City of
Forest Grove

APPROVED

Capital Improvement Program

2014-2019

May 2014

CITY OF FOREST GROVE

2014-2019 CAPITAL IMPROVEMENTS PROGRAM (CIP)

PURPOSE:

To achieve two primary objectives:

1. Planning for public improvements and capital equipment:
   Coordination with the comprehensive plan will identify infrastructure and public facilities needed to meet the demands of the community. The City can plan for facility improvements and equipment needs on a long-term basis.

2. Identifying funding sources for public improvements and capital equipment:
   The CIP matches anticipated sources to high-priority projects. Therefore, the CIP helps highlight projects for which funding must be secured.

SCOPE:

The Capital Improvements Program provides a five-year plan of public physical improvements and major equipment expenditures. The program is ongoing and revised annually as part of the budget process. Review and approval of the CIP is integrated with the annual budget process. The CIP is reviewed and approved every year by the Budget Committee and City Council. The planned expenditures for the coming fiscal year will be reviewed during the City's annual budget review process and may be subject to revision.

Capital improvements include maintenance, renovation, replacement, new construction or expansion of physical facilities requiring an expenditure of $5,000 or more. This includes cost of land, engineering, architectural planning and contractual services.

The CIP also contains capital equipment expenditures of $5,000 or more. This is equipment having a relatively long period of usefulness (i.e., over 3 years). Examples include fire engines and all city-owned vehicles.

PROGRAM DESCRIPTIONS:

Projects within the Capital Improvements Program are broken into five categories. They include Light and Power Projects; Equipment Fund Projects; Public Works Projects; Public Safety Projects; Culture and Recreation Projects. Each project in the CIP will be budgeted in the fund responsible for managing the project in the annual budget document.

LIGHT AND POWER PROJECTS:

Light and Power projects within this category are for constructing, maintaining, and developing infrastructure relating to the City's Light and Power functions. This category includes substation upgrades due in the upcoming recent years as well as regular ongoing maintenance with vehicles, equipment, and distribution upgrades.

EQUIPMENT FUND PROJECTS:

This category includes all vehicles maintained through all city departments, other than Light and Power that operates outside of the equipment fund within their own restrictions and fund. The equipment schedules over the long term schedule replacements and maintenance costs for all vehicles operated by the city.

PUBLIC WORKS PROJECTS:

The projects within this category are for constructing, maintaining and developing infrastructure relating to the City's utility and transportation functions. These functions include the provision and maintenance of streets, storm drainage, water services, and sewer services. Besides replacing existing infrastructure, projects within this program lay the foundation for future development of all types - residential, commercial and industrial. Some projects in this category play a supportive role to overall utility and transportation functions, such as equipment replacement, property acquisition and building rehabilitation.

Projects specifically for the Joint Water Commission (JWC) have been specifically broken out into its own category under the water category. The capital expenses listed are Forest Grove's portion of the overall cost for the JWC. All projects listed are currently on the JWC Master Plan.

PUBLIC SAFETY PROJECTS:

Projects within this category are for providing capital equipment and facilities for public safety services. These include law enforcement, crime prevention, fire prevention, fire suppression and emergency operations.

CULTURE & RECREATION PROJECTS:

Projects within this category are for maintaining and developing cultural and recreational opportunities within the community through the Parks system, the Aquatic Center and the Library. Projects may include replacement of capital equipment and facilities to maintain existing service levels. This program would also include new equipment and facilities to expand and develop new opportunities to enrich the quality of life in the community.

