Small Water System Management Program

Dockton Water Association

Water System ID: 19550J

March 8, 2023

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Version Control

8/17/2022

- Submitted to Health and King County

3/3/2023

- Updated document date.
- Pg. 1. Updated Governing Board Members list
- Pg. 4. Updated the Facilities Map
- Pg. 5. Included Permit G1-28771 in Source list
- Pg. 5. Pressure Zones shown on Facilities Map, Appendix W
- Updated Water Rights per Ecology's Comments
    - Pg. 5 include Permit G1-28771
    - Updated Self-Assessment Form (Appendix H)
    - Updated Capacity Analysis (Appendix T)
    - Updated Wellhead Protection Figure (Appendix M)
- Pg. 21 Updated Section 2 – Chain of Command contact information
- Pg. 27 Updated Certified Operator table
- Pg. 47 Update to Re-Establish a Water Use Efficiency Goal
- Pg. 50 Added project CIP descriptions to section 3.2 Long-Lived Asset Replacement
- Appendix T, Updated Capacity Analysis to include hydraulic modeling and updated CIP list, ROM costs, and figure.
- Moved CIP Estimates and Figure from Appendix R to Appendix T. Retained CIP Schedule in Appendix R.

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INTRODUCTION

This Small Water System Management Plan was prepared utilizing the Washington State Department of Health (DOH) publication DOH 331-134, Small Water System Management Program Guide. The guide provides a template including instructions to purveyors and fields for water purveyors to enter data. Therefore, the term "us" refers to DOH and the terms "you", "your", "yours", and "our" refers to Dockton Water Association.

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TABLE OF CONTENTS

LIST OF ACRONYMS

AC	Asbestos Cement
ac-ft	Acre-Feet
ADD	Average Daily Demand
ADU	Additional Dwelling Unit
AWWA	American Water Works Association
ATEC	ATEC Systems Associates, Inc.
ATS	Automatic Transfer Switch
BAT	Backflow Assembly Tester
BPS	Booster Pump Station
BTO	Basic Treatment Operator
CCC	Cross-Connection Control
CCS	Cross Connection Control Specialist
CDC	Centers for Disease Control
CEU	College Equivalency Units
CFR	Code of Federal Regulations
CLA-VAL	Control Valve Manufacturer
CIP	Capital Improvement Plan
CSE	Comprehensive System Evaluation
CT	Disinfectant Concentration (C = concentration, T = Time)
D/DPB	Disinfectants / Disinfectant By-Products
DCAV	Dual Check and Atmospheric Vent
DCDA	Double Check Detector Assembly
DCV	Dual Check Valve
DCVA	Double Check Valve Assembly
DIP	Ductile Iron Pipe
DOH	Washington State Department of Health
DSL	Distribution System Leakage
DU	Dwelling Unit
DWA	Dockton Water Association

DWSRF	Drinking Water State Revolving Fund
EPA	Environmental Protection Agency (USEPA)
ERU	Equivalent Residential Unit
FTSF	Full-Time Single-Family
gal	Gallon
GFC	General Facilities Charge
GWDR	Groundwater Disinfection Rule
GMP	Groundwater Management Plan
gpd	Gallons per Day
gpm	Gallons per Minute
HBVB	Hose Bibb Vacuum Breaker
HDPE	High Density Polyethylene
Health	Washington State Department of Health
HGL	Hydraulic Grade Line
HP, hp	Horse Power
HUD	US Department of Housing and Urban Development
IOC	Inorganic Chemical
KC	King County
KCP	King County Park
LOSS	Large On-Site System (Septic)
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDD	Maximum Day Demand
NFPA	National Fire Prevention Association
NPDWR	National Primary Drinking Water Regulation
NSF	National Sanitary Foundation
OSS	On-Site System (Septic)
O&M	Operations and Maintenance
PWTF	Public Works Trust Fund
PRV	Pressure Reducing Valve

psi	Pounds per Square Inch
PVC	Polyvinyl Chloride
RAC	Rural Activity Center
RPBA	Reduced Pressure Backflow Assembly
RPDA	Reduced Pressure Detector Assembly
SOC	Synthetic Organic Chemical
SWSMP	Small Water System Management Program
ULID	Utility Local Improvement District
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VFD	Variable Frequency Drive
VOC	Volatile Organic Chemical
WDS	Water Distribution Specialist
WDM	Water Distribution Manager
WFI	Water Facilities Inventory
WIRA	Water Resource Inventory Area
WQMS	Water Quality Monitoring Schedule
WRSA	Water Right Self-Assessment
WSDOT	Washington State Department of Transportation
WSP	Water System Plan
WTPO	Water Treatment Plant Operator
WUE	Water Use Efficiency

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LIST OF APPENDICES

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Chapter 1: Managerial

Mission Statement

To provide safe, abundant, reliable, and affordable drinking water to all properties in our service area.

Statement of Adoption

Dockton Water adopted this Water System Management Plan on: _____.

Governing Board Members

Darton Riely-Gibbons, President

April Wilkinson, Vice President

Todd Currie, Treasurer

Clint Douthit, Secretary

Susan Boyle

Sam Wildfong

Paul Witherspoon

Staff

Dave Stoltz Jr, Manager/Operator

Skylar Hornick Operator in Training, Meter Reader, Water Quality Inspector

Angie Kelly, Bookkeeper and Billing

1.1 Management Structure and the Governing Board

Table 1-1
Ownership and Management

Water system name	Dockton Water Association	
Type of system *Check all that apply.*	☐ Homeowners association ☐ Single private owner ☐ Partnerships ☒ Corporation ☐ Local government (Town*, County*, Public Utility or Water District) ☐ Other **If your system is a town or county, ask your regional planner if a SWSMP is the right planning document for you.*	
Name and phone number for person(s) or association that owns system	Name: Owned by 470 shareholders Name: Dockton Water Association Dave Stoltz, Manager/Operator:	Phone: Phone: o: 206-463-5600 c: 206-769-7415
Do you have articles of incorporation or a certificate of registration with the Department of Revenue?	☒ Yes. See Appendix A. Articles of Incorporation. ☐ No.	
Do you have a document that establishes the legal authority to make decisions for the system? *For example, by-laws, resolutions, ordinances?*	☒ Yes. See Appendix B - By Laws ☐ No	
Do you have any insurance policies for the system?	☒ Yes. ☐ No.	
Who makes the major decisions? *For example, who decides when to make improvements, how to finance improvements, when to allow additional connections.*	☐ Single party ☒ Board: Seven-member Board of Directors ☐ System customers or a representative subset of customers ☐ Commissioners (how many commissioners) ☐ Other	

How long are the terms of service for members of the decision-making body?	2-year staggered terms	
How often do those responsible for making decisions meet?	☒ Monthly ☐ When necessary	☐ Annually ☐ Quarterly
	☐ Other	
Are customers notified about these meetings?	☒ Yes ☐ No	If yes, how are they notified? Web Page: www.docktonwater.org
Is there an organizational chart?	☐ Yes. If yes, attach a copy. ☒ No	
Does the system have any paid employees?	☒ Yes ☐ No	If yes, do you have personnel policies? ☒ Yes ☐ No See Appendix C - Board of Director's Policies.
Identify the persons or positions responsible for making financial transactions. *For example, who maintains records, pays bills, and receives payments?*	The **Board** has fiduciary responsibility. The Treasurer establishes and maintains accounting and reporting systems. Three officers (President, VP, Treasurer) are authorized to sign checks -- two signatures required for amounts > $3000. **Manager** opens the mail, sorts and records payments, posts bills, and reports to the Board. **Billing Clerk** prepares checks for payment, does payroll, pays taxes, posts water payments; prepares, prints, folds, stuffs and mails monthly bills; makes bank deposits; maintains customer records.	
Do you have a process to record and respond to customer complaints?	☒ Yes ☐ No.	Manager checks voicemail and e-mail daily. Responds directly to complaints or sends e-mail to billing clerk or operator for their follow-up. Call back within 24 hours. Written record of complaint and response filed in Customer File.

Further action

- Have any of these questions caused you to think about changing your current practices?

☒ Yes. If yes, list the issue in Section 1.7 (Next Steps).

☐ No.

1.2 Service Area and Facilities Map

Table 1-2
Service Area and Facilities Map

Attach a copy of each map	Date produced	Produced by
Service area map. No changes to Service Agreement Map. See Appendix E.	January 2022	Dahle Engineering
Facilities map. See Appendix W.	March 2023	Dahle Engineering

Further action

- Is there another water system nearby?

☒ Yes. Gold Beach and Maury Mutual. See Section 1.7 (Next Steps).

☐ No.

Reach out to adjacent water systems. Share a copy of your service area map. Gauge interest in the possibility of sharing emergency equipment, the cost of new equipment that both systems can use, or even installing an emergency intertie between systems.

Water System Improvements

Water system improvements up to May 2022 include:

- WSP CIP Project No. B-15 Sandy Shores Well Filtration (See Appendix Y). Installed an ATEC filtration system at the Sandy Shores Well site in 2021 to treat for manganese and iron. Improvements include a new treatment building with an ATEC water treatment system with retention pond to hold backflush when filters are automatically cleaned and flushed, a new electrical control system, a new chlorine storage and injection system, and new stainless-steel housing for the well head.

- Installed a back-up generator and automatic transfer switch at the 520-zone booster pump station in 2020.

- Installed perimeter fence around the Sandy Shores Well site.

- Installed a new gate and fence at Dockton Springs.

- WSP CIP Project No. B-13. Replaced approximately 2,100 feet of existing 2-inch pipe along SW 268th St from Hake Rd. SW to 99th Ave SW with 8-inch C900 pipe in the four-year period leading up to 2021.

- WSP CIP Project No. B-8. Replaced approximately 875 feet of existing 2-inch pipe along SW Windmill St from 99th Ave SW to 97th Ave SW in the four-year period leading up to 2021.

- WSP CIP Project No. B-8. Replaced approximately 1,275 feet of existing 4-inch pipe along 97th Ave SW from SW Windmill St to SW 264th St in the four-year period leading up to 2021.

- WSP Amendment CIP Project No. 1 PRV Station Project (See Appendix Z) by 2007.

- WSP Amendment CIP Project No. 2 Dockton Springs BPS Project by 2007.

- WSP Amendment CIP Project No. 3 430 Zone Reservoir Project by 2007.

- Rehabilitated wellpoints at Dockton Springs to increase flow 2007. See WSP CIP Project No. A-1.

