



CITY OF ASTORIA

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MEMORANDUM • PUBLIC WORKS DEPARTMENT

DATE: APRIL 18, 2022
TO: MAYOR AND CITY COUNCIL
FROM: BRETT ESTES, CITY MANAGER
SUBJECT: PUBLIC WORKS STATUS UPDATE

COVID-19 EFFORTS

- Staff is still providing COVID-19 testing results from the City Wastewater Treatment Plant (WWTP) for the Oregon Health Authority Program. Oregon Health Authority has launched a statewide COVID-19 wastewater-monitoring project to study the presence of the SARS-CoV-2 virus in more than 40 small- to medium-sized communities around the state. The project, which will include weekly wastewater testing over a 30-month period, will enable epidemiologists to better understand the circulation of COVID-19 in some of Oregon's communities. It will serve as an "early warning" system to tell if COVID-19 is spreading silently in communities. Staff is now receiving feedback from the program.

The following are brief summaries of the status of Public Works major projects and/or activities:

TRANSPORTATION SYSTEM

Coxcomb Dr. Embankment Repair

- Work to restore a slumped embankment along Coxcomb Drive is planned for mid-April. The work will close the road and is anticipated to take less than 3 days.

Tongue Point Road System

- Record of Survey was recorded at Clatsop County on January 4, 2022.
- Project closeout is currently underway.
- The result of this phase of work: Both Maritime Road and 54th Street between Hwy 30 and Old Hwy 30 are now dedicated public right-of-way and City maintained.
- The next phase of work would be developing a plan to help Hyak Marine develop truck access to their property. Staff has started coordination with both state and federal agency staff.

OR202 Sidewalk Project: Dresden – 4th Street

- Phase 1 and 2 of the projects have been combined into one project that consists of installing new sidewalk from Dresden to the DMV and Astoria High School to 4th St.
- ODOT is designing the project, including all permitting and right-of-way acquisition.
- An online public information meeting was held on February 24, 2022.
- Design phase is currently underway with advanced plans anticipated to be ready for review in early May.
- Bid date is currently scheduled for October 20, 2022, so construction could begin in early 2023.

14th Street Park Pier Inspection

- The City awarded a design contract to DOWL and they are currently working on design documents and permits for the needed repairs. We anticipate the project being ready to bid in the summer of 2022 with construction planned for early 2023.

23rd Street Rectangular Rapid Flashing Beacon (RRFB) Project

- Otak, Inc. has commenced design work for the project. Construction is planned for the fall of 2022.

2022 Paving Project

- Engineering staff has begun preliminary scoping and street selection for pavement maintenance. A paving project is anticipated for summer 2022.

Niagara Ave. and 15th Street Road Reconstruction Project

- Young's River Engineering is working on design plans for reconstruction of Niagara Ave. just east of 15th Street. This project will include storm drainage, sidewalk and road improvements. Construction is planned for fall of 2022.

City and Hwy 30 Chairwall Issues

- *No status change since last update.*
- The City of Astoria has a downtown where the roadways are supported by a wall system commonly referred to as a Chairwall system built in 1919 and 1922.
- US Hwy 30 through town is supported by the wall system between 5th Street and 17th Street.
- There are two locations where the wall system supporting Highway 30 is failing. The first location is on Marine Drive between 9th and 10th Streets and the second location is between 16th and 17th Streets.

- Staff has communicated with ODOT regarding the need to repair the failing wall segments supporting the highway. ODOT has informed staff that they will route oversized loads away from the wall segments through their oversized freight traffic permit process.

Trolley Infrastructure Maintenance Planning

- *No status change since last update.*
- The Riverfront Trolley Association (RTA) has worked very hard to repair a number of the track deficiencies identified by the Oregon Department of Transportation (ODOT) Rail Division during their track inspection. This has included replacement of numerous deteriorated railroad ties. The City has worked in partnership with the RTA to ensure that materials and equipment are available for the maintenance work. This has yielded very positive results. No issues identified will prohibit the Trolley from operation at this time.

Pipeline Road Patching Project

- This project will serve to repair failed portions of pavement on Pipeline Road between Reservoirs 2 and 3. This project has been put on hold due to other, more critical project needs.

