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**2013-2017
Capital Improvement Plan (CIP)
April 26, 2012**

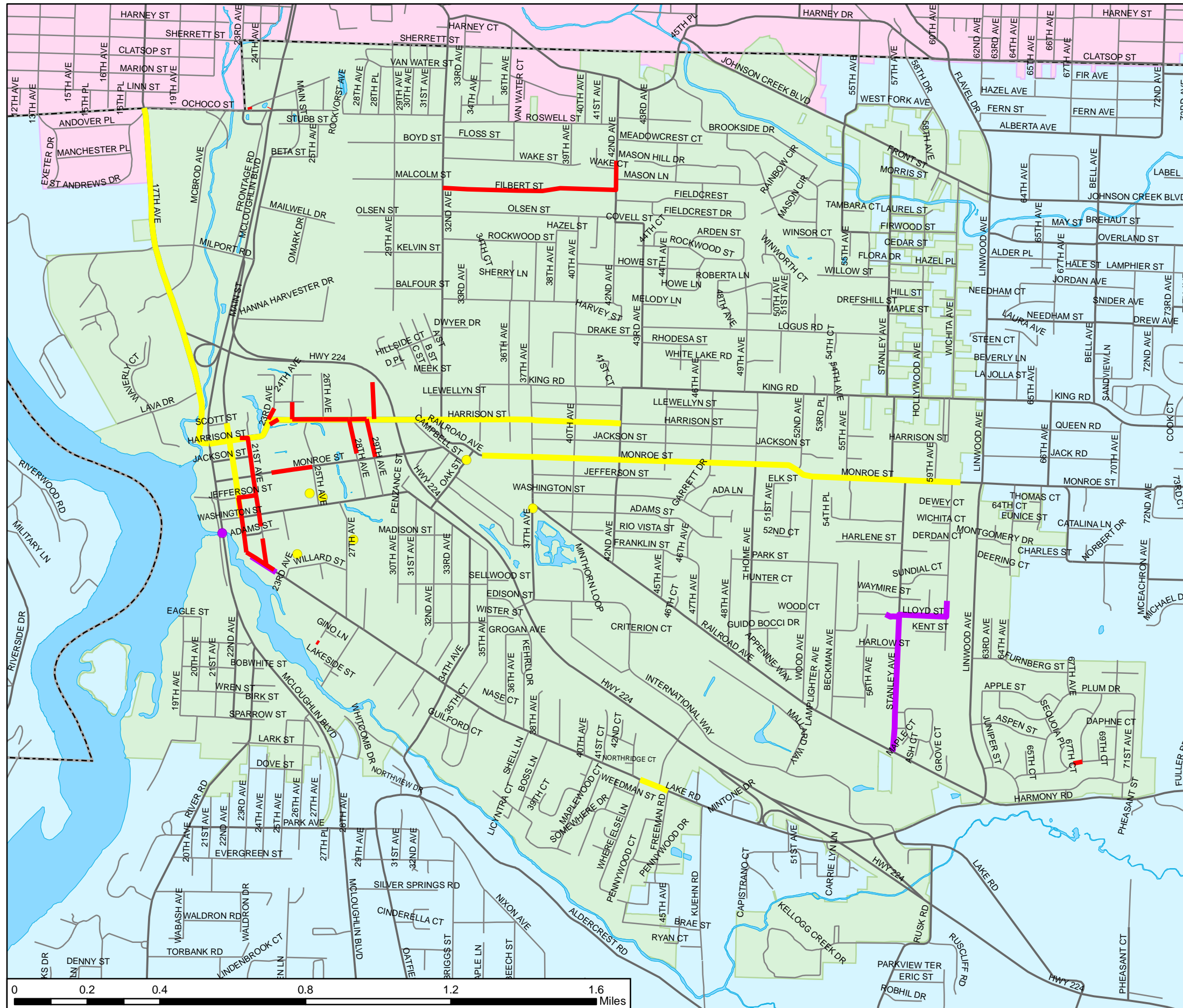
CIP 2013-2017
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City of Milwaukie Capital Improvement Plan BN 2014

Stormwater Transportation Wastewater Water

- Wastewater Project
- Transportation/SSMP Project
- Stormwater Project
- Water Project
- County Boundary
- Water Body
- City of Milwaukie
- City of Portland
- Unincorporated



STORMWATER DIVISION

BN 2013-2014

System Description:

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) and 11 control structures.

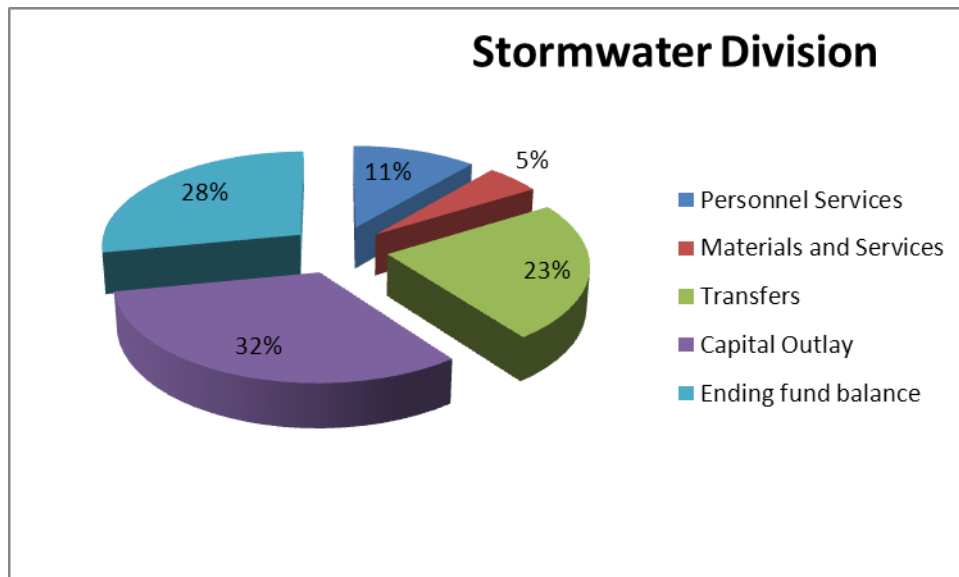
Treatment for the City's stormwater system is required by Federal (Clean Water Act) and State law. The City has steadily built the stormwater utility beginning with a utility rate that was implemented in the early 1990's and the need to properly manage stormwater runoff was just being addressed. Today 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 is currently underway with completion planned for next spring. This update will include a new look at the capital improvement need for the utility. The current project list has been prepared anticipating that the updated master plan will address infrastructure replacement but of course lacks the detail that will be provided by the updated master plan.

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 several areas with localized flooding issues. One of these areas, in the Linwood neighborhood along Stanley Ave, is being addressed in this budget with a two phase project. Other areas are addressed with local infiltration facilities constructed by the storm crew outside of the capital outlay funding.

Recently completed projects and projects underway:

Drywell improvements were anticipated this year, however DEQ has not yet issued the permit which will govern their use. Also, it was planned to extend some stormwater pipes in conjunction with the light rail project. The light rail work has not yet begun. No capital outlay was expended or is expected to be spent this fiscal year.



