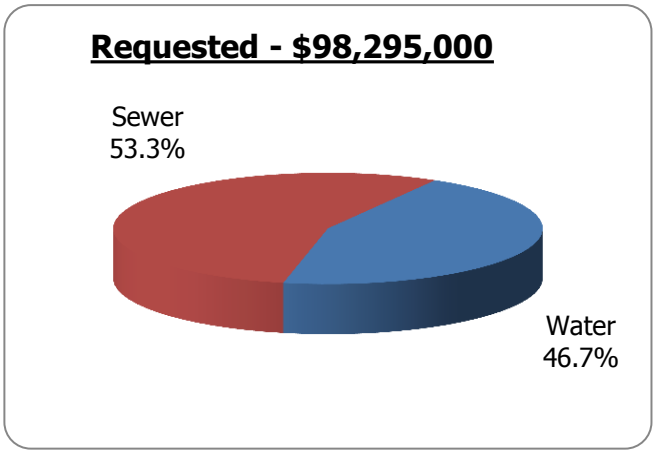
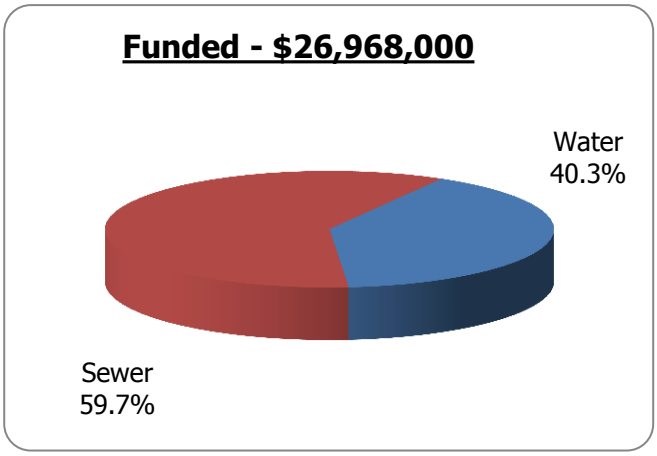
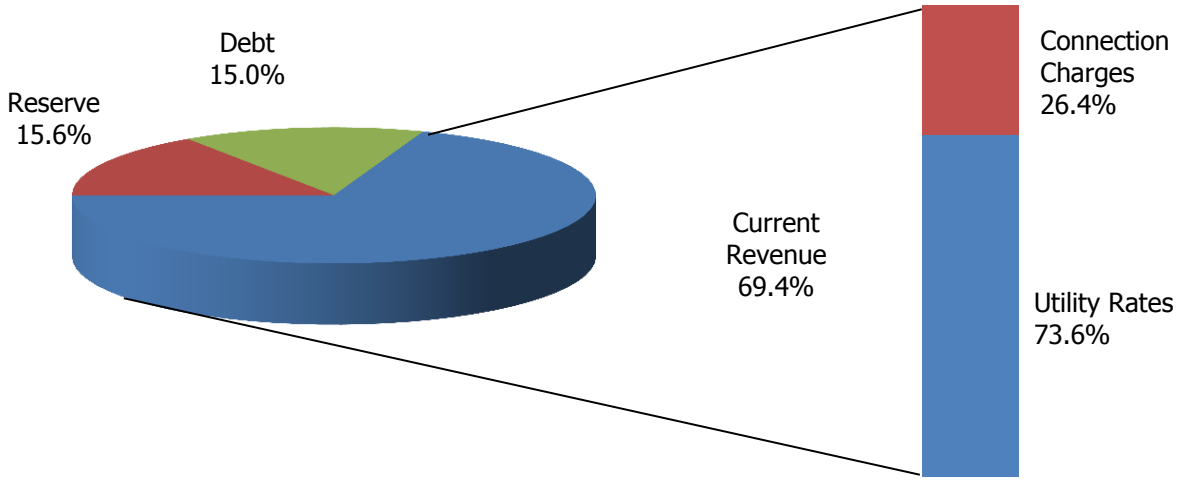
Utilities
Water and Sewer