CAPITAL OUTLAY SUMMARY SCHEDULE

PG#	CIP #	PROJECT	2014-15	2015-16	2016-17	2017-18	2018-19	CIP TOTAL	FUTURE AMTS	STATUS OF PROJECT
LIGHT AND POWER FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
7	LP.001	Major Tools and Equipment	50,000	20,000	20,000	20,000	20,000	130,000	20,000	Ongoing
8	LP.002	Substation Upgrade	1,250,000	1,725,000	1,135,000	140,000	140,000	4,390,000	140,000	Ongoing
9	LP.004	Property Improvements & Office Building	183,000	10,000	10,000	10,000	10,000	223,000	10,000	Ongoing
10	LP.008	L&P Vehicle/Equipment Replacement Program	175,000	620,000	130,000	375,000	0	1,300,000	294,000	Ongoing
11	LP.009	L&P Specialized Equipment	145,000	0	0	49,000	0	194,000	70,000	Ongoing
12	LP.022	Distribution System Additions and Upgrades	125,000	50,000	50,000	50,000	50,000	325,000	50,000	Ongoing
		LIGHT AND POWER CIP TOTAL =	**1,928,000**	**2,425,000**	**1,345,000**	**644,000**	**220,000**	**6,562,000**	**584,000**	
EQUIPMENT FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
13	EQ.001	Equipment Replacement Program	602,500	682,500	274,500	330,000	443,000	2,332,500	1,767,500	Ongoing
		EQUIPMENT CIP TOTAL =	**602,500**	**682,500**	**274,500**	**330,000**	**443,000**	**2,332,500**	**1,767,500**	
STREET FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
15	ST.001	Gales Way (From E Street to 23rd Ave)	0	457,000	0	0	0	457,000	0	Planning
16	ST.010	David Hill Road	0	0	8,000,000	0	0	8,000,000	0	Planning
17	ST.012	TV Hwy & Quince	0	358,723	0	0	0	358,723	4,171,381	Planning
18	ST.015	19th Ave Extension	115,000	1,466,000	0	0	0	1,581,000	2,799,000	Construction
19	ST.018	26th Ave	327,971	0	0	0	0	327,971	2,569,105	Design
20	ST.020	Safe Routes to School	400,000	0	0	0	0	400,000	0	Design/Construct
21	ST.022	B Street North	0	6,100,000	0	0	0	6,100,000	0	Planning
22	ST.026	Grove Link	42,000	42,500	0	0	0	84,500	0	Design/Construct
23	ST.050	Willamina Ave.	156,856	0	0	0	0	156,856	1,228,702	Construction
24	ST.051	ADA Transition Plan & ADA Improvements	0	80,000	20,000	20,000	20,000	140,000	20,000	Planning
25	ST.052	Council Creek Trail	100,000	0	0	0	0	100,000	5,200,000	Design
26	ST.053	Main Street (North)	0	6,100,000	0	0	0	6,100,000	0	Planning
		STREET CIP TOTAL =	**1,141,827**	**14,604,223**	**8,020,000**	**20,000**	**20,000**	**23,806,050**	**15,988,188**	
SEWER FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
27	SW.001	Replace / Rehabilitate Old Sewers	30,000	30,000	30,000	30,000	30,000	150,000	30,000	Ongoing
28	SW.002	Sewer Oversizing Participation/SDC	50,000	50,000	50,000	50,000	50,000	250,000	50,000	Ongoing
29	SW.004	Maple Street Capacity Expansion	0	0	0	0	1,058,000	1,058,000	0	Planning
30	SW.005	Willamina Capacity Expansion	0	0	677,250	837,750	0	1,515,000	0	Planning
31	SW.008	23rd/24th Ave (Industrial Area)	0	0	0	0	278,960	278,960	0	Planning
32	SW.009	Mountain View Sewer Line	0	0	0	1,075,600	0	1,075,600	0	Planning
33	SW.010	A Street Capacity (A to 16th; 8" & 10" to 15")	0	0	0	1,058,000	0	1,058,000	0	Planning
34	SW.011	Fir Road	0	0	0	740,600	0	740,600	0	Planning
35	SW.015	23rd Ave I&I Project	275,000	0	0	0	0	275,000	0	Construction
36	SW.016	Sewer District; 26th Ave & Firwood; Reimbursement	51,000	0	0	0	0	51,000	1,000,000	Construction
37	SW.017	Sewer District; Newly Annexed	0	0	0	0	1,000,000	1,000,000	0	Planning
		SEWER CIP TOTAL =	**406,000**	**80,000**	**757,250**	**3,791,950**	**2,416,960**	**7,452,160**	**1,080,000**	