STORMWATER DIVISION PRIORITY PROJECTS

FY	Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	COST	TOTAL PER FY
2013	0310	Stanley Avenue Pipe Replacement	The project would alleviate flooding on Stanley, Railroad, and Lloyd St.	\$ 600,000	\$ 815,000
	0268	UIC Decommissioning/Pretreatment Program	16 Drywells that are within 500 feet or the 2 year time of travel of a municipal or private water well. Pretreatment is anticipated being needed for each drywell under the new regulations. \$15,000 is assumed for each drywell that needs pretreatment. (6) done this year	90,000	
	0267	Kellogg Creek Dam Removal and Hwy 99E Underpass	(TSP-Ped, Downtown Plan) Replace 99E bridge over Kellogg Cr., ped. undercrossing to Riverfront, Cost is City share of \$9 million	50,000	
	0308	Upsizing Storm Pipe at Rail Crossings	The City will pay TriMet for the cost of upsizing the storm pipe when it is being replaced under the UP crossing at Harrison, Monroe, Washington and Lake.	75,000	
2014	0310	Stanley Avenue Pipe Replacement	The project would alleviate flooding on Stanley, Railroad, and Lloyd St.	\$ 675,000	\$ 815,000
	0268	UIC Decommissioning/Pretreatment Program	16 Drywells that are within 500 feet or the 2 year time of travel of a municipal or private water well. Pretreatment is anticipated being needed for each drywell under the new regulations. \$15,000 is assumed for each drywell that needs pretreatment. (6) done this year.	90,000	
	0267	Kellogg Creek Dam Removal and Hwy 99E Underpass	(TSP-Ped, Downtown Plan) Replace 99E bridge over Kellogg Cr., ped. undercrossing to Riverfront, Cost is City share of \$9 million	50,000	
2015	0058-2	Meek Street Phase II Pipe Installation	This would remove stormwater from the Harrison system and avoid surcharging	\$ 400,000	\$ 840,000
	0309	Meek Street Storm Detention Facility	This would treat and infiltrate stormwater that is collected from the Meek Street system	350,000	
	0268	UIC Decommissioning/Pretreatment Program	16 Drywells that are within 500 feet or the 2 year time of travel of a municipal or private water well. Pretreatment is anticipated being needed for each drywell under the new regulations. \$15,000 is assumed for each drywell that needs pretreatment. (Remaining (4) drywells pretreated).	90,000	
2016	0058-3	Meek Street Phase III Pipe Installation	This would remove stormwater from the Harrison system and avoid surcharging	\$ 400,000	\$ 800,000
	0058-4	Meek Street Phase IV Pipe Installation	This would remove stormwater from the Harrison system and avoid surcharging	400,000	
2017	0311	Remaining Concrete Pipe Replacement ⁽¹⁾	Based on a total pipe length of 195,360 feet at a replacement cost of \$250/foot over a 75 year cycle	\$ 651,200	\$ 779,849
	0312	Manhole Replacement/Rehab ⁽¹⁾	Based on 610 Manholes at an average cost of \$4,000/manhole over a 75 year cycle	32,533	
	0313	Catch Basin Replacement ⁽¹⁾	Based on 1406 Catch basins at a replacement cost of \$2,500/catch basin over a 75 year cycle	46,866	
	0314	Drywell Replacement ⁽¹⁾	Based on 197 Drywells at a replacement cost of \$5,000/drywell over a 20 years cycle	49,250	
Future	NA	Plum St. and Apple St. Improvements	The project would alleviate flooding in this area.	200,000	
	NA	Llewellyn/Franklin Str. Improvements	Storm share for this project	70,000	
	NA	Logus Road Phase 2	Storm share for this project	50,000	
5 YEAR TOTAL					\$ 4,049,849

⁽¹⁾ Annual project. Starting FY 2017

City of Milwaukie Capital Improvement Plan

Stormwater Master Plan

	Fiscal Years					Total
	11/12	12/13	13/14	14/15	15/16	
Capital Cost:						
Planning, Engineering, Design	90,000	90,000				180,000
Land/Right-of-Way						
Construction						
Contingency		20,000				20,000
Total Estimated Capital Cost	90,000	110,000	0	0	0	200,000
Revenue Source:						
Stormwater Fund	50,000	60,000				110,000
Stormwater SDC	40,000	50,000				90,000
Total Estimated Revenue	90,000	110,000	0	0	0	200,000

Description:

The City will need to update the Stormwater Master Plan after receiving a new National Pollution Discharge Elimination System (NPDES) permit and Underground Injection Control (UIC) permit from DEQ. The current Master Plan is reflective of the previous permit language and requirements for treatment and conveyance of stormwater.

Prepared By: Brad Albert

Date: 1/19/2012

Project No: 0293



City of Milwaukie Capital Improvement Plan

Upsizing Storm Pipe at Rail Crossings

	Fiscal Years					Total
	11/12	12/13	13/14	14/15	15/16	
Capital Cost:						
Planning, Engineering, Design	0	75,000				75,000
Land/Right-of-Way						0
Construction						0
Contingency						0
						0
Total Estimated Capital Cost	0	75,000	0	0	0	75,000
Revenue Source:						
Stormwater Fund	0	75,000				75,000
						0
						0
						0
Total Estimated Revenue	0	75,000	0	0	0	75,000

Description:
 The stormwater conveyance pipe under the rail crossings at Harrison, Washington, and Lake Road are going to be removed and replaced with the Light Rail Project. As shown in the current Stormwater Master Plan, the pipes under all four crossings are undersized. The City will pay TriMet for the material cost to upsize the storm pipe to a 24 inch diameter pipe. The City did not expend any money in fiscal year 11/12 due to a revision in construction schedule.

Prepared By: Brad Albert	Date: 1/19/2012	Project No: 0308
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City of Milwaukie Capital Improvement Plan

Kellogg Creek Dam Removal and Hwy 99 Underpass

	10/11	11/12	12/13	13/14	14/15	15/16	Total
Capital Cost:							
Planning, Engineering, Design	41,000	10,000	350,000	704,000			1,105,000
Land/Right-of-Way							0
Construction							0
Contingency							0
Total Estimated Capital Cost	41,000	10,000	350,000	704,000			1,105,000
Revenue Source:							
Stormwater	14,000	10,000	50,000	50,000			124,000
Amer Rivers/NOAA Grant	27,000						27,000
MTIP*			300,000	704,000			1,004,000
							0
Total Estimated Revenue	41,000	10,000	350,000	754,000			1,155,000

Description:

The project will remove the Kellogg Dam, address contaminated sediments, re-establish fish passage, and restore riparian habitat for endangered salmon and native wildlife. The stormwater fund contributes minimal funding to fund necessary environmental studies as the waterway is an important stormwater feature.

*Outside funding shown represents current plans and is subject to change as funding sources are developed. Outside funding is not budgeted at this point.

Prepared By: Gary Parkin

Date: 3/28/2012

Project No: 0267



City of Milwaukie Capital Improvement Plan

Stanley Avenue Pipe Replacement

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design	150,000					150,000
Land/Right-of-Way						0
Construction	400,000	575,000				975,000
Contingency	50,000	100,000				150,000
						0
Total Estimated Capital Cost	600,000	675,000	0	0	0	1,275,000
Revenue Source:						
Stormwater Fund	600,000	675,000				1,275,000
						0
						0
						0
Total Estimated Revenue	600,000	675,000	0	0	0	1,275,000

Description:

The project will add storm pipe and upsize existing pipe to alleviate local flooding problems and will provide an opportunity to decommission drywells as anticipated with the new WPCF permit. The drywells to be decommissioned are within the 2 year time of travel of a domestic water well. A new Stormwater Master Plan is currently being generated to look at solutions for local flooding problems. The Master Plan may have an alternate solution and would be reviewed before design of the project would move forward.

Prepared By: Brad Albert

Date: 1/19/2012

Project No: 0310



City of Milwaukie Capital Improvement Plan

UIC Decommissioning/Pretreatment Program

	Fiscal Years					Total
	11/12	12/13	13/14	14/15	15/16	
Capital Cost:						
Planning, Engineering, Design	0	10,000	10,000	10,000		30,000
Land/Right-of-Way						
Construction	0	80,000	80,000	80,000		240,000
Contingency						
Total Estimated Capital Cost	0	90,000	90,000	90,000	0	270,000
Revenue Source:						
Stormwater Fund	0	90,000	90,000	90,000		270,000
Total Estimated Revenue	0	90,000	90,000	90,000	0	270,000

Description:

The City will be required to decommission or pretreat stormwater runoff that enters certain drywells with the issuance of the new UIC permit from DEQ. Decommissioning will consist of filling drywells with control density fill (CDF) and capping with 4 feet of crushed rock. Pretreating stormwater runoff will consist of construction of stormwater planters or swales, catch basin filter inserts, or other approved methods by DEQ. Pretreatment is necessary to clean runoff before it enters the groundwater source. Cost assumes 1/3 of the 16 drywells will be worked on over a three year period. The City did not expend any money in fiscal year 11/12 because DEQ has yet to issue the UIC permit.