Funding Sources



Utility Funding - $26,968,000

Average Annual Current Revenues
Utility Rates -- $2,408,000
Connection Charges -- $865,000
Total Average Annual Revenue -- $3,273,000

City of Kirkland
2013-2018 Capital Improvement Program

WATER/SEWER UTILITY PROJECTS

Funded Projects:

Project Number	Project Title	Prior Year(s)	2013	2014	2015	2016	2017	2018	2013-18 Total	Funding Source: Current Revenue	Reserve	Debt	External Source
WA 0090	Emergency Sewer Pgm Watermain Replacement Pgm		50,000		50,000		50,000		150,000	150,000			
WA 0102*	104th Ave NE Watermain Replacement						974,500		974,500	974,500			
WA 0116	NE 80th Street Watermain Replacement (Phase II)		442,000	2,394,400					2,836,400	869,000		1,967,400	
WA 0121	NE 109th Ave/106th Court NE Watermain Replacement	215,000	156,300						156,300	156,300			
WA 0134+	***5th Ave S / 8th St S Watermain Replacement***							850,000	***850,000***	***850,000***			
WA 0139+	***6th Street S Watermain Replacement***				***671,000***				***671,000***	***671,000***			
WA 0140*+	NE 85th Street Watermain Replacement	626,000	2,413,000						2,413,000	2,413,000			
WA 0145	***Kirkland Avenue/6th Street S Watermain Replacement***					***755,000***			***755,000***	755,000			
WA 0148	***Park Lane Watermain Replacement***		***62,000***	***235,000***					***297,000***	***297,000***			
WA 8888*	Annual Watermain Replacement Program						385,000	385,000	770,000	770,000			
WA 9999*	Annual Water Pump Station/System Upgrade Pgm				222,000		385,000	385,000	992,000	992,000			
SS 0056	Emergency Sewer Construction Program		922,000	478,000	969,000	431,000	950,000	450,000	4,200,000		4,200,000		
SS 0064*+	7th Avenue South Sewermain Replacement			-		593,000	1,053,000		1,646,000	1,646,000			
SS 0067*	NE 80th Street Sewermain Replacement (Phase II)		600,000	1,836,000					2,436,000	365,400		2,070,600	
SS 0073*+	Rose Point Sewer Lift Station Replacement			944,400	1,343,000				2,287,400	2,287,400			
SS 0078	***5th Avenue S Sewermain Replacement***			***188,900***	***38,000***				***226,900***	***226,900***			
SS 0079	***3rd Avenue S & 2nd Street S Sewermain Replacement***			***-***	***487,000***	***740,000***			***1,227,000***	***1,227,000***			
SS 0080	***20th Avenue Sewermain Replacement***							812,000	***812,000***	***812,000***			
SS 0081	***7th / 8th Avenue West Alley Sewermain Replacement***		***354,000***					-	***354,000***	***354,000***			
SS 8888*	Annual Sanitary Pipeline Replacement Program				446,500	377,000	213,000	441,000	1,477,500	1,477,500			
SS 9999*	Annual Sanitary Pump Station/System Upgrade Pgm				446,500	377,000	212,500	400,000	1,436,000	1,436,000			
Total Funded Water/Sewer Utility Projects		**841,000**	**4,999,300**	**6,076,700**	**4,673,000**	**3,273,000**	**4,223,000**	**3,723,000**	**26,968,000**	**18,730,000**	**4,200,000**	**4,038,000**	**0**

City of Kirkland
2013-2018 Capital Improvement Program

WATER/SEWER UTILITY PROJECTS

Unfunded Projects:

Project Number	Project Title	Total
WA 0052	108th Avenue NE Watermain Replacement	1,584,000
WA 0057	116th Avenue NE Watermain Replacement	2,731,000
WA 0067#	North Reservoir Pump Replacement	611,000
WA 0096	NE 83rd Street Watermain Replacement	450,000
WA 0097	NE 80th Street Watermain Replacement (Phase III)	1,386,000
WA 0098	126th Ave NE/NE 83rd & 84th St/128th Ave NE Watermain Replacement	1,197,000
WA 0103^	NE 113th Place/106th Ave NE Watermain Replacement	841,000
WA 0104	111th Ave NE/NE 62nd St-NE 64th St Watermain Replacement	1,493,000
WA 0108	109th Ave NE/NE 58th St Watermain Replacement	504,000
WA 0109	112th Ave NE Watermain Replacement	1,179,000
WA 0111	NE 45th St And 110th/111th Ave NE Watermain Replacement	1,303,000
WA 0113	116th Ave NE/NE 70th-NE 80th St Watermain Replacement	2,222,100
WA 0118^	112th -114th Avenue NE/NE 67th-68th Street Watermain Replacement	3,360,100
WA 0119	109th Ave NE/111th Way NE Watermain Replacement	2,304,000
WA 0120^	111th Avenue Watermain Replacement	182,000
WA 0122	116th Avenue NE/NE 100th Street Watermain Replacement	1,506,000
WA 0123	NE 91st Street Watermain Replacement	453,000
WA 0124^	NE 97th Street Watermain Replacement	685,000
WA 0126#	North Reservoir Outlet Meter Addition	72,300
WA 0127#	650 Booster Pump Station	1,603,000
WA 0128	106th Ave NE-110th Ave NE/NE 116th St-NE 120th St Watermain Replacement	2,305,000
WA 0129	South Reservoir Recoating	981,000
WA 0130^	11th Place Watermain Replacement	339,000
WA 0131#	Supply Station #1 Improvements	61,500
WA 0132	7th Avenue/Central Avenue Watermain Replacement	907,000
WA 0133	Kirkland Avenue Watermain Replacement	446,000
WA 0135	NE 75th Street Watermain Replacement	711,000
WA 0136^	NE 74th Street Watermain Replacement	193,000
WA 0137^	NE 73rd Street Watermain Replacement	660,000
WA 0138	NE 72nd St/130th Ave NE Watermain Replacement	1,476,000
WA 0146^	***6th Street/Kirkland Way Watermain Replacement***	***693,000***
WA 0147^	***106th Avenue NE from NE 60th Street to NE 68th Street***	***661,500***
SS 0051	6th Street South Sewermain Replacement	804,000
SS 0052	108th Avenue NE Sewermain Replacement	5,110,000
SS 0062^	NE 108th Street Sewermain Replacement/Rehabilitation	4,405,000
SS 0068	124th Avenue NE Sewermain Replacement	1,315,000
SS 0069	1st Street Sewermain Replacement	3,945,000
SS 0070	5th Street Sewermain Replacement	1,354,000
SS 0071	6th Street Sewermain Replacement	308,000
SS 0072	Kirkland Avenue Sewermain Replacement	1,980,000
SS 0077	West Of Market Sewermain Replacement	21,681,000
Subtotal Unfunded Water/Sewer Utility Projects		**76,002,500**
Funding Available from Annual Programs for Candidate Projects		***4,675,500***
Net Unfunded Water/Sewer Utility Projects		**71,327,000**

Prior Year(s) Funding (Budget to Actuals):

Project Number	Project Title	Budget	Actual	Balance
WA 0121	NE 109th Ave/106th Court NE Watermain Replacement	215,000	0	215,000
Total Prior Year(s) Funding (Budget to Actuals):		**215,000**	**0**	**215,000**

Notes
* = Modification in timing and/or cost (see Project Modification Schedule for greater detail)
+ = Moved from unfunded status to funded status

" = Moved from funded status to unfunded status
^ = Annual Watermain or Sanitary Pipeline Replacement Program Project Candidates
# = Annual Pump Station/System Upgrade Program Project Candidates
Shaded year(s) = Previous timing
Bold italics = New projects

CITY OF KIRKLAND
2013-2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT SUMMARY

WATER AND SEWER UTILITIES - Water

WA 0090 000 **EMERGENCY SEWER PROGRAM WATERMAIN REPLACEMENT PROGRAM**

City-wide

The replacement of existing watermain and water system appurtenances on an as-needed basis to coincide with the biennial Emergency Sewer Program project.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$150,000	$0	$150,000