CAPITAL OUTLAY SUMMARY SCHEDULE

PG#	CIP #	PROJECT	2014-15	2015-16	2016-17	2017-18	2018-19	CIP TOTAL	FUTURE AMTS	STATUS OF PROJECT
SURFACE WATER MANAGEMENT FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
38	SWM.002	Hawthorne Street Drainage	0	134,000	550,000	0	0	684,000	0	Planning
39	SWM.004	Storm Sewer Construction	20,000	20,000	20,000	20,000	20,000	100,000	20,000	Ongoing
40	SWM.007	Alyssum and Twinflower Drainage	0	0	0	0	238,000	238,000	0	Planning
41	SWM.009	Cedar Street Pump Station	0	0	0	0	648,900	648,900	0	Planning
42	SWM.011	Higby Lane	0	0	0	405,600	0	405,600	0	Planning
43	SWM.012	Beal Pond	0	0	45,800	0	0	45,800	0	Planning
44	SWM.016	17th Ave & Hawthorne	0	0	0	0	236,300	236,300	0	Planning
45	SWM.018	Storm Sewer Outfalls	10,000	10,000	10,000	10,000	10,000	50,000	10,000	Ongoing
46	SWM.019	B Street at Harvey Clark	0	0	0	71,000	0	71,000	0	Planning
47	SWM.021	City Parks Drainage	0	0	50,000	0	0	50,000	0	Planning
48	SWM.050	Firewood Drainage	9,000	100,000	0	0	0	109,000	0	Design
49	SWM.051	New Park Drainage for Misc Park improvements	50,000	0	0	0	0	50,000	0	Planning
		SURFACE WATER MANAGEMENT CIP TOTAL =	**89,000**	**264,000**	**675,800**	**506,600**	**1,153,200**	**2,688,600**	**30,000**	
WATER FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
50	W.001	Distribution Main Improvements	200,000	100,000	200,000	100,000	200,000	800,000	200,000	Ongoing
51	W.002	Line Oversizing Participation	50,000	50,000	50,000	50,000	50,000	250,000	50,000	Ongoing
52	W.003	FG WTP Improvements	177,000	27,300	17,300	17,300	17,300	256,200	17,300	Ongoing
53	W.004	Watershed Road Improvements	20,000	20,000	20,000	250,000	20,000	330,000	20,000	Ongoing
54	W.005	Emergency Interie	0	0	432,100	0	0	432,100	0	Planning
55	W.009	David Hill	0	0	414,800	0	0	414,800	0	Planning
56	W.010	Finished Water Storage	0	194,450	583,350	0	0	777,800	0	Planning
57	W.013	Asset Management Program	0	172,800	0	0	0	172,800	0	Planning
58	W.016	Large Meter Replacement	50,000	50,000	50,000	50,000	50,000	250,000	50,000	Ongoing
59	W.017	Emergency Water Bladder Dispenser	0	0	0	0	20,000	20,000	0	Planning
60	W.051	Land Acquisition	0	0	0	0	500,000	500,000	0	Planning
61	W.052	WTP Vulnerability Analysis	50,000	150,000	0	0	0	200,000	0	Design
62	W.053	WTP - Mechanical Sludge & Residuals Collection	0	173,891	0	0	0	173,891	0	Planning
63	W.054	Water Master Plan (Every 6 Years)	0	0	216,100	0	0	216,100	0	Planning
64	W.056	Flow Improvements to Oak Crest Dr. Replace Pipe.	208,000	0	0	0	0	208,000	0	Design
65	W.057	Looping C St. to D St. on 19th Ave	34,000	96,000	0	0	0	130,000	0	Design
66	W.058	Heat Pump Replacement	15,000	0	0	0	0	15,000	0	Purchase
67	W.059	Electric Valve Operator	11,000	0	0	0	0	11,000	0	Purchase
68	W.060	Emergency Repairs	100,000	100,000	100,000	100,000	100,000	500,000	100,000	Ongoing
		WATER CIP TOTAL =	**915,000**	**1,134,441**	**2,083,650**	**567,300**	**957,300**	**5,657,691**	**437,300**	

