



CITY OF ASTORIA

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MEMORANDUM • PUBLIC WORKS DEPARTMENT

DATE: OCTOBER 3, 2022
TO: MAYOR AND CITY COUNCIL
FROM: PAUL BENOIT, INTERIM CITY MANAGER
SUBJECT: PUBLIC WORKS STATUS UPDATE

Following are summaries of the status of Public Works major projects and/or activities:

WATERSHED

Watershed Road System

- *No status change since the last update.*
- In addition to routine road maintenance within the watershed, staff will need to plan for the replacement of a failing existing culvert crossing over Cedar Creek that is vulnerable to failure.
- 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 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 the summer of 2023 per discussions with ODFW. The project will also serve as mitigation for the emergency culvert crossing on Spur 12 last year.
- The 2022/2023 Capital Improvements budget includes funds for the bridge construction.

2022 Timber Harvest Project (Salmonberry)

- The 2022 Timber Harvest Project was bid and the contract award was authorized at the May 2, 2022, City Council Meeting.
- The project is currently underway and our City Forester is monitoring the harvest activities.
- All tree cutting is complete and logs are currently being hauled out.

WATER SYSTEM

16th Street Distribution Waterline Project

- Grant agreement with Infrastructure Finance Authority (IFA) has been approved.
- Request for Qualifications (RFQ) is currently advertised with submission deadline of October 20, 2022.
- Construction is anticipated during the summer of 2024.

Pipeline Road Waterline Resilience Project

- Grant agreement with Infrastructure Finance Authority (IFA) has been approved.
- The next step is the issuance of a Request for Qualifications (RFQ) to select a design consultant to design the project prior to bidding. Advertisement for RFQs is expected to occur in January 2023 with submission deadline in February 2023.
- Construction is anticipated during the summer of 2024.

OR202 Watermain Replacement Project

- Murraysmith, engineering design consultant, completed design documents, and they have been contracted to provide construction support services during the upcoming replacement of approximately 2,100 feet of 1918 waterline.
- Big River Construction has been awarded the construction contract.
- Construction is scheduled to begin in mid-October with the goal of being completed before construction work on the OR202 Sidewalk Project.

Automated Water Meter Reading (AMR) System Project

- *No status change since the last update.*
- The Public Works Department has completed the installation and implementation of the new AMR system for downtown, large commercial customers, and a handful of new residential customers.
- Staff has submitted a Letter of Interest for the Safe Drinking Water Program Funding through the Infrastructure Finance Authority (IFA). Currently, the City can receive a loan for the project, which is 50% forgivable. In lieu of incurring debt for the project, staff is hopeful that stimulus funding may provide a full grant opportunity for the project in the future.

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 waterline pipe to accommodate their construction project and to minimize potential damage.
- Engineering staff is working to finalize design for the waterline relocation.
- A letter requesting permission from the Department of Labor for relocation of the waterline was submitted in June 2022 and we are waiting for further guidance.

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 started the preliminary design for this project.

Bear Creek Dam Emergency Overflow

- After a favorable dam stability analysis that determined our dam is not subject to significant failure during a Cascadia Subduction Zone seismic event, the Oregon Water Resources Department (OWRD) concluded that our next step was to proceed with the development of an emergency spillway strategy and eventual construction.
- An option that includes utilizing enhanced downstream scour protection to accommodate dam overtopping in an emergency flood situation is being considered. Original options included significant earthwork, were very expensive and had significant environmental impacts.
- The next step was to complete a flood study referred to as a Probable Maximum Flood (PMF). This work is complete.
- Staff had worked with the 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 and the study is underway. OWRD staff 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 drainpipes that release water from the bottom of each reservoir to drop the reservoir level during an emergency.

Skyline Place Waterline Improvement Project

- This project will replace two 2" water lines that serve the Skyline Place neighborhood. It will also reroute several water services that are currently inaccessible in that area.
- The project is nearing final design but has been placed on hold due to other water improvement priorities.
- We are currently working to secure an easement from an adjacent homeowner so the project can proceed soon.

SANITARY SEWER SYSTEM

COVID-19 Wastewater Monitoring

- 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.

Industrial Pretreatment Program

- *No status change since the last update.*
- 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.
- Pretreatment Ordinance No. 22-10 was adopted on May 16, 2022.
- Resolution No. 22-21 establishing conditions for the waste allocation to the fermentation beverage industry sector was adopted on June 20, 2022.
- 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.

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 has been fully executed.
- Gibbs & Olson is currently working on the design of the project.
- Construction schedule of this project is in development, but the earliest start of construction is summer of 2023 with the majority of the construction expected in summer of 2024.

Floral Ave. Sanitary Sewer Project

- This project will re-establish permanent sanitary sewer service for residents that have had temporary connections since the slide that occurred in early 2021.
- City staff will be finalizing the design documents with construction anticipated for Fall 2023.

COMBINED SEWER OVERFLOW (CSO) SYSTEM

Next CSO Separation Project

- *No status change since the 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.

