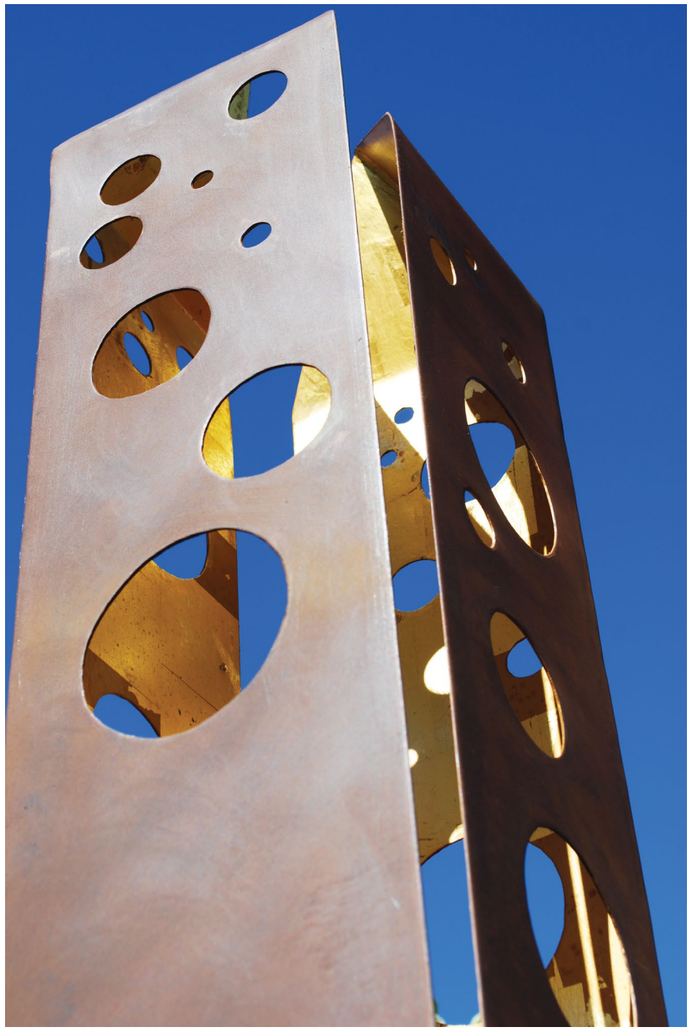
CITY OF **MILWAUKIE**

CAPITAL IMPROVEMENT PLAN

Fiscal Years 2019–2024



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MESSAGE FROM THE CITY MANAGER

For the past several years, the city has worked diligently to understand the needs of its aging infrastructure and develop plans for making much needed repairs. Our Capital Improvement Plan (CIP) is a living document intended to show the community where the city sees infrastructure needs, along with a sense for if and when the city can meet the needs of each project. Our goal is to use the funds entrusted to the city by its residents to manage the resources effectively and efficiently. In places where insufficient funding exists, we highlight our need to search out new funding sources.

Milwaukie is experiencing a dynamic period of growth and transportation investment. Over the next two years, our city's downtown will gain a new library, high school, pedestrian plaza, and several multi-story, mixed-used developments. These developments both require new infrastructure investments and provide opportunities to pair needed improvements to developments so residents are inconvenienced only once. New webpages are currently being developed to help residents understand when and where these improvements are taking place and will be ready for viewing later this summer.

Our Capital Improvement Plan (CIP) is a living document intended to show the community where the city sees infrastructure needs, along with a sense for if and when the city can meet the needs of each project.

The city is also poised to invest substantially into its transportation infrastructure over the next biennium. In March 2018, Milwaukie City Council authorized $21 million in bonds to construct numerous sidewalk and paving projects between 2019 and 2021 under the Safe Access for Everyone (SAFE) and Surface Streets Maintenance Programs (SSMP). These bonds will fund the first of three phases that will construct 27.9 miles of sidewalk, four miles of bike lanes and nearly 900 ADA ramps over the next several years. The SAFE program was developed by the Public Safety Advisory Committee, who dedicated countless hours to reviewing maps, walking the community and discussing funding. The city appreciates their commitment to making the community safer for our residents.

However, these dollars don't fully address the needs of our capital assets, which are depreciating. Aging infrastructure can be seen daily as potholes or broken water lines, for example. Recognizing this, city staff and City Council, along with the citizen members of the Budget Committee and Citizens Utility Advisory Board, have taken a careful look at Milwaukie's needs and the revenue sources required to afford ongoing improvements. Our recent utility rate increases reflect City Council's efforts to better protect Milwaukie's assets by more aggressively providing funds to improve the quality of city infrastructure. The increases are not sufficient to fully compensate for Milwaukie's previous practice of maintaining low utility rates, however, it's a shift that does get us closer.

City staff understand that increasing rates can be difficult on residents. To ensure that future funding requirements for the city's utilities continue to be balanced and practical, staff has included water and wastewater Master Plan updates into the CIP. In addition, staff has budgeted for water and wastewater cost of service studies to make sure future rates continue to be balanced and defensible. We must continue to identify and prioritize the projects that are most critical to the community, making the most effective impact with the limited funding available.

The city has worked hard to improve its financial outreach and reporting. The finance department's efforts have been nationally recognized as the budget document and reporting materials have received awards for compliance with the highest professional standards. This CIP document was prepared to attain the same level of professionalism to help inform the community about capital planning within the framework of the city's financial forecasting. I'd like to commend our engineering, public works and finance departments for their outstanding efforts to prepare this CIP. I'm pleased to submit it to you as an example of the excellent work undertaken by your city staff to address the ongoing needs of the community.

If you have any questions about this document, I encourage you to contact Engineering Director Charles Eaton at eatonc@milwaukieoregon.gov or Finance Director Haley Fish at fishh@milwaukieoregon.gov.

Sincerely,

Ann Ober

Milwaukie City Manager

DOCUMENT GUIDE

This Capital Improvement Plan document provides detailed descriptions about projects organized by fund. Each fund section begins with a summary overview of the function of the fund followed by funding and project information. Summary tables and graphs highlight the capital projects within each fund. Following the summary sections are detailed breakdowns of each project, along with project schedules, cost estimates, and operating budget impacts. Summary information of all capital projects sorted by fund, funding source, and funding status are included as appendices to this document.

The project title and description explain the details and need for each project.

Where the project originated (see abbreviation list on opposite page)

ACCESSIBILITY PROGRAM

This project will implement the Barrier Removal Program and Accessible Pedestrian Signal Upgrades within the Bicycle and Pedestrian Accessibility Plan which includes elements within the ADA Transition Plan throughout the City. Project includes removing barriers within existing sidewalks, constructing or reconstructing sidewalks, signals at 32nd Ave and Harrison St, Lake Rd and Oatfield Rd, and PCC and Johnson Creek, and constructing ADA sidewalk access ramps. Retrofit existing signals, install accessible pedestrian signals, and rapid flashing beacons at specific intersections to improve pedestrian access and safety. Projects will require relocation of storm facilities and construction of water quality facilities.

Sources: SAFE, RTP (11621 & 11540)

Operating Budget Impact: This project will potentially increase maintenance and operating expenses.

Submitted by: Engineering

Describes the outcome of the project on the operating budget of each fund.

The department(s) that requested the project be included in the CIP.

STATUS	FUNDING SOURCE	2016			FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$2,118,000	$175,100	$683,300	$451,800	$579,100	$273,300	$281,500	$2,444,100
Funded	Storm	–	$35,000	$136,600	$90,400	$115,800	$54,400	$56,300	$488,500
Unfunded	Transportation	$3,819,000	–	–	–	–	–	–	$3,819,000
Unfunded	SAFE	$896,200	–	–					$896,200

This indicates whether the project is funded or unfunded, the funding source, and the cost for each scheduled project year

ABBREVIATIONS

ADA	Americans with Disabilities Act
BPAP	Bicycle and Pedestrian Accessibility Program
CCSD	Clackamas County Service District #1
CCTV	Closed Circuit Television
CD	Community Development Department
CDBG	Capital Development Block Grant
CIP	Capital Improvement Plan
CMTP	Central Milwaukie Transportation Plan
CMU	Concrete Masonry Unit
CNG	Compressed Natural Gas
CO	Cleanout
CRW	Clackamas River Water
CUAB	Citizen's Utility Advisory Board
DEQ	Department of Environmental Quality
DRFP	Milwaukie Downtown and Riverfront Land Use Framework Plan
EV	Electric Vehicle
FEMA	Federal Emergency Management Agency
FILOC	Fee in Lieu of Construction
FY	Fiscal Year
GIS	Geographic Information System
GMC	Brand of Truck
GPM	Gallons per Minute
HDPE	High-Density Polyethylene
HMA	Hazard Mitigation Assistance
JCB	Johnson Creek Boulevard Building
MH	Manhole
NMIA	North Milwaukie Industrial Area
ODOT	Oregon Department of Transportation
PCC	Precision Castparts Corp.
PCI	Pavement Condition Index
PSB	Public Safety Building
PW	Public Works Department
RRFB	Rectangular Rapid Flash Beacon
RTP	Regional Transportation Plan
SAFE	Safe Access for Everyone
SCADA	Supervisory Control and Data Acquisition
SDC	System Development Charges
SSMP	Street Surface Maintenance Program
SWMP	Storm Water Master Plan
TSP	Transportation System Plan
TSAP	Tacoma Station Area Plan
UD	Brand of Truck
UIC	Underground Injection Control
UPRR	Union Pacific Rail Road
URAP	Urban Renewal Area Plan
WPCF	Water Pollution Control Facility
WMP	Water Master Plan
WWMP	Waste Water Master Plan

CAPITAL IMPROVEMENT PLAN OVERVIEW

The Capital Improvement Plan (CIP) establishes guidance and planning for the City of Milwaukie's capital investments in fleet, facilities and infrastructure. At the foundation of the CIP are the City's Master Plan documents (Water, Sewer, Storm, Transportation, and Parks), which are an extension of the City's Comprehensive Plan. These master plans illustrate the long-term needs and goals of each department as defined by community input, advisory groups, expert consultants, and City Staff. Planning Commission and City Council goals, operational (i.e. service delivery) needs, and regulatory requirements further refine and shape the CIP.

Projects within the CIP are prioritized and matched with projections of future revenues. Inclusion of a project within this document does not necessarily reflect a budgeted spending commitment, but instead reflects anticipated priority at this point in time based on estimated future revenues. Current revenues are not enough to keep up with all the capital needs of the City and as such, some projects are shown as unfunded or partially funded in the CIP. Additionally, there are restrictions related to where the funds may be spent on many revenue sources.

A capital expenditure is defined by the City using the following two criteria: relatively high monetary value ($10,000 or greater), and a long asset life (1 or more years of useful life), excluding the cost of normal maintenance and repairs that do not add to the value of the asset or martially extend the asset's life.

The CIP is intended as a method of communication with citizens, businesses, advisory groups, the Planning Commission, and City Council. It gives the public the opportunity to see the City's proposed plans for the future and provide feedback to the City Council and City Staff.

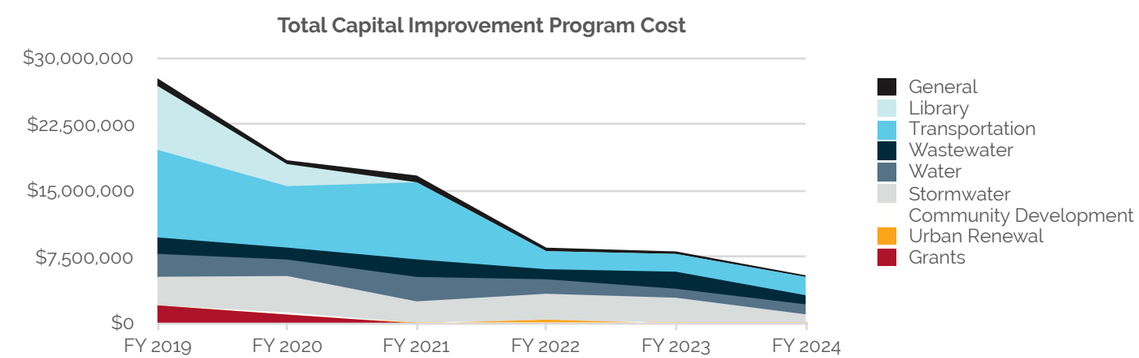
The goal of this Capital Improvement Plan is to provide the maximum sustainable level of priority capital investment to deliver outcomes that are of the highest importance to our citizens and provide for a healthy, safe, active, efficient, and optimized community with excellent livability and quality of life.

FACTORS IN EVALUATING CIP PROJECTS

- Master planning documents
- City Council & Planning Commission goals
- Operational needs
- Regulatory requirements
- Fiscal impacts
- Health, safety, and environmental effects
- Community economic effects
- Feasibility, including public support and disruption
- Implications of deferring the project
- Coordination and advantages of joint projects

FUNDING SUMMARY INFORMATION

FUND	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
General	$856,000	$430,000	$769,000	$397,000	$285,000	$190,000	$1,375,000	$4,302,000
Building	–	–	–	–	–	–	–	0
Library	7,238,750	2,504,000	–	–	–	–	–	9,742,750
Transportation	9,905,500	6,942,800	8,715,400	2,040,500	2,005,550	2,063,600	160,678,100	192,411,450
Wastewater	1,860,000	1,350,000	1,983,000	1,138,000	1,928,250	1,029,000	7,500,000	16,788,250
Water	2,589,000	1,862,000	2,767,000	1,638,000	1,015,050	1,127,500	1,627,200	12,625,750
Stormwater	3,233,800	4,114,700	2,495,000	2,929,800	2,906,250	1,032,500	–	16,712,050
Community Development	–	250,000	–	–	–	–	3,101,000	3,351,000
Urban Renewal	–	–	–	424,000	–	–	38,876,000	39,300,000
Grants	2,043,000	1,000,000	–	–	–	–	3,750,600	6,793,600
CITY-WIDE TOTALS	**$27,786,050**	**$18,453,250**	**$16,729,400**	**$8,567,300**	**$8,140,100**	**$5,442,600**	**$216,907,600**	**$302,026,850**

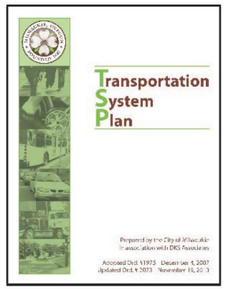


FUNDING FOR CAPITAL PROJECTS COMES FROM FOUR DISTINCT SOURCES

1. Fees: including utility rates, franchise utility fees, state gas tax and vehicle registration fees, interest income, internal service charges, streets/parks fees, and property taxes.
2. Bonds
3. Grants and intergovernmental: from outside agencies such as ODOT, Metro, Clackamas County, DEQ, CDBG, Oregon Parks, and the Oregon Marine Board.
4. Development: funds paid by new development to cover the cost of the development's impact to the systems either by their request or as a condition of development.

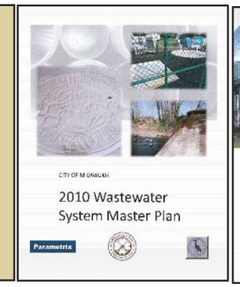
MULTI-DOCUMENT TRANSPARENCY

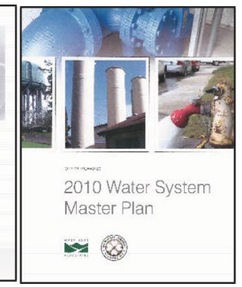
The City of Milwaukie recognizes that the projects included in the Capital Improvement Plan represent a significant amount of public monies and it is the City's intention to present this information across several documents to ensure that projects are clearly understood and accounted for in financial forecasts, budgets, capital improvement plans and master plans. Multi-document transparency means that a capital project necessitated by a master plan will be included in the CIP document and then planned for in the forecast document. Funding for the project will then be included in the budget document and the expense will be recorded in quarterly and annual financial reports.



Master Plans

Transportation
Stormwater
Wastewater
Water
Parks





City of Milwaukie — **Stormwater Fund** *(amounts in thousands)*

	ACTUALS					Current Year Estimated	PROJECTED				
	FY13	FY14	FY15	FY16	FY17	FY18	+ 1 FY19	+ 2 FY20	+ 3 FY21	+ 4 FY22	+ 5 FY23	
Resources												
Beginning fund balance	$ 1,416	$ 1,895	$ 2,527	$ 3,390	$ 2,952	$ 3,774	$ 2,969	$ 2,883	991	$ 1,261	$ 1,557	
Stormwater fee - base	1,971	2,205	2,572	2,933	3,357	3,357	3,830	4,370	4,982	5,670	6,277	0.00%
Stormwater fee - rate increases	-	-	-	-	-	473	540	612	688	607	-	Scheduled
Miscellaneous	21	7	9	29	62	64	66	67	69	71	73	2.50%
Fees in Lieu of Construction (FILOC)	-	-	-	-	-	-	120	-	-	-	-	Estimated
Total revenues	1,992	2,212	2,581	2,962	3,419	3,894	4,556	5,049	5,739	6,348	6,350	
Total Resources	$ 3,408	$ 4,107	$ 5,108	$ 6,352	$ 6,371	$ 7,668	$ 7,525	$ 7,932	6,730	$ 7,609	$ 7,907	
Requirements												
Personnel Services	$ 423	422	483	484	560	738	778	846	883	939	981	PS Spreadsheet
Materials & services (base)	108	95	118	139	145	216	229	232	239	246	253	3.00%
M&S (Franchise Fee to Streets)	156	178	205	234	269	310	350	400	460	510	510	Calculated
Transfers to other funds	740	760	905	965	1,020	1,060	1,296	1,348	1,392	1,427	1,463	2.50%
Capital outlay												
Scheduled capital projects	83	125	7	1,578	375	2,146	1,961	4,115	2,400	2,890	2,715	Per CIP
Unfunded CIP	3	-	-	-	-	-	-	-	-	-	-	Estimated
Other	-	-	-	-	-	-	28	-	10	-	10	
Additions (vehicles & equip)	-	-	-	-	229	229	-	-	85	40	31	Estimated
Total expenditures	1,513	1,580	1,718	3,400	2,598	4,699	4,642	6,941	5,469	6,052	5,963	
Ending Fund Balance												
Policy requirement (25%)	360	360	430	460	500	480	560	610	640	680	700	
Reserve for vehicle replacement	50	100	100	100	100	100	100	100	100	100	100	
Over (under) policy/reserves	1,485	2,067	2,860	2,392	3,174	2,389	2,223	281	521	777	1,144	
Total ending fund balance	1,895	2,527	3,390	2,952	3,774	2,969	2,882.60	991	1,261	1,557	1,944	
Total Requirements	$ 3,408	$ 4,107	$ 5,108	$ 6,352	$ 6,372	$ 7,668	$ 7,525	$ 7,932	$ 6,730	$ 7,609	$ 7,907	

FINANCIAL REPORTING

Projects funded within the CIP are reported as "Capital Outlay" in financial forecasts, budgets, quarterly reports, and annual reports. This line item corresponds with the annual funded totals shown in this Capital Improvement Plan (CIP). The adoption of this CIP document provides the baseline for Capital Outlay that will be included in future budget documents for the Budget Committee to review, consider, and approve, and for the City Council to formally adopt.

THE PROCESS OF A CIP PROJECT

Question:

How does a project get placed on the Capital Improvement Plan?

Answer:

Citizen involvement is the cornerstone of the Capital Improvement Plan. Projects are vetted through a multi-step process (see below) that includes public comment at several stages to ensure that projects meet the community's needs, in addition to expert analyses during plan development. Projects do not begin until funding has been confirmed, approved and adopted into the City's biennial budget.

PROJECT START

A project is first considered as part of the Master Planning process. Staff, with the assistance of expert consultants and Citizen Advisory Group members, drafts Master Plans for community consideration.

Master Plans are subject to several community meetings where citizens are invited to review the plan scope and corresponding capital projects required to fulfill the plan.

Planning Commission reviews Master Plans and takes citizen comments. The Planning Commission carefully considers the community vision when determining whether to recommend a Master Plan.

City Council then reviews Master Plans and adopts them. Once adopted, a Master Plan becomes the guiding document for that City function and the associated project list required to fulfill the Master Plan.

Staff reviews other Council adopted plans such as individual Parks Master Plans, Greenway Plans and other similar documents for inclusion in the CIP.

Staff tracks citizen input, regulatory requirements and infrastructure needs to refine the list of capital needs and the prioritization of projects within the CIP.

Budget Committee reviews and recommends revisions as part of the biennial budget process. City Council adopts the CIP with the biennial budget.

As projects commence, public outreach efforts will focus on impacted neighbors to ensure that project work meets the needs of the community within the adopted Council Plan and has a minimal impact on services and the community. The City's website is the primary communications vehicle.

PROJECT COMPLETION

CHAPTER 1
OPERATIONAL FACILITIES AND EQUIPMENT

The projects and capital needs within this chapter are necessary to keep the existing city facilities and operational needs maintained and up to date. Projects within this chapter include facility improvements, vehicle replacements, information technology upgrades, and other enhancements necessary to extend the useful life of existing city facilities and equipment.

OVERVIEW

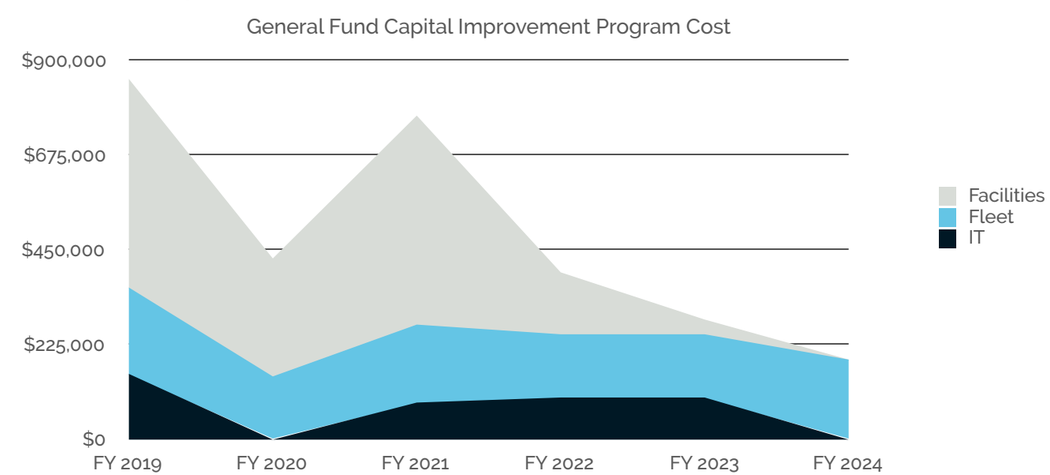
The General Fund is the main operating fund of the City. It accounts for and reports all financial resources not accounted for and reported in another fund.

THE CITY'S GENERAL FUND ACCOUNTS FOR THE FOLLOWING DEPARTMENTS:

- City Council
- City Manager
- Community Development
- Public Works Administration
- Engineering
- Facilities Management
- Finance
- Fleet Services
- Human Resources
- Information System Technology
- Municipal Court
- Planning
- Code Enforcement
- Public Access Studio
- Records and Information Management
- Police Administration, Field Services & Support
- Non-departmental
- City Attorney

Ongoing revenue sources for the General Fund are property taxes, internal charges for services to other funds, intergovernmental revenues, franchise fees, fines and forfeitures, licenses and permits, and miscellaneous income. The General Fund also may anticipate debt proceeds.

The General Fund expenditures consist of Personnel Service to support the budgeted full-time equivalents (FTEs), Materials and Services, Debt Service, and Capital Outlay across the 18 departments listed above.



FACILITIES SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
12	Energy Chargers	$10,000	–	–	–	–	–	–	$10,000
12	JCB CD Front Counter ADA	15,000	–	–	–	–	–	–	15,000
12	Roof Repair for City Hall	20,000	–	–	–	–	–	–	20,000
13	JCB Fuel Tanks	30,000	–	–	–	–	–	–	30,000
13	Remodel Council Chambers and Conference Room at City Hall	50,000	–	–	–	–	–	–	50,000
13	Engagement Space	370,000	–	–	–	–	–	–	370,000
14	Replace Security System Server at PSB	–	15,000	–	–	–	–	–	15,000
14	Replace Boiler at City Hall	–	15,000	–	–	–	–	–	15,000
15	Replace Leaking Windows at City Hall	–	60,000	–	–	–	–	–	60,000
16	Tuck Pointing / Mortar Repair at City Hall	–	90,000	–	–	–	–	–	90,000
16	Pole Barn Addition at JCB PW	–	100,000	–	–	–	–	–	100,000
14	Repaint Interior at City Hall	–	–	20,000	–	–	–	–	20,000
15	Repaint Exterior at JCB	–	–	35,000	–	–	–	–	35,000
15	Bullet resistant glass at PSB	–	–	60,000	–	–	–	–	60,000
16	Replace HVAC System at City Hall	–	–	150,000	–	–	–	–	150,000
17	Replace Apparatus Bay Doors at PSB	–	–	16,000	–	–	–	–	16,000
18	Citywide Upgrade of Security Badge Readers	–	–	40,000	–	–	–	–	40,000
18	Seismic Retrofit of PSB	–	–	175,000	–	–	–	1,000,000	1,175,000
17	Paint Interior Sheetrock at JCB CD	–	–	–	12,000	–	–	–	12,000
17	Replace Carpet at JCB CD	–	–	–	25,000	–	–	–	25,000
18	Replace JCB (CD) Admin Roof	–	–	–	110,000	–	–	–	110,000
19	Repaint Exterior CMU Walls at PSB	–	–	–	–	35,000	–	–	35,000
19	Solar Array at JCB Campus	–	–	–	–	–	–	375,000	375,000
FACILITIES SUBTOTALS		**$495,000**	**$280,000**	**$496,000**	**$147,000**	**$35,000**	**–**	**$1,375,000**	**$2,828,000**

FLEET SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
19	Equipment - Fleet	$10,000	–	–	–	–	–	–	$10,000
20	Department Vehicles – Facilities	45,000	–	–	–	–	–	–	45,000
19	Equipment - Facilities	–	–	10,000	–	–	–	–	10,000
20	Department Vehicles – Community Dev	–	–	25,000	–	–	–	–	40,000
20	Department Vehicles – Engineering	–	–	–	–	–	40,000	–	40,000
20	Department Vehicles – Police	150,000	150,000	150,000	150,000	150,000	150,000	–	900,000
FLEET SUBTOTALS		**$205,000**	**$150,000**	**$185,000**	**$150,000**	**$150,000**	**$190,000**	**–**	**$1,045,000**

IT SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
22	Vehicle Technology Modernization	$50,000	–	–	–	–	–	–	$50,000
21	Electronic Ticketing	11,000	–	–	–	–	–	–	11,000
21	Plotter Replacement	15,000	–	–	–	–	–	–	15,000
23	Storage Area Network (SAN) Replacement	80,000	–	88,000	–	–	–	–	168,000
22	Disaster Recovery	–	–	–	100,000	100,000	–	–	200,000
IT SUBTOTALS		**$156,000**	**–**	**$88,000**	**$100,000**	**$100,000**	**–**	**–**	**$459,000**

ENERGY CHARGERS

This project will provide for the installation of up to four EV chargers at City Facilities. Sites include the Johnson Creek Campus, Police Station and City Hall. These chargers will provide charging services for primarily City Fleet vehicles and potentially employee vehicles. Gas vehicles are being replaced with electric where possible, as operating costs of electric vehicles are significantly lower than gas vehicles, and there are no emissions.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	General Fund	$10,000	–	–	–	–	–	$10,000

Source: City Staff

Operating Budget Impact: This project will not increase operating expenditures significantly.

Submitted by: Facilities

JCB CD FRONT COUNTER ADA

The front service counter in the Community Development building needs to be brought up to current ADA standards. Current ADA standards require a full depth counter surface. Current ADA standards require a lower full depth counter surface. An updated counter will allow an individual in a wheelchair to more easily interact with Community Development, Planning and Engineering departments.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$15,000	–	–	–	–	–	$15,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities

ROOF REPAIR FOR CITY HALL

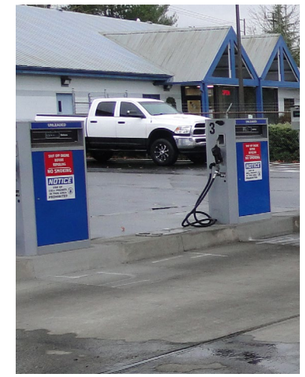
City Hall roof requires periodic seam sealing every five years. Seam sealing is normal and expected maintenance for this type of sheet metal roof.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	General Fund / Fac	$20,000	–	–	–	–	–	$20,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities



JCB FUEL TANKS

Underground fuel tanks are required to be relined periodically. Integrity of all underground storage tanks is critical. We have both diesel and gasoline underground storage tanks at the JCB campus that require relining in 2019. This is both an environmental and liability issue; required to maintain insurance.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$30,000	–	–	–	–	–	$30,000

Source: City Staff

Operating Budget Impact: Extends life of asset.

Submitted by: Facilities

REMODEL COUNCIL CHAMBERS AND CONFERENCE ROOM AT CITY HALL

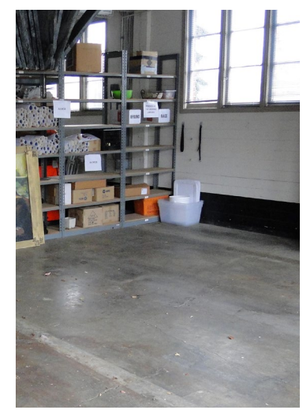
Council Chambers and conference room are planned to be converted to offices, as both Council Chambers and conference rooms are slated to move downstairs into the former garage bay. Work scope includes design layout and installation of cubes and furniture in both upstairs rooms.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Engineering	$50,000	–	–	–	–	–	$50,000

Source: City Staff

Operating Budget Impact: This project will not increase operating expenditures.

