICT
Satellite Management Contract
For Water System
Management and Operation**

EXHIBIT C

System under construction.

No known deficiencies.

Manchester Water District
PO Box 98
Manchester WA 98353-0098
(360) 871-0500

MANCHESTER WATER DISTRICT
Satellite Management Contract
For Water System
Management and Operation

EXHIBIT D

R E C E I V E D

APR 19 2004

AUDITOR'S RECORDING
KITSAP COUNTY

MANCHESTER WATER DISTRICT

Resolution No. 2004-06

A RESOLUTION AMENDING SCHEDULE OF FEES

WHEREAS, the Manchester Water District Board of Commissioners adopted Resolution 2003-13, which established a schedule of Fees and Charges for various services the District provides; and

WHEREAS, Manchester Water District has reviewed the costs for a number of services it provides and has determined that certain fees and charges should be adjusted; and

WHEREAS, a the schedule of General Fees & Charges has been created that displays the current costs of the listed services and that the designation "TMO" is meant to establish a fee or charge by computing the actual time, materials, equipment, and overhead costs of the named service,

NOW THEREFORE BE IT RESOLVED by the Manchester Water District Board of Commissioners that Resolution 2003-13 and any other preceding Resolutions that set Fees and Charges covered by this Resolution are hereby superceded, and the following Schedule of Fees and Charges are adopted and effective immediately:

Manchester Water District / Diversified Development Group
F:\waterworld\Agreements\NMA Woods-Polk short Plot 3902 - EXHIBITS.doc

MANCHESTER WATER DISTRICT
Schedule of Fees & Charges

Service	Fee/Charge
Water Service Installation:	
Developer Installed Pre-run Service ¾-inch	\$200.00
Developer Installed Pre-run Service 1-inch	\$300.00
MWD Full Install ¾-inch	\$750.00
MWD Full Install 1-inch	\$850.00
1½ -inch & Above	TMO
Capital Improvement Assessment:	\$1,500.00
Plus - Per Foot Front Footage Assessment, or	\$20.00 Foot
Back-lot Improvement Assessment	\$1,500.00
Meter Test (If accuracy test within Standards)	TMO
Bacteriological Water Quality Test	\$35.00
Plan Check/Inspection	TMO (5% Depo)
Inspection	TMO (5% Depo)
Project Administration	TMO (5% Depo)
Research	TMO (5% Depo)
Copier Fees:	
Per Page	\$0.10
After 15 Minutes	TMO
Document Charges	TMO
MWD-Developer Extension Manual	\$25.00
Specifications (MWD projects)	TMO
Service Termination (District allows up to \$250 in removal costs. Customer pays Time, Materials, and Overheads above \$250)	TMO (\$250.00 Allowance)
Recording Fee (Includes Labor & Travel)	Per County
Other Requested Services	TMO
Street Lighting (Bimonthly Charge)	\$3.75
Account Set Up (New Customer)	\$20.00
Account Maintenance – Final Bill Estimate for Escrow	\$20.00
Water Availability Letter	\$20.00
Late Payments (10% of Outstanding Balance)	10%
Shut Off Notice/Hanger	\$10.00
Collection at Door Prior to Physical Disconnect	\$20.00
Restore Service During Business Hours	\$40.00
After Hours (Non-emergency) Call Out	\$100.00
NSF Fee	\$40.00
Illegal Meter Operation	\$100.00
Meter Reinstallation	\$100.00
Damage to Equipment (Minimum)	\$50.00
Damage to Equipment	TMO

Unauthorized (Illegal) Connection (per occurrence):	
1 st Offense	\$200.00
2 nd Offense & Above	\$300.00
<u>Service</u>	<u>Fee/Charge</u>
Fire Hydrant Use – <i>Unauthorized</i> :	
Unauthorized Hydrant & Equipment Use	\$500.00
Non-Approved Tank/Truck Use	\$1,000.00
Failure to Record / Report Water Use (Per Day)	\$50.00 Day
Fire Hydrant Use – <i>Authorized</i> :	
Hydrant Meter Deposit (Refundable)	\$500.00
Hydrant Meter Daily Rental & Monthly Maximum Usage (Per 100-Cubic Feet)	\$5.00/\$75.00
	\$3.00 HCF
Job Costs (Per Hour Unless Otherwise Shown):	
Labor – Straight Time	\$25.00
Labor – Overtime	\$35.00
Dump Truck	\$30.00
Backhoe	\$35.00
Pick Up Truck	\$10.00
Service Truck (With Tools)	\$30.00
Pipe Push	TMO
Materials (Cost + 10% Handling)	TMO
Satellite System Management:	
Water Testing	TMO
W.Q. Labor (Per Hour)	TMO
Materials (+10%)	TMO

ADOPTED by the Manchester Water District Board of Commissioners on April 13, 2004.


