ANNUAL REPORT

FISCAL YEAR 2016–2017

Merritt Lake

Service Center

COOS BAY • NORTH BEND
WATER BOARD

Pony Creek Treatment Plant

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Left to right standing: Mr. J. Gregory Solarz, Member
Ms. Melissa Cribbins, Vice-Chair
Charles J. Sharps, Ph.D., Chair
Mr. Robert Dillard, Secretary

Coos Bay-North Bend Water BOARD OF DIRECTORS' MESSAGE

"Providing a Reliable, Quality Service Meeting the Present and Future Needs of Our Communities"

Thank you for reviewing the 2016-2017 Coos Bay-North Bend Water Board's Annual Report. You will find information related to your utility's projects, finances, and water quality as well as an overview of the operations of the Coos Bay-North Bend Water Board and the services it provides. Additional information about your utility can be found on our website: www.cbnbh2o.com

America's infrastructure of roads, sewers, bridges, and water systems are at capacity and/or are wearing out. With our dedicated staff and General Manager's guidance and leadership, the Board has been able to anticipate potential shortfalls in our water system and has planned and scheduled Water Board operations, weeks, months and years ahead of time.

As members of your Water Board, we encourage your comments and suggestions. Please contact staff at the Water Board or ask to be connected to one of us at (541)267-3128. We respect your opinions and advice in operating your utility. For a closer look at your facilities, consider attending a board meeting or arranging for a tour.

BOARD OF DIRECTORS

Charles J. Sharps, Ph.D., Chair

Melissa Cribbins, Vice-Chair

Bob Dillard, Secretary

J. Gregory Solarz, Member

Water Utility Infrastructure Inventory

Water Treatment Plants

Pony Creek Filtration Plant—12 MGD*
(North Spit Treatment Plant—1 MGD*
Non-functional-emergency use only)

Surface Water Storage

- Upper Pony Creek Dam and Reservoir
  6,230 AC-FT
- Merritt Lake Dam and Reservoir
  385 AC-FT
- Joe Ney Dike, Reservoir and Pump Station
  275 AC-FT

Dunes Aquifer System

18 Wells
12 Miles of Pipe
25 Test Wells (Piezometers)
1 Booster Pump Station
3 Monitoring Wells

Distribution System

13,002 Water Services
258 Miles of Pipe
1,195 Hydrants
5,494 Control and Hydrant Valves

*MGD = Million Gallons per Day
AC-FT= Acre Feet (325,830 gallons)

Pump Station Name	Associated Storage Facility
6th and I Street	10th & I Street Reservoir
10th and E Street	14th & F Street Reservoir
10th and Ingersol	Ingersol Reservoir
13th Court	Isthmus Heights Reservoir
14th and Nutwood Avenue	High Level Reservoir
Brights Mill	Brights Mill Reservoir
California Street	Libby Reservoir
Crestview	High Level Reservoir
Everest Avenue 1	Everest Reservoir
Everest Avenue 2	Everest Reservoir
Flanagan Street	Bay Park Reservoir
Glasgow	Glasgow Reservoir
Glasgow Heights	Glasgow Reservoir
Hauser	Hauser Reservoir
High Level	High Level Reservoir
Joe Ney	Joe Ney Reservoir
Market Street	Clearwell
Millington	Millington Reservoir
Minnesota Street	Clearwell
Newmark and Ash	Radar Reservoir
Newmark and Tremont	Union Avenue Reservoir
Oregon Street	Libby Reservoir
Pennsylvania Avenue	Libby Reservoir
Pigeon Point	Charleston Reservoir
Seven Devils	Charleston Reservoir
Shinglehouse Slough Road	Brights Mill Reservoir
Shorewood	Shorewood Reservoir
Sierra Avenue	Everest Reservoir
Telegraph Hill	High Level Reservoir
Terramar	Terramar Reservoir
Union Avenue High Level	High Level Reservoir
Wisconsin Avenue	Charleston Reservoir
Woodlawn High Level	High Level Reservoir

Projects and Equipment Included in Fiscal Year 2016-17 Budget

No.	Project Listing	Estimated Cost
1	Install 16" main on North 8th from Koos Bay Blvd. to Date Avenue via Fir and North 9th Street 2,140', Retire 2,140' 14" CI	$520,800
2	Install 12" main on Hemlock from 8th Street east 750', Retire 1,300' 8" CI	304,400
3	Install 8" PVC on South Broadway from Lockhart South 545', Retire 8" CI	86,900
4	Install 6" on 6th Avenue Bridge 60', Retire 60' 6" AC	20,200
5	Install 2" main on 13th Court from Pine Drive north 372', Retire 372' 2" GI	41,000
6	Install 6" PVC on Flanagan from Highway 101 north 414', Retire 414' 2" GI	60,800
7	Install 2" PVC on Madrona Court 210', Retire 210' 2" GI	26,000
8	Install 2" on Lombard from Myrtle Street west 366', Retire 366' 2" GI	39,800
9	Install 2" on Barham Terrace from Ocean east 300', Retire 272' 2" GI	30,000
10	Bay Park II Reservoir Mission Telemetry	15,600
11	Terramar Altitude Control Valve	24,800
12	Light Duty Portable Dust Collector for P.A.C.	10,200
13	SCADA Study	14,400
14	Monitor and Remote Exc	11,900
15	Telemetry Unit at Union Reservoir	26,700
16	Campus Lighting Project	24,900
	Total Project Costs	**$1,258,400**