Submitted by: Facilities



ENGAGEMENT SPACE

There is a need for additional office space, both because there are more city employees and because we need better proximity between departments. One option being considered is to convert the garage bays to serve as the new Council Chambers as well as conference room, which would free up the existing conference room and Chambers as office space. The garage is 1200 sq ft and has the potential to function as a unique space: Chambers, and a multi-purpose room with garage doors that open to the public for special events.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	General Fund - Cash Carryover	$370,000	–	–	–	–	–	$370,000

Source: City Staff

Operating Budget Impact: Unknown

Submitted by: Facilities

REPLACE SECURITY SYSTEM SERVER AT PSB

Public Safety Building Security Server is slated for replacement as part of the normal maintenance schedule. This server provides for access card entry and other security features for all City Buildings.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$15,000	–	–	–	–	–	$15,000

Source: City Staff

Operating Budget Impact: This project will not increase operating expenditures significantly.

Submitted by: Facilities

REPLACE BOILER AT CITY HALL

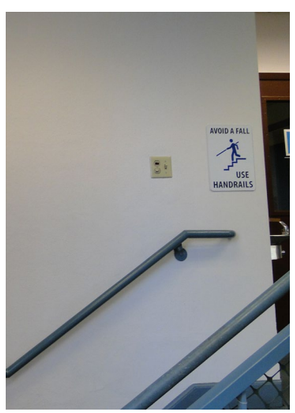
City Hall boiler is 20 years old and nearing end of life. Replacing it with a high efficiency boiler will provide the City with energy savings and earn Energy Trust incentives. The boiler will undergo an inspection this year, which will inform its replacement schedule.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$15,000	–	–	–	–	–	$15,000

Source: City Staff

Operating Budget Impact: The operating cost for a new boiler will be significantly less due to energy savings and is expected to incur less maintenance cost.

Submitted by: Facilities



REPAINT INTERIOR AT CITY HALL

City Hall interior walls are showing wear and are due for interior painting. Painting has been postponed for a number of years as other projects have had a higher priority.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	General Fund / Fac	$20,000	–	–	–	–	–	$20,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities

REPAINT EXTERIOR AT JCB

The exterior of the Community Development building is projected to require painting in the year 2020 as part of normal maintenance. The building will be inspected this year, and painting schedule updated.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	$35,000	–	–	–	$35,000

Source: City Staff

Operating Budget Impact: None, preserves asset value.

Submitted by: Facilities

BULLET PROOF GLASS AT PSB

Replace outward facing lobby windows with bullet proof glass to increase security level in the reception area of the Police Station.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	$60,000	–	–	–	$60,000

Source: City Staff

Operating Budget Impact: None, enhances security.

Submitted by: Facilities

REPLACE LEAKING WINDOWS AT CITY HALL

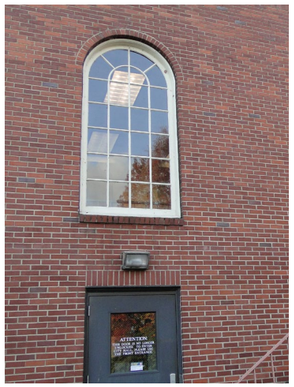
Many of the existing wood windows in City Hall are structurally degraded and leaking air. Replacing the windows with Low-E triple pane glass will provide improved energy efficiency significantly.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	$60,000	–	–	–	–	$60,000

Source: City Staff

Operating Budget Impact: None, preserves asset value.

Submitted by: Facilities



TUCK POINTING / MORTAR REPAIR AT CITY HALL

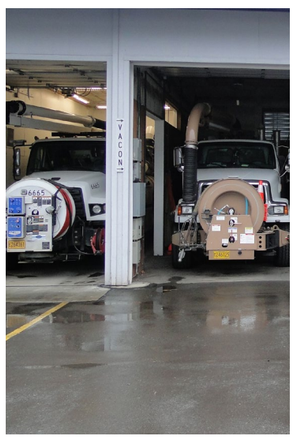
City Hall brick requires tuck pointing – replacing the mortar between bricks. Cost is based on previous condition inspection. Repair is required to preserve integrity and value of the structure. When mortar is in a weakened condition, it causes moisture to break down masonry wall and will possibly cause moisture problems behind the brick façade.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	$90,000	–	–	–	–	$90,000

Source: City Staff

Operating Budget Impact: None, preserves asset value.

Submitted by: Facilities



POLE BARN ADDITION AT JCB PW

Public Works requires an additional heated garage bay. The City owns six vehicles that need to be prevented from freezing, and currently only has five bays in the heated pole barn. These vehicles include the two sweepers, the two combination trucks, paving equipment and easement machine. Current practice is to park the extra vehicle in one of the fleet maintenance bays. If possible, the existing structure will be built onto to preserve funds.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	$100,000	–	–	–	–	$100,000

Source: City Staff

Operating Budget Impact: None, minimal increased building maintenance cost offset by preserving vehicle assets.

Submitted by: Facilities

REPLACE HVAC SYSTEM AT CITY HALL

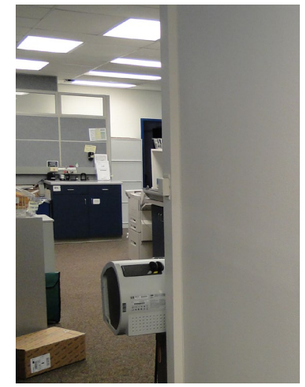
When replacing equipment, life expectancy, future cost of repairs as well as the increased efficiency of replacement equipment are considered.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	$150,000	–	–	–	–	$150,000

Source: City Staff

Operating Budget Impact: The new system will reduce cost through more efficient energy use.

Submitted by: Facilities



PAINT INTERIOR SHEETROCK AT JCB CD

Interior sheetrock walls in the Community Development building are projected to require painting in 2021. Interior walls are showing wear, and projected painting has been postponed previously (2011, 2018).

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	–	$12,000	–	–	$12,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities

REPLACE APPARATUS BAY DOORS AT PSB

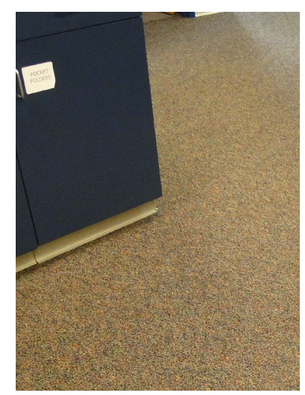
A previous facilities assessment predicted replacement in 2021. The doors are functioning adequately and will be assessed this year, project may be postponed pending inspection.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	$16,000	–	–	–	$16,000

Source: City Staff

Operating Budget Impact: None, preserves asset value.

Submitted by: Facilities



REPLACE CARPET AT JCB CD

Community Development office carpet is showing wear and anticipated to require replacement in 2021.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	–	$25,000	–	–	$25,000

Source: City Staff

Operating Budget Impact: None, maintains asset value.

Submitted by: Facilities

CITYWIDE UPGRADE OF SECURITY BADGE READERS

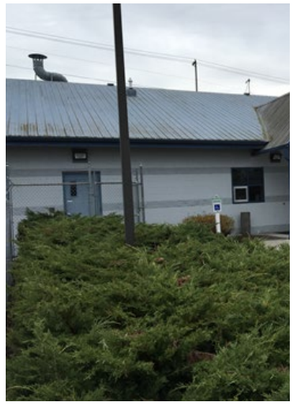
City badge readers require periodic software as well as hardware updates. We need to update the local hardware as well as software in order that our system be supported by local security providers.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	$40,000	–	–	–	$40,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities



REPLACE JCB (CD) ADMIN ROOF

The current roof was installed with the initial construction of the building in 1990 and has exceeded its 20-year life. The roof will see a professional inspection this year, which will inform the replacement schedule. The new roof will be a metal roof with a 30-year life.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	$110,000	–	–	–	$110,000

Source: City Staff

Operating Budget Impact: Minor impact although the new roof will have slightly improved insulation properties to reduce energy costs. There will be additional maintenance savings as leakage problems are mitigated.

Submitted by: Facilities

SEISMIC RETROFIT OF PSB

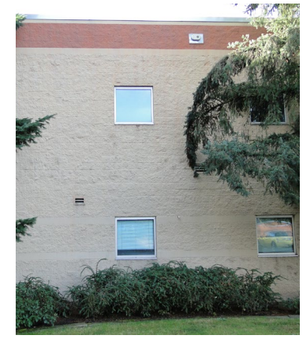
Public Safety (EOC) Facilities are required to meet updated seismic standards by 2022. Our engineering firm will provide basic assessment in 2018. The 2018 assessment will provide the recommendation for what retrofits are necessary. Detailed engineering is scheduled for 2021 and retrofit work in 2022. Based on the assessment, staff will seek available grant funding to assist in the retrofit.

STATUS	FUNDING SOURCE	2018 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$20,000	–	–	$175,000	–	–	–	$175,000
Unfunded			–	–	–	–	–	–	$1,000,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Facilities



REPAINT EXTERIOR CMU WALLS AT PSB

The Public Safety Building exterior CMU walls will require repainting in 2020. There are a few spots of peeling paint. The painting schedule will be informed by an inspection this year.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	–	–	–	–	$35,000	–	$35,000

Source: City Staff

Operating Budget Impact: None, preserves asset value.

Submitted by: Facilities

SOLAR ARRAY AT JCB CAMPUS

This project will provide for the installation of a Solar array at the JCB Campus. It is anticipated that the installation will be a roof top installation and will take advantage of the open roof space at the Campus. The City is taking advantage of working with the National Renewable Energy Laboratory (NREL) and has been participating in their no-cost PV training program for cities develop a solar project. Additionally, a solar array will be a significant step toward the 2040 vision of a net zero community.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded		–	–	$375,000	–	–	–	$375,000

Source: City Staff

Operating Budget Impact: This project will not increase operating expenditures significantly.

Submitted by: Facilities

EQUIPMENT

Fleet crew use a wide variety of equipment daily; from a vehicle scanner to parts washer to fuel tank monitors, to a fork lift. During FY2019-20, we anticipate requiring $10,000 to repair and replace equipment as needed.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Facilities Service Charge	$10,000	–	$10,000	–	–	–	$20,000

Source: City Staff

Operating Budget Impact: None

Submitted by: Fleet

VEHICLE PURCHASES

In FY19 Facilities will replace one vehicle ($45,000). In FY21, Community Development will replace one vehicle, in FY24, Engineering will replace one vehicle ($40,000).

The Police Department will replace three vehicles ($150,000) per year.

These Public Works vehicle purchases include both Division specific equipment as well as shared utility vehicles.

In FY 2019 purchases include a skid steer loader ($100,000). The skid steer loader is a new piece of equipment that will be used primarily by the street division and will provide the ability for a multitude of things to include cold planning asphalt, asphalt repairs, repairing utility cuts, loading material, brush clearing, and snow removal

In FY 2020 includes a replacement of a 1997 Chevy pickup that is used by the Water Quality Coordinator. This vehicle has over 86,000 miles and the expected replacement cost is $40,000. The Street Division's 5YD Dump with Hot Box was purchased in 2000 and currently has over 88,000 miles. This vehicle is used for asphalt repairs and paving. This $165,000 purchase will also allow the division to remove its UD Paving Truck, scheduled for replacement in FY 22, from the fleet.

FY 2021, includes the replacement of 1994 and 1997 GMC 5yd Dump Trucks. These trucks are used for moving spoils and material to and from job sites and for snow plowing and had been originally scheduled for replacement in FY 20 in the previous CIP. The replacement cost of each vehicle is $140,000 shared among the four utilities. Additional purchases include the replacement of a 2001 Ford 350 pickup with dump bed that is used for hauling small excavation materials, rock for repairs and right of way work, leaf debris and equipment. The replacement cost for this vehicle is $60,000 shared among the four utilities.

FY 2022 includes the planned replacement purchases for the 2003 Volvo 10 yd roll on dump. This vehicle is primarily used to haul street sweepings, spoils and material for final disposal at composting sites and fill sites. The replacement cost is $100,000 and shared among the four utilities. Also included is a purchase of purchases include a shared 2001 Ford 350 Flatbed pickup at a cost of $60,000, that is used for hauling furniture, barricades for events or parades and landscape materials. Additionally, FY 2022 includes the projected replacement of a 2011 Ford 350 Sewer Service Truck that currently has over 60,000 miles. It is expected that this replacement will be approximately $55,000.

FY 2023 includes the purchase of a shared new backhoe $125,000. The existing backhoe was purchased in 2008. This equipment is used by all the utilities for excavations related to repairs and moving material. Also included for purchase is the replacement of a 2010 Chevy Half Ton pickup used by the Streets Division at cost of $45,000.

FY 2024 includes the projected purchase of 2008 ¾ ton Pickup for the Storm Division at a projected cost of $45,000. Due to the low mileage on this vehicle this replacement had been deferred from 2018. Additionally, included is the projected purchase to replace 1-ton F350 Water Service Truck at a cost of $45,000. Due to low mileage this vehicle has been deferred from its projected replacement schedule of 2021.

Also included the projected replacement of the Street Division's 2002 Asphalt Roller that had been projected for replacement in FY 2021.

The city is considering and reviewing future EV and CNG options for light and medium duty trucks replacements in Fiscal years 21, 22, 23 and 24 as these models become available. Extending the replacement schedule of several the vehicles may provide a better opportunity to take advantage of improving EV technology on light and medium trucks.

The Public Works Department Fleet Division is working to ensure that the profile of the fleet precisely matches the needs, goals, and budgetary restrictions of the organization. In other words, it needs to be right-sized, as well as constantly evaluated for reduction/addition. The Department evaluates the Fleet and considers the following during its evaluation.

- It is at the end of its useful life? – 8-10 years or 100,000 miles requires thorough evaluation.
- Is the vehicle in question low use, minimal risk of expensive repairs…is there another vehicle at a critical point (about to require repair)?
- Are repair costs anticipated? rising? Approaching 30% residual value? condition.
- How does the vehicle serve critical functions?
- Is the vehicle task specific? Could we subcontract it cheaper than owning the vehicle?
- How many miles did it travel last year? Could two low mileage users be combined?
- Is it a passenger vehicle that could be replaced with an electric vehicle.

Source: City Staff

Operating Budget Impact: Replacing vehicles with newer models generally reduces repair expenditures as well as reduces fuel usage and emissions as newer vehicles are more reliable and more efficient.

Submitted by: Public Works, Fleet

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	General Fund	$195,000	$150,000	$175,000	$150,000	$150,000	$190,000	$1,010,000
Funded	Stormwater	–	–	$85,000	$40,000	$31,250	$45,000	$201,250
Funded	Water	–	$40,000	$85,000	$40,000	$31,250	$45,000	$241,250
Funded	Wastewater	–	–	$85,000	$95,000	$31,250	–	$211,250
Funded	Transportation	$100,000	$165,000	$85,000	$40,000	$76,250	$100,000	$566,250

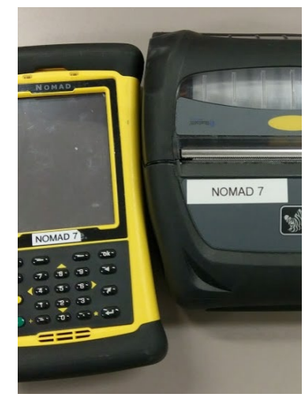
PLOTTER REPLACEMENT

Plotters are used to print large format items such as poster, maps, and signs. GIS and Community Development use the plotters for staff and citizens daily. The current plotters are 19 and 10 years old and have far exceeded their expected lifespan.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	IT Service Charge	$15,000	–	–	–	–	–	$15,000

Source: City Staff

Operating Budget Impact: Since these are replacement items they will use existing funds.



ELECTRONIC TICKETING

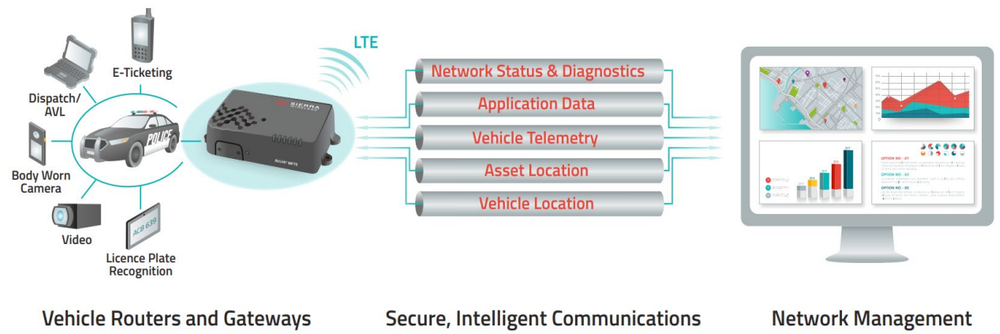
Many officers write citations on paper. To decrease errors on paper citations and create an efficiency for court staff, all on-shift officers will be issued a handheld citation writer and printer. These devices will also aid in creating a less paper intensive court day for the Judge and court staff.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	PD Operating Budget	$11,000	–	–	–	–	–	$11,000

Source: City Staff

Operating Budget Impact: There will be an increase in annual maintenance. As an estimate, the annual cost will be 10% of the total purchase price per year.

Submitted by: Police Department



VEHICLE TECHNOLOGY MODERNIZATION

Upgrading old data connections to a centralized and unified method is essential to providing field staff with the growing demand of data while performing daily tasks. The Police department is piloting a data connection, with success, that allows for a single connection to drive current and future data needs (i.e. e-ticketing, computer aided dispatch, and automatic vehicle location). The Police pilot program has demonstrated the ease of using data driving applications for the officer's daily job.

Estimated costs are for:

- 20 Police vehicles (new vehicles from 10/2017 forward will have the new components
- 15 Public works vehicles

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	IT Service Charge	$50,000	–	–	–	–	–	$50,000

Source: City Staff

Operating Budget Impact: There will be an increase in annual maintenance. As an estimate, the annual cost will be 10% of the total purchase price per year.

Submitted by: IT

DISASTER RECOVERY

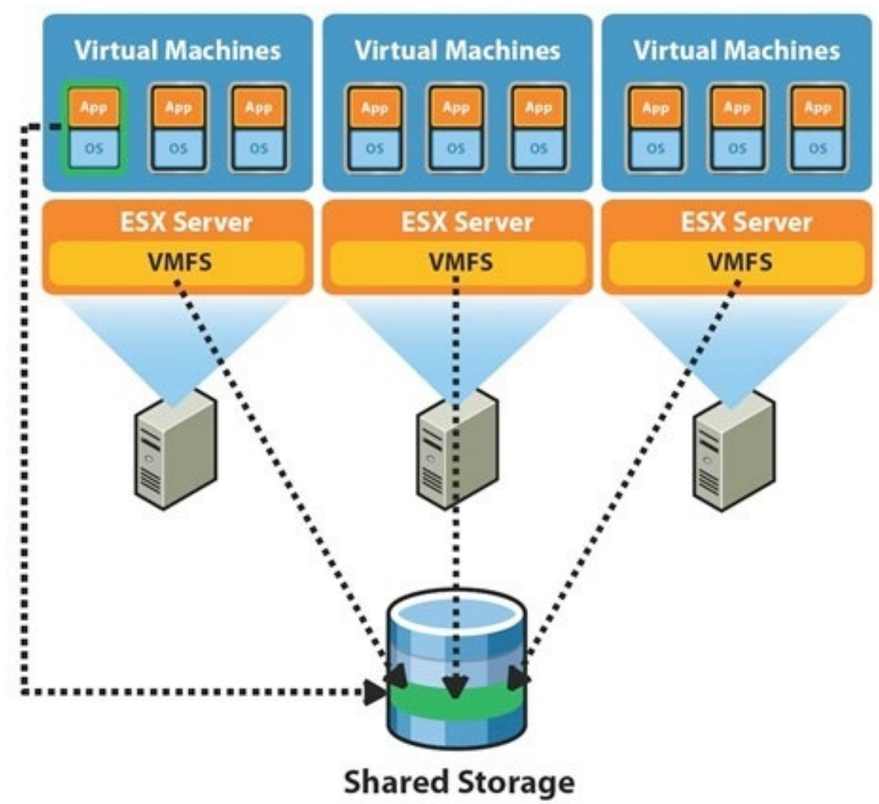
With an increasing dependency on technology for daily operations, decreasing recovery time after a disaster is a benefit to staff and citizens of Milwaukie. A disaster recovery plan and alternate data recovery site is essential to realizing an expedient recovery when a disaster occurs.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	IT Service Charge	–	–	–	$100,000	$100,000	–	$200,000

Source: City Staff

Operating Budget Impact: There will be an increase in annual maintenance and licensing. As an estimate, the annual cost will be 10% of the total purchase price per year. Annual cost for redundant data connection to support cloud based operations $3,060.

Submitted by: IT



STORAGE AREA NETWORK (SAN) REPLACEMENT

With the increase in server virtualization, a larger dependency is placed on the SAN. The current SAN is used for approximately 40 virtual servers and was purchased in July 2013. The recommended lifespan of a SAN is 3–5 years and we will be in year five by replacement. The new SAN will increase data access speed and allow leverage of new storage technologies.

STATUS	FUNDING SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	IT Service Charge	$80,000	–	$88,000	–	–	–	$168,000

Source: City Staff

Operating Budget Impact: Annual maintenance is budgeted for the current SAN the replacement item will use those funds.

Submitted by: IT

CHAPTER 2 **PUBLIC INFRASTRUCTURE**

The Public Infrastructure Capital Improvement Plan identifies the traditional capital improvement needs within the City right-of-way. Projects within this chapter are primarily associated with the transportation, water, wastewater, and stormwater needs of the city.

TRANSPORTATION OVERVIEW

Milwaukie's Transportation system includes over 148 lane miles of pavement, 10.2 miles of bike lanes, 50 miles of sidewalk, and 510 acres of right-of-way that must constantly be maintained and upgraded to safely and efficiently serve all modes of traffic.

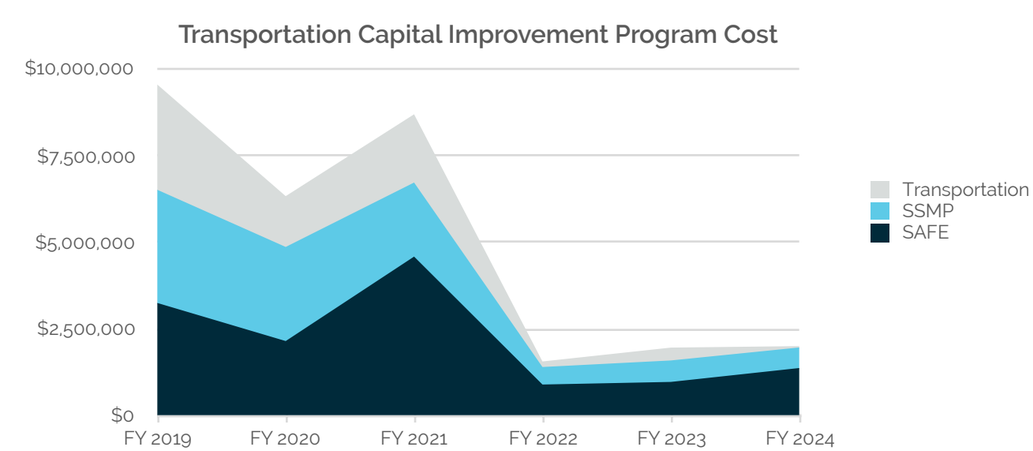
The City of Milwaukie relies on a variety of funding sources for maintaining and improving its transportation infrastructure. Most of these sources are constrained, meaning that they can only be used for a specific function like expanding the system's capacity, paving streets, or building sidewalk or bicycle facilities. The funds also flow into Milwaukie from a variety of sources, most of which are tax based and administered through different levels of government and mechanisms.

The main sources of funding are:

- Federal Gas Tax Funds (Metro Grants)
- City share of State Highway Trust Fund
- Local Funds—Fees and Taxes:
- Franchise Fees, PGE Privilege Tax, Local Gas Tax, Street Surface Maintenance Fee, Safe Access for Everyone (SAFE) Fee
- System Development Charges (SDC's)
- Fee in Lieu of Construction (FILOC) Charges

The CIP is based on the projects identified within the plans and programs that affect all of the modes of travel within the Transportation System. This includes the City Transportation Master Plan, the Street Surface Maintenance Program (SSMP), the Safe Access for Everyone (SAFE), Surface Preservation (Crack and Slurry Seals), and other capitalized maintenance needs.

The Transportation CIP prioritizes projects within each of the Transportation System Programs resulting in a Comprehensive Plan that attempts to balance the systems needs within the available funding parameters.



TRANSPORTATION SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
20	Transportation Vehicle Purchases	$100,000	$165,000	$85,000	$40,000	$76,250	$100,000	–	$566,250
31	Sign Shop Printer	15,000	–	–	–	–	–	–	15,000
VEHICLES AND EQUIPMENT SUBTOTALS		**$115,000**	**$165,000**	**$85,000**	**$40,000**	**$76,250**	**$100,000**	**–**	**$581,250**

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
30	Downtown Public Area Requirements (PAR)	$1,588,000	$12,000	$456,600	–	–	–	$905,000	$2,961,600
31	Kellogg Creek Bridge #22142	428,000	–	–	–	–	–	–	428,000
32	Main St Crossing Improvements	217,000	–	–	–	–	–	–	217,000
32	Linwood Ave	175,500	501,500	–	–	–	–	–	677,000
33	SSMP Paving	109,000	–	–	–	–	–	3,525,000	109,000
34	McBrod Ave	–	400,000	–	–	–	–	–	400,000
34	43rd Ave/ Howe/ Covell	–	247,200	736,300	–	–	–	–	983,500
35	Harvey St	–	76,900	219,600	–	–	–	–	296,500
42	SAFE Program	–	237,000	–	–	–	–	2,531,000	2,768,000
120	Ledding Library Improvement Project SDCs	109,000	–	–	–	–	–	–	3,634,000
36	Improved Bike/Ped Connections to Springwater Trail	–	–	239,100	–	–	–	7,994,200	8,233,300
35	Oatfield Rd	–	–	153,400	–	339,600	–	–	493,000
37	Lake Rd/Harmony Rd Intersection	–	–	–	–	–	–	21,260,000	21,260,000
37	NMIA McLoughlin Green St Demonstration	–	–	–	–	–	–	20,726,000	20,726,000
38	Lake Rd Capacity Improvements	–	–	–	–	–	–	10,070,000	10,070,000
111	Kellogg Dam Removal & HWY 99E Underpass	–	–	–	–	–	–	8,900,000	8,900,000
38	Monroe St Neighborhood Greenway	–	–	–	–	–	–	7,835,000	7,835,000
39	Stanley Ave Neighborhood Greenway	–	–	–	–	–	–	6,449,000	6,449,000
39	Railroad Ave Capacity Improvements	–	–	–	–	–	–	5,579,800	5,579,800
39	NMIA Street Improvements	–	–	–	–	–	–	5,506,400	5,506,400
40	Downtown Parking Solutions	–	–	–	–	–	–	4,163,000	4,163,000
41	Hwy 224 & Hwy 99E Improvements	–	–	–	–	–	–	4,008,000	4,008,000
40	Accessibility Program	–	–	–	–	–	–	3,819,000	3,819,000
41	Harrison Capacity Improvements	–	–	–	–	–	–	3,769,000	3,769,000
43	McBrod Ave Green Street	–	–	–	–	–	–	3,762,000	3,762,000

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
43	Bicycle/Ped Overpass over Railroad Ave	–	–	–	–	–	–	2,736,000	2,736,000
44	Island Station Neighborhood Greenway	–	–	–	–	–	–	2,714,000	2,714,000
44	Intersection Improvements in North Industrial Area	–	–	–	–	–	–	2,261,000	2,261,000
45	Street Connectivity and Intersection Improvement Projects	–	–	–	–	–	–	1,535,000	1,535,000
45	Lake Rd (Where Else to Harmony /Railroad)	–	–	–	–	–	–	1,298,600	1,298,600
45	Ochoco St (17th Ave to McLoughlin)	–	–	–	–	–	–	1,149,000	1,149,000
46	Downtown Transit Center Improvements	–	–	–	–	–	–	1,128,000	1,128,000
46	29th Ave Bike/Ped Connection	–	–	–	–	–	–	400,000	400,000
46	Bicycle Infrastructure Improvements	–	–	–	–	–	–	310,000	310,000
47	37th Ave Pedestrian Improvements	–	–	–	–	–	–	212,000	212,000
47	Kellogg Creek Trail Improvements	–	–	–	–	–	–	87,000	87,000
48	Kelvin/Olsen Bike/Ped Connection	–	–	–	–	–	–	4,000,000	4,000,000
48	NMIA Right-of-Way Road Design	–	–	–	–	–	–	TBD	–
49	Oak St/34th Ave Connection	–	–	–	–	–	–	106,000	106,000
49	Ochoco/Roswell Bike/ Ped Connections	–	–	–	–	–	–	TBD	–
51	Transportation Connectivity	–	–	–	–	–	–	TBD	–
TRANSPORTATION CIP SUBTOTALS		**$2,626,500**	**$1,474,600**	**$1,805,000**	**–**	**$339,600**	**–**	**$138,739,000**	**$144,984,700**

STREET SURFACE MAINTENANCE PROGRAM FUND

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
33	SSMP Paving	$2,377,800	$1,706,100	$1,407,300	$204,800	$373,200	$577,600	$6,830,200	$13,477,000
50	Street Surface Maintenance Program - Crack Seal	15,000	15,000	15,000	15,000	15,000	15,000	–	90,000
30	Downtown Public Area Requirements (PAR)	743,800	–	–	–	–	–	–	743,800
35	Harvey St	130,200	–	579,000	–	–	–	–	709,200
50	Street Surface Maintenance Program - Slurry Seal	–	500,000	–	–	–	–	1,000,000	1,500,000
34	McBrod Ave	–	464,500	–	–	–	–	–	464,500
34	43rd Ave / Howe /Covell	–	30,700	136,400	–	–	–	–	167,100
39	NMIA Street Improvements	–	–	–	204,800	–	–	–	204,800
35	Oatfield Rd	–	–	–	81,000	231,400	–	–	312,400
47	37th Ave Ped Improvements	–	–	–	–	–	–	91,800	91,800
SSMP FUND TOTALS		**$3,266,800**	**$2,716,300**	**$2,137,700**	**$505,600**	**$619,600**	**$592,600**	**$7,922,000**	**$17,760,600**

SAFE FUND

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
40	Accessibility Program	$175,100	$683,300	$451,800	$579,100	$273,300	$281,500	$896,200	$3,340,300
42	SAFE Program	994,700	1,466,600	1,950,600	–	475,600	639,100	9,620,000	15,146,600
50	Kronberg Park Trail	1,277,000	–	–	–	–	–	–	1,277,000
39	Railroad Ave Capacity Improvements	37,700	–	–	–	–	–	458,000	495,700
35	Harvey St	130,600	–	373,300	–	–	–	–	503,900
34	43rd Ave/Howe/Covell	209,700	–	599,200	–	–	–	–	808,900
32	Linwood Ave	424,500	–	1,212,800	–	–	–	–	1,637,300
35	Oatfield Rd	–	–	–	77,500	221,200	–	–	298,700
39	NMIA Street Improvements	–	–	–	80,700	–	–	–	80,700
46	Bicycle Infrastructure Improvements	–	–	–	157,600	–	450,400	–	608,000
38	Lake Rd Capacity Improvements	–	–	–	–	–	–	832,000	832,000
38	Monroe St Neighborhood Greenway	–	–	–	–	–	–	695,000	695,000
39	Stanley Ave Neighborhood Greenway	–	–	–	–	–	–	483,000	483,000
44	Island Station Neighborhood Greenway	–	–	–	–	–	–	357,600	357,600
37	Lake Rd / Harmony Rd Intersection	–	–	–	–	–	–	350,000	350,000
45	Ochoco St (17th Ave to McLoughlin)	–	–	–	–	–	–	248,300	248,300
43	Bicycle and Ped Overpass over Railroad Ave	–	–	–	–	–	–	226,000	226,000
45	Lake Rd (Where Else to Harmony/Railroad)	–	–	–	–	–	–	215,400	215,400
47	37th Ave Ped Improvements	–	–	–	–	–	–	240,600	240,600
SAFE FUND TOTALS		**$3,249,300**	**$2,149,900**	**$4,587,700**	**$894,900**	**$970,100**	**$1,371,000**	**$14,622,100**	**$27,845,000**

TRANSPORTATION SDC SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
77	SDC Rate Study	$100,000	–	–	–	–	–	–	$100,000
38	Monroe Street Neighborhood Greenway	321,900	–	–	–	–	–	–	321,900
60	17th Ave Multi-Use Path	286,000	–	–	–	–	–	–	286,000
39	Railroad Ave Capacity Improvements	–	437,000	–	–	–	–	–	437,000
30	Downtown Public Area Requirements (PAR)	–	–	100,000	600,000	–	–	–	700,000
77	Transportation Master Plan	–	–	–	–	–	–	300,000	300,000
TRANSPORTATION SDC FUND TOTALS		**$707,900**	**$437,000**	**$100,000**	**$600,000**	**–**	**–**	**$300,000**	**$2,144,900**

GRANT SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
50	Kronberg Trail	$986,000	–	–	–	–	–	–	$986,000
31	Kellogg Creek Bridge	130,000	–	–	–	–	–	–	130,000
32	Main Street Crossing	181,000	–	–	–	–	–	–	181,000
39	Stanley Ave Greenway	–	–	–	–	–	–	200,000	200,000
TRANSPORTATION SDC FUND TOTALS		**$1,297,000**	**–**	**–**	**–**	**–**	**–**	**$200,000**	**$1,497,000**

DOWNTOWN PUBLIC AREA REQUIREMENTS (PAR)

Construct the right-of-way to comply with the General Circulation Requirements, the Street Standards, and the Design Details as put forth in the Public Area Requirements document to complete the downtown refinement plan and implement the Milwaukie Downtown and Riverfront Plan with a specific focus on completing improvements on Main St between Hwy 224 and the connection to Lake Rd, intersecting streets including but not limited to Harrison, Jackson, Jefferson, Monroe and Washington streets and frontage along McLoughlin Blvd.