TRANSPORTATION SYSTEM

OR202 Sidewalk Project: Dresden – 4th Street

- Project consists of installing a new sidewalk from Dresden to the DMV and Astoria High School to 4th St as well as stormwater improvements.
- ODOT is designing the project, including all permitting and right-of-way acquisition.
- Design phase and permitting are finishing up with final plans expected in November 2022.
- Final project cost estimate exceeds the existing funding by approximately \$1.1 million. Fortunately, ODOT has indicated they will increase their contribution by about \$1 million, and the expectation is that the City provides the standard 10.27% match on this increase. The IGA Amendment for the increased funding is being prepared by ODOT and will be presented to City Council for authorization as soon as it is received, likely in October.
- ODOT's bid date is January 12, 2023. Construction is expected to begin in spring 2023.

14th Street Park Pier Project

- This project is currently out to bid.
- Construction will occur during the allowable in-water work period this winter.

23rd Street Rectangular Rapid Flashing Beacon (RRFB) Project

- Otak, Inc. is currently finalizing design and bid documents for the project.
- ODOT has approved the final design layout.
- Bidding is anticipated for Fall 2022 with construction soon after.

2023 Paving Project

- Engineering staff has begun preliminary scoping and street selection for pavement maintenance.

Niagara Ave. and 15th Street Road Reconstruction Project

- The goal of this project is to reconstruct a section of Niagara Ave. just east of 15th Street. This project will include storm drainage, sidewalk, and road improvements.
- City staff will be working with a consultant to prepare design plans and bid the project.
- A temporary repair has been completed and a more substantial project is anticipated for Fall 2023.

City and Hwy 30 Chairwall Issues

- *No status change since the 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 the 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 the 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.

STORM SYSTEM

15th Street & Marine Drive Emergency Storm Drain Project

- In late June 2022, Public Works discovered a collapsed 24-inch storm drain pipe at the intersection of 15th Street and Marine Drive. The repair project has been awarded to Big River Construction.
- Construction is anticipated to start in early October 2022.

DEVELOPMENT REVIEW

Development Review Workload

- *No status change since the 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.

SANITATION

Landfill Post Closure Activities

- *No status change since the 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.

PUBLIC WORKS OPERATIONS

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

- Street Sweeper Operator, Joe Hudak, celebrated 20 years of service
- Lead Utility Worker, Chuck Higgins, celebrated 10 years of service
- Senior Building Facilities Technician, Nathan Barber, obtained his Water Distribution I certification
- Replaced the skid plate at the 17th Street Dock
- Installed new siding on the 2nd story of the City-owned residence at Reservoir 3
- Applied thermoplastic pavement markings in Mill Pond
- Pavement markings and striping at various locations
- Installed new 2-inch HDPE waterline at the intersection of 27th St. & Grand Ave.
- Completed the tie-in to the newly upgraded Rivington Ave. waterline
- Completed a leak inspection and temporary repair of the Bear Creek Dam
- Working on Lincoln St. stairs lighting project
- Completed TV inspection of the storm and sewer lines from 20th to 25th Streets for the Pre-Disaster Landslide Storm Drainage Project FEMA grant application
- Installed new fire hydrant at the intersection of 21st St. and Marine Dr.
- Repaired 8-inch sewer line on the 20th St. block of Irving Ave.
- Patched a large sink hole at the foot of 11th Street
- Repaired water leak at the intersection of 10th & Duane Streets
- Completed multiple water services upgrades
- Regular grounds maintenance and mowing
- Completed installation of AMRs on 3-inch and larger commercial meters
- Fire season monitoring in the watershed and along Pipeline Road
- Staff completed continuing education and new confined space rescue training
- 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



PUBLIC WORKS ADMINISTRATION

- **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.

ENERGY SAVINGS PROJECTS

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

- **Strategic Energy Management (SEM)**
No status change since the last update.
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**
No status change since the last update.
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.

BY: JEFF HARRINGTON, PUBLIC WORKS DIRECTOR

SUMMARY OF INFRASTRUCTURE GRANTS AWARDED

Funding source for following project: American Recovery Plan Act (ARPA) Discretionary Funds

GRANT FUNDED OR202 Waterline Replacement Project - \$1,500,000

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 before repaving the highway adjacent to the new sidewalk between the Short Stop Market and the Astoria High School.

Funding source for following projects: State of Oregon Coronavirus State Fiscal Recovery Fund Grants administered through Infrastructure Finance Authority (IFA)

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 be needed to pay the debt service on a loan for the full amount.

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.

Funding source for following project: FEMA Oregon Legislative Pre-Disaster Mitigation (LPDM) Funds

GRANT FUNDED Pre-Disaster Landslide Storm Drainage Project - \$902,487.50

(75% or \$676,875 FEMA grant funded with 25% or \$225,615 City match funded by IFA)
This project includes two of six landslide areas identified for storm pipe replacement of pipe placed in the early 1950s after three very large landslides destroyed many homes along the north slopes of Astoria.

Funding source for following projects: Oregon Department of Transportation

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 a 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.

Funding source for following project: Oregon Department of Water Resources

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.

PROJECT LIST FOR FUTURE GRANT REQUESTS

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

The City has placed approximately 13 AMRs in our downtown area and we will need to eventually place approximately 4,000 AMRs 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 east side of town. Built in the early 1970s, these lift stations are in dire need of an overhaul with breakdowns occurring periodically and costly repairs burdening our budget.

AWAITING FUNDING OPPORTUNITY Water System Clearwell Project - \$5,000,000

This project would improve operations at the water treatment facility and provide updated laboratory facilities. A study was completed in 2018 identifying the project purpose, scope, cost and benefits.

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.