Steve Pedersen,
Board Chair


James E. Strode,
Secretary


Kyle D. Galpin,
Commissioner

Approved as to Form:


Richard Gross,
Attorney at Law

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Appendix Q

Fire Marshal Comments

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Peter Cunningham

From: David Lynam <DLynam@kitsap.gov>
Sent: Friday, April 11, 2025 4:30 PM
To: Peter Cunningham
Cc: Tina Turner; Matthew Bryant
Subject: RE: Manchester WSP - Fire Flow Requirements
Attachments: Mnachester Fire Flows.pdf

Good afternoon Peter,

Tina Turner – our assistant fire marshal went through of these some time ago (see attached) The basic levels you have for decision are the minimum level of fire flow – 500 gpm in rural residential will likely stay the same for awhile, medium density urban fire flow requirements will very likely increase to the 1000 gallons per minute you have outlined and 1,500 gpm is the minimum for commercial and likely high density residential because that will involve apartments. There are a few areas where the current size of construction is already outpacing the water supply – see the attached for Sedgewick Jr. High, the commercial ar4eea at 9700 SE Southworth drive, the Manchester Christian Academy. These are addresses through fire sprinklers but for example Sedgewick Jr. High still has the 2000 gpm requirement even with the sprinkler credits.

A few other areas that are below the minimums – Harper Church, Sedgewick Jr High (shows 0 available now must be a private system out there?) the commercial areas 9700 Southworth Dr., Southworth Ferry Terminal and some of the areas circled in red show less than the minimums now and in many cases it will be another 20 years before we see improvements. If we can't make improvements more quickly, perhaps we need to consider everything being sprinkled when constructed in those areas.

I'll be in next week so let's g over these a bit more then.



David Lynam

Fire Marshal
Kitsap County

Your Partner in Building Safe, Resilient, and Sustainable Kitsap County Communities!

(360) 337-5777

[Kitsap.gov/DCD/](https://www.kitsap.gov/DCD/)



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From: Peter Cunningham <Peter.Cunningham@bhccconsultants.com>
Sent: Wednesday, April 9, 2025 11:56 AM

To: David Lynam <DLynam@kitsap.gov>
Subject: RE: Manchester WSP - Fire Flow Requirements

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David,
No problem, sounds like you're busy. Thanks for the heads up and I look forward to seeing your response.

Good luck juggling everything!

Peter

Peter Cunningham, PE
Sr. Project Engineer
p. 206.505.3400
d. 206.357.9964
m. 206.265.2534
e. Peter.Cunningham@bhccconsultants.com



1601 Fifth Avenue Suite 500
Seattle, Washington 98101
www.bhccconsultants.com

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From: David Lynam <DLynam@kitsap.gov>
Sent: Wednesday, April 9, 2025 11:33 AM
To: Peter Cunningham <Peter.Cunningham@bhccconsultants.com>
Subject: RE: Manchester WSP - Fire Flow Requirements

Good morning, Peter – my sincere apologies for taking so long. I have been acting director and acting assistant director and building official and fire marshal since last spring and now I'm down to just building official and fire marshal. I actually pulled up the information you provided Tina Turner yesterday and Will commit to getting back to you by COB Friday. Hope this helps.



David Lynam
Fire Marshal
Kitsap County

Your Partner in Building Safe, Resilient, and Sustainable Kitsap County Communities!

(360) 337-5777
Kitsap.gov/DCD/



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From: Peter Cunningham <Peter.Cunningham@bhccconsultants.com>
Sent: Wednesday, April 9, 2025 11:08 AM
To: David Lynam <DLynam@kitsap.gov>
Subject: RE: Manchester WSP - Fire Flow Requirements

You don't often get email from peter.cunningham@bhccconsultants.com. [Learn why this is important](#)

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Morning David,

Following up on this – do you have any feedback on the fire flow table, or fire flow requirements that DOH is requesting as part of the Water System Plan update?

