

Serving the Citizens and  
Visitors in our Community



# PUBLIC WORKS DEPARTMENT ANNUAL REPORT 2015

#### **WATER DEPARTMENT PERSONNEL**

MIKE MAINE  
RON WANNER  
JEFF GOSSER  
JOHN MCKEVITT

#### **SEWER DEPARTMENT PERSONNEL**

TOM HECOX  
BRIAN LAWSON  
KYLE MERGEL  
GEORGE WHITLOCK  
TONY BIAMONT

#### **STREET DEPARTMENT**

MATT LONG  
STEVEN KEEVER  
NATHAN KERWIN  
DARLENE PEDERSON  
KEVIN NAGEL  
JEREMY STRIMPLE

#### **ENGINEERING**

ALVIN HARWOOD  
GEOFF LILJENWALL

#### **FLEET MAINTENANCE**

TERRY BUSH



# PUBLIC WORKS ALWAYS THERE



**NATIONAL PUBLIC WORKS WEEK**  
MAY 15 - 21, 2016





# WATER DEPARTMENT

Headworks

50 million gallon Lake Reservoir

Treatment Plant Treated an estimated 600,000,000 gallons this year

43.4 miles of Pipe

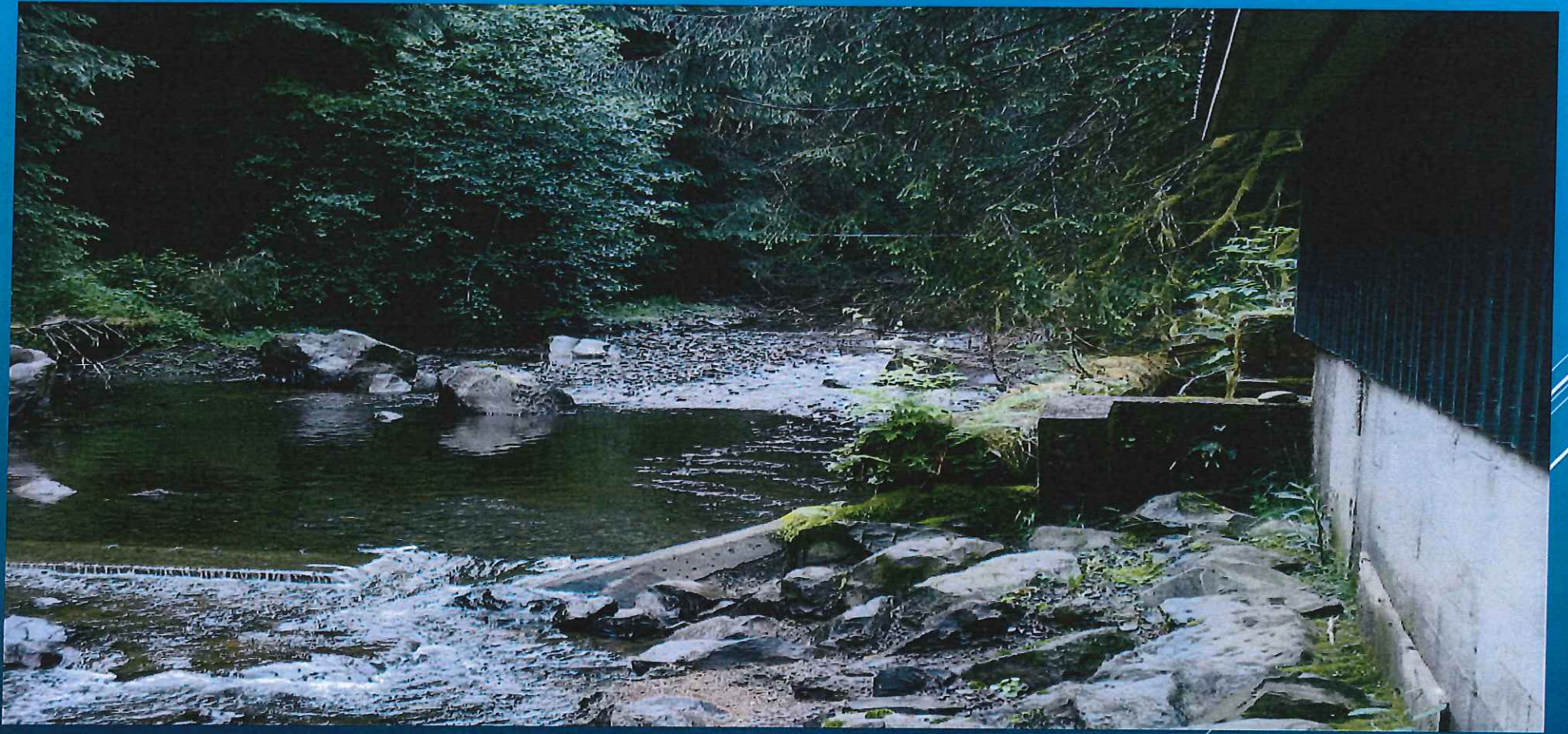
Storage Tanks – Royal View and Peterson Point