- Discontinued use of the Hake Springs and associated infrastructure.

- Replaced 4-inch distribution pipes along 268th with 8-inch PVC. See WSP CIP Project No. B-2.

Water System Existing Facilities

The system is a non-expanding system. The system serves six pressure zones equally supplied by Dockton Springs and the Sandy Shores well through two booster pump stations (BPSs), two storage tanks, and five pressure reducing valve (PRV) stations. The pressure zones are shown on the Facilities Map in Appendix W.

An ATEC filtration system was commissioned in 2021 at the Sandy Shores wellsite. The treatment plant removes iron and manganese. The Dockton Springs, with a hydraulic connection to surface water, has a treatment objective to provide CT6 disinfection.

Sources

Water for the DWA system is supplied equally by Dockton Springs and the Sandy Shores well. Dockton Springs is comprised of 32 shallow well points in a perched aquifer and the Sandy Shores well draws water from a deep well. Hake Springs is decommissioned. Hake Springs has not been in use for the last 10 years. Most recently, DWA drilled wellpoints (S04) for emergency use. DWA sources are shown on the Water Facilities Inventory form (see Appendix C).

- Dockton Park Springs (S0l) – Dockton Springs (active).
- Dockton Park Springs (S01) – Permit G1-28771 is being processed. The intent of the application is to incorporate a groundwater right that is non-additive to our existing surface water rights to allow wells to be installed and used as a primary source meeting Ecology's well construction standards. It is expected that the wells will be installed to approximately 25 feet of depth. We estimate that five to ten wells will be installed at the spring source.

- Sandy Shores Well AAB173 (S02) – Sandy Shores well (active).
- Hake Springs (S03) – Decommissioned.
- Drilled WF (S04) – Wellpoints, emergency use authorization expired, the estimated source capacity of 12.5 gpm. – Negotiations with King County Parks underway to obtain a restrictive covenant.

Dockton Park Springs (S0l)-Dockton Springs

The Dockton Springs capacity of 373.8 gpm is based on water rights (see Appendix G). Typical production capacity is approximately 80gpm under the current system configuration and maintenance cycle. Additional capacity can be obtained by increasing the maintenance cycle to well over 85 gpm. Multiple driven wellpoints to 15-foot depth siphon to lower collection chamber (Figures 2.1-3).

Figure 2.1 Dockton Springs Sketch and Wellpoint Photo.

Figure 2.1 shows a sketch depicting the locations of the wellpoints (left). Pink denotes buildings; blue denotes surface water. Wellpoint 8 (right).

Figure 2.2 illustrates parcels in the area and the approximate location of the wellpoints. All the wellpoints for Dockton Springs flow to the collection chamber located next to the contact tank. The collection chamber is shown in Figure 2.3.

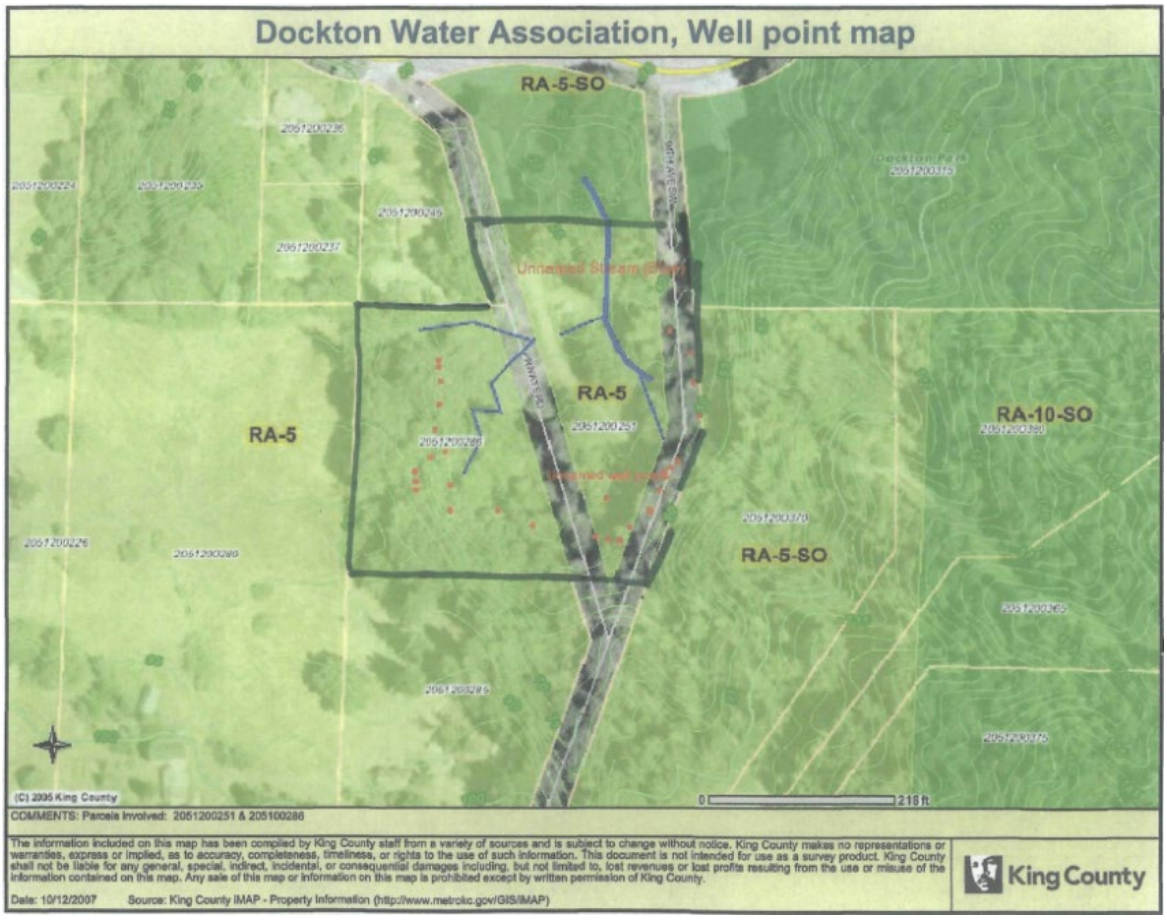


Figure 2.2 Dockton Springs Map

Figure 2.3 shows two images of the Dockton Springs collection chamber. The picture on the left shows the black pipes from the wellpoints entering the collection chamber and the retired upper reservoir in the background. The picture on the right shows inside the collection chamber. Not shown is a screened overflow that goes to a dedicated vault that overflows to the hillside.

Figure 2.3 Dockton Springs Collection Chamber

Figure 2.4 shows two images. The picture on the left shows the vault with the raw water flow meter that is on the line between the collection chamber and the chlorine contact tank. The picture on the right shows the chlorine treatment room. The raw water flow meter controls the chlorine injection pump. The spring water is treated with hypochlorite via a flow paced peristaltic feed pump. The hypochlorite is NSF certified. The pump feeds one part 12.5% sodium hypochlorite to three parts water.

Figure 2.4 Raw Water Flow Meter and Chlorine Treatment Room

For a maximum flow rate of 143gpm, the minimum chlorine residual at entry point must be 0.55mg-min/L for CT6. See disinfection letter from Health in Appendix D. Monthly reports indicate the CT6 requirement is consistently met.

Figure 2.5 Baffled Chlorine Contact Tank

Figure 2.5 shows two images. The picture on the left shows the east face of the chlorine contact tank enclosure. The picture on the left shows the baffles in the tank as viewed from a vertical access hatch on the right. A low-level float switch in the contact tank turns off the booster pump. Typical recharge time of the contact tank is one hour. The Dockton Springs booster pump station (BPS) draws water from the contact tank and pumps treated water into the 430 Zone (which fills the reservoirs).

Sandy Shores Well AABl73 (S02) - Sandy Shores Well

Shandy Shores is a deep groundwater well (Figure 2.6). DWA recently installed a ATEC filtration system at the sandy shores well site to treat for iron and manganese. Before installing the plant, manganese and iron exceeded the secondary maximum contaminant levels (MCLs) (aesthetic concern). The Sandy Shores well pumps water into the 430 Zone (which fills the reservoirs).

Figure 2.6 Sandy Shores Well Enclosure, Generator, and Treatment Building

The building houses the ATEC treatment system, a chlorine room, and the generator ATS. A heated stainless enclosure covers the wellhead. The backup power generator is powered with propane. The site is surrounded by a security fence.

Sandy Shores Well Pump

The Sandy Shores well pump is 15 HP and delivers 100 gpm at 275 feet of head. A CLA-VAL briefly opens to blow off any debris that may be in the valve when the pump turns on and off. The well house has a wireless communications connection to the Dockton Springs BPS control unit.

Sandy Shores Well Pump Operations

The Sandy Shores well pump is operated by the Dockton Springs control unit. The control unit alternates between Sandy Shores and Dockton Springs to fill the reservoirs. It alternates between the two every hour until the reservoirs are full. In an emergency, the Sandy Shores pump is turned on by a float in the reservoirs at 28 feet and runs continuously until the reservoirs are full.

Sany Shores ATEC Filtration System

An ATEC filtration system was commissioned in 2021 at the Sandy Shores wellsite. The treatment plant removes iron and manganese. The filtration plant is designed to treat water pumped from the well. The well pumps water at a rate of 100 gpm. The frequency of backwash is estimated to be 12 hours of production (see ATEC Systems Treatment System Summary Table located in the Operation Maintenance manual in Appendix K). The Sandy Shores well treatment objective is for distribution residual and removal of iron and manganese.

Drilled WF (S04)

Figure 2.7 shows the drilled WF (S04). The source approval report number is 17-0709. DWA drilled 5 new shallow wellpoints at the Dockton Springs area. The emergency authorization to utilize these wells has expired. The remaining documentation needed by DOH is a restrictive covenant on the sanitary control area and a construction complete form. DWA is currently working with King County Parks to obtain a restrictive covenant or easement for four of the five wellpoints that are on Parks land.

Figure 2.7 Drilled WF (S04).

Storage - North and South Storage Tanks

The system has two concrete storage reservoirs (310,000-gallons total) in the 430 pressure zone (Figure 2.8). The storage tanks serve the 520 pressure zone through the 520 zone booster station and the remaining pressure zones by gravity. The tanks have adequate turnover estimated to have a one- or two-day hydraulic retention time. Check valves control fill and discharge pipes at the reservoirs to promote mixing. The tanks are filled by head generated by the Dockton Springs BPS and the Sandy Shores well pump. The side fill pipes are shown in Figure 2.8. Record drawings indicate the base of the reservoir is at 385 feet. The reservoir float setting are full at 38 feet, fill at 34 feet, and low-level at 28 feet. At the reservoir site, there is a bypass meter across a check valve between the 420 and 530 pressure zones.