2022 Crack Sealing Project

- City staff is currently preparing construction documents for a crack-sealing project that is intended to be a preventative maintenance measure for a portion of the City's road network.
- This work is planned for Summer 2022

COMBINED SEWER OVERFLOW (CSO) SYSTEM

Next CSO Separation Project

- *No status change since last update.*
- Staff is in the planning phase of the next CSO project.
- No construction will take place this year. Construction is not anticipated until 2024 or later.

WATER SYSTEM

Automated Water Meter Reading (AMR) System Project

- The Public Works Department is currently working on installation and implementation of the new AMR system for downtown and large commercial customers.

Grand Ave. Water Line Replacement Project

- The construction for this water line replacement is complete.
- Surface restoration remains to be completed once weather allows.

Rivington Street Waterline Replacement Project

- City staff are currently working on final design plans for replacement of a 1.5" and 2" water line on Rivington St. with a new 8" waterline.
- The project is being prioritized due to the condition of the pipes and multiple low-pressure complaints.
- City Council approved an authorization to bid the project and advertisement is anticipated in the month.

Old Highway 30 – Emergency Waterline Relocation Project

- Department of Labor plans to complete landslide mitigation work immediately adjacent to a City maintained waterline along Old Highway 30. The City needs to relocate the pipe to accommodate their construction project and to minimize potential damage.
- Engineering staff have started preliminary design for the waterline relocation. The construction work is anticipated to be completed in summer 2022.

Hamburg Ave. Waterline Improvement Project

- A waterline break and embankment failure in 2021 resulted in a reduction in water flow on Hamburg Ave.
- The project will include approximately 400 feet of new 8-inch diameter waterline from W. Marine Drive to a fire hydrant on Hamburg Ave. Engineering staff has started preliminary design for this project.

OR202 Waterline Project

- Murrsmith, engineering design consultant, is currently preparing plans for the replacement of approximately 2,100 feet of 1918 waterline under Highway OR202.
- Construction is planned for the fall 2022 with the goal of being completed prior to construction work on the OR202 Sidewalk Project.

Bear Creek Dam Emergency Overflow

- It has been determined that in order to move ahead with the sizing of an emergency spillway a flood study may be required first. We have asked a consultant that specializes in such studies to prepare a fee estimate for consideration in the next fiscal year's budget.
- Public Works staff will be looking into an option that includes utilizing enhanced downstream scour protection to accommodate dam overtopping in an emergency flood situation.

- The next step, which was a Probable Maximum Flood (PMF) Study, is now complete.
- Staff has been working with the Oregon Water Resources Department (OWRD) to pursue grant funding for the next step, which is a hydraulics study and a design concept plan of the needed improvements to the existing dam to pass a probable maximum flood event. OWRD has obtained full funding for the study and they will be managing the project.
- OWRD has also notified us that they have grant funding for three additional studies in our watershed. The studies include a seismic evaluation of Middle Lake Dam, a seismic evaluation of Wickiup Lake Dam and a conduit evaluation of all of the reservoirs. Conduit is a term used for the drain pipes that release water from the bottom of each reservoir to drop the reservoir level during an emergency.

Skyline Place Waterline Improvement Project

- *No status change since last update.*
- This project will replace two 2" water lines that serve the Skyline Place neighborhood. It will also reroute a number of water services that are currently inaccessible in that area.
- The project is nearing final design but has been put on hold due to other water improvement priorities.

SANITATION

Landfill Post Closure Activities

- *No status change since last update*
- Household Hazardous Waste Facility -staff will continue to work with County staff on DEQ gas monitoring requirements.
- Staff is continuing to work with the Oregon Department of Environmental Quality on post-closure activities consisting of gas monitoring and groundwater monitoring. A final permit has been issued and staff is currently working on the final document requirements for the site. Once all operation manuals are complete, staff will continue with annual reporting as required for the term of the post-closure period.
- During periodic utility inspections, it was determined that a critical stormwater pipe through the site was showing signs of failure. Staff is working on a plan to replace the pipe and will monitor its condition in the meantime. Funding is currently not identified for this project.