WA 0102 000 **104TH AVE NE WATERMAIN REPLACEMENT**

South Juanita

Replacement of approximately 1,600 linear feet of 4-inch AC line with new 8-inch ductile iron pipe on 104th Avenue NE between NE 108th Street and NE 113th Street. Cost includes half-street overlay.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2017	$0	$974,500	$0	$974,500

WA 0116 000 **NE 80TH STREET WATERMAIN REPLACEMENT (PHASE 2)**

South Rose Hill

This Phase 2 improvement consist of replacing approximately 2,550 lineal feet of existing watermain with 20-inch ductile iron pipe on NE 80th St, from the eastern terminus of a completed (2008) Phase 1 project to 132nd Ave NE. Also includes approximate 280 feet of 8-inch water main for lateral connections, all associated fire hydrants and water services, etc. This Phase 2 improvement also includes 315 lineal feet of 20-inch, 790 lineal feet of 12-inch, and 120 lineal feet of 8-inch ductile iron pipe on NE 80th St from approximately 116th Ave NE to 270 feet east to the western terminus of the completed Phase 1 improvements. The project shares the cost of the ACP overlay with NE 80th Street Phase 2 sewer improvements under SS0067. This installation is to service the 545 gradient zone.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2013	$0	$2,836,400	$0	$2,836,400

WA 0121 000 **NE 109TH STREET/106TH COURT NE WATERMAIN REPLACEMENT**

South Juanita

Replacement of approximately 884 linear feet of 4-inch AC line with new 8-inch ductile iron pipe along NE 109th Street, between 104th Avenue NE and beyond 106th Court NE, and on 106th Court NE from NE 109th Street to the end of the street.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2012	$215,000	$156,300	$0	$371,300

WA 0134 000 **5TH AVENUE S/8TH STREET S WATERMAIN REPLACEMENT**

Everest

Replacement of approximately 2,170 linear feet of 6-inch AC with new 16-inch ductile iron pipe along 5th Avenue S, between 6th Street S and 8th Street S and on 8th Street S, between 5th Avenue S and Kirkland Avenue.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2017	$0	$850,000	$0	$850,000

WA 0139 000 **6TH STREET SOUTH WATERMAIN REPLACEMENT**

Everest

Replacement of approximately 1,900 linear feet of 8" and 10" AC pipe with new 16" ductile iron pipe along 6th Street S, between 5th Avenue S and NE 68th Street.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2015	$0	$671,000	$0	$671,000

WA 0140 000 **NE 85TH STREET WATERMAIN REPLACEMENT**

South Rose Hill

Replacement of approximately 5,800 lineal feet of 16-inch RCCP transmission watermain with new 24-inch ductile iron pipe along NE 85th Street, from the existing PRV Vault near 114th Ave NE to 132nd Ave NE. Includes the replacement of the existing fire hydrants, existing lateral connections at the intersections of 114th, 120th, 122nd, 124th, 126th, 128th and 132nd Avenues NE.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2012	$626,000	$2,413,000	$0	$3,039,000

WA 0145 000 **KIRKLAND AVENUE/6TH STREET SOUTH WATERMAIN REPLACEMENT**

Moss Bay

Replacement of approximately 2,000 linear feet of 10-inch AC pipe with 1,200 linear feet of new 16-inch ductile iron pipe and 800 linear feet of new 12-inch ductile iron pipe.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2016	$0	$755,000	$0	$755,000

WA 0148 000 **PARK LANE WATERMAIN REPLACEMENT PROJECT**

Moss Bay

Replacement of approximately 800 linear feet of cast iron waterline with 8" ductile iron pipe. Project identified as a companion project and one to constructed only in conjunction with NM 0064 001, Park Land Pedestrian Enhancement Project, in order to minimize business impacts.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2013	$0	$297,000	$0	$297,000