DOH wanted to know if this section is correct:

5.2.4 Fire Flow

The District will plan to provide the following minimum fire flows for future development in accordance with the Kitsap County Building and Fire Code.

- Single-Family Residential: 500 gallons per minute (gpm) for 30-minute duration
- Medium Density Residential: 1,000 gpm for 2-hour duration
- School: 1,500 gpm for 2-hour duration
- Commercial/Government: 1,500 gpm for 2-hour duration

Actual fire flow requirements, as determined by the local fire marshal, may differ from those shown based on factors such as proposed use, building size, and construction. Improvements to increase the available fire flow to meet actual fire flow requirements greater than those shown shall be the responsibility of the developer.

If so, you can reply to this email and I'll include it as an appendix to the Water System Plan.

Department of Health had a couple other comments about fire flow:

- Please provide documentation from the Kitsap County Fire Marshall stating that the District meets the County's fire flow and fire storage requirements.
- Please confirm with the fire marshal or fire authority that low fire flows are acceptable until improvements are made to address these low pressures.

Here's the table relating to low fire flow:

Description	Approx. Location	Existing	Available Fire Flow (gpm)			Planning- Level Fire Flow (gpm)
		Pressure Zone	Existing System	Future w/ Improvements		
				2035	2043	
Rural Residential Area	1360 Colchester Dr SE	North 277	227	225	1,789	500
Rural Residential Area	906 Colchester Dr SE	North 277	631	626	2,192	500
District Office	2081 Spring St E	North 277	1,391	1,392	1,383	500
Manchester Family Inn	2386 Colchester Dr E	North 277	2,276	2,695	3,000	1,500
Rural Residential Area	2379 Alaska Ave E	North 277	0	1,468	1,629	500
Rural Residential Area	7844 Beach Dr E	North 277	854	849	878	500
Rural Residential Area	8583 E Caraway Rd	North 277	374	371	584	500
Rural Residential Area	7025 E Dakota St	North 430	1,146	1,132	1,411	500
Manchester Elementary	1901 California Ave E	North 430	1,468	1,430	1,515	1,500
Rural Residential Area	7700 E Alder St	North 430	70	69	1,693	500
Rural Residential Area	1078 Alaska Ave SE	North 430	1,738	1,732	1,885	500
Rural Residential Area	6845 E Cascade Dr	North 430	1,778	1,750	1,820	500
PJ's Market	1598 Woods Rd SE	North 430	1,134	1,120	1,559	1,500
Rural Residential Area	7838 SE Monte Bella Pl	North 430	360	359	1,846	500
Manchester Christian Academy	7545 E Madrone Ave	North 430	1,794	1,765	2,521	500
Rural Residential Area	2011 Garfield Ave SE	North 430	1,756	1,730	2,001	500
Southworth Ferry Terminal	11425 SE Sedgwick Rd	South 277	384	1,151	1,775	1,500
Rural Residential Area	10419 SE Olympiad Dr	South 277	259	1,241	1,568	500
Rural Residential Area	3286 Harper Hill Rd SE	South 277	191	414	1,236	500
Commercial Area	~9700 SE Southworth Dr	South 277	278	809	1,686	1,500
Rural Residential Area	8204 SE South St	South 277	490	490	3,000	500
Rural Residential Area	7748 SE Southworth Dr	South 277	954	1,253	1,853	500
Rural Residential Area	2676 Garfield Ave SE	South 277	761	756	797	500
South Colby Elementary	3281 Banner Road SE	South 277	827	1,367	3,000	1,500
Sedgwick Jr High	8995 SE Sedgwick Rd	South 430	0	1,565	1,565	1,500
Rural Residential Area	8279 SE Sedgwick Rd	South 430	605	1,558	1,558	500
Harper Evangelical Church	10384 SE Sedgwick Rd	South 430	0	764	1,761	1,500
Rural Residential Area	4464 Eastway Dr SE	South 430	640	1,056	1,054	500

Can you provide us with the documentation requested? Feel free to give me a call if you want to discuss more.

Thanks,
Peter

Peter Cunningham, PE

Sr. Project Engineer

p. 206.505.3400

d. 206.357.9964

m. 206.265.2534

e. Peter.Cunningham@bhccconsultants.com



1601 Fifth Avenue Suite 500

Seattle, Washington 98101

www.bhccconsultants.com

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From: Peter Cunningham

Sent: Monday, March 10, 2025 11:39 AM

To: David Lynam <DLynam@kitsap.gov>

Subject: RE: Manchester WSP - Fire Flow Requirements [Filed 10 Mar 2025 11:38]

Hi David,

Following up on this – can you provide feedback on my questions below?