Funded:
- South Downtown Plaza
- Washington (McLoughlin-21st)
- Main (Washington-21st)
- Harrison (21st-23rd, North side)

Sources: TSP, RTP (10100)

Operating Budget Impact: Project potentially increases maintenance requirements with the addition of water quality facilities.

Submitted by: Engineering, Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation	$1,315,000	$1,588,000	$12,000	$456,600	–	-	–	$2,056,600
Funded	SSMP	n/a	$743,800	–	–	–	–	–	$743,800
Funded	Stormwater	n/a	–	–	$91,300	–	–	–	91,300
Funded	SDC's	$421,000	–	–	$100,000	$600,000	–	–	$700,000
Funded	URA	$424,000	–	–	–	$424,000	–	–	$424,000
Unfunded	Transportation	$905,000	–	–	–	–	–	–	$905,000
Unfunded	URA	$10,876,000	–	–	–	–	–	–	$10,876,000

SIGN SHOP – SIGN PRINTER AND SOFTWARE

The sign shop creates most signs (stop, yield, cross walk, parking, etc.) within the city. Current sign printer and software are no longer supported on current computer operating systems.

Source: City Staff

Operating Budget Impact: There will an increase for annual maintenance. As an estimate, the annual cost will be 10% of the total purchase price per year.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation	-	$15,000	-	-	-	-	-	$15,000

KELLOGG CREEK BRIDGE #22142

The access bridge to Riverfront Park and the boat dock was damaged by the storm event of December 6th–23rd 2015. The existing structure will be replaced with a new vehicular bridge that will also accommodate pedestrians and connect Riverfront Park with the Kellogg Creek and Trolley Trail.

Source: FEMA Emergency

Operating Budget Impact: This project will reduce operating expenditures and address several long-term maintenance issues.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation	–	$428,000	–	–	–	–	–	$428,000
Funded	Transportation-CCSD #1	–	$130,000	–	–	–	–	–	$130,000

MAIN ST CROSSING IMPROVEMENTS

This project will make additional required improvement to Main St under Union Pacific Railroad and TriMet structures to comply with new rail order. Work includes new advanced warning signs and devices to protect the railroad bridge.

Source: TriMet Light Rail

Operating Budget Impact: This project will have a minor increase in operational expenses by adding warning signals to the network.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation - TriMet	–	$181,000	–	–	–	–	–	$181,000
Funded	Transportation	–	$217,000	–	–	–	–	–	$217,000

LINWOOD AVE (MONROE TO HARMONY)

Fill in sidewalk gaps on both sides of street, replace portions of existing sidewalk, and remove barriers. Improve bicycle facilities by adding / improving bike lanes. Construct median diverter and refuge island at Monroe St, install new hybrid beacon crosswalks, curb extensions, and signage at Monroe St. Install RRFB at Furnberg & Linwood Ave and at Aspen & Linwood. Add storm and water quality facilities and replace outlet through Linwood Elementary school property.

Source: RTP (11671)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$1,046,000	$424,500	-	$1,212,800	-	-	-	$1,637,300
Funded	Transportation	$285,000	$175,500	$501,500	–	–	–	–	$677,000
Funded	Storm	–	–	$253,200	$620,000	–	–	–	$873,200

STREET SURFACE MAINTENANCE PROGRAM (SSMP) - PAVING

This paving program began in 2006 and set out to resurface or reconstruct all the City's arterials and collectors. Once the original goal is completed, the program will begin to focus on the City in a more holistic manner, addressing the needs that are the most cost effective to the entire network, and integrating the SSMP Program to all other Capital Improvement Plans, paying particular attention to the SAFE Program needs.

Sources: SSMP, PCI

Operating Budget Impact: Program would decrease ongoing operational needs by restoring transportation network to good condition.

Submitted by: Engineering

SSMP Program Streets:

- 29th Ave from Balfour St to city limits;
- 40th Ave from Harvey to King Rd;
- 42nd Ave from Monroe St to King Rd; ***
- 43rd Ave from Covell St to King Rd; **
- 49th Ave from Willow St to Harvey St;
- 50th Ave from Willow St to Harvey St;
- 55th Ave from south end to Firwood St;
- Covell St from 42nd Ave to 43rd Ave; **
- Fieldcrest Dr from Fieldcrest St to east end of Fieldcrest St;
- Fieldcrest St from 42nd to Fieldcrest Dr;
- Harvey St from 32nd Ave to 42nd Ave; **
- Harvey St from 49th Ave to 50th Ave;
- Howe St from 42nd Ave to 43rd Ave; **
- International Way from 37th Ave to Lake Rd;
- Lake Rd from 21st Ave to 34th Ave; *
- Leone Lane from 50th Ave to end;
- Mailwell Dr from Main St to UPRR; **
- Main St from Washington St to UPRR;
- McBrod Ave from 17th Ave to Ochoco St; ***
- Omark Dr from Mailwell Dr to end;
- Railroad Ave from 32nd Ave to Oak St; ***
- Shell Lane from Lake Rd to end;
- Stanley Ave from Railroad Ave to Lloyd St;
- Washington St from UPRR to 35th;
- Willow St from 48th Ave to 50th Ave; and
- Wood Ave from Monroe St to Railroad Ave. ***

Phase 1 SAFE Streets:

- 22nd Ave from McLoughlin Blvd to Sparrow St;
- 39th Ave from Roswell St to Wake St;
- Edison St from HWY 224 to 35th Ave;
- Home Ave from King Rd to Railroad Ave;
- King Rd from 40th Ave to 43rd Ave;
- Lake Rd from 34th to Guilford Dr;
- River Rd from McLoughlin Blvd to City Limits; and
- Wake St from 32nd Ave to cul de sac.

Phase 2 SAFE Streets (Unfunded):

- 26th Ave from Lake Rd to Lake Village Apartments;
- 27th Ave from Lake Rd to Washington St;
- 28th Ave from Sherrett St to Van Water St;
- 32nd Ave from Railroad Ave to city limits; ****
- 35th Ave from Washington St to Edison St;
- 56th Ave from north end to south end;
- Balfour St from 32nd Ave to west end; ****
- International Way from 37th Ave to Lake Rd;
- Lava Dr from 17th Ave to Waverly Ct;
- Lloyd St from 56th Ave to Stanley Ave;
- Logus Rd from 43rd Ave to 49th Ave; ****
- Main St from Harrison St to Ochoco St; ****
- Mason Lane from 42nd Ave to Regents Dr;
- Oak St from Washington St to Monroe St; ****
- Ochoco St from McLoughlin Blvd to Main St;
- Park St from Home Ave to Beckman Ave;
- Railroad Ave from Oak St to 32nd Ave; ****
- Sparrow St from 22nd Ave to Trolley Trail; ****
- Van Water St from 28th Ave to 32nd Ave; and
- Waverly Ct from Lava Dr to Highlands Apartments Entrance.

* *Original SSMP Project*

** *Original SSMP Project combined with SAFE Project*

*** *Original SSMP Project combined with another CIP Project*

**** *Design Only Funded*

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SSMP	–	$2,377,800	$1,706,100	$1,407,300	$204,800	$373,200	$577,600	$6,646 ,800
Funded	Transportation	–	$109,000	–	–	–	–	–	$109,000
Unfunded	SSMP	$4,625,200	–	–	–	$689,000	$677,000	$839,000	$6,830,200
Unfunded	Transportation	–	$300,000	$300,000	$300,000	$875,000	$875,000	$875,000	$3,525,000

MCBROD AVE (OCHOCO TO 17TH AVE)

Reconstruct McBrod Ave, fill in sidewalk gaps along east side, remove barriers, add ADA improvements, improve storm system, rail crossing upgrades, new asphalt surfacing, replace waterline, and wastewater upgrades.

Sources: WMP, SSMP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SSMP	–	–	$464,500	–	–	–	–	$464,500
Funded	Transportation	–	–	$400,000	–	–	–	–	$400,000
Funded	Water	–	–	$800,000	–	–	–	–	$800,000
Funded	Wastewater	–	–	$25,000	–	–	–	–	$25,000
Funded	Storm	–	–	$179,900	–	–	–	–	$179,900

43RD AVE/HOWE/COVELL (KING TO 42ND AVE)

Fill in sidewalk gaps on both sides of street, replace portions of existing sidewalk, and remove barriers. Widen and reconstruct roadway surface to include bike lanes. Install storm and water quality facilities and wastewater improvements.

Sources: RTP (11625), BPAP, SSMP, TSP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	–	$209,700	–	$599,200	–	–	–	$808,900
Funded	SSMP	–	$30,700	$136,400	–	–	–	–	$167,100
Funded	Storm	–	–	$362,500	–	–	–	–	$362,500
Funded	Transportation	–	–	$247,200	$736,300	–	–	–	$983,500
Funded	Wastewater	–	–	–	$114,000	–	–	–	$114,000

HARVEY ST (32ND AVE TO 42ND AVE)

Fill in sidewalk gaps on both sides of street, replace portions of existing sidewalk, and remove barriers. Reconstruct roadway surface, install traffic calming improvements, and improve bicycle connections. Replace water line between 32nd and 42nd, install stormwater and water quality facilities, and wastewater repairs (MH 1222-MH 1220).

Sources: BPAP, SSMP, RTP (11174), TSP, WMP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$362,261	$130,600	–	$373,300	–	–	–	$503,900
Funded	Transportation	$232,000	–	$76,900	$219,600	–	–	–	$296,500
Funded	SSMP	$374,769	$130,200	–	$579,000	–	–	–	$709,200
Funded	Water	–	–	–	$860,000	–	–	–	$860,000
Funded	Stormwater	–	–	–	$316,500	–	–	–	$316,500
Funded	Wastewater	–	–	–	$65,000	–	–	–	$65,000

OATFIELD RD (LAKE RD TO KELLOGG CREEK)

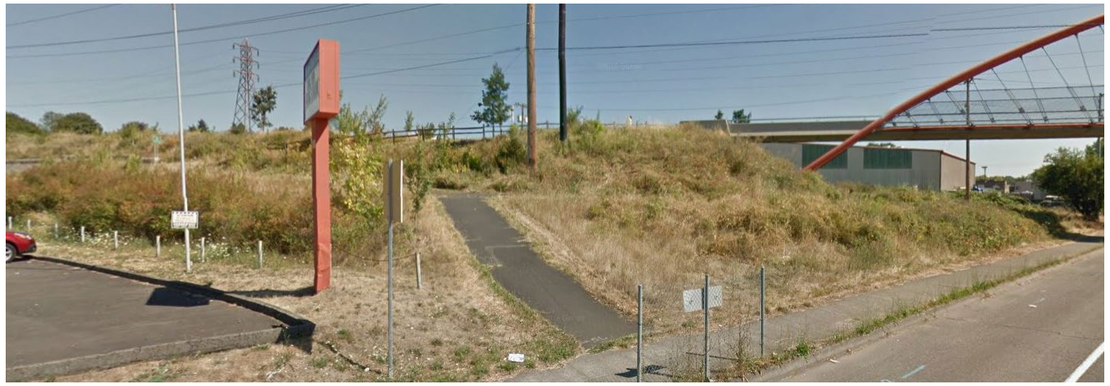
Fill in sidewalk gaps on both sides of street, remove barriers, fill in gaps in bicycle network, add bike lanes, resurface street, and add stormwater and water quality facilities.

Sources: SAFE, TSP, RTP (11541)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$202,400	–	–	–	$77,500	$221,200	–	$298,700
Funded	Transportation	$401,000	–	–	$153,400	–	$339,600	–	$493,000
Funded	SSMP	$211,700	–	–	–	$81,000	$231,400	–	$312,400
Funded	Stormwater	–	–	–	–	–	$98,600	–	$98,600



IMPROVED BIKE/PEDESTRIAN CONNECTIONS TO SPRINGWATER TRAIL

Enhance bicycle and pedestrian facilities within residential neighborhood and establish bicycle and pedestrian connections from Springwater Trail to Tacoma Station Area.

- Improved Connection from Springwater Trail to Pendleton Site (Ramps)
  = Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (TSAP)
- Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing)
  = Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St.
- Improved Connection from Springwater Trail to Tacoma Station
  = Construct stairs to connect Springwater Trail to Tacoma station.
- Improved Connection from Springwater Trail to Pendleton Site (Tunnel)
  = Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St.
- Improved Connection from Springwater Trail to McLoughlin Blvd
  = Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd.
- Springwater Trail Completion
  = Contribute to regional project to complete Springwater Trail ("Sellwood Gap") along Ochoco St.
- Bicycle/Pedestrian Improvements to Main St
  = Construct multiuse path or other improved bike/ped facilities to Main St to provide safer connection between downtown and Tacoma station.
- Bicycle/Pedestrian Connection over Johnson Creek
  = Construct bike/ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect Tacoma station area with adjacent neighborhood.
- Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area
  = Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd (TSAP).

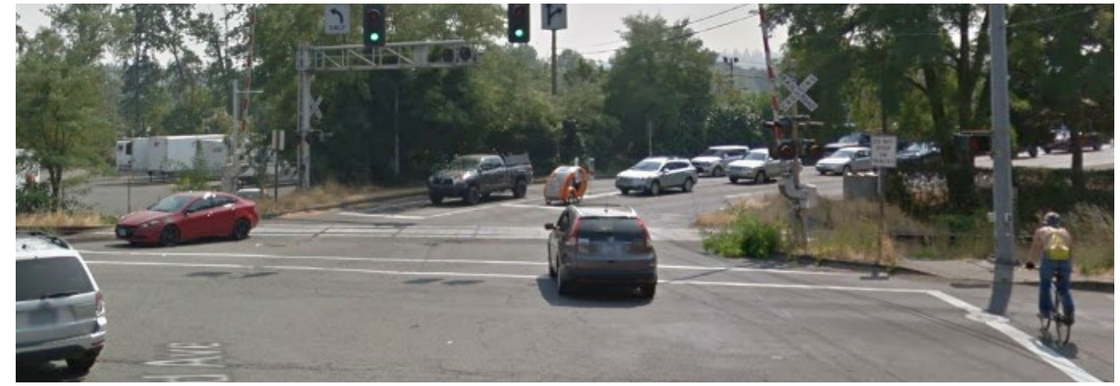
Funded: Main St (Harrison to Ochoco) Design

Sources: TSP, RTP (11174), TSAP, NMIA

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation	$232,000	–	–	$239,100	–	–	–	$239,100
Unfunded	Transportation	$7,994,200	–	–	–	–	–	–	$7,994,200



LAKE ROAD / HARMONY ROAD INTERSECTION

Railroad crossing and intersection improvements based on further study of intersection operations, including bicycle and pedestrian facilities to be undertaken jointly by the City of Milwaukie and Clackamas County.

Source: RTP (10000)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering / Clackamas County

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$350,000	–	–	–	–	–	–	$350,000
Unfunded	Transportation	$21,260,000	–	–	–	–	–	–	$21,260.000

NMIA MCLOUGHLIN GREEN STREET DEMONSTRATION

Partner with ODOT to develop a green street demonstration project for McLoughlin Blvd between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.

Source: NMIA

Operating Budget Impact: Unfunded to date.

Submitted by: Community Development, Planning, Engineering, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$20,726,000	–	–	–	–	–	–	$20,726,000

LAKE ROAD CAPACITY IMPROVEMENTS

Widen Lake Rd to become a standard three lane cross section between 23rd Ave and Guilford Dr. Add bike lanes and storm water treatment facilities. Project addresses gaps in the city bicycle network and reduces congestion and improve safety.

Sources: TSP, RTP (11534 and 11957)

Operating Budget Impact: Project would increase maintenance expenses due to the addition of water quality facilities.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$832,000	–	–	–	–	–	–	$832,000
Unfunded	Transportation	$10,070,000	–	–	–	–	–	–	$10,070,000

MONROE ST NEIGHBORHOOD GREENWAY

The Monroe Street Greenway will provide a key east-west connection between the Trolley Trail and Downtown Milwaukie with the I-205 Trail and Clackamas Town Center. The Greenway will provide key pedestrian connection through the city, with connections to the future 29th Ave Greenway and Railroad Ave Trail. It will also provide for a key Safe Route to School for Milwaukie High School and a connection with Central Milwaukie businesses. Phase 1 improvements for the Monroe Street Greenway will implement the design concepts developed under an Oregon Department of Transportation grant and are expected to include lane striping, signage, and the application of sharrows. The project consists of a planning phase and with opportunities for funding five construction phases, from multiple sources.

Sources: Monroe Street Neighborhood Greenway Plan, CMTP, URAP, TSP, RTP (10099)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Community Development, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Transportation SDC	$294,600	$321,900	–	–	–	–	–	$321,900
Unfunded	SAFE	$695,000	–	–	–	–	–	–	$695,000
Unfunded	URA	$1,800,000	–	–	–	–	–	–	$1,800,000
Unfunded	Transportation	$7,835,400	–	–	–	–	–	–	$7,835,400

STANLEY AVE NEIGHBORHOOD GREENWAY

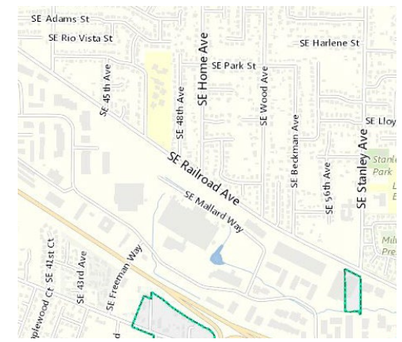
Fill in sidewalk gaps on both sides of street, provide for bicycles with design to accommodate a neighborhood greenway, and install traffic-calming improvements. Project needs planning effort to determine desired design concept.

Sources: TSP, RTP (10097)

Operating Budget Impact: Unknown

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Grant TGM, Etc.	$200,000	–	–	–	–	–	–	$200,000
Unfunded	SAFE	$483,000	–	–	–	–	–	–	$483,000
Unfunded	Transportation	$6,449,000	–	–	–	–	–	–	$6,449,000



RAILROAD AVE CAPACITY IMPROVEMENTS

This project will have a pedestrian component and a public transit component. The pedestrian aspect involves the construction of a new multi-use path located along one side of Railroad Ave between 37th Ave and Harmony Rd. The public transit aspect involves providing bus service which will extend to the Clackamas Town Center and points further east. The purpose of the project is to address gaps in the pedestrian and bicycle systems and improve transit facilities.

Preliminary Engineering

Sources: TSP, RTP (10095), SAFE

Operating Budget Impact: Project would add additional infrastructure with the creation of a new multi-use path.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$34,500	$37,700	–	–	–	–	–	$37,700
Unfunded	SAFE	$458,400	–	–	–	–	–	–	$458,400
Funded	Transportation SDC	$388,200	–	$437,000	–	–	–	–	$437,000
Unfunded	Transportation	$5,579,800	–	–	–	–	–	–	$5,579,800

NMIA STREET IMPROVEMENTS

Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (TSAP). Reconfigure the Moores/Ochoco/23rd Ave area to be more navigable and easier to develop adjacent properties. The purpose is to improve street connectivity and enhance auto and freight facilities.

Funded: Mailwell (Main – UPRR)

Sources: RTP (11624), NMIA

Operating Budget Impact: Potentially increases operating impacts due to new infrastructure improvements.

Submitted by: Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	–	–	–	–	$80,700	–	–	$80,700
Funded	SSMP	–	–	–	–	$204,800	–	–	$204,800
Unfunded	Transportation	$5,506,400	–	–	–	–	–	–	$5,506,400

DOWNTOWN PARKING SOLUTIONS

Implement parking management strategy for the downtown including parking meters, signage, enforcement and potentially assistance in the development of structured parking as part of a larger mixed-use development that would service downtown uses. Construct 3- to 4-story public parking structure with retail at ground floor for visitor/employee parking. The purpose is to expand off-street parking supply downtown.

Sources: TSP, RTP (11175)

Operating Budget Impact: This project will increase operational expenses by adding infrastructure.

Submitted by: Engineering, Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$4,163,000	–	–	–	–	–	–	$4,163,000
Unfunded	URA	$10,500,000	–	–	–	–	–	–	$10,500,000

ACCESSIBILITY PROGRAM

This project will implement the Barrier Removal Program and Accessible Pedestrian Signal Upgrades within the Bicycle and Pedestrian Accessibility Plan which includes elements within the ADA Transition Plan throughout the City. Project includes removing barriers within existing sidewalks, constructing or reconstructing sidewalks, signals at 32nd Ave and Harrison St, Lake Rd and Oatfield Rd, and PCC and Johnson Creek, and constructing ADA sidewalk access ramps. Retrofit existing signals, install accessible pedestrian signals, and rapid flashing beacons at specific intersections to improve pedestrian access and safety. Projects will require relocation of storm facilities and construction of water quality facilities.

Sources: SAFE, RTP (11621 & 11540)

Operating Budget Impact: This project will potentially increase maintenance and operating expenses.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$2,118,000	$175,100	$683,300	$451,800	$579,100	$273,300	$281,500	$2,444,100
Funded	Storm	–	$35,000	$136,600	$90,400	$115,800	$54,400	$56,300	$488,500
Unfunded	Transportation	$3,819,000	–	–	–	–	–	–	$3,819,000
Unfunded	SAFE	$896,200	–	–	–	–	–	–	$896,200

HWY 224 & HWY 99E IMPROVEMENTS

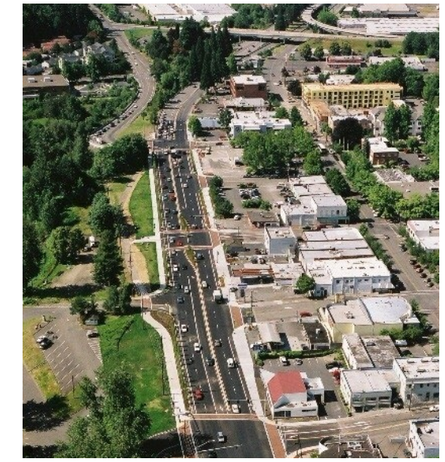
Planning: Hwy 224 & Hwy 99E Refinement Plan
Conduct refinement study to establish alternative mobility targets for Hwy 224 and McLoughlin Blvd for locations not meeting applicable state targets, and explore ways to minimize barrier effect and improve pedestrian, auto and freight mobility.

Hwy 224 Upgrades

- Pedestrian Improvements at Hwy 224: This project will reconfigure the intersections of Harrison St, Oak St, 37th Ave, and Freeman Way at Hwy 224 by adding left turn lanes and protected signal phasing on the local streets together with reconfiguring the intersections as needed to improve overall intersection functioning.

Hwy 99 Upgrades

- East Sidewalk Improvements: Improve the east sidewalk from North of Harrison St to Hwy 224. These improvements are to enhance pedestrian safety and signal visitors that they are entering downtown.
- Sidewalks from Harrison St to UPRR: Address gaps in pedestrian system and improve connection between downtown and riverfront park. Provide grade separated crossing.
- Crosswalk/Intersection Upgrades: Improve all existing crossings of McLoughlin Blvd, using better signage and extended crossing times and distinctive crosswalk paving. Construct improvements at Harrison St, Monroe St, Jackson St, Jefferson St, and Washington St to enhance bike/pedestrian crossings to the Trolley Trail and the Park.
- Intersection improvements at McLoughlin Blvd and River Rd: Consolidate a single access point for the area at Bluebird St with full intersection treatment and signalization or add second northbound left-turn lane at River Rd to reduce congestion and improve safety.
- Construct multi-use walkway from McLoughlin Blvd to Kronberg Park Walkway south of UPRR to complete pedestrian connection.



Sources: TSP, RTP (11620, 11537, 10098, 11539, 11623), URAP, DRFP

Operating Budget Impact: N/A

Submitted by:
Engineering, Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$5,000,000	–	–	–	–	–	–	$5,000,000
Unfunded	Transportation	$4,008,000	–	–	–	–	–	–	$4,008,000

HARRISON CAPACITY IMPROVEMENTS (32ND AVE TO 42ND AVE)

Widen to standard three lane cross-section with bike lanes, filling in last portion of on-street bike lanes along one of the City's principle arterials.

Sources: TSP, RTP (11542)

Operating Budget Impact: Unknown

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$3,769,000	–	–	–	–	–	–	$3,769,000

SAFE PROGRAM

This city-wide program is for sidewalk improvements to remove sidewalk barriers or to accommodate barriers within the sidewalk by modifying the sidewalk. This project is necessary for ADA compliance. Barriers include fire hydrants, mailboxes, utility poles, street signs or other obstructions to pedestrian travel. This would also fill in sidewalk gaps or construct new sidewalks, as necessary, to maintain an accessible sidewalk system. Projects would require relocation of water and stormwater utilities in addition to water quality facilities.

Sources: SAFE, RTP (11540, 11174, 11671, 11535, 10099, 11623, 11541, 11621, 11954)

Operating Budget Impact: Potential increase in maintenance expenses with addition of new infrastructure but may be offset by reconstruction of existing infrastructure.

Submitted by: Engineering

Phase 1 Streets:

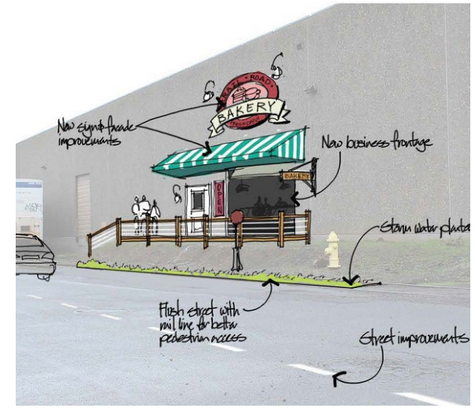
- 22nd Ave from McLoughlin Blvd to Sparrow St;
- 42nd Ave from Johnson Creek Blvd to Harvey St;
- 36th Ave/39th Ave/Wake St/Ardenwald Path from Roswell St to Olsen St;
- Edison St from Hwy 224 to 35th Ave;
- Home Ave from King Rd to Railroad Ave;
- King Rd from 40th Ave to Linwood Ave;
- Lake Rd from 34th Ave to Guilford;
- Monroe St from 25th Ave to 28th Ave;
- River Rd from McLoughlin Blvd to City Limits; and
- Sellwood St/30th Ave/Madison St from 35th Ave to Milwaukie Elementary School.