7 Pump Stations

Average Daily Use 1.64 Million Gallons – Peak Daily Use 3.3 Million Gallons

Cross Contamination (Backflow Device) Program





HEADWORKS





RIVERSIDE LAKE RESERVOIR W/SOLAR BEE



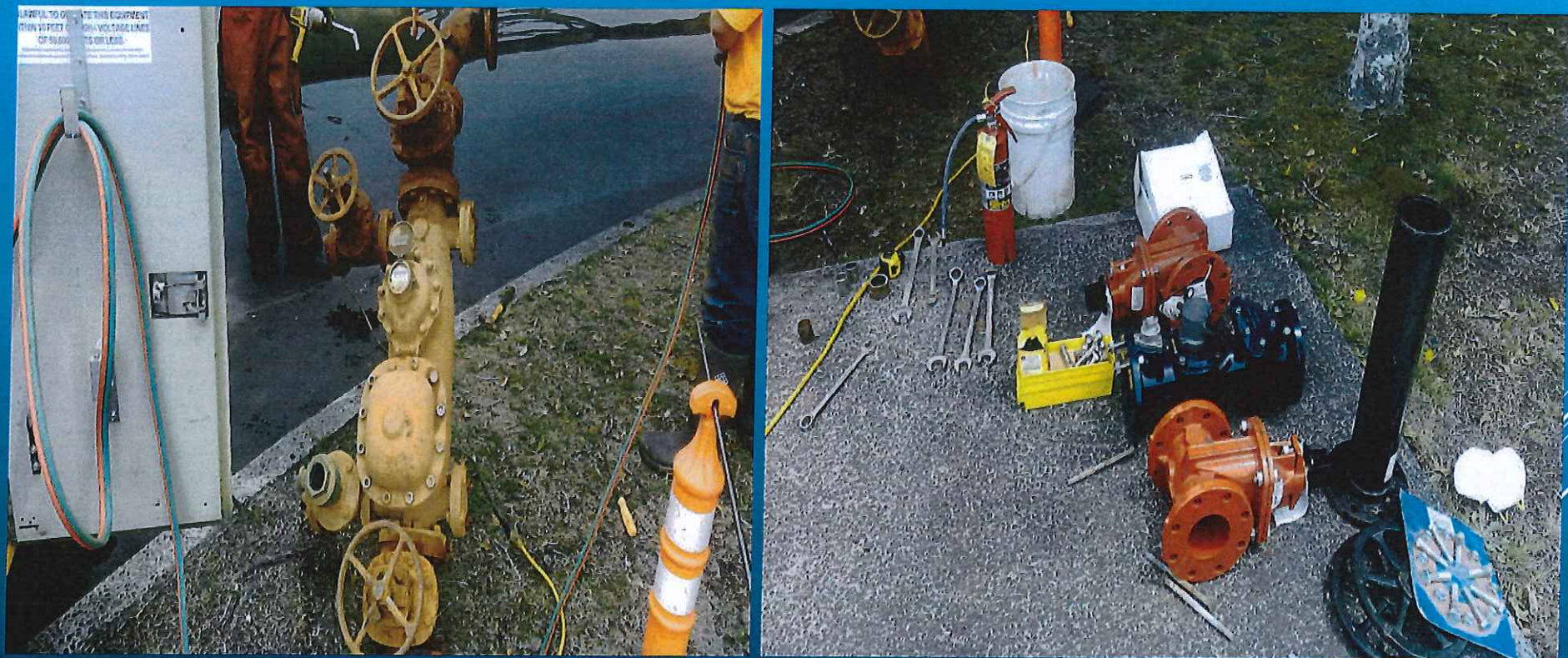


FILTER #1 OF 2



CONTROL PANEL





METER CHANGE OUTS





WATER PUMP STATION NEW ROOF





## WATER QUALITY REPORT 2015

### WATER QUALITY RESULTS 2015\*

PWS #1100279

Contaminant	MCL or Health Goal	MCL EPA Action	Highest Level Detected	Range Detected	Violations*	Year Sampled	Potential Source of Contamination
<b>RADIOACTIVE CONTAMINANTS</b>							
Gross Alpha (pCi/L)	0	15	ND	Single Sample	NO	2014	Erosion of Natural Deposits
Radium 226/228 (pCi/L)	0	5	ND	Single Sample	NO	2014	Erosion of Natural Deposits
<b>MICROBIOLOGICAL CONTAMINANTS</b>							
Turbidity (NTU)	0	1.0 NTU or less than 0.3 NTU in 95% of samples	0.290 Highest single sample	80% Below 0.30	NO	2015	Soil Runoff
<b>INORGANIC CONTAMINANTS (IC)</b>							
Copper (ppm)**	1.3	1.3 AL	.375	ND-0.157	NO	2013	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservation.
<b>ALL SITES BELOW AL</b>							
Fluoride (ppm)	4.0	4.0	1.80	0.20-1.96	NO	2015	Erosion of Natural Deposits. Water additive to prevent staining teeth. Discharge from fertilizer and chemical factories.
Lead (ppb)**	0	15 AL	7	0.00-1.5	NO	2013	Corrosion of household plumbing systems. Erosion of natural deposits.
<b>ALL SITES BELOW AL VOLATILE ORGANIC CONTAMINANTS (VOC)</b>							
Chlorine (ppm)	MCLG	MPCL	1.5	0.42-1.3 mg/L	NO	2015	Water Additive Used to Control Microbes.
Malonic Acid (MAA) (ppm)	NA	0.060	0.015	NA	NO	2015	Byproduct of drinking water chlorination.
Total Trihalomethanes (TTHM) (ppm)	0	0.080	0.028	NA	NO	2015	Byproduct of drinking water chlorination.

\*\*The most recent detection dates for lead and copper samples were June 30 Sept 2013