Thanks,

Peter

Peter Cunningham, PE

Sr. Project Engineer

p. 206.505.3400

d. 206.357.9964

m. 206.265.2534

e. Peter.Cunningham@bhccconsultants.com



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Seattle, Washington 98101

www.bhccconsultants.com

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From: David Lynam <DLynam@kitsap.gov>

Sent: Tuesday, February 4, 2025 12:19 PM

To: Peter Cunningham <Peter.Cunningham@bhccconsultants.com>

Subject: RE: Manchester WSP - Fire Flow Requirements

Good afternoon Peter, Tiina Turner sent your fire flow information on to me – I will be back with you shortly.



David Lynam

Fire Marshal – Manager Building and Fire Safety
Kitsap County Department of Community Development
Your Partner in Building Safe, Resilient, and Sustainable Kitsap County Communities!

(360) 337-5777
Kitsap.gov/DCD/



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From: Peter Cunningham <Peter.Cunningham@bhccconsultants.com>
Sent: Thursday, January 30, 2025 1:40 PM
To: Jeff Faucett <jfaucett@skfr.org>; David Lynam <DLynam@kitsap.gov>; Tina Turner <TTurner@kitsap.gov>
Cc: Tony Lang <tlang@manchesterwater.org>
Subject: RE: Manchester WSP - Fire Flow Requirements

Some people who received this message don't often get email from peter.cunningham@bhccconsultants.com. [Learn why this is important](#)

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Good afternoon,
I thought it might be easier if I include the section that DOH commented on:

5.2.4 Fire Flow

The District will plan to provide the following minimum fire flows for future development in accordance with the Kitsap County Building and Fire Code.

- Single-Family Residential: 500 gallons per minute (gpm) for 30-minute duration
- Medium Density Residential: 1,000 gpm for 2-hour duration
- School: 1,500 gpm for 2-hour duration
- Commercial/Government: 1,500 gpm for 2-hour duration

Actual fire flow requirements, as determined by the local fire marshal, may differ from those shown based on factors such as proposed use, building size, and construction. Improvements to increase the available fire flow to meet actual fire flow requirements greater than those shown shall be the responsibility of the developer.

Are these fire flows correct? If so, you can reply to this email and I'll include it as an appendix to the Water System Plan.

Thanks,
Peter

Peter Cunningham, PE
Sr. Project Engineer
p. 206.505.3400
d. 206.357.9964
m. 206.265.2534
e. Peter.Cunningham@bhccconsultants.com



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From: Peter Cunningham
Sent: Thursday, January 23, 2025 8:52 AM
To: Faucett, Jeff <JFaucett@skfr.org>; David Lynam <DLynam@kitsap.gov>; Tina Turner <TTurner@kitsap.gov>
Cc: Tony Lang <tlang@manchesterwater.org>
Subject: RE: Manchester WSP - Fire Flow Requirements [Filed 23 Jan 2025 08:51]

Thanks Jeff. Dave or Tina, can you provide the documentation requested by DOH in the email below?

Thanks,
Peter

Peter Cunningham, PE
Sr. Project Engineer
p. 206.505.3400
d. 206.357.9964
m. 206.265.2534
e. Peter.Cunningham@bhccconsultants.com



1601 Fifth Avenue Suite 500

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From: Faucett, Jeff <JFaucett@skfr.org>
Sent: Wednesday, January 22, 2025 8:52 PM
To: Peter Cunningham <Peter.Cunningham@bhcconsultants.com>; David Lynam <DLynam@kitsap.gov>; Tina Turner <TTurner@kitsap.gov>
Cc: Tony Lang <tlang@manchesterwater.org>
Subject: Re: Manchester WSP - Fire Flow Requirements

Hello Peter,

I am catching up on emails. I have included the Kitsap County Fire Marshal, Dave Lynam and the Deputy Fire Marshal, Tina Turner on this email. I believe they are the ones that you want to talk to about this.

Let me know if you need anything further from me.