CAPITAL OUTLAY SUMMARY SCHEDULE

PG#	CIP #	PROJECT	2014-15	2015-16	2016-17	2017-18	2018-19	CIP TOTAL	FUTURE AMTS	STATUS OF PROJECT
JWC WATER FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
69	JWC.001	JWC Re-Roof Operations Building	26,660	0	0	0	0	26,660	0	Construction
70	JWC.002	JWC On-Site Power Generation	198,600	0	0	0	0	198,600	0	Construction
71	JWC.003	JWC Spare Pipe	6,665	6,665	6,665	6,665	6,665	33,325	6,665	Ongoing
72	JWC.005	JWC Pump Station Improvements	0	0	2,666	2,666	0	5,332	19,995	Planning
73	JWC.006	JWC Seismic Mitigation Existing Plan	13,330	0	0	698,300	0	711,630	0	Design
74	JWC.007	JWC Hydropneumatic Actuators	0	0	26,660	0	0	26,660	26,660	Planning
75	JWC.009	JWC Thickeners - Automatic Sludge Pumps	0	26,660	0	0	0	26,660	0	Planning
76	JWC.011	JWC FG Transmission Line Inspection & Repair	0	0	119,970	0	0	119,970	0	Planning
77	JWC.012	JWC Remove Lime Silo	0	0	6,665	0	0	6,665	6,665	Planning
78	JWC.016	JWC Building Improvements	0	0	84,100	0	0	84,100	19,995	Planning
79	JWC.017	JWC Thickener Upgrade Existing Plan	0	229,900	0	0	0	229,900	0	Planning
80	JWC.018	JWC Major Maintenance - Pumps, Valves, Etc.	39,990	138,300	138,300	138,300	138,300	593,190	138,300	Ongoing
81	JWC.020	JWC Master Plan	0	0	43,200	0	0	43,200	0	Planning
82	JWC.022	JWC Trash Screen Improvements	0	0	26,660	0	0	26,660	0	Planning
83	JWC.023	JWC Wonderware	7,731	0	0	0	0	7,731	0	Purchase
		JWC CIP TOTAL =	**292,976**	**401,525**	**454,886**	**845,931**	**144,965**	**2,140,283**	**218,280**	
PUBLIC SAFETY FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
84	FF.003	Replacement of Turnouts Safety Equipment	19,000	19,000	19,000	19,000	19,000	95,000	19,000	Purchase
85	FF.004	Replacement of Fire Hose, Nozzles, Etc.	12,500	12,500	12,500	12,500	12,500	62,500	12,500	Purchase
86	FF.008	Fire Apparatus Replacement Program	260,000	130,000	395,100	473,000	330,000	1,588,100	330,000	Purchase
87	FF.009	Cardiac Monitor Replacement	60,000	0	0	0	0	60,000	0	Purchase
88	FF.010	HVAC & Building Repairs	64,500	0	0	0	0	64,500	0	Purchase
89	PD.012	Regin MDC Implementation	78,000	16,950	16,950	16,950	16,950	145,800	0	Planning
90	PD.025	Handheld Citiation Writiers, Printers, Software	0	0	57,250	0	0	57,250	0	Purchase
91	PD.035	Handheld Radar Replacement	9,618	1,603	0	0	0	11,221	0	Purchase
92	PD.036	South Parking Lot Repair	27,129	0	0	0	0	27,129	0	Construction
93	PD.040	Weapons Procurement and Replacement	25,000	10,000	10,000	10,000	10,000	65,000	10,000	Ongoing
		PUBLIC SAFEY CIP TOTAL =	**555,747**	**190,053**	**510,800**	**531,450**	**388,450**	**2,176,500**	**371,500**	
CULTURE AND RECREATION FIVE YEAR CAPITAL IMPROVEMENT PROGRAM										
94	AQ.004	Aquatic Center Energy Projects	0	184,000	100,000	75,000	0	359,000	0	Planning
95	AQ.005	Pool Deck	14,500	0	0	110,000	0	124,500	0	Construction
96	PKS.009	Rogers Pack Renovation	0	100,000	110,000	0	0	210,000	0	Planning
97	PKS.013	Trails and Greenways	443,250	0	548,900	0	0	992,150	0	Design/Construct
98	PKS.014	Thatcher Park Phase II	0	0	0	0	2,000,000	2,000,000	2,000,000	Planning
99	PKS.017	Reuter Farm Park Development	0	0	0	0	50,500	50,500	218,000	Planning
100	PKS.020	Joseph Gale Park Improvements	0	0	0	130,000	0	130,000	0	Planning
101	PKS.022	Lincoln Park Master Plan	0	0	80,000	360,000	135,000	575,000	0	Planning
102	PKS.025	Bard and Talisman Park Improvements	0	0	125,000	0	0	125,000	250,000	Planning
103	PKS.027	Southern Land Acquisition	240,000	0	0	0	0	240,000	0	Planning
104	PKS.028	Parks Master Plan	200,000	0	0	0	0	200,000	0	Design
105	PKS.029	Imrpve Parking Lots at Parks	0	53,000	0	0	0	53,000	0	Planning
		CULTURE AND RECREATION CIP TOTAL =	**897,750**	**337,000**	**963,900**	**675,000**	**2,185,500**	**5,059,150**	**2,468,000**	
		CIP GRAND TOTALS =	**6,828,800**	**20,118,742**	**15,085,786**	**7,912,231**	**7,929,375**	**57,874,934**	**20,476,768**	