Phase 2 Streets (Unfunded):

- 26th Ave from Lake Rd to Lake Village Apartments;
- 27th Ave from Lake Rd to Washington St;
- 28th Ave/Van Water St from Springwater corridor to 32nd Ave;
- 32nd Ave/Railroad Ave from Van Water St to Oak St;
- Balfour St from 32nd Ave to Balfour Park;
- Harmony Rd from International Way to Linwood;
- Harmony Rd from Linwood to City Limits;
- International Way from 37th Ave to Lake Rd; *
- Lava Dr/Waverly Ct from 17th Ave to Highlands Apartments Entrance;
- Logus Rd from 43rd Ave to 49th Ave;
- Main St/Ochoco St from Harrison St to McLoughlin Blvd;
- Mason Ln from 42nd Ave to Regents Dr;
- Oak St from Washington St to Monroe St;
- Park St/Beckman Ter/56th Ave/ Lloyd St from Home Ave to Stanley Ave;
- Sparrow St from 22nd Ave to Trolley Trail;
- Washington St/35th Ave from McLoughlin Blvd to Edison St; * and
- Mailwell from Main St to UPRR. *

** Project Funded*

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$4,787,200	$994,700	$1,466,600	$1,950,600	–	$475,600	$639,100	$5,607,400
Funded	Water Fund	n/a	$14,000	$35,000	$30,000	$65,000	$64,000	$46,000	$254,000
Funded	Storm Fund	n/a	$15,000	$687,500	$291,800	$108,000	$237,000	$48,000	$1,387,300
Funded	Transportation	$210,600	–	$237,000	–	–	–	–	$237,000
Unfunded	Transportation	$2,531,000	–	–	–	–	–	–	$2,531,000
Unfunded	SAFE	$5,169,200	–	–	–	$1,956,400	$1,686,400	$808,500	$9,620,300



MCBROD AVE GREEN STREET

Develop SE McBrod Ave as a demonstration project that integrates green street/shared facility approaches to treat both right-of-way and adjacent development. Project would include continuous at grade rail line, required reconstruction of existing rail infrastructure, together with the construction of an activated area between the rail line and the buildings.

Source: NMIA

Operating Budget Impact: Unknown rail impact

Submitted by: Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Grants, LID, Urban Renewal	$3,762,000	–	–	–	–	–	–	$3,762,000

BICYCLE AND PEDESTRIAN OVERPASS OVER RAILROAD AVE

Establish a dedicated bicycle and pedestrian connection across Railroad Ave and the railroad tracks that connects Railroad Ave with International Way and connections to transit. The purpose of this project is to improve north-south bicycle and pedestrian connections, and enhance the accessibility to transit and the Milwaukie Business Employment area.

Sources: TSP, RTP (11533), SAFE

Operating Budget Impact: Project would add infrastructure by constructing a new multi-use path.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$226,000	–	–	–	–	–	–	$226,000
Unfunded	Transportation	$2,736,000	–	–	–	–	–	–	$2,736,000

ISLAND STATION NEIGHBORHOOD GREENWAY

Designate 19th Ave and Sparrow St as a neighborhood greenway and install traffic-calming improvements, utilizing a woonerf design together with typical traffic calming features, designated path and on street measures connecting the south end of Kellogg Creek Trail with the Trolley Trail via 19th Ave and Sparrow St.

Sources: TSP, RTP (11622)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$357,600	–	–	–	–	–	–	$357,600
Unfunded	Transportation	$2,714,000	–	–	–	–	–	–	$2,714,000

INTERSECTION IMPROVEMENTS IN NORTH INDUSTRIAL AREA

The purpose of this project is to reduce congestion, improve accessibility for freight, and improve safety

- Signage and Intersection Improvements at McLoughlin Blvd and Ochoco St = Establish signage for trucks and improve intersection.
- Intersection Improvements at Main St and Mailwell Dr = Upgrade intersection turning radii to better accommodate freight movements.
- Intersection Improvements at McLoughlin Blvd and 17th Ave = Prohibit left turn movement from 17th Ave to Northbound McLoughlin Blvd.

Sources: TSP (11623), NMIA

Operating Budget Impact: No applicable increase in operating expenses.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$2,261,000	–	–	–	–	–	–	$2,261,000

STREET CONNECTIVITY & INTERSECTION IMPROVEMENT PROJECTS

- Intersection Improvements at 42nd Ave and Harrison St = Signalize intersection to facilitate dominant traffic flow.
- Intersection Improvements at Johnson Creek Blvd and Linwood Ave = Improve safety of crossing at intersection.
- Traffic-Calming Improvements on River Rd at Lark St = Install traffic-calming measures such as a roundabout.

Sources: TSP, RTP (11540)

Operating Budget Impact: Construction of new traffic signal will add to the operational needs.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$1,535,000	–	–	–	–	–	–	$1,535,000

LAKE RD (WHERE ELSE TO HARMONY/RAILROAD)

Fill in sidewalk gaps on both sides of street, widen to provide for standard three-way cross-section west of Hwy 224, fill in gaps in existing bicycle network with bike lanes, provide intersection improvements, and ADA ramps.

Sources: BPAP, TSP, RTP (10094)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$215,400	–	–	–	–	–	–	$215,400
Unfunded	Transportation	$1,298,600	–	–	–	–	–	–	$1,298,600

OCHOCO ST (17TH AVE TO MCLOUGHLIN)

Reconstruct the bridge over Johnson Creek increasing capacity and reliability of transportation system. Project to include allowance for enhanced bicycle and pedestrian features and vehicular movement. Project would require coordination with City of Portland who owns the existing structure.

Fill in sidewalk gaps, remove barriers and replace portions of existing sidewalk on Ochoco between 17th Ave and McLoughlin Blvd.

Sources: TSP, RTP (10112), TSAP

Operating Budget Impact: Unknown impacts at this time.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	SAFE	$248,300	–	–	–	–	–	–	$248,300
Unfunded	Transportation	$1,149,000	–	–	–	–	–	–	$1,149,000

DOWNTOWN TRANSIT CENTER IMPROVEMENTS

Construct new bus layover facility outside of the downtown core.

Sources: TSP, RTP (11536)
Operating Budget Impact: Unknown
Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$1,128,000	–	–	–	–	–	–	$1,128,000

29TH AVE BIKE/PED CONNECTION

Provide bicycle and pedestrian connections from 29th Ave to the Railroad Ave multi-use path, including: a north/south bicycle and pedestrian connection through the Murphy site that connects to 29th Ave, pedestrian/bicycle treatments on Campbell St and Railroad Ave between Monroe St and Harrison St (this is the natural direct bicycle connection between the two central Milwaukie opportunity sites – the Murphy Site and the McFarland Site, a bicycle crossing across Harrison St between Campbell St and 31st Ave, and a multi-use trail from Oak St to 37th Ave connecting the Railroad Ave multi-use path with the Monroe St Greenway and the 29th Ave Greenway.

Exact locations to be determined by future development.

Sources: TSP, CMTP, URAP
Operating Budget Impact: This project will increase operational expenses by increasing infrastructure.
Submitted by: Engineering, Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$3,000,000	–	–	–	–	–	–	$3,000,000
Unfunded	Transportation	$400,000	–	–	–	–	–	–	$400,000

BICYCLE INFRASTRUCTURE IMPROVEMENTS

The city bicycle network is incomplete. The goal of this project is to fill in gaps within the existing bicycle network with bike lanes or other bike facilities. Projects include:

- Harrison St Bike Lanes = Fill in gaps in existing bicycle network with bike lanes
- International Way Bicycle Facilities

Funded: International Way
Sources: TSP, CMTP, SAFE, RTP (11541)
Operating Budget Impact: Unknown
Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	$422,000	–	–	–	$157,600	–	$450,400	$608,000
Unfunded	Transportation	$310,000	–	–	–	–	–	–	$310,000

37TH AVE PEDESTRIAN IMPROVEMENTS

Fill in sidewalk gaps on both sides of street, construct ADA ramps, and remove barriers on 37th Ave between Lake Rd and Harrison St.

Sources: BPAP, TSP, RTP (10096), SSMP
Operating Budget Impact: None anticipated
Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$212,000	-	-	-	-	-	-	$212,000
Unfunded	SAFE	$240,600	-	-	-	-	-	-	$240,600
Unfunded	SSMP	$91,800	-	-	-	-	-	-	$91,800

KELLOGG CREEK TRAIL IMPROVEMENTS

Construct ADA trail improvements to create an accessible path from Milwaukie Bay Park to 19th St.

Sources: BPAP, ADA
Operating Budget Impact: None
Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$87,000	–	–	–	–	–	–	$87,000

KELVIN/OLSEN BIKE/PED CONNECTIONS

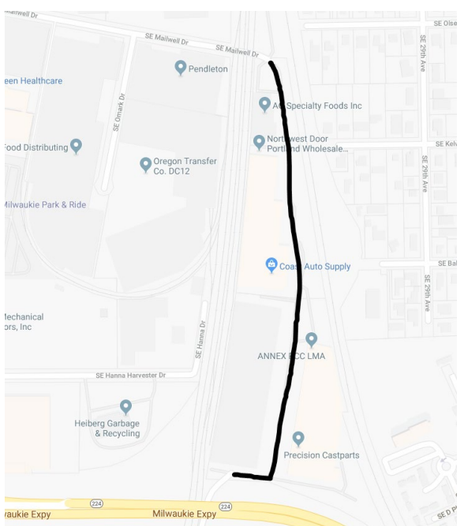
Develop a bicycle and pedestrian connection across the railroad tracks at approximately Kelvin or Olsen Streets to connect the SE 29th Ave Greenway to Mailwell.

Sources: TSP, NMIA

Operating Budget Impact: This project would increase operation expenses due to new structures and infrastructure being created.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$4,000,000	–	–	–	–	–	–	$4,000,000



NMIA RIGHT-OF-WAY ROAD DESIGN

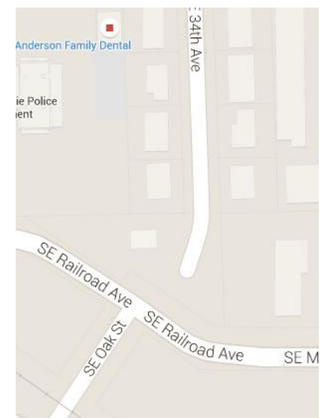
Create a public right-of-way from Mailwell through the existing loading docks to SE 26th. Road design should restrict large trucks from entering the adjacent neighborhoods south of the project area.

Source: NMIA

Operating Budget Impact: Unknown

Submitted by: Community Development, Engineering, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	TBD	–	–	–	–	–	–	TBD



OAK STREET/34TH AVE CONNECTION

Provide pedestrian/bicycle connection between Monroe St and 34th Ave (including access for a nearby residential neighborhood).

Sources: TSP, CMTP

Operating Budget Impact: This project will increase operational expenses with construction of new infrastructure.

Submitted by: Engineering, Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$106,000	–	–	–	–	–	–	$106,000

OCHOCO/ROSWELL BIKE/PED CONNECTIONS

Extend bicycle and pedestrian connections along SE Ochoco St to SE Roswell St across the railroad tracks to improve connectivity and circulation to/from the project area.

Source: NMIA

Operating Budget Impact: This project constructs a new bridge and supporting infrastructure, increasing operational expenses.

Submitted by: Community Development, Planning, Engineering, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	TBD	–	–	–	–	–	–	TBD

STREET SURFACE MAINTENANCE PROGRAM – CRACK SEAL

This project will provide protection to roadways from possible damage due to water within cracks that form as part of the natural process by sealing them before more expensive measures are required.

Sources: TSP, SSMP

Operating Budget Impact: This project will reduce maintenance operating expenditures by providing a short-term relief on the streets by sealing cracks and reduce the potential for potholes. Work also done in connection with slurry seals.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SSMP	–	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$90,000

STREET SURFACE MAINTENANCE PROGRAM – SLURRY SEAL PROGRAM

The purpose of this program is to treat street surfaces in a "good" condition prior to them needing a grind and inlay (or overlay). By surface sealing worn asphalt, the City can prolong the life of its streets thus reducing the need for more costly measures.

Source: SSMP

Operating Budget Impact: This project will reduce maintenance operating expenditures by providing a short-term wearing course on the streets and reduce the potential for potholes and surface cracking.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SSMP	–	–	$500,000	–	–	–	–	$500,000
Unfunded	SSMP	–	–	–	–	$500,000	–	$500,000	$1,000,000

KRONBERG PARK TRAIL

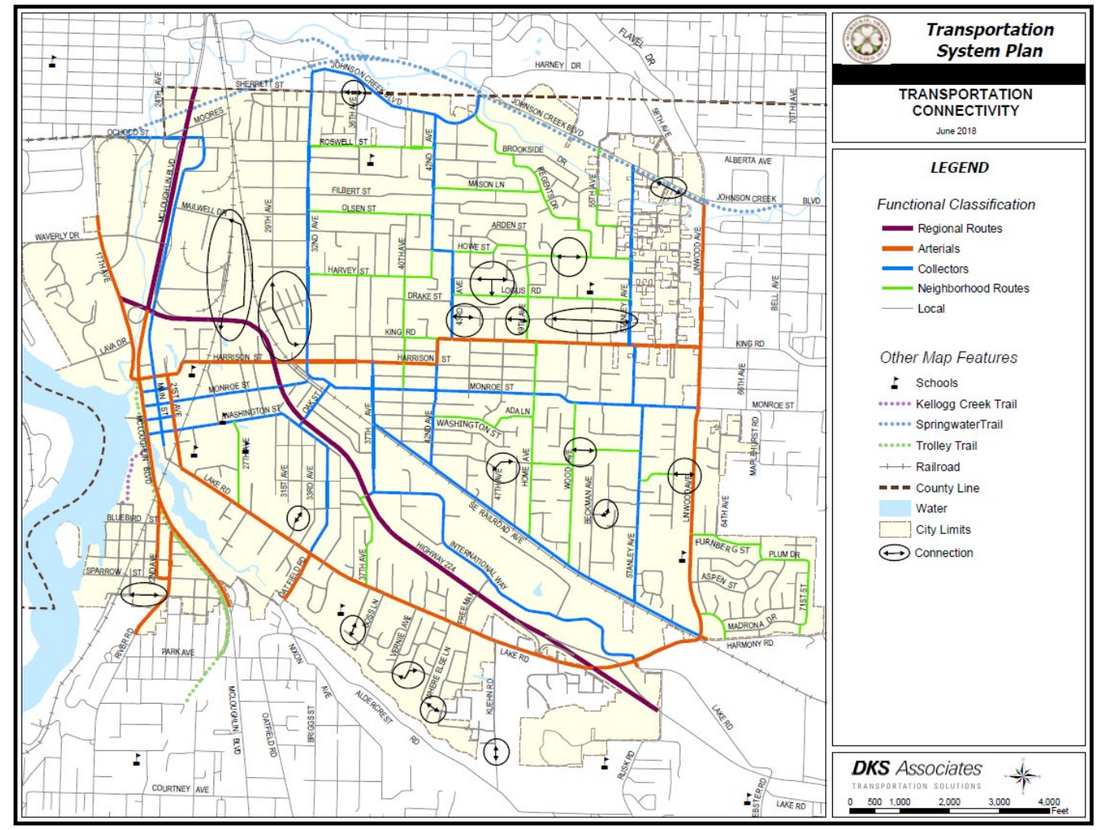
This project will construct a multi-use trail connecting the Kellogg Creek Pedestrian Bridge to the pedestrian signal across McLoughlin Blvd at River Rd. The trail will include an elevated portion through Kronberg Park, pedestrian amenities, and stormwater improvements along McLoughlin Blvd.

Sources: TSP, RTP (10113)

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	SAFE	–	$1,277,000	–	–	–	–	–	$1,277,000
Funded	Stormwater	–	$106,700	–	–	–	–	–	$106,700
Funded	Grant-Connect Oregon	–	$986,000	–	–	–	–	–	$986,000



TRANSPORTATION CONNECTIVITY

This project identifies the City's transportation connectivity requirements for vehicular, pedestrian, and/or bicycle needs in conformance with Goal 5 of the Transportation System Plan and allows these projects to become eligible for system development funding for their capacity increasing aspects.

Source: TSP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

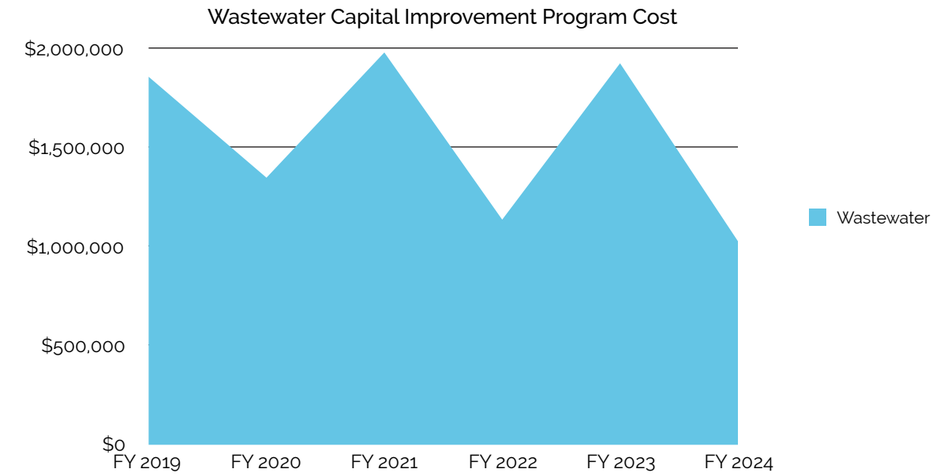
Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	TBD	–	–	–	–	–	–	TBD

WASTEWATER FUND OVERVIEW

The City of Milwaukie's wastewater system consists of approximately 396,000 feet (75 miles) of pipe, 1,692 manholes and 5 sewage pumping stations. City Engineering and Public Works staff are responsible for pipe and manhole replacement and construction, routine maintenance and inspection, system inventory, emergency call-outs, and flow monitoring. Treatment for the City wastewater system is provided by Clackamas County Sewer District #1. Treatment costs have escalated rapidly over the past three years and are expected to increase further.

Wastewater system capital needs include funding for the Wastewater Main Repair, Clay Pipe Replacement Program, I&I Reduction as well as lift station improvements. The 2010 Wastewater Master Plan recommends a yearly budget of $100,000 for main line replacement. This program's goal is to address wastewater pipe issues identified by operations staff through routine maintenance. The goal of the Clay Pipe Replacement Program is to systematically replace all aging clay pipes within the system. I&I Reduction projects are intended to reduce the infiltration and inflow of ground water into the sanitary system reducing the City's treatment needs.



WASTEWATER SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
57	Lift Station Pump Replacement	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	–	$300,000
79	SCADA	125,000	125,000	–	–	–	–	–	250,000
20	Wastewater Vehicle Purchases	–	–	85,000	95,000	31,250	–	–	211,250
VEHICLES AND EQUIPMENT SUBTOTALS		**$175,000**	**$175,000**	**$135,000**	**$145,000**	**$81,250**	**$50,000**	**–**	**$761,250**

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
57	Clay Pipe Replacement Program	$1,085,000	–	–	–	–	–	–	$1,085,000
58	SE Hanna Harvester Repair	40,000	–	–	–	–	–	–	40,000
57	Milwaukie Bay Park Bank Repair	125,000	–	–	–	–	–	–	125,000
58	SE Wake St Repair	36,000	–	–	–	–	–	–	36,000
59	SE 29th Ave Repair	99,000	–	–	–	–	–	–	99,000
72	Waverly Heights Wastewater System Reconfiguration	–	200,000	900,000	400,000	800,000	510,000	–	2,810,000
59	SE Mailwell Dr Repair	–	111,000	–	–	–	–	–	111,000
60	SE Kent St Repair	–	103,000	–	–	–	–	–	103,000
60	SE 17th Ave Repair	–	49,000	–	–	–	–	–	49,000
61	SE 42nd Ave Repair	–	97,000	–	–	–	–	–	97,000
61	SE 37th Ave (King & Harvey) Repair	–	148,000	–	–	–	–	–	148,000
62	SE Stubb St Repair	–	202,000	–	–	–	–	–	202,000
34	McBrod Ave	–	25,000	–	–	–	–	–	25,000
62	Home and Monroe Lift Station Capacity Upgrade Combined	–	–	360,000	–	–	–	–	360,000
63	SE Rio Vista St Repair	–	–	89,000	–	–	–	–	89,000
63	SE 34th Ave Repair	–	–	72,000	–	–	–	–	72,000
64	SE 37th Ave (Marketplace) Repair	–	–	79,000	–	–	–	–	79,000
64	SE River Rd Repair	–	–	79,000	–	–	–	–	79,000

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
34	43rd Ave/Howe/Covell	–	–	$114,000	–	–	–	–	$114,000
35	Harvey St	–	–	65,000	–	–	–	–	65,000
65	SE Main St (Credit Union) Repair	–	–	–	142,000	–	–	–	142,000
65	SE 37th Ave Repair	–	–	–	78,000	–	–	–	78,000
66	SE Van Water St Repair	–	–	–	125,000	–	–	–	125,000
66	SE 28th Ave Repair	–	–	–	123,000	–	–	–	123,000
67	SE Beckman Ave Repair	–	–	–	125,000	–	–	–	125,000
67	SE Washington St Sewer Replacement Project (34th to Sellwood)	–	–	–	–	425,000	–	–	425,000
68	SE 26th Ave Repair	–	–	–	–	15,000	–	–	15,000
68	SE Washington St Repair	–	–	–	–	175,000	–	–	175,000
69	SE 31st Ave Repair	–	–	–	–	112,000	–	–	112,000
69	SE 38th Ave Repair	–	–	–	–	78,000	–	–	78,000
70	SE Riverway Ln Repair	–	–	–	–	62,000	–	–	62,000
70	SE 32nd Ave Repair	–	–	–	–	100,000	–	–	100,000
71	SE International Way Repair	–	–	–	–	–	135,000	–	135,000
71	SE 45th Ct Repair	–	–	–	–	–	46,000	–	46,000
72	SE Roswell St Repair	–	–	–	–	–	99,000	–	99,000
73	Lake Village Apartments Sewer Replacement Project	–	–	–	–	–	138,000	–	138,000
73	NMIA Sewer Mining District	–	–	–	–	–	–	7,500,000	7,500,000
WASTEWATER FUND CIP SUBTOTALS		**$1,385,000**	**$935,000**	**$1,758,000**	**$993,000**	**$1,767,000**	**$928,000**	**$7,500,000**	**$15,266,000**

WASTEWATER SDC SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
77	Wastewater System Master Plan	$300,000	–	–	–	–	–	–	$300,000
62	Home and Monroe Lift Station Capacity Upgrade Combined	–	180,000	–	–	–	–	–	180,000
72	Waverly Heights Wastewater System Reconfiguration	–	60,000	90,000	–	80,000	51,000	–	281,000
WASTEWATER SDC SUBTOTALS		**$300,000**	**$240,000**	**$90,000**	**–**	**$80,000**	**$51,000**	**–**	**$761,000**

LIFT STATION PUMP REPLACEMENT

A program that replaces the City's lift station pumps prior to failures and / or service interruptions.

Source: City Staff

Operating Budget Impact: Completing preventive maintenance in advance of emergency repairs should reduce the possibility of sewer back up, claims against the City, and reduce operating expenditures.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$300,000

CLAY PIPE REPLACEMENT PROGRAM

This project was created to ensure the replacement of all remaining Vitrified Clay Pipe (VCP) throughout the City. Vitrified Clay Pipes are susceptible to chemical attack at their joints, are brittle, and due to their short lengths and numerous joints, are more prone to infiltration. Sections of VCP to be replaced will be identified by Engineering staff on an annual basis and will focus strongly on coordination with the Street Surface Maintenance Program (SSMP) schedule and replacement recommendations from the Wastewater Department based on routine system monitoring.

Source: WWMP

Operating Budget Impact: This project will not increase operating expenditures. These projects replace wastewater pipes one-for-one and will not increase the number of wastewater assets system-wide.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$1,085,000	–	–	–	–	–	$1,085,000

MILWAUKIE BAY PARK BANK REPAIR

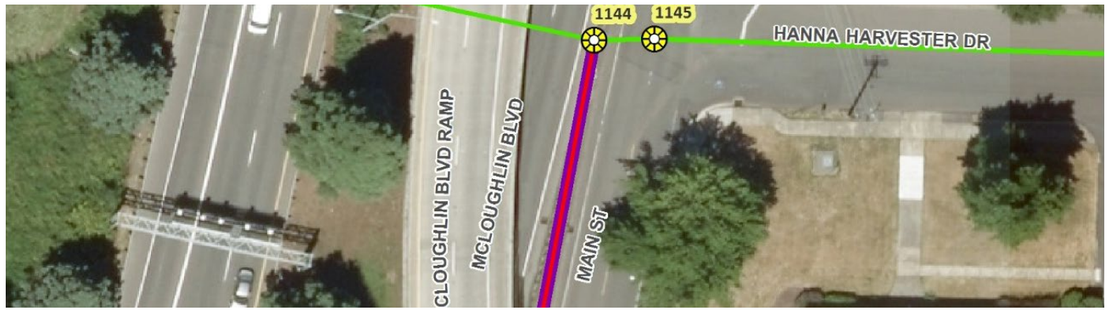
This project will reconstruct the bank area within Milwaukie Bay Park and repair the damage caused by the storm event on December 6–26, 2015.

Sources: City Staff, FEMA

Operating Budget Impact: No impact on the operating budget.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$125,000	-	-	-	-	-	$125,000
Funded	Storm	–	$78,600	-	-	-	-	-	$78,600
Unfunded	Grant: FEMA	–	$35,600	-	-	-	-	-	$35,600



SE HANNA HARVESTER DR REPAIR

MH 1575 – 1144 Length 143.2' Depth 9.5' upstream 10' downstream Number of services 0 Diameter 8". This project is required to fix a significant belly in the last 90' of the line. This line is a heavy flow line, it has PCC (Precision Cast Parts) tied to the line and is in use 24 hours a day. Full replacement is recommended. This project will require bypass pumping. The project will include pavement patching along the length of the pipe.

Source: City Staff

Operating Budget Impact: This project will not increase operating expenditures. These projects will replace wastewater pipes one–for–one and will not increase the number of wastewater assets system-wide.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$40,000	–	–	–	–	–	$40,000

SE WAKE ST REPAIR

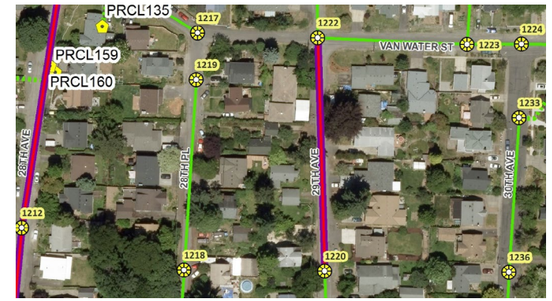
MH 1305 – 1301 Length 121.4' Depth 10.17' upstream 9' downstream Number of services 3 Diameter 8". This line is required to fix cracks in the mainline. The maintenance crew has placed this on the quarterly maintenance list to be flushed because of a bad manhole at the upstream, debris catches and holds in the manhole. Also, the mainline has multiple areas of cracks and fractures that need to be fixed. Full replacement is recommended.

