



Adopted Capital Improvement Program

FY 2018-2022



CITY OF CORVALLIS, OREGON

DRAFT FY 2018-2022 Capital Improvement Program (CIP)

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“Enhancing Community Livability”

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Introduction

The City's Capital Improvement Program (CIP) captures projects and investments needed to sustain the services the community expects and to be good stewards of City resources and infrastructure systems. This document reflects the City's plans for capital investments over the next five years.

Purpose of a CIP

The City has a goal, and a commitment to the community, to provide quality public services. To successfully accomplish this requires deliberate planning to move the organization and the community toward a desired future. This requires effective management of the infrastructure under significant forces of change. These forces include changing demographics, new state and federal regulations, fiscal constraints, changing economic conditions, and emerging technologies.

The CIP is a tool to help the community identify and plan the capital investments to keep pace with changing needs. The CIP provides the City Council, community members and staff with a plan that will:

- Preserve existing City property and infrastructure;
- Provide new facilities and infrastructure to accommodate an orderly, well planned expansion of the community; and
- Enhance livability within the community.

As long-term infrastructure system and facility needs are evaluated and the five-year forecast is developed, the CIP Plan identifies the current and future capital needs in each service area, prioritizes the proposed capital projects to focus efforts on the highest need, and attempts to match available financial resources to those capital needs.

CIP Plan Development

Development of the CIP begins over the summer months as the City solicits ideas and suggestions from the community. This input is reviewed and ideas that address capital improvement projects are referred to the appropriate City department.

Master plans, maintenance records, and recent experience with the infrastructure are also consulted to identify projects that are important to move forward within the five-year CIP Plan.

Review and adoption of a new plan each year allows the CIP to adapt to changing circumstances that require refinement of projects. For instance, a project related to development, like a new water storage reservoir, might be deferred for a few years if the development has not occurred as expected.

The identified project needs are then compared against available resources. Advisory Boards, such as the Parks, Natural Areas, and Recreation Advisory Board and the Bicycle and Pedestrian Advisory Board are included in a prioritization process on the potential projects. Those projects at the top of the priority list are refined in terms of scope, budget,

and funding source, and included in a draft CIP Plan document.

The draft Plan is reviewed with the Planning and Budget Commissions at a joint meeting. This provides the Commissions an opportunity to get a more refined understanding of the capital infrastructure condition, and to ask questions and/or revise the information before making a recommendation to the City Council regarding the Plan's adoption.

The final CIP document is a planning tool for the City Council, community and staff. The projects in the first year of the Plan are adopted in the City's fiscal year budget process. Years two through five of the CIP are a forecast of the anticipated capital need.

Funding for CIP Projects

It's important to recognize that there is not enough funding available to address all the capital needs the City has. In addition, many funding sources are restricted in what they can be used for. For instance, Water Fund revenues can only be spent on water infrastructure and cannot be used to make street improvements.

Most CIP projects are funded through operating revenues, System Development Charges, and grants. Operating revenues are funds the City receives from fees and charges to customers or taxes to residents. Using ongoing revenues to support capital projects aligns with the Council's Financial Policies, which encourage a pay-as-you-go approach to projects and discourage the accumulation of debt. The pay-as-you-go philosophy helps the City to live within its means and not create a burden for future generations.

System Development Charges (SDCs) are similarly restricted, but the limitations go a step further. SDCs are charges paid by property owners when they develop their property in a way that will result in additional demand on the water, wastewater, storm water, parks, and/or street infrastructure systems. These revenues only can be used to pay for projects that add capacity to provide more service in those systems. For example, if future demand on the water system requires that an 8" line be upsized to a 12" line, the cost difference between installing an 8-inch and a 12-inch line are eligible for funding by SDCs.

Grants are one-time sources of money. The City actively looks to obtain grants where available. Grants typically require a percentage of the project be funded by a local source of money, called a 'match'. Funds from grants are restricted to the purpose that the grant was awarded for. To rely on grants as a main source for sustaining or improving the infrastructure is not the most prudent approach. The money may or may not be there when it is needed, there is often a competitive process to secure the funds, and the decisions are made outside the control of the Corvallis community.

Not all projects can be completed on a pay-as-you-go basis due to their cost or limits to available funding. In these situations, the City may use financing tools such as General Obligation bonds, revenue bonds, bank loans, or State Revolving Fund programs. It's important to remember that bonds and bank loans are not a source of revenue; they are only financing options. The sources of revenue to pay for the projects are the taxes or rates that secure the bonds or loan.

A General Obligation (GO) bond must be approved by a vote of the people before it can be issued. This is because GO bonds result in an additional property tax burden above and beyond the property tax otherwise paid. The bonds are repaid by the revenue from the tax and the tax lasts only for the life of the bonds, usually 15 to 20 years.

Revenue bonds are not backed by property taxes and are repaid out of specific operating revenues, such as wastewater rates for a wastewater revenue bond.

Projects can have funding from more than one source. For instance, a major upgrade to an arterial street could be funded by Street operating revenues for the reconstruction and Street SDCs for the addition of bike lanes and a left turn lane.

CIP Plan Document

The CIP document is broken down into sections for each of the major infrastructure services the City provides—airport, buildings, parks and recreation, storm water, transportation, wastewater, and water. Each section provides:

- A brief overview of the infrastructure system and a summary of the funding sources for the projects included in the Plan.
- A list of the projects scheduled by year.
- Pages for each project. These pages show the department that has responsibility for the project, the total estimated cost, a description of the work to be done, the fiscal year for design and/or construction, and the funding source or sources.
- A listing of known projects, typically from a master plan, that are currently unfunded. This information helps to provide a more complete picture of the long-range CIP needs of the community.

On the project page, the driver for the project is identified in the Origination section. Examples of project drivers are master plans, system evaluations, asset management plans, advisory boards, community members or regulatory agencies. Also, a Category is assigned to provide a quick identifier for the City Council and the community about the benefit of the project. A project classified as Community Preservation is one that will maintain or improve existing levels of service. An Infrastructure Development project constructs new facilities or infrastructure to provide for the orderly development of the community over time, usually based on adopted master plans or in response to a State or federal mandate for increased levels of service. The Community Enhancement category captures projects that add to community livability. Community Preservation projects will tend to be of higher priority because of the City's emphasis on maintaining existing service levels to the community. Flexibility exists in the prioritization of Infrastructure Development and Community Enhancement projects depending on the pace of community expansion, available resources, and/or regulatory requirements.

The document ends with a glossary of terms commonly used when describing CIP projects and funding sources.



Airport

AIRPORT

The Public Works Department is responsible for the operation and maintenance of the 1,520-acre municipal airport and industrial park property. Located four miles south of the central business district, the property is outside the city limits but within the Urban Growth Boundary.

The airport, encompassing approximately 1,300 acres, has one of the highest 'use' rates (landings/take-offs) of any non-towered airport in Oregon. The airfield has two runways: the primary runway (17-35) is 5,900 feet in length and the secondary runway (9-27) is 3,345 feet in length. Maintenance needed on airport buildings, T-hangars, grounds, taxiways, and runways is completed by City staff or contracted service providers. The City owns and manages five hangar buildings at the site, with a capacity to house 54 aircraft.

In 2013, the City completed an Airport Master Plan that includes recommended capital projects at the airfield for a 20-year timeframe. Many of these are major construction projects that are eligible for grants from the Federal Aviation Administration (FAA), with that entity typically funding 90% of the total cost.

To the north of the airport is a City-owned industrial park available for light- to intensive-industrial uses. The industrial park is the largest industrially zoned area in the Urban Growth Boundary; making this land available promotes local economic development opportunities.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIP budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Cargo Road and Apron Paving

Completed. Main Hangar Upper Wall Siding Replacement

In Process. Main Hangar Roof Replacement
Scheduled for construction in March, 2018.

In Process. Runway 9/27 Overlay
Design will be completed this fiscal year for construction in spring 2018.

Deferred. The South Corvallis Drainage Improvements project has been listed in the CIP for a number of years. Before a project can be implemented, a policy for assessing existing and future tenants will need to be established. Interim funding strategies will also need to

be developed since the availability of assessment funding may not match the timing of storm water improvements.

Funding Summary

The following table shows the total dollar amount projected for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the Engineering News-Record (ENR) construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Airport Operating Revenue	\$0	\$200,900	\$120,000	\$0	\$575,000	\$895,900
GRAND TOTALS	\$0	\$200,900	\$120,000	\$0	\$575,000	\$895,900

Capital Improvement Program 2018-2022

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
	\$0
Total for FY 2017 - 2018	\$0
Plan Year: 2018-2019	
Main Airport Hangar West Wall Siding & Hangar Door Replacement	\$200,900
Total for FY 2018 - 2019	\$200,900
Plan Year: 2019-2020	
Main Hangar North Wall Siding & Window Replacement	\$120,000
Total for FY 2019 - 2020	\$120,000
Plan Year: 2020-2021	
	\$0
Total for FY 2020 - 2021	\$0
Plan Year: 2021-2022	
T-Hangars 5600 & 5620 Rehabilitation	\$575,000
Total for FY 2021 - 2022	\$575,000
Grand Total for Airport:	\$895,900

Capital Improvement Program 2018-2022

FY 2019-20 MAIN AIRPORT HANGAR NORTH WALL SIDING AND WINDOW REPLACEMENT

Department: Public Works

Category: Community Preservation

Origination: Building Maintenance Plan (Ongoing), Airport Master Plan and Maintenance Condition Assessments

Total Cost: \$120,000

Project Description: The Corvallis Municipal Airport is located approximately five miles south of the City's downtown on Airport Avenue and currently offers private and corporate aircraft services to the Corvallis community. Numerous projects over the years have improved utility systems, aircraft T-hangar storage, lighting, navigational aids, runway, and taxiways. The airport has one fixed-base operator stationed in the Main Airport Hangar that provides fueling and aircraft maintenance services which are critical to airport operations.



This project has been identified from building condition assessments on the Main Airport Hangar and will replace the north wall siding and windows. Building improvements will provide a safe and effective work environment for continued fixed-base operations.

Assumptions: Upgrades to the facilities are dependent on the availability of funding from revenues generated through airport enterprise activities. Projects may be deferred if resources are not sufficient or if there are higher priority projects where the revenue is needed to match FAA grant projects.

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 19-20
Airport Operating Revenue	\$120,000

Capital Improvement Program 2018-2022

FY 2021-22 T-HANGARS 5600 & 5620 REHABILITATION

Department: Public Works

Category: Community Preservation

Origination: Building Maintenance Plan (Ongoing), Airport Master Plan and Maintenance Condition Assessments

Total Cost: \$575,000

Project Description: The Corvallis Municipal Airport is located approximately five miles south of the City's downtown on Airport Avenue and currently offers private and corporate aircraft services to the Corvallis community. Aircraft storage is provided with 42 paved tie-downs and 10 T-hangars, five of which are owned by the City. The airport derives its revenue from land and building rentals; keeping the hangars in good repair secures revenue for airport operations. This project will rehabilitate two of the hangars by repairing internal structural components and replacing siding and roofs.



T-hangar 5600

Assumptions: Upgrades to the facilities are dependent on the availability of funding from revenues generated through airport enterprise activities. Projects may be deferred if resources are not sufficient or if there are higher priority projects where the revenue is needed to match FAA grants.

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

Airport Operating Revenue FY 21-22
\$575,000



T-hangar 5620

Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City’s infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure over the next 10-20 years. These projects are considered “unfunded” because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Airfield and Ground Facilities	Projected Total
Main Apron Reconstruction	\$6,170,000
Apron Expansion (REACH area)	\$400,000
Construct Eastside Taxilane	\$480,000
Replace Airfield Signage	\$520,000
Wetlands Delineation/Mitigation East of Runway 17 Threshold	\$180,000
Acquire Runway 17 Runway Protection Zone Property (19 acres)	\$230,000
Main Apron Public Expansion	\$650,000
Upgrade Approach Lighting for Runway 17-35	\$240,000
Install Runway End Identification Lights	\$110,000
Wildlife Hazard Assessment	\$73,000
Environmental Documentation for Runway Extension	\$250,000
Acquire Land for Runway 17-35 Extension (62 acres)	\$740,000
Extend Runway/Taxiway 35 by 600-Feet	\$1,390,000
Add Medium-Intensity Approach Lighting System	\$2,000,000
Environmental Documentation for West Side Taxilane	\$50,000
Connect West Side Taxilane	\$110,000
Convert Center Taxilane to Airport Entrance Road	\$210,000
Acquire Runway 27 Runway Protection Zone Property (11 acres)	\$160,000
Reconstruct Taxiway A at Runway 27 Threshold	\$500,000
Runway 9-27 Rehabilitation	\$770,000
Runway 17-35 Rehabilitation	\$2,760,000
Airport Drainage Improvements	\$5,500,000
	\$23,493,000
Total for Unfunded Airfield	\$23,493,000

Airport Buildings	Projected Total
Security Cameras	\$20,000
Tenant Restroom	\$120,000
Construct T-hangar Taxilane Stubs	\$510,000
Construct Box Hangar Taxilane Stubs	\$300,000
Public Apron for Box Hangars	\$570,000
Box Hangar Pavement	\$260,000
Hangar Parking/Through Road	\$260,000
Reconfigure Hangar Door	\$20,000
Wash Rack and Oil Separator	\$80,000
Tenant Restroom Expansion	\$120,000
General Aviation Terminal Building	\$1,500,000
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Total for Unfunded Buildings	\$3,760,000
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Grand Total for Unfunded Airport	\$27,253,000



Buildings

BUILDINGS

The City provides a safe and effective environment for staff to work and the public to access services, as well as for the City Council and Council advisory groups to meet. We do this through a maintenance and rehabilitation program for our facilities. In the system, there are five buildings with a main focus of providing services to the public, such as the Library, Senior Center, and Aquatic Center, and there are 14 buildings that serve primarily as staff work areas, such as fire stations, Madison Avenue Building, City Hall, and Public Works.

Building assessments are conducted to identify asset performance and integrity, and to generate long-range plans for asset replacement or rehabilitation. These include building systems (HVAC) and structural components (roof). Extending the life of the facility, while enhancing the sustainability of building operations is a key objective. Many types of regulations mandate facility maintenance activities, including Fire Code, Building Code, Occupational Safety and Health Administration regulations, and the Americans with Disabilities Act.

Much of the work to maintain and operate the facilities is performed with City crews. Capital projects or major replacements (i.e., remodels, seismic upgrades) are performed through contracts.

The primary source of capital improvement projects is the 20-year building maintenance plan for each facility that is generated from periodic assessments. A maintenance plan provides for efficient planning and implementation of infrastructure improvements to ensure the community receives the best return on its investment in public buildings.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIP budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Fire Stations 2 and 3 Seismic Upgrades

In Process. City Hall Masonry Rehabilitation

Phase I was completed December 2016. Phase II is scheduled for completion in FY 17-18.