### SEASIDE WATER TREATMENT PLANT / FINISH WATER

Substance	Average Level Detected	Year Sampled	Potential Source of Contamination	Substance	Average Level Detected	Year Sampled	Potential Source of Contamination
Alkalinity (ppm)	15	2015		Nitrate (ppm)	0.25	2015	Fertilizer or animal waste from fertilizer use.
Calcium (ppm)	4.2	2010		Bromochloromethane (ppm)	0.0076	2014	Byproduct of drinking water chlorination.
Conductivity (uS/cm)	50	2015	Naturally occurring	Dibromomethane	0.005 or less	2015	Byproduct of drinking water chlorination.
Sodium (ppm)	5.5	2011					
Hardness (ppm)	17	2010					
pH (ppm)	7.5	2010					

### VIOLATION HISTORY

Contaminant	Violations	Year	WTPA - YR	Violations per Sample	Violations per Sample	Violations per Sample
CHLORINE	2015	WTPA - YR	Violations per Sample	Violations per Sample	Violations per Sample	Violations per Sample

# WATER QUALITY REPORT 2015

## SOURCE WATER PROTECTION CASE STUDY

### City of Seaside

The Seaside Water Department serves over 6,500 Clatsop County residents year-round, with a significant seasonal increase due to Seaside's healthy tourism in the summer months. The City of Seaside has two intakes—the primary intake is in the upper watershed on the South Fork Necanicum River and the second is located on the Necanicum River lower in the watershed where the river enters the city limits near Highway 101.

Seaside's Source Water Assessment, completed by Oregon DEQ in 2000, provided technical information on the natural and anthropogenic characteristics of their drinking water watershed. The Necanicum River watershed includes a total of approximately 35,500 acres and the City owns just over 1,000 acres of that land. The Necanicum watershed is primarily industrial forestland, with a small percentage of private rural lands. The Source Water Assessment identified 33 potential sources of pollution upstream of the Necanicum River intake that are considered high- to moderate-risk located within sensitive areas adjacent to the river.