WA 8888 000 **ANNUAL WATERMAIN REPLACEMENT PROGRAM**

City-wide

Replacement of existing watermain and water system appurtenances as required to complete the prioritized watermain projects list contained within the Water Comprehensive Plan Update. Candidate projects under this Annual Program include: WA 0103 - NE 113th Place/106th Ave NE Watermain Replacement, WA 0118 - 112th Avenue NE 114th Avenue NE Watermain Replacement, WA 0120 - 111th Avenue Watermain Replacement, WA 0124 - NE 97th Street Watermain Replacement, WA 0130 - 11th Place Watermain Replacement, WA 0136 - NE 74th Street Watermain Replacement and WA 0137 - NE 73rd Street Watermain Replacement, WA 0146 - 6th Street/Kirkland Way Watermain Replacement, WA 0147 - 106th Avenue NE Watermain Replacement.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$770,000	$0	$770,000

WA 9999 000 **ANNUAL WATER PUMP STATION/SYSTEM UPGRADE PROGRAM**

City-wide

The replacement of existing water system appurtenances as required to complete the prioritized system upgrades list contained within the Water Comprehensive Plan Update. Candidate projects under this Annual Program include: WA 0067 - North Reservoir Pump Station Replacement, WA 0126 - North Reservoir Outlet Meter Addition, WA 0127 - 650 Booster Pump Station and WA 0131 - Supply Station #1 Improvements.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$992,000	$0	$992,000

CITY OF KIRKLAND
2013-2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT SUMMARY

WATER AND SEWER UTILITIES - Sewer

SS 0056 000 **EMERGENCY SEWER CONSTRUCTION PROGRAM**

City-wide

Installation of sewermain extensions to accommodate side sewer connections for properties currently served by septic systems and meeting the program's criteria. City Ordinance No. 3638 directs the need for this project.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$4,200,000	$0	$4,200,000

SS 0064 000 **7TH AVENUE SOUTH SEWERMAIN REPLACEMENT**

Moss Bay

Replace up to 880 linear feet of 6-inch diameter concrete pipe with 8-inch diameter PVC pipe. The existing sewermain downstream of the former PACE chemical plant has severely corroded due to caustic chemicals that were dumped in the line. Re-development of the PACE chemical site may replace portions of this main; however, the remaining sections also need to be replaced. This is a candidate project included as a component of the Annual Sanitary Pipeline Replacement Program Project, SS 8888.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2016	$0	$1,646,000	$0	$1,646,000

SS 0067 000 **NE 80TH STREET SEWERMAIN REPLACEMENT (PHASE 2)**

South Rose Hill

This Phase 2 improvement consists of replacing approximately 1,670 lineal feet of existing sewer main with new 12-inch PVC pipe on NE 80th Street, from the eastern terminus of a completed (2008) Phase 1 project to an existing manhole located in the center of the NE 80th Street/128th Avenue NE intersection. The new 12-inch main will be designed to be below the existing sewer main to allow existing side sewers to stay in service during construction and to allow additional slope on side sewers. The Phase 2 sewer improvements also consist of approximately 1,270 linear feet of 12-inch PVC sewer main on NE 80th Street from an existing manhole in 116th Ave NE (Adjacent to I-405 ROW) to the western terminus of the completed Phase 1 sewer improvements. The Project shares a portion of the cost of the ACP overlay with NE 80th Street Phase 2 water improvements under WA 0116.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2013	$0	$2,436,000	$0	$2,436,000

SS 0073 000 **ROSE POINT SEWER LIFT STATION REPLACEMENT**

Market

Relocation/reconstruction of the existing lift station due to age and insufficient pumping capacity at peak flows during major storm events. The station improvements include a new wetwell/drywell layout compatible with the surrounding area, new system control, new 8-inch overflow line from the new station to adjacent top-of-the Waverly Basin manhole (if feasible), an emergency generator set (if new overflow line is not feasible) and 1,800 linear feet of 8-inch ductile iron or C900 PVC forcemain.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2014	$0	$2,287,400	$0	$2,287,400

SS 0078 000 **5TH AVENUE S SEWERMAIN REPLACEMENT**

Everest

Replace existing 6-inch concrete sewer line with approximately 200 linear feet of 8-inch diameter PVC sewer pipe. Work extends east from the manhole at the intersection of 5th Avenue S to the terminus manhole about 120 feet west of 8th Street S. This right-of-way is unopened to vehicles but contains a pedestrian path.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2014	$0	$226,900	$0	$226,900

SS 0079 000 **3RD AVENUE S / 2ND STREET S SEWERMAIN REPLACEMENT**

Moss Bay

Replace existing 6-inch concrete sewer line with approximately 780 linear feet of 8-inch diameter PVC sewer pipe. Work extends from 234 3rd Avenue S west to 2nd Street S and north to approximately 106 2nd Street S. This project may be a candidate for trenchless technology (pipe lining, pipe bursting, etc.).