Financial Challenges

The majority of the public facilities house services that are supported by property taxes, and the expenditures to maintain those facilities are paid for from the same revenue stream. Property taxes are a constrained source, and most often the public demands these dollars be focused on direct services to the community. This often creates a competition between service delivery and proactive asset management and, as a result, building maintenance

work is deferred in favor of other pressing needs. A building maintenance reserve was created in FY 16-17 to begin setting money aside to put the City in a better position to address expected major facility projects in the next 10 years.

Funding Summary

The following table shows the total dollar amount for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the ENR construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
General Fund Operating Revenue	\$24,000	\$305,000	\$60,000	\$103,500	\$0	\$492,500
GRAND TOTALS	\$24,000	\$305,000	\$60,000	\$103,500	\$0	\$492,500

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
Library 2nd Floor Patio Enclosure	\$244,000
Seismic Upgrades to Madison Avenue Building	<u>\$85,000</u>
Total for FY 2017 - 2018	\$329,000
 Plan Year: 2018-2019	
	<u>\$0</u>
Total for FY 2018 - 2019	\$0
 Plan Year: 2019-2020	
Art Center Roof Replacement	<u>\$60,000</u>
Total for FY 2019 - 2020	\$60,000
 Plan Year: 2020-2021	
Seismic Upgrades to Municipal Court Building	<u>\$103,500</u>
Total for FY 2020 - 2021	\$103,500
 Plan Year: 2021-2022	
	<u>\$0</u>
Total for FY 2021 - 2022	\$0
 Grand Total for Buildings:	 <u>\$492,500</u>

Capital Improvement Program 2018-2022

FY 2017-19 LIBRARY 2ND FLOOR PATIO ENCLOSURE

Department: Public Works

Category: Infrastructure Development

Origination: Building Maintenance Plan (Ongoing)

Total Cost: \$244,000

Project Description: The Library Advisory Board has developed a new Strategic Plan that will guide services for the next five years. In alignment with the Plan’s goal to improve library facilities, this project will construct a patio enclosure on the northeast corner of the 2nd floor of the Library that will be used for additional shelving and seating.

Assumptions: Parts of the Library are a Designated Historic Resource. Work on these structures must conform to LDC Chapter 2.9; some activities may be exempt from Historic Preservation review, others may require a Director-level Historic Preservation permit. Prior to enclosing the patio, a Planned Development Modification will need to be approved by the Planning Commission.



Operating Budget Impacts: None

Estimated Useful Life: 50 years

Project Funding Source:

	FY 17-18	FY 18-19
General Fund Operating Revenue	\$16,000	\$228,000

Capital Improvement Program 2018-2022

FY 2017-19 SEISMIC UPGRADES TO MADISON AVENUE BUILDING

Department: Public Works

Category: Community Preservation

Origination: Building Maintenance Plan (Ongoing)

Total Cost: \$85,000

Project Description: The Madison Avenue Building was constructed in 1956 and remodeled most recently in 2005. The portion of the building that was remodeled was constructed in compliance with seismic code. This project will provide a seismic evaluation and construct seismic upgrades needed in the remaining portion of the Madison Avenue Building to bring it into compliance with current seismic codes.



The U.S. Resiliency Council (USRC) building rating system identifies expected consequences of an earthquake or other hazards affecting buildings. The City adheres to the third most stringent level of Gold when upgrading City-owned buildings.

Assumptions: None

Operating Budget Impacts: None

Estimated Useful Life: 30 years

Project Funding Source:

	FY 17-18	FY 18-19
General Fund Operating Revenue	\$8,000	\$77,000

2/6/17

Capital Improvement Program 2018-2022

FY 2019-20 ART CENTER ROOF REPLACEMENT

Department: Public Works

Category: Community Preservation

Origination: Building Maintenance Plan (Ongoing)

Total Cost: \$60,000

Project Description: The Art Center was constructed in 1889 and the roof was last upgraded in 1985. The roof is beginning to show signs of wear and replacement is recommended prior to failure.

Assumptions: Adherence to City LDC Chapter 2.9 is required for Designated Historic Resources in this project. Some activities may be exempt from Historic Preservation review; others may require a Director-level Historic Preservation permit.

Operating Budget Impacts: None

Estimated Useful Life: 30 years

Project Funding Source:

	FY 19-20
General Fund Operating Revenue	\$60,000



2/6/17

FY 2020-21 SEISMIC UPGRADES TO MUNICIPAL COURT BUILDING

Department: Public Works

Category: Community Preservation

Origination: Building Maintenance Plan (Ongoing)

Total Cost: \$ 103,500

Project Description: The Municipal Court Building was constructed in 1964 and remodeled most recently in 1998. The portion of the building that was remodeled was constructed in compliance with seismic code. This project will provide a seismic evaluation and construct seismic upgrades needed in the remaining portion of the Municipal Court Building to bring it into compliance with current seismic codes.



USRC building rating system identifies expected consequences of an earthquake or other hazards affecting buildings. The City adheres to the third most stringent level of Gold when upgrading City-owned buildings.

Assumptions: None

Operating Budget Impacts: None

Estimated Useful Life: 30 years

Project Funding Source:

	FY 20-21
General Fund Operating Revenue	\$103,500

Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City’s infrastructure. In most cases, these projects are the result of a building assessment, which attempts to systematically look at the needs for public infrastructure over the next 10-20 years. These projects are considered “unfunded” because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Buildings	Projected Total
City Hall Roof Replacement	\$80,000
City Hall Carpet Replacement	\$40,000
City Hall Exterior Painting	\$36,400
Madison Avenue Building Exterior Painting	\$10,000
Madison Avenue Building Carpet Replacement	\$28,000
Madison Avenue Building Roof Replacement	\$40,000
Municipal Court Building HVAC Replacement	\$13,300
Municipal Court Building Carpet/Vinyl Replacement	\$18,500
Municipal Court Building Parking Lot Repaving	\$26,000
Public Works Offices Exterior Painting	\$66,000
Public Works Offices Mechanical System Replacement	\$45,600
Public Works Offices Roof Replacement	\$181,500
Public Works Offices Carpet Replacement	\$55,200
Public Works Offices Parking Lot Repaving	\$34,500
	\$675,000
Total for Unfunded Buildings	\$675,000

Seismic Evaluations and Resulting Projects	Projected Total
City Hall Annex	TBD
Senior Center	TBD
Public Works Compound Buildings	TBD
Public Works Rental Property	TBD
Parks and Recreation Administrative Offices	TBD
Parks Equipment and Storage Buildings	TBD
	TBD
Total for Unfunded Seismic	TBD



Parks & Recreation

Parks and Recreation

The Parks and Recreation Department is responsible for the operation and maintenance of close to 1,800 acres of developed parks, natural areas and trails. City parks, trails, and natural areas are located throughout the City limits, as well as within and outside of Urban Growth Boundary.

In 2015, the City completed a Park and Recreation Master Plan that includes recommended capital projects throughout the park system for a 10-year timeframe. Many of these are major construction projects that are eligible for state and federal grants, with that entity typically funding 50% of the total cost.

Friends of Corvallis Parks & Recreation is an independent 501(c)(3) non-profit organization established in 2012 for the purpose of protecting and improving Corvallis's parks and recreation programs and facilities for all residents through fund-raising efforts.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIPs and budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Arnold Park Playground Improvements

Completed. Franklin Park Playground

Completed. Howland Plaza Bench Replacement

In Process. MLK, Jr. Park and Walnut Barn Improvements

In Process. Marys River Natural Area Trail Reconstruction

In Process. MLK, Jr. Park Restroom Design and Construction

In Process. Willamette Park Restroom Design and Construction

In Process. Bruce Starker Arts Park Playground Improvements

In Process. Chintimini Park Playground Improvements

In Process. Ronald Naasko Playground Improvements

In Process. Senior Center Expansion

Funding Summary

The following table shows the total dollar amount projected for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the Engineering News-Record construction cost index for Seattle.

Projected Total Costs

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Parks SDC	\$1,685,000	\$139,000	\$269,000	\$130,000	\$54,000	\$2,277,000
Donations	\$840,000	\$100,000	\$200,000	\$0	\$0	\$1,140,000
Reserve	\$15,000	\$0	\$0	\$0	\$0	\$15,000
GRAND TOTALS	\$2,540,000	\$239,000	\$469,000	\$130,000	\$54,000	\$3,432,000

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
ADA Circulation Pathways	\$60,000
ADA Playground Resurfacing	\$100,000
Avery Park Arboretum	\$50,000
Bruce Starker Arts Park Pond Rehabilitation Phase II	\$100,000
Senior and Community Center Expansion Phase I	\$2,230,000
Total for FY 2017 - 2018	\$2,540,000
Plan Year: 2018-2019	
ADA Circulation Pathways	\$18,000
ADA Playground Resurfacing	\$121,000
Bruce Starker Arts Park Phase III	\$100,000
Total for FY 2018 - 2019	\$239,000
Plan Year: 2019-2020	
ADA Circulation Pathways	\$125,000
Bruce Starker Arts Park Phase IV	\$200,000
ADA Playground Resurfacing	\$144,000
Total for FY 2019 - 2020	\$469,000
Plan Year: 2020-2021	
ADA Circulation Pathways	\$40,000
ADA Playground Surfacing	\$90,000
Total for FY 2020 - 2021	\$130,000
Plan Year: 2021-2022	
ADA Circulation Pathways	\$22,000
ADA Playground Surfacing	\$32,000
Total for FY 2021 - 2022	\$54,000
Grand Total for Parks and Recreation:	\$3,432,000

Capital Improvement Program 2018-2022

FY 2017-18 ADA PROJECTS – CIRCULATION PATHWAYS

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$60,000

Project Description: Provide accessible routes around parks with an emphasis on connecting playgrounds to parking areas, picnic shelters, and site amenities such as drinking fountains and picnic tables.

Assumption: ADA improvements will be prioritized based on need and current conditions.

Operating Budget Impacts: None

Estimated Useful Life: 20 years

Project Funding Sources:

	FY 17-18
Parks SDC	60,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Cloverland Park	FY 17-18	Accessible routes to play fields, picnic tables	\$25,000
Village Green Park	FY 17-18	Accessible routes to play fields, picnic tables, playground, drinking fountain	\$35,000

Capital Improvement Program 2018-2022

FY 2017-18 ADA PROJECTS – PLAYGROUND SURFACING

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$100,000

Project Description: Provide accessible impact attenuation surfacing in all non-compliant playgrounds. The surface material will be surrounded by concrete curbing with accessible ramping where needed. Staff has evaluated all existing playgrounds and has prioritized the need for ADA surfacing.

Assumption: Playgrounds are prioritized based on current condition and amount of use.

Operating Budget Impacts: \$2,900 per year

Estimated Useful Life: 20 years for perimeter curbing, 10 years for surface material

Project Funding Sources:

	FY 17-18
Parks SDC	\$100,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Central Park Playground	FY 17-18	Curbing, excavation & engineered wood fiber	\$35,000
Cloverland Park Playground	FY 17-18	Curbing, excavation & engineered wood fiber	\$43,000
Riverbend Park	FY 17-18	Excavation and engineered wood fiber	\$22,000

Capital Improvement Program 2018-2022

FY 2017-18 AVERY PARK ARBORETUM

Department: Parks and Recreation

Category: Community Enhancement

Origination: Urban Forestry Management Plan

Total Cost: \$50,000

Project Description: Create a community arboretum showcasing species that will grow and thrive in the Willamette Valley climate and soil conditions. Unhealthy trees will be removed and sold to partially fund the project. Some of the wood will be kept on site and used for interpretive kiosks. A shelter and educational interpretive materials will be constructed and installed as part of the project. An ADA compliant circulation system will take visitors around the arboretum.

Assumption: Timing and budget is dependent on timber sales. This project will be consistent with land use regulations as they apply to natural features. A vegetation management plan will demonstrate that any trees in the Highly Protected Sensitive Vegetation or Riparian Zone will be replaced with suitable species.

Operating Budget Impacts: \$2,000 per year

Estimated Useful Life: Indefinite

Project Funding Sources:

	FY 17-18
Parks SDC	\$25,000
Urban Forest Reserve	\$15,000
Timber Sales	<u>\$10,000</u>
Total	\$50,000



FY 2017-18 BRUCE STARKER ARTS PARK PHASE II

Department: Parks and Recreation

Category: Community Enhancement

Origination: Parks and Recreation Master Plan

Total Cost: \$100,000

Project Description: Bruce Starker Arts Park is a 15.7-acre park that features an amphitheater that is often used for events such as performances, concerts, weddings and parties. Grassy slopes surround the amphitheater on three sides and provides informal seating for the stage. Other amenities in the park include a large duck pond, and a small playground.



The pond requires persistent maintenance, including managing ongoing algae growth, pump failure, poor water oxygenation and weed control on the soft surface path. This project would improve the pond by replacing the existing two fountains with floating fountains to oxygenate the water, place plant material in the pond to improve the ecosystem, and a hard surface trail constructed with pavers along the pond's edge. An interpretive sign will be used as an educational tool to discuss pond/wetland ecosystems. These improvements will reduce the need for biologic and mechanical control for algae. It will also reduce staff time maintaining the pond and the existing soft surface path.

Assumption: Timing and budget is dependent on funding opportunities. This project will be consistent with land use regulations as they apply to natural features.

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

	FY 17-18
Donations	\$100,000

Capital Improvement Program 2018-2022

FY 2017-18 SENIOR AND COMMUNITY CENTER EXPANSION PHASE I

Department: Parks and Recreation

Category: Community Preservation

Origination: Park and Recreation Master Plan, Senior Center Survey, Community Requests

Total Cost: \$2,230,000

Project Description: This project is to expand the Senior Community Center to better meet the needs of the community. The project will also construct and expand a parking lot for the building and park to serve the community and meet code requirements.

Phase I includes an expansion, remodel, and construction of a parking lot. Future phases to complete the project will be determined when funding has been secured.

Assumption: None

Operating Budget Impacts: There could be an increase in utility costs, but that will be determined when the project details are complete.

Estimated Useful Life: 20 years

Project Funding Sources:

	FY 17-18
Chandler Trust	\$ 730,000
Parks SDC	<u>\$1,500,000</u>
Total	\$2,230,000



Capital Improvement Program 2018-2022

FY 2018-19 ADA PROJECTS – CIRCULATION PATHWAYS

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$18,000

Project Description: Provide accessible routes around parks with an emphasis on connecting playgrounds to parking areas, picnic shelters, and site amenities such as drinking fountains and picnic tables.

Assumption: ADA improvements will be prioritized based on need and current conditions.

