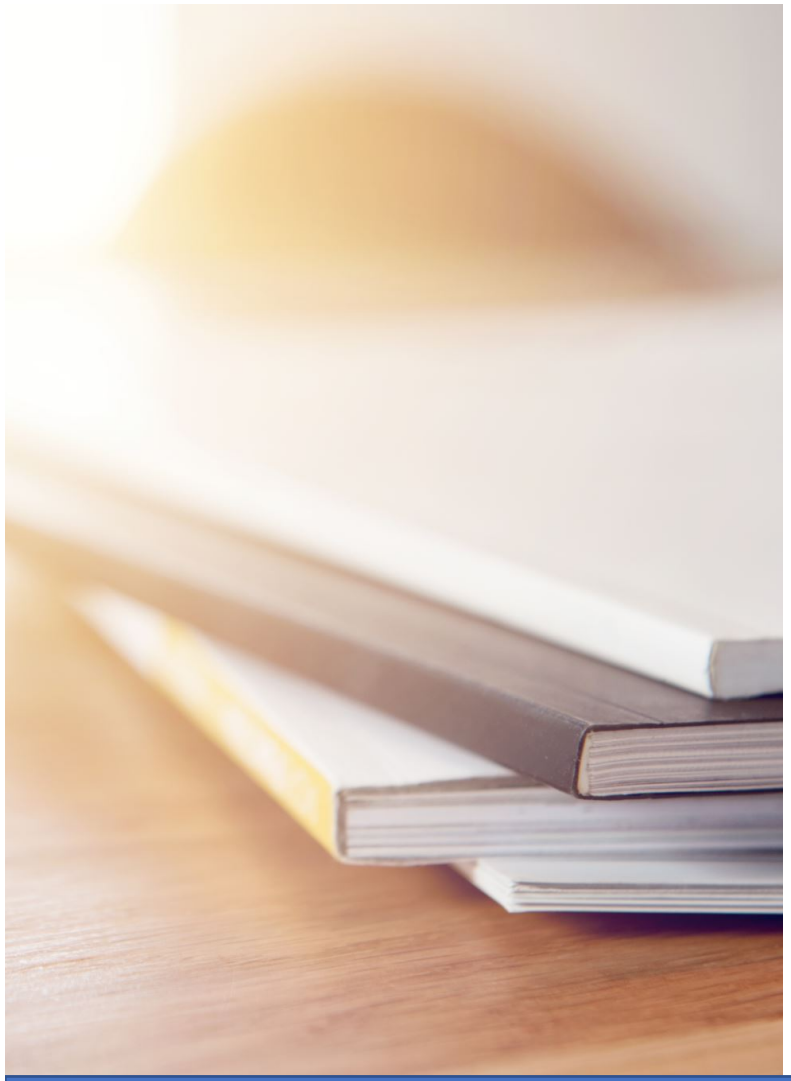
Water System

SPECIAL MEETING

9.17.23



Agenda: 9.17.23

Welcome

Introduction of Board Members:
Jim Farrell, Erika Aust, & Deann Benitez

Introduction of Advisory Group:
Dennis Frett, Laura Petrie, David Hancock, Ingrid Phelps, & David Spalding

Presentation of Information

Q & A

OBCG's water system is...

Community owned and operated, saving OBCG members the high cost of outside management

Water systems approved after 1994 may not be self-operated

Maintained by Northwest Water Systems (at annual cost of ~$4,900 per year)

Relying on infrastructure that is running out of useable life

Approved for 39 connections with current infrastructure

Daily demand for water

Pumping capacity

Washington law

OBCG System Priorities

- Ensure Reliability
- Establish Redundancy
- Enable Possible Expansion

OBCG is subject to laws & regulations

OBCG is classified as Group A water system because it has 15+ connections

- Group A water systems must comply with state law:
- Revised Code of Washington (RCW) and Washington Administrative Code (WAC)

