



CITY OF ASTORIA

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MEMORANDUM • PUBLIC WORKS DEPARTMENT

DATE: APRIL 17, 2023
TO: MAYOR AND CITY COUNCIL
FROM: SCOTT SPENCE, 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

- Routine road maintenance – our Water Source Operator has been conducting routine road system.
- Cedar Creek Bridge Project
 - Staff and the City Forester, Ben Hayes, have a concept plan for the replacement of the failing 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 has been 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.
 - **Critical Update – The current project estimate is up to \$500,000 due to inflation and the Oregon Fish and Wildlife (ODFW) has made a determination that the bridge project would not qualify for mitigation for the Spur 12 culvert project so staff will be re-grouping and coming up with a new strategy.**

2023 Timber Harvest Project (Snowbear)

- The 2023 Timber Harvest Project Invitation to Bid was issued on March 23, 2023 to complete a 50-acre thinning and variable retention harvest.
- Bids are due on April 28, 2023 and Staff plans to proceed with requesting authorization to award a contract soon thereafter.
- The project is planned to be completed this year between June and October.

- The estimated net proceeds to the Capital Improvement Fund total \$204,000 after a roadwork credit of \$35,000 is deducted.

Watershed Boundary Survey

- KLS Surveying is working on delineation of approximately 3,000 feet of the watershed property boundary to provide a clear boundary for adjacent forestry activity. This work is almost complete.

WATER SYSTEM

OR202 Watermain Replacement Project (ARPA Grant Project)

- This project consists of replacement of approximately 2,100 feet of 1918 waterline along OR202.
- Construction is substantially complete with road restriping remaining as well as punch list items and final paperwork.

16th Street Distribution Waterline Project (ARPA Grant Project)

- Grant agreement with Infrastructure Finance Authority (IFA) has been approved.
- HDR Engineering was recently awarded the engineering services contract and has begun work on the alternatives evaluation.
- Construction is anticipated during the summer of 2024.

Pipeline Road Waterline Resilience Project (ARPA Grant 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 scheduled to begin on April 6th with submission deadline of May 4th.
- Construction is anticipated during the summer of 2024.

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.
- Residential water meters that need replacement are being replaced with AMR meters since the old-style meters are no longer available.
- 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 has finalized water line plans.
- We are working with the City Attorney to coordinate an agreement for relocation of the utility.

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. The design plans have been completed.
- Public Works staff plan to install the new water line in Spring 2023.

Bear Creek Dam Emergency Overflow (Oregon Water Resources Grant Project)

- 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. This work has not started yet.

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

- The City identified industrial user loads that were causing issues at the wastewater treatment plant and in the sewer collection system that necessitated the development of an Industrial Pretreatment Program.
- Industrial Discharge Permits were issued to Fort George Brewery (November 2020) and Buoy Beer Company (April 2021).
- 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, and again on November 18, 2022. With Council support, formal documents are being prepared for official consideration.
- Staff is currently working with the remaining smaller fermentation beverage cluster businesses on permits that will be brought to Council in the near future.

Wastewater Treatment Plant Improvements Project (ARPA Grant 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. The survey is being finalized, early procurement analysis and recommendation is complete, major equipment evaluations are underway, and 15% design documents are being reviewed by City Staff.
- Construction is 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 are working with a design consultant to finalize 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

Emergency Bank Stabilization Project

- As a result of king tides and a wind storm at the end of December, the Columbia River bank adjacent to the River Trail experienced extensive erosion that requires immediate attention.
- Public Works staff have been working with County Emergency Management to prepare documentation for potential FEMA funding for repair work.
- City staff have been working on the permit applications needed for the repair work.



OR202 Sidewalk Project: Dresden – 4th Street (ODOT Grant)

- 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.
- Bid phase is currently underway with bids due on in May 2023.
- Construction is expected to begin in Fall 2023.

14th Street Park Pier Project

- This project was awarded to Bergeman Construction.
- Construction is complete and we are working on project closeout paper work.

23rd Street Rectangular Rapid Flashing Beacon (RRFB) Project (ODOT Grant)

- Otak, Inc. is currently finalizing design and bid documents for the project.
- We are currently working with Otak, Inc. on several easements needed for the work.
- ODOT has approved the final design layout.
- City staff have requested an extension to the grant due to a number of project delays, including additional ODOT review time and the need to secure easements.

2023 Paving Project

- Engineering staff developed a preliminary list of streets to receive treatment and are currently working on the design plans for the project.
- Niagara Ave. and 15th St road reconstruction will be included.
- We plan to finalize design plans in the Spring 2023 with construction planned for Summer 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 Trestle Repair Project

- DOWL Consulting Engineers recently completed a structural inspection of the trolley trestles from Columbia Ave. to Mill Pond.
- We are currently working with DOWL to develop a scope and fee for design work associated with needed repairs.
- Construction is planned to start for Fall 2023.

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.