Figure 2.8 North and South Storage Tanks

Dockton Springs Booster Pump Station

The Dockton Springs booster pump station (BPS) draws water from the Dockton Springs contact tank (see Figure 2.5) and delivers it to the 430 Zone via a transmission main. Water is supplied to the 246 zone from the 430 zone via two PRVs. One is at the Dockton Springs BPS valve room and the other is at the intersection of 99th and 268th. DWA measures flow rate and chlorine residual at the entry point to the distribution system at the Dockton Springs booster station (Figure 2.9). Record drawings indicate the booster station wall foundation elevation is 27.9 feet. The BPS has backup power and an automatic transfer switch (ATS).

Figure 2.9 Dockton Springs Booster Pump Station

Booster Pumps 1 & 2

Booster pumps 1 & 2 are shown in the left picture of Figure 2.9 and valves in the control room are shown in the right picture. Both pumps are 20 HP that supply 115 gpm and are controlled by variable speed drives (VFD). Booster Pumps 1 & 2 alternate between lead and lag. The pump curve and performance data are in Appendix K.

Booster Pump Operations

The booster pumps are operated by a control unit in a building next to the BPS. The control unit monitors floats in the reservoirs via telephone line and monitors the water level in the chlorine contact tank. As explained in the Sandy Shores operation section, the control unit alternates between Dockton Springs and Sandy Shores to fill the reservoirs. It alternates between the two every hour until the reservoirs are full. After the BPS is turned off, the chlorine contact tank refills.

520 Zone Booster Pump Station

The 520 zone booster pump station is a constant run pump station controlled by discharge pressure of 100 psi. See Figure 2.10. As a closed system (does not pump to atmospheric pressure storage in the pressure zone) it is the only source of pressure to the 520 zone.

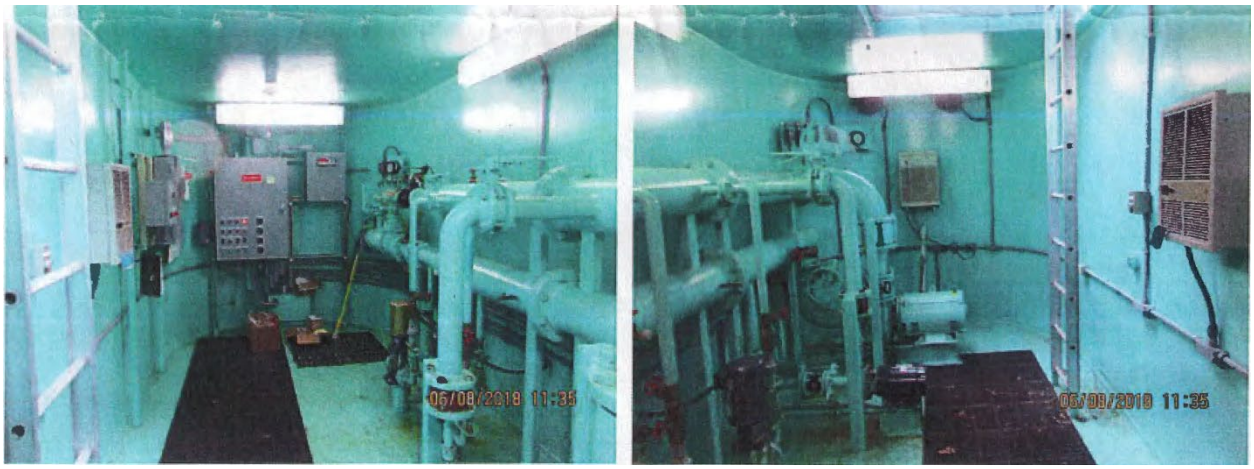


Figure 2.10 520 Zone Booster Pump Station

The BPS is in a below grade vault. Booster pump controls, CLA-VAL, flow meter, and two ¾ hp pumps are shown on the left image. In the right image, a 5 hp pump and a 50 hp pump are shown. Weekly (or biweekly) visits are made to check pressure settings, flow meter reading, security, and overall condition. A backup power generator was installed in 2020 and is shown in Figure 2.11.

Booster Pump Operations

Figure 2.11 520 Zone BPS Backup Power Generator

Booster Pumps 1 & 2 (3/4 hp) alternate between lead and lag. Under moderate demands booster pump 3 (5 hp) turns on. Under very high demands booster pump 4 (50 hp) turns on. A detailed description of the pump station operations and the pump curves are in Appendix K.

Pressure Zone Summary

Pressure Zone Summary

Name	Hydraulic Grade (feet)	Description
Lower Dockton	246	HGL set by the PRVs at the Dockton Springs BPS & at the intersection of 268th and 99th.
Upper Level	424	HGL set by water level in Reservoirs.
Closed Pump Zone	520	HGL set by 99th Ave BPS
Manzanita	232	HGL set by Manzanita PRV
Lower Sandy Shores	193	HGL set by Sandy Shores PRV
Point Piner	168	HGL set by Point Piner PRV

Distribution Piping Summary

Size and Type	Length (feet)	Percent
2" Steel	400	1%
2" PVC	10,200	16%
4" AC	9,200	14%
6" AC	2,500	4%
6" DIP	1,800	3%
6" HDPE	2,000	3%
6" PVC	9,000	14%
8" DIP	340	1%
8" HDPE	2,300	4%
8" PVC	25,800	38%
Total	**63,540**	**100%**

1.3 Service Policies

Table 1-3
Service Policies

Do you have a written policy for the following?	Has it ever been updated?	Brief description
Water rate structure and fees.	☒ Yes ☐ No If yes, when was last update? March 22, 2022 (Board of Directors Policies)	Residential or Commercial base rate + Capital Charge + Charge per cubic foot billed monthly. (See Appendix B – Bylaws, Appendix C – Board of Director's Policies, and Web Page)
System improvement funding. *For example, how you will allocate the cost of future replacements or improvements to customers.*	☒ Yes ☐ No If yes, when was last update? March 22, 2022 (Board of Directors Policies)	Monthly capital charge and annual transfer from operations revenue. (See Appendix C – Board of Director's Policies: Section III, 3. Monthly Fees – Capital Charge)
Customer responsibilities. *For example, consent agreements for inspections or requirements to install and test backflow assemblies.*	☒ Yes ☐ No If yes, when was last update? March 22, 2022 (Board of Directors Policies)	Access, Redemption of Shares, & Loss of Water, and Cross Connection Control (See Appendix C – Board of Director's Policies: Section IV - Meter Access, Section V – Redemption of Shares, & VI Loss of Water & Appendix L – CCC policies)
New customer responsibilities. *For example, hook-up fees, other assessments, or service meter requirements.*	☒ Yes ☐ No If yes, when was last update? March 22, 2022 (Board of Directors Policies)	New Hook-ups and Members Charges, etc. (See Appendix C – Board of Director's Policies: Section X – Contracting Policy & Appendix B – Bylaws: Article I-Members)

Further action

- Do you periodically review your policies to make sure they continue to meet the system's needs?

☒ Yes ☐ No.

If no, consider making this commitment and identifying follow-up action in Section 1.7 (Next Steps).

1.4 Cross-Connection Control Program

CCC Program

Dockton Water Association adopted a CCC program on June 24, 2021. The CCC Program is posted on the Association's website. See Appendix B for the June 24, 2021, meeting minutes and Appendix L for a copy of the CCC program documents.

Briefly describe how you will educate customers:
The CCC program is posted to the Association's website and discussed at the annual meeting of shareholders.

Table 1-4
Cross-Connection Control Program

Identify the steps you completed and target completion dates for remaining required tasks.

Completed	Task	Completion Date
☒	**Step 1**: Retain a cross-connection control specialist (CSS) certified by us.	January 2013
☒	**Step 2:** Establish legal authority to implement a program. Attach a copy.	May 23, 2020
☒	**Step 3:** Develop administrative and technical procedures.	May 23, 2020
☒	**Step 4:** Develop a record-keeping and reporting system. -Element 9 of the Associations CCC Program describes record and data to be maintained. All records are maintained are at the Associations' office.	May 23, 2020
☒	**Step 5:** Conduct initial hazard evaluations and ensure backflow preventers are installed. -Hazard evaluation started in 2020 by sending out hazard identification forms to shareholders. Site visits are ongoing, records are kept at the office of backflow devices installed.	Started May 23, 2020 Site visits are ongoing.
☒	**Step 6:** Ensure assembly testing. -Backflow test records are maintained at the office. -The Association is working to contract with a testing company to provide discounted annual inspections for shareholders.	Started in 2020, Annual testing is checked.
☒	**Step 7:** Educate consumers about cross connections. -The Association posted the CCC documents to their website.	Started in 2020, Ongoing.
☒	**Step 8:** Reevaluate existing services and review new applications for service. -The Association's cross-connection control specialist (CCS) began conducting initial hazard evaluations in 2020.	Started in 2020, Ongoing.

1.5 Source Water Protection Program

A Wellhead Protection Program was developed and described in Chapter 5 of the 2002 Water System Plan (Appendix Y). DWA only has direct control over the wellfield sites. This is not an uncommon situation for systems using groundwater sources. The site for Sandy Shores well (S02) is fenced and the site for Dockton Springs shallow well field (S01) is partially fenced. A figure was developed showing sources, sanitary control areas, and source water protection areas (see Appendix M).

The watershed for Dockton Springs is primarily forest land managed by DWA and King County Parks (KCP). We are in communication with KCP and adjacent property owners.

Potential Contaminant Source Inventory.

The Department of Ecology databases for underground storage tanks (UST), leaking underground storage tanks (LUST), and large on-site sewage systems (LOSS) sites were reviewed. The review indicates that no potential source of contamination exists from these types of sites within the calculated fixed radius wellhead protection zones. See the Figure in Appendix M showing the wellhead protection areas, sanitary control areas, and potential contamination inventory.

The greatest potential threats to the wells are septic system failure and livestock by an adjacent property owner.

Notification.

All potential sources of contamination within one year time travel of the wellhead protection area must be notified every two years. Letters were sent out shareholders in the wellhead protection zones and sanitary control areas for Sandy Shores well and the Dockton Springs wellfield in April of 2019. Wellhead protection sample letters are in Appendix M.

