State of Washington
DEPARTMENT OF HEALTH
NORTHWEST DRINKING WATER REGIONAL OPERATIONS
20425 72nd Avenue South, Suite 310 • Kent Washington 98032-2388

West Beach Road Association, ID #17970	
County: Island	Water System Type: Group A Community
Inspection Date: December 17, 2020	System Representatives: Jim Patton, Brian Hunt
Surveyor: Steve Hulsman	Certified Operator: Steven Norvell (King Water Co.)

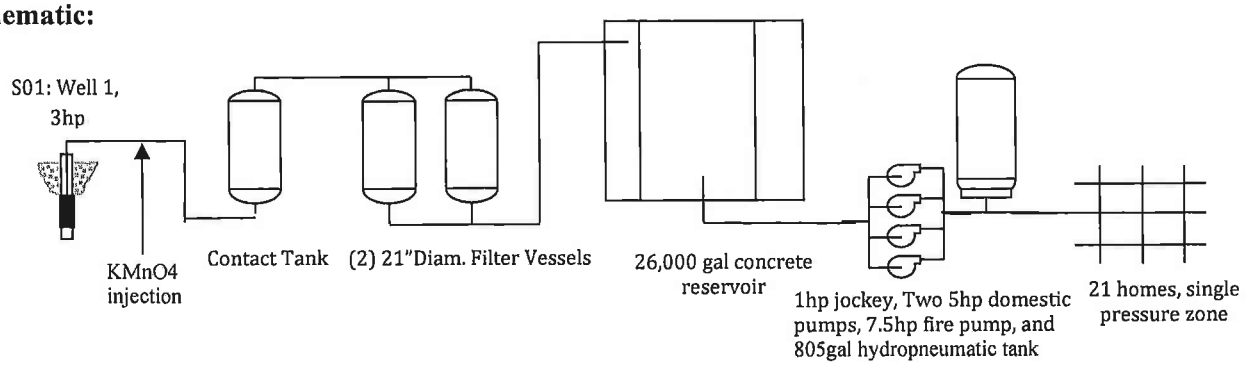
Dear Mr. Patton:

Thank you for meeting with me to conduct a sanitary survey of this water system. The purpose of the survey is to identify any immediate health concerns and to assess the operation, maintenance and management of the water system. This report documents the findings of this survey.
The water system currently appears to be in excellent sanitary condition. In fact, the current condition of your water system is one of best examples I've seen of complete and outstanding operation of a small association-run water system! I appreciate your efforts and diligence in managing and maintaining the water system.

SYSTEM INFORMATION
West Beach Rd water system is located northwest of the Town of Coupeville on Whidbey Island. The system serves 21 residential connections and about 50 people and has been approved to serve 25 connections. The water system is an association governed by an elected board and has maintained a contract with King Water Company to operate and maintain the water system.

Water is supplied by one well, runs through treatment to remove iron and manganese, and then into the system's 26,000 gallon reservoir, from which it is pumped to all customers. The water demand in the system is typically less than 4,000gpd. The design values for the system are average day demand of 350gpd/ERU, maximum day demand of 800gpd/ERU and peak hourly demand of 73gpm. Additionally, the system is designed to provide residential fire flow. Water rights appear as 20gpm and 16 AFY.

Schematic:



SECTION 1: SOURCE

Source	Name	Description	Ecology Tag	SWI* Class
01	AGA969 well 1	Drilled in 1984, 287ft deep well with 1st open interval at 282ft, 18' surface seal, Pumping capacity of 20gpm, well pump replaced in 2016	AGA969	Very high

* SWI classification based on Island County Seawater Intrusion Code.

WELLHEAD	S01
	Yes No
System has well log	☒ ☐
Wellcap and associated openings sealed	☒ ☐
Vent screened	☒ ☐
Casing terminates at least 6" above grade	☒ ☐
Protected from flooding	☒ ☐
Source meter	☒ ☐
Raw water sample tap	☒ ☐
Protected from unauthorized access	☒ ☐
Structure in good condition	☒ ☐
Sanitary Control Area has no unmitigated contaminants	☒ ☐
Protected from physical damage	☒ ☐
Frequency of routine site visit	2x/week
Frequency of source meter reading	2x/week

WELL PUMP EQUIPMENT	S01
	Yes No
Functional and reliable pump and pump controls	☒ ☐
Pump control valve or vacuum relief valve with a protected air gap at discharge	☒ ☐
Generator available	☒ ☐
Generator has automatic startup	☐ ☒
Generator fuel source	gasoline