Prepared By: Brad Albert	Date: 1/19/2012	Project No: 0268
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TRANSPORTATION DIVISION

BN 2013-2014

System Description:

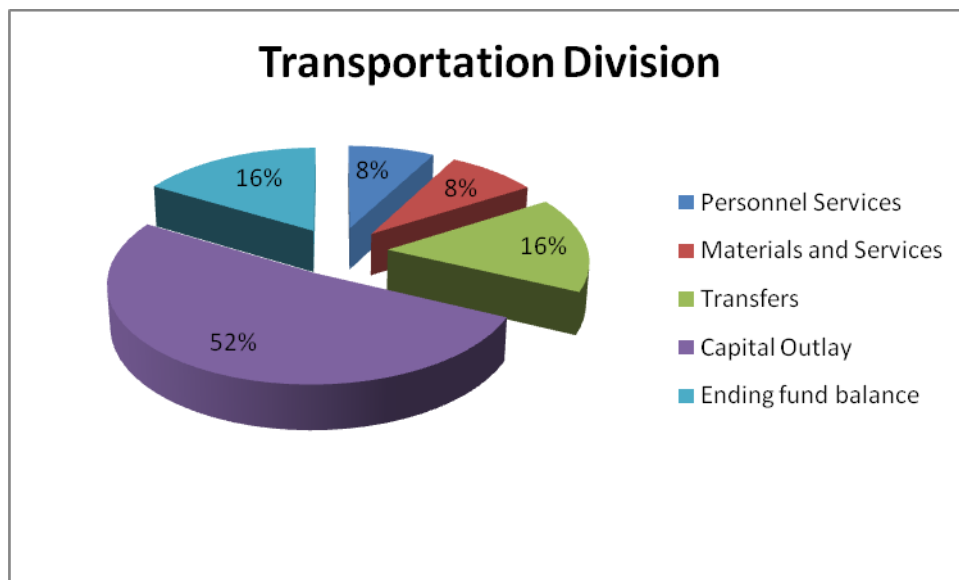
The transportation system includes 70 miles of streets, 49 miles of sidewalks and more than 6,000 signs.

The document for which this utility is planned for is the Transportation System Plan (TSP). The TSP lists 63 high priority projects to improve the system with an estimated cost total of \$127 million. Sources outside the City will be needed to fund most of the work. As of April 2012, an effort to refresh the TSP began. It will incorporate the 2035 METRO Regional Transportation Plan (RTP) as well as a review for any necessary project changes.

This fund also includes the Street Surface Maintenance Program (SSMP) which collects revenue from a street utility fee, a local gas tax and a PGE surcharge. About one million dollars per year is collected and spent exclusively on paving and repairing streets.

Recently completed projects and projects underway:

Lake Road Multimodal project is currently wrapping up, while the 2012/13 SSMP Project is about to begin. This project includes paving on International Way, Monroe Street and Harrison Street. This summer, design and right-of-way services for 17th Avenue and Lake Rd. Safe Routes to School will begin.



TRANSPORTATION PRIORITY PROJECTS					
FY	Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	PROJECT COST	CITY SHARE
2013	0264	Walk Safely Milwaukee Program	(NDAs) Projects to promote pedestrian enhancements (Annual)	\$ 100,000	\$ 100,000
	0193-2	Union Pacific Mainline Railroad Quiet Zone (Phase II)	(TSP, NDAs, Quiet Zone) Improvements at the 37th, Oak and Harrison RR xings	240,000	240,000
	0195	School Zone Implementation	(Oregon Law Change) Signage to implement school zone standardization report completed 11/2010	25,000	25,000
	0322	17th Avenue Sidewalks	(TSP-Ped) Fill in sidewalk gaps on both sides of street and improve intersections. Cost is city share of \$920,000	1,010,900	110,906
		Adams St Improvements	Metro funded, this project improves the portion of Adams St between 21st and Main (South Downtown)	60,000	-
		Lake Road Safe Routes to School	Pedestrian improvements from Whereelse Lane to Freeman	234,000	-
2014	0264	Walk Safely Milwaukee Program	(NDAs) Projects to promote pedestrian enhancements (Annual)	\$ 100,000	\$ 100,000
	0322	17th Avenue Sidewalks	(TSP-Ped) Fill in sidewalk gaps on both sides of street and improve intersections. Cost is city share of \$920,000	2,000,000	-
		Adams St Improvements	Metro funded, this project improves the portion of Adams St between 21st and Main (South Downtown)	365,000	-
2015	0323	South Downtown Street Improvements	Sidewalk/Street improvements in south downtown	\$ 500,000	\$ 50,000
	0330	Hwy 224 & Hwy 99E Refinement Study	(TSP-Auto-Freight) Conduct refinement study that focuses on minimizing barrier effect and improving auto and freight movement	250,000	25,000
	0331	Springwater Trail Completion	(TSP-Bike-Ped) Contribute to regional project to complete Springwater Trail ("Sellwood Gap") along Ochoco Street	80,000	80,000
2016	0325	Railroad Avenue Sidewalks	(TSP-Ped) Fill in sidewalk gaps along both sides of street. Cost is city share of \$1.63 million	\$ 1,630,000	\$ 163,000
	0337	Highway 224 Intersection at Oak Street	(TSP-Auto, NDAs) Add left turn lanes and protected signal phasing on Oak Street approaches. Req's ODOT concurrence	20,000	20,000
2017	0332	29th/Harvey/40th Bicycle Boulevard	(TSP-Bike) Designate as a bicycle boulevard and install bicycle boulevard improvements	\$ 200,000	\$ 200,000
	0338	Frontage improvements @ JCB facility (sidewalks/swale)	City Ordinance Requirement	20,000	20,000
	0327	Monroe Bicycle Boulevard	(TSP-Bike) Designate as a bicycle boulevard and install bicycle boulevard improvements. Cost is City share of \$300,000	300,000	30,000
	0339	Highway 224 Crossing Improvements (Oak & Washington)	(TSP-Bike) Improve intersection crossing safety and cyclists at Washington Street and Oak Street	10,000	10,000
				\$ 7,144,900	\$ 1,173,906

TRANSPORTATION PRIORITY PROJECTS WITH OUTSIDE FUNDING NEED					
Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	PROJECT COST	CITY SHARE	
0091-2	Logus Road Sidewalks (Phase II)	(TSP-Ped) Fill in sidewalk gaps on both sides of street. Cost is City share of \$771,000	\$ 771,000	\$ 77,100	
0322	17th Avenue Sidewalks	(TSP-Ped) Fill in sidewalk gaps on both sides of street and improve intersections. Cost is city share of \$920,000	920,000	92,000	
0324	ODOT Yard Circulation Improvements	Rebuild Main Street around ODOT Yard	1,000,000	TBD	
0327	Monroe Bicycle Boulevard	(TSP-Bike) Designate as a bicycle boulevard and install bicycle boulevard improvements. Cost is City share of \$300,000	300,000	30,000	
0328	Downtown Streetscape Improvements	(Downtown Plan) Install sidewalk bulbouts, lighting, and pedestrian amenities. Cost is City share of \$6.7 million	6,700,000	670,000	
0329	King Road Boulevard Treatments	(TSP-Ped) Install street boulevard treatments: widen sidewalks, improve multiple crossings. Cost is City share of \$500,000	500,000	50,000	
0333	Stanley Avenue Sidewalks	(TSP-Ped) Fill in sidewalk gaps on both sides of street. Cost is City share of \$4.3 million	4,300,000	430,000	
0334	Hwy 224 Intersection at 37th Avenue	(TSP-Auto-Freight) Combine two N legs of 37th Ave & Intrnl. Way into one leg at Hwy 224. Cost is City share of \$1.95 M	1,950,000	195,000	
0335-1	Linwood Avenue Capacity Improvements (North)	(TSP-Auto) Widen to standard three lane cross section. Widen bridge over Johnson Creek. Cost is City share of \$8.5 million	8,500,000	850,000	
0335-2	Linwood Avenue Capacity Improvements (South)	(TSP-Auto) Widen to standard three lane cross section. Cost is City share of \$11.4 million	11,400,000	1,140,000	
0336	Monroe Street Sidewalks	(TSP-Ped) Fill in sidewalk gaps on both sides of street. Cost is City share of \$1.63 million	1,630,000	163,000	
0324-2	Railroad Avenue Capacity Improvements	(TSP-Auto) Widen Railroad Avenue to standard three lane cross section. Cost is City share of \$12.9 million	12,900,000	1,290,000	
			\$ 50,100,000	\$ 4,910,000	