Sources: City Staff

Operating Budget Impact: This project will not increase operating expenditures. These projects will replace wastewater pipes one-for-one and will not increase the number of wastewater assets system-wide.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$36,000	–	–	–	–	–	$36,000



SE 29TH AVE REPAIR

MH 1222 – 1220 Length 341.2' Depth 12' upstream 8.25' downstream Number of services 10 Diameter 8". This project is required to fix bellies in the mainline. Bellies in the mainline hold debris and cause the debris to go septic. Only way for maintenance crews to CCTV is to have the jetter pull water and the debris at the same time. Also, there are visible gaskets hanging down in mainline. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	$99,000	–	–	–	–	–	$99,000

SE MAILWELL DR REPAIR

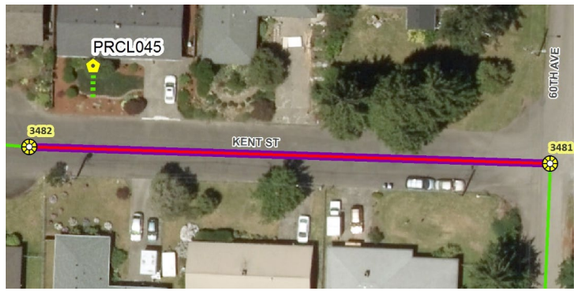
MH 1166 – 1029 Length 403.2' Depth 8.0' upstream 9.33' downstream Number services 5 Diameter 8". This project is required to eliminate known I & I issues (inflow and infiltration). The joints and lateral connections of the sewer mainline are failing and ground water is infiltrating along with known structural issues recorded by CCTV. Because of the length of the mainline a manhole added to the middle is needed to ease maintenance. By eliminating the I & I it relieves the Kellogg treatment plant, reduces capacity issues and maintains a good water tight mainline. It is estimated that this project sees medium infiltration at a rate of 1-5 gallons a minute. This project may be eligible for a 10% cost share from CCSD#1 since it is a project designed to reduce I/I within the City. The project will be evaluated by CCSD#1 for its impact on I/I. CIPP is recommended for the main line. The project will include service reconnections.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$111,000	–	–	–	–	$111,000



SE KENT ST REPAIR

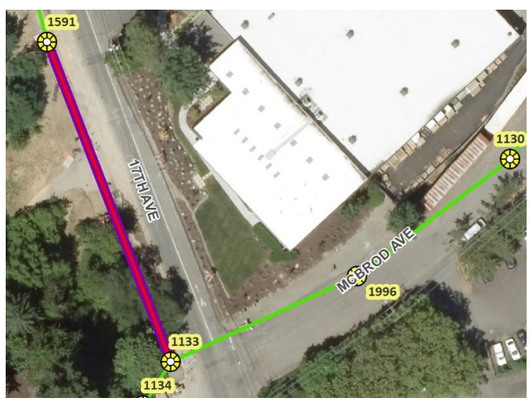
MH 3482 – 3481 Length 275.3' Depth 7.42' upstream 14.83' downstream Number of services 6 Diameter 8". This project is required to fix bellies and sags in the mainline. In this mainline there are numerous bellies and sags which cause debris to sit in the mainline. This main is on the maintenance crews quarterly list to clean and remove all the debris with the combination truck. Fixing this line will relieve the upstream line and remove them both from the quarterly maintenance list. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$103,000	–	–	–	–	$103,000



SE 17TH AVE REPAIR

MH 1591 – 1133 Length 233.4' Depth 4' upstream 5.42' downstream Number of services 2 Diameter 6". This project is required due to many cracks and fractures. The cracks and fractures have threatened the structural integrity of the mainline and could cause issues if mainline collapses. The mainline was brought to engineer's attention during the 17th Ave bike path install. Full replacement is recommended to ensure structurally safety of the mainline but CIPP may be the best solution due to proximity to bike path.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$49,000	–	–	–	–	$49,000

SE 42ND AVE REPAIR

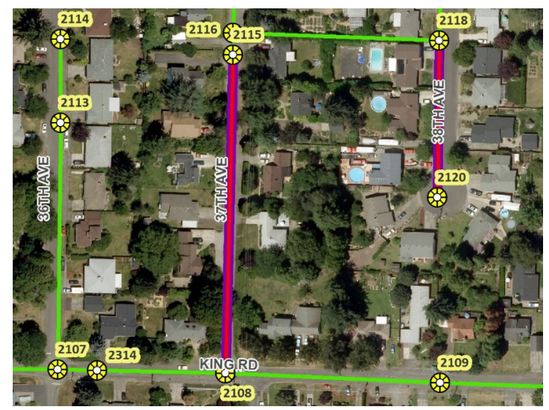
MH 1055 – MH 1054 Length 254.6' Depth 15.7' upstream 19.7' downstream Number of services 5 Diameter 12". This project is required to fix multiple bellies and sags in the sewer mainline. The bellies create spots where sewage and debris sits and goes septic causing premature wear on the sewer mainline. During routine cleaning, there is always debris vacuumed out of the mainline. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$97,000	–	–	–	–	$97,000



SE 37TH AVE REPAIR

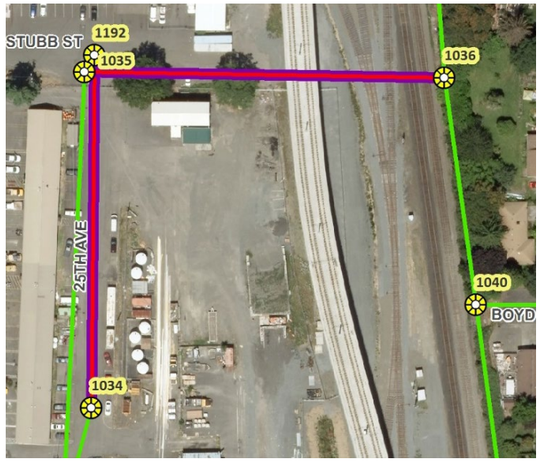
MH 2115 – 2108 Length 516' Depth 7.33' upstream 10.33' downstream Number of services 11 Diameter 8". This project is required to be fixed to ease maintenance on the mainline. The mainline has mortar in nearly every joint and debris catches in the mortar. During CCTV the camera has a hard time climbing the mortar and gets stuck. Also with the addition of a manhole near the center will make maintenance safer and easier. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$148,000	–	–	–	–	$148,000



SE STUBB ST REPAIR

MH 1192 – 1034 Length 367.7' Depth 5.5' upstream 5.4' downstream Number of services 9 Diameter 8". This project is required to eliminate known I & I issues (inflow and infiltration). The joints and lateral connections of the sewer mainline are failing and ground water is infiltrating. By eliminating the I & I it relieves the Kellogg treatment plant, reduces capacity issues and maintains a good water tight mainline. Multiple fractures and sign of I & I in old not in use laterals. Full replacement with the removal of none used laterals recommended. This project may be eligible for a 10% cost share from CCSD#1 since it is a project designed to reduce I/I within the City. The project will be evaluated by CCSD#1 for its impact on I/I. CIPP is recommended for the mainline. Project includes boring or pipe bursting under UPRR.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$202,000	–	–	–	–	$202,000

HOME AND MONROE LIFT STATION CAPACITY UPGRADE COMBINED

- MH 3311-MH 3310 Length 301.3' Depth 19.6' upstream 20.70' downstream Number of services 8
- MH 3305 - 3159 Length 251.9' Depth 26.92' upstream 25.60' downstream Number of services 1
- MH 3310 – 3161 Length 360.3' Depth 20.7' upstream 27.25' downstream Number of services 4
- MH 3161 – 3160 Length 231.1' Depth 27.25' upstream 26.25' downstream Number of services 1
- MH 3160 – 3305 Length 44.0' Depth 26.25' upstream 26.00' downstream Number of services 0

This project is required to upsize the capacity of the sewer mainlines to alleviate surcharging of the mainline from the Home and Monroe lift station S3. The concrete liner is failing in the steel mainline and causing structural issues within the pipe. Every time it is cleaned for routine maintenance concrete liner is loosened and must be retrieved from the line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	$360,000	–	–	–	$360,000
Funded	Wastewater SDC	–	–	$180,000	–	–	–	–	$180,000

SE RIO VISTA ST REPAIR

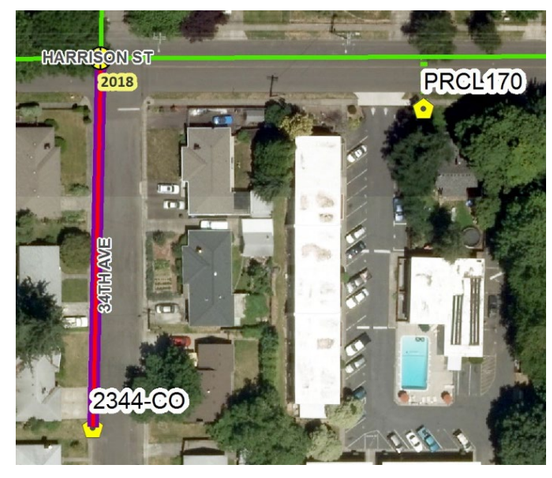
MH 3094 – 3093 Length 298.1' Depth 9.17' upstream 9.42' downstream Number of services 10 Diameter 8". This project is required to fix the root infiltration in the mainline. This mainline has a heavy amount of roots coming in from mainline joints and lateral connections. Fixing this mainline would take off maintenance crews quarterly maintenance list of CCTV and cutting roots and treating the roots. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	$89,000	–	–	–	$89,000



SE 34TH AVE REPAIR

CO 2344 – 2018 Length 257' Depth CO' upstream 10' downstream Number of services 6 Diameter 8". This project is required to fix intruding seal material, and multiple cracks and fractures that take from the structural integrity of the mainline. This main line is on the maintenance crews' quarterly maintenance list. The intruding seal material holds back debris and requires the mainline to be flushed to prevent any sewer backups from happening. Full replacement is recommended. This project also includes the reconnection of services, sidewalk repair, driveway repair and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	$72,000	–	–	–	$72,000

SE 37TH AVE (MARKETPLACE) REPAIR

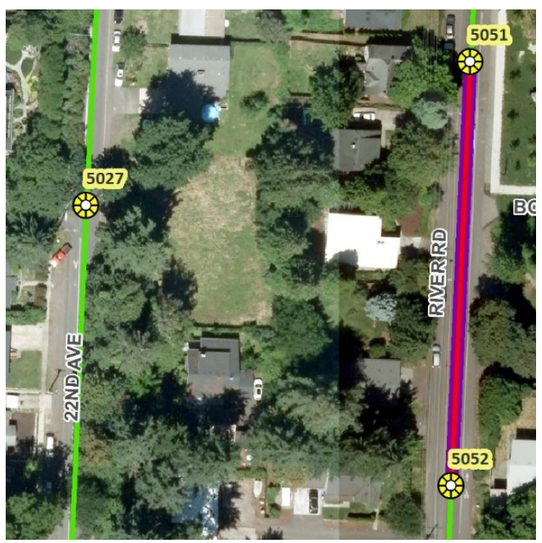
MH 3512 – 3511 Length 324.95' Depth 8.42' upstream 10.17' downstream Number of services 1 Diameter 8". This project is required to fix bellies in the mainline. The Milwaukie Marketplace is the main contributor to this mainline. We have grease that builds up in the bellies of the main. The maintenance crew has put this on the quarterly maintenance list to jet and remove debris and grease. The downstream manhole can be eliminated and tie in with the next manhole approximately 20' away. This is recommended for full replacement. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	$79,000	–	–	–	$79,000



SE RIVER RD REPAIR

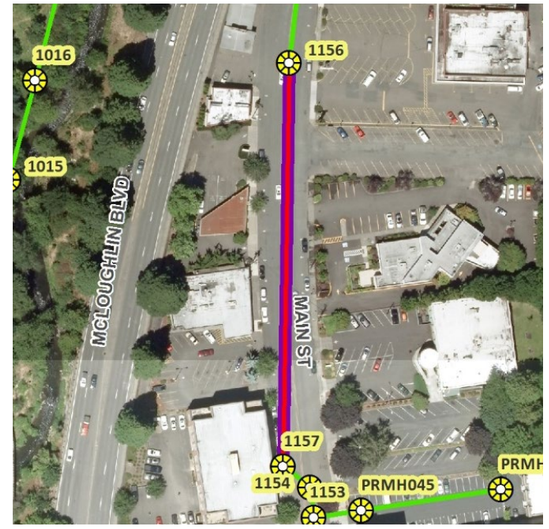
MH 5052 – MH 5051 Length 304.0' Depth 6.4' Upstream Downstream 6.2 Number of services 7 Diameter 8". This project is required to eliminate known I & I issues (inflow and infiltration). The joints and lateral connections of the sewer mainline are failing and ground water is infiltrating. By eliminating the I & I it relieves the Kellogg treatment plant, reduces capacity issues and maintains a good water tight mainline. Medium Infiltration 1-5 gallons a minute. This project may be eligible for a 10% cost share from CCSD#1 since it is a project designed to reduce I/I within the City. The project will be evaluated by CCSD#1 for its impact on I/I. CIPP is recommended for the mainline.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	$79,000	–	–	–	$79,000



SE MAIN ST (CREDIT UNION) REPAIR

MH 1157 – 1156 Length 445' Depth 4.83' upstream 5.33' downstream Number of services 13 Diameter 8". This project is required to fix Multiple holes and fractures in the mainline. There is also a heavy buildup of FOG (Fats Oil and Grease). This mainline is on a regular schedule to be looked at and cleaned once a quarter. The length of the line justifies installation of a manhole for maintenance reasons. Full replacement is justified. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$142,000	–	–	$142,000

SE 37TH AVE REPAIR

MH 2075 – 2070 Length 263' Depth 8.9' upstream 9.5' downstream Number of services 8 Diameter 8". This project is required to repair root intrusion into the main from mainline joints and lateral connections. This mainline has numerous spots of roots and is on the maintenance crews list to check quarterly with the CCTV and root cut and treat when needed. Full replacement of this line is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$78,000	–	–	$78,000

SE VAN WATER ST REPAIR

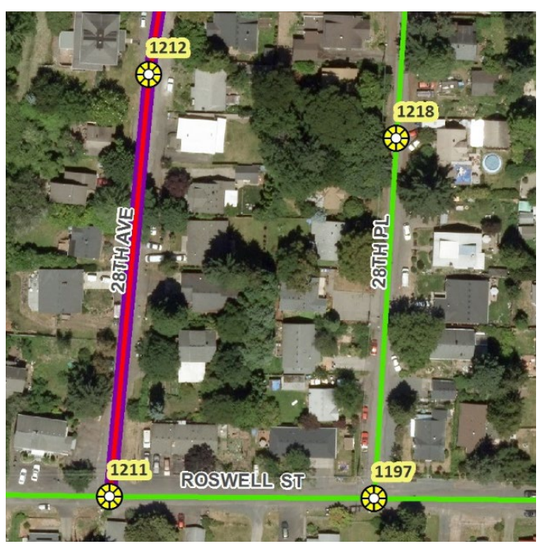
MH 1213 – 1212 Length 411.4' Depth 16' upstream 15' downstream Number of services 14 Diameter 8". This line is required to fix multiple bellies. This mainline is on the maintenance crews quarterly list to flush because of built up debris. The length of the line is an issue a manhole installed in the middle would ease maintenance. Also, this line is a low-pressure line to clean because of blowing water back into homes when cleaning at full pressure. Because of cleaning at low-pressure it takes multiple attempts to retrieve all the debris. Full replacement is recommended. The project will include reconnection of services and pavement patching along the length of the pipe.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$125,000	–	–	$125,000



SE 28TH AVE REPAIR

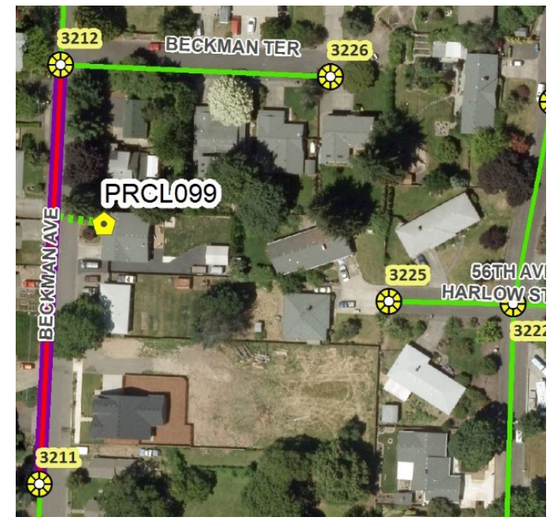
MH 1212 – 1211 Length 415' Depth 15' upstream 11.4' downstream Number of services 14 Diameter 8". This project is required to fix Intruding roots and belly issues. Roots and the bellies cause debris to hang up and has the potential for sewer backups. The roots in the mainline have put this mainline on the quarterly list for CCTV and root cutting. During the repair have a manhole installed in the middle to ease maintenance issues. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$123,000	–	–	$123,000



SE BECKMAN AVE REPAIR

MH 3212 – 3211 Length 401.2' Depth 10.25' upstream 9.42' downstream Number of services 11 Diameter 8". This project is required to fix bellies in the mainline. This mainline is on the maintenance crews quarterly list to flush out debris with the combination truck. Debris builds up in the bellies and has the potential to cause a sewer back up and property damage. The length of the mainline justifies the install of a new manhole midway of the mainline. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$125,000	–	–	$125,000

SE WASHINGTON ST SEWER REPLACEMENT PROJECT

MH 2227 – 2226 Length 313' Depth 12.58' upstream 13.25' downstream Number of services 7 diameter 10". This project is required to fix roots and intruding seal material. This mainline is on the crews quarterly list to complete every quarter. There numerous areas of roots and intruding seal material that holds debris in the mainline requiring it to be cleaned. The CCTV camera has gotten stuck in the mainline. Full replacement is recommended. The project will include service reconnection and pavement patching along the length of the pipe.

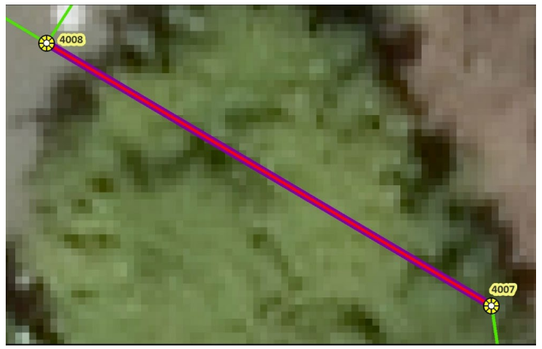
MH 2228 – 2227 Length 462.9' Depth 7.33' upstream 12.58' downstream Number of services 19 Diameter 10". This project is required to fix intruding roots. Roots have placed this mainline on the maintenance crews quarterly list. Roots are cut and treated quarterly. With the length of the mainline a manhole added in the middle would ease maintenance issues. Fixing this line would remove it from the quarterly maintenance list. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$425,000	–	–	$425,000



SE 26TH AVE REPAIR

MH 4008 – 4007 Length 36.1' Depth 7.6' upstream 10' downstream Number of services 0 Diameter 8". This line is required to be repaired to eliminate a belly in the line that causes the CCTV to go underwater during inspection. This mainline is located mainly in a planted area. Repairing this line will relieve debris being flushed down to inaccessible sewer mainlines. — Side note: Mains in this whole area around the apartments is horrible access, sewer mainlines running along front door walkways. Very poor access.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$15,000	–	–	$15,000

SE WASHINGTON ST REPAIR

MH 3043 – 3042 Length 554.7' Depth 9.25' upstream 8.92' downstream Number of services 20 Diameter 8". This project is required to fix roots, holes and a belly. The mainline is on the maintenance crews' quarterly maintenance list to flush the debris that sit in the belly and to CCTV the roots and cut and treat when needed. The length of this line call for the installation of a manhole in the middle. This line is heavily deteriorated and has exposed aggregate throughout the mainline. Full replacement is recommended. The project will include service reconnection and pavement patching along the length of the pipe.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$175,000	–	–	$175,000

SE 31ST AVE REPAIR

MH 1910 – 1200 Length 374.3' Depth 11.5' upstream 15.2' downstream Number of services 13 Diameter 8". This project is required to fix Intruding roots and belly issues. Roots and the bellies cause debris to hang up and has the potential for sewer backups. The roots in the mainline have put this mainline on the quarterly list for CCTV and root cutting. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	$112,000	–	–	$112,000

SE 38TH AVE REPAIR

MH 2120 – 2118 Length 253.6' Depth 5.92' upstream 5.67' downstream Number of services 9 Diameter 8". This project is required to fix holes and belly in the mainline. This mainline is on our quarterly maintenance list and is flushed every quarter by the maintenance crew. The line has a significant belly and holds debris requiring the flushing. The line also has 2 poorly constructed point repairs. Full replacement is recommended. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	$78,000	–	$78,000

SE RIVERWAY LN REPAIR

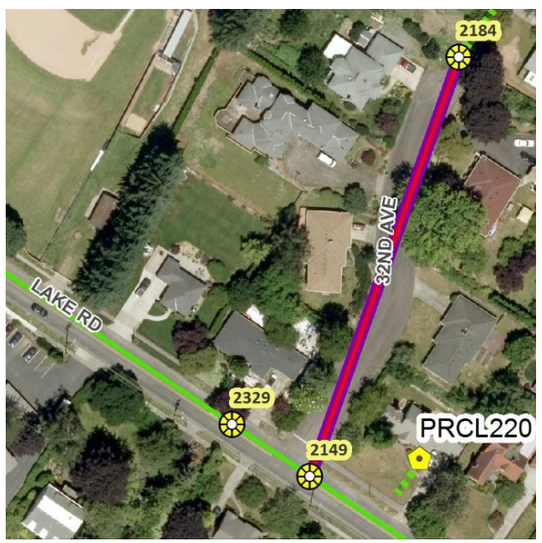
MH 1087 – 1086 Length 220.6' Depth 10' upstream 11.5' downstream Number of services 2 Diameter 10". This project is required to fix the root issue. This mainline is a trunk line and has a lot of flow from the Waverly area. This mainline also needs a manhole installed at 153' to allow access to a private sewer main that catches 3 homes. Roots are heavy in portions of the mainline. Fixing the mainline would remove it from the maintenance crews' quarterly maintenance list of CCTV and root cutting and treating. This project could be pipeburst and requires the reconnection of services.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	$62,000	–	$62,000



SE 32ND AVE REPAIR

MH 2184 – 2149 Length 414.5' Depth 8.5' upstream 16.33' downstream Number of services 8 Diameter 8". This project is required to fix known roots in mainline. Heavy roots have penetrated the mainline at joints and service connections. The result of the roots has put this mainline on a regular schedule to look at every quarter and cut and treat roots as needed to maintain flow. Also, the length of the line makes it difficult to clean. We would also like a manhole installed mid-way of the mainline. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	$100,000	–	$100,000

SE INTERNATIONAL WAY REPAIR

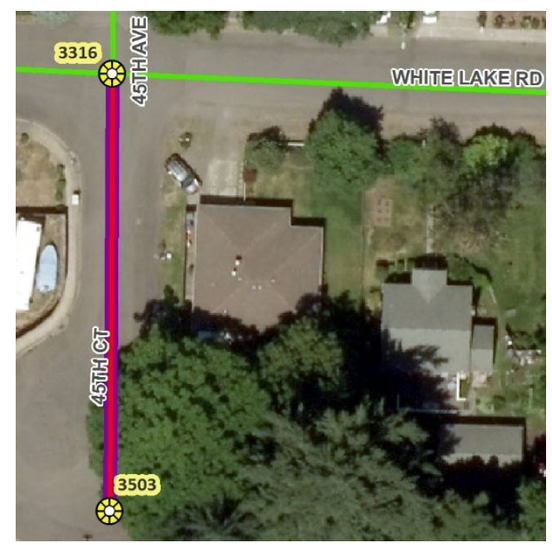
MH 3033 – 3032 Length 354.2' Depth 10.5' upstream 11.5' downstream Number of services 3 Diameter 12". This project is required to fix two significant bellies. One belly is located from 211' and 260' and another belly from 330' to 340'. These bellies allow for debris to build up and go septic from sitting. This repair was attempted and the contractor pulled out because of ground water. Repairs should be done during dry season. Also have substantial amounts of grease coming from two plumber laterals may need grease traps. The project may require dewatering. Full replacement recommended.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	–	$135,000	$135,000



SE 45TH CT REPAIR

MH 3503 – 3316 Length 149.5' Depth 8.5' upstream 12.92' Downstream Number of services 3 Diameter 6". This project is required to fix failing upstream manhole. This manhole must be flushed to clear debris build up. Public works crew has worked on the manhole and issue isn't resolved. Regular flushing is needed to clear debris buildup. Debris builds up enough to block a service lateral. This project also includes the reconnection of services and pavement patching along the replaced line.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	–	$46,000	$46,000

SE ROSWELL ST REPAIR

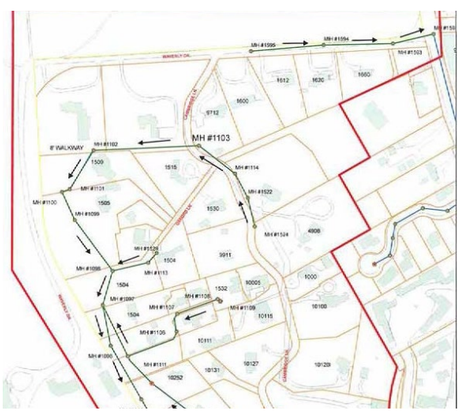
MH 1204 – 1203 Length 362.8' Depth 8.83' upstream 8.33' downstream Number of services 8 Diameter 8". This project is required to eliminate known I & I issues (inflow and infiltration). The joints and lateral connections of the sewer mainline are failing and ground water is infiltrating. By eliminating the I & I it relieves the Kellogg treatment plant, reduces capacity issues and maintains a good water tight mainline. Light roots also noted throughout mainline. This project may be eligible for a 10% cost share from CCSD#1 since it is a project designed to reduce I/I within the City. The project will be evaluated by CCSD#1 for its impact on I/I. CIPP is recommended for the mainline. The project will service reconnection.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	–	$99,000	$99,000



WAVERLY HEIGHTS WASTEWATER SYSTEM RECONFIGURATION

This project will replace and reconfigure the aging wastewater system within the Waverly Heights area of northwest Milwaukie. The 2010 Wastewater System Master Plan proposes five design alternatives. Funding for fiscal year 2022 will be used to design the appropriate solution for this neighborhoods sewer system. Construction of this project may continue past FY 2024.

Source: WWMP

Operating Budget Impact: This project will not increase operating expenditures. This design will help solve a major maintenance issue for the City.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	$200,000	$900,000	$400,000	$800,000	$510,000	$2,810,000
Funded	Wastewater SDC	–	–	$60,000	$90,000	–	$80,000	$51,000	$281,000

LAKE VILLAGE APARTMENT SEWER REPLACEMENT PROJECT

This project was identified in the 1994 Sewer Master plan. This project would construct 350' of 8" sanitary sewer line and associated manholes. The new alignment will bypass lines located under the apartment complex. Lake Village Apartments has had problems with grease build-up and, due to the configuration at this location, is difficult to clean.

Source: WWMP

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater	–	–	–	–	–	–	$138,000	$138,000

NMIA SEWER MINING DISTRICT

Create a "sewer mining district" that connects to the sewer main line at the southwest corner of the NMIA to reduce wastewater flow to the City main treatment system. The project would include a treatment plant and distribution system to return treated water to customers for use in non-potable applications.

Source: NMIA

Operating Budget Impact: This project has a significant impact on maintenance operations by the addition of a treatment plant and a separated distribution system for the NMIA. Additional staff and equipment would need to be hired by the city.

Submitted by: Community Development, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Grants, Urban Renewal, Private Businesses	$7,500,000	–	–	–	–	–	–	$7,500,000

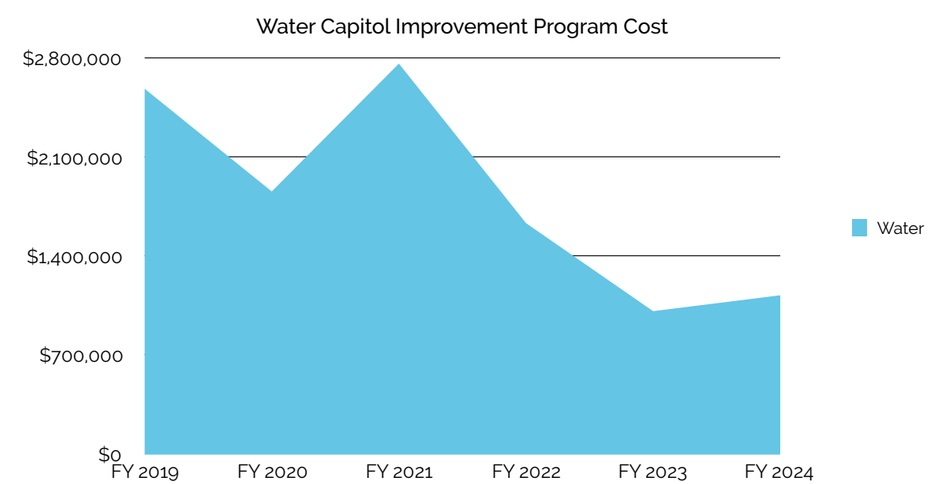
WATER FUND OVERVIEW

The City of Milwaukie water supply is provided through seven wells drawing from an underground basin of the Troutdale Aquifer. The pumping capacity of the well system is 6.6 million gallons per day (MGD). The water system consists of 2 treatment facilities, 3 storage tanks totaling 6 million gallons (MG) storage, and 112 miles of pipeline providing potable water to 6,800 customer connections over 4 pressure zones.

The CIP is based on priorities determined as part of the recently completed Water Master Plan. The highest priority projects are prioritized to coincide with the SSMP and SAFE schedule, fire flow deficiencies in areas zoned "public," 4" diameter pipe installed before 1960, and 6" diameter pipe installed before 1960. The Master Plan identified $10 million dollars in CIP projects.

The Water Master Plan identifies the need for $2 million in Capital Outlay per year. Most of the funding is needed to replace the aging pipelines that delivery water throughout the City. In order to minimize the impact to the water rates needed to provide roughly $1.3 million of additional funding, staff worked with the Citizen's Utility Advisory Board (CUAB) on a ten-year plan to ramp the rates up to the level needed to reach the necessary Capital Outlay funding.

The CIP, as recommended by the CUAB, includes the minimum projects necessary to replace deficient pipelines ahead of the scheduled street surface maintenance projects over the next 4 years. The CUAB's recommendation includes increasing CIP funding over the following 3 years to reach the original goal of $2 million of Capital Outlay per year 10 years from now, meeting the recommended CIP funding level of the Master Plan.



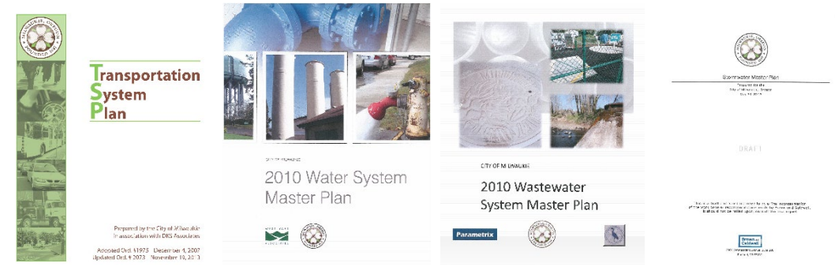
WATER SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
20	Water Vehicle Purchases	–	$40,000	$85,000	$40,000	$31,250	$45,000	–	$241,250
78	Water Main Condition Assessment Program	–	100,000	100,000	100,000	100,000	100,000	–	500,000
78	Water Equipment Purchases	–	100,000	–	–	–	–	–	100,000
79	Water SCADA	–	250,000	250,000	–	–	–	–	500,000
80	Sparrow St Vault Upgrade	–	–	40,000	–	–	–	–	40,000
82	River Rd Pressure Boundary Reconfiguration	–	–	150,000	–	–	–	–	150,000
81	Water Upper Treatment Plant Fence Replacement	–	–	–	–	–	30,000	–	30,000
VEHICLES AND EQUIPMENT SUBTOTALS		**–**	**$490,000**	**$625,000**	**$140,000**	**$131,250**	**$175,000**	**–**	**$1,561,250**

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
42	SAFE Program	$14,000	$35,000	$30,000	$65,000	$64,000	$46,000	–	$254,000
81	Water Well No. 2 Rehab & Relocation	900,000	–	–	–	–	–	–	900,000
82	Stanley Reservoir	1,500,000	–	–	–	–	–	–	1,500,000
83	Water Well No. 4	–	60,000	–	–	–	–	–	60,000
83	Water Well No. 7	–	60,000	–	–	–	–	–	60,000
34	McBrod Ave	–	800,000	–	–	–	–	–	800,000
84-86	Water System Improvements	–	417,000	782,000	433,000	819,800	804,000	1,627,200	4,883,000
35	Harvey St (32nd Ave - 42nd Ave)	–	–	860,000	–	–	–	–	860,000
87	Water Well No. 2 Building Upgrades	–	–	100,000	–	–	–	–	100,000
87	Water Well No. 5	–	–	170,000	–	–	–	–	170,000
88	Water Well No. 8 Rehabilitation	–	–	200,000	1,000,000	–	–	–	1,200,000
88	CRW Intertie	–	–	–	–	–	102,500	–	102,500
WATER FUND SUBTOTALS		**$2,414,000**	**$1,372,000**	**$2,142,000**	**$1,498,000**	**$883,800**	**$952,500**	**$1,627,200**	**$10,889,500**

WATER SDC SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
77	Water System Master Plan	$175,000	–	–	–	–	–	–	$175,000
WATER SDC SUBTOTAL		**$175,000**	**–**	**–**	**–**	**–**	**–**	**–**	**$175,000**



NEW SYSTEM MASTER PLAN

Master plans are 20-year plans identifying strategies for maintain adequate systems and service levels for the community. Master plans should be updated every five to ten years as the plan is implemented and new plans should be considered between 10 and 15 years to capture land use changes, potential new business and residential development and plans for expanding the City's limits. The City's current master plans are: Stormwater (2012), Water (2010), Wastewater (2004, updated in 2010), and Transportation (2007, updated in 2013).