LP 001 **MAJOR TOOLS AND WORK EQUIPMENT**
Light & Power Department

PROJECT DESCRIPTIONS:

The operation of the electric power system has become increasingly technical in recent years, requiring more advanced equipment for testing and calibrating electric meters, substation relays and electrical equipment, and for identifying and troubleshooting customer quality of service issues.

DISCUSSION OF PROJECTS:

The Light and Power Department plans to purchase the following tools and work equipment:

- Substation instruments
- Directional drill guidance system
- Directional drill rods
- Non-directional short distance drill
- Vehicle computers
- Metering test equipment
- Substation & field ground sets (cable)

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	50,000	20,000	20,000	20,000	20,000	130,000
TOTAL COSTS =	**50,000**	**20,000**	**20,000**	**20,000**	**20,000**	**130,000**

FUNDING SOURCE	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Current User Rates	50,000	20,000	20,000	20,000	20,000	130,000
TOTAL FUNDING SOURCES =	**50,000**	**20,000**	**20,000**	**20,000**	**20,000**	**130,000**

LP 002 **SUBSTATION UPGRADES**
LIGHT & POWER DEPARTMENT

PROJECT DESCRIPTION:

For FY 2014-15, the new transformer will be installed at Thatcher Substation. Major site improvements will be started at Forest Grove Substation and new transformers, circuit switchers, and breakers will be ordered for Forest Grove Substation.

For FY 2015-16, a major renovation of Forest Grove Substation will be accomplished.

DISCUSSION OF PROJECT:

Much of equipment in the transformer yards that was purchased from BPA in the late 1990s is now at the end of its useful life. The Substation Upgrade project anticipates replacing most of the substation transformers and protective equipment. The details and scheduling of this project are outlined in the Electric System Master Plan Study.