Jeff Faucett
Fire Chief

From: Peter Cunningham <Peter.Cunningham@bhcconsultants.com>
Date: Wednesday, January 22, 2025 at 1:28 PM
To: Faucett, Jeff <JFaucett@skfr.org>
Cc: Tony Lang <tlang@manchesterwater.org>
Subject: Manchester WSP - Fire Flow Requirements

Jeff,
I'm helping Manchester Water District wrap up their water system plan. Department of Health had a question about fire flow:

- Please provide documentation from the Kitsap County Fire Marshall stating that the District meets the County's fire flow and fire storage requirements.
- Please confirm with the fire marshal or fire authority that low fire flows are acceptable until improvements are made to address these low pressures.

Here's the table relating to low fire flow:

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				2035	2043	
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Sedgwick Jr High	8995 SE Sedgwick Rd	South 430	0	1,565	1,565	1,500
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Rural Residential Area	4464 Eastway Dr SE	South 430	640	1,056	1,054	500

Can you provide us with the documentation requested? Feel free to give me a call if you want to discuss more.

Much appreciated,
Peter

Peter Cunningham, PE
Sr. Project Engineer
p. 206.505.3400
d. 206.357.9964
m. 206.265.2534
e. Peter.Cunningham@bhccconsultants.com



1601 Fifth Avenue Suite 500

Seattle, Washington 98101

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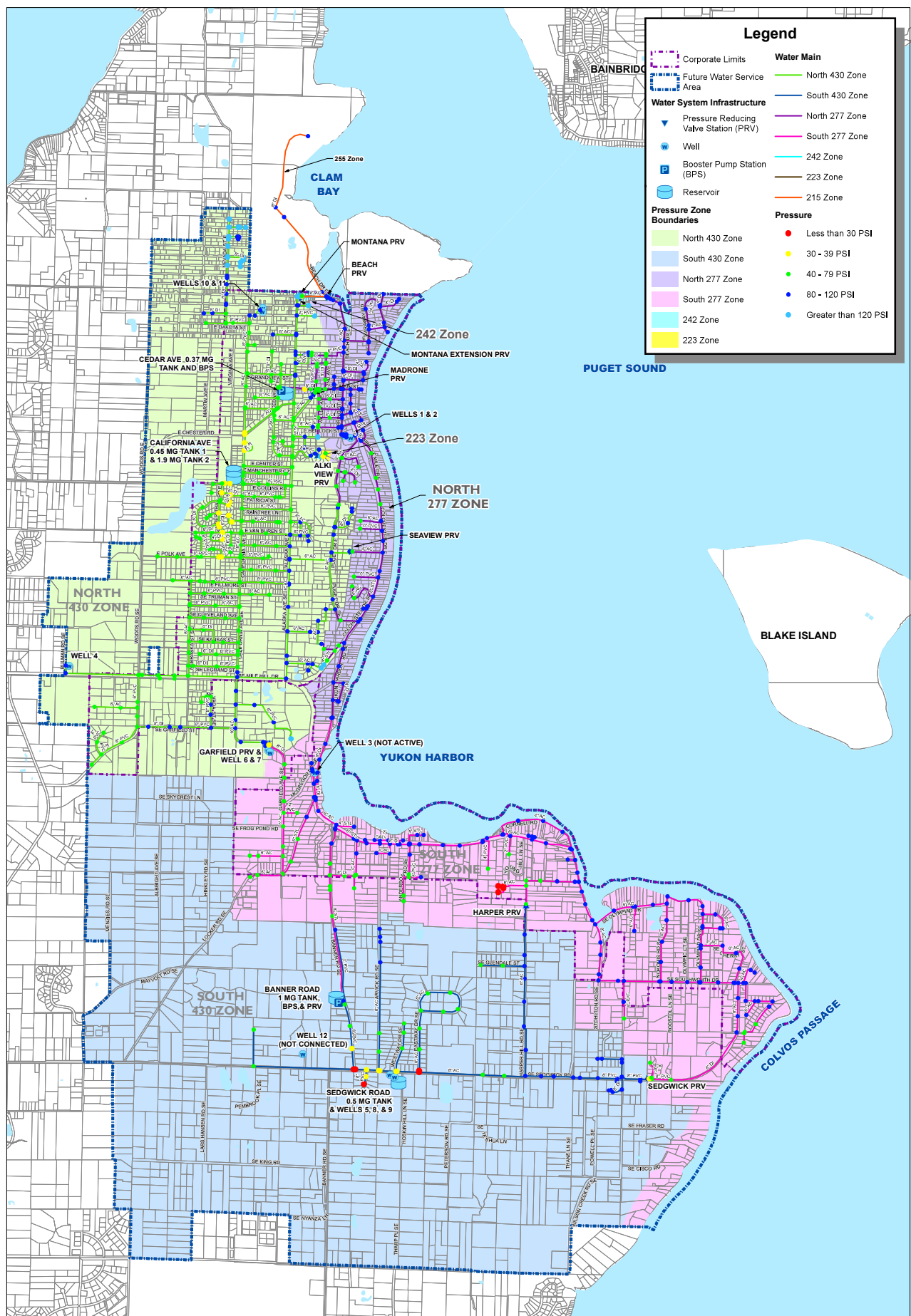
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Appendix R