Operating Budget Impacts: None

Estimated Useful Life: 20 years

Project Funding Source:

	FY 18-19
Parks SDC	\$18,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Porter Park	FY 18-19	Accessible routes to play fields, picnic tables, playground	\$18,000

Capital Improvement Program 2018-2022

FY 2018-19 ADA PROJECTS – PLAYGROUND SURFACING

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$121,000

Project Description: Provide accessible impact attenuation surfacing in all non-compliant playgrounds. The surface material will be surrounded by concrete curbing with accessible ramping where needed. Staff has evaluated all existing playgrounds and has prioritized the need for ADA surfacing.

Assumption: Playgrounds are prioritized based on current condition and amount of use.

Operating Budget Impacts: \$3,000 per year

Estimated Useful Life: 20 years for perimeter curbing, 10 years for surface material

Project Funding Source:

	FY 18-19
Parks SDC	\$121,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Village Green Playground	FY 18-19	Curbing, excavation & engineered wood fiber	\$50,000
Washington Park Tot Lot	FY 18-19	Excavation & engineered wood fiber	\$22,000
Willamette Park Playground	FY 18-19	Curbing, excavation & engineered wood fiber	\$35,000
Lilly Tot Lot	FY 18-19	Excavation & engineered wood fiber	\$14,000

Capital Improvement Program 2018-2022

FY 2018-19 BRUCE STARKER ARTS PARK PHASE III

Department: Parks and Recreation

Category: Community Enhancement

Origination: Parks and Recreation Master Plan

Total Cost: \$100,000

Project Description: Bruce Starker Arts Park is a 15.7-acre park that features an amphitheater that is often used for events such as performances, concerts, weddings and parties. Grassy slopes surround the amphitheater on three sides and provides informal seating for the stage. Other amenities in the park include a large duck pond, and a small playground. This project will improve the amphitheater with a refurbished roof, sound and lighting system, shelter from the prevailing winds, and amphitheater storage.



Assumption: Timing and budget is dependent on funding opportunities. Funding is not fully in place. If full funding is not available, the project scope may be reduced. This project will be consistent with land use regulations as they apply to natural features.

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Sources:

	FY 18-19
Donations	\$100,000

Capital Improvement Program 2018-2022

FY 2019-20 ADA PROJECTS – CIRCULATION PATHWAYS

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$125,000

Project Description: Provide accessible routes around parks with an emphasis on connecting playgrounds to parking areas, picnic shelters, and site amenities such as drinking fountains and picnic tables.

Assumption: ADA improvements will be prioritized based on need and current conditions.

Operating Budget Impacts: None

Estimated Useful Life: 20 years

Project Funding Source:

	FY 19-20
Parks SDC	\$125,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Avery Park	FY 19-20	Accessible routes and amenities throughout the park	\$125,000

Capital Improvement Program 2018-2022

FY 2019-20 BRUCE STARKER ARTS PARK PHASE IV

Department: Parks and Recreation

Category: Community Enhancement

Origination: Parks and Recreation Master Plan

Total Cost: \$200,000

Project Description: Bruce Starker Arts Park is a 15.7-acre park that features an amphitheater that is often used for events such as performances, concerts, weddings and parties. Grassy slopes surround the amphitheater on three sides and provides informal seating for the stage. Other amenities in the park include a large duck pond, and a small playground.

The project phase will add a permanent restroom to the park.

Assumption: Timing and budget is dependent on funding opportunities. This project will be consistent with land use regulations as they apply to natural features.

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

	FY 19-20
Donations	\$200,000



Capital Improvement Program 2018-2022

FY 2019-20 ADA PROJECTS – PLAYGROUND SURFACING

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$144,000

Project Description: Provide accessible impact attenuation surfacing in all non-compliant playgrounds. The surface material will be surrounded by concrete curbing with accessible ramping where needed. Staff has evaluated all existing playgrounds and has prioritized the need for ADA surfacing.

Assumption: Playgrounds are prioritized based on current condition and amount of use.

Operating Budget Impacts: \$4,200 per year

Estimated Useful Life: 20 years for perimeter curbing, 10 years for surface material

Project Funding Source:

	FY 19-20
Parks SDC	\$144,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Avery Park Play Areas	FY 19-20	Curbing, excavation & engineered wood fiber	\$144,000

Capital Improvement Program 2018-2022

FY 2020-21 ADA PROJECTS – CIRCULATION PATHWAYS

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$40,000

Project Description: Provide accessible routes around parks with an emphasis on connecting playgrounds to parking areas, picnic shelters, and site amenities such as drinking fountains and picnic tables.

Assumption: ADA improvements will be prioritized based on need and current conditions.

Operating Budget Impacts: None

Estimated Useful Life: 20 years

Project Funding Source:

	FY20-21
Parks SDC	\$40,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Peanut Park	FY 20-21	Accessible routes to play fields, picnic tables	\$18,000
Washington Park	FY 20-21	Accessible routes to playgrounds, picnic tables	\$22,000

Capital Improvement Program 2018-2022

FY 2020-21 ADA PROJECTS – PLAYGROUND SURFACING

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$90,000

Project Description: Provide accessible impact attenuation surfacing in all non-compliant playgrounds. The surface material will be surrounded by concrete curbing with accessible ramping where needed. Staff has evaluated all existing playgrounds and has prioritized the need for ADA surfacing.

Assumption: Playgrounds are prioritized based on current condition and amount of use.

Operating Budget Impacts: \$1,800 per year

Estimated Useful Life: 20 years for perimeter curbing, 10 years for surface material

Project Funding Source:

	FY 20-21
Parks SDC	\$90,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Peanut Park	FY 20-21	Curbing, excavation & engineered wood fiber	\$32,000
Dinosaur Bones/Train	FY 20-21	Curbing, excavation & engineered wood fiber	\$58,000

Capital Improvement Program 2018-2022

FY 2021-22 ADA PROJECTS – CIRCULATION PATHWAYS

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$22,000

Project Description: Provide accessible routes around parks with an emphasis on connecting playgrounds to parking areas, picnic shelters, and site amenities such as drinking fountains and picnic tables.

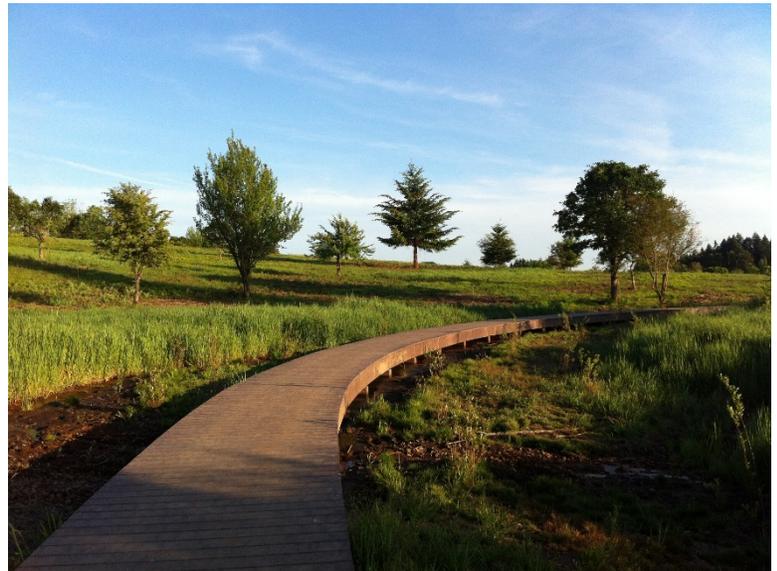
Assumption: ADA improvements will be prioritized based on need and current conditions.

Operating Budget Impacts: None

Estimated Useful Life: 20 years

Project Funding Source:

	FY 21-22
Parks SDC	\$22,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Willamette Park	FY 21-22	Accessible routes to playground	\$22,000

Capital Improvement Program 2018-2022

FY 2021-22 ADA PROJECTS – PLAYGROUND SURFACING

Department: Parks and Recreation

Category: Community Enhancement

Origination: ADA Assessment Plan/ADA Transition Plan

Total Cost: \$32,000

Project Description: Provide accessible impact attenuation surfacing in all non-compliant playgrounds. The surface material will be surrounded by concrete curbing with accessible ramping where needed. Staff has evaluated all existing playgrounds and has prioritized the need for ADA surfacing.

Assumption: Playgrounds are prioritized based on current condition and amount of use.

Operating Budget Impacts: \$600 per year

Estimated Useful Life: 20 years for perimeter curbing, 10 years for surface material

Project Funding Source:

	FY 21-22
Parks SDC	\$32,000



<u>Location</u>	<u>Year</u>	<u>Project</u>	<u>Estimated Cost</u>
Porter Park Playground	FY 21-22	Curbing, excavation & engineered wood fiber	\$32,000

Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City’s infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure and recreation over the next 10-20 years. These projects are considered “unfunded” because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Park and Natural Area	Projected Total
Porter Park Play Equipment and Circulation Paths	\$185,000
29 th and Grant General Enhancements	\$40,000
Avery Park	\$3,235,000
Peanut Park Play Equipment and Pathways	\$200,000
Washington Park Tot Lot and Pathways	\$150,000
Bald Hill Barn and Natural Area Restoration	\$410,000
Central Park	\$250,000
MLK. Jr. Park Natural Area Restoration and Development	\$250,000
Covered Playground	\$75,000
Irrigation Systems (TBD)	\$350,000
Cloverland Park	\$595,000
BMX Track Restore or Relocate	\$150,000
North Riverfront Park	\$3,200,000
Pioneer Park to Fitness Course	\$80,000
Woodland Meadow Natural Area	\$425,000
Village Green Park	\$190,000
Acquisition of Land	\$300,000
Total for Unfunded Park and Natural Area	\$10,085,000
Trails and Parking	
Parking Lot Improvements System-wide	\$2,644,400
Trails System Network Regional Connector and Park	\$86,569,600
Total for Unfunded Trails and Parking	\$89,214,000
Natural Area	
Herbert Amenities	\$780,000
Caldwell Natural Area	\$380,000
Forest Dell Park	\$95,000
Total for Unfunded Natural Area	\$1,255,000

Special Use Areas	Projected Total
Lighted Sports Complex	\$1,500,000
Starker Arts Park	\$600,000
Owens Farmstead	\$1,000,000
Sunnyside School House	\$150,000
Skatepark Expansion and Lighting	\$525,000
Riverfront Mechanical Room	\$500,000
Gaylord Rehabilitation	\$100,000
Osborn Aquatic Center (Facility Improvements, Filters, Bulkhead, Play Equipment)	\$1,900,000
Majestic Theater	\$2,500,000
Tunison Community Room	\$100,000
Walnut Community Room	\$225,000
Willamette Park Boat Ramp	\$250,000
Senior Center Expansion	\$9,000,000
Bike Park (Pump Track, Mountain Bike Skills Course)	\$185,000
	<hr/>
Total for Unfunded Special Use Areas	\$18,535,000
	<hr/>
GRAND TOTAL FOR PARKS AND RECREATION	\$119,089,000



Stormwater

STORM WATER

The storm water collection system in Corvallis consists of over 183 miles of pipes and over 20 miles of urban streams. City staff maintain and/or replace the assets in this system to provide efficient removal of rain water and to enhance habitat for flora and fauna. As state and federal regulations evolve, the system assets have expanded to include detention facilities in the upper reaches of the streams to capture water after heavy rain events and to control the release of that water into the system to minimize erosion and maintain capacity in the piping system. In addition, these detention facilities provide some level of treatment before the water enters the Willamette River. Regulatory agencies are expected to continue to emphasize water quality in the years to come, and more or different facilities to assist with quality are expected to be added to the system. Currently, there are 38 detention ponds, 16 swales and four rain gardens that City staff maintain and operate.

Based on the most recent information available in the Asset Management Program, the present value of what the community has invested in the storm water infrastructure is \$207,394,591.

Most of the work to maintain and operate the storm water system is performed with City crews. Capital projects or major replacements (piping, manholes) and large riparian restoration projects are performed through contracts.

The primary source of capital improvement projects is the Storm Water Master Plan, which was completed in 2002. Preparation of a master plan sets the blueprint for how the utility will respond to expected growth in the community and to new or emerging federal and state regulations. The master plan provides for efficient planning and implementation of utility improvements to address these evolving challenges as well as the ongoing protection of the environment. Master plans are typically renewed every 10 to 15 years, and a project to update the current plan is scheduled in the next three to five years. When that is completed, a comprehensive project list will be available for incorporation in this planning document.

In 2011, Public Works began work on an Asset Management Plan (AMP) for the City's utility systems. In developing a first iteration AMP, an organization will seldom have perfect data to support the asset analysis. This was the case for Corvallis as well, and the first version of the plan completed in 2013 has a data confidence level rating of approximately 72%. This is because data was not available across all asset types, classes, and services, and in some cases, the data that did exist was based on assumptions, and so not as accurate as desired. In FY 15-16, Public Works teamed with a consultant to focus efforts on closing the gaps in the storm water piping system AMP information. The timing and type of projects identified in the AMP to properly maintain the assets will be another source of capital improvement project proposals.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIP budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Dixon Creek Log Crib Replacement

Completed. Storm Drain Pipe Replacement: Kings Boulevard, Circle Boulevard

In Process. Storm Drain Pipe Replacement: Maple Avenue

Design will be completed this fiscal year for construction in summer 2017 in conjunction with the Maple Avenue street reconstruction project.

In Process. Sequoia Creek Conveyance Improvements between 9th Street and Highway 99
Design will be completed this fiscal year for construction in a future fiscal year.

Financial Challenges

The main source of funding for operation and maintenance of the storm water system comes from the monthly charge to customers on the City Services bill. Each year, staff reviews the financial viability of the Storm Water Fund, and presents to the City Council the state of the utility and whether rate adjustments are needed to meet the obligations for proposed operations and/or capital projects.

The preliminary output from the AMP program indicates the average annual expenditure for storm water asset maintenance and replacement would need to be \$2.7 million to align with best management practices (BMP). This estimate does not include the costs to maintain the natural storm water system, only the man-made assets. Currently, about \$1.1 million is expended on an annual basis. To provide sufficient resources to achieve the BMP expenditure level would require a 70% increase in the present annual revenue of \$2.3 million.

This presents a financial policy challenge to balance the impact on ratepayers from increased charges against the ability to achieve the desired outcome of a well-managed and maintained utility system. Navigating this balance will be an ongoing City Council level conversation.