The replacement of all substation battery banks has been completed. General maintenance will performed at each substation. All feeder breakers will be converted to DC trip. Thatcher Substation, which has the oldest equipment, will be the first to receive a new power transformer and circuit switcher.

FY 2014-2015 engineering and preliminary site work to commence at Forest Grove Substation. New transformers to be installed FY 2015-2016. After the above improvements, the control panels and relays at Thatcher and Filbert Substations are planned to be replaced.

With completion of this project, Forest Grove's Substation capacity will be greatly increased, and major equipment will have been replaced with newer technology, able to provide a higher level of service.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Design/Engineering	100,000	25,000	10,000	30,000	30,000	195,000
Site Preparation	100,000	100,000	25,000	10,000	10,000	245,000
Construction	50,000	500,000	0	0	0	550,000
Equipment/Furniture	1,000,000	1,100,000	1,100,000	100,000	200,000	3,400,000
TOTAL COSTS =	**1,250,000**	**1,725,000**	**1,135,000**	**140,000**	**140,000**	**4,390,000**
FUNDING SOURCE						
Current User Rates	1,250,000	1,725,000	1,135,000	140,000	140,000	4,390,000
TOTAL FUNDING SOURCES =	**1,250,000**	**1,725,000**	**1,135,000**	**140,000**	**140,000**	**4,390,000**

LP 004 **PROPERTY IMPROVEMENTS AND OFFICE BUILDING**
Light & Power Department

PROJECT DESCRIPTION:
FY 2014-2015 purchase facility backup generator as well as HVAC system replacement in L&P Office.

DISCUSSION OF PROJECT:
The existing backup generator located adjacent to the Light & Power office complex is 32 years old. This generator provides backup power for the office complex in the event of a power outage. The generator has exceeded its useful life and there are no more replacement parts manufactured for this unit.

Maintenance and replacement of heating and cooling duct work for administrative offices.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	183,000	10,000	10,000	10,000	10,000	223,000
TOTAL COSTS =	**183,000**	**10,000**	**10,000**	**10,000**	**10,000**	**223,000**
FUNDING SOURCE						
Current User Rates	183,000	10,000	10,000	10,000	10,000	223,000
TOTAL FUNDING SOURCES =	**183,000**	**10,000**	**10,000**	**10,000**	**10,000**	**223,000**

LP 008 **LIGHT & POWER VEHICLE PURCHASE PROGRAM**
Light & Power Department

PROJECT DESCRIPTION:
Light and Power maintains the fleet of vehicles associated with the operation of the electrical utility. Over the years, several of the department's vehicles will become candidates for replacement. The vehicles are replaced on a regular schedule, adjusted in accordance with mileage and maintenance history.

DISCUSSION OF PROJECT:
In the next 4 years, the following vehicles will be replaced:

FY 2014-15	**FY 2016-17**
#405 – Ford Ranger	#430 – Butler 3-Reel String Trailer
#408 – Chevy 1-Ton Flatbed	#447 – Verneer Vacuum System Trailer
#422 – Backhoe, Loader, & Tractor	
	FY 2017-18
	#406 – Chevy Colorado Pickup
	#416 – International Bucket Chipper Truck
FY 2015-16	#425 – Verneer 1000XL Brush Chipper
#404 – Ford Ranger	
#409 – Ford 1.5 Ton Flatbed	
#411 – Ford F450	
#429 – Ingersoll Compressor on Trailer	**FY 2018-19**
#456 – Commuter vehicle replacement	#424-1 – Large Boring Machine (& Trailer)