Model Figures

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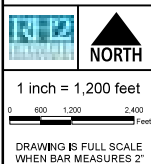


Figure 7-1 Existing System Pressures Manchester Water District Water System Plan

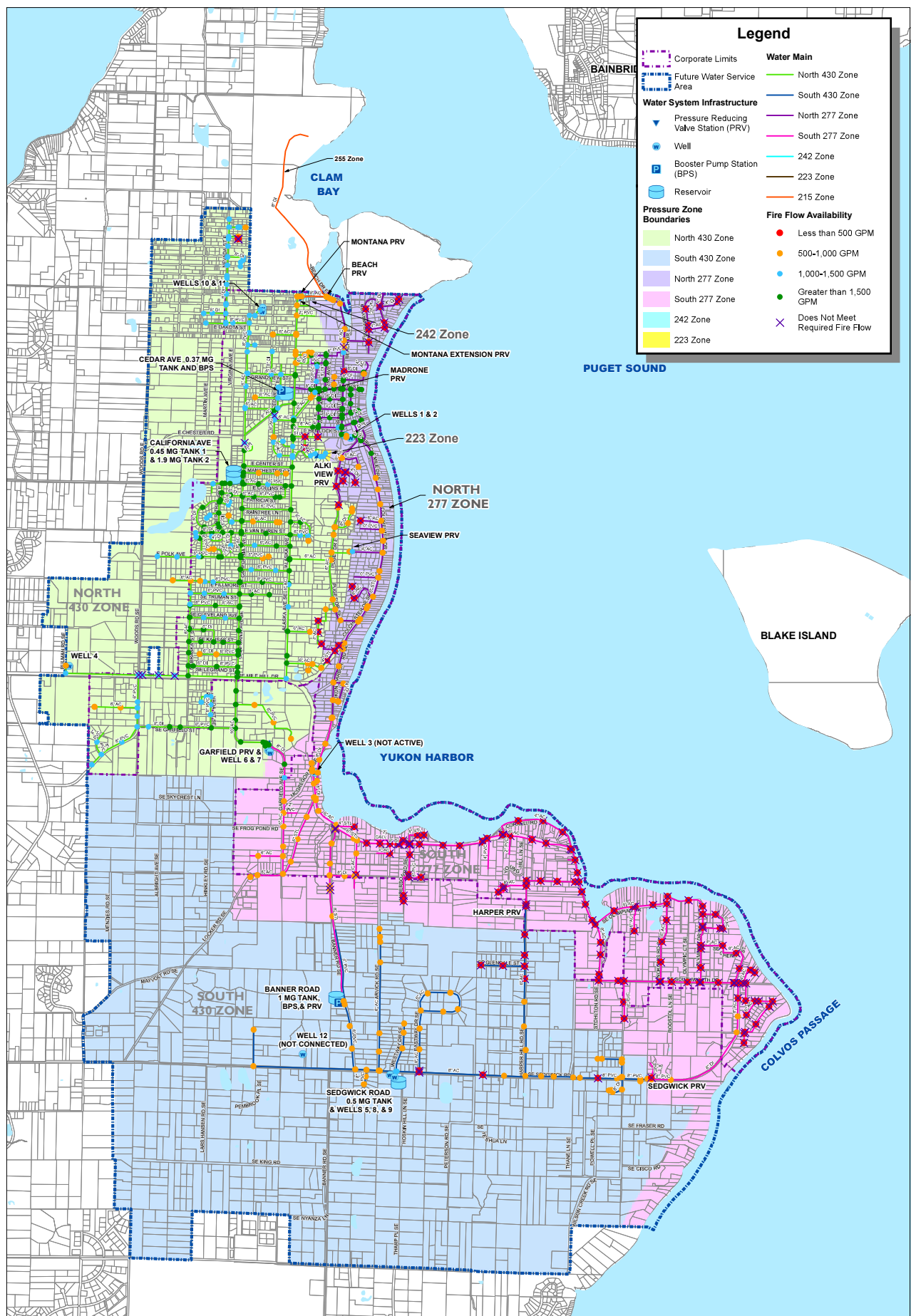
Vicinity Map



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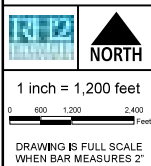