Emergency Sources – none

SECTION 2: DISINFECTION – not practiced

SECTION 3: OTHER TREATMENT

Potassium permanganate oxidation and greensand plus filtration. After permanganate addition, there is a 120-gallon contact tank followed by twin 21" diameter filter vessels. The treatment is sized for 24gpm. Backwash takes place every 2,100gallons of treated water. One filter remains in service while the other one is being backwashed. Backwash water is discharged in a swale near the road ditch.
Finished water is tested for iron and manganese twice per week; results have been variable but remained below the MCLs (raw water has very high levels of iron and manganese). Operator maintains logs of treatment processes and results. Results are periodically communicated to customers.

#	Treatment Process	Chemical Added	Purpose	On WFI Yes No*	Location in system
1	Oxidation and filtration	Potassium permanganate	Iron and manganese removal	☒ ☐	Pump house

TREATMENT	1
	Yes No
Operated & maintained properly	☒ ☐
Read meters, check treatment processes/flows	2x/wk
RPBA or air gap at water fill line to chemical tank	☒ ☐
Post treatment sample tap	☒ ☐
Schematic of treatment facilities available	☒ ☐
Adequate testing equipment available and used (2x/wk)	☒ ☐
Chemical feed proportional to flow	☒ ☐
Approved chemicals used	☒ ☐

SECTION 4: FINISHED WATER STORAGE

Res	Reservoir Name	Description	Year Built	Volume
1	West Beach Rd	Octagonal concrete tank, roof was sealed in 2015; new hatch seal, vent and water level cable system in October 2016. Cleaned annually!	1984	26,000gal

TOP OF RESERVOIR (is coated with sealant)	Res #1
	Yes No
Hatch: locked, overlapping cover, and watertight seal or gasket	☒ ☐
Screened air vent	☒ ☐
Openings sealed/protected	☒ ☐

RESERVOIR FEATURES	Res #1
	Yes No
Separate inlet/outlet	☒ ☐
Accessible drain outlet	☒ ☐
Protected overflow outlet with air gap	☒ ☐
Operational water level gauge	☒ ☐
Bypass piping or isolation possibility	☒ ☐
Protected from unauthorized entry	☒ ☐
Low level alarm (red light on outside of pumphouse)	☒ ☐
Sample tap at outlet	☒ ☐

RESERVOIR MAINTENANCE	Res #1
	Yes No
Frequency of interior inspection and cleaning	Annual
Frequency of routine site visit/ appurtenance inspection	2x/week
Structure in good condition	☒ ☐
Clear of excessive vegetation	☒ ☐

SECTION 5: PRESSURE TANKS

HYDROPNEUMATIC – one 800 gal	Site: 1
	Yes No
Pressure relief valve	☒ ☐
Pressure gauge	☒ ☐
Water level sight glass	☒ ☐
Can be isolated	☒ ☐
Oilless Air compressor	☒ ☐
Structurally in good condition	☒ ☐

SECTION 6: BOOSTER PUMPS AND FACILITIES

BPS	Name	Description	Capacity (gpm)
1	West Beach Rd	(1) 1hp Goulds pump, Jockey, set at 51psi/59psi (2) 5hp Goulds, rated 145gpm at 40 psi, in lead/lag, typical domestic flow and backwash, turns on at 50 psi and the second one at 45psi. (1) 7.5hp Goulds for fire flow, 35psi	

BOOSTER PUMPS	BPS 1
	Yes No
Number of pumps	4
Frequency of routine site visit	2x/week
Isolation valves	☒ ☐
Pressure gauge(s)	☒ ☐
Pressure relief valve	☐ ☒
Pump failure alarm	☐ ☒
Functional pump and pump controls	☒ ☐
Protected from flooding	☒ ☐
Redundant pumps	☒ ☐
Equipment in good condition	☒ ☐
Generator available	☒ ☐
Generator has automatic startup	☐ ☒
Generator fuel source	gasoline

BUILDINGS/ENCLOSURE	BPS 1
	Yes No
Facility secure	☒ ☐
Structure in good condition	☒ ☐

SECTION 7: DISTRIBUTION SYSTEM

One dead-end line of 6" PVC with 3 hydrants and a blow-off at the end. System designed to provide fire flow.