Contingency Plan.

All Group A water systems must have a contingency plan to provide water if the source of supply becomes temporarily or permanently unavailable. Dockton Water completed the emergency response section 1.6 of this document which satisfies this requirement. Provisions in the plan are in place to respond quickly to emergencies, such as dangerous materials spills.

Table 1-5
Source Water Protection Program

Completed	Task	Completion Date
☒	**Step 1:** Complete a susceptibility assessment form for each source and submit to us.	May 1995
☒	**Step 2:** Create a map showing all sources, sanitary control areas, and source water protection areas. Include the 6-month, and 1-, 5-, and 10-year time of travel zones. Attach a copy. -See Figure in Appendix M.	March 2022
☐	**Step 3:** Secure control of your sanitary control area or watershed control area. Attach a copy of your legal documentation. -DWA owns both parcels where sources S01 and S02 are located. -DWA is working with King County to obtain an easement for source S04 (parcel 2051200370).	KC Easement - December 2023 (Estimated)
☒	**Step 4:** Conduct survey to identify contaminant sources in your source water protection area and develop a contaminant inventory list. Attach a copy. -A survey of USTs, LUST, and LOSS was conducted. See Figure in Appendix M. -The service area is observed on an ongoing basis to identify possible contaminant sources.	March 2022 (Ongoing)
☒	**Step 5:** Send letters to landowners and facility operators in your inventory area, regulatory agencies, local governments with land use decision authority, and emergency responders. Attach a sample copy of each letter. -Sample letters are in Appendix M.	April 2019
☒	**Step 6:** Develop a contingency plan to provide an alternate source of potable water as part of your emergency response plan. -See Emergency Response Plan, Section 6 Emergency Sources and Short-term Alternative Supplies	May 2022
☒	**Continuous:** Update contaminant inventory list every two years and resend notification letters as needed.	April 2021

1.6 Emergency Response Plan

Table 1-6
Emergency Response Plan

Section 1 – System Information

Document basic system information. This should be readily available to system personnel, local emergency responders, repair contractors, and us.

Basic description and location of system facilities *For example: We have two wells of 180' and 223' depth. The wells pump through a pump house and disinfection facilities into two storage reservoirs, one at the north end and one at the south end of the system.*	The system is served by two sources. The first is Dockton Springs comprised of 32 shallow well points gathering water by gravity through a headworks and chlorine contact tank and then pumped at 115 gpm to two concrete storage tanks at the highest point in the service area. Water is distributed by gravity from storage passing through three pressure reducing valves to waterfront properties. Pressure to high zone properties is increased by a booster pump station. The second source is the Sandy Shores deep groundwater well. Water from the well passes through a filtration system and is pumped to the same concrete storage tanks.	
Population served and number of service connections	People: 929	Connections: 407
Person(s) responsible for maintaining and implementing the emergency plan *At least two people should share this responsibility to ensure backup coverage.*	Name: Dave Stoltz, Jr. Title: Manager/Operator Name: Darton Riely-Gibbons Title: President	Phone #: 206-463-5600 Cell #: 206-769-7415 Phone #: 206-463-5600 Cell #: 206-909-9659

Section 2 – Chain of Command

Document lines of authority and responsibility. This will eliminate confusion and speed up emergency response time. The first step is to inform the person responsible for making key decisions. Put this person at the top of the list. Other responsibilities include:

- Notifying DOH
- Notifying system customers
- Assessing system facilities and operations in the field
- Making repairs or notifying an appropriate contractor

Name and title	Responsibilities during an emergency	Contact numbers
Dave Stoltz, Jr., Manager/Operator	Notify DOH (Brietta Carter) Notify System Customers Keep President Informed Assess System Facilities Notify Zellerhoff Construction to make repairs (Frank Zellerhoff)	DOH: 253-395-6770 Zellerhoff: 206-463-6161
Darton Riely-Gibbons, President	Keep Board Informed	206-909-9659
April Wilkinson, Vice President	Keep Board Informed (backup)	206-290-1644

Section 3 – Emergency Reference List

Emergency contact	Phone Number(s)	Emergency contact	Phone number(s)
Fire/Police/Medical	911	Certified operator(s) NW Water Systems	360-876-0958
County emergency services	911	Gray & Osborne	206-284-0860
County local health contact	206-296-9792	Vashon Electric	206-463-4797
Department of Ecology spill response	360-790-6899	Electric utility Puget Sound Energy	888-225-5773
Water testing laboratory Water Management Laboratory Inc	253-531-3121	Pump service Ferguson	253-922-9060
Agency water quality contact: Steve Hulsman	253-395-6777	Excavation contractor	206-463-6161 206-396-0305
Agency regional engineer: Brietta Carter	253-395-6770	Call before you dig	811
Agency emergency after hours contact	1-877-481-4901	Equipment rental Island Lumber	206-463-5000
Other		Neighboring water system -Gold Beach Water Co. -Maury Mutual	GB:206-463-9958 MM:206-588-9207

List important parties to contact.

Section 4 – Emergency Notification
Identify how you will notify customers.

The system notifies its customers as follows: *Check all that apply.*	**How does the system provide customers with system contact information?** *Check all that apply.*
☒ Phone calls. Include phone list location: Water office at 9710 SW Windmill St ☒ Media release: Website – system notifications ☒ Door to door ☐ Other	☒ Billing ☒ *Annual* Newsletter ☒ Other: Webpage

Emergency Notification (Priority customers)
If you have priority customers or serve vulnerable populations, maintain a list of these customers so you can notify them first. You should review and update this list annually.

Does the system serve priority customers? *Check all that apply. Include names and addresses.*	
☐ Hospitals and clinics	
☐ Nursing homes	
☐ Schools	
☒ Other	Dockton Fire Station 26316 99th Ave SW Dockton Marina - King County Parks

Section 5 – Response Actions for Specific Events
Identify action to take in the following events. You may want to refer to your facilities map (Section 1.3) to help determine the effects of possible events and the best response action.

	Immediate actions to take *(assess damage, contact us, contact repair service)*	**Who should be notified** *(Us, customers, repair service, county)*
Power outage	Check water tank/reservoir levels Check generator and fuel level at Dockton Springs Check generator at Sandy Shores Well.	Dave Stoltz, Jr., Operator
Transmission or line break	Close valves to isolate damaged main.	Dave Stoltz, Jr., Operator & Customers who will be out of service during repairs.
Chlorine treatment failure	Check chlorinator Check chlorine tank level Reprime chlorinator	Dave Stoltz, Jr., Operator
Source pump failure	Check breakers; reset if necessary	Dave Stoltz, Jr., Operator, Electrician
***E. coli*-MCL Violation**	Test chlorine residual Look for potential source at Springs/Well	Dave Stoltz, Jr., Operator & DOH
Severe reduction or loss of water in source	Assess damage Close valves to isolate damage Check reservoir levels Check controls at Dockton Springs	Dave Stoltz, Jr., Operator & Customers who will be out of service during repairs.
Flood	Assess damage at Dockton Springs, lower Sandy Shores, and Manzanita Beach Drive	NW Water Systems
Earthquake	Check concrete storage silos (water tanks/reservoirs) for damage.	NW Water Systems
Other:		

Section 6 –Alternative Water Supplies

Identify alternative water supplies that may be available if your supply becomes unexpectedly disrupted or contaminated. Alternative supplies can include emergency sources and emergency interties. They can also include the temporary use of bottled water or tanker trucks.

Note: You must obtain DOH approval before putting any emergency source or alternative supply of water into service. Requirements for using and maintaining emergency drinking water are in ***Emergency drinking water sources*** **(331-317)**.

Emergency sources

List available emergency sources and existing emergency interties.

Emergency source name	**WFI source number**	**Maintained in operable condition?**	**Availability** *How much water can be produced each day, how soon can it begin?*	**Is the water safe for drinking?**
Drilled WF	S04	Yes	12.5 gpm, pending KC restrictive covenant or easement.	Yes, but requires testing and approval from DOH to put in service.

Short-term alternative supplies

List bottled water suppliers or tanker trucks that may be able to deliver bulk water in your area.

	Vendor or supplier	**Phone number**	**Availability** *How much water can be delivered each day, how soon can it begin?*	**Is the water safe for drinking?**
None on Island				
Off Island	Culligan Water of Seattle	800-696-8051		Yes
Off Island	Water Buffalo Inc.	253-863-8883		Yes

Long-term potential alternative supplies

List any potential interties with an adjacent water system. Do not include existing interties.

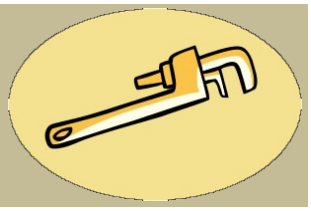
Water systems located within one-quarter mile	**Feasibility of connecting?**	**Has any contact been made with this system?**
None		

1.7 Next Steps to Improve Managerial Capacity

List the follow-up action(s) you committed to take in previous sections. Include any estimated costs in the future expenses portion of your budget.

Item to address	Responsible party	Target start date	Target completion date	Estimated cost
Complete source protection plan and policies	Dave Stoltz, Jr.	June 2022	July 2023	$2,000
Obtain an easement from King County for the Drilled WF (S04) shallow wells on parcel 2051200370.	Dave Stoltz, Jr.	Underway	December 2023	$1,000
Obtain restrictive covenant or easement for the Dockton Springs well field sanitary control area on parcels: 2051200245, 2051200280, 2051200285, and 2051200315.	Dave Stoltz, Jr.	Underway	December 2024	$12,000 (Survey/Legal Descriptions, Legal Fees)
Obtain an easement for the Sandy Shores well sanitary control area on parcel 2922039024.	Dave Stoltz, Jr.	September 2022	December 2024	$6,000 (Survey/Legal Descriptions, Legal Fees)
Share Emergency Response plan with Gold Beach, Maury Mutual, and local emergency responders. Reaching out is the first step toward forming partnerships with those who may lend assistance during an emergency.	Dave Stoltz, Jr.	August 2022	December 2022	
Review and update Bylaws and Board of Directors Policies.	Darton Riely-Gibbons	Annually	Annual Board Meeting - June	
Distribute septic system education material to the homeowners as a part of the Wellhead Protection Program.	Darton Riely-Gibbons	Annually	Annual Board Meeting - June	
Review, update, and practice emergency response plan.	Dave Stoltz, Jr.	Annually	Annual Board Meeting - June	

Chapter 2: Technical



2.1 Certified Operator

Table 2-1
Certified Operator

Position	Name	Certification class and level	Employed by your system since (date)
Certified Operator (lead)	Dave Stoltz, Jr., No. 013842	WDM1, WTPO1	Oct 2014
Certified Operator (assistant)	Skylar Hornick, No. 015803	WDM1, WTPO1	2022
Cross-Connection Control Specialist	Dave Stoltz, Jr.	CCS	April 2017

Further action

- Do the governing board and certified operator agree that it is the operator's responsibility to perform the "typical operator duties" listed in this section?
  ☒ Yes ☐ No.
  If no, modify the employment agreement or include the issue in Section 2.10 (Next Steps).