No.	Equipment Listing	Estimated Cost
1	4WD Pickup #17	$ 27,000
2	2WD Service Pickup #22	20,000
3	2WD Service Pickup #23	20,000
4	2WD Pickup Distribution #48	22,000
5	Diesel Compressor	17,500
6	Vehicle Accessories	5,200
	Total Equipment Costs	**$ 111,700**
	Total Estimated Capital Expenditures	**$1,370,100**

GI – Galvanized Iron
CI – Cast Iron
AC – Asbestos Cement
PVC – Poly Vinyl Chloride

Frequently Asked Questions and Utility Statistics
Fiscal Year 2016-2017

Q: How many customers does the Water Board serve?
A: As of June 30, 2017, our customer total is 13,002, which includes 10,063 customers inside the city limits of Coos Bay and North Bend and 2,939 customers outside the city limits. The total population served by the Water Board is approximately 34,500 within a service area of approximately 100 square miles.

Q: How much per month does the average residential customer spend for water?
A: The rates are different for customers inside the city limits than customers outside the city limits. The average monthly residential bill inside the city limits is $27.63 and outside the city limits is $38.42. The average residential customer uses 4,136 gallons of water monthly.

Q: What does it take to get the water from the treatment plant to the customer's tap?
A: More infrastructure than most people might imagine! When the water leaves the treatment plant, it goes into the distribution system which consists of 258 miles of various sizes of pipeline, approximately 5,494 control and hydrant valves within those pipelines, and approximately 1,195 fire hydrants. It takes 34 pump stations within the distribution system to get the water to customers at adequate pressure, plus 19 storage reservoirs located throughout the system.

Q: Where does the water come from that's treated by Pony Creek Water Treatment Plant?
A: There are two surface water reservoirs upstream of the treatment plant, Upper Pony Creek and Merritt Reservoirs. The larger, Upper Pony Creek Reservoir, can hold 2 billion gallons of water; and Merritt Reservoir can hold 125 million gallons. There is a third surface water storage area at Joe Ney Slough which can store 90 million gallons. Water is pumped from Joe Ney through a pipeline into the Upper Pony Creek Reservoir when the need for more water arises.

Q: How much water is produced in a year for customers?
A: The total amount of water produced for customers this fiscal year was 1,202 million gallons of treated water and 178 million gallons of untreated water. The average daily demand for treated water was 3.29 million gallons and 0.489 million gallons for untreated water. The demand peaked at 6.869 million gallons per day for treated water in fiscal year 2016-17.

Q:Does all the water produced reach our customers?
A: Approximately 92.5% of the water produced at Pony Creek Water Treatment Plant reaches its ideal destination. Non-revenue water is the rest of the water that has been produced and is "lost" before it reaches the customer. Losses can be real losses such as leaks, water used for fire-fighting purposes, or apparent losses such as theft or metering inaccuracies. A team of Water Board staff meets on a regular basis to discuss potential improvements that can be made. The Water Board is in compliance with the latest Oregon rules and regulations, keeping non-revenue water loss below 10%.

Q: How many water treatment plants are there?
A: There are two. The main treatment plant is Pony Creek Water Treatment Plant. It is located on Ocean Boulevard in Coos Bay and has a production capacity of 12 million gallons per day (MGD). The North Spit Water Treatment Plant is located on TransPacific Lane in North Bend and has a capacity of 1 MGD. If an emergency arises, the North Spit Plant can treat water from the dunes well system to supplement the needs of Water Board customers.