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2014	$0	$1,227,000	$0	$1,227,000

SS 0080 000 **20TH AVENUE SEWERMAIN REPLACEMENT**

Norkirk

Replace existing 8-inch sewer line with approximately 365 linear feet of 8-inch diameter PVC sewer pipe. Work extends from 4th Place to 4th Street. Poor soils or trench failures have contributed to shifting sections of sewer main, creating low spots that lead to more frequent maintenance.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2018	$0	$812,000	$0	$812,000

SS 0081 000 **7TH / 8TH AVENUE WEST ALLEY SEWERMAIN REPLACEMENT**

Market

Replace existing 6-inch concrete sewermain with approximately 480 linear feet of 8-inch PVC sewer pipe, including three new shallow manholes. The work limits extend nearly the full length of the existing paved alley right-of-way; the project includes a new alley asphalt overlay.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
2013	$0	$354,000	$0	$354,000

SS 8888 000 **ANNUAL SANITARY PIPELINE REPLACEMENT PROGRAM**

City-wide

Installation of sewermain replacements to improve overall system reliability and to reduce maintenance and I & I (Infiltration and Inflow) costs. Candidate projects under this Annual Program include: SS 0062 - NE 108th St Sewermain Replacement/Rehabilitation, SS 0070 - 5th Street Sewermain Replacement, SS 0069 - 1st Street Sewermain Replacement, SS 0052 - 108th Avenue NE Sewermain Replacement, and SS 0062 - NE 108th Street Sewermain Replacement/Rehabilitation.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$1,477,500	$0	$1,477,500

