



# Capital Improvements Plan (CIP)

## Public Works Department

City Council Work Session  
January 27, 2025





# What is a Capital Improvement Plan?

- A Capital Improvement Plan (CIP) is a long-term strategy that outlines and prioritizes major projects or investments, typically related to infrastructure or facilities, over a period of 5-10 years.
- It helps organizations or municipalities plan, schedule, and allocate funding for these projects to meet future needs and improve assets.
- Capital Improvement Plan vs. Capital Improvement Program
  - A Capital Improvement Plan is a broad long-term strategy that outlines and prioritizes future capital projects over several years.
  - A Capital Improvement Program is a specific, shorter-term set of approved projects within the broader Capital Improvement Plan. It includes detailed information on funding, schedules, and execution for the near-term projects ready to be implemented.



# City Council Work Plan - Anticipated Benchmarks

2023	2024	2025 and beyond
<ul style="list-style-type: none"><li>• City Council holds multiple Work Session(s) on System Development Charges Program (Q3)</li><li>• City Council formally adopts System Development Charges Program (Q4)</li></ul>	<ul style="list-style-type: none"><li>• Seek out State Loans to replace Astoria's three lift stations (Q1 or Q2)</li><li>• Finalize Draft of Capital Improvement Plan or Project list for critical Water, Sewer, and Stormwater Infrastructure (Q1)</li><li>• Adoption by City Council of the Final Capital Improvement Plan or Project list for critical Water, Sewer, and Stormwater infrastructure to ensure the City's grant eligibility (Q1)</li><li>• Work with State and Federal Delegations to seek assistance with utility Infrastructure (Q2)</li></ul>	<ul style="list-style-type: none"><li>• Evaluate rate structure for targeted reinvestment in Astoria utility (Q1 or Q2)</li><li>• Work with State and Federal Delegations to seek assistance with utility Infrastructure (on-going)</li></ul>





# Overview

- ▶ Background Information
- ▶ Infrastructure Funding Strategy
- ▶ Capital Improvements Project List





# Background Information

- Community Vision established through City Council Work Plan (2023-2028)
- Work Plan identified the development of a plan to reinvest in critical infrastructure
- Goals of the Capital Improvement Plan
  - Maintain infrastructure in a safe, reliable, sustainable service, and prepare for growth
  - Consider system needs identified from different sources and balance priorities with available/anticipated financial resources over a 5-year period
  - Overall Capital Improvement Plan needed to pursue grant/loan funding
- Why our plan is different from a typical Capital Improvement Plan
  - Existing financial gap between needs and resources
  - Project list dictated by available grants and our most critical needs
  - If we can achieve a sustainable funding level and have dedicated capital improvement funding, then our process for reviewing priorities can change



# Background Information

- Existing Capital Improvement Plans (in other documents)
  - Water System Master Plan (WSMP)
  - Transportation System Plan (TSP)
  - CSO Master Plan
  - WWTP Facilities Plan
- Key Purposes
  - Prioritization
  - Budgeting
  - Strategic Planning
  - Transparency
  - Risk Management
- Dynamic Document
  - Based on priorities and financial constraints at a specific moment in time
  - Affected by regulatory requirements, changing system demands, updated information about conditions and priorities, and unforeseen funding opportunities



# Background Information

## **Most cities have these:**

- Water System
- Sanitary Sewer System
- Storm Water System
- Streets

## **Some cities have these:**

- Reservoirs
- Water Treatment Plant
- Watershed Forest
- Timber Harvest Program
- Hydro Power
- Utility Tunnels
- Wastewater Treatment Plant
- Pump Stations
- Street Light Maintenance

- CSO Facilities
- River Outfalls
- Docks
- Deteriorated Street System
- Brick & Concrete Streets
- Vaulted Sidewalks
- Landslides
- Shoreline Maintenance
- Sanitation Landfill
- Old Active Trolley System
- Bridges
- Timber Trestles
- Old Navy Base
- Coast Guard Facilities
- Brownfield Sites