SSMP PRIORITY PROJECTS					
FY	Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	COST	TOTAL PER FY
2013	0271	Monroe Street Reconstruction Ph I	SSMP 10-Year List: Reconstruction	\$ 800,000	\$ 1,420,000
		Harrison Street Reconstruction Ph I (Campbell to 42nd Ave)	SSMP 10-Year List: Reconstruction	\$ 555,000	
		Preventative Maintenance	SSMP 10-Year Maintenance	\$ 65,000	
2014	0083-2	Harrison Street Reconstruction Ph 2 (99E to Campbell)	SSMP 10-Year List: Reconstruction	\$ 555,000	\$ 920,000
	0289	Main Street Downtown	SSMP 10-Year List: Unknown Treatment	300,000	
		Preventative Maintenance	SSMP 10-Year Maintenance	\$ 65,000	
2015	0290	Freeman Way (International to Lake)	SSMP 10-Year List: Overlay	\$ 300,000	\$ 735,000
		McBrod Ave. (17th to Ochoco)	SSMP: Reconstruction	370,000	
		Preventative Maintenance	SSMP 10-Year Maintenance	\$ 65,000	
2016	0085	Railroad Ave. (37th to Harmony)	SSMP 10-Year List: Reconstruction	\$ 870,000	\$ 935,000
		Preventative Maintenance	SSMP 10-Year Maintenance	\$ 65,000	
2017		43rd Ave (King to Howe) + Howe St (43rd to 42nd)	SSMP 10-Year List: Overlay	\$ 130,000	\$ 688,000
		Harvey St.	SSMP 10-Year List: Reconstruction	303,000	
		Mailwell St.	SSMP 10-Year List: Reconstruction	190,000	
		Preventative Maintenance	SSMP 10-Year Maintenance	\$ 65,000	
Future	NA	Home Ave.	SSMP: Reconstruction	345,000	
	NA	Wood Ave.	SSMP: Reconstruction	345,000	
	NA	Washington St. (37th to 40th)	SSMP: Overlay	100,000	
				5 YEAR TOTAL	\$ 4,698,000

FY 2012-2013		TRANSPORTATION BUDGET SUMMARY								
Project Number	Project Name	TRANSPORTATION FUNDS				OTHER FUNDING SOURCES			TOTAL PER PROJECT	Notes
		SSMP	State Gas	FILO	SDC	METRO	ODOT Grant			
0264	Walk Safely Milwaukie Program		\$ 100,000						\$ 100,000	
0149	School Zone Implementation		25,000						25,000	Completes this year
	17th Ave. Pedestrian Improvements			62,400	48,506	900,000			1,010,906	Subject to change based on Eng/ROW Phase costs
	Lake Rd. SRTS						233,724		233,724	Safe Routes to School grant
0193-2	UP Quiet Zone	50,000	140,000		50,000				240,000	
	Adams Street improvement					60,000.00			60,000	
SSMP:										
	Harrison Street Reconstruction Phase I	555,000							555,000	
	Monroe Street Reconstruction - Phase I	800,000							800,000	
	Preventative Maintenance	65,000							65,000	
									-	\$65,000 per year over the next two years.
Subtotal for FY 12-13:		\$ 1,420,000	\$ 265,000	\$ 62,400	\$ 98,506	\$ 960,000	\$ 233,724	\$ -	\$ 3,039,630.00	
FY 2013-2014										
0264	Walk Safely Milwaukie Program		\$100,000						\$ 100,000.00	Placeholder anticipating continuation of WSMP or something like it
	17th Ave. Pedestrian Improvements					2,000,000				
	Adams Street improvement					365,000				
SSMP:										
	Harrison Street Reconstruction Phase II	555,000								
	Main Street Rehabilitation	300,000								
	Preventative Maintenance	65,000								
Subtotal for FY 12-13:		920,000	100,000	-	-	2,365,000	-	-	100,000	
TOTALS		\$ 2,340,000	\$ 365,000	\$ 62,400	\$ 98,506	\$ 3,325,000	\$ 233,724	\$ -	\$ 3,139,630	

City of Milwaukie Capital Improvement Plan

Adams Street Improvement

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Design	60,000					
Right-of-Way						
Construction		365,000				365,000
Total Estimated Capital Cost	60,000	365,000				365,000
Revenue Source:						
Metro Grant	60,000	365,000				425,000
Total Estimated Revenue	60,000	365,000				425,000

Description: This project addresses the section of Adams Street between 21st Ave and Main Street. The project reconstructs this block of Adams in conjunction with the construction of the light rail line at 21st and Adams. This is the key connection between Main Street and the Milwaukie/Main Street light rail station. Adams Street is also part of the city's adopted South Downtown Concept Plan, which envisions Milwaukie's small south downtown area as a reinvigorated live/work district within an easy walk of the Willamette River, Kellogg Creek, downtown Milwaukie and every place outside Milwaukie on the MAX system.

The City has a \$425,000 grant to complete street improvements that support and promote transit-oriented development. The City's partners include TriMet, which is building the light rail improvements, and Metro, the grantor. The City will select a new vision for Adams Street which will extend the look and feel of the light rail station all the way to Main Street (approximately 200 feet). The intersection of Adams and Main Street is also the planned location for a public plaza. The design of Adams Street should anticipate, and if possible, introduce elements of the future plaza.

Prepared By: Jason Rice/Gary Parkin **Date:** 4/25/12 **Project No:**



City of Milwaukie Capital Improvement Plan

Lake Road Safe Routes to School

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Design	60,000					60,000
Right-of-Way	10,000					10,000
Construction	164,000					164,000
Total Estimated Capital Cost	234,000					234,000

Revenue Source:		
ODOT Grant	234,000	234,000
Total Estimated Revenue	234,000	234,000

Description: This project extends sidewalk improvements from Where Else Lane to Freeman. Funding is from a partial grant awarded by ODOT last year.

Prepared By: Jason Rice/Gary Parkin	Date: 4/25/12	Project No:
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City of Milwaukie Capital Improvement Plan

Union Pacific Mainline Railroad Quiet Zone

	09/10	10/11	11/12	12/13	13/14	Total
Capital Cost:						
Planning, Engineering, Design	5,000	5,000				10,000
Land/Right-of-Way			18,000			18,000
Permit (UP)			22,000	15,000		37,000
Construction			95,000	200,000		295,000
Contingency			15,000	25,000		40,000
Total Estimated Capital Cost	5,000	5,000	150,000	240,000		400,000
Revenue Source:						
Transportation Fund (Gas Tax)				140,000		140,000
Transportation Fund (FILO)	5,000	5,000				10,000
Transportation SDC Fund (reimb)			50,000	50,000		100,000
Community Dev Block Grant			100,000			100,000
SSMP (part of Harrison paving)			0	50,000		50,000
Total Estimated Revenue	5,000	5,000	150,000	240,000		400,000

Description:

Railroad crossing improvements to silence trains on the UPRR mainline. Channelization and road improvements to City streets at Harrison Street, Oak Street, and 37th Avenue crossings. Harrison Street improvements include sidewalks, and roadway center median barriers. Oak Street improvements include turn restrictions and roadway median barriers. 37th Avenue improvements include re-alignment of the 37th Avenue and Railroad Avenue intersection with roadway median barriers and turn restrictions.

The project requires permitting through ODOT Rail, Federal Railroad Administration (FRA), and UPRR. The permit process is underway. The quiet zone application received approval from FRA in March 2011. ODOT Rail Crossing Orders have been received for the sidewalk on Harrison. The next steps are to purchase right of way, construct sidewalk improvements, complete detailed center median designs (permit from UPRR), repave street area each side of track crossing, construct center medians and install signage. This project will be constructed as funds are available, Harrison Street crossing first to coincide with Water, SSMP projects and CDBG funding.

The CDBG funding is for pedestrian improvements along Harrison Street only. SSMP money is for street surfacing only in conjunction with Harrison Street paving. FILO funds or other available funding will be used to complete the project.