Funding Summary

The following table shows the total dollar amount for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the ENR construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Storm Water Operating Revenues	\$87,000	\$211,130	\$526,990	\$443,350	526,990	\$1,795,460
Storm Water SDC	\$13,000	\$26,000	\$60,000	\$60,000	\$60,000	\$219,000
GRAND TOTALS	\$100,000	\$237,130	\$586,990	\$503,350	\$586,990	\$2,014,460

Capital Improvement Program 2018-2022

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
Storm Water Master Plan - Sequoia Conveyance	\$465,000
Total for FY 2017 - 2018	\$465,000
Plan Year: 2018-2019	
Storm Pipe Replacement - 54th Street and Cherry Avenue	\$159,120
Storm Water Master Plan - Various Locations	\$1,230,000
Total for FY 2018 - 2019	\$1,389,120
Plan Year: 2019-2020	
	\$0
Total for FY 2019 - 2020	\$0
Plan Year: 2020-2021	
Storm Pipe Replacement - 54th Street and Willow Avenue	\$160,340
Total for FY 2020 - 2021	\$160,340
Plan Year: 2021-2022	
	\$0
Total for FY 2021 - 2022	\$0
Grand Total for Storm Water:	\$2,014,460

Capital Improvement Program 2018-2022

FY 2017-20 STORM WATER MASTER PLAN – SEQUOIA CONVEYANCE

Department: Public Works

Category: Community Preservation

Origination: Storm Water Master Plan

Total Cost: \$465,000

Project Description: Design, permit, and construct further conveyance improvements on Sequoia Creek between Highway 99 and Highland Drive. This reach of Sequoia Creek has a history of nuisance flooding due to limited conveyance capacity. This results in system backups and street flooding. This project will help reduce flooding impacts to the community which is in line with the Climate Action Plan objectives to support community preparation for anticipated severe weather events.



Assumption: Timing and budget is dependent on permitting requirements of State and federal agencies. This project needs to be consistent with applicable land use regulations and approvals as they apply to protected natural features.

Operating Budget Impacts: None

Estimated Useful Life: 50 years

Project Funding Source:

	FY 17-18	FY 18-19	FY 19-20
Storm Water Operating Revenue	\$ 87,000	\$87,000	\$231,000
Storm Water SDC	<u>\$ 13,000</u>	<u>\$ 13,000</u>	<u>\$ 34,000</u>
Total	\$100,000	\$100,000	\$265,000

Capital Improvement Program 2018-2022

FY 2018-20 STORM PIPE REPLACEMENT – 54th STREET AND CHERRY AVENUE

Department: Public Works

Category: Community Preservation

Origination: System Evaluations, Asset Management Program, and Resident Complaints

Total Cost: \$159,120

Project Description: New storm water utility infrastructure in this area will improve water quality runoff by capturing pollutants and sedimentation. New catch basins and piping infrastructure will provide flood risk mitigation by capturing rainwater from impervious street surface areas during heavy weather events.

The design of this project is scheduled for FY 18-19 and construction in FY 19-20. Approximately 500 feet of new storm water mainline pipe, along with lateral lines, catch basins, and manholes will be installed. This project will start near the southeast corner of 54th Street and Cherry Avenue, and end near 710 SW 54th Street. This project is in line with the Climate Action Plan objectives to support community preparation for anticipated severe weather events.



Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

	FY 18-19	FY 19-20
Storm Water Operating Revenue	\$37,130	\$121,990

Capital Improvement Program 2018-2022

FY 2018-22 STORM WATER MASTER PLAN – VARIOUS LOCATIONS

Department: Public Works

Category: Community Preservation

Origination: Storm Water Master Plan

Total Cost: \$1,230,000

Project Description: Analyze, design, permit and construct Storm Water Master Plan project improvements at various locations. Storm Water Master Plan projects typically improve water quality, address conflicts between flooding and development, and preserve and enhance valuable natural resources including stream and floodplain systems. Permitting for in-water stream projects typically include both State and federal permits that can be a lengthy process to obtain.



More work is needed to refine individual projects further, but in general, design work will be done in the first year, securing the necessary environmental permits will be the focus of the second year, and construction will occur in the third year.

Assumption: Unknown until specific projects are developed. Projects will likely span over three years due to permitting.

Operating Budget Impacts: None

Estimated Useful Life: 50 years

Project Funding Source:

	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Storm Water Operating Revenue	\$87,000	\$174,000	\$405,000	\$405,000
Storm Water SDC	<u>\$13,000</u>	<u>\$ 26,000</u>	<u>\$ 60,000</u>	<u>\$ 60,000</u>
Total	\$100,000	\$200,000	\$465,000	\$465,000

Capital Improvement Program 2018-2022

FY 2020-22 STORM PIPE REPLACEMENT – SW 54th STREET AND WILLOW AVENUE

Department: Public Works

Category: Community Preservation

Origination: System Evaluations, Asset Management Program, and Resident Complaints

Total Cost: \$160,340

Project Description: New storm water utility infrastructure in this area will improve water quality run off by capturing pollutants and sedimentation. New catch basins and piping infrastructure will provide flood risk mitigation by capturing rainwater from impervious street surface areas during heavy weather events.

The design of this project is scheduled for FY 20-21 and construction in FY 21-22. Approximately 300 feet of new storm water mainline pipe, along with lateral lines, catch basins, and manholes will be installed. This project will start near 710 SW 54th Street, and end at a manhole located in the intersection of SW 54th Street and SW Willow Avenue. This project is in line with the Climate Action Plan objectives to support community preparation for anticipated severe weather events.



Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

	FY 20-21	FY 21-22
Storm Water Operating Revenue	\$38,350	\$121,990

Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City's infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure over the next 10-20 years. This should be considered a preliminary list as additional projects for the 20-year period will be generated from the Asset Management Plan, when that work is completed. The projects listed are considered "unfunded" because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Conveyance and Piping	Projected Total
Dixon Creek - Garfield to Kings	\$158,000
Oak Creek - 35th Street to Harrison Boulevard	\$35,000
Dixon Creek - Kings Boulevard to Circle Boulevard	\$106,000
Dixon Creek - Circle Boulevard to 29th Street	\$120,000
Dixon Creek - Walnut Boulevard to Headwaters	\$136,600
Dunawi Creek - Confluence with West Branch	\$140,000
Sequoia Creek - Walnut Boulevard to Headwaters	\$65,000
Dixon Creek - 29th Street to Walnut Boulevard	\$21,800
Dunawi Creek - Technology Loop to 53rd Street	\$102,000
Oak Creek - Western Boulevard to 35th Street	\$100,000
Oak Creek - 35th Street to Cardwell Hill Drive	\$104,000
Jackson/Frazier - Highland Drive	\$28,000
	\$1,116,400
Total for Unfunded Conveyance	\$1,116,400

Stream Restoration	Projected Total
Dixon Creek - 9th Street to Buchanan	\$42,000
Dunawi Creek - Reed Place to 35th Street	\$21,600
Dunawi Creek - Marys River to Reed Place	\$66,000
Oak Creek - Western Boulevard to 35th Street	\$21,000
Oak Creek - 35th Street to Harrison Boulevard	\$24,000
Oak Creek - Highway 20/34 to 35th Street	\$28,000
Dixon Creek - Kings Boulevard to Circle Boulevard	\$226,000
Dixon Creek - 29th Street to Walnut Boulevard	\$210,000
Dixon Creek - 3rd Street to Railroad Tracks	\$60,000
Dixon Creek - Walnut Boulevard to Headwaters	\$49,000
Dixon Creek - Walnut Boulevard to Arrowood Circle	\$60,000
Dunawi Creek - 35th Street to Country Club Place	\$280,000
Sequoia Creek - Walnut Boulevard to Headwaters	\$35,000
Oak Creek - Harrison Boulevard to Cardwell Hill Drive	\$40,000

Mill Race - Evanite Culvert to Highway 99	\$12,000
Mill Race - Highway 99 to Allen Street	\$82,000
Dixon Creek - Garfield Avenue to 29th Street	\$13,000
Dixon Creek - Walnut Boulevard to Headwaters	\$196,000
Dixon Creek - Walnut Boulevard to Arrowood Circle	\$600,000
Dunawi Creek - 53rd Street to Headwaters	\$500,000
Jackson/Frazier - Highway 99 to Highland Drive	\$20,000
Jackson/Frazier - Crescent Valley to McDonald Forest	\$22,000
Oak Creek - Highway 20/34 to Western Boulevard	\$80,000
Marys River - East Basin	\$25,000
Mill Race – Hollingsworth & Vose Culvert to Highway 99	\$83,000

Total for Unfunded Restoration **\$2,795,600**

Treatment	Projected Total
Dixon Creek - 160 Outfalls	\$3,040,000
Dunawi Creek - 56 Outfalls	\$1,064,000
Jackson/Frazier - 31 Outfalls	\$589,000
Sequoia Creek - 79 Outfalls	\$1,501,000
Sequoia Creek - Railroad Bridge Area Storm System	\$50,000
Oak Creek - 31 Outfalls	\$589,000
Marys River - 20 Outfalls	\$380,000
Marys River - Pioneer Park Storm System	\$25,000
Mill Race - 23 Outfalls	\$437,000
Mill Race - Mayberry Avenue Storm System	\$50,000
Willamette River - 4 Outfalls	\$437,000

Total for Unfunded Treatment **\$8,162,000**

South Corvallis Area Plan	Projected Total
Construct Drainageway in Northwest	\$781,281
Construct Water Quality Ponds in Northwest	\$113,131
Construct Drainageway in South	\$419,463

Total for Unfunded South Corvallis **\$1,313,875**

Grand Total for Unfunded Storm Water **\$12,387,875**



Transportation

TRANSPORTATION

The transportation system in Corvallis consists of city, county and state infrastructure. Of that, the City is responsible for 369 miles of streets and 22 miles of multi-use paths. The City also maintains 57 traffic signals, 338 miles of sidewalks, 55 street islands, over 7,000 signs, 28 bridges, 10 covered bike shelters, and numerous bike parking racks. City staff maintain and/or replace the assets in this system to ensure safe and efficient movement of vehicles, pedestrians, bicyclists, goods and services around the community. The level of infrastructure maintenance is directed by the community's values and the need for safety. There are no federal or state regulations dictating how services will be provided, but the Oregon Department of Transportation (ODOT) and the Federal Highway Administration (FHA) provide guidelines, and the industry has developed standards that are commonly followed. Proactively managing assets will provide the longest possible service life for each piece of the infrastructure, as well as safeguard the investment the community has made over time in the whole transportation system.

Most of the work to maintain and operate the transportation system is performed with City crews. Capital projects or major replacements (i.e., street reconstruction, bridge replacement, traffic signal installation) are performed through contracts.

The primary source of projects for new facilities or facility expansion is the Corvallis Transportation Plan, which was last updated in 1996. Preparation of a plan sets the blueprint for how the system will respond to expected growth in the community or projected changes in travel modes or travel behavior. A system plan provides for efficient planning and implementation of infrastructure improvements to address these evolving challenges as well as the safety of the system users. Master plans are typically renewed every 10 to 15 years and a project to develop a new transportation system plan is currently underway. When completed, a comprehensive capital project list will be available for incorporation in this planning document.

One of the industry-standard level-of-service indicators for street infrastructure is the pavement condition index (PCI). On a periodic basis, usually every five to seven years for major streets in the system (less frequently for local or neighborhood streets), the street surface is assessed on a number of factors including size of cracks and rideability. From this assessment, a score is calculated on a scale from 1 to 100, with 100 signifying the best condition. All streets in the community that are under the City's jurisdiction and improved to the City standard have recently been assessed and a PCI value assigned. By the end of 2017, condition information for streets not improved to the City standard will be added to this database. From the most recent assessment, the average PCI score for our arterial streets and for our local streets are below a 'best practices' level. Staff is working to create a comprehensive pavement management system that will guide future activities to protect and prolong the life of the street system. This work will be another source of capital improvement project proposals.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIPs that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. 35th Street Sidewalks and Railroad Crossing

Completed. Street Resurfacing: 9th Street, Crystal Lake Drive, Rivergreen Drive, Spruce Avenue

In Process. Madison Avenue Improvements
Construction is scheduled for summer 2017.

In Process. Marys River – Crystal Lake Drive Shared-Use Path
Design will be completed this fiscal year for construction in summer 2018.

In Process. Street Reconstruction: Maple, Oak, and Dixon Streets
Design will be completed this fiscal year for construction in summer 2017.

In Process. Witham Hill Drive Slope Stabilization Design
Design is scheduled for completion spring 2017.

In Process. Street Resurfacing: various local streets
Design will be completed this fiscal year for construction in summer 2017.

Deferred. Downtown Public Parking
Delayed until a study is conducted to identify the need and a solution.

Deferred. Sidewalk In-fill Construction
Delayed due to lack of opportunities for grant funding and the expectation that new sidewalks are constructed when the abutting property develops.

Financial Challenges

The main source of funding for operation and maintenance of the transportation system comes from the State Highway Fund, which is comprised of gas taxes (a surcharge on gasoline sold at the pump), vehicle registration fees, and weight mileage fees charged to freight haulers. Consumer behavior plays a big role in the level of funding from this source. If less gas is purchased due to fuel prices or to more fuel-efficient vehicles, then fewer taxes are collected. This is a revenue stream over which the City has no control and the amount received can fluctuate from year to year. Inconsistent revenue presents a challenge to sustaining a systematic asset management program into the future. The second largest source of revenue is the Transportation Maintenance Fee (TMF). However, the revenue

generated from this fee can only be used to maintain street pavement assets. It cannot be used for any of the other components of the transportation system. Federal grants are available for maintenance and reconstruction of arterial and collector streets, but the amount that comes to the local area must be shared with Benton County and other cities within the county. As a result, the City is challenged to generate adequate, consistent revenue to fund a comprehensive asset maintenance program for the whole transportation system.