WATERSHED

Watershed Road System

- Staff and the City Forester, Ben Hayes, have a concept plan for the replacement of the Cedar Creek road crossing within the City watershed. The concept plan includes a new bridge crossing along the existing road alignment.
- The existing crossing is vulnerable to washout due to a very old and failing drainage culvert.
- The City Forester is working with the Oregon Department of Forestry and Oregon Fish and Wildlife (ODFW) on permitting for the new bridge and culvert removal.
- The project was originally targeted for summer 2022 but will most likely be delayed until summer of 2023 per discussions with ODFW. The project will also serve as mitigation for the emergency culvert crossing on Spur 12 last year.

Forest Management Strategies

- The City Forester completed a presentation on forest management strategies for the upcoming year including a review of the annual operating plan and an update of ongoing and completed projects.

2022 Timber Harvest Project

- Staff received authorization to solicit bids for the 2022 Timber Harvest Project at the March 21, 2022, City Council meeting. Once bids are received and reviewed, Staff will return to Council to request authorization to award the contract.

SANITARY SEWER

Industrial Pretreatment Program

- The City has identified industrial user loads that are causing issues at the wastewater treatment plant and in the sewer collection system.
- Council authorized a contract with Richwine Environmental, Inc. that includes the development of Industrial Pretreatment Program permits, ordinance, and financial feasibility analysis.
- Industrial Discharge Permits were issued to Fort George Brewery (November 2020) and Buoy Beer Company (April 2021).
- Staff is currently working with the remaining smaller fermentation beverage cluster businesses on permits that will be brought to Council in the near future.
- The City received a \$20,000 grant from Business Oregon Infrastructure Finance Authority (IFA) for a financial feasibility analysis that was presented at a Council Work Session on November 17, 2021. With Council support, formal documents are being prepared for official consideration.

Cedar Street Sanitary Sewer Replacement Project

- Construction is complete and final punch list items are being addressed.
- Project closeout is underway.

Wastewater Treatment Plant Improvements Project

- The grant agreement for the American Rescue Plan Act (ARPA) funding for the entire project amount of \$4,860,000 is included in the current Council packet. Funds will be administered by the Oregon Business Development Department (OBDD) utilizing the State of Oregon Coronavirus State Fiscal Recover Fund.
- In December 2021, Council authorized a contract with Gibbs & Olson, engineering design consultant, to complete preliminary engineering work in anticipation of receiving project funding in early 2022. This work is currently underway. A contract amendment for the entirety of the project design scope will be presented to Council after the City receives the fully executed grant agreement from OBDD.

Floral Ave. Sanitary Sewer Project

- Young's River Engineering is working on design plans for a sanitary sewer improvement on Floral Ave. This project will re-establish permanent sanitary sewer service for residents that have had temporary connections since the slide that occurred in early 2021.
- Construction is anticipated for fall 2022.

10th Street & Commercial Street Emergency Sewer Repair Project

- City staff is working with Big River Construction to repair a damaged portion of Sanitary Sewer Pipe at 10th Street and Commercial Street.
- We anticipate the pipe repair to be completed by mid-April.

STORM SYSTEM

Evergreen Field Emergency Storm Drain Replacement Project

- This project is intended to replace 200 feet of damaged 21-inch storm drainpipe beneath Evergreen Field. The pipe collapsed in January 2022 causing the storm drain system to back up and resulting in an embankment failure. The City completed a temporary repair to allow partial flow and now needs to complete a more extensive replacement project.
- Work is planned for April 2022.

DEVELOPMENT REVIEW

Development Review Workload

- *No status change since last update.*
- The Engineering Division is still experiencing a significant volume of development review-related tasks including subdivision applications, commercial and residential building permit applications, and Public Works permits. We are working on ways to increase review efficiency and minimize impacts on Public Works priorities. However, the submittal volume has had a substantial impact on the number of capital improvement projects we have been able to complete this year.