Prepared By: Hemmen/Parkin

Date: 3/28/12

Project No: 0193-1
0193-2



City of Milwaukie Capital Improvement Plan

Walk Safely Milwaukie Program

	10/11	11/12	12/13	13/14	14/15	Total
Capital Cost:						
Planning, Engineering, Design Land/Right-of-Way	8,000	10,000				18,000
Construction Contingency	650	146,350	100,000	100,000 *		347,000
Total Estimated Capital Cost	8,650	156,350	100,000			365,000

Revenue Source:						
State Gas Tax Cap. Projects	650	146,350	100,000	100,000 *		347,000
Engineering- Prof Services	8,000	10,000				18,000
Total Estimated Revenue	8,650	156,350	100,000			365,000

Description:
Milwaukie City Council Resolution 83-2010 enacted a three-year Pilot WSMP. WSMP makes funds available for capital projects and educational/awareness initiatives designed to improve the walkability of the community. * FY13/14 is shown with the assumption that this program or a similar one will continue beyond the three-year pilot.

Prepared By: Jason Rice/Gary Parkin **Date:** 3/28/12 **Project No:** 0264



City of Milwaukie Capital Improvement Plan

17th Ave. Pedestrian Improvements

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Design and Right-of-Way Services	1,010,906					1,010,906
Construction		2,000,000				2,000,000
Total Estimated Capital Cost	1,010,906	2,000,000	0	0	0	3,010,906
Revenue Source:						
FILO	62,400					62,400
Street SDC's	48,506					48,506
METRO Grant	900,000	2,000,000				900,000
Total Estimated Revenue	1,010,906	2,000,000	0	0	0	1,010,906

Description: Bike/Ped grant to provide connection from Waterfront park/Trolley trail to Springwater trail.

Prepared By: Jason Rice/Gary Parkin **Date:** 3/28/12 **Project No:**



City of Milwaukie Capital Improvement Plan

School Zone Implementation

	Fiscal Years					Total
	10/11	11/12	12/13	13/14	14/15	
Capital Cost:						
Construction	17,000	18,000	25,000			60,000
Contingency						
Total Estimated Capital Cost	17,000	18,000	25,000	0	0	60,000
Revenue Source:						
State Gas Tax Cap. Projects	6,000		25,000			31,000
Bike Path Projects	11,000	18,000				29,000
Total Estimated Revenue	17,000	18,000	25,000	0	0	60,000

Description:

Standardize school zone signage in Milwaukie. The electronic components were recently upgraded for all of the School Zone Flashing Beacons. Relocation of several signs to occur over the next two years. There are 5 sets of Flashing Beacons in the City currently located on: Linwood Avenue, Lake Road, Washington Street, 32nd Avenue, and Monroe Street. The western most Washington sign is to be relocated the last year. The Monroe Street beacons are to be relocated to Lake Road near Milwaukie High School and Milwaukie Elementary School during the last year.

Prepared By: Hemmen/Parkin **Date:** 5/12/11 **Project No:** 0149



City of Milwaukie Capital Improvement Plan

Harrison Street Phase II (McLoughlin Blvd. to Campbell Street)

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction		555,000				555,000
Contingency						0
						0
Total Estimated Capital Cost	0	555,000	0	0	0	555,000
Revenue Source:						
SSMP (Fund 320)		555,000				555,000
						0
						0
						0
Total Estimated Revenue	0	555,000	0	0	0	555,000

Description:
 The state of Harrison Street's repair has risen to complete reconstruction. To do so, all pavement will be removed, problem areas will be addressed by over excavating and the road base will be treated with cement (CTB) to control compaction. Once the CTB has cured, the full road width between McLoughlin Blvd. and HWY 224 will be paved.

Prepared By: Jason Rice **Date:** January 19, 2012 **Project No:**

City of Milwaukie Capital Improvement Plan

Monroe Street Phase I Reconstruction (Railroad Avenue to 60th Avenue)

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design Land/Right-of-Way Construction Contingency	800,000					800,000
Total Estimated Capital Cost	800,000					800,000
Revenue Source:						
SSMP (Fund 320)	800,000					800,000
Total Estimated Revenue	800,000					800,000

Description:
 The condition of Monroe Street's pavement is poor and a complete reconstruction is required. To do so, all pavement will be removed, the road base will be treated with cement (CTB) to control compaction. Once the CTB has been placed, the full road width between Railroad Avenue and 60th Avenue will be paved.

Prepared By: Jason Rice **Date:** January 19, 2012 **Project No:**



City of Milwaukie Capital Improvement Plan

Main Street Rehabilitation (Harrison Street to Washington Street)

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction		300,000				300,000
Contingency						0
						0
Total Estimated Capital Cost	0	300,000	0	0	0	300,000
Revenue Source:						
SSMP (Fund 320)		300,000				300,000
						0
						0
						0
Total Estimated Revenue	0	300,000	0	0	0	300,000

Description:
 Main Street will be repaired by rehabilitation. To accomplish this rehabilitation, approximately 2-4 inches of the street surface will be ground out and replaced with a new surface.

Prepared By: Jason Rice **Date:** January 19, 2012 **Project No:**



City of Milwaukie Capital Improvement Plan

Harrison Street Reconstruction Phase I (Campbell Street – 42nd Ave)

	Fiscal Years					Total
	11/12	12/13	13/14	14/15	15/16	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	460,000	555,000				555,000
Contingency						0
						0
Total Estimated Capital Cost	0	555,000	0	0	0	555,000
Revenue Source:						
SSMP	460,000	555,000				555,000
						0
						0
						0
Total Estimated Revenue	0	555,000	0	0	0	555,000

Description:
 This project was part of the Street Surface Maintenance Program (SSMP) schedule for fiscal year 2012, but has been shifted to fiscal year 2013. Work generally consists of the reconstruction of Harrison Street from Campbell Street to 42nd Avenue. The asphalt area to be reconstructed is approximately 10,000 square yards. The cement-treated base method will be used for structural strength. This project is the first phase of two phases. Project construction is scheduled for July 2012 after the water replacement project 0285-1 is complete. Paving on either side of rail crossing will be done in conjunction with the Quiet Zone project (0193-1).

Prepared By: Jason Rice	Date: 2/1/2012	Project No: 0083-1
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City of Milwaukie Capital Improvement Plan

SSMP Preventative Maintenance

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	65,000	65,000	65,000	65,000	65,000	325,000
Contingency						0
						0
<i>Total Estimated Capital Cost</i>	65,000	65,000	65,000	65,000	65,000	325,000
Revenue Source:						
SSMP	65,000	65,000	65,000	65,000	65,000	325,000
						0
						0
						0
<i>Total Estimated Revenue</i>	65,000	65,000	65,000	65,000	65,000	325,000

Description:
 The purpose of this program is to address streets with “good” pavement and apply inexpensive maintenance treatments such as crack and surface seals to keep them in good condition. These types of treatments can extend the life of a pavement by correcting minor faults and reduce further deterioration. Currently 40% of the City’s pavement network would benefit from this type of treatment.

Prepared By: Jason Rice	Date: January 12, 2012	Project No:
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WASTEWATER DIVISION

BN 2013-2014

System Description:

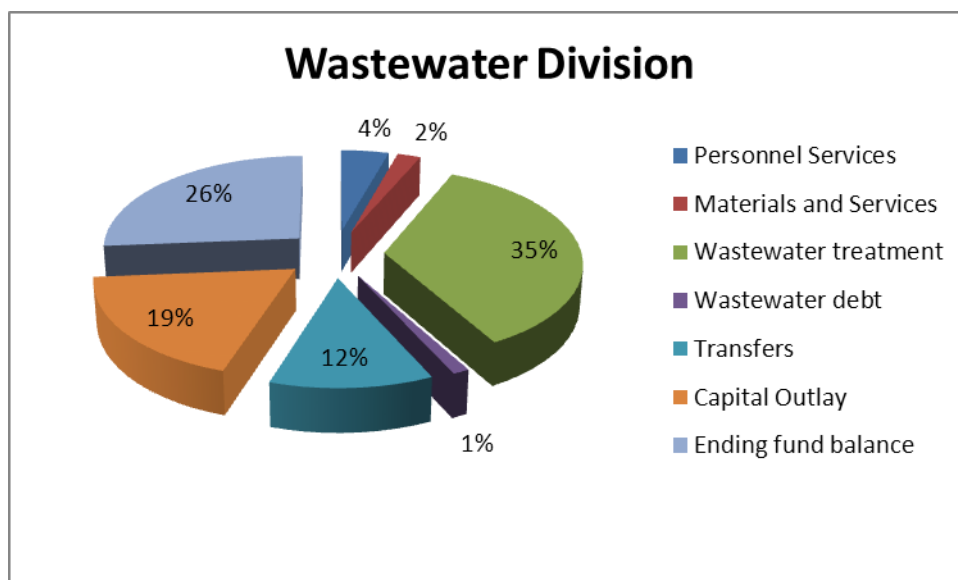
The City's wastewater system consists of approximately 396,000 feet (75 miles) of pipe, 1615 manholes and 5 raw sewage pumping stations. City Engineering and Operations staff is responsible for pipe and manhole replacement and construction, routine maintenance and inspection, system inventory, emergency call-outs, and flow monitoring. Treatment for the City's 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. The City and the County are in the process of working out an agreement to specify the terms of the treatment contract.