Funding Summary

The following table shows the total dollar amount for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the ENR construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Parking Operating Revenue	\$52,000	\$0	\$0	\$0	\$0	\$52,000
Grants	\$362,000	\$1,084,000	\$4,094,000	\$342,700	\$1,144,800	\$7,027,500
Street Operating Revenue	\$325,000	\$682,000	\$503,000	\$172,100	\$304,000	\$1,986,100
Transit Operating Revenue	\$0	\$400,000	\$0	\$0	\$0	\$400,000
TMF	\$0	\$500,000	\$500,000	\$500,000	\$500,000	\$2,000,000
Street SDC	\$0	\$0	\$0	\$63,900	\$187,200	\$251,100
Stormwater Operating Revenue	\$286,000	\$37,000	\$168,000	\$0	\$0	\$491,000
GRAND TOTALS	\$1,025,000	\$2,703,000	\$5,265,000	\$1,078,700	\$2,136,000	\$12,207,700

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
Downtown Wayfinding	\$372,000
Street Reconstruction - Local	\$1,661,000
Street Resurfacing	\$1,352,000
Transit Operations and Maintenance Facility	\$4,918,000
Total for FY 2017 - 2018	\$8,303,000
Plan Year: 2018-2019	
Street Resurfacing - Locations To Be Determined	\$1,990,000
Total for FY 2018 - 2019	\$1,990,000
Plan Year: 2019-2020	
Total for FY 2019 - 2020	\$0
Plan Year: 2020-2021	
Multi-Use Path Wayfinding Signage	\$50,000
Multi-Use Path, Harrison to Campus Way	\$835,000
Pedestrian Crossings	\$190,000
Tunison -- Avery Multi-Use Path	\$839,700
Total for FY 2020 - 2021	\$1,914,700
Plan Year: 2021-2022	
Total for FY 2021 - 2022	\$0
Grand Total for Transportation:	\$12,207,700

Capital Improvement Program 2018-2022

FY 2017-18 DOWNTOWN WAYFINDING

Department: Community Development

Category: Community Enhancement

Origination: Corvallis Downtown Strategic Plan

Total Cost: \$372,000

Project Description: This project will place signs downtown to direct visitors to important locations, such as public parking, the Riverfront Commemorative Park, City and County buildings, parks, OSU and other features. Also included are gateway signs to be placed at the north, east, south, and west entrances to Corvallis, which would direct pedestrians, bicyclists, and motorists to the City's downtown area.



Assumptions: Full funding of this project is not currently available. Implementation will depend on the availability of grant funding or donations from other entities interested in its implementation. The grant listed below has not been secured.

Operating Budget Impacts: Approximately \$1,000 annually

Estimated Useful Life: 20+ years

Project Funding Sources:

	FY 17-18
Parking Operating Revenue	\$ 52,000
Grant	<u>\$320,000</u>
Total	\$372,000

Capital Improvement Program 2018-2022

FY 2017 - 20 STREET RECONSTRUCTION - LOCAL

Department: Public Works

Category: Community Preservation

Origination: Pavement Management System

Total Cost: \$1,661,000

Project Description: This project will reconstruct portions of Maple and Oak Avenues as well as Dixon and 12th Streets north of Circle Boulevard. These streets were selected based on priorities set through a survey of pavement conditions. They have deteriorated to an extent that leaves no other option than complete reconstruction of the roadway structure.

Storm system improvements are also planned. An inadequate collection system has contributed to the decay of the street structure on these streets. The existing pipes, which are in poor condition, will be replaced and the system expanded to adequately drain the improved streets.

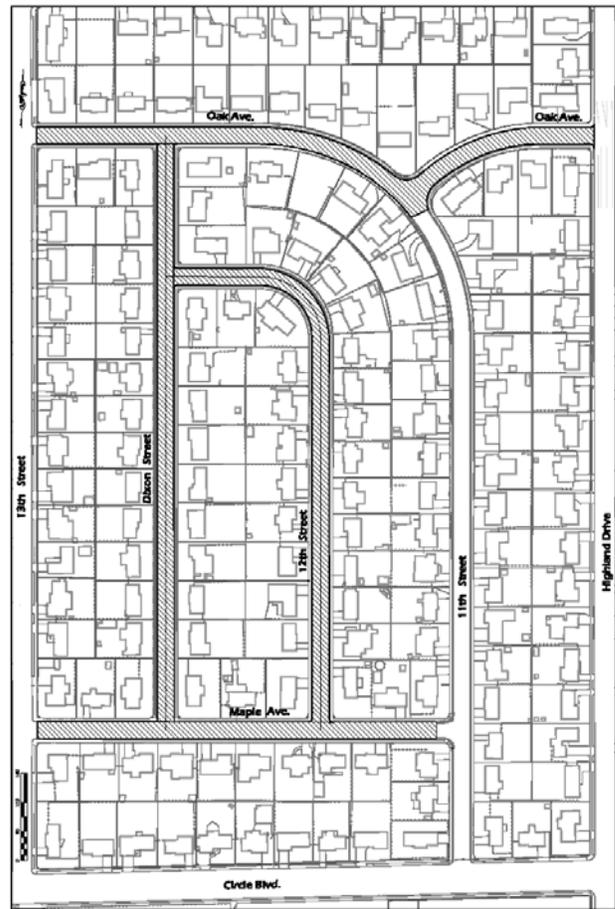
Assumptions: This project will be phased over a three year period. Scope of work in any given year will be adjusted as needed to match available revenues.

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 17-18	FY18-19	FY 19-20
Street Operating Revenue	\$285,000	\$532,000	\$353,000
Stormwater Operating Revenue	<u>\$286,000</u>	<u>\$ 37,000</u>	<u>\$168,000</u>
Total	\$571,000	\$569,000	\$521,000



Capital Improvement Program 2018-2022

FY 2017-19 STREET RESURFACING

Department: Public Works

Category: Community Preservation

Origination: Pavement Management System

Total Cost: \$1,352,000

Project Description: Street resurfacing projects rehabilitate asphalt streets by overlaying existing pavement with new asphalt. In most cases, a portion of the existing asphalt surface will be ground away prior to the placement of new asphalt to avoid excessive sloping of the new street surface and blocking roof drains that extend to the street. Streets will be selected based on an assessment of pavement condition, as well as the functional classification of those streets. In general, arterial and collector streets will be assigned the highest priority for resurfacing, with local streets being included as budgets allow. The life expectancy of a resurfacing project is 10 years.

This project will resurface Walnut Boulevard from Highland Drive to Jack London Street, Harrison Boulevard from Kings Boulevard to 29th Street, and various local streets.

The Surface Transportation Program (STP) grant has been secured. The City is required to provide a 20% match of funds.

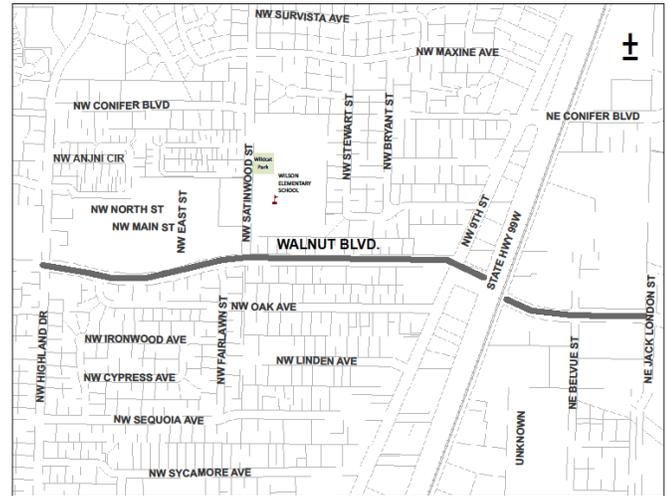
Assumptions: None

Operating Budget Impacts: None

Estimated Useful Life: 20+ years

Project Funding Sources:

	FY 17-18	FY 18-19
Street Operating Revenue	\$40,000	\$ 110,000
STP Grant	\$42,000	\$ 660,000
TMF		\$ 500,000
Total	\$82,000	\$1,270,000



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Capital Improvement Program 2018-2022

FY 2018-22 STREET RESURFACING - LOCATIONS TO BE DETERMINED

Department: Public Works

Category: Community Preservation

Origination: Pavement Management System

Total Cost: \$1,990,000

Project Description: Street resurfacing projects rehabilitate asphalt streets by overlaying existing pavement with new asphalt. In most cases, a portion of the existing asphalt surface will be ground away prior to the placement of new asphalt to avoid excessive sloping of the new street surface and blocking roof drains that extend to the street. Streets will be selected based on an assessment of pavement condition completed for all Corvallis streets as well as the functional classification of those streets. In general, arterial and collector streets will be assigned the highest priority for resurfacing, with local streets being included as budgets allow. The life expectancy of a resurfacing project is 20 years.



A five year rolling project list will be developed over the course of the next year with the result of a more specific project list to be identified in future CIPs. The development of this project list and schedule will be coordinated with utilities to insure that the life of newly resurfaced streets is not shortened by excavations for utility replacement projects.

Assumptions: None

Operating Budget Impacts: None

Estimated Useful Life: 20+ years

Project Funding Sources:

	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Street Operating Revenue	\$40,000	\$150,000	\$150,000	\$150,000
TMF	<u>\$</u>	<u>\$500,000</u>	<u>\$500,000</u>	<u>\$500,000</u>
Total	\$40,000	\$650,000	\$650,000	\$650,000

Capital Improvement Program 2018-2022

FY 2018-20 TRANSIT OPERATIONS AND MAINTENANCE FACILITY

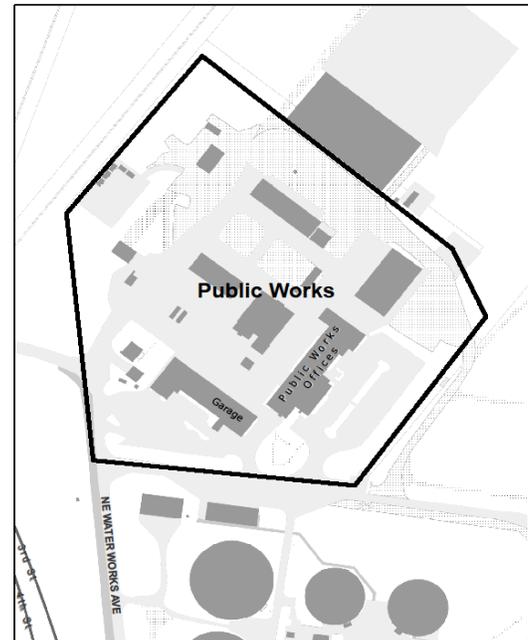
Department: Public Works

Category: Infrastructure Development

Origination: Public Works Campus Master Plan

Total Cost: \$4,918,000

Project Description: This project will construct building(s) to house Corvallis Transit System (CTS) operations and maintenance activities. Although the City owns all CTS buses, they are operated and maintained under contract to a third party. In recent years, the competition for that contract has been severely limited due to the market entry costs of competitors and limited availability of commercial space in the community. As a result, the most recent advertisement for transit services received only one proposal at a significantly higher cost than previous years. By providing City-owned facilities from which to operate, barriers to providing a proposal will be eliminated, increasing the likelihood of competitive pricing proposals for transit services.



Assumptions: The grants shown below have not been secured. This project is dependent on State and federal grants for funding. The exact configuration of facilities has not been defined, and can be a mix of remodeled existing building space and new building space depending on funding availability. Phasing of the project is also likely, providing additional flexibility in matching facility needs with funding opportunities.

Operating Budget Impacts: \$15,000 per year

Estimated Useful Life: 50 years

Project Funding Sources:

	FY 18-19	FY 19-20
Transit Operating Revenue	\$400,000	
FTA Grant	\$344,000	\$3,265,000
Connect Oregon Grant	<u>\$ 80,000</u>	<u>\$ 829,000</u>
Total	\$824,000	\$4,094,000

Capital Improvement Program 2018-2022

FY 2020-21 MULTI-USE PATH WAYFINDING SIGNAGE

Department: Public Works

Category: Infrastructure Development

Origination: BPAB, Community Requests

Total Cost: \$50,000

Project Description: This project would install wayfinding signage at key locations throughout the community's multi-use path system. This signage would provide distance and travel time information to likely destinations (i.e. downtown, OSU) within the community.



Assumptions: This project depends on the acquisition of grant funds with the next funding cycle beginning in 2021. The grant shown below has not been secured.

Operating Budget Impacts: Annual sign maintenance costs are nominal.

Estimated Useful Life: 20 years

Project Funding Sources:

	FY 20-21
Grant	\$45,000
Street Operating Revenue	<u>\$ 5,000</u>
Total	\$50,000

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Capital Improvement Program 2018-2022

FY 2020-22 MULTI-USE PATH, HARRISON TO CAMPUS WAY

Department: Public Works

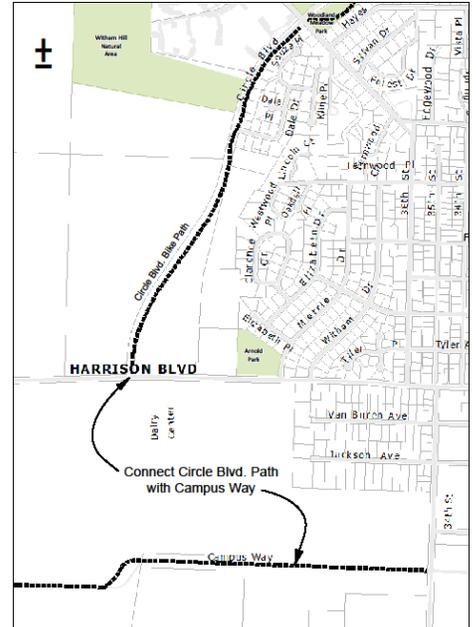
Category: Infrastructure Development

Origination: Transportation System Plan, Bicycle and Pedestrian Advisory Board, Community Member Requests

Total Cost: \$835,000

Project Description: This project will construct a separated asphalt multi-use path providing a connection between the end of the existing path north of Harrison Boulevard (Circle Boulevard path) and Campus Way. An exact alignment is yet to be determined, but it is expected that the path will be approximately 4,000 feet in length and 12 feet in width. A narrower path may be necessary to avoid natural features impacts or for other physical restrictions or impacts to the use of the underlying property. This project supports the City’s Climate Action Plan by facilitating active transportation through the expansion of bike and pedestrian corridors.

Assumptions: The ability to implement this project assumes the acquisition of grant funding with the next funding cycle in 2021. The grant shown below has not been secured. In addition, although OSU has not opposed the concept of a path through their property, an actual endorsement will depend on developing an alignment that is compatible with their use of the parcel.



Operating Budget Impacts: Maintenance estimated at \$1,000/year for sweeping and mowing.