Through effective evaluation, master planning, and modeling; the City will be able to determine the current condition of its water, wastewater, storm sewer and transportation systems; organize future capital improvement projects to fix system deficiencies, plan for future growth, sustainability and resiliency; and investigate the applicability of current industry technology. The new plans will guide capital expenditures for each system, furnish guidance on operational issues and future rate structures.

The Master Plan will:

1. Evaluate and summarize the existing system and key facilities and future conditions, inventory the existing system, review current and projected population, service area boundaries and land use and zoning;
2. Develop capacity projections for several scenarios, to include buildout, annexation of Special Interest Areas, and annexation of the UGMA;
3. Develop performance and operational criteria under which the system will be analyzed and future facilities will be formulated;
4. Evaluate the existing systems for seismic resiliency and provide potential solutions.
5. Develop a prioritized capital improvement plan for recommended existing and future system facilities, detailed cost estimates, and an analysis of potential funding;
6. Update the System Development Charge Rate based on approved methodology.
7. Develop and calibrate a new system models, model buildout scenarios, provide overall system recommendations such as optimal pressure management, future water demands, opportunities for wastewater reuse in the NMIA, UIC requirements, leak detection and I & I studies, etc.

Source: City Staff

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Wastewater SDC	-	$300,000	-	-	-	-	-	$300,000
Funded	Water SDC	-	$175,000	-	-	-	-	-	$175,000
Funded	Stormwater SDC	-	-	-	-	-	$150,000	-	$150,000
Funded	Stormwater Utility	-	-	-	-	-	$150,000	-	$150,000
Funded	Transportation SDC	-	$100,000	-	-	-	-	-	$100,000
Unfunded	Transportation SDC	$300,000	-	-	-	-	-	-	$300,000

Operating Budget Impact: Unknown

Submitted by: Public Works, Engineering

WATER MAIN CONDITION ASSESSMENT PROGRAM

With aging water pipeline infrastructure challenges, condition assessment technology is ideal to quickly understand the structural strength of buried assets and optimize rehabilitation and replacement programs. The structural condition and hydraulic capacity of water mains deteriorate because of aging. This deterioration affects system performance and can also cause water quality issues. Therefore, the need for inspecting and assessing the condition of water system is increased to maintain and upgrade such system. A system wide condition assessment will provide accurate measurements of remaining wall thickness in cast-iron, ductile-iron and steel pipelines. The Water Main Condition assessment will provide the City with a baseline understanding of water main condition. Knowing the actual condition of these buried assets will enable the City to optimize replacement programs and reduce unnecessary pipe replacements. This program will use non-invasive acoustic technology to analyze structural integrity of the water mains. Estimated cost is approximately $50,000 for the first two miles of pipe and $3.40 per additional lineal foot.

Source: City Staff

Operating Budget Impact: None

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$100,000	$100,000	$100,000	$100,000	$100,000	$500,000

WATER EQUIPMENT PURCHASES

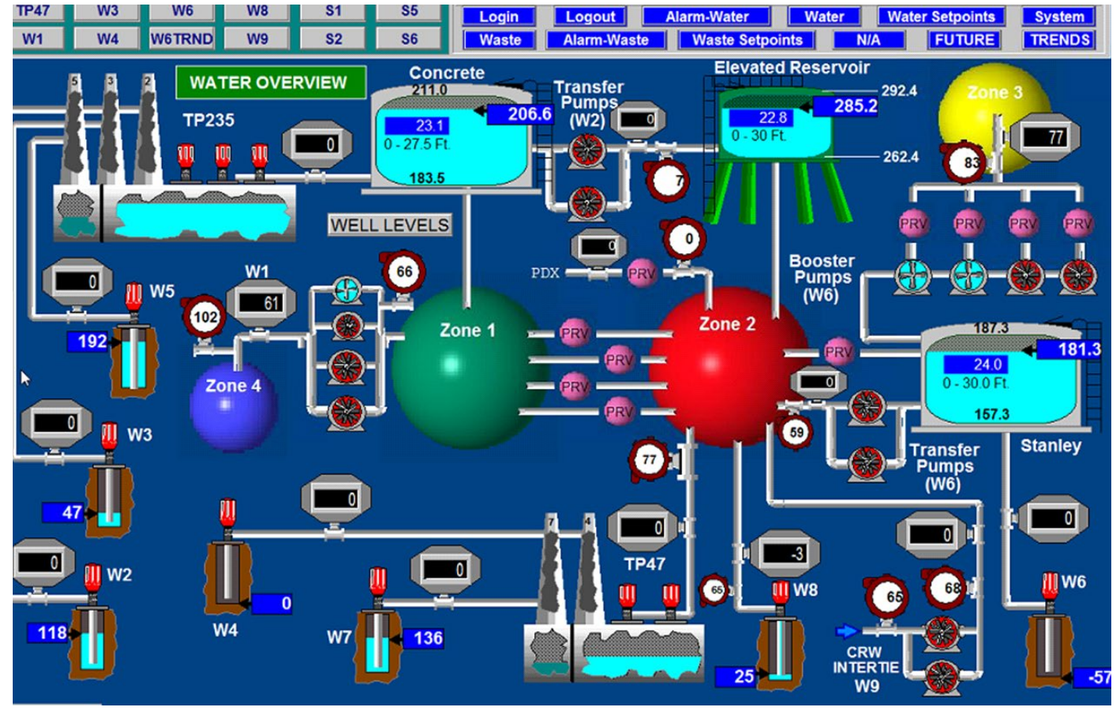
This equipment was purchased in 2008 and has 201 hours used on it. It is used to hydro-excavate small jobs with high pressure water and a vacuum system. It also uses a hydraulic system to exercise valves the crews are not able to turn by hand.

Source: City Staff

Operating Budget Impact: Unknown

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$100,000	–	–	–	–	$100,000



SCADA - WATER - WASTEWATER

SCADA (Supervisory Control and Data Acquisition) is a system for remote monitoring and control. The first communication between wells and reservoirs was through telephone tone equipment added in the 1930s. This system was considered state of the industry when installed and provided a start or stop signal to the drinking water wells and wastewater lift stations.

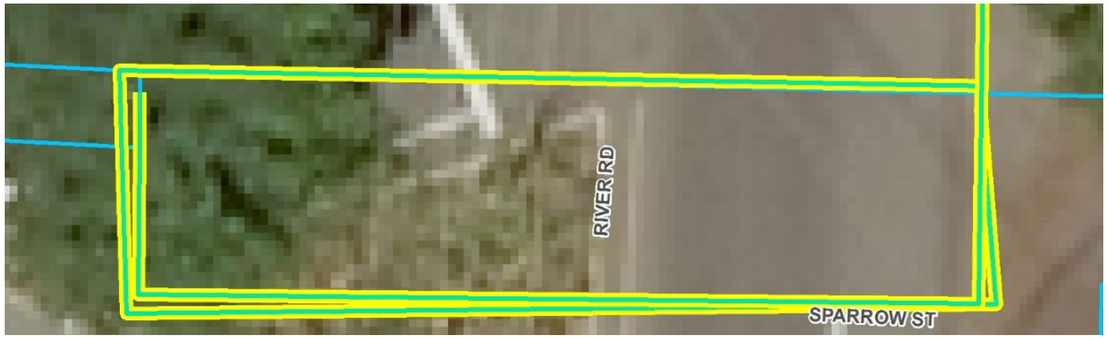
In 1997, Water, Waste and Engineering staff worked closely with System Control (Command) and Data Acquisition (SCADA) engineers, designers, and other utilities to design and engineer what the City of Milwaukie needed in its SCADA System. The system was ultimately engineered and built by Technical Systems Incorporated with Murry Smith and Associates as the lead firm. Site security was also not in the equation in 1997 due to very high cost. A state of the art system was installed in 1998 and based on radio telemetry carried on dedicated radio frequencies licensed to the City of Milwaukie. The system is operated through a highly secure operational interface between the computer, software, radios, PLCs and short haul modems. There have been many changes in the SCADA industry in the last 20 years some of which the City of Milwaukie would like to take advanage of to better manage its system. Recent changes in IT and Communications have made our current system obsolete and very difficult to maintain. One of the main considerations going forward is to maintain the highest possible system security and system integrity while improving our site security, control capabilities, data acquisition and simplified user interface. Public Works is developing a SCADA Master Plan in the 2017/2018 budget year that will outline and develop SCADA updates and upgrades. The cost will be shared between Water and Wastewater.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$250,000	$250,000	–	–	–	$500,000
Funded	Wastewater	–	$125,000	$125,000	–	–	–	–	$250,000



SPARROW ST VAULT UPGRADES

This project consists of replacing the vault top at Sparrow St and River Rd that houses one of the four pressure regulators that manages water pressure between Zones 1 and 2. The regulator is used to move water from Zone 2 to Zone 1 when the pressure in the zone drops below the desired pressure. The existing concrete vault opening is too small to facilitate proper confined space entry and egress or body recovery. It is expected that this project will be designed and managed with in-house staff.

Source: WMP

Operating Budget Impact: Unknown

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$40,000	–	–	–	$40,000

WATER UPPER TREATMENT PLANT FENCE REPLACEMENT

Replace fence around the City's upper water treatment plant to maintain security and protect the city assets.

Source: City Staff

Operating Budget Impact: None

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	–	–	–	$30,000	$30,000

WATER WELL NO. 2 REHABILITATION & RELOCATION

Well No. 2 was installed in 1936 and was overhauled in early 2016. Well No. 2 is part of the Well 2/3/5 well field and is expected to deliver a minimum of 380 GPM (about 10% of current total City capacity) based on past production. The well pumps directly into treatment plant 2/3/5 with its operation regulated by the water level in the Concrete Storage Reservoir. A video inspection revealed a split in the casing several feet long and is opening inward like a can with a tear. The casing is cracked with 6" gaps at a depth of 220' in the 300' deep well. It has been determined that based on the video log, the condition of the casing, the deterioration in general, and the overall loss of strength of the casing that an in-place repair would not be successful. Based on this evaluation it was determined by Public Works Staff that the condition of Well No. 2 as well as the importance of Well No. 2 as a source that repair/replacement of Well No. 2 should take precedence over the rehabilitation of Well No. 8. Currently, the well remains in use, but at a reduced pumping capacity. Public Works has hired Tetra Tech to provide design services at a cost of $198,213. The current estimate for reconstruction of Well No. 2 is approximately $750,000. It is expected that this project will include consultant construction engineering services at an approximate cost of $150,000.

Source: City Staff

Operating Budget Impact:
There is minor impact to operating costs as this well would replace the current well with similar operational and maintenance costs.

Submitted By: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	$900,000	–	–	–	–	–	$900,000

WATER WELL NO. 6 STORAGE TANK MAINTENANCE AND FENCE UPGRADE (STANLEY RESERVOIR)

The Stanley Reservoir is 3.0 MG at-grade welded steel tank constructed in 1970 and is supplied directly from Well No. 6 on the same site. The coating system on the exterior has failed and large pieces of exterior coating is peeling off the tank. The project consists of abrasive blasting the exterior to a near white blast (SP-10) and then coating with a three-coat zinc, epoxy, stripe coat, with urethane finish. Due to lead paint on the exterior the project will require a full containment tent using shrink wrap plastic with scaffolding access around and over the top. The interior of the tank will be coated with a 3-coat epoxy system as well. The project will also include the installation of a seismic valve.

The estimated cost to complete the project is $1,500,000. The estimate of the project coast has increased from $400,000 due to the requirement to remove the lead paint from the exterior and the addition of the interior coasting. It was originally scheduled for FY 2016 but delayed when the need to paint the interior of Well No. 2 elevated storage tank was discovered.

The fencing project was identified in the 2004 Vulnerability assessment, that identified physical security concerns related to City's water infrastructure.

Source: City Staff

Operating Budget Impact: This purchase will not increase operating expenditures.

Submitted By: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	$1,500,000	–	–	–	–	–	$1,500,000

RIVER ROAD PRESSURE BOUNDARY RECONFIGURATION

This project consists of conducting a comprehensive operational inspection to reconfigure a portion of the Southwest corner of Pressure Zone 1 so that it is served by Pressure Zone 2. This includes a verification of the connection between Miramonte Lodge Apartments to SE River Rd, and the isolation of the 6" diameter pipeline along SE 22nd Ave from Zone 1. It is expected that this project will be designed and managed with in-house staff.

Source: WMP

Operating Budget Impact: This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$150,000	–	–	–	$150,000

WATER WELL NO. 4 RECONDITION PROJECT

Water wells require regular maintenance to ensure adequate water flow and continued drinking water safety. Wells should be professionally inspected by a water well contractor every ten years. As a water well ages, the rate at which water may be pumped (commonly referred to as the well yield, flow or performance) tends to decrease. Reduced well yield over time can be related to changes in the water well itself including:

- Incrustation from mineral deposits
- Bio-fouling by the growth of microorganisms
- Physical plugging of "aquifer" (the saturated layer of sand, gravel, or rock through which water is transmitted) by sediment
- Sand pumping
- Well screen or casing corrosion
- Pump damage

Well No. 4 is located at the intersection of SE Monroe St, SE Railroad and SE Oak adjacent to the Water Treatment Plant 47. It pumps approximately 605 GPM directly into Tower No. 4 at the TP 47 site. This project consists of inspecting and reconditioning the well.

Source: City Staff

Operating Budget Impact: None

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$60,000	–	–	–	–	$60,000

WATER WELL NO. 7 RECONDITION PROJECT

Water wells require regular maintenance to ensure adequate water flow and continued drinking water safety. Wells should be professionally inspected by a water well contractor every ten years. As a water well ages, the rate at which water may be pumped (commonly referred to as the well yield, flow or performance) tends to decrease. Reduced well yield over time can be related to changes in the water well itself including:

- Incrustation from mineral deposits
- Bio-fouling by the growth of microorganisms
- Physical plugging of "aquifer" (the saturated layer of sand, gravel, or rock through which water is transmitted) by sediment
- Sand pumping
- Well screen or casing corrosion
- Pump damage

Well No. 7 is located near the intersection of SE Washington St and SE 37th Ave. It pumps approximately 1,120 GPM directly into Tower & at Treatment Plant 47. Well No. 7 has a sand separator and on-site back-up generator. This project consists of inspecting and reconditioning the well. Pull motor and pump repair or replace, parking lot resurface and restripe.

Source: City Staff

Operating Budget Impact: None

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$60,000	–	–	–	–	$60,000

FY 2020 WATER SYSTEM IMPROVEMENTS

This will abandon the existing 4" main and provide for reconnection of 15-20 water services from the 4" to the 12" main and the connection of hydrants to the 12" water main for improved fire flow. The project will include the replacement of existing valves, reconnection of existing water services and pavement patching along the length of the pipe.

- 42nd Ave (Harvey St – Olsen St)

Source: WMP

Operating Budget Impact: This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	$417,000	–	–	–	–	$417,000

FY 2021 WATER SYSTEM IMPROVEMENTS

These projects were identified in the 2010 Water System Master Plan and will replace approximately 1870 feet and upsize the existing cast iron 4" water main to 8" to improve fire flows in the neighborhood. The projects will include the replacement of existing valves, reconnection of existing water services and pavement patching along the length of the pipe.

- 33rd Ave (Harvey St – Dead End)
- 36th Ave (Harvey St – Dead End)
- Drake St and 38th Ave (40th Ave – End)
- Monroe St Water Line Abandonment (37th Ave – Oak St)

Source: WMP

Operating Budget Impact:
This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$782,000	–	–	–	$782,000

FY 2022 WATER SYSTEM IMPROVEMENTS

These projects were identified in the 2010 Water System Master Plan and will replace and upsize approximately 1260 feet of existing cast iron 4" water main to 8" to improve fire flows in the neighborhood. The new mains will connect to existing 8" water mains. The project will include the replacement of existing valves, reconnection of existing water services, hydrants and pavement patching along the length of the pipe.

- Malcolm St (32nd Ave – 29th Ave)
- Llewellyn St (32nd Ave – 34th Ave)
- 32nd Ave (SE Kelvin - Filbert St)

Source: WMP

Operating Budget Impact:
This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
Funded	Water	–	–	–	–	$433,000	–	–	$360,000	$793,000

FY 2023 WATER SYSTEM IMPROVEMENTS

This project was identified in the 2010 Water System Master Plan and will replace and upsize approximately 2100 feet of existing cast iron 4" water main to 8" to improve fire flows in the neighborhood. The new main will connect to the existing 8" water main south of Roswell St and the 6" water main north of Van Water St. The project will include the replacement of existing valves, reconnection of existing water services, hydrants and pavement patching along the length of the pipe.

- 29th Ave (Roswell St – Van Water St)
- 30th Ave (Roswell St – Van Water St)
- 31st Ave (Roswell St – Van Water St)
- Beckman Ave (Railroad Ave – Park St)
- Park St (Beckman Ave – Home Ave)

Source: WMP

Operating Budget Impact:
This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTAL
Funded	Water	–	–	–	–	–	$819,800	–	$1,267,200	$2,087,000

FY 2024 WATER SYSTEM IMPROVEMENTS

These projects will include the replacement of existing valves, reconnection of existing water services, hydrants, pavement patching along the length of the pipe, and possibly obtaining easements for pipes if necessary. Accommodation of storm or wastewater systems may be necessary to accept large water volumes produced by flushing activities.

- Riverway Ln Water Line Replacement (South of Lava Dr)
- Mullan St Pipe Extension
- International Way Pipe Extension
- Shell Lane to Lycentra Pipe Extension

Source: WMP

Operating Budget Impact:
This project is anticipated to reduce operating expenditures due to the reduction of maintenance issues once the pipe is replaced.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	–	–	$804,000	–	$804,000

WATER WELL NO. 2 BUILDING UPGRADES

Evaluate and develop building upgrades need to the Well No. 2 facility, including seismic requirements.

Source: City Staff

Operating Budget Impact: Unknown

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$100,000	–	–	–	$100,000

WATER WELL NO. 5 RECONDITION PROJECT

Water wells require regular maintenance to ensure adequate water flow and continued drinking water safety. Wells should be professionally inspected by a water well contractor every ten years. As a water well ages, the rate at which water may be pumped (commonly referred to as the well yield, flow or performance) tends to decrease. Reduced well yield over time can be related to changes in the water well itself including:

- Incrustation from mineral deposits
- Bio-fouling by the growth of microorganisms
- Physical plugging of "aquifer" (the saturated layer of sand, gravel, or rock through which water is transmitted) by sediment
- Sand pumping
- Well screen or casing corrosion
- Pump damage

Well No. 5 is located north of the intersection of SE Harvey St and SE 40th Ave adjacent to the Elevated Storage Reservoir and is part of the Well 2,3 and 5 well field. It pumps approximately 605 GPM directly into Tower No. 5 at the TP 235 site. This project consists of replacing the existing building which is in a failing condition, replacing and upgrading the electrical panel and motor start, inspecting and reconditioning the well and replacing the buried particle separator.

Source: WMP

Operating Budget Impact: None

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$170,000	–	–	–	$170,000

WATER WELL NO. 8 REHABILITATION

Well 8 is located at 5393 SE Lake Road. It pumps between 300 and 700 GPM directly into the Zone 2 distribution system. The Well has an active water right certified through the Oregon Water Resources Department of 727 GPM. Water from Well No. 8 is treated with chlorine which is injected upstream of the buried chlorine contact tank. Well No. 8 has been experiencing some issues with excessive iron in the water its drawing. Workable solutions include moving the well to a previous site used by the Wichita Water district that is vacant but planned to be the Wichita Park site for the Linwood Neighborhood. This project provides funding to explore the viability of siting Well No. 8 at a new location and presumes constructing the well there in 2022. This project will also require a sand separator and on-site backup generation.

Source: City Staff

Operating Budget Impact: Minor impact to the operating cost as this well would replace the current well with similar operational and maintenance parameters.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	$200,000	$1,000,000	–	–	$1,200,000

CRW INTERTIE

Emergency Interties are maintained with the City of Portland and Clackamas River Water (CRW). The CRW Intertie is located at 7001 SE Harmony Rd. Pumping capacity for this intertie is approximately 700 GPM in either direction and can pump into out of City Pressure Zone 2. This project includes electrical upgrades, new motor controls and the installation of a new variable frequency drive (VFD).

Source: City Staff

Operating Budget Impact: Unknown

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Water	–	–	–	–	–	–	$102,500	$102,500

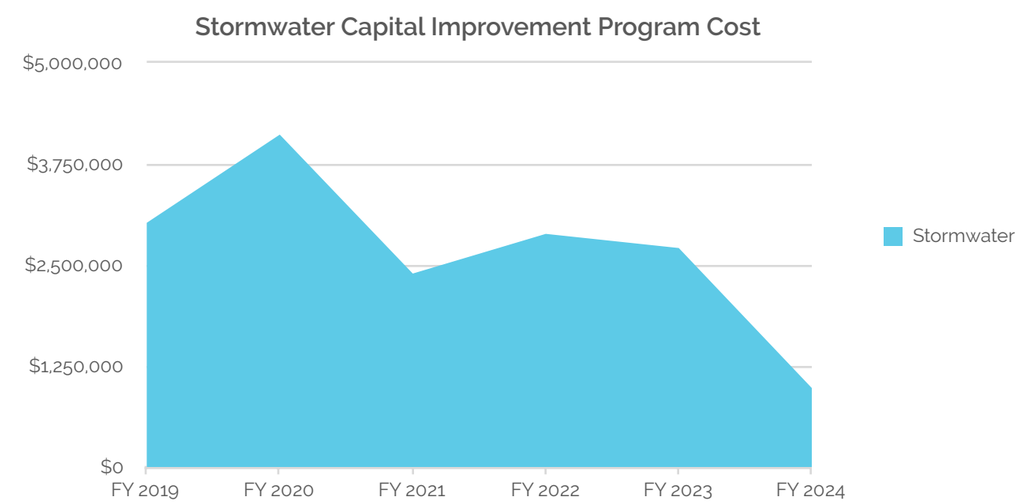
STORMWATER OVERVIEW

The stormwater system includes 41 miles of pipe, 1,606 catch basins, 559 manholes, 124 sedimentation manholes, 4 water quality manholes, 210 drywells, 126 outfalls, 5 water quality/flood control facilities (detention ponds), 82 raingardens, and 11 control structures.

Treatment for the City's stormwater system is required by Federal (Clean Water Act) and State law. The City has steadily built the stormwater utility beginning with a utility rate that was implemented in the early 1990's and the need to properly manage stormwater runoff was addressed. Today the stormwater utility is focused on maintaining the infrastructure in a manner that recognizes the correlation with runoff and the environment.

An update of the Stormwater Master Plan was completed in 2014. This update included a fresh look at the capital improvement need for the utility. The current project list incorporates the updated master plan and includes both infrastructure replacement and facility enhancements.

Primary capital needs involve modification of the drywells or (UICs) so that they are not detrimental to the aquifer. This means providing pretreatment of the runoff flowing to the drywells in addition to regular inspection and maintenance. There are also projects from localized flooding issues to major drainage basin infrastructure identified within the plan. Additional projects address the regulatory requirement to add water quality facilities.



STORMWATER SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
94	Pennywood Detention Facility	$10,000	–	$10,000	–	$10,000	–	–	$30,000
94	Greenhouse	17,500	–	–	–	–	–	–	17,500
20	Stormwater Vehicle Purchases	–	–	85,000	40,000	31,250	45,000	–	201,250
VEHICLES AND EQUIPMENT SUBTOTALS		**$27,500**	**–**	**$95,000**	**$40,000**	**$41,250**	**$45,000**	**–**	**$248,750**

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
95	Stormwater Capital Maintenance Program	150,000	150,000	150,000	150,000	150,000	150,000	–	900,000
42	SAFE Program	15,000	687,500	291,800	108,000	237,000	48,000	–	1,387,300
40	Accessibility Program	35,000	136,600	90,400	115,800	54,400	56,300	–	488,500
95	Washington St Pipe Replacement (Phase I and Phase II)	904,000	500,000	–	–	1,220,000	300,000	–	2,924,000
96	SE Lake Rd (Bubbler)	35,000	–	–	–	–	–	–	35,000
96	SE Winworth Ct	20,000	–	–	–	–	–	–	20,000
50	Kronberg Park Trail	106,700	–	–	–	–	–	–	106,700
57	Milwaukie Bay Park Bank Repair	78,600	–	–	–	–	–	–	78,600
95	Ledding Library Storm Improvement	121,000	–	–	–	–	–	–	121,000
100	Meek St Pipe Installation (Phase I and Phase II)	1,561,000	1,200,000	600,000	1,000,000	–	–	–	4,361,000
97	Stanley-Willow UIC Decommissioning	–	140,000	–	–	–	–	–	140,000
98	SE 47th Ave and SE Llewellyn St Improvements	–	160,000	–	–	–	–	–	160,000
99	SE 55th Ave and SE Monroe Ave Improvements	–	25,000	–	–	–	–	–	25,000
99	SE King Rd Sedimentation Manhole	–	50,000	–	–	–	–	–	50,000
34	McBrod Ave	–	179,900	–	–	–	–	–	179,900
100	36th Ave Stormwater Improvement	–	104,000	–	–	–	–	–	104,000
34	43rd Ave/Howe/Covell	–	362,500	–	–	–	–	–	362,500

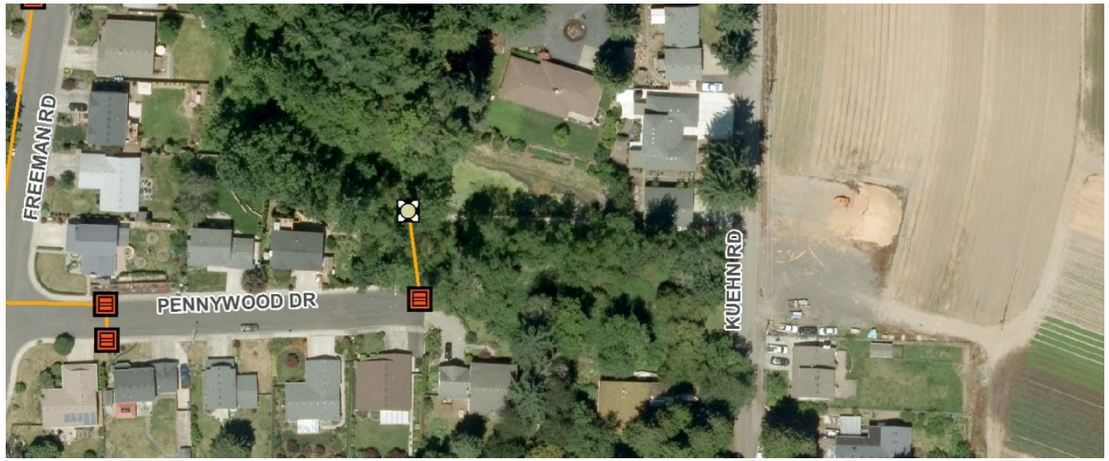
PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
100	Lake Rd	–	$166,000	–	–	–	–	–	$166,000
32	Linwood Ave	–	253,200	620,000	–	–	–	–	873,200
101	Plum and Apple St Pipe Replacement	–	–	240,000	–	–	–	–	240,000
30	Downtown Public Area Requirements (PAR)	–	–	91,300	–	–	–	–	91,300
35	Harvey St	–	–	316,500	–	–	–	–	316,500
102	Hemlock St Pipe Replacement	–	–	–	716,000	–	–	–	716,000
101	Harrison St Outfall	–	–	–	800,000	155,000	–	–	955,000
35	Oatfield Rd	–	–	–	–	98,600	–	–	98,600
103	42nd Water Quality	–	–	–	–	800,000	–	–	800,000
103	Main St (Phase II)	–	–	–	–	–	315,400	–	315,400
103	International Way & Wister	–	–	–	–	–	117,800	–	117,800
		$3,026,300	**$4,114,700**	**$2,400,000**	**$2,889,800**	**$2,715,000**	**$987,500**	**–**	**$15,068,300**

STORMWATER SDC SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
100	Meek St Pipe Installation (Phase I and Phase II)	$180,000	–	–	–	–	–	–	$180,000
77	Stormwater System Master Plan	–	–	–	–	150,000	–	–	150,000
STORMWATER FUND CIP SUBTOTAL		**$180,000**	**–**	**–**	**–**	**$150,000**	**–**	**–**	**$330,000**

GRANTS SUMMARY

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
57	Milwaukie Bay Park Bank Repair	$35,000	–	–	–	–	–	–	$35,000
GRANTS SUBTOTAL		**$35,000**	**–**	**–**	**–**	**–**	**–**	**–**	**$35,000**



PENNYWOOD DETENTION FACILITY

This project is required to do a rehabilitation project on the detention facility. This facility is over grown and in disrepair. There are numerous stumps and invasive plants that need to be removed and or eliminated for example: Holly, Blackberries and Ivy. Stumps to be removed and invasive plants have the use of herbicide treatments. This process is a long multiyear process. The use of student volunteers will aid in the restoration process. They would aid in the removal and replanting of the area.

Source: City Staff

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$10,000	–	$10,000	–	$10,000	–	$30,000

GREENHOUSE

This project consists of the installation of a greenhouse at the JCB Campus. The Greenhouse will be used by Stormwater Staff to propagate plants for use in in the City's new and existing Stormwater quality facilities. The project includes the purchase of a greenhouse and the installation of utilities to the greenhouse. Types of plants we would grow are Cornus sericea, Ribes sanguineum, Oemleria cerasiformis, physocarpus capitatus, Liriope, Euonymus, Nandina, and Symphoricarpus alba.

Source: City Staff

Operating Budget Impact: The Greenhouse will allow the City to maintain and propagate plant stock for its water quality facilities and will reduce purchase costs for plants from vendors.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$17,500	–	–	–	–	–	$17,500

WASHINGTON ST PIPE REPLACEMENT (PHASE I AND PHASE II)

This project will replace existing 18" pipe in Washington Street with 24" pipe. The current pipe system is under capacity and will flood under 10-year rain events. This project is currently under design and expected to be constructed in the Summer 2018.