- Do the governing board and certified operator meet on a regular basis to discuss past activities, the system's current operational status, regulatory requirements, and planning for future system needs?
  ☒ Yes ☐ No.
  If no, modify the employment agreement or include the issue in Section 2.10.

- If the certified operator is unavailable during an emergency, is a back-up operator available?
  ☒ Yes ☐ No.
  If no, develop a short-term coverage plan or include the issue in Section 2.10. A good place to start is by talking with a neighboring water system.

- If the certified operator leaves, do you have a plan for obtaining a new one?
  ☒ Yes ☐ No.
  If no, develop a succession plan or include the issue in Section 3.0. A good place to start is by talking with a neighboring water system.

2.2 Operations and Maintenance Program

Table 2-2
Operations and Maintenance Program

Maintenance and operational activity	Applicable? (check box)		Responsible party	Frequency
	Yes	No		
Measure and record production from each source and any interties	☒	☐	Operator	Daily
Recalibrate source meters	☒	☐	Operator	Annually
Read service meters	☒	☐	Operator	Monthly
Replace service meters	☒	☐	Operator	As Needed
Measure water level in each well (static and pumping level)	☒	☐	Operator	Monthy
Measure chlorine residual in distribution system	☒	☐	Operator	Daily
Flush dead ends	☒	☐	Operator	Annually/as needed
Exercise main line valves	☒	☐	Operator	Annually
Hydrant Testing	☒	☐	Operator	Annually
Record use of treatment chemicals (corrosion control, disinfection, iron or manganese removal)	☒	☐	Operator	Daily
Maintain chemical feed pumping equipment	☒	☐	Operator	As Needed

Maintenance and operational activity	Applicable? (check box)		Responsible party	Frequency
	Yes	No		
Conduct leak detection in the distribution system	☒	☐	Operator	As Needed
Recalibrate water quality monitoring instruments	☒	☐	Electrician	Annually
Inspect reservoir hatches, vents, and overflow outlets for tight seals and intact screens	☒	☐	Operator	Twice a Year
Inspect and clean reservoir interior	☒	☐	Contracted to Liquivision	Every five years
Inventory spare parts, chemcial supplies, and equipment.	☒	☐	Operator and Manager	Continuously
Measure and record pump hours at Dockton Springs	☒	☐	Operator	Daily
Measure and record pump hours at 520 Booster Station	☒	☐	Operator	Monthly
Check air-water level in hydropneumatic tank(s)	☐	☒	N/A	
Test cross-connection control devices (by a backflow assembly tester)	☐	☒	Shareholder	Must be completed once a year
Check and file shareholder backflow assembly test resutls	☒	☐	Operator	Annually
Conduct safety training needed to comply with OSHA and WISHA standards	☒	☐	Operator	As needed
Conduct routine and repeat coliform monitoring	☒	☐	Operator	Monthly routine

Maintenance and operational activity	Applicable? (check box)		Responsible party	Frequency
	Yes	No		
Review coliform monitoring plan to ensure it reflects current customer base and service area	☒	☐	Manager	When customer base changes
Review water system security features and processes (fencing, locks)	☒	☐	Manager	Annually
Conduct source chemical monitoring as described in your water quality monitoring report	☒	☐	Operator	As specifice in WQMR.
Test all alarm functions	☒	☐	Operator	Annually
Complete and distribute consumer confidence report	☒	☐	Operator	Annually
Drain and clean chloring contact basin	☒	☐	Operator	Annually
Maintain Dockton springs well points	☒	☐	Operator	As Needed
Exercise Emergency Generators	☒	☐	Operator	Weekly
ATEC Water Filtration System[1]				
Test chlorine free residual	☒	☐	Operator	Daily
Test iron raw and treated	☒	☐	Operator	Daily
Test manganese raw and treated	☒	☐	Operator	Daily
Observe backwash for flow rate and color	☒	☐	Operator	Weekly
Observe backwash valves for proper operation	☒	☐	Operator	Monthly
De-pressurize filters and check media level, fill if necessary	☒	☐	Operator	Every 6 months
Repair leaks as needed	☒	☐	Operator	As needed

Maintenance and operational activity	Applicable? (check box)		Responsible party	Frequency
	Yes	No		
Touch-up paint as needed	☒	☐	Operator	As needed
Check air line for condition/leaks (nylon)	☒	☐	Operator	Monthly
Replace grooved coupling gaskets	☒	☐	Operator	Every 6 years, or as needed
Rebuild Bermad (BWV1, BWV8)	☒	☐	Operator	Every 6 years, or as needed
Inspect Peter Paul solenoids, rebuild as needed (SV1-SV8)	☒	☐	Operator	Monthly
Inspect control panel for corrosion and integrity	☒	☐	Operator	Monthly

(1) See ATEC Operation Maintenance Manual in Appendix K of the Small Water System Plan Maintenance Plan, especially the Maintenance Operation Comments pg. 243 of 246 and the Troubleshooting Guide on pg. 246 of 246.

Section 2 - Control Position for Valves, Switches, Relays, and Timers

Indicate normal settings, positions, or readings for pump controls, electrical switches, valves, or gauges. Describe any seasonal differences in pump, reservoir, and valve control settings.

Type of switch, valve or control	Normal and seasonal settings
PRV at Dockton Springs BPS	80 psi, reduces pressure between the 430 and the 246 zones.
Silo force main pressure gauge (Dockton Springs BPS)	171 psi
268th PRV	80 psi, Reduces pressure between the 430 and 246 zones
Manzanita PRV	48 psi, Reduces pressure between the 430 and 232 zones
Lower Sandy Shores PRV	62 psi, Reduces pressure between the 430 and 193 zones
Point Piner PRV	60 psi, Reduces pressure between the 430 and Point Piner
Reservoirs Floats	Full: 38 feet, Fill: 34 feet, and Low: 28 feet
Pump Stations Operations	See section 1.2 descriptions and Technical Information in Appendix K
ATEC Filtration System	See Operations Maintenance Manual in Appendix K

Section 3 - Suppliers List

Develop a list of supplies you periodically order and include the supplier's name and phone number.

Type of supply, spare part, or specialty service	Name of supplier or contractor	Phone number(s)
Sodium Hypochlorite	Cascade Columbia Distribution Company	206-282-6334
System Repair Parts	Ferguson	253-922-9060
Propane	Suburban Propane	253-846-3797
Pump holding tank at water office	Neice Pumping	206-463-5969

Further action

- Have any parts of Table 2-2 caused you to think about changing your current O&M practices?
  ☒ Yes. ☐ No.
  If yes, list the issue in Section 2.10 (Next Steps).

2.3 Water Quality Monitoring Program

Table 2-3
Water Quality Monitoring Program

Completed	Task	Completion Date
☒	**Step 1:** Attach a copy of your WQMS. See Appendix P.	April 2022
☒	**Step 2:** Transfer testing dates into your O&M program and into your specific water quality monitoring programs.	Ongoing
☒	**Step 3:** Transfer testing costs into your budget.	Ongoing
☒	**Step 4:** Attach a copy of your coliform monitoring plan and site-sampling map. -See Appendix F.	February 2013
☒	**Step 5:** Revise testing schedule if monitoring requirements change.	Ongoing

Further action

- Do you keep copies of sampling results for at least 10 years?
  ☒ Yes. ☐ No.
  If no, begin doing so or list the issue in Section 2.10 (Next Steps).

2.4 Component Inventory and Assessment

See Appendix Q.

2.5 Water Rights Self-Assessment

An updated Water Right Self-Assessment form (WRSA) was prepared. See Appendix H - Water Rights Self-Assessment form. Sources are described in Section 1.2. In response to comments from Ecology, a capacity analysis was conducted to evaluate short-term (10-year) and long-term (20-year) water right needs. See Appendix T.

2.6 Water Production

Summary

Dockton Water Association uses two groundwater sources: Dockton Springs shallow wells (S01) and the Sandy Shores deep well (S02). Detailed descriptions of the sources are in section 1.2 and shown on the Water Facilities Inventory (see Appendix Q). All sources have totalizing source meters.

DWA Water Production

Year	Dockton Springs [gal]	Sandy Shores [gal]	Total Production [gal]
2016	*	*	23,860,332
2017	*	*	23,447,200
2018	*	*	24,160,991
2019	*	*	23,144,455
2020	22,273,140	1,396,848	23,669,988
2021	17,579,400	7,886,000	25,465,400

*Missing or incomplete data.

2.7 Current Water Consumption

Historical and current water consumption data are provided in the table below. DWA has single family residential and commercial connections. All these connections are metered and read monthly. In addition to revenue water, unbilled authorized consumption is also recorded.

DWA Water Consumption

Year	Revenue Water [gal]			Unbilled Authorized Consumption [gal]	Authorized Consumption [gal]
	Residential	Commercial	Total		
2016	20,455,300	593,585	21,048,885	*	20,331,380*
2017	19,693,980	512,586	20,206,566	192,469	20,399,035
2018	21,587,623	570,702	22,158,326	340,610	22,498,936
2019	20,387,444	453,139	20,840,583	501,528	21,342,111
2020	21,019,203	623,335	21,642,538	81,116	21,723,654
2021	21,878,869	461,846	22,340,715	356,978	22,697,693

*Data Error

Unbilled authorized consumption water includes sample station water, hydrant flushing, main breaks, reservoir overfills, flushing, etc.

2.8 Future Water Consumption

In addition to the analysis below, a system capacity analysis was prepared including a summary of current use, projected water demands, buildout analysis for the system. See Appendix T.