Estimated Useful Life: 20 years

Project Funding Sources:

	FY 20-21	FY 21-22
Grant	\$72,000	\$679,000
Street SDC	<u>\$ 8,000</u>	<u>\$ 76,000</u>
Total	\$80,000	\$755,000

Capital Improvement Program 2018-2022

2020-22 PEDESTRIAN CROSSINGS

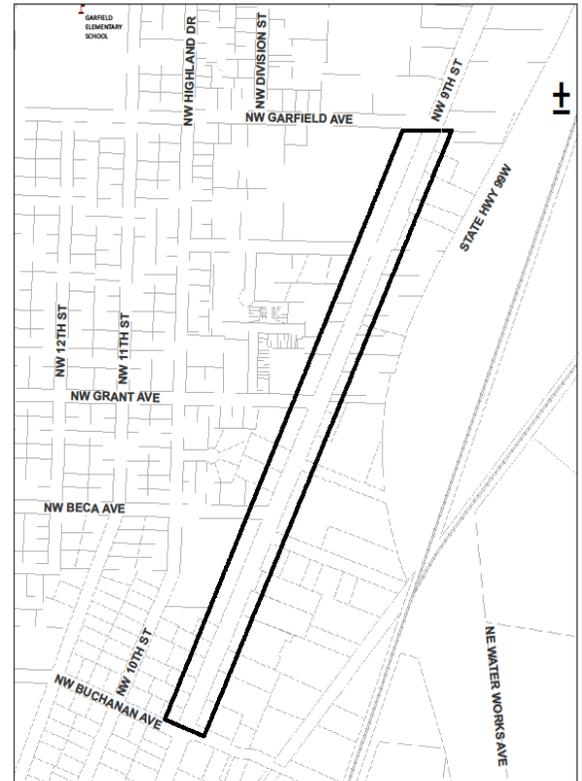
Department: Public Works

Category: Infrastructure Development

Origination: CAMPO 9th Street Improvement Plan, BPAB and Community Suggestions

Total Cost: \$190,000

Project Description: 9th Street pedestrian crossing opportunities are limited due to its 5-lane width and arterial level traffic volumes. With the development of OSU veterinary teaching facilities on the west side of 35th Street at Campus Way, a significant increase in pedestrian crossings occur at this location. This project will construct pedestrian crossing facilities on 9th between Buchanan and Grant Avenues and between Grant and Garfield Avenues as well as on 35th Street at Campus Way. Pedestrian islands are anticipated for all locations. However, due to the shorter crossing distance at 35th Street, other simpler and less expensive crossing treatments may be considered. The proposed budget also assumes that the 9th Street locations will have flashing lights activated by pedestrians that will alert motorists to their presence. This project supports the City's Climate Action Plan by facilitating active transportation through the development of facilities that promote pedestrian use of the 9th Street corridor.



Assumptions: Implementation of this project is dependent on acquisition of grant funding. The next available grant cycle is 2021. The grant shown below has not been secured.

Operating Budget Impacts: \$200/year per island for curb painting and miscellaneous repairs.

Estimated Useful Life: 20+ years

Project Funding Sources:

	FY 20-21	FY 21-22
Street Operating Revenue	\$17,100	\$154,000
Grant	<u>\$ 1,900</u>	<u>\$ 17,000</u>
Total	\$19,000	\$171,000

Capital Improvement Program 2018-2022

FY 2020-22 TUNISON – AVERY MULTI-USE PATH

Department: Public Works

Category: Infrastructure Development

Origination: South Corvallis Area Refinement Plan, Community Suggestion

Total Cost: \$839,700

Project Description: This project will construct a path connection between the Tunison neighborhood and Avery Park as an alternate route to Highway 99 for bicyclists and pedestrians. Multi-modal connectivity between South Corvallis and the rest of the community is limited and requires the use of the busy Highway 99 corridor as a primary travel route to destinations north of the Marys River. This forces bicyclists and pedestrians to cross and/or travel along Highway 99 with its heavier volumes, limited crossing opportunities, and conflicting driveway traffic. The project path connection will provide additional access to points north along a more convenient, less congested route, especially for neighborhoods west of Highway 99. This facility is approximately ½ mile in length and is envisioned to be 12 feet in width except where physical or environmental restrictions require it to be narrower. It is a segment of a much larger path between Airport Road and Avery Avenue identified by both the Transportation System Plan and the South Corvallis Area Refinement Plan. Construction of this facility may impact wetlands, but by providing additional multi-modal connectivity with the rest of the community, it supports the Climate Action Plan by facilitating active transportation through the expansion of bike and pedestrian corridors.



Assumptions: The project is dependent upon obtaining grant funding. The grant shown below has not been secured and a recent ODOT grant application was unsuccessful. The next grant cycle is 2021 and if the project is unsuccessful a second time, this project will be moved to the CIP Unfunded Project List.

Operating Budget Impacts: \$1,000 per year for sweeping and vegetation management.

Estimated Useful Life: 20 years

Project Funding Source:

	FY 20-21	FY 21-22
Street SDC	\$ 55,900	\$111,200
Grant	<u>\$223,800</u>	<u>\$448,800</u>
Total	\$279,700	\$560,000

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Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City's infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure over 10 to 20-years. This should be considered a preliminary list as additional projects for the 20-year period will be generated from the Asset Management Plan, when that work is completed. The projects listed are considered "unfunded" because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Street Improvements	Projected Total
Harrison Bike Lanes, 29 th to 36 th Streets	\$1,310,000
Brooklane Drive Nash Avenue to Highway 20/34	\$4,681,000
West Hills Road, Western Boulevard to Reservoir Road	\$5,741,000
Downtown Bike Lanes, 3 rd and 4 th Streets	\$200,000
14 th Street Bike Lanes, Monroe Avenue to Harrison Boulevard	\$500,000
53 rd Street	\$9,501,000
Country Club Drive	\$5,201,000
Ponderosa Avenue	\$2,241,000
Crystal Lake Drive, Alexander to Park Avenues	\$791,000
East/West Downtown Bikeway, Van Buren to Western Boulevards	\$300,000
Arterials and Collectors Inc. in West Corvallis Access Strategy	\$16,321,000
Widen 53 rd Street from Philomath Boulevard to Nash Avenue	\$4,131,000
Reservoir Road	\$4,021,000
New Collector, Airport to Rivergreen Avenues West of Highway 99	\$6,281,000
Goodnight Avenue	\$451,000
Circle Boulevard to Highway 20	\$1,711,000
Conifer Boulevard, City Limits to Highway 20	\$1,371,000
Total for Unfunded Street Improvements	\$64,753,000
Bike / Pedestrian Facilities	Projected Total
Path, Avery Avenue to Airport Road	\$3,000,000
Riverfront Path, Tyler Avenue to 2 nd Street near Rennie Place	\$430,000
Path, Circle to Conifer Boulevards	\$580,000
Bicycle/Pedestrian at RR Crossings	\$991,000
Witham Hill Bike Lanes, Canary Place to Walnut Boulevard	\$1,041,000
Total for Unfunded Multi-Use Paths	\$6,042,000
Grand Total for Unfunded Transportation	\$70,795,000



Wastewater

WASTEWATER

The wastewater system in Corvallis has a treatment component and a collection component. In the treatment component, our city has two plants that process about 3.2 billion gallons of water in a year in accordance with strict federal and state regulations before discharging the treated effluent to the Willamette River. In the collection component, there are over 220 miles of underground pipe to carry the wastewater from homes, businesses, and service providers to the treatment plants, along with seven pumping stations to ensure the water continues to move through the mostly gravity-fed pipe system. City staff maintain and/or replace the assets in the plants and in the field to minimize service disruptions and to protect the environment and the public from exposure to untreated wastewater. Proactively managing our assets will provide the longest possible service life for each element in the complex treatment and collection components, as well as safeguard the investment the community has made over time in the whole wastewater utility.

Based on the most recent information available in the Asset Management Program, the present value of what the community has invested in the collection component of the wastewater infrastructure is \$303,415,565.

Most of the work to maintain and operate the wastewater system is performed with City crews. Capital projects or major replacements (i.e., main line pipes, high service pumps, chemical feed systems) are performed through contracts.

The primary source of capital improvement projects is the Wastewater Utility Master Plan, which was last updated in 1998. Preparation of a master plan sets the blueprint for how the utility will respond to expected growth in the community and to new or emerging federal and state regulations. The master plan provides for efficient planning and implementation of utility improvements to address these evolving challenges as well as the ongoing protection of human health and the environment. Master plans are typically renewed every 10 to 15 years and a project to develop a new wastewater plan is scheduled in the next three to five years. When completed, a comprehensive capital project list will be available for incorporation in this planning document.

In 2011, Public Works began work on an Asset Management Plan (AMP) for the City's utility systems. In developing a first iteration AMP, an organization will seldom have perfect data to support the asset analysis. This was the case for Corvallis as well, and the first version of the plan completed in 2013 had a data confidence level rating of approximately 72%. This is because data was not available across all asset types, classes, and services, and in some cases, the data that did exist was based on assumptions, and so not as accurate as desired. In FY 15-16, Public Works teamed with a consultant to focus efforts on closing the gaps in the AMP information for the wastewater collection component. In FY 16-17, the department expects to complete a similar data quality project for the treatment component assets. The timing and type of projects identified in the AMP to properly maintain the assets will be another source for capital improvement project proposals.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIP budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Sewer Pipe Replacement: 29th Street, Taylor Avenue

In Process. Sewer Pipe Replacement: 27th, 28th, 31st, and 32nd Streets
Design will be completed this fiscal year for construction in summer 2017.

In Process. Wastewater Plant Motor Control Center Electrical Equipment Replacement
Completion is scheduled for spring 2017.

Financial Challenges

The main source of funding for operation and maintenance of the wastewater system comes from the monthly charge to customers on the City Services bill. Each year, staff reviews the financial viability of the Wastewater Fund, and presents to the City Council the state of the utility and whether rate adjustments are needed to meet the obligations for proposed operations and/or capital projects.

The preliminary output from the AMP program indicates the average annual expenditure for wastewater asset maintenance and replacement would need to be \$6.75 million to align with best management practices (BMP). Currently, only about \$4.6 million is expended on an annual basis. To provide sufficient resources to achieve the BMP expenditure level would require a 21% increase in the present annual revenue of \$10.2 million dollars.

This presents a financial policy challenge to balance the impact on ratepayers from increased charges against the ability to achieve the desired outcome of a well-managed and maintained utility system. Navigating this balance will be an ongoing City Council level conversation.

Funding Summary

The following table shows the total dollar amount for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the ENR construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Property Owner Assessments	\$75,000	\$0	\$0	\$0	\$0	\$75,000
Wastewater Operating Revenue	\$429,860	\$874,860	\$802,380	\$826,450	\$851,240	\$3,784,790
Wastewater SDC	\$358,840	\$358,840	\$6,559,150	\$4,808,000	\$0	\$12,084,830
GRAND TOTALS	\$863,700	\$1,233,700	\$7,361,530	\$5,634,450	\$851,240	\$15,944,620

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
Avery Park Lift Station Rehabilitation	\$180,000
Lawndale Annexation Sanitary Sewer Installation	\$75,000
Crescent Valley Lift Station Rehabilitation	\$280,000
Wastewater Pipe Replacement	\$793,360
Wastewater Plant Primary Clarifier	<u>\$7,176,830</u>
Total for FY 2017 - 2018	\$8,505,190
Plan Year: 2018-2019	
Wastewater Pipe Replacement - Locations To Be Determined	<u>\$2,531,430</u>
Total for FY 2018 - 2019	\$2,531,430
Plan Year: 2019-2020	
Wastewater Plant Secondary Clarifier	<u>\$4,908,000</u>
Total for FY 2019 - 2020	\$4,908,000
Plan Year: 2020-2021	
	<u>\$0</u>
Total for FY 2020 - 2021	\$0
Plan Year: 2021-2022	
	<u>\$0</u>
Total for FY 2021 - 2022	\$0
Grand Total for Wastewater:	<u><u>\$15,944,620</u></u>

Capital Improvement Program 2018-2022

FY 2017-18 AVERY PARK LIFT STATION REHABILITATION

Department: Public Works

Category: Community Preservation

Origination: Wastewater Asset Management Program

Total Cost: \$180,000

Project Description: The Avery Park Sanitary Lift Station serves the Parks & Recreation Department Administration Buildings and an Avery Park restroom. Electrical control systems have exceeded their useful life and the site is lacking onsite automatic backup power transfer. In the event of a power failure, a sewer overflow from this station would reach urban sections of the Marys River near popular water recreation areas and would result in closing the Avery Parks & Recreation Administration Building restrooms until power was restored. This project will replace the station's pumps and install an automatic power transfer.



The construction and installation of new pumps and automatic power switch gear supports City sustainability and asset management goals. Replacing the pumps with high efficiency units will extend the station's useful life and reduce electrical costs. Adding emergency power switch gear will reduce risk and avoid level of service failures that can impact public health and safety and ensures compliance with federal and State requirements.



Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 17-18
Wastewater Operating Revenue	\$180,000

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Capital Improvement Program 2018-2022

FY 2017-18 LAWDALE ANNEXATION SANITARY SEWER INSTALLATION

Department: Public Works

Category: Infrastructure Development

Origination: Annexation

Total Cost: \$75,000

Scope of Work: Lawndale Place was annexed into the City of Corvallis in November 2016. Until this time it was a small county island located within City limits. Due to failing septic systems and water wells, the property owners applied for a voter approved annexation that when approved would allow connection to City services. This project will install approximately 300 feet of 8-inch sanitary sewer main line along Lawndale Place and will connect to an existing main line in Belvue Street. This project will likely be constructed at the same time as the Lawndale water line project.

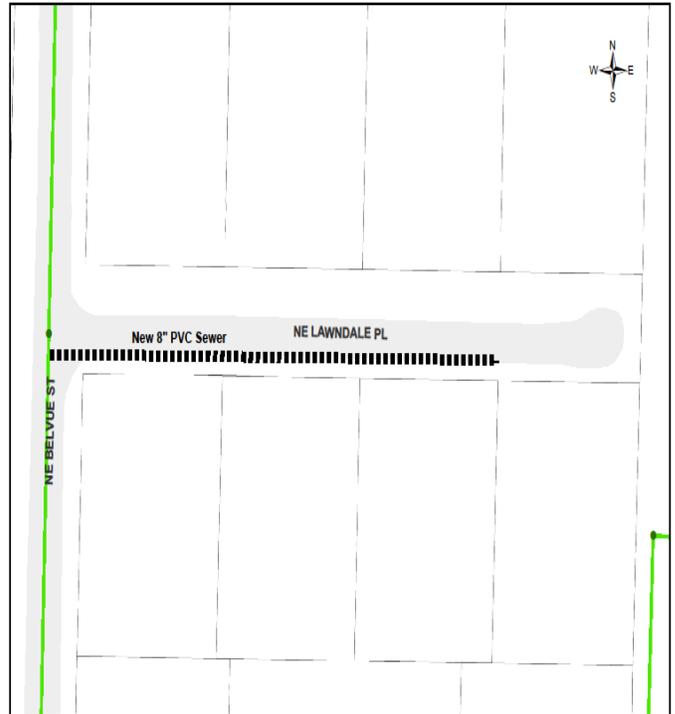
Assumptions: This project will only be constructed upon a request from the property owners for the City to install sanitary sewer services. With any development that will connect to City services, the property owner is required to pay for the facilities in front of their property. For this reason, property owners will be responsible for all project costs.

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

	FY 2017-18
Property Owner Assessments	\$75,000



3/17/17

Capital Improvement Program 2018-2022

FY 2017-19 CRESCENT VALLEY LIFT STATION REHABILITATION

Department: Public Works

Category: Community Preservation

Origination: Wastewater Asset Management Program

Total Cost: \$280,000

Project Description: The Crescent Valley Sanitary Sewer Lift Station primarily serves the Crescent Valley High School. Design and construction of the lift station will start in 2017-18 and be completed in 2018-19. The lift station electrical control systems, communication equipment, wet well, and pumps have exceeded their useful life.