***Astoria is responsible for all these items***



# Background Information

- City Population
  - 10,000 for over 100 years – flat growth
  - Minimal new customers
  - Disadvantaged community per Justice 40 (*link in plan document*)
- Age of Infrastructure
  - 50-125 years old
  - Outdated materials and technology in many cases
  - Much of the infrastructure in geologically unstable areas
- Water Infrastructure
  - Estimated value of \$440 million
  - Originally built in 1895
  - Many 1895 waterlines are still in service (about 5 percent)
  - 680 million gallons treated and distributed annually
  - 80 miles of waterline
  - 2021 WSMP identifies nearly \$80 million in needed improvements





# Background Information

- Wastewater Infrastructure
  - Estimated value of \$182 million
  - WWTP, interceptor system & sewage lift stations built in 1974
  - Collection system age varies significantly, with most of it being quite old, dating back to the early 1900s
  - 1-20 million gallons of sewage is treated daily, with fluctuations largely dependent on precipitation levels
  - 72 miles of sewage collection piping
- Stormwater infrastructure
  - Estimated value of \$182 million (including CSO facilities)
  - 35 miles of storm collection piping
  - 651 storm manholes
  - 1,838 catch basins



# Background Information

- **Combined Sewer Overflow Program**
  - \$50 million program started with a CSO Facilities Plan completed in 1998
  - First construction project started in 2004
  - 4 of 5 Phases complete
  - Approximately \$32 million spent on the program to date with an anticipated \$18+ remaining
  - Current debt service is about \$18 million
  - CSO surcharge rate is currently 97 percent of the sewer bill
- **Transportation Infrastructure**
  - Estimated value of \$397 million
  - 8 of 9 bridges replaced to date with ODOT Bridge STIP funds
  - Irving Bridge at 33<sup>rd</sup> needs replacement at an estimated cost of \$14.2 million
  - 55 miles of roads in the City
  - Currently paving approximately \$500,000 every 2 years using a 3% local fuel tax
  - Rate of paving is approx. 8% of the recommended rate per pavement management software
  - 2013 TSP identified \$49.2 million in projects, some completed



# Background Information

- Natural Hazard Mitigation
  - Our 2021 Clatsop County Multi-Jurisdictional Natural Hazards Mitigation Plan identifies the following mitigation actions pertinent to public works infrastructure:
    - Replace Irving Avenue at 33<sup>rd</sup> Street Bridge
    - Evaluate the vulnerabilities of the water system (transmission main, water pipes and dam) – partially complete
    - Mitigate the vulnerabilities of the water system to ensure disaster resiliency
    - Relocate Public Works Facility
    - Conduct a Risk & Resilience Assessment (RRA) and Emergency Response Plan (ERP) of Astoria's drinking water system – complete
    - Improve drainage in forested areas at higher elevations above City to reduce the potential for landslides
    - Staff has identified 6 north slope areas that need drainage improvements:
      - Irving Avenue from 20<sup>th</sup> Street to 22<sup>nd</sup> Street – done
      - 1st & Commercial Streets – done
      - East of 38<sup>th</sup> Street and Irving Avenue
      - Irving Avenue from 33<sup>rd</sup> Street to 38<sup>th</sup> Street
      - Irving Avenue from 29<sup>th</sup> Street to 33<sup>rd</sup> Street
      - Irving Avenue & 19<sup>th</sup> Street – North of Bridge



# Background Information

- **Current Utility Rates**
  - Overall utility bill averages \$168 per month (includes water, sewer and CSO Surcharge)
  - Current rates only support operations and maintenance. Capital Improvement Projects are currently dependent on grants and loans
- **Levels of Funding**
  - 1) Operations and maintenance (O&M) only – current level of funding
  - 2) O&M and Capital Improvements – currently, all capital improvement is dependent on grants or loans with accompanying increased debt service
  - 3) O&M, Capital Improvements and Resilience Projects (pro-active)
- **Funding Sources**
  - Water & Sewer Rates and Fuel Tax – primary
  - Debt Financing/Low-Interest Loan Programs
  - System Development Charges (SDC) – recent funding source for City
  - Bonds and LID – not used
  - Urban Renewal District Funding – not available
  - Room Tax (Promote Astoria) – not available



