



## CITY OF ASTORIA

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### MEMORANDUM • PUBLIC WORKS DEPARTMENT

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**DATE: JULY 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 maintenance.
- Cedar Creek Bridge Project
  - Staff and the City Forester, Ben Hayes, developed a concept plan for the replacement of the failing Cedar Creek road crossing within the City watershed. The concept plan included a new bridge crossing along the existing road alignment. Updated estimates for the construction increased dramatically (\$500,000 +/-) due to inflation so this option has been taken off the table. The Oregon Department of Fish and Wildlife (ODFW) has also made a determination that the bridge project would not qualify for mitigation for the Spur 12 culvert project.
  - The City Forester is working with the Oregon Department of Forestry and ODFW on a new option for meeting our mitigation obligation that will most likely include some form of an in-lieu payment that will support another mitigation project in our geographic area.
  - Options for the road crossing and failing culvert problem are being investigated and may include a more cost effective option of removing the creek crossing, restoring the streambed and developing a simpler crossing at another location.

##### **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 and was awarded to Hampton Tree Farms LLC on May 15, 2023.
- The project is underway and will be completed by October 31, 2023.
- The estimated net proceeds to the Capital Improvement Fund total \$222,767.14 after a roadwork credit of \$35,000 is deducted.

## **WATER SYSTEM**

### **OR202 Watermain Replacement Project (ARPA Grant Project)**

- This project replaced approximately 2,100 feet of 1918 waterline along OR202.
- Construction is complete and final paperwork is underway.

### **16<sup>th</sup> 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.
- A scope and fee are being finalized for the engineering design. A contract is expected to be presented to Council in August.
- 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 waterline plans.
- We are working with the City Attorney to coordinate an agreement for relocation of the utility with the Department of Labor.

### **Hamburg Ave. Waterline Improvement Project**

- A waterline break and embankment failure in 2021 resulted in a reduction in water flow on Hamburg Ave.
- Public Works completed installation of approximately 400 feet of new 8-inch diameter waterline from W. Marine Drive to a fire hydrant on Hamburg Ave.
- Final construction work is currently underway and anticipated to be completed prior to October 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.
- The City recently secured an easement with the adjacent property owner to accommodate the project.

## **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 which 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 new sewer rate structure was approved by Council in June as part of the Sewer Resolution. It takes effect on January 1, 2024.
- 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.
- 15% design documents have been completed and advanced project development is underway by the engineering consultant, Gibbs & Olson.
- Construction is expected to begin 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.
- The City was notified that FEMA funding will not be available for the project.
- Permits for the work have been submitted for to State and Federal agencies for review.
- Staff is working on preparation of construction documents for the most critical repairs using available funding.



### **OR202 Sidewalk Project: Dresden – 4<sup>th</sup> Street (ODOT Grant)**

- Project consists of installing a new sidewalk from Dresden to the DMV and Astoria High School to 4<sup>th</sup> St as well as stormwater improvements.
- ODOT is designing the project, including all permitting and right-of-way acquisition.
- ODOT is currently evaluating bids received from the second bid advertisement.
- Construction timeline to be determined after bid award.

### **14<sup>th</sup> Street Park Pier Project**

- Construction is complete and we are working on project closeout paperwork.

### **23<sup>rd</sup> Street Rectangular Rapid Flashing Beacon (RRFB) Project (ODOT Grant)**

- Otak, Inc. is currently finalizing design and bid documents for the project.
- The City secured the required ROW and easements needed for the project.
- 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. We have also requested an additional \$75k for the construction.

### **2023 Paving Project**

- Construction for the project is planned to start in August 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.
- DOWL is currently working on design for critical repairs and construction is planned for Fall/Winter 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.

## **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.

- Staff will design this project in-house. Some consultant services such as surveying will still be required. Design will take place over the next 9 months.
- Construction is anticipated during fall of 2024. This project will be constructed during the driest time of the year to minimize the potential for land movement.

## **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 Truck Barn Roof and Siding**

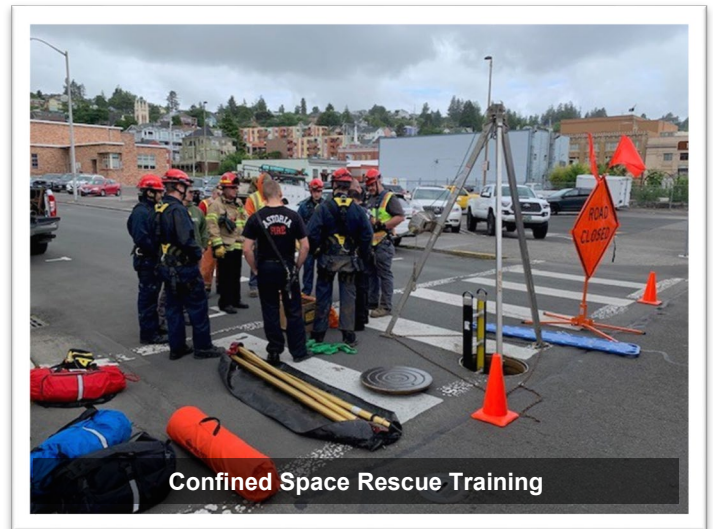
- Operations staff is starting the planning process for obtaining quotes for the replacement of the truck barn roof and siding. The project was budgeted at \$255,000 for the current fiscal year.



## **PUBLIC WORKS OPERATIONS**

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

- Senior Utility Worker, Bret Stevens, celebrated 10 years of service
- Completed confined space rescue training in coordination with AFD
- Performed blow-offs on the transmission main and throughout the City
- Upgraded several lights to LED fixtures
- Completed Hamburg Waterline Improvement Project
- Completed repairs to the Astoria Column irrigation system
- Completed preparations to remove and rebuild a main pump at Pump Station #1
- Cleaned slow sand filter cells on a more frequent basis as the canneries have been using upwards of 1.5 MGD of water and will continue to do so through Fall
- Completed half of the large meter testing
- Performed chairwall inspections
- Repaired several small water leaks
- Completed several water meter conversions to AMRs
- Completed multiple water services upgrades
- The two annual part-time public works staff have been hired this year and will resume normal maintenance operations, primarily mowing.
- Fire season preparation in the watershed and along pipeline road.
- Street sign installation, replacement, cleaning and maintenance.
- 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**

### **National Public Works Week**

- Staff celebrated National Public Works Week, May 21-27, with employee appreciation activities and community outreach, including a coloring contest and public works parade at Astor School, a ribbon cutting celebrating the completion of the Lincoln St. Stairway Restoration Project, National Public Works Week Proclamation, daily educational social media posts and a staff BBQ.





## **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 fiscal year 2023-24.

**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. **[PROJECT COMPLETED]**

*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 16<sup>th</sup> 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 16<sup>th</sup> 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 & 23<sup>rd</sup> 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.