Group A water systems are regulated by two state agencies

- Washington Department of Ecology controls water in ground (water rights/withdrawals)
- WA Department of Health regulates management of water once drawn from ground
- Group A water systems must submit Water System Plan, kept on file at DOH
  - OBCG's plan valid until May 22, 2029; posted @ OBCG.org

Systems with 14 or fewer connections are Group B, regulated by county public health departments

  - Mason County has **no** jurisdiction over OBCG water system

Requirements & Responsibilities – Group A Water Systems

- Collect water samples from water source, test, and report to state DOH
- Provide adequate quantity of water; delivered under proper pressure at all times
- Employ a certified waterworks operator
- Properly operate, maintain and protect water system
- Keep Water Facilities Inventory (WFI) current and notify DOH of changes

Requirements & Responsibilities – Group A Water Systems (cont.)

- Properly follow up on items identified during sanitary survey (required by DOH)
- Include all costs in annual budgeting process
  - Including capital improvements, preventative maintenance, operating & sampling costs
- Maintain communication with customers
- Participate in water related training and conservation efforts
- Maintain all required documentation for running water system business
- Have a Cross Contamination Control plan (CCC) in place for the water system

What defines a "connection"?

Department of Health:

Each dwelling unit counts as one residential service connection, even if that dwelling unit doesn't have its own separate service meter.

WAC 246-291-010 (55) and (61)

(55) "Residential service connection" means a connection to a public water system that provides potable water to a dwelling unit.

(61) "Service connection" means a residential, nonresidential, or recreational service connection as defined in this section.

RCW 36.70A.696

(1) "Accessory dwelling unit" means a dwelling unit located on the same lot as a single-family housing unit, duplex, triplex, townhome, or other housing unit

(6) "Dwelling unit" means a residential living unit that provides complete independent living facilities for one or more persons and that includes permanent provisions for living, sleeping, eating, cooking, and sanitation.

What defines a "connection" (continued)

Department of Health:

Each dwelling unit counts as one residential service connection, even if that dwelling unit doesn't have its own separate service meter.

RCW 59.18.030

(10)"Dwelling unit" is a structure or part of a structure which is used as a home, residence, or sleeping place by one person or by two or more persons maintaining a common household, including by not limited to single-family residence and units of multiplexes, apartment buildings, and mobile homes.

(32)A "single-family residence" is a structure maintained and used as a single dwelling unit. Notwithstanding that a dwelling unit shares one or more walls with another dwelling unit, it shall be deemed a single-family residence if it has direct access to a street and shares neither heating facilities nor hot water equipment, nor any other essential facility or service, with any other dwelling unit.

RCW 19.27.097

(1)(a) Each applicant for a building permit of a building necessitating potable water shall provide evidence of an adequate water supply for the intended use of the building. Evidence may be in the form of a water right permit from the department of ecology, a letter from an approved water purveyor stating the ability to provide water...

Compliance Needs

OBCG Water System Plan details actions and upgrades to ensure compliance. They include:

- Water Facilities Inventory (residences and population) for all connections
- Install backflow preventers on plumbing fixtures and pressure release valves between tanks and isolation valves
- Ensure all current connections are compliant with the RCWs & WACs