# Background Information

- Rate History
  - Pattern of low water rate increases since CSO program implementation
  - We currently have among the lowest water and sewer rates in our region but a higher overall utility bill due to CSO Surcharge
  - Bi-monthly billing gives perception of higher bill
- Level of Infrastructure Reinvestment
  - Not meeting any standard practice
  - Water example:
    - $\$440,000,000 / 50 \text{ years} \times 50\% \text{ needing replacement} = \$4,400,000/\text{year}$
  - Following the React & Repair Strategy





# Background Information

- **WSMP and TSP Plan Rate Recommendations**
  - Water – 27.7% in 2022 and 2-3% each year for priority projects only and 100% and 4-5% each year (in addition to inflationary increase) for all projects (Plan was adopted in May 2021 acknowledging that this was not acceptable)
  - TSP - \$49.2 million in projects – recommended a Transportation Utility Fee, increasing our local fuel tax, System Development Charges, Lodging Tax or General Fund revenue
- **Existing Financial Summary**
  - CSO surcharge is impacting our ability to adjust water and sewer rates to address:
    - Lack of funding to adequately replace aging infrastructure
    - Lack of funding to hire additional public works staff to operate and maintain current infrastructure
    - Astoria has a competitive disadvantage to cities in the Portland Metro Area when recruiting, maintaining, and compensating skilled public works staff to operate our utilities. Public works invest a lot of time and money into developing well-trained and educated staff who must possess and maintain licenses and certifications required by law. Losing staff is a tremendous financial loss to our community.
    - Staff capacity limits Public Works' ability to invest more time in training, proactive maintenance and emergency preparedness.



# Highest Priority Projects

## WATER

- Pipeline Road Waterline Resilience Project (*funded*) - \$2,930,000
- 16th St. Distribution Waterline Replacement Project (*funded*) - \$2,790,000
- Irving Ave. (20th - 28th St.) Waterline Resiliency Project (*funded*) - \$1,894,662
- Spur 14 Intake (*unfunded*) - \$600,000
- Install 1.1 Million Gallon Clearwell Tank & Laboratory at the Water Treatment Plant (*unfunded*) - \$6,000,000
- Little Bear Creek Waterline (*unfunded*) - \$3,400,000
- 16th St & Jerome to 18th & Irving Waterline Resilience Project (*unfunded*) - \$1,000,000
- Bear Creek Dam Emergency Spillway Project (*unfunded*) - \$3,878,000



# Highest Priority Projects

## WASTEWATER

- Wastewater Treatment Plant Headworks Improvements Project (*funded*) - \$9,869,232
- Sewage Lift Stations Rehabilitation Project (*funded*) - \$3,670,000
- Collection System Assessment & Master Plan (*unfunded*) - \$1,500,000
- Sanitary Sewer Pipe Interceptor Comprehensive Evaluation (including cleaning) and Replacement or Rehabilitation Project (*unfunded*) - \$10,000,000



# Highest Priority Projects

## STORM

- Pre-disaster Landslide Storm Drainage Project (FEMA project) (*funded*) - \$901,875
- 11th Street Tunnel Repair Project (*unfunded*) - \$500,000
- West Craig Creek - rehab, replace or reroute (*unfunded*) - \$2,000,000
- Replace Street End Corrugated Steel Outfall Pipes (*unfunded*) - \$1,500,000
- 7th & Clatsop Stormline Extension (*unfunded*) - \$300,000
- Irving & 38th Storm Inlet & Stormline Relocation Project (*unfunded*) - \$1,000,000



# Highest Priority Projects

## TRANSPORTATION

- Paving Project;  
every 2 years  
*(funded)* - \$500,000
- Irving at 33rd Street  
Bridge Replacement  
*(unfunded)* -  
\$14,200,000