Construction work will include installation of new high-efficiency pumps and motors and improved electrical monitoring and processing equipment. New pumps will extend the station's useful life and reduce electrical costs.

Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 17-18	FY 18-19
Wastewater Operating Revenue	\$200,000	\$80,000

Capital Improvement Program 2018-2022

FY 2017-19 WASTEWATER PIPE REPLACEMENT

Department: Public Works

Category: Community Preservation

Origination: Wastewater Utility Master Plan, Asset Management Program

Total Cost: \$793,360

Project Description: Mainline pipe inspections use closed circuit televising to analyze the pipe interior using the nationally recognized NASSCO structural condition rating system. The rating score for each section of pipe is based on structural condition assessments, such as pipe failure, cracked or broken pipe, water infiltration, and deformed pipe.

This pipe replacement project encompasses locations in streets, alleyways, and/or easements. The current pipes consist of concrete and clay material that have reached the useful life expectancy.

Pipe replacement sizes range from 8- to 12-inch in diameter and consist of PVC and HPDE pipe material. The replacement of these pipes will improve the integrity of the system and reduce water infiltration into the collection system. Less extraneous water in the system means less energy used to pump that water to the plant and less treatment effort at the plant.

This project will replace approximately 2,994 feet of mainline pipe, manholes, and sewer laterals in 27th Street, 30th Street, alleys downtown, and easements in the area of 13th Street and Harrison Boulevard. Design will be completed in FY 17-18 and construction in FY 18-19.

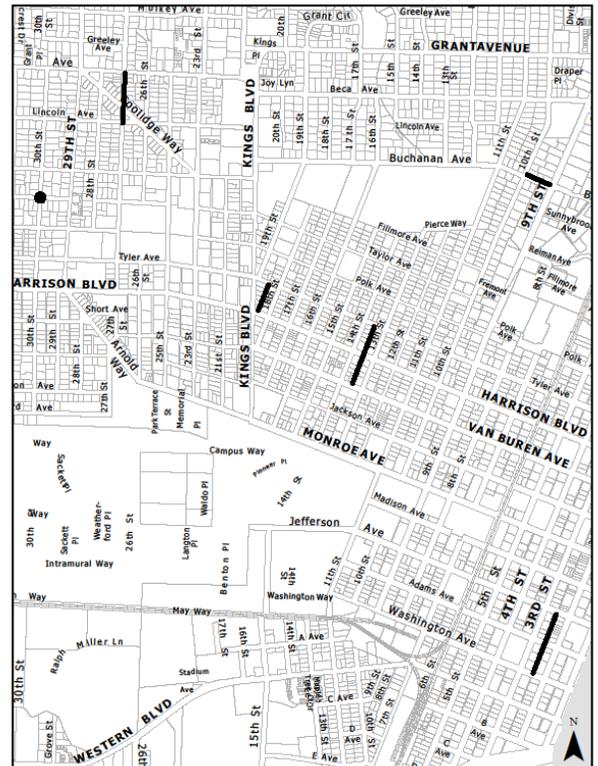
Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 17-18	FY 18-19
Wastewater Operating Revenue	\$49,860	\$743,500



Capital Improvement Program 2018-2022

FY 2017-20 WASTEWATER PLANT PRIMARY CLARIFIER

Department: Public Works

Category: Community Preservation

Origination: Wastewater Utility Master Plan

Total Cost: \$7,176,830

Project Description: This project will ensure compliance with EPA permit requirements for wastewater treatment by having sufficient facilities to meet growing needs of the community. In wastewater treatment, approximately 50% of the solids are removed from the incoming wastewater stream in the primary clarifiers prior to further treatment.



EPA permit conditions mandate stringent requirements for treatment of wastewater. Violations of permit requirements can result in substantial fines, penalties, and diminished Willamette River water quality. Treatment equipment of adequate capacity and maintained in good operating condition will help ensure discharge permit requirements are met and the useful life of plant equipment is extended as much as possible.

This project will design and construct one new primary clarifier at the WWRP. The new 184-foot long and 43-foot wide clarifier will be added to the treatment process and will accommodate increased flows due to community growth.

The design budget has been split between two years to provide early identification of the expected construction costs and sufficient time to budget an appropriate amount.

Assumption: None

Operating Budget Impacts: This project will increase operating expenses for electricity and equipment maintenance by approximately \$7,000 per year.

Estimated Useful Life: 50 years

Project Funding Source:

	FY 17-18	FY 18-19	FY 19-20
Wastewater SDC	\$358,840	\$358,840	\$6,459,150

Capital Improvement Program 2018-2022

FY 2018-22 WASTEWATER PIPE REPLACEMENT – LOCATIONS TO BE DETERMINED

Department: Public Works

Category: Community Preservation

Origination: Wastewater Utility Master Plan, Sewer System Maintenance Management Program, Asset Management Program

Total Cost: \$2,531,430

Project Description: Every year wastewater pipes are replaced that have failed or reached the end of their useful life. Main lines are inspected using closed circuit televising to analyze the pipe interior using the NASSCO structural condition rating system.



In future CIPs, specific locations will be identified and scopes refined resulting in individual project pages. The replacement of pipes supports City sustainability and asset management goals.

Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 40 years

Project Funding Source:

	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Wastewater Operating Revenue	\$51,360	\$ 802,380	\$826,450	\$851,240

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Capital Improvement Program 2018-2022

FY 2019-21 WASTEWATER PLANT SECONDARY CLARIFIER

Department: Public Works

Category: Community Preservation

Origination: Wastewater Utility Master Plan

Total Cost: \$4,908,000

Project Description: This project will ensure compliance with EPA permit requirements for wastewater treatment. The additional 120-foot diameter clarifier's main purpose is to settle out suspended solids for further processing. The result of this process is a clear, low solids content that overflows to the final treatment process before being discharged to the receiving stream. The design of the clarifier will accommodate increased flows due to community growth.



EPA permit conditions mandate stringent requirements for treatment of wastewater. Violations of permit requirements can result in substantial fines and penalties. Treatment equipment of adequate capacity and maintained in good operating condition will help ensure discharge permit requirements are met and the useful life of plant equipment is extended as much as possible.

This project will design and construct one secondary clarifier.

Assumption: None

Operating Budget Impacts: This project will increase operating expenses for electricity and equipment maintenance by approximately \$7,000 per year.

Estimated Useful Life: 50 years

Project Funding Source:

	FY 19-20	FY 20-21
Wastewater SDC	\$100,000	\$4,808,000

Unfunded Projects

The following projects have been identified as needed repairs and/or improvements to the City's infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure over the next 10-20 years. This should be considered a preliminary list as additional projects for the 20-year period will be generated from the Asset Management Plan, when that work is completed. The projects listed are considered "unfunded" because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Collection System	Projected Total
Mary's River Pump Station	\$1,300,000
Brooklane Pump Station	\$750,000
South Corvallis Parallel Interceptor Pipe Line	\$19,000,000
Country Club Trunk	\$1,250,000
Garfield Parallel Pipe Line	\$640,000
Crescent Valley Interceptor	<u>\$3,500,000</u>
Total for Unfunded Conveyance	\$26,440,000
Wastewater Plant	Projected Total
Influent Pumping/Headwaters	\$4,721,048
Primary Treatment	\$8,491,257
Biological Treatment	\$7,370,321
Filtration	\$19,665,843
Effluent Pumping	\$3,441,789
Solids Handling	\$15,306,907
Odor Control	\$2,026,670
Non Process Facilities	\$1,064,418
Backup Power Generation	<u>\$3,000,000</u>
Total for Unfunded Wastewater Plant	\$65,088,253
Grand Total for Wastewater	<u>\$91,528,253</u>



Water

WATER

The water system in Corvallis has a treatment component and a distribution component. In the treatment component, our city has two plants that process about 2.7 billion gallons of water in a year in accordance with strict federal and State regulations. In the distribution component, there are over 250 miles of underground pipe to carry the treated water to homes, businesses, and service providers, along with 10 pumping stations to lift the water to the higher elevations in our community and eight reservoirs with a combined storage capacity of 23 million gallons. City staff maintain and/or replace the assets in the plants and in the field to ensure an uninterrupted supply of high-quality water for domestic, commercial and fire-fighting purposes. Proactively managing our assets will provide the longest possible service life for each part of the infrastructure in the complex treatment and distribution components, as well as safeguard the investment the community has made over time in the whole water utility.

Based on the most recent information available in the Asset Management Program, the present value of what the community has invested in the water infrastructure is \$347,024,319.

Most of the work to maintain and operate the water system is performed with City crews. Capital projects or major replacements (i.e., main line pipes, high service pumps, chemical feed systems) are performed through contracts.

The primary sources of capital improvement projects are the Water Distribution System Facility Plan, the Taylor Treatment Plant Master Plan and the Rock Creek Treatment Plant Master Plan, which were last updated in the late 1990s. Preparation of a master plan sets the blueprint for how the utility will respond to expected growth in the community and to new or emerging federal and state regulations. The master plan provides for efficient planning and implementation of utility improvements to address these evolving challenges as well as the protection of human health. Master plans are typically renewed every 10 to 15 years and a project to develop a new comprehensive water system plan is scheduled in the next three years. When completed, a detailed capital project list will be available for incorporation in this planning document.

In 2011, Public Works began work on an Asset Management Plan (AMP) for the City's utility systems. In developing a first iteration AMP, an organization will seldom have perfect data to support the asset analysis. This was the case for Corvallis as well, and the first version of the plan completed in 2013 had a data confidence level rating of approximately 72%. This is because data was not available across all asset types, classes, and services, and in some cases, the data that did exist was based on assumptions, and so not as accurate as desired. In FY 15-16, Public Works teamed with a consultant to focus efforts on closing the gaps in the AMP information for the water distribution component. In FY 16-17, the department expects to complete a similar data quality project for the treatment component assets. The timing and type of projects identified in the AMP to properly maintain the assets will be another source of capital improvement project proposals.

Accomplishments in FY 16-17 and Ongoing Projects

The following list shows projects funded in prior CIP budgets that are currently in process or that have been revised or completed. Because these and earlier continuing projects have been authorized and funded, they no longer appear in the detail pages of the CIP.

Completed. Water Distribution System Replacement: 36th Street, Woodland Drive

In Process. Water Distribution System Replacement: Maxine Avenue, Tyler Place
Design will be completed this fiscal year for construction in summer 2017.

In Process. Marys River Water Main Crossings
Design will be completed this fiscal year for construction in spring 2018.

In Process. Rock Creek Filter Addition
Design is completed and construction is scheduled for fall 2017.

In Process. Taylor Plant High Service Pump Addition
Design will be completed this year for construction in fall 2017.

Financial Challenges

The main source of funding for operation and maintenance of the water system comes from the monthly charge to customers on the City Services bill. Each year, staff reviews the financial viability of the Water Fund, and presents to the City Council the state of the utility and whether rate adjustments are needed to meet the obligations for proposed operations and/or capital projects.

The preliminary output from the AMP program indicates the average annual expenditure for water asset maintenance and replacement would need to be \$7.2 million to align with best management practices (BMP). Currently, only about \$4.3 million is expended on an annual basis. To provide sufficient resources to achieve the BMP expenditure level would require a 30% increase in the present annual revenue of \$10 million dollars.

This presents a financial policy challenge to balance the impact on ratepayers from increased charges against the ability to achieve the desired outcome of a well-managed and maintained utility system. Navigating this balance will be an ongoing City Council level conversation.

Funding Summary

The following table shows the total dollar amount for projects scheduled in each of the five years of this CIP, broken down by the source of the funding.

Each year, the estimated cost of the projects is brought up to current year costs by applying the change in the ENR construction cost index for Seattle.

Projected Cost Totals

FUNDING SOURCE	17-18	18-19	19-20	20-21	21-22	TOTAL
Property Owner Assessments	\$110,000	\$0	\$0	\$0	\$0	\$110,000
Water Operating Revenues	\$550,000	\$777,000	\$325,000	\$825,000	\$7,038,210	\$9,515,210
Water SDC	\$0	\$0	\$0	\$714,280	\$4,377,090	\$5,091,375
GRAND TOTALS	\$660,000	\$777,000	\$325,000	\$1,539,280	\$11,415,300	\$14,716,580

Funded Projects Summary & Detail

The following projects have been identified for inclusion in this five-year Capital Improvement Program.

Each project shown below is explained in detail on the pages that follow. Projects are listed in the fiscal year order they are planned to occur.

Project Description	Project Total
Plan Year: 2017-2018	
Lawndale Annexation Water Line Installation	\$110,000
Rock Creek Reservoir Structure Replacement	\$850,000
Water Pipe Replacement - 34th & 45th Streets	<u>\$442,000</u>
Total for FY 2017 - 2018	\$1,402,000
Plan Year: 2018-2019	
Water Pipe Replacement - Locations To Be Determined	<u>\$1,010,000</u>
Total for FY 2018 - 2019	\$1,010,000
Plan Year: 2019-2020	
	<u>\$0</u>
Total for FY 2019 - 2020	\$0
Plan Year: 2020-2021	
Baldy 2nd Level Storage Reservoir	\$2,000,000
Rock Creek Transmission Main Replacement	<u>\$10,304,580</u>
Total for FY 2020 - 2021	\$12,304,580
Plan Year: 2021-2022	
	<u>\$0</u>
Total for FY 2021 - 2022	\$0
Grand Total for Water:	<u><u>\$14,716,580</u></u>

FY 2017-18 LAWNSDALE ANNEXATION WATER LINE INSTALLATION

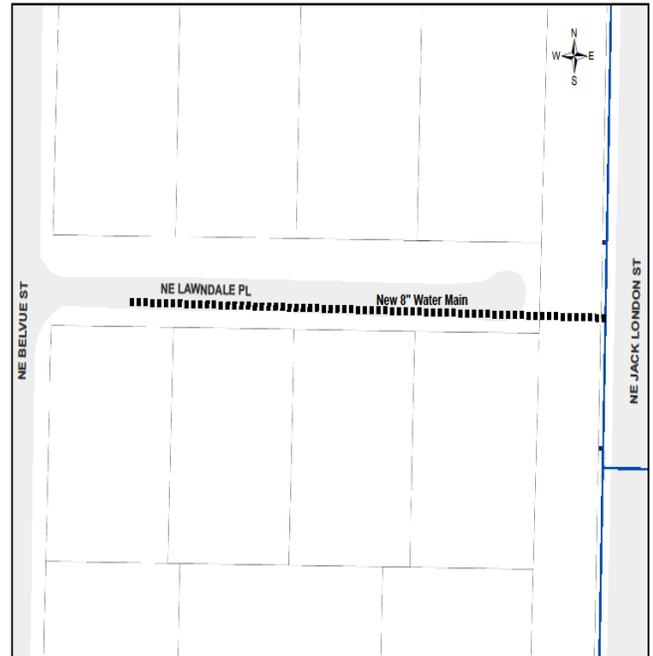
Department: Public Works

Category: Infrastructure Development

Origination: Annexation

Total Cost: \$110,000

Scope of Work: Lawndale Place was annexed into the City of Corvallis in November 2016. Until this time it was a small county island located within City limits. Due to failing septic systems and water wells, the property owners applied for a voter approved annexation that when approved would allow for connection to City services. This project will install approximately 300 feet of 8-inch water main and service lines along Lawndale Place from Belvue to Jack London Streets. This project will likely be constructed at the same time as the Lawndale sanitary sewer line project.