FEATURES	Yes No
Service area and facility map	☒ ☐
Service meters - reading frequency (monthly)	☒ ☐
Leak detection program	☒ ☐
Water system leakage (%) (as of 2019)	8.8%
Adequate valving for flushing and pipe repair	☒ ☐
Dedicated sampling station for coliform monitoring	☒ ☐
Routine flushing – frequency (April and October)	☒ ☐
Routine valve exercise – frequency (April and October)	☒ ☐

CROSS CONNECTION CONTROL	Yes No
System has enabling authority	☒ ☐
Ongoing hazard inspections	☒ ☐
High hazards identified and protected	☒ ☐
Annual testing	☒ ☐
System has installation standards	☒ ☐
CCS on staff or under contract	☒ ☐

The cross connection control program is covered by the system bylaws and water service agreements. All customers have been surveyed. No need has been identified for a backflow prevention device in this community.

SECTION 8: WATER QUALITY MONITORING AND REPORTING

All monitoring is current. The well water has elevated iron (up to 3.3 mg/L!), manganese (0.95-1.1 mg/L!), conductivity (around 800umhos/cm) and hardness (330 mg/L as CaCO3). Chlorides have remained relatively low (57-67 mg/L). The treatment has been successful in removing much of the iron and manganese. Arsenic is relatively low (3 – 6 ppb) and nitrate is less than 0.2 mg/L (good!). No detections of coliform bacteria have occurred since Sept. 2016. Lead and copper from distribution system sampling has been very low – good!

CHEMICAL	Sample Point 1
	Yes No
Monitoring adequate	☒ ☐
ODW WQ data reviewed	☒ ☐
Sample collection sites correct	☒ ☐
COLIFORM	**Yes No**
Monitoring adequate	☒ ☐
Monitoring plan adequate	☒ ☐
Monitoring plan followed	☒ ☐
Number of violations since last survey	none

LEAD & COPPER	Yes No
Monitoring adequate	☒ ☐
Results below action level	☒ ☐
Optimal WQ Parameters achieved	N/A

SECTION 9: SYSTEM MANAGEMENT AND OPERATIONS

This system has an active board and is very well managed and operated. Jim Patton has been the water manager for a long time and maintains excellent records of the water system and communicates well with the community and the board. The pump house is well organized and all critical information and equipment were posted or neatly placed in the pump house. The system also maintains a whiteboard for maintenance tasks that shows when they are due and when they were done. All the pipes are labeled and even the media or water levels in the tanks have been marked for future reference. This is very exemplary work! There were no deficiencies/findings found in the previous survey.

PROJECT/PLANNING	Yes No
System approved	☒ ☐
Current WSP or SWSMP	☒ ☐
Emergency Response Plan	☒ ☐
Financial Plan	☒ ☐
Asset Inventory & Assessment	☒ ☐
Capital Improvement Plan	☒ ☐
Operating Permit Color	Green

REPORTING	Yes No	N/A
WFI reviewed and updated with purveyor	☒ ☐	---
Consumer Confidence Report	☒ ☐	☐
Water Use Efficiency report	☒ ☐	☐

OPERATOR CERTIFICATION

This system must maintain the services of WDS and WTPO1 certified operators. The system maintains a contract with King Water Company, an approved SMA in Island County.

OPERATIONS	Yes No
Operational records maintained	☒ ☐
Written operation and maintenance program	☒ ☐
# of complaints recorded at ODW (since last survey)	none

CLOSING

Again, my inspection revealed no significant deficiencies or findings. This water system currently appears to be in excellent sanitary condition and is one of best examples I've seen of complete and outstanding operation of a small association-run water system!
Please review this report for content and accuracy. Let me know if there are any significant inaccuracies and I will make the appropriate corrections.

The Drinking Water Regulations require that all Group A public water systems have a sanitary survey every 3 to 5 years. Regulations establishing a schedule of fees for sanitary surveys have been adopted (WAC 246-290-990). In order to receive credit for the survey, a sanitary survey fee must be paid. The total cost is $306.00. Please remit complete payment in the form of a check or money order within thirty days of the date of this letter in the enclosed envelope or mail payment to: **WSDOH, Revenue Section - PO Box 1099, Olympia, WA 98507-1099.**

Please call me at 253.395.6777 if you have any questions or concerns. The next survey for this system will be in 2025.