Figure 7-2

Existing System Fire Flow Availability

Manchester Water District

Water System Plan

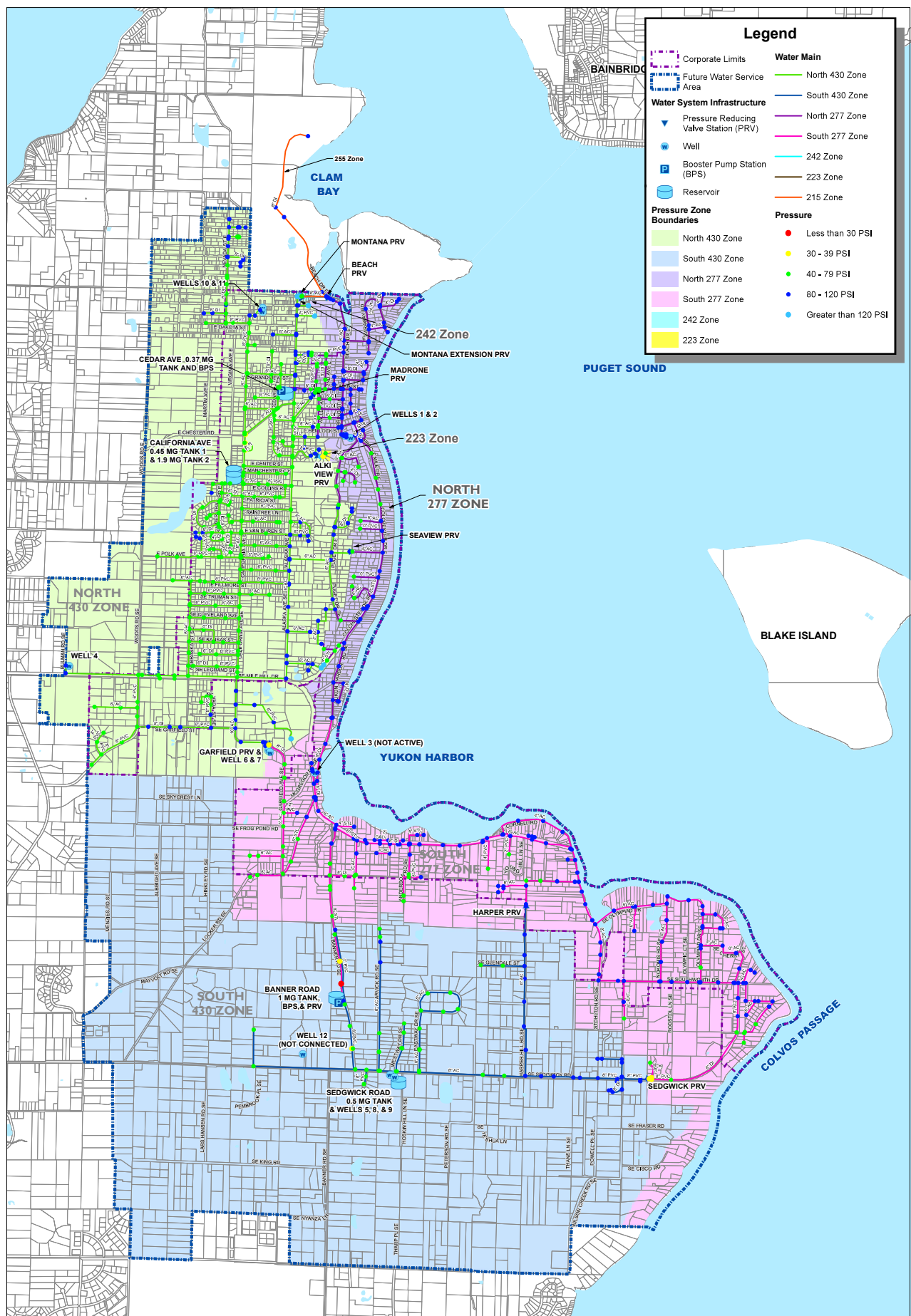
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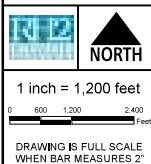