*Waterfront Bridges Replacement Project*





# Infrastructure Funding Strategy

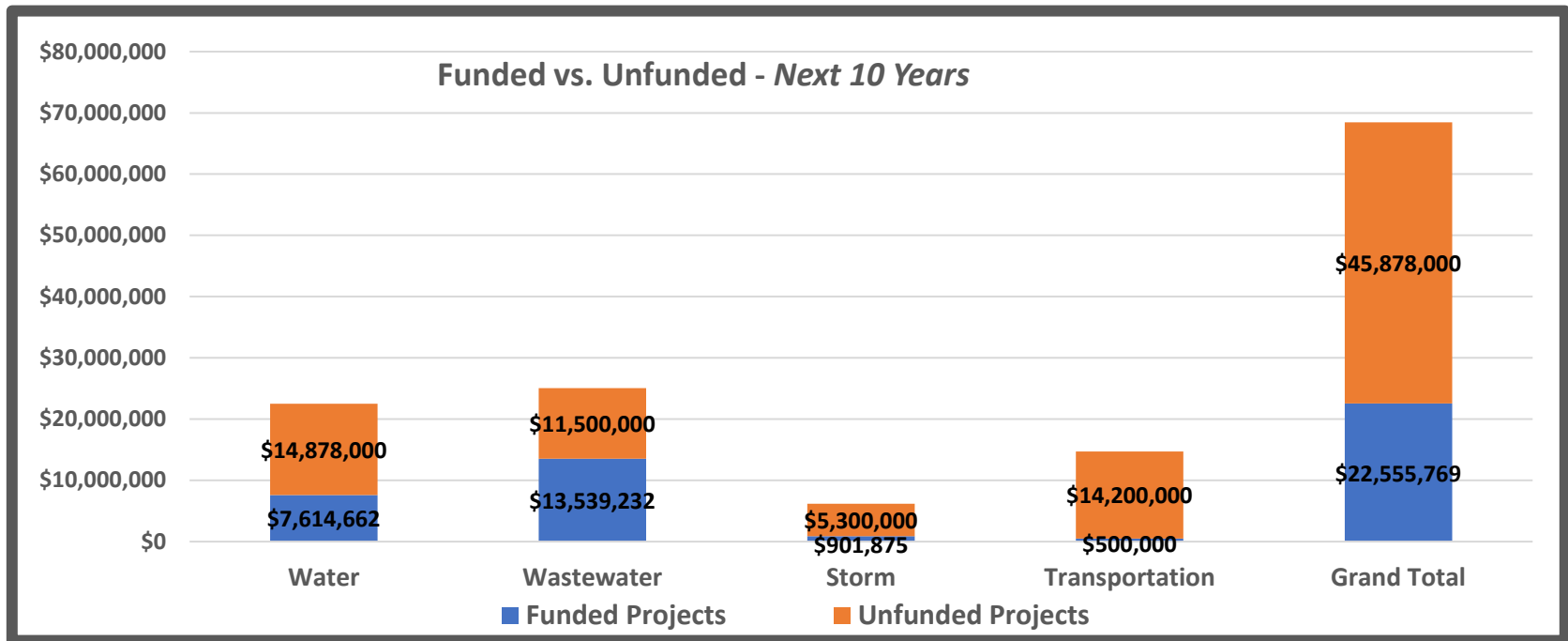
- Formally Adopt CIP
  - CIP Project List - Priorities for the next 10 years with a focus on the next 5 years
  - Asset Inventory - Value of our Infrastructure – \$1.1 Billion
- Complete currently funded projects
- Focus on new grant opportunities with low or no-match requirements
- Recommend minimum 3% rate increases necessary to keep up with current level of service – 40-year inflation
- Request CSO program time extensions to relieve CSO surcharge rate and allow some existing debt to be paid off and seek grant opportunities – Integrated Plan
- Establish a reserve fund strategy



*23<sup>rd</sup> Street & Marine Drive  
Rectangular Rapid Flashing Beacon Project*



# Capital Improvement Project Funding



System	Funded Projects	Unfunded Projects	Total
Water	\$7,614,662	\$92,168,000	\$99,782,662
Wastewater	\$13,539,232	\$59,525,000	\$73,064,232
Storm	\$901,875	\$10,550,000	\$11,451,875
Transportation	\$500,000	\$67,640,400	\$68,140,400
Grand Total	\$22,555,769	\$229,883,400	\$252,439,169