Light & Power incorporates vehicle replacement into a 5-year average of capital needs. These needs are considered when rates are reviewed. Funding for equipment and vehicles is through the electrical rates.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	175,000	200,000	130,000	375,000	220,000	1,100,000
TOTAL COSTS =	**175,000**	**200,000**	**130,000**	**375,000**	**220,000**	**1,100,000**
FUNDING SOURCE						
Current User Rates	175,000	200,000	130,000	375,000	220,000	1,100,000
TOTAL FUNDING SOURCES =	**175,000**	**200,000**	**130,000**	**375,000**	**220,000**	**1,100,000**

LP 009 **LIGHT & POWER SPECIALIZED EQUIPMENT**
Light & Power Department

PROJECT DESCRIPTION:
Light and Power maintains a fleet of specialized equipment. An equipment replacement schedule is created to keep up with maintenance and replacement times for each piece of equipment so the department plans ahead for large purchases such as vehicles and heavy machinery (anything over $5,000).

DISCUSSION OF PROJECT:
The schedule for the next 5 years is shown below…

FY 2014-15	**FY 2016-17**
H165 – Nomad Forklift	None
H166 – Small Directional Boring Machine	
H167 – Combo Cargo Trailer	
H168 – Quad with Snow Blade	
	FY 2017-18
	H94 – 3Phase Metering Site Analyzer
	H95 – Von Model XF25-1563 V.2
FY 2015-16	H97 – Flir i50 Thermal Image Camera w/ Laser
None	
	FY 2018-19
	None

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	145,000	0	0	49,000	0	194,000
TOTAL COSTS =	**145,000**	**0**	**0**	**49,000**	**0**	**194,000**
FUNDING SOURCE						
Current User Rates	145,000	0	0	49,000	0	194,000
TOTAL FUNDING SOURCES =	**145,000**	**0**	**0**	**49,000**	**0**	**194,000**

LP 022 DISTRIBUTION SYSTEM AND ADDITIONS UPGRADES
Light & Power Department

PROJECT DESCRIPTIONS:

The SCADA System phase 3 ($25,000) will continue efforts from previous years with purchase of additional equipment to begin monitoring the substation operations. The 24th Avenue recloser project ($40,000) will improve electric reliability to an industrial area and provide better coordination of all protective devices in that part of the electrical distribution system. Underground feeder extensions and upgrades will also occur.

In fiscal year 2013-14, the Electric System Master Plan was completed. This plan outlines future distribution system needs and additional upgrades that will be needed.

DISCUSSION OF PROJECTS:
New equipment purchases for the SCADA system will allow the department to remotely monitor the status of critical substation equipment and improve response time by identifying equipment outages.

The Light and Power Department will continue to install remote read electric meters, focusing on areas where remote read water meters have been installed, and continue to coordinate the efforts with the Water Department.

The department will continue with phase 3 of the SCADA system upgrade, and will also continue upgrades to the 24th Avenue capacity. Underground feeder extensions will occur along 26th Avenue, and Rose Grove will see underground upgrades.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	125,000	50,000	50,000	50,000	50,000	325,000
TOTAL COSTS =	**125,000**	**50,000**	**50,000**	**50,000**	**50,000**	**325,000**
FUNDING SOURCE						
Current User Rates	125,000	50,000	50,000	50,000	50,000	325,000
TOTAL FUNDING SOURCES =	**125,000**	**50,000**	**50,000**	**50,000**	**50,000**	**325,000**

EQ 001 **EQUIPMENT REPLACEMENT PROGRAM**
Equipment Department

PROJECT DESCRIPTIONS:

The Equipment Fund owns and maintains seventy-five (75) pieces of equipment. The vehicles are replaced on a regular schedule unless mileage is low and the vehicle has a good maintenance history. Over the next five years, the following are expected to be replaced.