Q: How can I pay my water bill?
A: You can mail your water bill to P.O. Box 539, Coos Bay, OR 97420; at the Water Board Service Center; or by visiting us **online** at www.cbnbh2o.com

Coos Bay-North Bend Water Board
Statement of Net Position as of June 30, 2017

Assets:		
Current Assets:		
Cash and Cash Equivalents	$ 4,700,504	
Accounts Receivable - Water (Net)	394,553	
Accounts Receivable - Sewer	320,487	
Accounts Receivable - Other	31,907	
Inventory	522,494	
Prepaid Expenses	143,100	
Clearing Account	164,493	
Other Work in Progress	155,405	
Total Current Assets		$ 6,432,943
Restricted Cash Assets		81,637
Utility Plant:		
Utility Plant (Net of Accumulated Depreciation)	$63,747,581	
Construction in Progress	662,963	
Total Utility Plant		64,410,544
Total Assets:		$70,925,124
Deferred Outflow of Resources:		$ 462,380
Liabilities and Net Assets:		
Current Liabilities:		
Accounts Payable	$ 228,648	
Accrued Salaries, Payroll Taxes and Insurance	123,149	
Accrued Interest on Long-term Debt	179,529	
Accrued Vacation	105,248	
Accrued Other Expenses	18,625	
Current Portion of Long-term Debt	1,228,619	
Sewer Service Collections Payable to Cities	613,301	
Sewer Service Receivables Payable to Cities	320,487	
Total Current Liabilities		$ 2,817,606
Liabilities Payable from Restricted Assets		81,637
Net Pension Liability		1,501,114
Long-Term Liabilities:		
Bonds Payable (Net of Current Portion)	$14,200,523	
Total Long-Term Liabilities		14,200,523
Total Liabilities:		18,600,880
Net Assets:		
Investment in Capital Assets, Net of Related Debt	$49,084,918	
Unrestricted	3,701,706	
Total Net Assets		$52,786,624

2017 WATER QUALITY STATISTICS

One of the most important focuses of the Water Board is to provide high quality drinking water to our customers. Thousands of tests are performed annually as part of our quality control program and to insure compliance with state and federal regulations. The following results are reflective of 2017 reporting requirements.

Abbreviations and units used in trace concentration measurements issued by the Oregon Health Authority:

Waiver = non-vulnerability to contaminant
NTU = nephelometric turbidity unit
mg/L = milligrams per liter
pCi/L = picocuries per liter
MCL = maximum contaminant level
MFL = million fibers per liter (EPA)
ug/L = micrograms per liter
ND = not detected
CU = color units
< = less than
> = greater than
AL = action level
P/A = presence/absence

PARAMETER	UNIT	MCL	RESULTS
Turbidity	NTU	0.3	0.07
MICROBIOLOGICAL			
Coliform	P/A	5% positive	486 - Absent 2 - Present
INORGANICS			
Antimony	mg/L	0.006	ND @ 0.0002
Arsenic	mg/L	0.01	ND @ 0.001
Asbestos	MFL	7.0	ND
Barium	mg/L	2.0	ND @ 0.05
Beryllium	mg/L	0.004	ND @ 0.0001
Cadmium	mg/L	0.005	ND @ 0.0001
Chromium	mg/L	0.1	ND @ 0.005
Cyanide	mg/L	0.2	ND @ 0.003
Fluoride	mg/L	2 – 4	0.62
Lead	mg/L	0.015-AL	• 0.0026
Mercury	mg/L	0.002	ND @ 0.0002
Nickel	mg/L	0.1	ND @ 0.0005
Total Nitrate (as N)	mg/L	10.0	0.40
Nitrate + Nitrite (as N)	mg/L	10.0	0.37
Nitrite (as N)	mg/L	1.0	ND @ 0.05
Selenium	mg/L	0.05	0.0005820
Sodium (advisory)	mg/L	20	7.69
Thallium	mg/L	0.002	ND @ .0005
SYNTHETIC ORGANIC CHEMICALS			
2, 4-D	mg/L	0.07	ND @ 0.001
2,4,5-TP (Silvex)	mg/L	0.05	ND @ 0.005
Adipates	mg/L	0.4	ND @ 0.004
Alachlor	mg/L	0.002	ND @ 0.0002
Atrazine	mg/L	0.003	ND @ 0.0003
Benzoapyrene	mg/L	0.0002	ND @ 0.00004
BHC-gamma (Lindane)	mg/L	0.0002	ND @ 0.00002
Carbofuran	mg/L	0.04	ND @ 0.004
Chlordane	mg/L	0.002	ND @ 0.00025
Dalapon	mg/L	0.2	ND @ 0.005
Dibromochloropropane	mg/L	0.0002	ND @ 0.0000188
Dinoseb	mg/L	0.007	ND @ 0.0005
Dioxin	mg/L	0.00000003	Waiver
Diquat	mg/L	0.02	ND @ 0.002
Endothall	mg/L	0.1	ND @ 0.01
Endrin	mg/L	0.002	ND @ 0.00002
Ethylene Dibromide	mg/L	0.00005	ND @ 0.00001
Glyphosate	mg/L	0.7	ND @ 0.05
Heptachlor Epoxide	mg/L	0.0002	ND @ 0.00002
Heptachlor	mg/L	0.0002	ND @ 0.00002
Hexachlorobenzene	mg/L	0.001	ND @ 0.0001
Hexachlorocyclopentadiene	mg/L	0.05	ND @ 0.0005