Figure 7-3

2035 Pressures After Improvements

Manchester Water District

Water System Plan

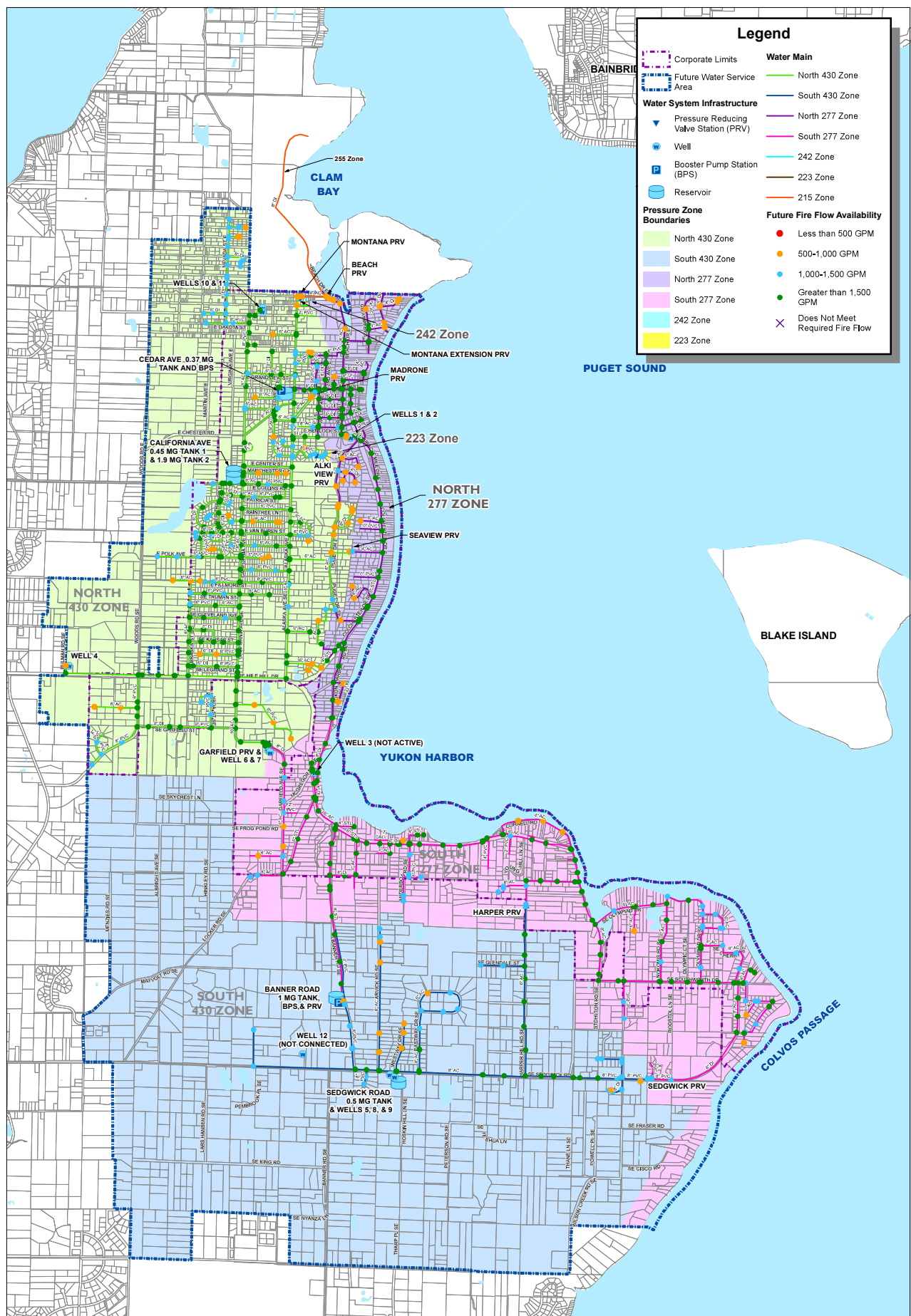
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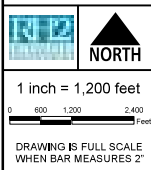


Figure 7-4
2035 Fire Flow After Improvements
Manchester Water District
Water System Plan

Vicinity Map



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