Table 2-8
Future Water Consumption

Line Number	Type of Information	2021 Value
1	Record the number of full-time single-family homes you currently serve.	373 Homes (DU)
2	Summarize and record the volume of water (in gallons) all full-time single-family homes consumed in the past year.	21,859,786 gal/yr
3	Determine the average annual consumption per full-time single-family home by dividing the value in Line 2 by the value in Line 1.	58,605 gal/du/yr
4	Determine the average daily demand (ADD) per existing *full-time* single-family (FTSF) home by dividing the value in line 3 by 365.	162 gpd/FTSF
5	Determine the number of new single-family homes you expect to serve in the future. Count the number of vacant lots in your service area that you expect to serve in the future. Do not count existing homes. Consult with your local land-use planning agency to find out whether the vacant lots can be subdivided if you do not know.	261 (subdivision) + 35 (ADUs) = 296 DU [Buildout]
6	Calculate the additional single-family residential annual consumption by multiplying the value in line 3 by the value in line 5.	17,347,176 gal/yr (53.2 ac-ft/yr)
7	Summarize and record the volume of water (in gallons) consumed by all existing multi-family, commercial, industrial, and municipal customers.	461,846 gal/yr
8	Forecast the additional annual consumption you expect to serve in the future from multi-family, commercial, industrial, and municipal customers. Do not include existing demands. Consult local land use plans for your area to see if these types of future uses are planned if you do not know.	0 gal/yr No growth expected.
9	Summarize the total forecasted additional annual consumption by adding the values in Lines 6 + 8 together.	17,347,176 gal/yr (53.2 ac-ft/yr)
10	Calculate the total forecasted annual consumption by adding together existing uses (Line 2 and Line 7), existing DSL (see Table 2.6.1), and your forecasted additional annual consumption (Line 9): Line 2 + Line 7 + DSL volume taken from Table 2-6 + Line 9	42,438,011 gal/yr 130.2 ac-ft/yr
11	Is your existing water right sufficient for the forecasted annual consumption? (Refer to the value in Line 10 and remember: an acre-foot is equal to 325,851 gallons).	☒ Yes or ☐ No

Line Number	Type of Information	2021 Value
12	Calculate the forecasted average daily consumption by dividing the value from Line 10 by 365.	116,269 gpd
13	Forecast the maximum daily consumption by multiplying the value in Line 12 by two.	232,537 gpd
14	Convert the maximum daily consumption from Line 13 to a continuous flow rate in gpm: divide the value in Line 13 by 1,440. This is the minimum flow rate (gpm) needed from all your sources to meet your forecasted maximum daily consumptive demand.	161 gpm
15	Is your existing water right sufficient for the forecasted maximum daily consumption flow rate calculated in Line 14? (Compare the instantaneous flow allowed in your water right with the value in Line 14).	☒ Yes or ☐ No

Further action

- Check lines 10 and 14 against your water right annual volume and instantaneous withdrawal limits. Is it within allowed limits?

  ☒ Yes ☐ No ☐ Unsure.

  If no or unsure, include this issue in Section 2.10 (Next Steps) and contact the Department of Ecology. You can also contact your regional engineer to explore ways to reduce your average daily and maximum daily consumptive demand.

- If your sources cannot produce the forecasted maximum daily consumption (Line 14), include this issue in Section 2.10 (Next Steps) and begin planning to increase your source capacity. If this is the case, contact your regional office. To increase source capacity, you must submit additional planning or engineering documents.

2.9 Water Use Efficiency Program

In 2003, the Washington State Legislature passed the Municipal Water Law, and directed Health to adopt an enforceable Water Use Efficiency (WUE) program. This program became effective on January 22, 2007. The law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help them meet future demand. The new guidelines for preparing a Water Use Efficiency program are contained in the Water Use Efficiency Guidebook (DOH PUB. #331-375), published by Health, July 2007 (Revised January 2017).

As part of the Planning Requirements of the WUE, municipal water suppliers are required to collect data, forecast demand, evaluate WUE measures, calculate distribution system leakage (DSL) and implement a WUE program to meet their goals. As of January 2007, water suppliers have been obligated to collect production and consumption data on a regular basis to include in planning documents and annual performance reporting. As part of this data collection, demand forecasting is also an essential component for determining future use and potential savings through a water use efficiency program. A description of the water supplier's water source and supply characteristics must also be provided.

Water Use Efficiency Plan

Step 1: Describe your prior water conservation program.

DWA has placed emphasis on keeping better records and replacing leaky mains. Examples of keeping better records are using a hydrant flow meter when flushing mains, recording treatment backwash, main breaks, reservoir overflows, leaks, etc. In addition, all sources are metered and read each workday and customers are billed monthly. Main replacements have also reduced DSL. DWA has been successful in reducing DSL from over 20% in 2012 when the SWSMP was first submitted to under 10% rolling average for the last three years. DSL was up in 2021 most likely due to a stuck impeller on the backwash meter at the Sandy Shores filtration plant.

Step 2: Describe your source of water supply.

1. Source description. *(For example, do you use groundwater or surface water or both?)*

> *DWA uses two groundwater sources: Dockton Springs shallow wells (S01) and the Sandy Shores deep well (S02). Detailed descriptions of the sources are in section 1.2.*

2. Name and location of the source from which water is used. *(For example, what body of water or watershed does your source draw from?)*

> *DWA groundwater wells draw water from Water Resource Inventory Area (WIRA) 15 – Kitsap. The location of Dockton Springs and Sandy Shores are shown on the Facility Inventory Map. See Appendix W.*

Step 3: Adopt a WUE goal that supports water demand efficiency. Your system's governing body must establish at least one quantifiable water savings goal to enhance efficient water use by customers (demand side). You must establish your goal in a public forum and provide at least two weeks advance notice to your customers and the public. You can use regularly scheduled board or other meetings to establish your WUE goal as long as the advance notice indicated that the WUE goal is part of the agenda. You must re-establish your goal using this same process at least every six years. Chapter 7 of the WUE Guidebook explains how to set your goals.

- Identify your WUE goal(s).

> We adopted a Water Use Efficiency (WUE) goal at our board meeting on March 25, 2023. Goal: A demand side goal of reducing active residential connections consumption 1.5 percent or 49,368 gallons annually over the next six years.

- Attach a copy of the official adoption document in this section.
  -See Appendix I.

- Attach a copy of the public notice for the goal-setting meeting, the agenda, and any meeting minutes in this section.
  -See Appendix I.

Step 4: Select WUE measures that support your goal and evaluate them for cost-effectiveness. You must evaluate a minimum number of measures to help your system achieve the proposed goal. Research the types of measures that would be a "good-fit" for your customers and your source of supply and evaluate whether implementing the measure would be cost-effective. Sections 5.6 and 5.7 of the WUE Guidebook explain how to evaluate measures and what qualifies as a measure. See Appendix B for examples of measures.

If your system serves fewer than 500 connections, you must evaluate at least one measure for cost-effectiveness. If your system has 500 to 999 connections, you must evaluate at least four measures.

- Identify the measure(s) you decided to evaluate.

  Targeted marketing via website and annual newsletter.

- Briefly describe the evaluation results for each measure.

  We already address water savings topics in our Customer Confidence Report. We will add links to water saving resources on our website.

Note: If you decide to implement a measure (Step 5), you don't have to evaluate it for cost-effectiveness. Some small systems find that evaluating selected measure(s) for cost-effectiveness is more difficult than simply deciding to implement them.

Step 5: Decide which WUE measures to implement. After you evaluate the measures you selected, decide the ones you will implement to help achieve the water savings goal. Identify when you will implement each measure and how your system will fund measures having an associated cost.

- List the WUE measures you will implement. Include an implementation schedule and associated costs.

  We already address water savings topics in our Customer Confidence Report. We will add links to water saving resources on our website.

- Make sure to carry the implementation costs over to the future expenses portion of your budget (Section 3.3).

Step 6: Educate your customers on using water efficiently. You must describe how you provide general education to your customers on the importance of using water efficiently in your WUE program. If you provide customer education more than once a year, you can count it as one of your required measures. See Section 5.7 and Appendix J of the WUE Guidebook for water conservation tips to share with your customers.

- Briefly describe your customer education material and how often you provide it.

DWA provides educational resources based on information on Heath's web page: https://doh.wa.gov/community-and-environment/drinking-water/water-system-design-and-planning/water-use-efficiency/wue-publications-and-resources.

Step 7: Estimate projected water savings from the selected WUE measures. Every measure you choose to implement should result in water savings. Your measures will establish your WUE program and may affect your future water demand. Chapter 4 of the WUE Guidebook explains how to predict water savings based on different WUE programs.

- Identify the predicted amount of water savings for each measure you will implement.

Water Use Efficiency goal of 1.5% water savings over the next 6 years. DSL in 2021 was 2,767,707 gal. The expected demand water savings is 49,368 gallons annually over the next six years.

Step 8: Decide how to evaluate the effectiveness of your WUE program. If you don't achieve your goal, you must adjust your WUE program by trying different measures or changing your goal. Remember that you must establish WUE goals through a public process. WUE programs can change for many reasons. Things such as drought, budget constraints, and demographic changes may cause shifts in water use patterns. Plan to adapt and amend your WUE program to keep it economical, effective and positioned to meet your goal.

- Briefly describe how you will evaluate the effectiveness of your WUE program.

Monitor annual DSL and three-year rolling average DSL.

Step 9: Determine distribution system leakage. After all your customers have service meters, your WUE program must include the system's distribution system leakage (DSL). Refer back to Table 2-6 in Section 2.6 (Water Production, Consumption, and DSL). If you completed the table using Excel, your system's DSL for the same year was automatically calculated in the bottom right corner. If you did not use the Excel feature, take the data you provided in Sections 2.6 and 2.7 and refer to Chapter 6 of the WUE Guidebook to determine your DSL.

- Identify your system's DSL. Use data from the same year that you used to calculate water production and consumption totals in Section 2.6.

DWA Distribution System Leakage (DSL)

			Distribution System Leakage (DSL)		
Year	TP	AC	Volume [gal]	%	3-yr rolling average
2015	26,746,139	22,441,137	4,305,002	16.1%	
2016	23,860,332	20,331,380	3,528,952	14.8%	
2017	23,447,200	20,399,035	3,048,165	13.0%	14.6%
2018	24,160,991	22,498,936	1,662,055	6.9%	11.6%
2019	23,144,455	21,342,111	1,802,344	7.8%	9.2%
2020	23,669,988	21,723,654	1,946,334	8.2%	7.6%
2021	25,465,400	22,697,693	2,767,707	10.9%	9.0%

- If you don't have customer service meters, you can't accurately calculate your system's DSL. If this is the case, discuss your progress toward installing service meters below. **Municipal water suppliers must have service meters installed on all direct connections by January 22, 2017.**

  Notes:

  - Compliance with the 10 percent leakage standard is based on your rolling 3-year average after you submit your annual WUE report to us. If your rolling 3-year average DSL exceeds 10 percent, your WUE program must include a water-loss control action plan. See Chapter 6.5 of the WUE Guidebook for information about the possible allowance of up to 20 percent DSL for systems with fewer than 500 connections.