•90th percentile for Lead and Copper

PARAMETERS	UNIT	MCL	RESULTS
SYNTHETIC ORGANIC CHEMICALS cont'd.			
Methoxychlor	mg/L	0.04	ND @ 0.0001
Pentachlorophenol	mg/L	0.001	ND @ 0.0001
Phthalates	mg/L	0.006	ND @ 0.0006
Picloram	mg/L	0.5	ND @ 0.005
Polychlorinated Biphenyls	mg/L	0.0005	ND @ 0.0001
Simazine	mg/L	0.004	ND @ 0.0004
Toxaphene	mg/L	0.003	ND @ 0.0003
Vydate (Oxamyl)	mg/L	0.2	ND @ 0.004
VOLATILE ORGANIC CHEMICALS*			
Trihalomethanes **	mg/L	0.08	0.026
Halo Acetic Acids ***	mg/L	0.06	0.013
1,1,1,2-Tetrachloroethane *	mg/L		ND @ 0.0005
1,1,1-Trichloroethane	mg/L	0.2	ND @ 0.0005
1,1,2,2-Tetrachloroethane *	mg/L		ND @ 0.0005
1,1,2-Trichloroethane	mg/L	0.005	ND @ 0.0005
1,1-Dichloroethane *	mg/L		ND @ 0.0005
1,1-Dichloroethylene	mg/L	0.007	ND @ 0.0005
1,1-Dichloropropene *	mg/L		ND @ 0.0005
1,2,3-Trichloropropane *	mg/L		ND @ 0.0005
1,2,4-Trichlorobenzene	mg/L	0.07	ND @ 0.0005
1,2-Dichloroethane	mg/L	0.005	ND @ 0.0005
1,2-Dichloropropane	mg/L	0.005	ND @ 0.0005
1,3-Dichloropropane *	mg/L		ND @ 0.0005
1,3-Dichloropropene *	mg/L		ND @ 0.0005
2,2-Dichloropropane *	mg/L		ND @ 0.0005
Benzene	mg/L	0.005	ND @ 0.0005
Bromobenzene *	mg/L		ND @ 0.0005
Bromodichloro-methane	mg/L		0.00463
Bromoform	mg/L		ND @ 0.0005
Bromomethane *	mg/L		ND @ 0.0005
Carbon Tetrachloride	mg/L	0.005	ND @ 0.0005
Chloroethane *	mg/L		ND @ 0.0005
Chloroform	mg/L		0.00384
Chloromethane *	mg/L		ND @ 0.0005
cis-1,2 Dichloroethylene	mg/L	0.07	ND @ 0.0005
Dibromochloro-methane	mg/L		0.00280
Dibromomethane	mg/L		ND @ 0.0005
Dichloromethane	mg/L	0.005	ND @ 0.0005
Ethylbenzene	mg/L	0.7	ND @ 0.0005
m-Dichlorobenzene *	mg/L		ND @ 0.00280
Methyl tert-butyl ether *	mg/L		ND @ 0.0005
Monochlorobenzene	mg/L	0.1	ND @ 0.0005
o-Chlorotoluene *	mg/L		ND @ 0.0005
o-Dichlorobenzene	mg/L	0.6	ND @ 0.0005
p-Chlorotoluene *	mg/L		ND @ 0.0005
p-Dichlorobenzene	mg/L	0.075	ND @ 0.0005
Styrene	mg/L	0.1	ND @ 0.0005
Tetrachloroethylene	mg/L	0.005	ND @ 0.0005
Toluene	mg/L	1.0	ND @ 0.0005
trans-1,2-Dichloroethylene	mg/L	0.1	ND @ 0.0005
Trichloroethylene	mg/L	0.005	ND @ 0.0005
Vinyl Chloride	mg/L	0.002	ND @ 0.0005
Xylenes (total)	mg/L	10.0	ND @ 0.0005
RADIONUCLIDES-NATURAL ORIGIN			
Gross Alpha	pCi/L	15	ND
Combined Radium 226/228	pCi/L	5	2.5
Combined Uranium	ug/L	30	ND @ 1.0
SECONDARY CONTAMINANT			
Color	CU	15	3
pH		6.5-8.5	8.5
Hardness	mg/L	250.0	13
Copper	mg/L	1.3-AL	• 0.0388
Iron	mg/L	0.3	0.05
Manganese	mg/L	0.05	0.018

* Blanks under MCL represent unregulated volatile organic chemicals
** Trihalomethanes include: Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane
*** Halo Acetic Acids include: Dibromoacetic acid, Dichloroacetic acid, Monobromoacetic acid, Monochloroacetic acid, Trichloroacetic acid

VISIT OUR WEBSITE AT

www.cbnbh2o.com

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