Lincoln Street Stairway Restoration

- Staff received a request from residents along Lincoln St. in the Uniontown neighborhood to replace the long-missing street lights on the steps running within the Lincoln St. undeveloped right-of-way from Alameda Ave. to West Duane St. Staff took this opportunity to make improvements to the handrails and concrete pillars as well. The Public Works staff worked with the Clatsop Community College Historic Preservation Director and the Tongue Point Job Corp Center (TPJCC) Cement & Masonry Instructor to complete the concrete restoration project. TPJCC students have completed the concrete restoration as part of a training opportunity under the supervision of their instructor, the college and the City Historian, John Goodenberger.
- The light posts have been installed and energized by public works staff. The concrete work is complete. Public Works staff will paint the handrails when weather permits



STORM SYSTEM

Pre-Disaster Landslide Storm Drainage Project (FEMA & IFA Grant)

- Grant agreements with FEMA (through Oregon Emergency Management) and Infrastructure Finance Authority (IFA) have been approved.
- The next step is the issuance of a Request for Qualifications (RFQ) to select a design consultant to design the project. Staff is considering design this project in-house with City staff. Some consultant services such as surveying will still be required.
- Construction is anticipated during the fall of 2023 or 2024. This project will be constructed during the driest time of the year.

15th Street & Marine Drive Emergency Storm Drain Project

- Repair of the storm drain pipe was successfully completed by Big River Construction.
- We are currently working on cleaning the pipe and replacement of the ADA ramp removed during construction.
- The project is anticipated to be completed by Summer 2023.

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.

FACILITIES

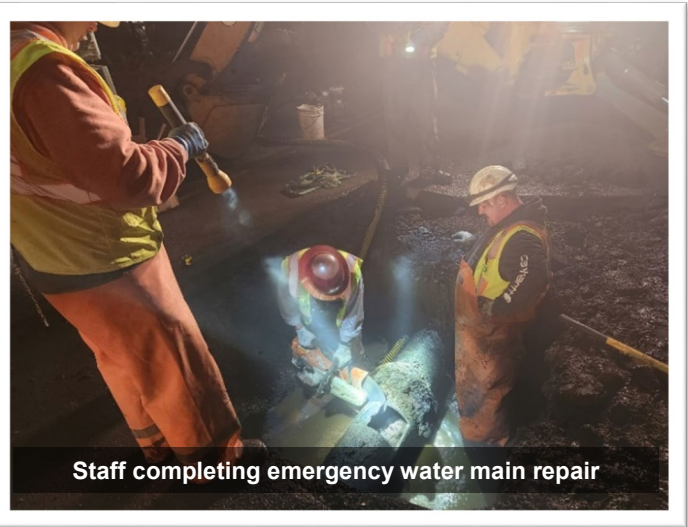
Public Works Shop Roof – Phase 2

- Dr. Roof was awarded the contract for Phase 2 of the roof replacement.
- Construction is planned to start in Spring 2023.

PUBLIC WORKS OPERATIONS

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

- Annual fire hydrant flushing throughout the City is complete.
- Completed 12" water main repair at 33rd St. & Irving Ave.
- Replaced 60 feet of 8-inch combined sewer storm line adjacent to 2957 Irving Ave.
- Deicing for the season
- Bret Stevens obtained certifications for distribution and collections
- Nathan Barber obtained a HazMat endorsement on his Commercial Driver's License (CDL)
- Kyle Bryan and Matthew Burgher obtained their Class A CDL license
- Eric Bufkin obtained his Collections II certification
- Spread new rock on the parking lot leased to the US Coast Guard at the corner of 17th St. and Marine Dr.
- Converted the column water pump house to a Radio frequency signal
- Completed Phase 2 of the OR 202 water main tie-in
- Painted thermoplastic arrows and school zone crossings
- Converted several sewer meters to AMRs
- Performed blow-offs on the transmission main and throughout the City
- Upgraded several lights to LED fixtures
- Completed half of the large meter testing
- Chair wall inspections
- Cleaned out 150 feet of an 8-inch sewer main with a root cutter
- Completed preparations for new fencing at 15th & Commercial St. (Tidal Rock)
- Repaired several small water leaks
- Completed several water meter conversions to AMRs
- Completed multiple water services upgrades
- Street sign installation, replacement, cleaning and maintenance.
- Quarterly landfill gas monitoring.
- Wastewater treatment plant sampling, testing, and flow monitoring.
- CSO monitors 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 in GIS. 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.

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 is budgeted for the next fiscal year (23/24).

BY: JEFF HARRINGTON, PUBLIC WORKS DIRECTOR

SUMMARY OF INFRASTRUCTURE GRANTS AWARDED

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

GRANT FUNDED OR202 Waterline Replacement Project - \$1,772,000

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 the 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 the following projects: FEMA Oregon Legislative Pre-Disaster Mitigation (LPDM) Funds and Infrastructure Finance Authority (IFA)

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 the 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 the 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 Irving Avenue (20th - 28th St.) Waterline Resiliency Project - \$1,894,662

This project will upgrade 2800 LF old 6-inch cast-iron water pipe to new resilient 12" HDPE pipe from 20th Street to 28th Street along Irving Ave. and will provide a critical alternate route for over a mile of the City's 21-inch transmission main that connects Reservoirs 2 and 3 through several landslide susceptible areas. The existing pipe was installed in 1928 and 1970 and is aligned through several mapped landslide areas. Staff has submitted this project under the Congressional Directed Spending process.

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's 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.