Source: SWMP

Operating Budget Impact: This project will reduce operating expenditures by upgrading the existing system to limit flooding.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$904,000	$500,000	–	–	$1,220,000	$300,000	$2,924,000

STORMWATER CAPITAL MAINTENANCE PROGRAM

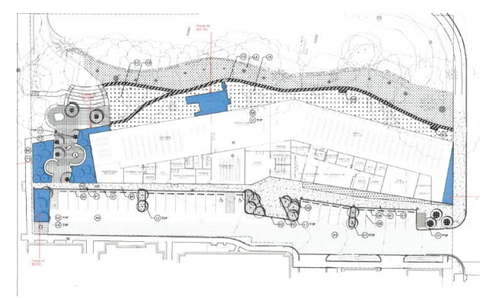
This yearly project will begin to replace Milwaukie's aging stormwater infrastructure. Complete replacement of the City's system is set to a 75-year cycle.

Source: SWMP

Operating Budget Impact: This project will reduce the operating expenditures by upgrading materials which requires less maintenance.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$900,000



LEDDING LIBRARY STORM IMPROVEMENTS

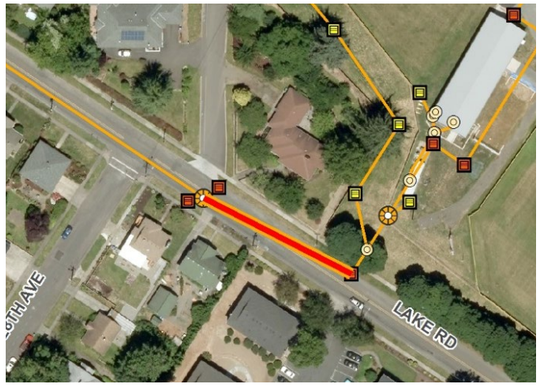
The project will construct stormwater and water quality improvements as part of the reconstruction of the Ledding Library.

Source: City Staff

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Library

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$121,000	–	–	–	–	–	$121,000



SE LAKE ROAD (BUBBLER)

Pipe diameter 10" Catch basin 42224 connect to system at manhole 41146

This project is required to fix the current catch basin. This basin is a bubbler system. Storm water comes from a storm system to the north and is designed to surcharge out of the basin which tends to lift off the grate of the basin. Connect this into the storm system west of this 165' away would relieve this issue and not be a safety concern.

Source: City Staff

Operating Budget Impact: This project will reduce the operating expenditures by upgrading materials which requires less maintenance.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$35,000	–	–	–	–	–	$35,000

SE WINWORTH CT

Current pipe size 12" catch basin 32101 and 32103 are tied to UIC number's 34055 and 34054.

This project is required to solve flooding issues. The installation of a UIC would alleviate flooding that has the potential to cause property damage at two addresses 5082 SE Winworth Ct and 5085 SE Winworth Ct.

Source: City Staff

Operating Budget Impact: This project will reduce the operating expenditures by upgrading materials which requires less maintenance.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$20,000	–	–	–	–	–	$20,000

STANLEY-WILLOW UIC DECOMMISSIONING

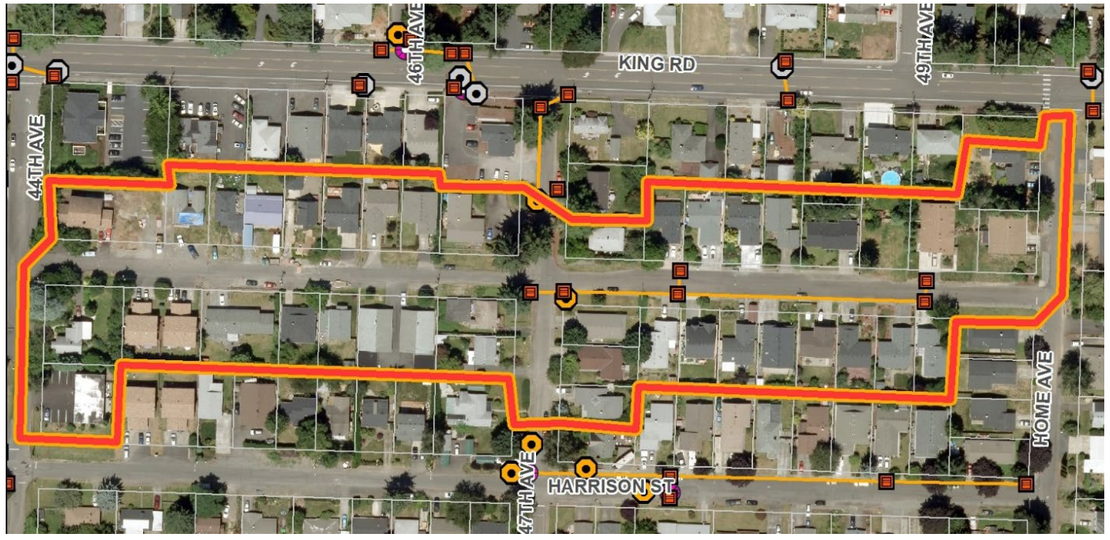
This project will decommission two sub-standard drywells along Stanley Ave and construct new storm pipe on Stanley Ave from Hill St to Ball-Michel Park. These drywells no longer dry except for brief periods in the driest parts of the summer. It is believed that these UICs may pose a risk to drinking water sources due to having less than 3 vertical feet of separation from the ground water table. The current system will be replaced with two new G2 catch basins on Willow St, with a sedimentation manhole between the two. The water would be carried across by approximately 425' of new 12" HDPE piping from Stanley Ave to a basin on the west side of Stanley then across Willow St to an outfall in Ball-Mitchel Park. The project also includes planting of approximately 2000 sq ft of native vegetation on the bottom of the storm water facility at Ball-Michel Park.

Source: SWMP

Operating Budget Impact: This project will increase operating expenditures due to additional maintenance of the stormwater pipe conveyance system.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$140,000	–	–	–	–	$140,000



SE 47TH AVE AND SE LLEWELLYN ST IMPROVEMENTS

This project will install new underground injection control devices, raingardens and associated inlets at the intersection of 47th Ave and Llewellyn St. This intersection routinely floods because the existing UIC is under capacity. There is approximately 70,070 sq ft of impervious surface contributing to this UIC. It is expected that the project will require the installation of 5 additional UICs to accommodate the contributing impervious area. Each UIC is assumed to be 48" in diameter and 20' deep.

Source: SWMP

Operating Budget Impact: This project will reduce operating expenditures because stormwater crews are routinely called to this area to help alleviate flooding.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$160,000	–	–	–	–	$160,000

SE 55TH AVE AND SE MONROE ST IMPROVEMENTS

This project will install new underground injection control devices or raingardens on 55th Ave and Monroe St. This intersection routinely floods because the existing infrastructure in under capacity. This project includes the construction of additional 125' of soakage trench to be installed near the catch basins.

Source: SWMP

Operating Budget Impact: This project will reduce operating expenditures because stormwater crews are routinely called to this area to help alleviate flooding.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$25,000	–	–	–	–	$25,000

SE KING RD SEDIMENTATION MANHOLE

Currently no system or catch basins tied to UIC number 34191.

This project is required to relieve property flooding at 6011 SE King Rd. With the addition of a catch basin and a sedimentation manhole tied to a current UIC would relieve flooding and possible property damage at 6011 SE King Rd.

Source: City Staff

Operating Budget Impact: This project will reduce the operating expenditures by upgrading materials which requires less maintenance.

Submitted by: Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$50,000	–	–	–	–	$50,000

36TH AVE STORMWATER IMPROVEMENT

This project is to construct water quality facilities to collect and treat stormwater on 36th Ave between Harvey St and King Rd prior to infiltration. The area is prone to flooding.

Source: SWMP

Operating Budget Impact: Unknown

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$104,000	–	–	–	–	$104,000

LAKE ROAD (34TH TO GUILFORD)

This project will add storm facilities on Lake Road as part of the SAFE and SSMP projects scheduled within the area, including water quality facilities.

Sources: SAFE, SSMP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	$166,000	–	–	–	–	$166,000

MEEK ST PIPE INSTALLATION (PHASE I AND PHASE II)

This project will install a new 36" storm pipe from Boyd St south to Monroe St along with two detention facilities totaling 1 acre in size.

Source: SWMP

Operating Budget Impact: This project will increase operating expenditures due to the added expense of maintaining the additional pipe and detention ponds. However, this project will also reduce the amount of emergency maintenance on Harrison St due to flooding caused by its undersized system.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	$1,561,000	$1,200,000	$600,000	$1,000,000	–	–	$4,361,000
Funded	Stormwater SDC	–	$180,000	–	–	–	–	–	$180,000

PLUM AND APPLE STREET PIPE REPLACEMENT

This project will install new 12" stormwater pipe from the intersection of Plum and Apple Streets to the intersection of Juniper and Aspen Streets. This project will provide increased capacity to alleviate local flooding problems. The project includes approximately 780' of new 12" pipe.

Source: SWMP

Operating Budget Impact: Since this project replaces existing undersized pipe, there will be a net reduction in operating expenditures because stormwater crews are routinely called to this area to help alleviate flooding.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	–	$240,000	–	–	–	$240,000

HARRISON ST OUTFALL

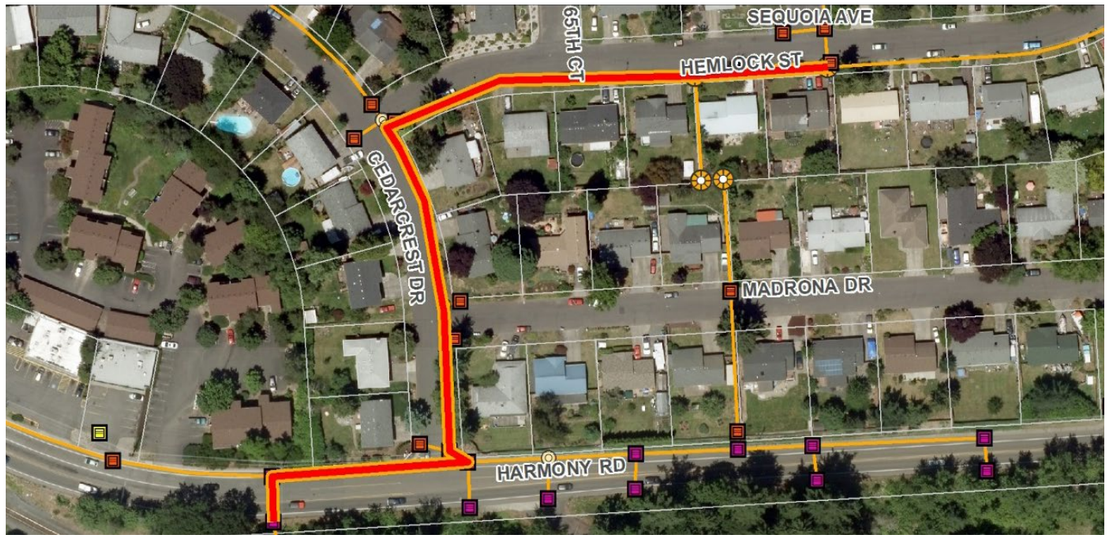
This project was identified in the 2014 Storm Sewer Master Plan as the # 5 priority to address existing flooding that occurs after 10 and 25 year storm events. This project replaces the approximately 700 feet of 24" storm pipe in Harrison St between 21st Ave and the outfall into Johnson Creek with 36" pipe.

Source: SWMP

Operating Budget Impact: This project will reduce the operating expenditures because stormwater crews are routinely called to this area to help alleviate flooding.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	–	–	$800,000	$155,000	–	$955,000



HEMLOCK ST PIPE REPLACEMENT

This project will replace existing storm pipe on Hemlock St and Cedarcrest Dr. The existing pipe is undersized and currently floods in heavy rain events. This project will replace and realign piping along a portion of Cedarcrest Dr from Hemlock St to Harmony Rd and will abandon the existing 15" piping between Hemlock St and Harmony Rd.

Source: SWMP

Operating Budget Impact: Since this project replaces existing undersized pipe, there will be a net reduction in operating expenditures because stormwater crews are routinely called to this area to help alleviate flooding.

Submitted by: Public Works, Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	–	–	–	–	$716,000	–	–	$716,000

42ND AVE WATER QUALITY

This project will construct a water quality facility at 42nd Ave and Railroad Ave to treat the 42nd Ave and Railroad Ave storm basins.

Source: Regulatory

Operating Budget Impact: this project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded		–	–	–	–	–	$800,000	–	$800,000

MAIN ST (PHASE II)

This project would repair and / or replace the existing storm system that is located on private property and under buildings between Main St and Omark Dr at Milport Rd.

Source: SWMP

Operating Budget Impact: This project would decrease ongoing operational needs by restarting infrastructure to good condition.

Submitted by: Engineering

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	$249,000	–	–	–	–	–	$315,400	$315,400

INTERNATIONAL WAY AND WISTER

Construct underground storage within piped storm system. Install upsized pipe within existing system to eliminate potential flooding.

Source: SWMP

Operating Budget Impact: This project would decrease ongoing operational needs by restoring infrastructure to good condition.

Submitted by: Engineering

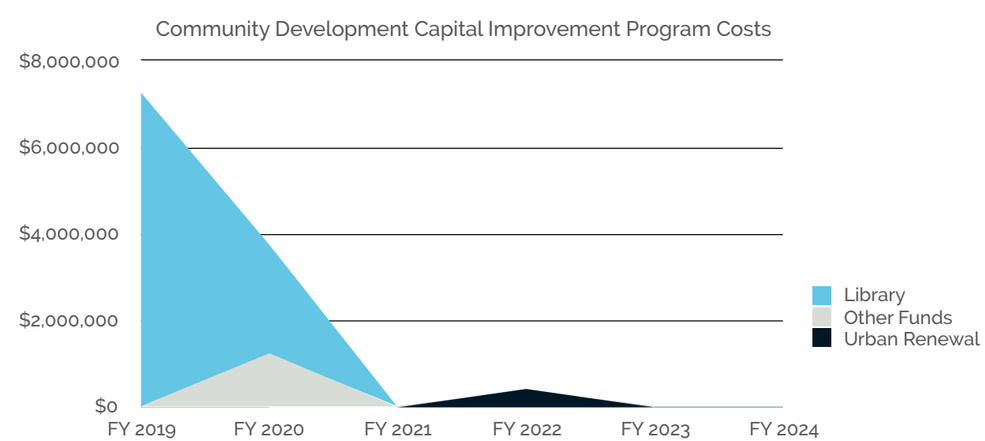
STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Stormwater	$93,000	–	–	–	–	–	$117,800	$117,800

CHAPTER 3
COMMUNITY DEVELOPMENT

The Community Development Capital Improvement Plan identifies infrastructure improvements and other amenities that enhance the livability of the community. Projects within the chapter include parks, new community facilities, economic development, and urban renewal needs. Many of the capital improvement projects listed are in response to the growing demands of the community in housing, community, and economic development. With the 2016 passing of the Urban Renewal Plan the area parks, downtown and central Milwaukie infrastructure, wayfinding, and downtown enhancements will provide for a more walkable, accessible, and livable community.

OVERVIEW

CAPITAL IMPROVEMENT PROJECTS



COMMUNITY DEVELOPMENT SUMMARY

COMMUNITY VISION & OTHER PLAN PROJECTS

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
108	McLoughlin Blvd Pedestrian Bridge	–	–	–	–	–	–	$1,800,000	$1,800,000
109	NMIA Branding and Wayfinding	–	–	–	–	–	–	750,000	750,000
110	Fiber Optic Service	–	–	–	–	–	–	TBD	–
111	Kellogg Dam Removal and Hwy 99E Underpass	–	–	–	–	–	–	551,000	551,000
112	NMIA District Gateway Improvements	–	–	–	–	–	–	TBD	–
113	NMIA Johnson Creek Riverfront Greenway Connection	–	–	–	–	–	–	TBD	–
120	Ledding Library Improvement Projects	7,238,750	2,504,000	–	–	–	–	–	9,742,750
114	Milwaukie Bay Park (Phase 3)	–	250,000	–	–	–	–	–	250,000
UNDESIGNATED FUND TOTAL		**$7,238,750**	**$2,754,000**	**–**	**–**	**–**	**–**	**$3,101,000**	**$13,093,750**

MILWAUKIE REDEVELOPMENT COMMISSION (MRC) URBAN RENEWAL FUND

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
30	Downtown Public Area Requirements (PAR)	–	–	–	$424,000	–	–	$10,876,000	$11,300,000
115	Kronberg Park Improvements	–	–	–	–	–	–	1,000,000	1,000,000
108	McLoughlin Blvd Pedestrian Bridge	–	–	–	–	–	–	1,200,000	1,200,000
116	Dogwood Park Improvements	–	–	–	–	–	–	500,000	500,000
116	Downtown and Central Milwaukie Enhancements	–	–	–	–	–	–	1,300,000	1,300,000
117	Downtown Gateway, Wayfinding and Interpretative Heritage Plaques Final Implementation	–	–	–	–	–	–	200,000	200,000

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
118	Improve Transit Stops in Central Milwaukie	–	–	–	–	–	–	$500,000	$500,000
111	Kellogg Dam Removal and Hwy 99E Underpass	–	–	–	–	–	–	1,000,000	1,000,000
114	Milwaukie Bay Park	–	–	–	–	–	–	1,500,000	1,500,000
119	Scott Park	–	–	–	–	–	–	500,000	500,000
40	Downtown Parking Solutions	–	–	–	–	–	–	10,500,000	10,500,000
46	29th Ave Bike/Ped Connection	–	–	–	–	–	–	3,000,000	3,000,000
38	Monroe St Neighborhood Greenway	–	–	–	–	–	–	1,800,000	1,800,000
41	HWY 224 & HWY 99E Improvements	–	–	–	–	–	–	5,000,000	5,000,000
URBAN RENEWAL AREA FUND TOTAL		**–**	**–**	**–**	**$424,000**	**–**	**–**	**$38,876,000**	**$39,350,000**

GRANTS

PAGE	PROJECT NAME	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	UNFUNDED	TOTALS
110	FEMA HMA Program	$30,000	–	–	–	–	–	–	$30,000
120	Ledding Library Improvement Projects	681,000	–	–	–	–	–	–	681,000
114	Milwaukie Bay Park (Phase 3)	–	1,000,000	–	–	–	–	2,471,400	3,471,400
114	Milwaukie Bay Park (Phase 4)	–	–	–	–	–	–	1,079,200	1,079,200
GRANTS TOTAL		**$711,000**	**$1,000,000**	**–**	**–**	**–**	**–**	**$3,550,600**	**$5,261,600**

MCLOUGHLIN BLVD PEDESTRIAN BRIDGE

The Downtown and Riverfront Land Use Framework Plan, revised and refreshed in 2014 to incorporate the South Downtown Concept, identifies a pedestrian bridge connecting downtown to Milwaukie Bay Park, someplace along Mcloughlin Blvd, as a key project to implement the Framework Plan.

Source: SDFP

Operating Budget Impact: This project may increase operating expenditures. A new City-owned pedestrian bridge will require ongoing maintenance and policing.

Submitted by: Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded		$1,800,000	–	–	–	–	–	–	$1,800,000
	URA	$1,200,000	–	–	–	–	–	–	$1,200,000

NMIA BRANDING AND WAYFINDING

Develop a wayfinding and branding strategy that builds upon the historic industrial, rail and natural resources of the NMIA and focuses on businesses that encourage transit use, pedestrian and bicycling as modes of travel to seek funding for implementation via CIP. Likely wayfinding section would include McLoughlin Blvd, Ochoco St, Mailwell Dr, Main St, Tacoma, McBrod, Frontage St and others following intersection improvements.

Source: NMIA Plan

Operating Budget Impact: Project would have a minor increase to ongoing sign maintenance operations.

Submitted by: Community Development, Public Works

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	General Fund, Urban Renewal, LID, MTIP, CIP	$750,000	–	–	–	–	–	–	$750,000

FIBER OPTIC SERVICE

Extend high speed fiber optic service to the NMIA and Downtown Milwaukie as funding becomes available. Clackamas County's Economic Development division oversees the implementation funding for Dark Fiber and staff will work with them on funding allocation and grant writing.

Source: NMIA

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Community Development

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded		TBD	–	–	–	–	–	–	TBD

FEMA HMA PROGRAM – 13001 RUSK ROAD

The City has been assisting homeowners located within the 1% flood zone that have been substantially damaged or repetitively substantially damaged and eligible for FEMA assistance through the Hazard Mitigation Assistance Program (HMA). The property at 13001 Rusk Road is located within the floodway of Mt. Scott Creek and was substantially damaged for the second time during the 2015 storm event. The city receive a grant from FEMA to fund the acquisition, removal and restoration of the site.

Source: City Staff

Operating Budget Impact: This project will increase operations due to the creation of a new natural area the City will be responsible to maintain.

Submitted by: Library

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	FEMA	–	$30,000	–	–	–	–	–	$30,000

KELLOGG CREEK DAM REMOVAL AND HWY 99E UNDERPASS

Revise or replace Hwy 99E bridge over Kellogg Creek, remove dam, restore fish passage and habitat. Construct bike/pedestrian undercrossing between Dogwood Park and Milwaukie Bay Park. This is a project in partnership with ODOT. The purpose is to reestablish fish migration into Kellogg Creek and to establish safer bicycle and pedestrian connection between downtown, the light rail station with Milwaukie Bay Park and the Trolley Trail.

Sources: DRFP, TSP, RTP (10101), URAP

Operating Budget Impact: Unknown impact due to ODOT/City Partnership and the need for an IGA in the future.

Submitted by: Community Development, Engineering, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Transportation	$8,900,000	–	–	–	–	–	–	$8,900,000
Unfunded	URA	$1,000,000	–	–	–	–	–	–	$1,000,000
Unfunded		$551,000	–	–	–	–	–	–	$551,000

NMIA DISTRICT GATEWAY IMPROVEMENTS

Identify landscape and streetscape enhancements that help address flooding and enhance key gateways to the NMIA District and near significant public use areas such as Johnson Creek.

Source: NMIA

Operating Budget Impact: Unknown

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	General Fund, Grants	TBD	–	–	–	–	–	–	–

NMIA JOHNSON CREEK RIVERFRONT GREENWAY CONNECTION

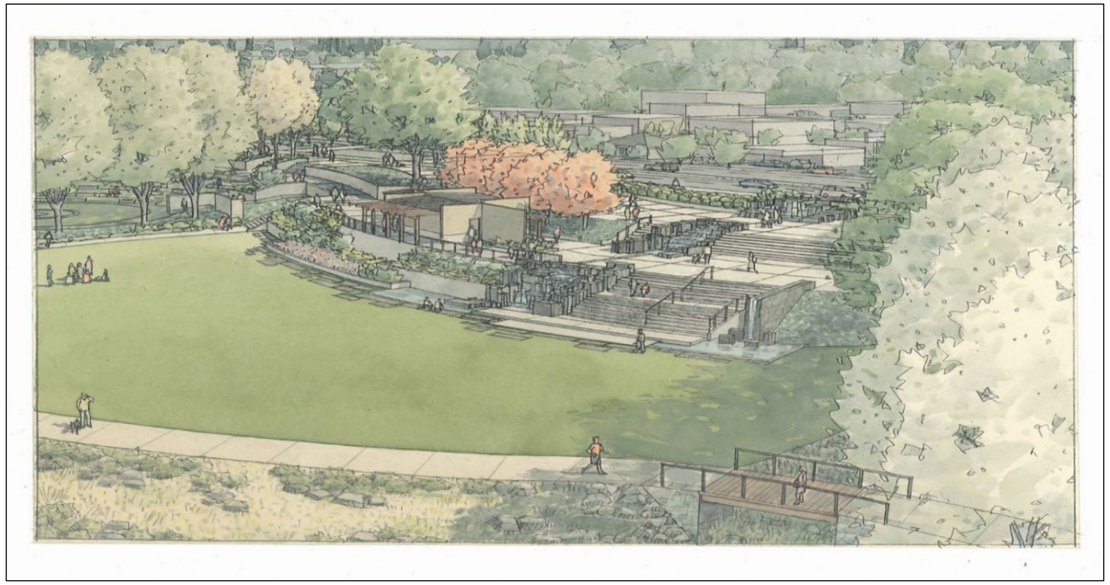
Connect Johnson Creek Park to Riverfront Bay Park via a greenway trail along Johnson Creek and SE McBrod Ave. The trail would terminate at the multi-use path along SE 17th Ave.

Source: NMIA

Operating Budget Impact: Project would increase maintenance requirements with the addition of a new multi-use facility.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded		TBD	–	–	–	–	–	–	–



MILWAUKIE BAY PARK

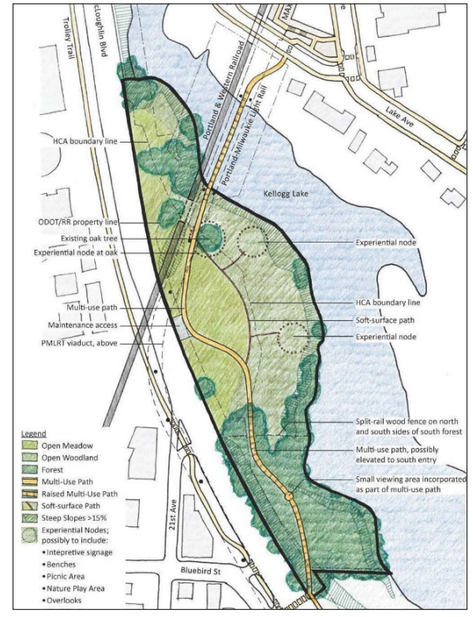
This project would fund implementation of Phases 3 and 4 of the Milwaukie Bay Park master plan, which include a plaza, an amphitheater, a fountain, large restroom facilities, overlook, and additional landscaping.

Sources: DRFP, URAP

Operating Budget Impact: Project would increase the park's operating expenses.

Submitted by: Community Development, Engineering, Public Works, City Manager

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	Phase 3 NCPRD	$1,000,000	–	$1,000,000	–	–	–	–	$1,000,000
Funded	General Fund - Cash Carryover	$250,000	–	$250,000	–	–	–	–	$250,000
Unfunded	URA	$1,500,000	–	$1,500,000	–	–	–	–	$1,500,000
Unfunded	Grants	$556,000	–	$971,400	–	–	–	–	$971,400
Unfunded	Phase 4 Grant	$1,079,200	–	–	–	–	–	–	$1,079,200



KRONBERG PARK IMPROVEMENTS

This project would fund the implementation of elements of the adopted 2015 Kronberg Park Master Plan.

Sources: MP, DRFP, URAP.

Operating Budget Impact: Project would increase the park's operating expense.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Undesignated	$1,900,000	–	–	–	–	–	–	$1,900,000
Unfunded	URA	$1,000,000	–	–	–	–	–	–	$1,000,000

DOGWOOD PARK IMPROVEMENTS

This project would expand and improve Dogwood Park integrate to the north and east with the South Downtown Plaza and Main St streetscape improvements, and to the south and west with the Kellogg Creek Natural Area.

Sources: DRFP, URAP

Operating Budget Impact: Unknown

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$500,000	–	–	–	–	–	–	$500,000

DOWNTOWN AND CENTRAL MILWAUKIE ENHANCEMENTS

This project would focus on design, planning, and capital projects related to the downtown Main Street corridor and Central Milwaukie to provide improved access to opportunity sites, gateway/entryway improvements (banners, flower baskets, etc.), and pedestrian amenities.

Source: URAP

Operating Budget Impact: This project will potentially increase ongoing operational needs due to the addition of new infrastructure.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$1,300,000	–	–	–	–	–	–	$1,300,000

DOWNTOWN GATEWAY, WAYFINDING AND INTERPRETATIVE HERITAGE PLAQUES FINAL IMPLEMENTATION

Fund the full implementation of phase 2 and 3 of the downtown Wayfinding Systems Plan, including the installation of gateway, entry way signage at the north and south entrances to downtown on McLoughlin Blvd such as plantings, lighting and related improvements to draw more traffic off of McLoughlin Blvd and into downtown. Wayfinding signage in the downtown will include kiosks to aid residents and visitors in exploring Milwaukie by providing easy access to cultural and recreational opportunities within an area that can be easily accessed by foot, bicycle, and transit. This project would also fund the installation of interpretative heritage plaques

Sources: URAP, DRFP

Operating Budget Impact: Project would have a minor increase to ongoing sign maintenance operations.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	Urban Renewal	$200,000	–	–	–	–	–	–	$200,000

IMPROVE TRANSIT STOPS IN CENTRAL MILWAUKIE

This project would provide transit shelters as sites are developed and ensure excellent transit service to Central Milwaukie. It would also add Transit Tracker and LED lighting units at main stops along bus routes.

Source: URAP

Operating Budget Impact: None, anticipated to be owned and maintained by TriMet under IGA.

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$500,000	–	–	–	–	–	–	$500,000

SCOTT PARK

This project would fund the revisions to the Scott Park Master Plan and improvements to Scott Park.

Sources: DRFP, URAP

Operating Budget Impact: Unknown

Submitted by: Community Development, Planning

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Unfunded	URA	$500,000	–	–	–	–	–	–	$500,000

LEDDING LIBRARY IMPROVEMENT PROJECTS

The electors of the City of Milwaukie, Oregon, (the "City") approved a ballot measure on May 17, 2016, that provided the City the authority to issue general obligation bonds (the "2016 GO Bonds"), for library repairs, improvements, and updated technology. Improvements, including:

- Providing a larger designated area for children and teen programming and learning;
- Installing security cameras in the parking lot and building exterior;
- Installing modern toilets and restroom facilities;
- Installing modern wiring, technology and additional printers and computers;
- Replacing heating and cooling systems with energy efficient modern systems; and
- Installing structural components to meet City earthquake standards.
- The project is currently under design and construction is anticipated during the 2019-2020 biennium.