Sincerely,

Steve Hulsman

Steve Hulsman
Regional Source Monitoring Program Manager
NW Drinking Water Operations

cc: Sandra Bodamer, King Water cCo.
Island County Public Health
DOH Staff – electronic copies

STATE OF WASHINGTON
Department of Health
OFFICE OF DRINKING WATER
SANITARY SURVEY INSPECTION

INVOICE

SANDRA BODAMER
WEST BEACH ROAD ASSOCIATION
PO BOX 2243
OAK HARBOR, WA 98277

WS ID: 17970
Invoice No: 45956
Invoice Date: 04/13/2021
Due Date: 05/28/2021

WS NAME: WEST BEACH ROAD ASSOCIATION SURVEY DATE: 12/17/2020

DESCRIPTION	QTY	COST	AMOUNT
Scheduling, Research, Prep	1.00	x $102.00	$102.00
Survey Field Work	0.70	x $102.00	$71.40
Survey Documentation	1.30	x $102.00	$132.60
		Total Amount Due	**$306.00**

1. **Make checks payable to Department of Health, Federal ID #91-1444603.**
2. For billing questions, please contact Northwest Drinking Water Regional Operations at (253) 395-6750.
3. This invoice is issued in accordance with WAC 246-290-990(3)(c)(iii).
4. For persons with disabilities, this document is available on request in other formats. To submit a request, please call 711 Washington Relay Service.

Please return the bottom portion of this invoice with your check.

Invoice Number: 45956
INVOICE AMOUNT: $306.00

Invoice Date: 04/13/2021
Invoice Due Date: 05/28/2021

WS Name: WEST BEACH ROAD ASSOCIATION WS ID: 17970

Reference: SANITARY SURVEY INSPECTION PERFORMED ON 12/17/2020

Please remit to:
ACCOUNTS RECEIVABLE
SANITARY SURVEY PROGRAM
DEPARTMENT OF HEALTH
PO BOX 1099
OLYMPIA, WA 98507-1099

2DWA10597240700 SS0001797QX05282100030600

SANITARY SURVEY FEE WORKSHEET

Department of Health
Office of Drinking Water
Sanitary Survey Time Tracking

System Name	West Beach Road Association	PWS ID #	17970
County	Island		
Surveyor	Steve Hulsman	Date of Survey:	12/17/20

System over 10,000 Connections? NO

	Quantity			Cost
Department of Health Paid Costs	**Hours/Miles**			
Survey program RO Coordination	1	$	102	$ 102.00
Survey Program Administrative Support	1	$	102	$ 102.00
Travel expenses (Mileage)			(# Miles) x ($.337/Mile)	$ -
Technical Assistance	0.5	$	102	$ 51.00
Travel Time <10,000	0.5		102	$ 51.00
Total Department of Health Costs to Perform All Surveys				$ 306.00
Water System Paid Costs	**Hours**			
Scheduling, research, prep	1	$	102	$ 102.00
Survey Field Work	0.7	$	102	$ 71.40
Survey documentation – preparation of survey report to the purveyor	1.3	$	102	$ 132.60
Additional Water System Paid Costs for systems serving 10,000 or more connections	**Hours**			
		$	-	$ -

Total Cost of Survey	$ 612.00
Total Department of Health Unreimbursed Costs	$ 306.00
Water System Paid Costs (Less than 10,000 Connections)	**$ 306.00**

Well enclosure, pumphouse, & reservoir (left of pumphouse)

Vicinity of well and pumphouse (reservoir behind pumphouse)

Well 1, Source 1

Line from well into pumphouse with KMnO4 injection

Contact tank (chem feed on the right)

Twin 21" diam. filters

Reservoir roof

Reservoir hatch

Water inside reservoir

Water level indicator conduit

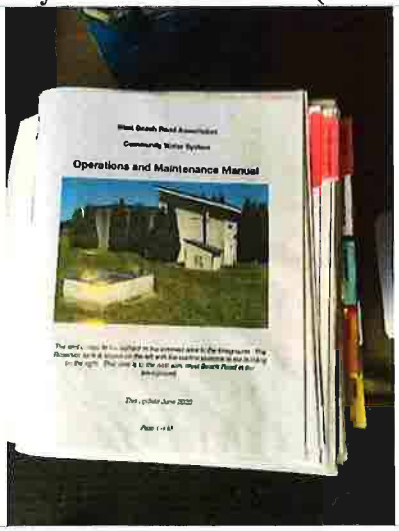
Booster pumps & pressure tank

Pumphouse electrical

Distribution system schematic (on right side)

Water system documentation (extensive!)

Whiteboard of O&M checklist in the pumphouse



O&M manual in pumphouse

Shed for generator

Gasoline powered portable generator