Asset Inventory Analysis

Orchard Beach Water System Asset Inventory

Item	Description	Service Date	Condition	Useful life	Est Life Left	Est Replace Cost	Notes	Service Life % Consumed	Service Life Consumed Value
SO-1 Well	72' deep well providing back up at 10 gal/Min	1963	Poor	80	20	$65,000	Need New well for Backup/Redundancy	75	$48,750
SO-2 Well	209' deep well, providing primary water at 60 gal/Min	1989	Good	80	46	$80,000	Good primary well	42	$34,000
SO-1 Well Pump	1/2 HP	1980	Poor	25	-18	$10,000		100	$10,000
SO-2 Well Pump	5 HP	1989	Poor	25	-9	$10,000	Needs Replacement soon	100	$10,000
Well Meter	Well Meter for SO-1	2003	Fair	20	0			100	
Well Meter	Well Meter for SO-2	2003	Fair	20	0	$2,500	Needs Replacement soon	100	$2,500
Pump Controls		1989	Poor	25	-9	$2,500	Needs Replacement soon	100	$2,500
Pressure Switch		1989	Fair	25	-9	$2,500	Needs Replacement soon	100	$2,500
Bladder Tank 1	81 Gal Pressure Tank	2018	Good	10	5	$2,000	Needs Replacement	100	$2,000
Bladder Tank 2	81 Gal Pressure Tank	2018	Good	10	5	$2,000		50	$1,000
Bladder Tank 3	81 Gal Pressure Tank	2018	Good	10	5	$2,000		50	$1,000
Bladder Tank 4	81 Gal Pressure Tank	2022	Good	10	9	$2,000		90	$1,800
Bladder Tank 5	81 Gal Pressure Tank	2018	Poor	10	5	$2,000	Needs Replacement	100	$2,000
Bladder Tank 6	81 Gal Pressure Tank	2018	Poor	10	5	$2,000	Needs Replacement	100	$2,000
Bladder Tank 7	81 Gal Pressure Tank	2018	Poor	10	5	$2,000		50	$1,000
Bladder Tank 8	81 Gal Pressure Tank	2018	Poor	10	5	$2,000	Needs Replacement	100	$2,000
Service Meters	39 meters	2018	Good	10	5	$50,000		50	$25,000
Distribution Piping	4500' 4" PVC Piping	1967	Fair	80	24	$500,000	Need Long term strategic Plan	70	$350,000
Zone 1 Shut off		?	Fair	25					
Zone 2 Shut off		?	Fair	25					
Zone 3 Shut off		?	Fair	25					
Backup Generator		2007	Good	30	14	$10,000		53	$5,333
Electrical Service		1967	Limited	50	-6	$5,000	Need quote for 3 upgrade	100	$5,000
Pumphouse		1967	Good	60	4	$20,000	New paint roof and gutters	94	$18,667
Water filtration	Filtration System for Public Water district well(s)					$110,000	New regulations will likely require (#3)		
									$527,050

CAPITAL FUNDS AVAILABLE $40K / SERVICE LIFE CONSUMED ~$500K

Infrastructure Needs

- OBCG Water System Plan details actions and upgrades to ensure reliability, provide redundancy and potentially enable expansion. This includes raising capital to upgrade infrastructure. Our plan includes:
- Replace system pressure tanks in well house as necessary (up to 4 in 2023, other 4 likely due in 2027); consider move to 119-gallon tanks from current 81-gal capacity
- Obtain engineering report for well replacement (2023)
- Drill new well (2024)
- Replace 5 hp pump on primary well (SO2) currently at end of life (2025)
- Install water filtration system (2028)
- Replace distribution piping (2032)

Advisory Committee has developed an action plan

- Following our June annual meeting, OBCG board called for volunteers to serve on Advisory Committee; 5 responded and were appointed
- Advisory Committee met five times… July 2, July 16, August 6, August 27, September 6
- Mission: develop Asset Management Plan to clearly define infrastructure needs, propose paths to support plan and meet community needs
- Committee determined best path forward would cover ongoing operating costs while stepping up deposits to reserve, allowing community to respond to emergencies as well as address infrastructure needs
- The Advisory Committee presented its recommendations at the August 27 meeting; a motion was made and unanimously adopted by the OBCG board to support those recommendations

Adjust Fee Structure

CURRENT

- $500 yearly fee – operating costs
- 4000 gallons per month / 48,000 per year
- Overage charged yearly after 48,000
- Accounting period June - May
- No available connections to expand
- Extra capital being saved = $0

2023-24 PLAN

- Yearly fee – operating costs ($500)
- Additional fee - Capital Improvements ($500)
- 3000 gallons per month -- meters read bimonthly
  - Overages will be billed bimonthly at $.025/gal
- Accounting period October 1 – September 30
  - Aligned with billing & June annual meeting action items
- Follow infrastructure replacement estimated timeline with capital reserve
- Additional connections available after infrastructure upgrades - 5 ($10,000 cost to join system)