Assumptions: This project will only be constructed upon a request from the property owners for the City to install water services. With any development that will connect to City services, the property owner is required to pay for the facilities in front of their property. For this reason, property owners will be responsible for all project costs.

Operating Budget Impacts: None

Estimated Useful Life: 80 years

Project Funding Source:

Property Owner Assessments	FY 2017-18 \$110,000
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FY 2017-19 ROCK CREEK RESERVOIR STRUCTURE REPLACEMENT

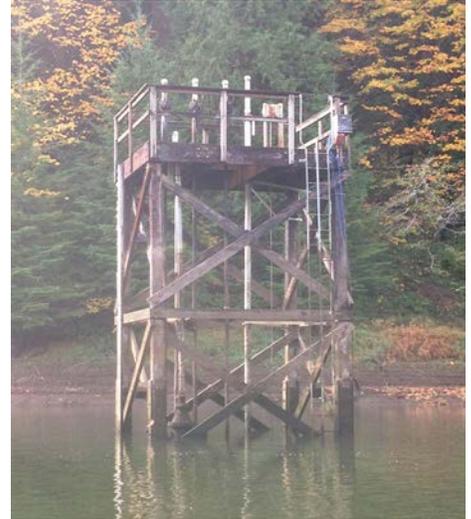
Department: Public Works

Category: Community Preservation

Origination: Water Reservoir Structure Inspection Report

Total Cost: \$850,000

Project Description: This project provides for design and replacement of the 60-foot-tall 1959 wooden tower structure, control valves, and flashboards located in the Rock Creek reservoir. The tower is a support structure for operational valves that control water level for treatment plant operations, reservoir drainage, and flushing. A November 2015 inspection of the structure found broken and damaged wood cross bracing, a broken gate valve and operator, heavy corrosion of brackets and support connections, and possible failure of the reservoir drain valve due to increased leakage. In addition to the structure, flashboards are used to control the reservoir level at the spillway and provide additional water storage when in place. Upon inspection of the flashboards and the insertion guides it was found that they were inoperable and in need of replacement.



The project will be designed in FY 17-18 and constructed in FY 18-19.

Assumption: The need to discuss the project with State and federal agencies, and possibly secure permits to drain the reservoir for the work may delay the project.

Operating Budget Impacts: None

Estimated Useful Life: 50 years

Project Funding Source:

	FY 17-18	FY 18-19
Water Operating Revenue	\$500,000	350,000

Capital Improvement Program 2018-2022

FY 2017-19 WATER PIPE REPLACEMENT – 34th & 45th STREETS

Department: Public Works

Category: Community Preservation

Origination: Asset Management Program

Total Cost: \$442,000

Project Description: This project provides for design and replacement of an anticipated 1,385 feet of water main that is at the end of its useful life. The water mains consist of 6-inch cast iron and 16-inch ductile iron pipe and have experienced multiple failures requiring emergency repairs and inconvenience to the general public. The project will be designed in FY 17-18 and constructed in FY 18-19.

The new pipe will reduce operation costs associated with emergency response to failures.

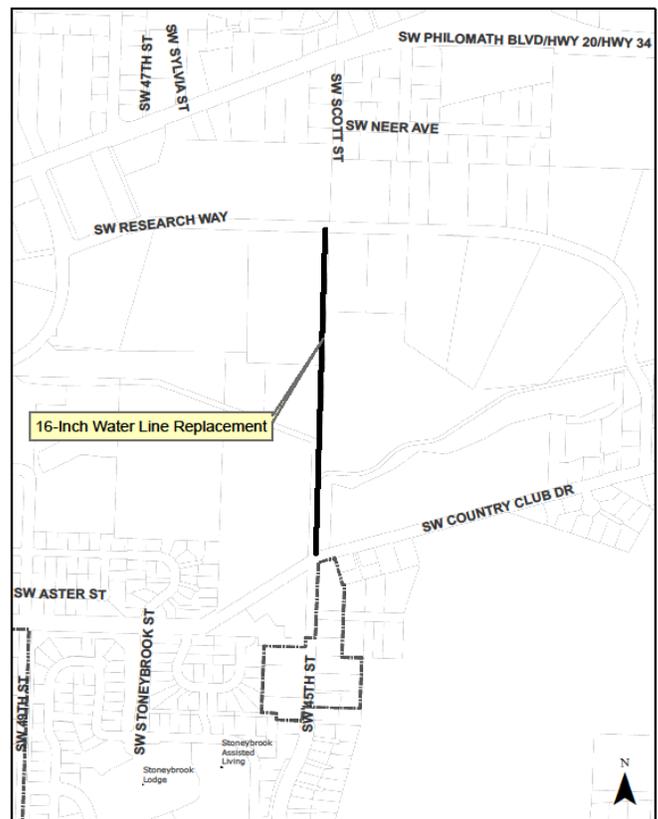
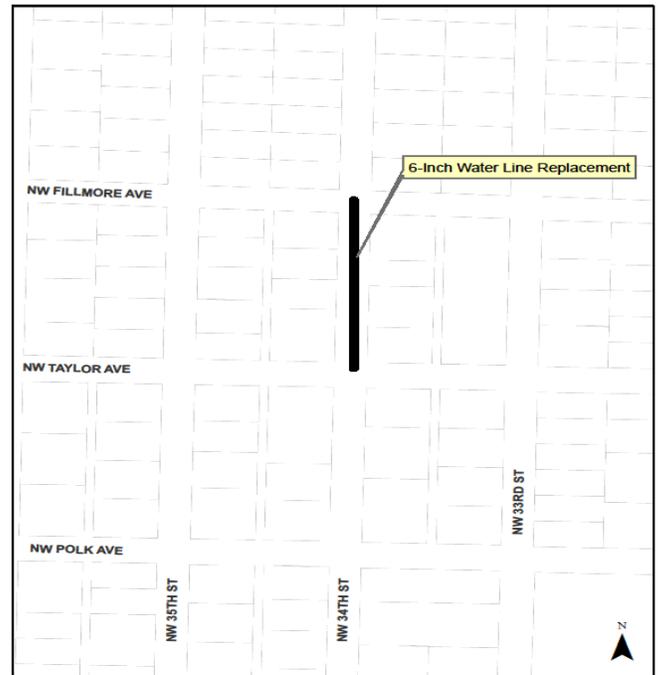
Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 80+ years

Project Funding Source:

	FY 17-18	FY 18-19
Water Operating Revenue	\$50,000	\$392,000



3/17/17

Capital Improvement Program 2018-2022

FY 2018-22 WATER PIPE REPLACEMENT – LOCATIONS TO BE DETERMINED

Department: Public Works

Category: Community Preservation

Origination: Asset Management Program

Total Cost: \$1,010,000

Project Description: This annual program provides for design and replacement of the City’s water distribution system infrastructure that is at the end of its useful life or failing due to age, pipe material, corrosive soils, or any combination of these issues. The proposed waterline improvements will meet the recommended design and performance criteria as defined in the City’s Water Distribution System Facility Plan.



In future CIPs, specific locations will be identified and the project copies refined resulting in individual project pages. The replacement of the pipe will reduce operations cost associated with pipe failures and water loss. The projects will be prioritized from the Asset Management Program and maintenance and repair records.

Assumption: None

Operating Budget Impacts: None

Estimated Useful Life: 80+ years

Project Funding Source:

	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Water Operating Revenue	\$35,000	\$325,000	\$325,000	\$325,000

Capital Improvement Program 2018-2022

FY 2020-22 BALD HILL 2ND LEVEL STORAGE RESERVOIR

Department: Public Works

Category: Community Preservation

Origination: Water Distribution System Facility Plan

Total Cost: \$2,000,000

Project Description: This project will construct a 1.5 million-gallon water storage reservoir to serve the Southwest Corvallis 2nd level area. There is no 2nd level water storage in this area today. The location of the reservoir is on existing City-owned property that currently has a pump station that will continue to be utilized to fill the reservoir when needed.



This reservoir project will increase reliability for uninterrupted service to customers in that it can supply water by gravity during power outages or other pump station disruptions. The project addresses population growth in this part of the City, and the need for additional water storage for fire protection, drought preparedness, and other emergencies.

Assumption: A land use review will be included as part of the project development to address any requirements that might be needed for buffering and screening of the structure.

Operating Budget Impacts: \$500 year

Estimated Useful Life: 50 years

Project Funding Source:

	FY 20-21	FY 21-22
Water SDC	\$500,000	\$1,500,000

3/17/17

Unfunded Projects

The following projects have been identified as needed repairs and / or improvements to the City's infrastructure. In most cases, these projects are the result of a master plan process, which attempts to systematically look at the needs for public infrastructure over the next 10-20 years. This should be considered a preliminary list as additional projects for the 20-year period will be generated from the AMP, when that work is completed. The projects listed are considered "unfunded" because either a source of funding has not been made available, or they will not be implemented within the five-year period this plan covers.

Distribution System	Projected Total
Winding Way	\$2,160,000
Bald Hill Park Area	\$1,285,000
Conifer Boulevard	\$949,000
NE Highway 99	\$2,150,000
9 th Street	\$256,000
Hewlett Packard Campus	\$454,000
Seavey Avenue	\$209,000
Jackson Creek Area	\$1,773,000
SE Highway 99	\$328,000
Lester Avenue	\$112,000
Timberhill Area	\$1,255,000
North Hills Reservoir Area	\$1,415,000
Ponderosa Avenue	\$539,000
53rd Street	\$843,000
Country Club Drive	\$213,000
Southwest Reservoir Area	\$106,000
Wake Robin Avenue	\$503,000
Nash Avenue	\$485,000
West Hills Road	\$538,000
Reservoir Avenue	\$594,000
Philomath Boulevard	<u>\$86,000</u>
Total for Unfunded Distribution System	\$16,253,000

Taylor Plant	Projected Total
Instrumentation and Control Improvements	\$150,000
Electricity Metering	\$183,000
Ultraviolet/Ozone Disinfection and Controls	\$3,500,000
Pump Conversions	\$550,000
Production Control Automation	\$575,000
Flocculation Basin, Sedimentation Basin, Filters	\$4,000,000
Raw Water Intake	\$5,500,000
Backup Power Generation	\$2,000,000
Backwash Lagoon and Solids Handling	<u>\$750,000</u>
Total for Unfunded Taylor Plant	\$17,208,000

Rock Creek Plant	Projected Total
Dechlorination Building and Feed System	\$300,000
Ultraviolet Disinfection System	\$550,000
Reservoir Raw Water Supply Pipe	\$4,752,000
Solids Handling and Drying Beds	<u>\$750,000</u>
Total for Unfunded Rock Creek	<u>\$6,352,000</u>
 Grand Total for Unfunded Water	 \$39,813,000

Glossary

Glossary of Terms

ADA - Americans with Disabilities Act.

AMP – Asset Management Plan

Assessments - An amount levied against a property for improvements specifically benefitting that property.

BMP – Best Management Practices

Bonds - A written promise to pay a sum of money (principal or face value) at a future date (maturity date) along with periodic interest paid at a specified percentage of the principal (interest rate). Bonds are typically used to finance long-term capital improvements.

Budget - A plan of financial operation, embodying an estimate of proposed expenditures for a given period (typically a fiscal year) and the proposed means of financing them (revenue estimates). Upon approval by City Council, the budget appropriation resolution is the legal basis for expenditures in the budget year.

BPAB - Bike and Pedestrian Advisory Board.

CCTV – Closed Circuit Television

CIP - Capital Improvement Program which is a plan for capital expenditures to be incurred each year over a fixed period of several future years, setting forth each capital project, identifying the expected beginning and ending date for each project, the amount to be expended in each year, and the method of financing those expenditures.

DEQ - Department of Environmental Quality.

ENR – Engineering News-Record

EPA - Environmental Protection Agency.

FAA - Federal Aviation Administration.

FEMA - Federal Emergency Management Agency.

FTA - Federal Transit Administration.

Fund - An independent fiscal and accounting entity with a self-balancing set of accounts, recording cash and/or resources together with all related liabilities, obligations, reserves, and equities, which are segregated for the purpose of carrying on specific activities or attaining certain objectives.

GO Bonds - When a government pledges its full faith and credit to the repayment of the bonds it issues, then those bonds are general obligation (GO) bonds. Sometimes the term is also used to refer to bonds which are to be repaid from taxes and other general revenues.

Grant - A contribution of funds from one entity to another. Grants are generally designated for a specific expenditure.

HDPE – High Density Polyethylene

HVAC - Heating/ventilation/air conditioning.

LDC - Land Development Code.

Master Plan - A comprehensive plan, normally covering a 5-10 year period, developed to guide delivery of specific services, identify future needs and challenges, and identify future infrastructure needs.

MGD – Million Gallons per Day.

NASSCO – National Association of Sewer Service Companies

NEPA – National Environmental Policy act.

OAC - Osborn Aquatic Center.

ODOT - Oregon Department of Transportation.

Operating Budget - The appropriated budget supporting current operations.

Operating Revenue - Monies received or anticipated by a local government from either tax or nontax sources.

OSU - Oregon State University.

PCI – Pavement Management Index

PNARAB - Parks, Natural Areas and Recreation Advisory Board.

PVC – Polyvinyl Chloride

PW - Public Works.

ROW - Right-of-way.

SDC - System Development Charge that is levied on new construction to help pay for additional expenses created by this growth or to compensate for already existing capacity in key facilities and systems already in place which support the new development.

STP - Surface Transportation Program which is administered by the State and allows local agencies to exchange federal funds for state funds.

SWMP - Storm Water Master Plan.

TBD - To be determined.

TMDL – Total Maximum Daily Load. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards.

TMF – Transportation Maintenance Fee.

USRC – U.S. Resiliency Council

WTP – Water Treatment Plant.

WWRP - Wastewater Reclamation Plant.