PUBLIC WORKS OPERATIONS

The following items highlight some of Operation's recent work:

- Staff repaired multiple water leaks throughout the City, including water main leaks at 50th St. and Lief Erikson Dr., Bond and Columbia St., and 42nd St. and Lief Erikson Dr.
- Staff completed continuing education training for water and wastewater certifications and confined space rescue training.
- Completed water meter flow testing on 50% of the three-inch and larger meters.
- Annual fire hydrant flushing is underway throughout the City.
- Completed installation of approximately 90 automated water meters (AMR) as part of phase one of the AMR project.
- Sewer pump/lift station repairs and upgrades took place this quarter.
- Completed installation of level sensors at the Wastewater Treatment Plant.
- Street sign installation and maintenance.
- Quarterly landfill gas monitoring.
- Wastewater treatment plant sampling, testing and flow monitoring.
- CSO monitor maintenance and data analysis.
- Routine watershed tasks include water quality testing, culvert cleaning, road maintenance and boundary patrol.
- Re-graded and compacted new rock on Headworks Rd. from CT Structure located at the intersection of Svensen Market Rd. & Headworks Rd. to the Headworks gate to bring the road up to City standards.

PUBLIC WORKS ADMINISTRATION

- **City Hall Service Elevator Rebuild** – The motor for the new machine has been delivered to the machine manufacturer for production. TK Elevators Corporation expects to receive the machine by mid-May and will schedule installation to be completed no later than June 30, 2022.

- **Organizational Review** - The Public Works Department has contracted with John Ostrowski, Management Consultant, to complete an organizational review of the department in two phases. The consultant has completed Phase #1 with the Operations Division and provided a preliminary report. Phase #2 is in progress with the Engineering Division and will be complete by this fiscal year-end. The final product will be a report outlining the existing situation, an analysis of day-to-day operations, existing workloads, backlogs, maintenance and asset management systems and staffing levels. The organizational review process is designed to analyze the functions of the department to determine if best practices are being employed and make recommendations for improvement.
- **GIS Upgrades**
 - Staff has continued to make progress on the development of the public works infrastructure system. We have also been working on our mobile application for both staff and public use. Operations staff have implemented tablets for use in the field making their access to GIS data more efficient and helpful. The use of the tablets has indicated that more tablets are needed to expand the beneficial use of the system by more operational field staff.
 - We are also upgrading the public version of the GIS.
- **Work Orders/Asset Management** - Staff contracted with Dude Solutions for work order/asset management software to streamline operations and management processes, increase efficiency in preventative maintenance schedules and data and information management. This software has been successfully implemented and launched. Staff is working towards uploading all available information on assets to improve daily operations and information management.

ENERGY SAVINGS PROJECTS

The Public Works staff have been working on multiple energy savings projects. Following are two current projects.

- **Strategic Energy Management (SEM)**
SEM focuses on no and low-cost operations and maintenance improvements that deliver energy savings. Operations, Engineering and Administrative have completed the second and final year of our engagement with Energy Trust of Oregon's SEM program. Our objective over the last two years was to reduce energy costs at our Wastewater Treatment Plant, Pump and Lift Stations, City Shops, Reservoirs 2 & 3, and the Watershed. Staff plans to report on the results of this engagement and future ambitions related to energy efficiency at an upcoming City Council meeting.
- **LED lighting at City Hall** – staff is working with the Energy Trust of Oregon and their contract electrician to develop a strategy for replacing all of the City Hall overhead lights with LED lighting. The project will involve both fixtures and simple

bulb replacements. The work was budgeted for the last fiscal year (20/21) at \$20,000 and is currently on hold pending available revenue and pricing updates. This work is currently budgeted for this fiscal year (21/22). We are awaiting verification that the cost incentives will still be available for this fiscal year.

SUMMARY OF INFRASTRUCTURE GRANTS IN PROGRESS

(Projects already awarded)

GRANT FUNDED Pipeline Road Waterline Resilience Project - \$2,930,000

This project includes re-aligning some of the most landslide-prone sections of our transmission main to more stable ground. This will be the start of many other project recommendations made in our Pipeline Road Transmission Main Resilience Study.

GRANT FUNDED 16th Street Distribution Waterline Project - \$2,790,000

This project is the first section of our water distribution piping leaving Reservoir 2 and feeding a large section of the City including downtown and the Port area. The pipe was constructed in 1895 and runs through a tunnel from Reservoir 2 to 16th and Jerome Street.