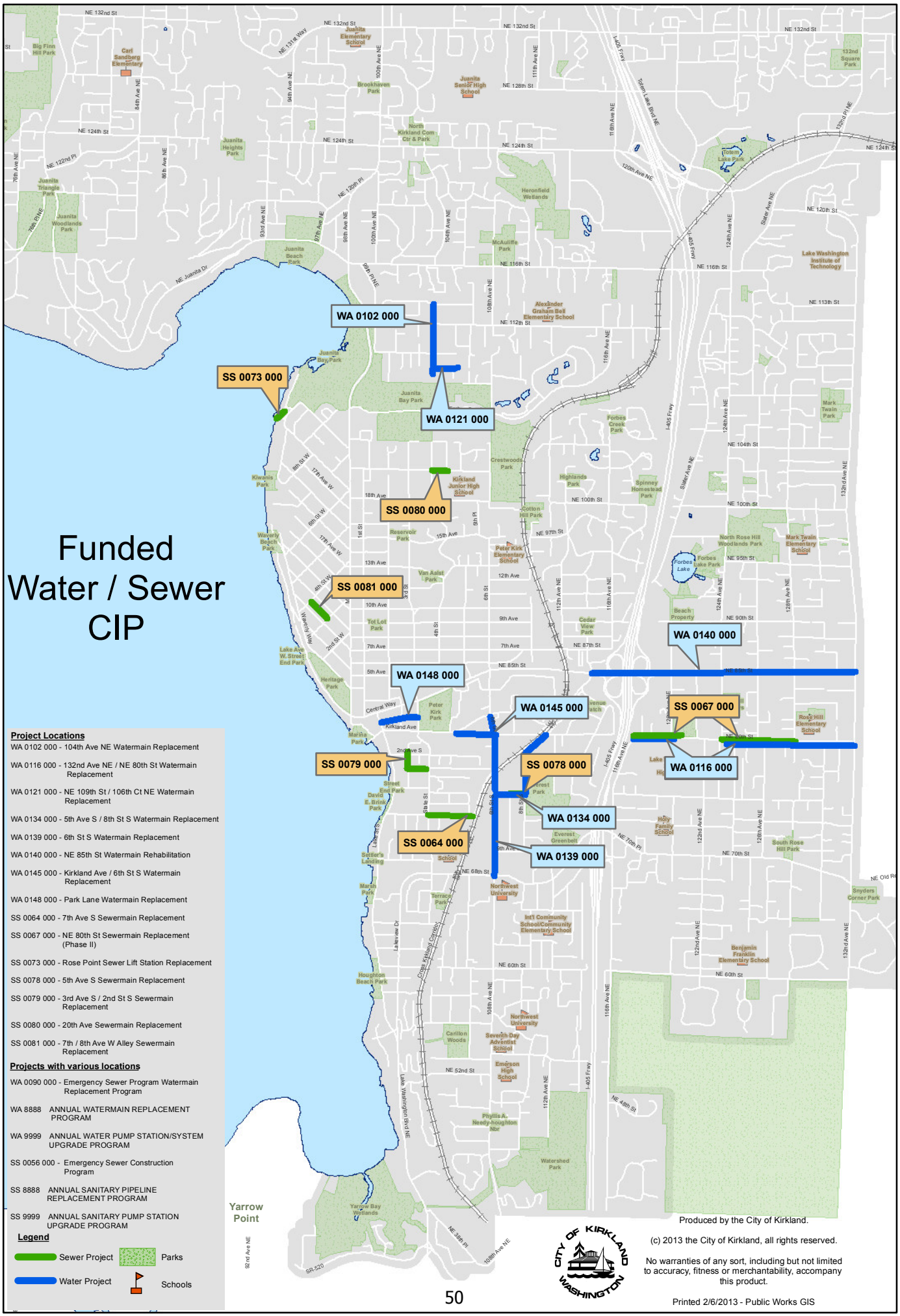
SS 9999 000 **ANNUAL SANITARY PUMP STATION/SYSTEM UPGRADE PROGRAM**

City-wide

Installation of sewer pump station upgrades to improve overall system reliability and to reduce maintenance costs.

PROJECT START	Prior Year(s)	2013-2018 Total	Future Year(s)	TOTAL PROJECT
Ongoing	$0	$1,436,000	$0	$1,436,000

Funded Water / Sewer CIP



Project Locations

WA 0102 000 - 104th Ave NE Watermain Replacement

WA 0116 000 - 132nd Ave NE / NE 80th St Watermain Replacement

WA 0121 000 - NE 109th St / 106th Ct NE Watermain Replacement

WA 0134 000 - 5th Ave S / 8th St S Watermain Replacement

WA 0139 000 - 6th St S Watermain Replacement

WA 0140 000 - NE 85th St Watermain Rehabilitation

WA 0145 000 - Kirkland Ave / 6th St S Watermain Replacement

WA 0148 000 - Park Lane Watermain Replacement

SS 0064 000 - 7th Ave S Sewermain Replacement

SS 0067 000 - NE 80th St Sewermain Replacement (Phase II)

SS 0073 000 - Rose Point Sewer Lift Station Replacement

SS 0078 000 - 5th Ave S Sewermain Replacement

SS 0079 000 - 3rd Ave S / 2nd St S Sewermain Replacement

SS 0080 000 - 20th Ave Sewermain Replacement

SS 0081 000 - 7th / 8th Ave W Alley Sewermain Replacement

Projects with various locations

WA 0090 000 - Emergency Sewer Program Watermain Replacement Program

WA 8888 ANNUAL WATERMAIN REPLACEMENT PROGRAM

WA 9999 ANNUAL WATER PUMP STATION/SYSTEM UPGRADE PROGRAM

SS 0056 000 - Emergency Sewer Construction Program

SS 8888 ANNUAL SANITARY PIPELINE REPLACEMENT PROGRAM

SS 9999 ANNUAL SANITARY PUMP STATION UPGRADE PROGRAM

Legend

Sewer Project

Water Project

Parks

Schools

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