Wastewater system capital needs include funding for the Wastewater Main Repair Program (WWMRP), Clay Pipe Replacement Program, and the Manhole Replacement / Rehabilitation Program. The recently adopted 2010 Wastewater Master Plan recommends a yearly WWMRP budget of \$100,000. 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 over the next 10 years. The estimated funding required per year is \$530,000. The Manhole Replacement / Rehabilitation Program's goal, similar to the Clay Pipe Replacement Program, is to replace or rehabilitate all manholes over a period of 150 years. The required funding per year for this program to reach this goal is \$50,000. The requested rate increases reflect the needed funding to continue these programs at full funding over the next 5 years.

Recently completed projects and projects underway:

A update of the Wastewater Master Plan was adopted last year. Project recommendations made by this master plan update are integrated into the capital improvement plan. The NESE project completed construction in 2010. The \$4 million dollar project was mostly funded by a low-cost loan from the EPA. That debt is serviced at about \$100,000 annually and is offset by the connection receipts as properties in the project's reimbursement district annex to the City and connect to the sewer system.

Projects underway include the Harrison Street and Washington Street Light Rail wastewater main replacement projects. These replacement projects are being constructed by TriMet's contractor for the Light Rail Project. Other projects underway include a wastewater pipe replacement project crossing Highway 99E at Hanna Harvester and three small pipe replacement projects throughout the City.



WASTEWATER DIVISION PRIORITY PROJECTS

FY	Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	COST	TOTAL PER FY
2013	0266	Wastewater Main Repair Program	2010 Wastewater Master Plan. Master Plan Project #1, 3, 4, 7	\$ 110,000	\$ 1,507,000
	0315	Harrison Street LRT Crossing Replacement (215 ft. Milwaukie / 230 ft. Light Rail)	Clay Pipe Replacement associated with Light Rail Construction (does not include TriMet share)	\$ 62,000	
	0316	Monroe Street LRT Crossing Replacement (300 ft. Milwaukie / 305 ft. Light Rail)	Clay Pipe Replacement Associated with Light Rail Construction (does not include TriMet share)	\$ 110,000	
	NEW	Pipe Replacement for Light Rail and SSMP	Replacement of pipe prior to upcoming Light Rail and SSMP Projects	\$ 1,225,000	
2014	0272	Brookside Forcemain Extension	2010 Wastewater Master Plan. (100% SDC Eligible)	\$ 450,000	\$ 1,130,000
	0321	Clay Pipe Replacement Program	Program to replace 21,218 feet of clay pipe over 10 years (Mainline Value = \$250/LF)	\$ 530,000	
	0266	Wastewater Main Repair Program	2010 Wastewater Master Plan	\$ 100,000	
	0320	Wastewater Manhole Replacement/Rehab Program	Program to replace/rehab 1859 manholes over 150 years (Manhole Value = \$4,000/EA)	\$ 50,000	
2015	0266	Wastewater Main Repair Program	2010 Wastewater Master Plan	\$ 100,000	\$ 680,000
	0320	Wastewater Manhole Replacement/Rehab Program	Program to replace/rehab 1859 manholes over 150 years (Manhole Value = \$4,000/EA)	\$ 50,000	
	0321	Clay Pipe Replacement Program	Program to replace 21,218 feet of clay pipe over 10 years (Mainline Value = \$250/LF)	\$ 530,000	
2016	0266	Wastewater Main Repair Program	2010 Wastewater Master Plan	\$ 100,000	\$ 680,000
	0320	Wastewater Manhole Replacement/Rehab Program	Program to replace/rehab 1859 manholes over 150 years (Manhole Value = \$4,000/EA)	\$ 50,000	
	0321	Clay Pipe Replacement Program	Program to replace 21,218 feet of clay pipe over 10 years (Mainline Value = \$250/LF)	\$ 530,000	
2017	0266	Wastewater Main Repair Program	2010 Wastewater Master Plan	\$ 100,000	\$ 680,000
	0320	Wastewater Manhole Replacement/Rehab Program	Program to replace/rehab 1859 manholes over 150 years (Manhole Value = \$4,000/EA)	\$ 50,000	
	0321	Clay Pipe Replacement Program	Program to replace 21,218 feet of clay pipe over 10 years (Mainline Value = \$250/LF)	\$ 530,000	
FUTURE	N/A	Concrete Sewer Line Replacement	Each year beginning in 2022. 326,601 feet replaced over 75 years (Mainline Value = \$250/LF)	\$ 1,088,000	
	N/A	Johnson Creek Blvd. (45th to 55th)	2010 Wastewater Master Plan	\$ 750,000	
	N/A	Johnson Creek Siphon	2010 Wastewater Master Plan	\$ 750,000	
	N/A	Jefferson Stret Siphon	2010 Wastewater Master Plan	\$ 800,000	
				5 YEAR TOTAL	\$ 4,677,000

FY 2012-2013		WASTEWATER BUDGET SUMMARY										
Project Number	Project Name	WASTEWATER FUNDS		OTHER FUNDING SOURCES						TOTAL PER PROJECT	Notes	
		WW	SDC	TriMet								
0266	Wastewater Main Repair Program	\$ 110,000									110,000	
0315	Harrison Street LRT Crossing Replacement	\$ 62,000		\$ 58,000							120,000	City share (\$62,000) to be paid to TriMet
0316	Monroe Street LRT Crossing Replacement	\$ 110,000		\$ 110,000							220,000	City share (\$110,000) to be paid to TriMet
NEW	Pipe Replacement for Light Rail and SSMP	\$ 1,225,000	150,000								1,375,000	
											-	
											-	
											-	
	Subtotal for 2012-13:	1,507,000	150,000	168,000	-	-	-	-	-	-	1,825,000	
FY 2013-2014												
0266	Wastewater Main Repair Program	\$ 100,000									100,000	
0321	Clay Pipe Replacement Program	\$ 530,000									530,000	
0272	Brookside Forcemain Extension		450,000								450,000	
0320	Wastewater Manhole Replacement/Rehab Program	\$ 50,000									50,000	
											-	
											-	
											-	
	Subtotal for 2013-14:	680,000	450,000	-	-	-	-	-	-	-	1,130,000	
	TOTALS	\$ 2,187,000	\$ 600,000	\$ 168,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,955,000	

City of Milwaukie Capital Improvement Plan

Pipe Replacement for Light Rail and SSMP

	Biennial Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	1,105,000	0	0	0	0	1,105,000
Contingency	120,000	0	0	0	0	120,000
						0
Total Estimated Capital Cost	1,225,000	0	0	0	0	1,225,000
Revenue Source:						
Wastewater	1,225,000	0	0	0	0	1,225,000
						0
						0
						0
Total Estimated Revenue	1,225,000	0	0	0	0	1,225,000

Description:

This project's goal is to replace aging sewer mainline in streets that will be paved due to Light Rail construction and Harrison Street Reconstruction (SSMP). These pipe replacements will minimize street surface disturbances in the future by replacing aging pipe sections now prior to scheduled paving projects.