# How we have been funding Capital Improvement Projects

PROJECT NAME	FUNDING AGENCY	GRANT AMOUNT
11th Street CSO Separation	ODOT	\$100,000
11th Street CSO Separation	IFA	\$600,000
16th Street CSO Project (Ph 4)	IFA	\$525,000
17th Street Dock Reconstruction		
Connect OR III	ODOT	\$3,804,800
	OSMB	
17th Street Floating Dock	Oregon State	
Repair/Replacement	Marine Board	\$52,329
33rd St & Lief Erikson Street Lights	ODOT	\$17,256
37th & Lief Erikson Pedestrian Improvements Sidewalk/Crosswalk Construction	ODOT	\$284,500
AHS Sidewalk & Culvert Improvements (ODOT/Hwy 202)	ODOT	\$100,000
Bear Creek Dam HYDROELECTRIC PROJECT	IFA	\$399,600
Bear Creek Dam Seismic Study Phase 1	OWRD	\$50,000
Bear Creek Dam Seismic Study Phase 2	OWRD	\$104,000
Bear Creek Dam Waterline		
Relocate/Replace Waterline on Main Dam	IFA	\$0
Bond Street Waterline Replacement	FEMA	\$450,038
Crosswalk & Signs Project	ODOT	\$48,000
CSO Modeling Support	IFA	\$20,000
Denver CSO Storage	ARRA	\$2,000,000
Denver CSO Storage	DEQ	\$0
Franklin Street Bridge Replacement		
	ODOT	\$3,069,663
Geological Mapping Update Grant	DLCD	\$5,000
HVAC Upgrades Energy Efficiency & Conservation	ODOE	\$182,000
Irving Ave Bridge @ 19th Replacement	ODOT	\$5,486,990
Landfill Closure & Redevelopment	IFA	\$0
Landfill Closure Study	DEQ	\$100,000
Old Hwy 30 and Maritime Road Ownership and Access Rights	IFA	\$51,000
Overlay Various Streets	ODOT	\$215,779
Pipeline Road Relocation	FEMA	\$159,141
Pipeline Road Relocation Geological Study	FEMA	\$30,000

PROJECT NAME	FUNDING AGENCY	GRANT AMOUNT
Pipeline Road Resiliency Study	IFA	\$15,500
Pump Station No. 1 Upgrades	Energy Trust	\$72,940
Reservoir Covers PHASE II		
Cover Reservoirs #2 & #3	IFA	\$250,000
Water System Master Plan Update	IFA	\$20,000
Windstorm Damage 2015	OEM	\$187,500
Windstorm Damage 2015	IFA	\$62,500
WWTP Effluent Treatment Upgrades	IFA	\$500,000
WWTP Headworks Concept Design	IFA	\$20,000
Industrial Pre-treatment / Financial Feasibility Study	IFA	\$20,000
Lift Station 3 VFDs	Energy Trust	\$12,882
OR 202 Waterline Replacement	ARPA	\$1,000,000
Street End Structures	ODOT	\$8,200,000
Waterfront Bridges	ODOT	\$1,455,561
Waterfront Bridges	IFA	\$28,333
	ARPA Discretionary Funds	
OR202 Waterline Replacement Project		\$1,700,000
16th Street Distribution Waterline Replacement	IFA	\$2,790,000
23rd St. & Marine Dr. Rectangular Rapid Flashing Beacon	ODOT	\$390,245
OR 202 Sidewalk Project	ODOT	\$3,743,450
Pipeline Road Waterline Project	IFA	\$2,930,000
Pre-Disaster Landslide Storm Drainage Project	IFA	\$225,468
Pre-Disaster Landslide Storm Drainage Project	OEM	\$676,875
WWTP Headworks Improvement Project	IFA	\$4,860,000
WWTP Headworks Improvement Project	IFA	\$425,000
	Congressionally Directed Spending	
Irving Ave (20th-28th) Waterline Rehabilitation Project		\$1,895,000
Sewer Lift Stations Rehabilitation Project	DEQ	\$59,960
Sewer Lift Stations Rehabilitation Project	DEQ	\$185,880
Sewer Lift Stations Rehabilitation Project	DEQ	\$150,000

**Total Funds Secured (since 2006): \$49,732,190**



# Next Steps

- Staff Recommends
  - Council review draft for 30 days
  - Post plan on website and notices on Facebook for 30 days
- Receive feedback from Council and public
- Make final edits
- City Council adoption in March
- Follow the Plan and update as necessary



# Discussion/Questions?



*16<sup>th</sup> Street Distribution Waterline Tunnel*