The City of Seaside only used the South Fork Necanicum River intake in the upper watershed until 2012, when issues with drought and concerns about fish passage resulted in a need to supplement that intake. To increase capacity, the City accessed the Necanicum River intake near the city limits. Since that time, Seaside has been proactive in working with regulatory and funding agencies, requesting technical assistance, resources, and compliance inspections as prioritized for their drinking water source area. These requests to prioritize Seaside's drinking water source area resulted in the following (at no cost to the City):



Seaside's Necanicum River drinking water intake

- additional oversight of the DEQ enforcement order to replace the failing large capacity septic system for Forest Lake Resort with a new system using advanced technology to be protective of the environment,
- DEQ increased compliance inspections for Forest Park's onsite permit due to close proximity above Seaside's intake,
- DEQ priority assessment of several sites identified in Environmental Site Cleanup information database located in sensitive areas, and
- collaboration with Oregon Department of Agriculture as they work on permits for concentrated animal feeding operations in the area.

Because of a variety of factors, Seaside's drinking water treatment staff must occasionally close their intake due to high turbidity during storm events, even after moderate rainfall. Seaside recognizes that this is an increasingly difficult and unsustainable situation that needs preventative planning to resolve.

Seaside recently applied for and was awarded a \$30,000 grant from the Oregon Health Authority's 2015 Federal Drinking Water Source Protection Funds. These funds will be used to create a Comprehensive Source Water Protection Plan that will develop strategies to improve the water quality for their drinking water

intake. DEQ is also developing an Updated Source Water Assessment to provide

additional technical information on the Necanicum watershed features and vulnerable areas.

Seaside will use the Updated Source Water Assessment information and mapping as input for their Comprehensive Source Water Protection Plan. The City's plan is to utilize all available resources for local place-based planning, including development of recovery goals and guidelines, identifying land uses and special features on USGS maps, prioritizing specific restoration opportunities, identifying any immediate risks to water quality and selecting risk assessment measures / controls. The plan will address both the City-owned properties and private industrial forestlands.

The plan is being developed with assistance from the Necanicum Watershed Council and the North Coast Land Conservancy. The City of Seaside is already actively working with the industrial forest owners about their drinking water intakes on the South Fork Necanicum and has had excellent cooperation with the landowners as they lay the groundwork for their source water protection plans.

# APRIL 2016 – OREGON DEQ CASE STUDY



# SEWER DEPARTMENT

Equalization Basin

Dryer Press

Dryer

Laboratory

Sewage Processed 2015 = 2.7 Million Gallons

Influent Flows through the Plant = 536.92 Million Gallons (1.47 MG Avg/day)

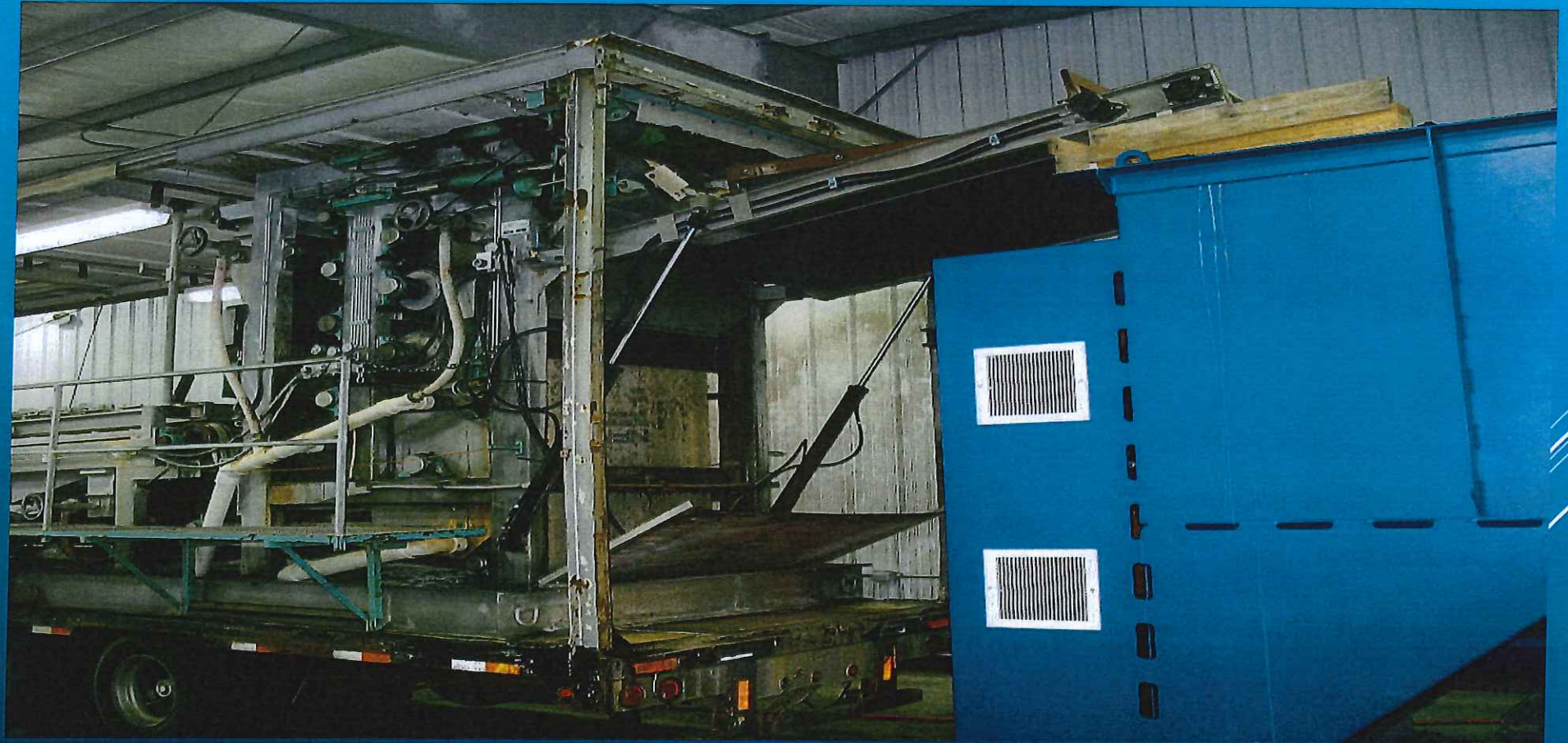
39 Miles of Pipeline and over 600 Manholes