  - When you have six years of DSL data (as reported to us in your annual WUE report), you will need to include DSL for the past six years in your WUE program.

Step 10: Evaluate rate structures that encourage water demand efficiency. You must evaluate the feasibility of adopting a rate structure that encourages water demand efficiency. The evaluation should describe the pros and cons of implementing a conservation rate structure if you don't already have one. A conservation rate structure is an "inclining block" or a "seasonal rate" structure. An inclining block rate is a higher charge per unit of water with higher use. A seasonal rate is a higher charge per unit of water during your peak usage season. Section 5.4 of the WUE Guidebook explains what to consider in your evaluation and what to include as part of your WUE program.

- Describe the evaluation results below. Include your current rate structure.

DWA revies rates annually.

Residential or Commercial base rate + Capital Charge + Charge per cubic foot billed monthly.

(See Appendix B – Bylaws, Appendix C – Board of Director's Policies, and Web Page)

Table 2-9.1
Water Use Efficiency Program

Identify the steps you completed and target completion dates for remaining tasks.

Completed	Task	Completion Date
☒	**Step 1:** Describe previous water use efficiency efforts or WUE program.	**May 2022**
☒	**Step 2:** Describe your source of supply.	**May 2022**
☒	**Step 3:** Establish a WUE goal in a public forum. Include a short description.	**March 25, 2023**
☐	**Step 4:** Select measures to support the WUE goal and evaluate them for cost-effectiveness. Include a list of your proposed measures. *You don't have to evaluate the measures you choose to implement.*	**Est. August 2023**
☒	**Step 5** Identify measures you will implement in the next six years. List the selected measures and implementation schedule. -See section 2.9 Steps 4-6.	**June 2022**
☒	**Step 6:** Provide WUE education material to your customers. Attach a copy or brief description. -See section 2.9 Steps 4-6.	**June 2022**
☒	**Step 7:** Estimate projected water savings for each selected measure. Include a brief description. -See section 2.9 Steps 4-6.	**May 2022**
☒	**Step 8:** Establish how you will evaluate your WUE program for effectiveness. Include a brief description. -See section 2.9 Steps 3-9.	**May 2022**
☒	**Step 9:** Determine your system's DSL. Use data from the same year used to calculate total water production and consumption in Section 2.6 and 2.7. Include the DSL totals.	**Ongoing – Yearly WUE reporting to Health**
☐	**Step 10:** Evaluate the feasibility of adopting a conservation rate structure. Include a brief description of the results.	**N/A**

2-9.2 Components of Revenue and Non-revenue Water

<table>
<tr><td rowspan="8">System Input Volume (own source or imported water)</td><td rowspan="2">Exported Water</td><td rowspan="4">Authorized Consumption e.g., to customers, other purveyors, contractors, fire departments, and DWA</td><td rowspan="2">Billed Authorized Consumption e.g., to customers, other purveyors, contractors.</td><td>Billed Metered Consumption (including water exported e.g., via truck or intertie)</td><td rowspan="2">Revenue Water</td></tr>
<tr><td>Billed Unmetered Consumption</td></tr>
<tr><td rowspan="6">Water Supplied to the Water System</td><td rowspan="2">Unbilled Authorized Consumption</td><td>Unbilled Metered Consumption District Uses (i.e., main flushing & treatment backwash)</td><td rowspan="6">Non-Revenue Water</td></tr>
<tr><td>Unbilled Unmetered Consumption (firefighting & water main breaks)</td></tr>
<tr><td rowspan="4">Distribution System Loss (DSL) or Unintentional water loss</td><td rowspan="2">Apparent Losses and theft</td><td>Unauthorized Consumption (water theft)</td></tr>
<tr><td>Meter Inaccuracies & Systematic Data Handling Errors</td></tr>
<tr><td rowspan="3">Real Losses or actual water loss through leaks</td><td>Leaks from Transmission & Mains (leaks and breaks in District owned water mains)</td></tr>
<tr><td>Leaks & Overflows from Storage and Treatment Facilities Backwash</td></tr>
<tr><td>Leakage on Service Connections up to point of Customer metering (District side of meter)</td></tr>
</table>

2-9.3 Water Use Efficiency Examples

Indoor Residential	Outdoor	Industrial/Commercial/ Institutional
• Toilet or urinal retrofit	• Workshops for landscape	• Recycling or reuse
• Rebate Program	• Soil moisture sensors	• Commercial pre-wash sprayers
• Showerhead or faucet	• Rain sensors	• Showerhead or faucet replacement
• Indoor water audit	• Irrigation timers	• Cooling tower improvements
• School Outreach	• Xeriscaping (low water use)	• Toilet or urinal retrofit
• Displays at fairs and events	• Demonstration garden	• Cooling systems retrofit
• Speakers bureau	• Turf replacement rebate	• Air-cooled refrigeration
• Targeted Marketing	• Landscape ordinances	• Water use audits (including irrigation systems)
• Advertising (media)	• Drip irrigation	• Water bill showing consumption
• Conservation rates	• Landscape water audit	• Using reclaimed water
• Customer leak detection	• Irrigating with reclaimed water	
• Water bill showing consumption	• Native and drought tolerant	

These measures can be used in more than one category

• School outreach	• High efficiency shower heads
• Display at fairs and events	• High efficiency faucet aerators
• Speakers bureau	• Toilet or urinal retrofit
• Targeted marketing	• Xeriscaping (low water use landscaping)
• Advertising	• Using reclaimed water
• Conservation rates	• Rebate programs (such as toilets or washing machines)
• Water bill showing consumption history	
• Water use ordinances	

2.10 Next Steps to Improve Technical Capacity

List the follow-up action you committed to take in previous sections. Include any estimated costs in the future expenses portion of your budget.

Item to address	Responsible party	Target start date	Target completion date	Estimated cost
Water Operator Asbestos Cement Pipe Certification	Dave Stoltz, Jr.	July 2022	Complete July 2022	
Post water efficiency educational material to the website & refresh on annual newsletter	Darton Riely-Gibbons	August 2022		
Discuss rate increases at board meeting to incentivize conservation.	Darton Riely-Gibbons	June 2022	Ongoing, most recent in June 2022	

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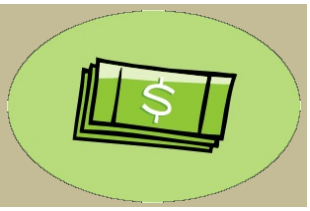
Chapter 3: Financial



Financial capacity is the ability of your water system to generate sufficient revenue, maintain credit worthiness, and manage funds through budgeting, accounting, and other fiscal control methods.

What is sufficient financial capacity?

Revenue Sufficiency	• Rates and other system charges cover the full cost of providing service. • System personnel know and can measure all costs and revenues. • Reserve accounts or savings are available for unexpected expenses.
Fiscal Management	System personnel keep adequate books and records; use appropriate budgeting, accounting, and financial planning methods; and manage revenues effectively.
Credit Worthiness	• The system has an established credit rating to allow personnel to access funds for an emergency or to implement the capital improvement plan. • System personnel can access capital for the system through public or private sources.

3.1 Short-Lived Asset Replacement and Other Planned Improvements

See Inventory Assessment in Appendix Q.

3.2 Long-Lived Asset Replacement

A capacity analysis of the existing system was prepared to identify long-lived asset replacement and capital improvement projects (CIPs) needs for the system. The analysis is presented in a Technical Memo located in Appendix T. The assumed level of service is consistent with the Vashon Coordinated Water System Plan to provide residential fire flow of 1,000 gpm for a 2 hour duration. A copy of the CIP list from the Technical Memo is provided below. A CIP figure showing these projects and rough order of magnitude cost estimates are in Appendix T. The proposed near term CIP Schedule is in Appendix R.

System Improvements

Dockton Water system has distribution, storage, and source capacity needs.

246 Zone

- P1*: 246 Zone - Lower North Area (HG = 180'). In combination with projects D1 and D3, install 6-inch PRVs on 99th Ave. SW at elevation ~88', on 97th Ave. SW at elevation ~68', and at Dockton Springs on the existing 8-inch transmission main with hydraulic grades (HG) set to ~180'.
- P2*: 246 Zone - Hake Road Run. In combination with project D4, install a PRV on Hake Rd. SW at elevation ~37' with hydraulic grade set to ~152'.
- D1: 246 Zone – 99th Ave SW. Replace 6-inch main on 99th Ave SW between SW 268th Street and SE Dock Street with 3,350 LF 8-inch PVC. Replace existing undersized 4-inch PRV near SW 268th St. with a 6-inch PRV and install second 6-inch PRV under project P1 north of SW 260th St.
- D2: 246 Zone – SW 264th St. Replace undersized 4-inch AC lines on SW 264th St. between 99th Ave. SW and 94th Ave SW with 1,800 LF 8-inch PVC.
- D3: 246 Zone – Dockton Street. Replace undersized 4-inch lines from Dockton Springs to Dock Street with 250 LF 8-inch PVC. Install 6-inch PRV at Dockton Springs under project P1. Connect to proposed 6-inch PRV at Dockton Springs (project P1) and to existing 8-inch pipe on SW Dock St.
- D4: 246 Zone – Hake Rd. Replace undersized 2-inch line along Hake Rd. and install 6-inch PRV under project P2.

424 Zone

- P3*: 424 Zone - Install 6-inch PRV at SW 268th St. at elevation ~217' with pressure setting of ~40-50 psi.
- P4*: 424 Zone - Sandy Shores Run. In combination with projects D8, D9, and D10, install 6-inch PRVs on SW 275th St. at elevations ~252' and ~115' with pressure settings of ~40 psi. Abandon existing Sandy Shores PRV on private property that has exceeded its design life.
- P5*: 424 Zone - Point Piner Run. In combination with projects D11, D12, and D13, install 6-inch PRVs on SW Summerhurst Rd. at elevations ~170' and ~87' with pressure setting ~40 psi.
- D5: 424 Zone - Transmission Main from reservoirs to 94th Ave. SW. Replace undersized 8-inch line between reservoirs to 94th Ave. SW with 5,450 LF 12-inch PCV.
- D6: 424 Zone – 94th Ave. SW. Replace undersized 4 and 6-inch lines with 2,050 LF 8-inch PVC.