Pipe Replacement for Light Rail and SSMP Projects:

Street	From	To
SE 21 st Avenue	Jefferson	Lake
SE 23 rd Avenue	Harrison	Llewellyn
SE 24 th Avenue	Harrison	Llewellyn
SE 28 th Avenue	Harrison	Monroe

Street	From	To
SE 29 th Avenue (South)	Harrison	Monroe
SE 29 th Avenue (North)	Harrison	Cul-de-sac
SE Harrison Street	26 th	29 th
SE Lake Road	Main	23 rd

Prepared By: Matthew Palmer	Date: 4/12/2012	Project No: NEW
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City of Milwaukie Capital Improvement Plan

Brookside Forcemain Extension

	Biennial Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design	0	50,000				50,000
Land/Right-of-Way	0	0				0
Construction	0	350,000				350,000
Contingency	0	50,000				50,000
						0
Total Estimated Capital Cost	0	450,000	0	0	0	450,000
Revenue Source:						
Wastewater	0	0				0
Wastewater SDC	0	450,000				450,000
						0
						0
Total Estimated Revenue	0	450,000	0	0	0	450,000

Description:

Construct a 2900 foot extension of the existing 8" Brookside Forcemain from 100 feet north of SE Wake Court on SE 42nd Avenue (Manhole ID #1131) to the intersection of SE 32nd Avenue and SE Filbert Street (Manhole ID #1046). The existing 15-inch diameter line within SE Filbert Street that conveys flow downstream of the existing forcemain discharge point is operating at or above capacity (based on analysis in the 1994 Wastewater Master Plan). Construction of the forcemain extension will alleviate the capacity issues within SE Filbert Street and will discharge the forcemain flow at a point in the system that has more available capacity. This project is 100% SDC Eligible.

Survey and design for this project will be contracted out to survey and engineering firms to be determined by a proposal-based selection process.

Prepared By: Matthew Palmer	Date: 4/12/2012	Project No: 0272
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City of Milwaukie Capital Improvement Plan

Monroe St. Light Rail Crossing Replacement (300' Milwaukie / 305' Light Rail)

	Biennial Fiscal Years					Total
	11/12	12/13	13/14	14/15	15/16	
Capital Cost:						
Planning, Engineering, Design	0	15,000				15,000
Land/Right-of-Way	0	0				0
Construction	0	190,000				190,000
Contingency	0	15,000				15,000
						0
Total Estimated Capital Cost	0	220,000	0	0	0	220,000
Revenue Source:						
Wastewater	0	110,000				110,000
TriMet	0	110,000				110,000
						0
						0
Total Estimated Revenue	0	220,000	0	0	0	220,000

Description:

Light Rail project to replace 605 feet of vitrified clay pipe (VCP) under and adjacent to the Light Rail Crossing on SE Monroe Street. Of the 605 feet being replaced, the City will pay for 300 feet of VCP replacement. The goal of this project is to coordinate with TriMet to ensure all wastewater infrastructure in this area complies with City Standards prior to Light Rail improvements (i.e., street surface restoration).

Prepared By: Matthew Palmer	Date: 4/12/2012	Project No: 0316
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City of Milwaukie Capital Improvement Plan

Clay Pipe Replacement Program

	Biennial Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	0	477,000	477,000	477,000	477,000	1,908,000
Contingency	0	53,000	53,000	53,000	53,000	212,000
						0
Total Estimated Capital Cost	0	530,000	530,000	530,000	530,000	2,120,000
Revenue Source:						
Wastewater	0	530,000	530,000	530,000	530,000	2,120,000
						0
						0
						0
Total Estimated Revenue	0	530,000	530,000	530,000	530,000	2,120,000

Description:

This program was created to ensure of the replacement of all remaining Vitrified Clay Pipe (VCP) throughout the City over a 10 year period. 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. As of 2010, it was estimated that the City had 21,218 feet of VCP. Based on a replacement cost of \$250 per linear foot, this equates to a total VCP replacement cost of \$5,304,500. Over a 10 year program life, approximately \$530,000 is required per year to meet this goal of full VCP replacement. Sections of VCP that will be replaced will be identified by Engineering staff on an annual basis and will focus strongly on coordination with the Street Surface Maintenance Program schedule and recommendations from the Operations Wastewater Department.

Clay Pipe Replacement (Biennial Fiscal Year 2014) Projects:

Street	From	To	Pipe Length
Main Street	Lake	Jefferson	803 feet
Jefferson Street	Main	21 st	275 feet
21 st Avenue	Jefferson	Jackson	561 feet
			1,639 feet

Prepared By: Matthew Palmer

Date: 4/12/2012

Project No: 0321



City of Milwaukie Capital Improvement Plan

Harrison St. Light Rail Crossing Replacement (215' Milwaukie / 230' Light Rail)

Biennial Fiscal Years

	11/12	12/13	13/14	14/15	15/16	Total
Capital Cost:						
Planning, Engineering, Design	0	18,000				18,000
Land/Right-of-Way	0	0				0
Construction	0	90,000				90,000
Contingency	0	12,000				12,000
						0
Total Estimated Capital Cost	0	120,000	0	0	0	120,000
Revenue Source:						
Wastewater	0	62,000				62,000
TriMet	0	58,000				58,000
						0
						0
Total Estimated Revenue	0	120,000	0	0	0	120,000

Description:

Light Rail project to replace 445 feet of vitrified clay pipe (VCP) under and adjacent to the Light Rail Crossing on SE Harrison Street. Of the 445 feet being replaced, the City will pay for 215 feet of VCP replacement. The goal of this project is to coordinate with TriMet to ensure all wastewater infrastructure in this area complies with City Standards prior to Light Rail improvements (i.e., street surface restoration).

Prepared By: Matthew Palmer

Date: 4/12/2012

Project No: 0315



City of Milwaukie Capital Improvement Plan

Wastewater Main Repair Program

	09/10	10/11	11/12	Biennial Fiscal Year		Total
				12/13	13/14	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	92,372	70,860	120,000	95,500	90,000	468,732
Contingency				14,500	10,000	24,500
						0
Total Estimated Capital Cost	92,372	70,860	120,000	110,000	100,000	493,232
Revenue Source:						
Wastewater	100,000	100,000	120,000	110,000	100,000	530,000
						0
						0
						0
Total Estimated Revenue	100,000	100,000	120,000	110,000	100,000	530,000

Description:

Projects under this program generally consist of replacements where structural or inadequate flow conditions exist and lining of pipes with excessive groundwater infiltration and/or stormwater inflow. Projects are identified based on routine system monitoring and/or maintenance done by the Wastewater Operations Department and projects identified in the 2010 Wastewater Master Plan.

Identified First Year Projects (Biennial Fiscal Year 2014):

Master Plan Project No.	Street	From	To	Description	Length	Estimated Cost
1	Harrison St.	24 th Ave.	23 rd Ave.	Full Replacement	147 ft	\$60,000
3	Hemlock St.	Redwood Ave.	130 Ft. West	Full Replacement	130 ft	\$40,000
4	Ochoco St. at Moores St.	Ochoco St.	Moores St.	Full Replacement	36 ft	\$10,000

Identified Second Year Projects (Biennial Fiscal Year 2014):

Master Plan Project No.	Street	Project Location	Description	Length	Estimated Cost
-	McLoughlin Blvd.	Intersection of 99E and Ochoco	Spot Repair	12 ft	\$35,000
-	Brookside Basin	To Be Determined	Pipe Lining	-	-

Prepared By: Matthew Palmer

Date: 4/12/2012

Project No: 0266



City of Milwaukie Capital Improvement Plan

Wastewater Manhole Replacement/Rehabilitation Program

	Biennial Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design						0
Land/Right-of-Way						0
Construction	0	50,000	50,000	50,000	50,000	200,000
Contingency						0
						0
Total Estimated Capital Cost	0	50,000	50,000	50,000	50,000	200,000
Revenue Source:						
Wastewater	0	50,000	50,000	50,000	50,000	200,000
						0
						0
						0
Total Estimated Revenue	0	50,000	50,000	50,000	50,000	200,000

Description:

This program was created to ensure the replacement of all manholes within the Milwaukie Sewer System over the period of 150 years. Based on an estimated replacement cost of \$4,000 per manhole, the cost to replace all manholes system-wide is \$7,436,000. This spread over 150 years equates to \$50,000 per year. This annual program budget will allow for the replacement of approximately 13 manholes per year. In the case of a manhole having satisfactory structural integrity, manhole rehabilitation (i.e., manhole lining or grouting) will be done in lieu of full manhole replacement. Manholes to be replaced or rehabilitated will be identified by the Engineering Department and Operations Wastewater Department.