25 Sewage Pump Stations



EQUALIZATION BASIN





DRYER PRESS





JANUARY 11, 2016





DRYER





LABORATORY





FINAL DRIED PRODUCT

# STREET DEPARTMENT

Restrooms

Trash Collection

Streets

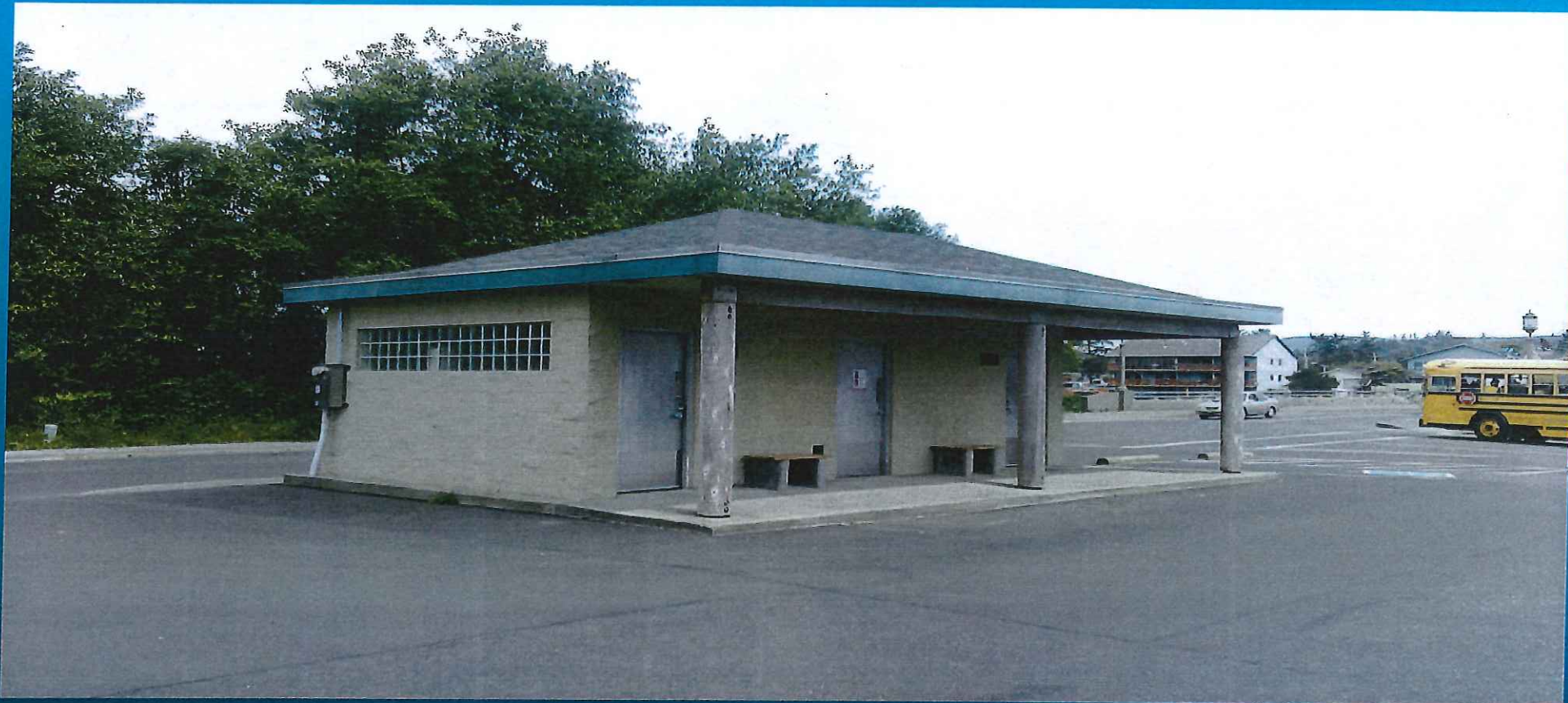
Parks Maintenance

Cemetery Maintenance

Airport Maintenance

Building Maintenance





RESTROOMS - 9 LOCATIONS



PARKS - 9 LOCATIONS





PARK MAINTENANCE





## RIVER LOG JAM

LOG JAMS REMOVED IN WINTER 2015 – 2016 = 19





STREETS



SEASIDE MUNICIPAL AIRPORT





TRASH COLLECTION = 89.92 TONS IN 2015



TRASH RECEPTACLE MAINTENANCE





BUILDING MAINTENANCE

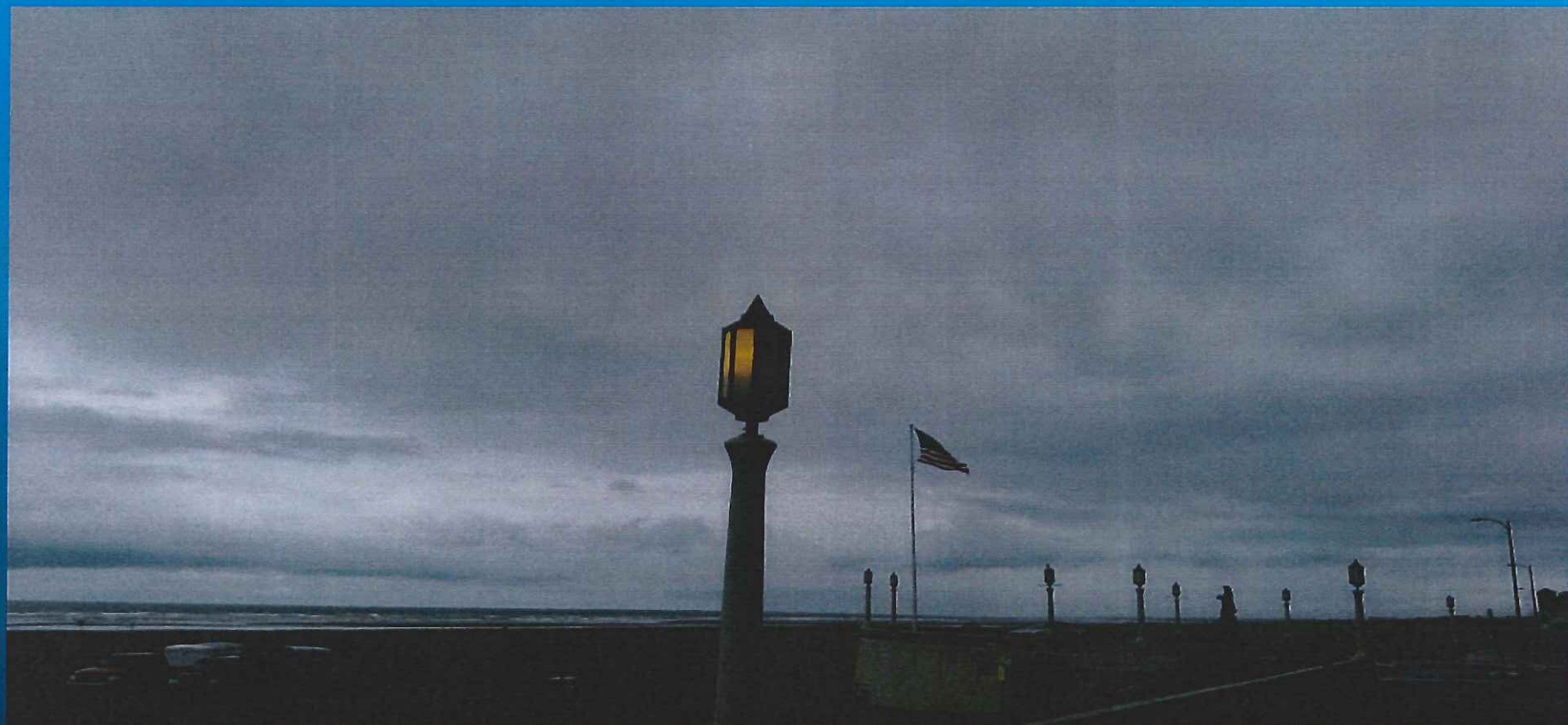