- D7: 424 Zone – Upper Sandy Shores, SW 274th St. Replace undersized 4-inch lines with 1,750 LF 8-inch PVC.
- D8: 424 Zone – Upper Sandy Shores, SW 275th St. Replace undersized 4-inch lines with 1,250 LF 8-inch PVC from 94th Ave. SW to private drive near the existing blow off. Install 6-inch PRV under project P4.
- D9: 424 Zone – Lower Sandy Shores, SW 275th St. Replace undersized 4-inch lines with 700 LF 8-inch PVC from private drive near the existing blow off to downhill turn to existing PRV and install 675 LF 8-inch PVC from the downhill turn to the hair pin turn near sampling station #10. Under project P4, abandon 250 LF existing 4-inch pipe and PRV on private property between downhill turn to Sandy Shores Dr S and install 6-inch PRV.
- D10: 424 Zone – Lower Sandy Shores, Sandy Shores Dr. SW. Replace undersized 4-inch lines with 1,050 LF 8-inch PVC.
- D11: 424 Zone – 94th Ave. SW to SW Summerhurst Rd. to Point Piner. Install 1,100 LF 8-inch PVC from 94th Ave. SW to Summerhust Rd. to existing Point Piner main. Install 6-inch PRV under project P5.
- D12: 424 Zone –SW Summerhurst Rd. to SW Summerhust Walk. Install 950 LF 8-inch PVC from new PRV at EL~170' to SW Summerhust Walk. Install 6-inch PRV at EL~87' under project P5.
- D13: 424 Zone – SW Summerhurst Walk and SW 283rd Ln. Install 2,250 LF 8-inch PVC along SW Summerhust Walk and SW 283rd Ln.

520 Zone

- P6*: 520 Zone - Lower South Area. Install a PRV on 99th Ave. SW at elevation ~337' and install a PRV on 97th Ave. SW at elevation ~346' with pressure settings of ~40 psi.
- D14: 520 Zone – SW 288th St. Replace undersized 6-inch line with 600 LF 8-inch PVC.

Manzanita – 232 Zone

- P7*: 520 Zone to Manzanita Zone Transmission Main. Install a PRV on 101st Ave SW at elevation ~102' at pressure setting ~40 psi.
- D15: Manzanita – 232 Zone - Transmission Line Improvements. Replace undersized 6-inch line with 1,350 LF 8-inch PVC. Replace existing undersized PRV along 101st Ave. SW with 6-inch PRV and install PRV under project P7.
- D16: Manzanita – 232 Zone – Manzanita Beach Rd. SW. – Phase I South. Replace undersized 6-inch lines along Manzanita Beach Rd. from 101st Ave SW to SW 280th Ln. with 3,050 LF 8-inch PVC.
- D17: Manzanita – 232 Zone – Manzanita Beach Rd. SW. – Phase II North. Replace undersized 6-inch lines along Manzanita Beach Rd. from SW 280th Ln. to dead end with 1,400 LF 8-inch PVC.
- D18: Manzanita – 232 Zone – SW Northilla Rd. Replace undersized 6-inch lines along SW Northilla Rd. with 700 LF 8-inch PVC.
- D19: Manzanita – 232 Zone – SW 280th Ln. Replace undersized 6-inch lines along SW 280th Ln. with 650 LF 8-inch PVC.

Storage

- ST1: New 160,000-gallon Storage Tank. The storage tanks are concrete tanks that are susceptible to seismic activity. In addition, they need to be cleaned every five years. Install a new 160,000 gallon tank to current seismic codes at the reservoir site.

Source

- S1: Replace Deep Well Pump, Sandy Shores that is past it's expected useful life.
- S2: Rehabilitate the 520 Booster Station that is at it's expected useful life.
- S3: (Permit G1-28771 Dependent) Install 10 wells approximately 25 feet deep at the Dockton Springs shallow wells site.

A CIP figure showing these projects and rough order of magnitude cost estimates are in Appendix T.

The proposed near term CIP Schedule is in Appendix R.

3.3 Six-Year Budget

Dockton Water Association

6-Year Financial Plan

(US Dollars in '000's)	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28
OPERATIONS FUND						
Beginning Balance	$ (5)	$ (5)	$ (4.2)	$ 0.6	$ 0.8	$ (0.6)
Income	$ 268	$ 305	$ 324	$ 332	$ 343	$ 354
Staffing	$ (124)	$ (132.9)	$ (138.2)	$ (142.4)	$ (146.6)	$ (149.6)
Business Operations	$ (30.4)	$ (33.1)	$ (34.4)	$ (35.5)	$ (36.5)	$ (37.3)
System Operations	$ (57.2)	$ (59.0)	$ (61.4)	$ (63.2)	$ (65.1)	$ (66.4)
Taxes, Licenses, Fees	$ (15.9)	$ (17.2)	$ (17.9)	$ (18.4)	$ (18.9)	$ (19.3)
Franchise Fee	$ -	$ (12)	$ (12.0)	$ (12.0)	$ (12.0)	$ (12.0)
Operating Gain (Loss)	$ 40	$ 50	$ 59.8	$ 60.3	$ 63.6	$ 69.4
Transfer to System Replacements	$ (40)	$ (50.0)	$ (55.0)	$ (60.0)	$ (65.0)	$ (70.0)
Operations Ending Balance	$ (5)	$ (4)	$ 0.6	$ 0.8	$ (0.6)	$ (1.2)
CAPITAL FUNDS						
System Replacements Beginning Balance	$ 275	$ 267	$ 281	$ 275	$ 233	$ 253
Transfer from Operations	$ 40	$ 50	$ 55	$ 60	$ 65	$ 70
Loans for Replacements	$ 30	$ 70	$ 125		$ 150	$ 30
Loan Servicing for Replacements	$ (3)	$ (9)	$ (20)	$ (20)	$ (33)	$ (35)
Replacements Projects Costs	$ (75)	$ (97)	$ (167)	$ (82)	$ (162)	$ (42)
Meter Replacements	$ 2	$ 3	$ 3	$ 3	$ 3	$ 3
Hake Springs Well House Demo	$ 5					
Silo Study		$ 10				
Office Replacements	$ 34	$ 5				
Sandy Shores - PRV & New Main	$ 30	$ 70	$ 125			
94th to Pt Piner			$ 30	$ 70	$ 150	
Hake Road Replacements						$ 30
Unscheduled Replacements	$ 4	$ 9	$ 9	$ 9	$ 9	$ 9
System Replacements Ending Balance	$ 267	$ 281	$ 275	$ 233	$ 253	$ 276
Capital Improvements Beginning Balance	$ (76)	$ (38)	$ 23	$ 17	$ 116	$ 223
50% Reserve Base	$ 13	$ 15	$ 16	$ 16	$ 17	$ 17
Capital Charge	$ 68	$ 96	$ 102	$ 109	$ 115	$ 121
Sales of Shares/Misc.	$ 13	$ 15	$ 30	$ 30	$ 40	$ 20
Loans for Improvements		$ 100	$ 250	$ -	$ 100	
Loan Servicing for Improvements	$ (51)	$ (50)	$ (64)	$ (53)	$ (61)	$ (61)
Improvements Projects Costs	$ (5)	$ (116)	$ (340)	$ (3)	$ (103)	$ (3)
Booster Station Generator						
Sandy Shores Filtration						
Sandy Shores - PRV & New Main			$ 250			
Springs Improvement (New Wells)		$ 113	$ 87			
94th to Pt Piner					$ 100	
Unscheduled Improvement	$ 5	$ 3	$ 3	$ 3	$ 3	$ 3
Capital Improvements Ending Balance	$ (38)	$ 23	$ 17	$ 116	$ 223	$ 317
TOTAL CAPITAL FUNDS	$ 229	$ 304	$ 292	$ 349	$ 476	$ 593
Emergency Fund	$ 100	$ 100	$ 100	$ 100	$ 100	$ 100
TOTAL FUNDS (Ops, Capital & Emerg'y)	$ 324	$ 400	$ 392	$ 450	$ 576	$ 692

3.4 Water Rates

DWA re-evaluates its water rates annually. The most recent change was in March 2022. The water usage rate was increased from $0.02 to $0.025 per cubic foot and late fees implemented with an effective date of July 1, 2022.

Last fiscal year, DWA changed the way it charges commercial customers. Prior to June 2021, all meters under 2-inches were charged at the residential base rate. The board changed this in the 2021 annual meeting to charge non-residential customers the commercial base rate. See Appendix B.

3.5 Next Steps to Improve Financial Capacity

List the follow-up action that you committed to take in previous sections. Include any estimated costs in the future expenses portion of your budget.

Item to address	Responsible party	Target start date	Target completion date	Estimated cost
Annual Water Rate Review	Darton Riely-Gibbons	Ongoing	Annual Meeting	

Chapter 4: Other Documents

4.1 Water Facilities Inventory Form

Copies of our Water Facilities Forms are in Appendix C.

4.2 Annual Operating Permit

A copy of our operating permit is in Appendix N.

Table 4-2
Annual Operating Permit

Current Permit Color	**Permit Condition(s)** *If your permit is red, yellow, or blue, list the conditions noted on the permit for returning to substantial compliance.*	**Corrective Action** *List the actions you intend to take to return your system to substantial compliance*	**Target Completion Date**
Green			

4.3 Consumer Confidence Report (Optional)

See Appendix P.

4.4 Other System Records (Optional)

Purpose

To include copies of important water system documents and store them in one central location.

Other records:

- See list of Appendices at the beginning of this document.
- Approval letters or the local health jurisdiction – Appendix A
- Agency correspondence – Appendix D
- WUE annual reports – Appendix I
- Insurance documents – on file at the water office.
- Waterworks operator certificates – on file at the water office.
- Homeowner association by-laws or guidelines – Appendix B
- Water district ordinances or resolutions – copies of meeting minutes are on-file at the water office
- DWA 2013 DRAFT SWSMP – Appendix X
- DWA 2002 WSP – Appendix Y
- DWA 2005 WSP Amendment – Appendix Z
- Customer notifications, including newsletters or notices, customer educational material – DWA Website: http://www.docktonwater.org/