Operating Revenue and Expenses (10 Year Estimate)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	$500/Yr	$500/Yr	$500/Yr	$500/Yr	$500/Yr	$500/Yr	$600/Yr	$600/Yr	$600/Yr	$600/Yr	$600/Yr
Water Revenue (Base Rate)	$ 18,000	$ 18,000	$ 18,000	$ 20,500	$ 20,500	$ 20,500	$ 24,600	$ 24,600	$ 24,600	$ 24,600	$ 24,600
Over 3000 Gal / mon. .025/Gal	$ 4,000	$ 4,500	$ 4,500	$ 4,500	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 6,000	$ 6,000	$ 6,000
Beginning Balance operating accour	$ 13,500	$ 19,000	$ 23,680	$ 26,578	$ 30,408	$ 33,044	$ 33,165	$ 35,356	$ 35,354	$ 33,984	$ 30,057
Estimated Water System Expense	$ (16,500)	$ (17,820)	$ (19,602)	$ (21,170)	$ (22,864)	$ (25,379)	$ (27,409)	$ (29,602)	$ (31,970)	$ (34,528)	$ (37,290)
Ending Balance	$ 19,000	$ 23,680	$ 26,578	$ 30,408	$ 33,044	$ 33,165	$ 35,356	$ 35,354	$ 33,984	$ 30,057	$ 23,367
			Additional testing		Filtration addition						

Capital Reserve & Replacement Estimate (10 Years)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Reserve Balance	$ 40,000	$ 36,900	$ 10,300	$ 13,700	$ 82,700	$ 104,700	$ 21,100	$ 51,900	$ 82,700	$ 113,500	$ 24,300
Capital Improvement Fee	$ 19,500	$ 23,400	$ 23,400	$ 23,400	$ 26,400	$ 26,400	$ 30,800	$ 30,800	$ 30,800	$ 30,800	$ 30,800
	$500/Yr.	$600/Yr.	$600/Yr.	$600/Yr.	$600/Yr.	$600/Yr.	$700/Yr.	$700/Yr.	$700/Yr.	$700/Yr.	$700/Yr.
Additional Water Connection fee (5@$10000				$ 50,000							
Capital Expenditures											
Pressure tanks (4 - 119 Gal)	$ (7,600)										
Engineering											
Engineering for Well Replacement	$ (15,000)										
New well drilling (SO-3)		$ (50,000)									
Install New Pump for SO-2			$ (20,000)								
Installation of Water Filtration						$ (110,000)					
Pressure tanks (2 - 119 Gal)				$ (4,400)							
Pressure tanks (2 - 119 Gal)					$ (4,400)						
Replace Distribution Piping (Partial)										$ (120,000)	

Orchard Beach Community

WHAT QUESTIONS DO YOU HAVE???

Thank You!

Board:

Jim Farrell

Erika Aust

Deann Benitez

Advisory Group:

Dennis Frett

David Hancock

David Spalding

Ingrid Phelps

Laura Petrie

Orchard Beach Community

APPENDIX

Drill New Well Estimated Costs

Scope

Drill new Well to provide Backup and Redundancy for SO-2 Well

Estimated Costs

Engineering/Design	$	15,000
Permitting	$	2,000
Well drilling (200')	$	20,000
Well Pump	$	10,000
Pump Controls	$	4,000
Pump Flow Meter	$	3,000
Electrical work	$	3,000
Pump house remodel	$	2,000
Tax	$	6,000
	$	65,000

Replace SO2 Well Pump and Controls Estimated Costs

Scope

Replace Single 5 HP pump on SO-2 Well with new 5 HP pump
Including new Flow Meter and controls

Estimated Costs

Well Pump	$	10,000
Pump Controls	$	4,000
Pump Flow Meter	$	2,500
Electrical work	$	1,500
Tax	$	2,000
	$	20,000