

City of Plymouth

Capital Improvement Program 2017-2021

Projects by Department

	Year Identified	2017	2018	2019	2020	2021	Total
Water Resources							
WR-14-0004 Kilmer Park Pond and Stream Restoration	2012	150,000	1,350,000	0	0	0	1,500,000
WR-15-0001 Plymouth Creek Park Stream Restoration	2012	400,000	400,000	0	0	0	800,000
WR-15-0003 Mount Olivet Stream Restoration	2013	0	0	50,000	250,000	0	300,000
WR-15-0004 Chelsea Woods Drainage - Weston Ln. to CR 6	2014	300,000	300,000	0	0	0	600,000
WR-16-0001 Weston Lane Storm Sewer Lift Station Rehab.	2013	0	50,000	500,000	0	0	550,000
WR-16-0002 Plymouth Creek Stream Restoration	2014	0	0	50,000	250,000	0	300,000
WR-16-0003 15th Ave./ Pineview Lane Storm Sewer Replacement	2015	1,520,000	0	0	0	0	1,520,000
WR-16-0004 Quail Ridge 3rd Addition	2016	350,000	0	0	0	0	350,000
WR-17-0001 Wild Wings Western Wetland Improvements	2014	25,000	100,000	100,000	0	0	225,000
WR-17-0002 Wood Creek Tributary - Armstrong H.S. to 34th Ave.	2014	0	0	50,000	300,000	0	350,000
WR-17-0003 Harbor Place Erosion Repair	2016	50,000	200,000	0	0	0	250,000
WR-17-0004 French Ridge Park Drainage Improvement	2016	25,000	100,000	0	0	0	125,000
WR-17-0005 Greentree Forest Drainage Improvement	2017	25,000	250,000	0	0	0	275,000
WR-18-0001 St. Marys Addition Drainage Improvement	2016	0	25,000	125,000	0	0	150,000
WR-19-0001 19th Avenue/Dunkirk Lane Pond Improvement	2016	0	0	50,000	500,000	0	550,000
WR-19-0002 Parkers Lake Park Drainage Improvement	2016	0	0	75,000	300,000	0	375,000
WR-20-0001 Maple Creek Stream Restoration	2016	0	0	0	100,000	750,000	850,000
WR-20-0002 Plymouth Marketplace Drainage Improvement	2017	0	0	0	20,000	80,000	100,000
WR-21-0002 Palmer Creek Estates Stream Restoration	2017	0	0	0	0	100,000	100,000
WR-21-0003 Ponderosa Woods Stream Restoration	2017	0	0	0	0	75,000	75,000
WR-XX-0001 Maintain Water Quality Ponds	2002	125,000	125,000	125,000	125,000	150,000	650,000
WR-XX-0002 Unspecified Drainage Improvement	2004	0	0	0	250,000	250,000	500,000
Total: Water Resources		\$2,970,000	\$2,900,000	\$1,125,000	\$2,095,000	\$1,405,000	\$10,495,000
TOTAL: PUBLIC WORKS		\$22,976,600	\$25,899,600	\$28,939,000	\$15,548,300	\$22,125,964	\$115,489,464
GRAND TOTAL		\$34,761,400	\$31,272,600	\$30,969,000	\$23,353,300	\$22,950,964	\$143,307,264

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-14-0004	Division:	Water Resources
Project Title:	Kilmer Park Pond and Stream Restoration	Year Identified:	2012

Description:

This project would repair erosion that is occurring in an existing drainage way in Kilmer Park. Various methods of repairing erosion will be investigated including installation of storm sewer pipe, bioengineering techniques and rip rap and gabion installation. Project will be coordinated with planned street improvements in the area. A feasibility study completed in 2015 indicates storm sewer pipe installation to direct water to a downstream water quality pond is most effective at a combined flood reduction and water quality improvement.

