Capital Improvement Program

Projects in the CIP address the highest likelihood of failure – of not meeting the level of service – and the highest consequence of that failure.

The bureau estimates the replacement value of its constructed assets at over $13 billion. Constructed assets have a useful life ranging from as little as 30 years for mechanical elements to over 100 years for gravity pipe. Projects are funded in four program areas: Sewage Treatment (for projects at the two treatment plants and the nearly 100 pump stations and associated force mains), Maintenance and Reliability (for projects to address the sewage and/or stormwater collection system – generally for condition or capacity), Surface Water Management (for stormwater management including water quality and for watershed health), and Systems Development (for system expansion to unserved properties or projects in conjunction with other infrastructure development, most often transportation improvements).

The CIP Project LifeCycle – Typical Timeline and Work Products
FY 2016 – Major Accomplishments
(FY 2016 expenditures: $75 million)

- Wrapping up nearly 10 years (and more than $80 million) of work on the Fanno Basin Improvements including a new pump station, new force mains, and enhancements to the gravity system. Basin covers much of southwest Portland.
- Completed several large-scale sewer rehabilitation projects totaling nearly $60 million.

FY 2017 – Highlights
(FY 2017 budget: $108 million)

- Completing the majority of the capacity projects for the Tabor to the River program – a multi-disciplinary approach to achieving the bureau’s level of service to convey the 25-year storm without overflows in the combined sewer area. An estimated 550 basements and 130 street locations will be protected from sewage releases. The capital projects upsized pipe and constructed green street facilities. Other elements of the program include private property retrofits and tree planting. Infiltration of stormwater reduces the volume in the collection system, protects the tunnel sizing, and reduces the flow to the treatment plant.
- Continuing the large scale sewer rehabilitation program focused on addressing pipes with the highest likelihood and consequence of failure in the next 10 years.
- Construct a sewer extension along Terwilliger Blvd. to serve 103 developed properties and 158 future properties.
- Early work on big projects at the two treatment plants.
- Early work in the Columbia Slough to address water quality at public stormwater outfalls.

FY 2018 and 5-year Forecast

- Major reconstruction at Tryon Creek Wastewater Treatment Plant in Lake Oswego. This project is jointly funded with Lake Oswego. Several motivating factors include the need to modernize the plant (built in the 1960s and has had minimal investment since), the permit is coming up for renewal – anticipating more stringent discharge requirements, and the need to be a better neighbor as the area adjacent to the plant redevelops.
- Major investments at Columbia Boulevard Wastewater Treatment Plant. Need to expand secondary treatment, partly as a result of increased flow to the plant from the CSO tunnels. Expansion of secondary treatment triggers a number of related projects including replacing the function currently located on the secondary expansion site and modification to the odor control system. The updated facilities plan recommends a number of projects to address plant condition. Also at CBWTP: the biogas and organic waste projects.
- Ongoing investments in our pump stations and force mains; pipe rehabilitation; capacity-related pipe projects; and inflow and infiltration projects in southwest Portland.
- Rehabilitation of large-diameter interceptor sewers.
- Several small surface water projects with multiple objectives including flood management, habitat enhancement, and overall water quality enhancement.
- Early action projects to address our incomplete stormwater system.
- Regulatory driven work in the Columbia Slough.

Where are we in the budget development cycle?

- New project requests are due late September to be scored in late October. The requested draft 5-year CIP will be developed in November. The earliest a new project would start would be July 2018.
- New projects come from planning documents for the various elements of our system: treatment plants, pump stations, combined and sanitary collection system, stormwater system, and watersheds.
- We know what most of the requests will be, but we don’t know the urgency or the costs at this point.
- Projects underway (either in design or construction) represent the majority of the CIP.

Risks to project delivery:
During the CSO program years, the CIP was made up of a few very large projects and a small number of small projects. Now, there are many more individual projects in the CIP. Smaller projects have an inverse impact of staffing resources compared to large projects. We are trying to deliver more projects with the same number of staff.