STREET SWEEPER - 5,166 MILES THIS YEAR



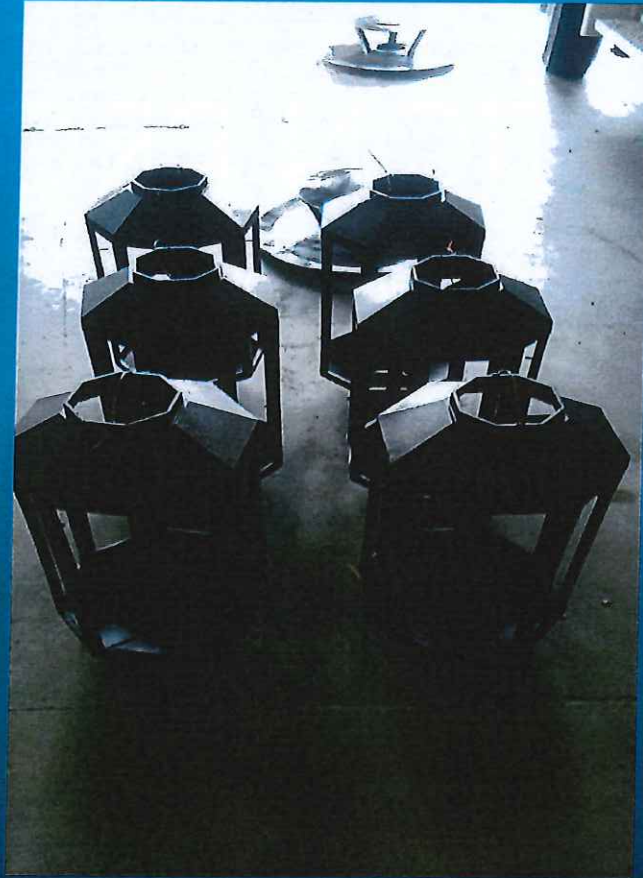


STREET LIGHTING



MODIFIED PROM LIGHT





REFURBISHED PROM LIGHTS

# CONSTRUCTION PROJECTS

Headworks Intake Structure

Seaside Police Generator Project

Quatat Park Force Main Reconstruction Landscaping

Seaside Airport Lighting Project

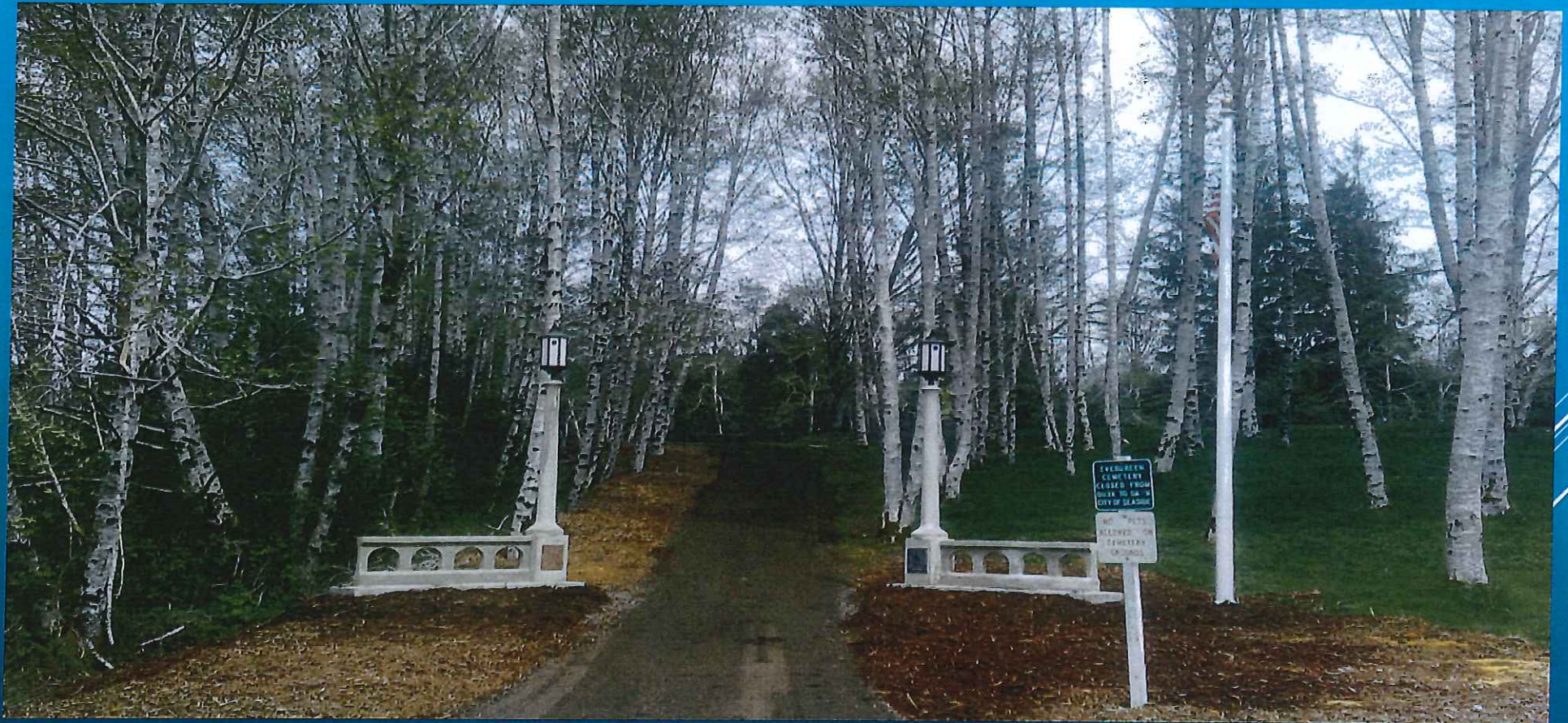
North Holladay Improvement Project

Columbia & Broadway Landscaping

Evergreen Cemetery Entrance

Quatat Park Boat Ramp Gate





CEMETERY ENTRANCE





QUATAT PARK LANDSCAPE & IRRIGATION





QUATAT PARK BOAT RAMP GATE



HOLLADAY DRIVE 1<sup>ST</sup> TO 12TH