Justification:

The erosion that is occurring is threatening the stability of a structure. The debris that erodes compromises the capacity of the downstream storm sewer causing the potential for flooding. BCWMC participation in this project will be solicited.

This project will have minimal impact on operating costs.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Construction/Maintenance	150,000	1,350,000				1,500,000
	150,000	1,350,000				1,500,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin	150,000	1,350,000				1,500,000
	150,000	1,350,000				1,500,000

Project Number:	WR-15-0001	Division:	Water Resources
Project Title:	Plymouth Creek Park Stream Restoration	Year Identified:	2012

Description:

This project would repair erosion that is occurring in Plymouth Creek in Plymouth Creek Park. Various methods of repairing erosion will be investigated including installation of storm sewer pipe, bioengineering techniques and rip rap and gabion installation. A feasibility study has been completed by the Bassett Creek Watershed.

Justification:

The erosion that is occurring is threatening the stability of a structure. The debris that erodes compromises the capacity of the downstream storm sewer causing the potential for flooding. BCWMC participation in this project will be solicited.

This project will have minimal impact on operating costs.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Construction/Maintenance	400,000	400,000				800,000
	400,000	400,000				800,000

Funding Sources	2017	2018	2019	2020	2021	Total
Watershed District	400,000	400,000				800,000
	400,000	400,000				800,000

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-15-0003	Division:	Water Resources
Project Title:	Mount Olivet Stream Restoration	Year Identified:	2013

Description:

1,000 feet of stream restoration to repair erosion and reduce total suspended solids (tss) and phosphorous loading to Medicine Lake. Project will be deferred until included in the BCWMC CIP.

Justification:

This project would assist the City in meeting the goals of the Medicine Lake TMDL plan.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design			50,000			50,000
Construction/Maintenance				250,000		250,000
			50,000	250,000		300,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin			50,000	250,000		300,000
			50,000	250,000		300,000

Project Number:	WR-15-0004	Division:	Water Resources
Project Title:	Chelsea Woods Drainage - Weston Ln. to CR 6	Year Identified:	2014

Description:

Poor drainage throughout the Chelsea Woods neighborhood has led to street and property flooding in several areas. This project would inspect/repair/replace storm sewer and improve drainage.

Justification:

Improving the drainage would reduce flooding potential, maintenance costs and could improve water quality.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Construction/Maintenance	300,000	300,000				600,000
	300,000	300,000				600,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin	300,000	300,000				600,000
	300,000	300,000				600,000

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-16-0001	Division:	Water Resources
Project Title:	Weston Lane Storm Sewer Lift Station Rehab.	Year Identified:	2013

Description:

The project would upgrade the Weston Lane storm sewer lift station which is located on Weston Lane north of County Road 6. Project will be deferred until WR-15-0004 is completed.

Justification:

The Weston Lane lift station was constructed in 2005 to address flooding concerns. The lift station currently runs nearly continuously because storm water cycles through the system.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design		50,000				50,000
Construction/Maintenance			500,000			500,000
		50,000	500,000			550,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin		50,000	500,000			550,000
		50,000	500,000			550,000

Project Number:	WR-16-0002	Division:	Water Resources
Project Title:	Plymouth Creek Stream Restoration	Year Identified:	2014

Description:

This project would repair erosion that is occurring in Plymouth Creek from Yuma Lane to Vicksburg Lane. Various methods of repairing erosion will be investigated including installation of storm sewer pipe, bioengineering techniques and rip rap and gabion installation. Project will be deferred until included in the BCWMC CIP.

Justification:

This project would assist in meeting the Medicine Lake TMDL.

This project will have minimal impact on operating costs.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Construction/Maintenance			50,000	250,000		300,000
			50,000	250,000		300,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin			50,000	250,000		300,000
			50,000	250,000		300,000

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-17-0001	Division:	Water Resources
Project Title:	Wild Wings Western Wetland Improvements	Year Identified:	2014

Description:

This project would provide improved flow and flood protection near the northeast corner of Zachary Lane and Schmidt Lake Road.