Prepared By: Matthew Palmer

Date: 4/12/2012

Project No: 0320



WATER DIVISION

BN 2013-2014

System Description:

The City's 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, 112 miles of pipeline providing potable water to 6800 customer connections over 4 pressure zones.

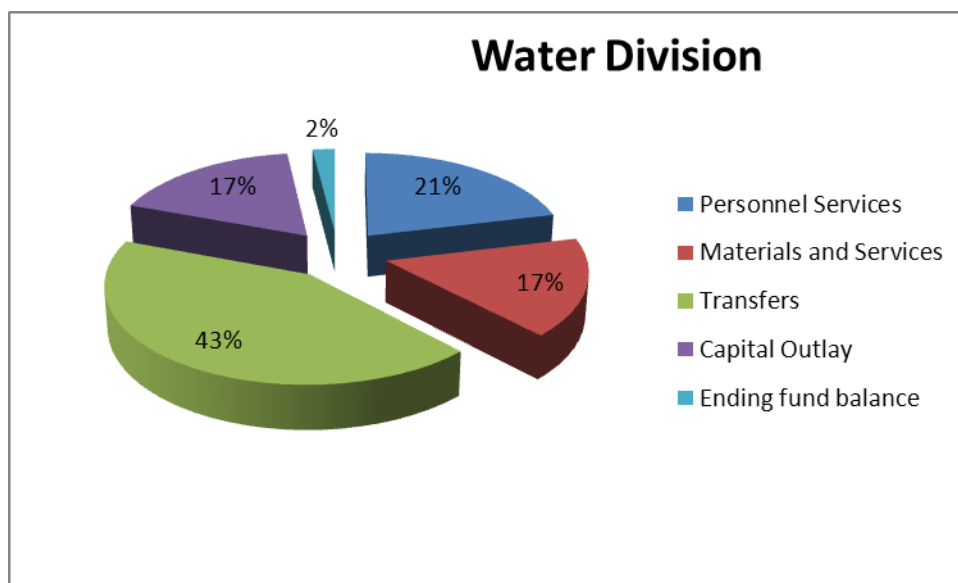
The CIP is based on the project priority determined as part of the recently completed Water Master Plan. The highest priority projects are prioritized by street surface maintenance program schedule, fire flow deficiencies in areas zoned "public", 4" diameter pipe installed before 1960, and 6" diameter pipe installed before 1960. The Master Plan identifies \$20 million dollars in CIP projects to be completed over the next 10 years.

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 the 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 is the minimum necessary to only 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 6 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.

Recently completed projects and projects underway:

Harrison St main replacement (Ph I). This project replaced 3100 feet of 6" & 8" lead joint, cast iron pipeline with 8" ductile iron water main on Harrison Street between Campbell Street and 42nd Avenue.



WATER DIVISION PRIORITY PROJECTS					
FY	Project Numbers	PROJECT DESCRIPTION	PROJECT ORIGATION	COST	TOTAL PER FY
2013	0285-2	Harrison St. Water System Improvements - Phase II (21st Ave - UPRR Crossing)	Replace Lead Joint Main in Advance of SSMP project on Harrison Street	\$ 485,000.00	\$ 485,000
2014	New	McBrod Ave (17th Ave - Ochco St)	Replace Lead Joint Main	\$ 560,000.00	\$ 560,000
2015	0300	17th Avenue (Lava Drive - Ochoco St)	Replace Lead Joint Main	\$ 840,000.00	\$ 840,000
2016	New	Harvey St (32nd Ave - 42nd Ave)	Exist. 4" & 6" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 490,000.00	\$ 918,000
	New	33rd Ave (North End - Harvey St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 88,000.00	
	New	36th Ave (North End - Harvey St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 105,000.00	
	New	42nd Ave (Olsen St - Harvey St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 235,000.00	
2017	New	Riverway Lane (Lava Drive to SE end)	Replacement Priority and Fire Flow Deficiency in 2010 Water Master Plan	\$ 140,000.00	\$ 1,231,159
	New	River Road Pressure Boundary Reconfiguration	Peak Hour Priority Improvement in 2010 Water Master Plan	\$ 160,000.00	
	0304	29th Ave (Van Water St - Roswell St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 123,000.00	
	0307	30th Ave (Van Water St - Roswell St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 123,000.00	
	New	31st Ave (Van Water St - Roswell St)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 123,000.00	
	New	Roswell St (29th Ave - 32nd Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 126,000.00	
	0106	Malcolm St (29th Ave - 32nd Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 126,000.00	
	New	Llewellyn St (32nd Ave - 34th Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 102,000.00	
	New	Milwaukie High School Fire Flow Improvements	Public Area Fire Flow Improvement in 2010 Water Master Plan	\$ 72,403.00	
New	City of Milwaukie Johnson Creek Fire Flow Improvements	Public Area Fire Flow Improvement in 2010 Water Master Plan	\$ 135,756.00		
Future Years	New	32nd Ave (Filbert St - Harrison St)	Exist. 4" & 6" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 600,000.00	
	0107	Olson St (29th Ave - 32nd Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 126,000.00	
	New	Park St (Home Ave - Beckman Ave)	Exist. 6" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 278,000.00	
	New	Beckman Ave (Park St - Railroad Ave)	Exist. 6" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 420,000.00	
	0301	Howe Lane (44th Ave - 46th Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 193,000.00	
	0102	38th Ave & Drake St (38th Ave - 40th Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 193,000.00	
	New	55th Ave & Firwood St (JCB - Stanley Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 417,000.00	
	New	Riverway Lane (Lava Drive to SE end)	Replacement Priority and Fire Flow Deficiency in 2010 Water Master Plan	\$ 140,000.00	
	New	River Road Pressure Boundary Reconfiguration	Peak Hour Priority Improvement in 2010 Water Master Plan	\$ 160,000.00	
	0107	Olson St (29th Ave - 32nd Ave)	Exist. 4" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 126,000.00	
	New	32nd Ave (Filbert St - Harrison St)	Exist. 4" & 6" Pipeline Prior to 1960 in 2010 Water Master Plan	\$ 600,000.00	
5 YEAR TOTAL					\$ 4,034,159

City of Milwaukie Capital Improvement Plan

Harrison St. Water System Improvements Phase II (21st Ave – UPRR Crossing)

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design	10,000					10,000
Land/Right-of-Way						0
Construction	445,000					445,000
Contingency	30,000					30,000
						0
Total Estimated Capital Cost	485,000	0	0	0	0	485,000
Revenue Source:						
Water Capital	404,000					404,000
Water SDC	81,000					81,000
						0
						0
Total Estimated Revenue	485,000	0	0	0	0	485,000

Description:
 Replace 2400 feet of existing 8" lead joint water main with 8" ductile iron water main. This project is not listed in the January 2001 Water System Master Plan as a project. However, the project is needed in preparation for the Harrison Street SSMP project.

Prepared By: Zach Weigel **Date:** 1/19/2012 **Project No:** 0285-2



City of Milwaukie Capital Improvement Plan

McBrod Avenue Water System Improvements (17th Avenue– Ochoco Street)

	Fiscal Years					Total
	12/13	13/14	14/15	15/16	16/17	
Capital Cost:						
Planning, Engineering, Design		15,000				15,000
Land/Right-of-Way						0
Construction		510,000				510,000
Contingency		35,000				35,000
						0
Total Estimated Capital Cost	0	560,000	0	0	0	560,000
Revenue Source:						
Water Capital		481,000				481,000
Water SDC		79,000				79,000
						0
						0
Total Estimated Revenue	0	560,000	0	0	0	560,000

Description:
 Replace 2850 feet of existing 6" and 8" lead joint water main with 8" and 10" ductile iron water main. This project is not listed in the January 2001 Water System Master Plan as a project. However, the Milwaukie Water Operations Department has identified this project as a high priority due to the high level of continuing maintenance on the lead joint water mains. This project is in preparation for the McBrod Avenue Street Surface Maintenance Project.

Prepared By: Zach Weigel	Date: 1/19/2012	Project No: New
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