GRANT FUNDED OR202 Waterline Replacement Project - \$1,000,000

This project replaces an undersized older waterline that runs along the project limits of the upcoming OR202 Sidewalk Project. The pipe is required to be replaced prior to repaving the highway adjacent to the new sidewalk between the Short Stop Market and the Astoria High School.

GRANT FUNDED Wastewater Treatment Plant (WWTP) Improvements Project - \$4,860,000

The Wastewater Treatment Plant upgrades, which include flow measurement, screening, influent grit removal, and pond baffles, have been in the works for many years. This grant opportunity prevents rate increases that would have been needed to pay the debt service on a loan for the full amount.

GRANT FUNDED Pre-Disaster Landslide Storm Drainage Project - \$902,487.50 (75% or \$676,875 grant funded with 25% or \$225,615 City match)

This project includes two of six landslide areas identified for storm pipe replacement of pipe placed in the early 1950's after three very large landslides destroyed many homes along the north slopes of Astoria.

GRANT FUNDED OR 202 Sidewalk Project - \$4,172,000 (90% or \$3,743,450 grant funded with 10% or \$428,550 City match)

The construction of new sidewalk and drainage infrastructure between the Short Stop Market and the Astoria High School will connect large neighborhood areas to the high school. This area is experiencing high pedestrian volumes where walkers and bicyclists have to navigate the highway shoulder around a curved roadway.

GRANT FUNDED Marine Drive & 23rd Street Crosswalk Enhancements Project - \$200,000

This project will provide a Rapid Flashing Rectangular Beacon and crosswalk enhancements at the request of the CO-OP and Columbia Memorial Hospital, both of which have resulted in increased pedestrian activity at the crossing.

GRANT FUNDED Bear Creek Dam Spillway Pre-design - \$140,000

The second phase of the spillway study will eventually result in meeting a requirement of the Oregon State Dam Safety Program that requires our High Hazard Dam to have the capability of passing a probable maximum flood event over the dam without causing damage to the dam and without reducing the dam's seismic stability.

(Projects applied for but not awarded)

AWAITING FUNDING AWARD Water System Automatic Meter Reading (AMR) System Project - \$1,902,384

The City has placed approximately 135 AMR's in our downtown area and we will need to eventually place approximately 4,000 AMR's in our residential areas. A letter of interest has been submitted to the State Safe Water Drinking Program for this project. Funding will likely consist of a low-interest loan of which up-to-half may be a forgivable loan or grant.

AWAITING FUNDING AWARD Sewer Lift Stations Rehabilitation Project - \$2,129,000

The City has three sewage lift stations that convey sewage around Astoria starting on the Young's Bay side of town and to the wastewater treatment plant on the far east side of town. Built in the early 1970's, these lift stations are in dire need of an overhaul with breakdowns occurring periodically and costly repairs burdening our budget.

(Projects ready to apply for once a grant source is identified)

AWAITING FUNDING OPPORTUNITY Phase 5 CSO Program Projects - \$18,000,000

Grant funding for the remaining CSO program projects would reduce the length and amount of future CSO surcharge rates to the ratepayer. While this amount of grant funding is not highly likely, we will continue to look for funding opportunities.

AWAITING FUNDING OPPORTUNITY Irving at 33rd Street Bridge - \$6,000,000

Public Works staff has applied for funding for our last of nine City-owned bridges twice and have not been awarded funding for this existing timber bridge built in 1951. Once federal stimulus funding works its way down to the Oregon Department of Transportation Local Bridge Program, it is our hope that the bridge replacement will be funded. Past bridge funding has consisted of 90% grant and 10% City match.

AWAITING FUNDING OPPORTUNITY Denver & Alameda Sidewalk Project - \$960,000

This project is a transportation safety project identified in the City Transportation System Plan (TSP) as a priority sidewalk project linking neighborhoods above Tapiola Park and the Astoria High School to the Hwy 202 sidewalk corridor.

BY: JEFF HARRINGTON, PUBLIC WORKS DIRECTOR