Justification:

Routine maintenance is required at the outlets and outfalls of this wetland.

This project will have minimal impact on operating costs.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design	25,000					25,000
Construction/Maintenance		100,000	100,000			200,000
	25,000	100,000	100,000			225,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin	25,000	100,000	100,000			225,000
	25,000	100,000	100,000			225,000

Project Number:	WR-17-0002	Division:	Water Resources
Project Title:	Wood Creek Tributary - Armstrong H.S. to 34th Ave.	Year Identified:	2014

Description:

This project would repair erosion and reduce debris in a drainage way from Armstrong H.S. and 34th Avenue. Project will be deferred until included in the BCWMC CIP.

Justification:

Frequent inspections are currently required to prevent flooding.

This project will have minimal impact on operating costs.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design			50,000			50,000
Construction/Maintenance				300,000		300,000
			50,000	300,000		350,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin			50,000	300,000		350,000
			50,000	300,000		350,000

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-17-0005	Division:	Water Resources
Project Title:	Greentree Forest Drainage Improvement	Year Identified:	2017

Description:

This project will improve drainage within the rear yards of 18520-18620 29th Avenue North and 18515-2905 30th Avenue North. Installation of new storm sewer to a nearby pond, a new pond outlet where none currently exists, and new storm sewer from the pond to Xanthus Lane will be investigated.

Justification:

Currently, several properties experience regular flooding of rear yards. Some of the drainage in the area is coming from 30th Avenue North. Drainage and flood protection are essential elements of the current Surface Water Management Plan.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design	25,000					25,000
Construction/Maintenance		250,000				250,000
	25,000	250,000				275,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin	25,000	250,000				275,000
	25,000	250,000				275,000

Project Number:	WR-18-0001	Division:	Water Resources
Project Title:	St. Marys Addition Drainage Improvement	Year Identified:	2016

Description:

This project would either dredge accumulated sediment or install storm sewer to improve outflow from an existing wetland and reduce flooding potential.

Justification:

Improving the drainage would reduce flooding potential, maintenance costs and could improve water quality.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design		25,000				25,000
Construction/Maintenance			125,000			125,000
		25,000	125,000			150,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin		25,000	125,000			150,000
		25,000	125,000			150,000

City of Plymouth Capital Improvement Program 2017-2021 Project Summary

Project Number:	WR-21-0002	Division:	Water Resources
Project Title:	Palmer Creek Estates Stream Restoration	Year Identified:	2017

Description:

Erosion along a stream/drainage way within the Palmer Creek Estates subdivision may be causing drainage to leave existing easement and is contributing nutrients to downstream Bass Lake, a State listed impaired water. Construction cost estimated at \$350,000 should be added in the year 2022 in the 2018-2022 CIP.

Justification:

This proposed stream restoration would repair erosion, ensure drainage is within designated easements, and would reduce nutrient loading to Bass Lake. Water quality improvements is a goal of the Surface Water Management Plan and is required as part of the Bass Lake TMDL.

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design					100,000	100,000
					100,000	100,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin					100,000	100,000
					100,000	100,000

Project Number:	WR-21-0003	Division:	Water Resources
Project Title:	Ponderosa Woods Stream Restoration	Year Identified:	2017

Description:

This project would repair stream erosion within a drainageway in the Ponderosa Woods and Medicine Lake Estates subdivisions. An estimated \$400,000 would need to be included in 2022 for construction.

Justification:

The project would assist in meeting the goals of the Medicine Lake TMDL. It would also assist in meeting water quality goals of the Surface Water Management Plan

Project Forecast

Description	2017	2018	2019	2020	2021	Total
Planning/Design					75,000	75,000
					75,000	75,000

Funding Sources	2017	2018	2019	2020	2021	Total
Water Resources - Admin					75,000	75,000
					75,000	75,000