HOLLADAY DRIVE NEW CURBING





HOLLADAY DRIVE NEW CURBING





MAY 23<sup>RD</sup> 2016 – UNIDENTIFIED PAVING INSPECTOR





HOLLADAY DRIVE 1<sup>ST</sup> LIFT OF NEW ASPHALT





HOLLADAY DRIVE – 1<sup>ST</sup> LIFT OF ASPHALT



HOLLADAY DRIVE – NEW LIGHTING





SEASIDE POLICE GENERATOR PROJECT



SEASIDE MUNICIPAL AIRPORT ELECTRICAL BUILDING



# FLEET MAINTENANCE

Responsible for Maintenance of all

Seaside Police Department Vehicles

Seaside Fire Department Vehicles

Water Department Vehicles and Equipment

Sewer Department Vehicles and Equipment

Street Department Vehicles and Equipment

63 Vehicles and 8 Pieces of Heavy Equipment

Fabrication and Welding



NEW SAFETY EQUIPMENT



- ▶ Back-up Cameras thru CSI
- ▶ Strobe Lights on Crew Trucks
- ▶ Operational Tests
- ▶ Fuel Station Lighting
- ▶ City Logo on all Vehicles and Equipment
- ▶ CB Radio Installation in Equipment and Dump Trucks

## FLEET SAFETY PROJECTS

# BEHIND THE SCENES

Water Line and Sewer Line Mapping of the entire City

Mapping of all Easements

Mapping of all City owned Properties

SCADA Integration of Sewer and Water Plants

Upgrading Street Signs

Avenue U Bridge Design

Avenue H Storm Water Design & HMAC

Remove and Refurbish All Historic Light Fixtures in Seaside

Refurbishing Round Trash Receptacles