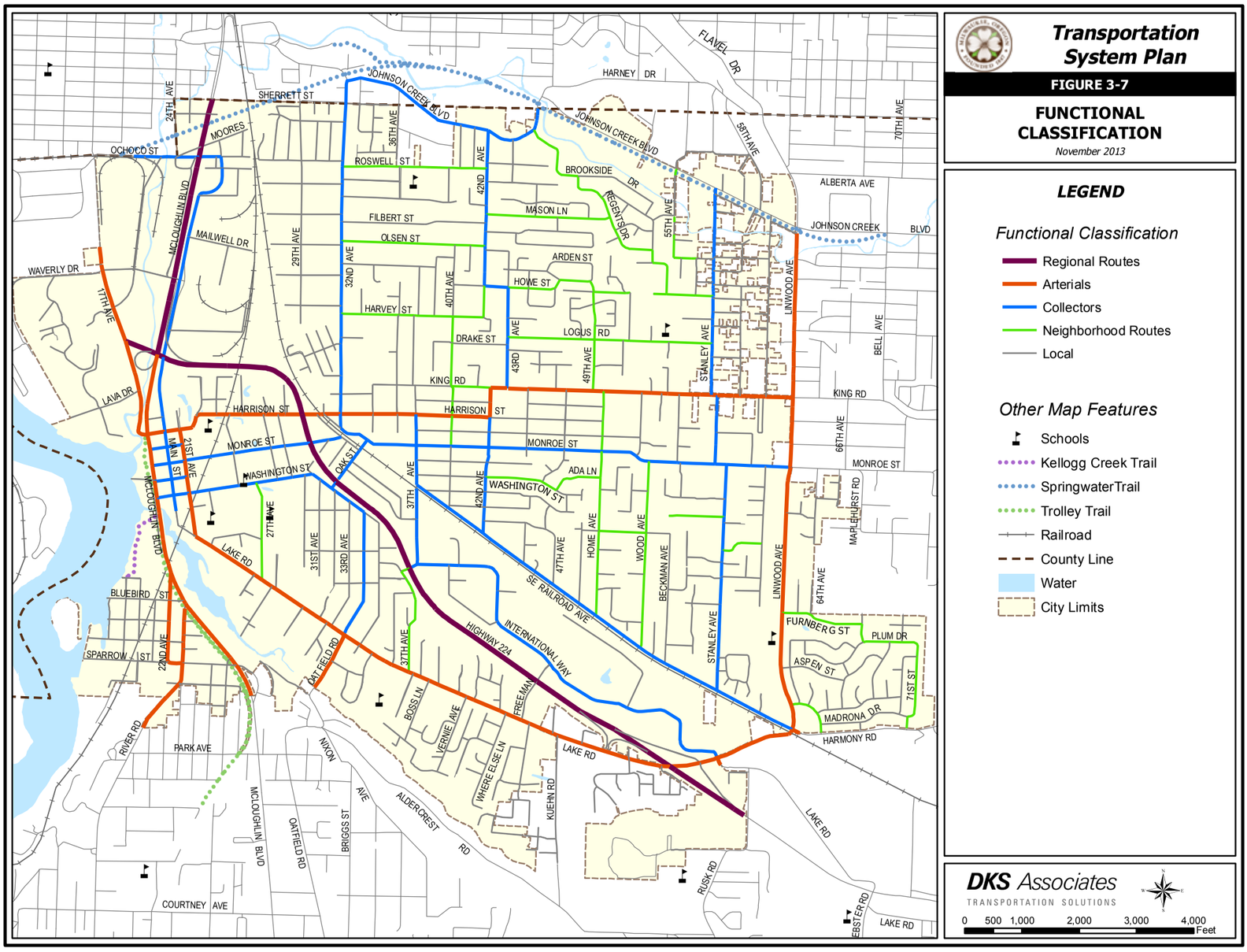
Source: City Staff

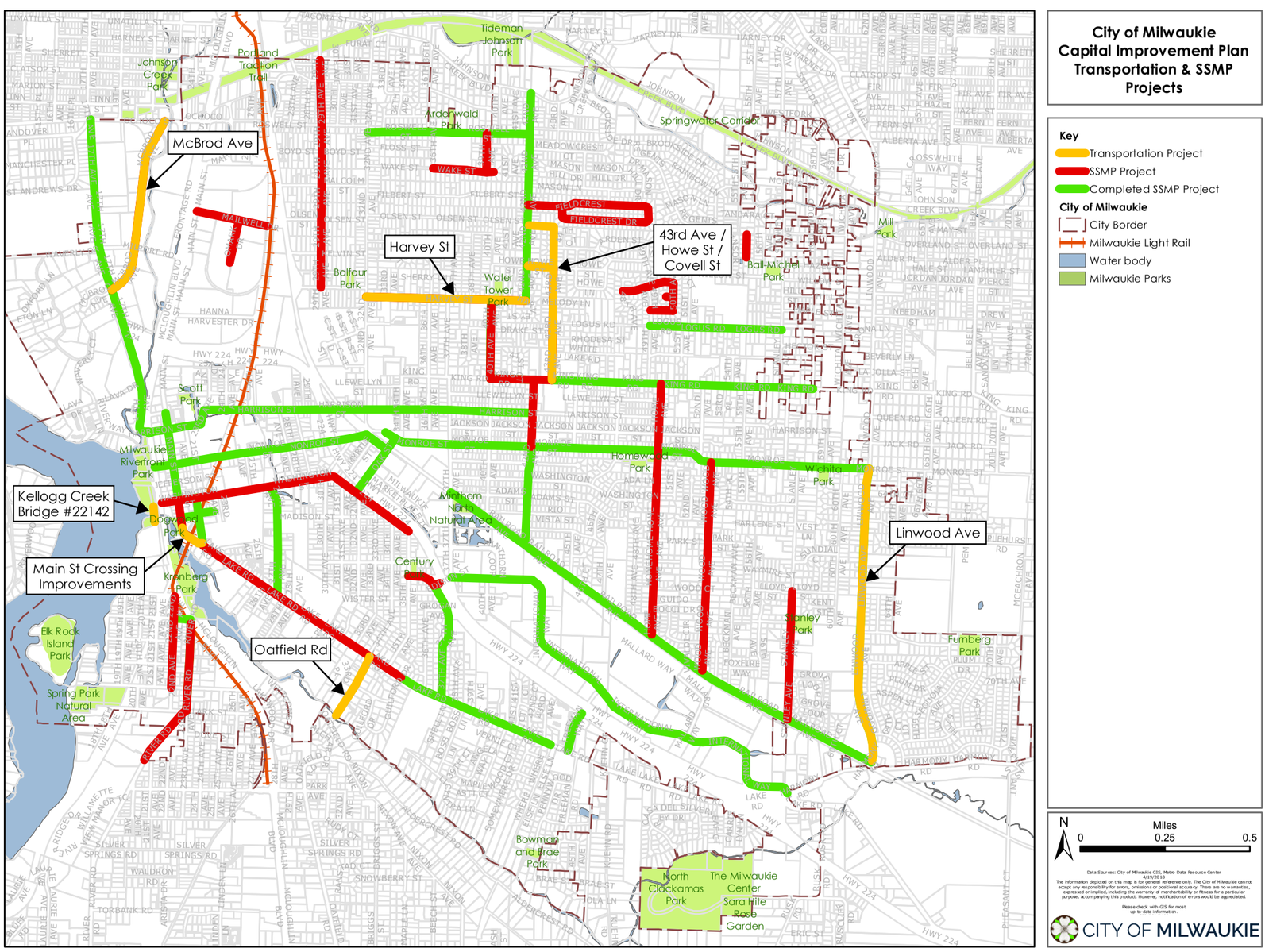
Operating Budget Impact: The project is participating in the Energy Trust Path to Net Zero program and therefore is targeting energy efficiency 70% below the state code requirements, 23 EUI (Energy Use Intensity). The current building has an EUI of 146 which is 3 times Oregon's current building code and almost double the average Library. EUI is a measure of energy use per square footage and therefore although we are targeting a much more efficient facility with the expansion, planned to go from 12,500 to 20,000 square feet, the savings realized in $ are unknown at this time.

Submitted by: Library

STATUS	FUNDING SOURCE	2016 COST	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	TOTAL
Funded	GO Bond	-	$6,696,000	$2,504,000	-	-	-	-	$9,200,000
Funded	Intergovernmental Grants	-	$300,000	-	-	-	-	-	$300,000
Funded	Private Donations/ Grants	-	$131,000	-	-	-	-	-	$131,000
Funded	Library Operational Savings (General Property Taxes)	-	$236,000	-	-	-	-	-	$236,000
Funded	General Property Taxes	-	$306,750	-	-	-	-	-	$306,750
	Private Donations/ Grants	-	$250,000	-	-	-	-	-	$250,000
Funded	Stormwater **	-	$121,000		-	-	-	-	$121,000
Funded	Transportation (Gas Tax - new)	-	$109,000		-	-	-	-	$109,000

** Note: *the Stormwater $$ are a duplication of the project identified in the storm utility and are shown here for clarity.*


Transportation System Plan
FIGURE 3-7
FUNCTIONAL CLASSIFICATION
November 2013
LEGEND
Functional Classification
Regional Routes
Arterials
Collectors
Neighborhood Routes
Local
Other Map Features
Schools
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Railroad
County Line
Water
City Limits
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
OCHOCO ST
MOORES
MCLOUGHLIN BLVD
MAILWELL DR
WAVERLY DR
ROSWELL ST
BROOKSIDE DR
ALBERTA AVE
JOHNSON CREEK BLVD
FILBERT ST
OLSEN ST
MASON LN
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
LAVA DR
BLUEBIRD ST
SPARROW ST
LAKE RD
OATFIELD RD
SE RAILROAD AVE
INTERNATIONAL WAY
HIGHWAY 224
FREEMAN
BOSS LN
VERNIE AVE
WHERE ELSE LN
KUEHN RD
ALDERCREST RD
RUSK RD
EBSTER RD
RIVER RD
PARK AVE
NIXON AVE
BRIGGS ST
COURTNEY AVE
STANLEY AVE
LINWOOD AVE
BECKMAN AVE
WOOD AVE
BELL AVE
MAPLEHURST RD
FURNBERG ST
PLUM DR
ASPEN ST
MADRONA DR
HARMONY RD
71ST ST
64TH AVE
66TH AVE
70TH AVE
58TH AVE
55TH AVE
49TH AVE
47TH AVE
43RD AVE
42ND AVE
40TH AVE
37TH AVE
36TH AVE
32ND AVE
31ST AVE
33RD AVE
29TH AVE
27TH AVE
24TH AVE
22ND AVE
21ST AVE
17TH AVE
MAIN ST


City of Milwaukie Capital Improvement Plan Transportation & SSMP Projects
Key
Transportation Project
SSMP Project
Completed SSMP Project
City of Milwaukie
City Border
Milwaukie Light Rail
Water body
Milwaukie Parks
McBrod Ave
Harvey St
43rd Ave / Howe St / Covell St
Kellogg Creek Bridge #22142
Main St Crossing Improvements
Oatfield Rd
Linwood Ave
Tideman Johnson Park
Portland Traction Trail
Johnson Creek Park
Ardenwald Park
Springwater Corridor
Balfour Park
Water Tower Park
Ball-Michel Park
Mill Park
Scott Park
Milwaukie Riverfront Park
Homewood Park
Wichita Park
Mitchom North Natural Area
Dogwood Park
Kronberg Park
Century
Stanley Park
Furnberg Park
Elk Rock Island Park
Spring Park Natural Area
Bowman and Brae Park
North Clackamas Park
The Milwaukie Center
Sara Hite Rose Garden
N
Miles
0 0.25 0.5
Data Sources: City of Milwaukie GIS, Metro Data Resource Center
4/19/2013
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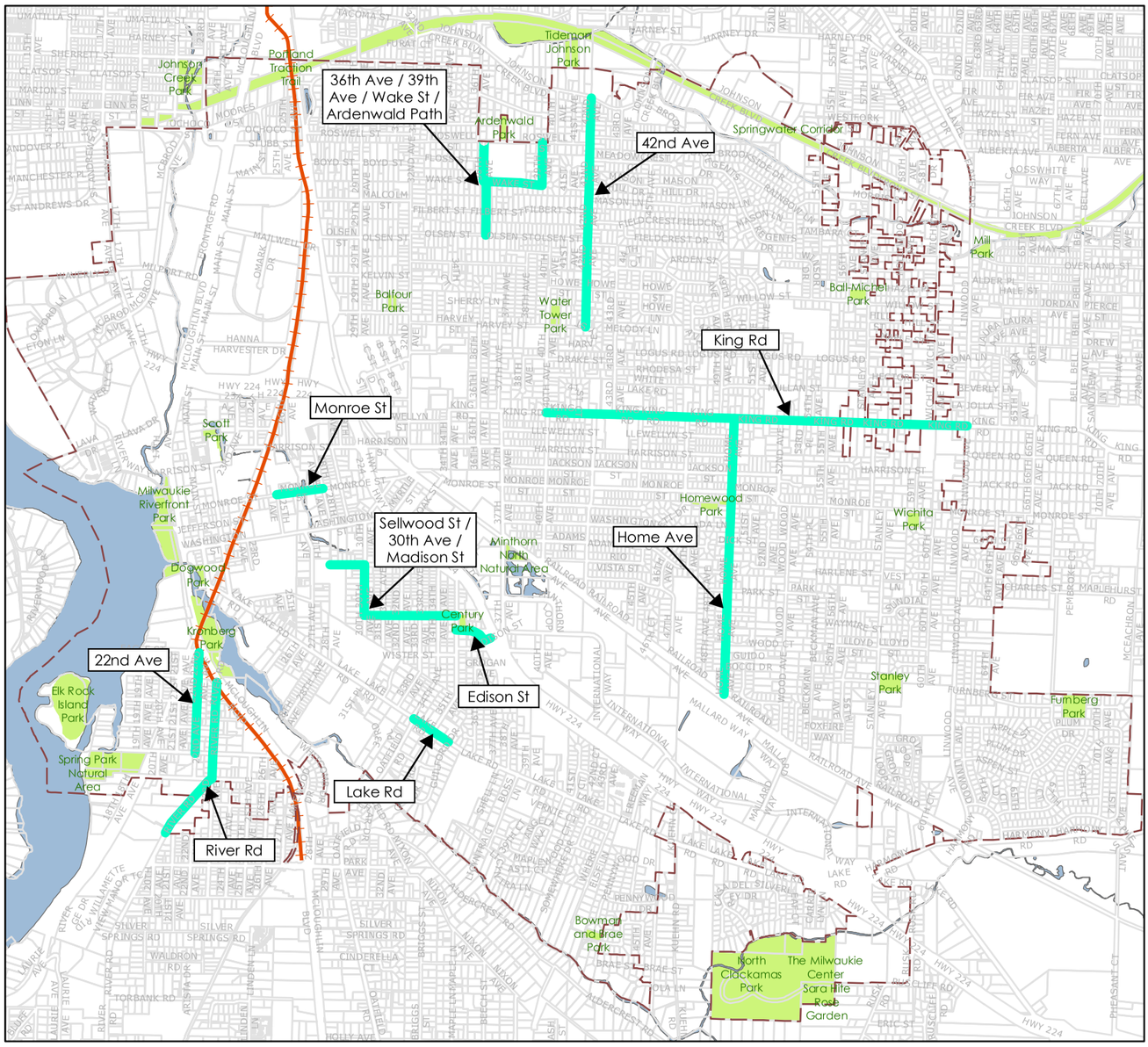
Please check with GIS for most up-to-date information.
CITY OF MILWAUKIE



City of Milwaukie Capital Improvement Plan SAFE Projects

Key

- SAFE Project

City of Milwaukie

- City Border
- Milwaukie Light Rail
- Water body
- Milwaukie Parks

N

Miles 0 0.25 0.5

Data Sources: City of Milwaukie GIS, Metro Data Resource Center
4.2.2018

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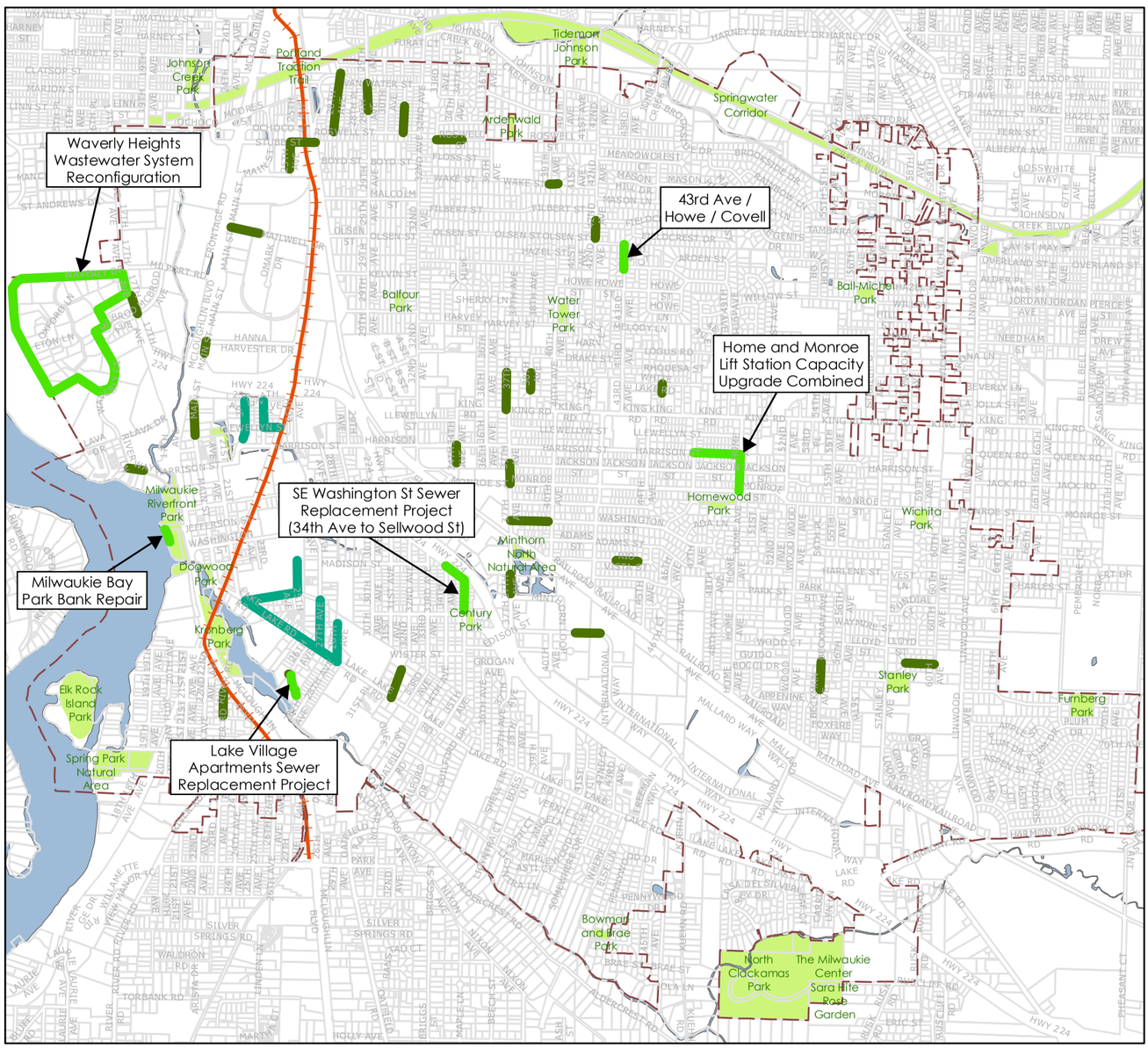
CITY OF MILWAUKIE



City of Milwaukie Capital Improvement Plan Wastewater Projects

Key

- Wastewater Project
- Clay Pipe Replacement Program
- Wastewater Repair Project

City of Milwaukie

- City Border
- Milwaukie Light Rail
- Water body
- Milwaukie Parks

N

Miles 0 0.25 0.5

Data Sources: City of Milwaukie GIS, Metro Data Resource Center
4.2.2018

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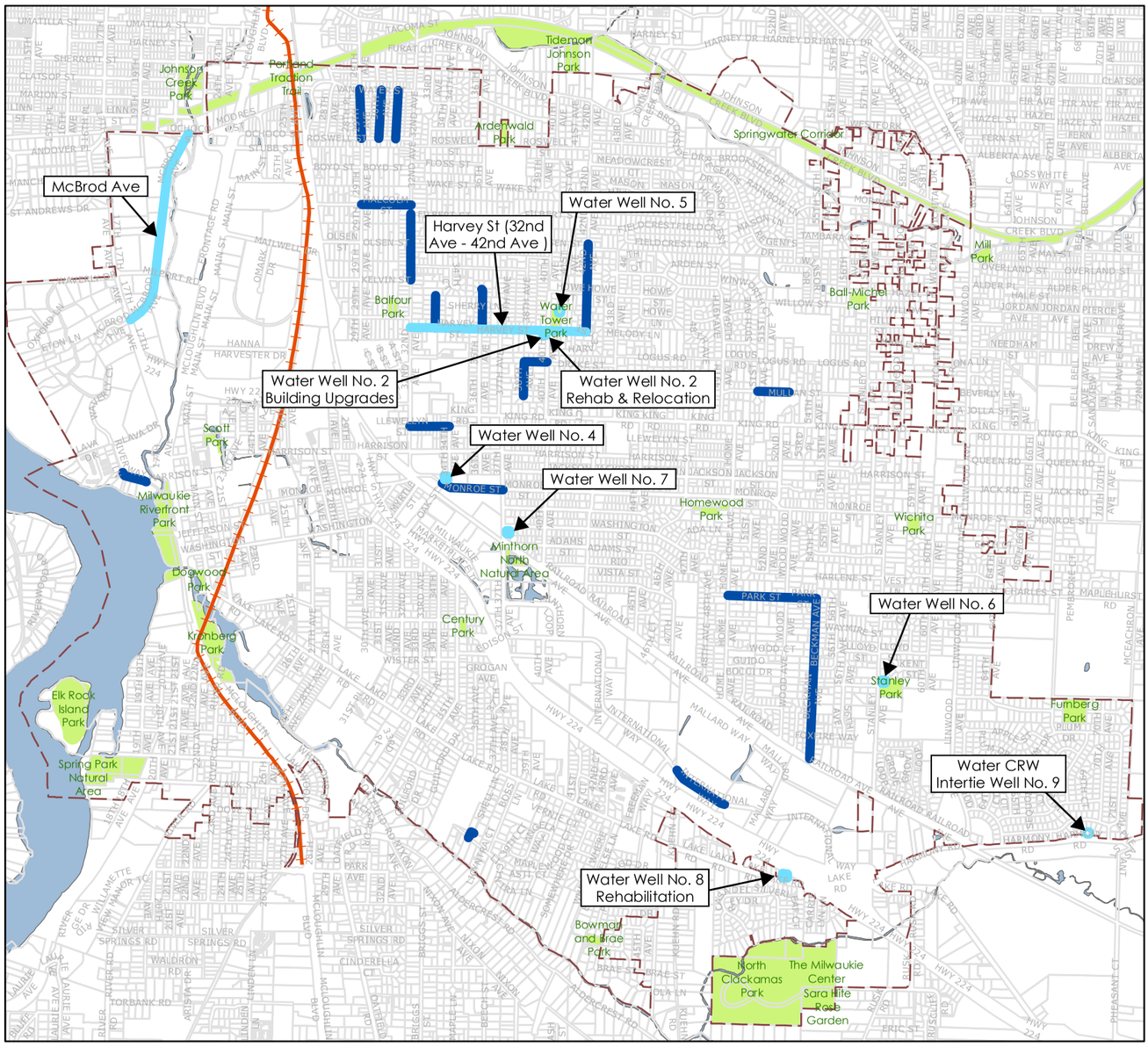
CITY OF MILWAUKIE



City of Milwaukie Capital Improvement Plan Water Projects

Key

- Water Project
- Water System Improvements

City of Milwaukie

- City Border
- Milwaukie Light Rail
- Water body
- Milwaukie Parks

N

Miles 0 0.25 0.5

Data Sources: City of Milwaukie GIS, Metro Data Resource Center 4.2.2018

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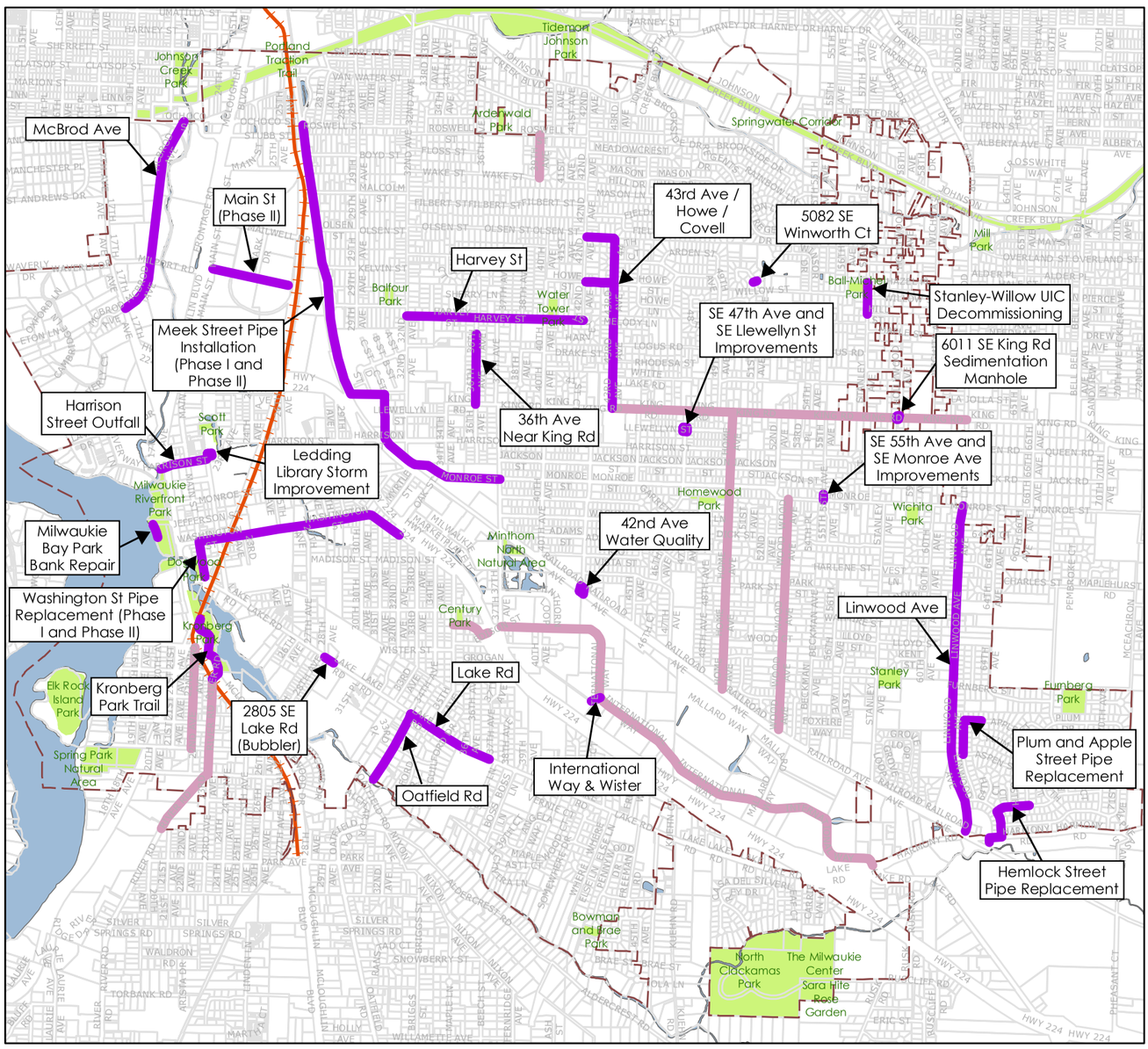
CITY OF MILWAUKIE



City of Milwaukie Capital Improvement Plan Stormwater Projects

Key

- Water Quality Improvements
- Storm Project

City of Milwaukie

- City Border
- Milwaukie Light Rail
- Water body
- Milwaukie Parks

N

Miles 0 0.25 0.5

Data Sources: City of Milwaukie GIS, Metro Data Resource Center 4.2.2018

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CITY OF MILWAUKIE

Special thanks to:

Engineering Technician Jennifer Backhaus
Associate Engineer Tessie Prentice
Administrative Assistant II Joyce Stahly

Citizen Utility Advisory Board

Vince Alvarez
Joel Bergman
Laura Hanna
Edward Simmons
Jacob Stetson

Public Safety Advisory Committee

Regis Niggemann, Chair, (Linwood)
Megan Elston, Vice Chair, At-Large Member
Shane Warner, Secretary, (Lewelling)
Ray Bryan, (Historic Milwaukie)
Rebeccah Bufford, At-Large Member
Pam Denham, (Island Station)
Don Jost, (Lake Road)
Lance Lindahl, At-large Member
Nicole Perry, At-Large Member
Heather Ray, (Hector Campbell)
Mark Taylor, (Ardenwald-Johnson Creek)

CONTACT US

Stormwater, Street, Wastewater and Water Capital Project Managers:

Engineering Director Charles Eaton PE, EatonC@milwaukieoregon.gov

Assistant City Engineer Jennifer Garbely PE, GarbelyJ@milwaukieoregon.gov

Public Works Capital Project Managers:

Public Works Director Peter Passarelli, PassarelliP@milwaukieoregon.gov

Facilities Manager Damien Farwell, FarwellD@milwaukieoregon.gov

Streets and Water Operations Supervisor Ronelle Sears, SearsR@milwaukieoregon.gov

Storm and Wastewater Operations Supervisor Shane Hart, HartS@milwaukieoregon.gov

Community Development Capital Project Managers:

Community Development Director Alma Flores, FloresA@milwaukieoregon.gov

Planning Director Dennis Egner, EgnerD@milwaukieoregon.gov

Development Manager Leila Aman, AmanL@milwaukieoregon.gov

Finance:

Finance Director Haley Fish, FishH@milwaukieoregon.gov

Assistant Finance Director Bonnie Dennis, DennisB@milwaukieoregon.gov

10722 SE Main St, Milwaukie OR 97222 (503) 786-7555 www.milwaukieoregon.gov

CITY OF **MILWAUKIE**