FY 2014-15

City Hall -	Bldg. Ranger	#704
Parks -	Mower	#605
Parks -	JD Tractor	#610
Police -	Patrol SUV	#540
Police -	Patrol SUV	#541
Police -	Patrol Charger	#543
PW -	Ford F350	#303
PW -	Camel Cleaner	#316
PW -	Ingersoll Rand	#325
PW -	Ingersoll Rand	#326

FY 2015-16

City Hall -	Eng. Taurus	#700
City Hall -	Admin Impala	#705
Parks -	3/4 Ton Pickup	#600
Parks -	3/4 Ton 4x4	#603
Parks -	Toro Mower	#615
Police -	Patrol Charger	#530
Police -	Patrol Charger	#531
Police -	Patrol Charger	#532
Police -	Patrol Charger	#533
PW -	Ford F350	#302
PW -	Ford F750	#312
PW -	Vactor Jet Cleaner	#317
PW -	Holland Tractor	#322

FY 2016-17

City Hall -	Suburban	#701
Parks -	Toro Mower 4WD	#608
PW -	Escape	#320
PW -	Caterpillar Loader	#324
PW -	Powermole Boring	#332
Police -	Patrol Charger	#525

FY 2017-18

City Hall -	Eng. Silverado	#702
City Hall -	Admin Civic	#708
Parks -	ATV	#611
Police -	Admin Fusion	#509
Police -	Patrol Charger	#538
Police -	Patrol Motorcycle	#539
PW -	Chevy Colorado	#308
PW -	Escape	#310
PW -	JD Backhoe	#327
PW -	ODB Leaf Vacuum	#331

FY 2018-19

City Hall -	Ford Focus	#706
Police -	Evidence Van	#520
Police -	Admin Fusion	#522
Police -	Chief Vehicle	#534
Police -	Patrol SUV	#540
Police -	Patrol SUV	#541
Police -	Capt. Fusion	#542
Police -	Patrol Charger	#525
PW -	Ford F350	#300
PW -	Chevy Colorado	#307
PW -	Towmaster Trailer	#330
PW -	Ford F450	#333
PW -	Ford F750	#334

DISCUSSION OF PROJECT:
The Equipment Fund owns vehicles and equipment used b Public Works and all other city departments except Light & Power and Fire. The equipment shop maintains these vehicles and equipment and replaces them when length of time or mileage warrants replacement. Funding for vehicle maintenance, repair, and replacement is derived from monthly lease amounts charged to participating departments. The equipment shop also maintains and repairs the 60 vehicles owned by L&P and the Fire Department, as necessary, and bill those departments directly.

EQ 1 **EQUIPMENT REPLACEMENT PROGRAM**

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	572,500	682,500	304,500	330,000	443,000	2,332,050
TOTAL COSTS =	**572,500**	**682,500**	**304,500**	**330,000**	**443,000**	**2,332,050**

FUNDING SOURCE	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment Fund Reserve	572,500	682,500	304,500	330,000	443,000	2,332,050
TOTAL FUNDING SOURCES =	**572,500**	**682,500**	**304,500**	**330,000**	**443,000**	**2,332,050**

ST 001 **GALES WAY (From "E" Street to 23rd Avenue)**
Street Department

PROJECT DESCRIPTION:
Reconstruct and widen Asphaltic Concrete (AC) pavement with curbs, gutters, sidewalks, storm drain and landscaping.

DISCUSSION OF PROJECT:
This street is identified as a collector in the Transportation System Plan. This route provides direct access to the downtown area and carries significant traffic volumes. This project is postponed to seek matching funding.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Design/Engineering	0	45,900	0	0	0	45,900
Construction	0	411,100	0	0	0	411,100
TOTAL COSTS	**0**	**457,000**	**0**	**0**	**0**	**457,000**
FUNDING SOURCE						
Street Fund	0	457,000	0	0	0	457,000
TOTAL FUNDING SOURCES	**0**	**457,000**	**0**	**0**	**0**	**457,000**

ST 010 **DAVID HILL ROAD (Thatcher Road to Hwy 47)**
Street Department

PROJECT DESCRIPTION:
Three-lane arterial connecting Thatcher Road with State Highway 47.

DISCUSSION OF PROJECT:
This road is identified in the City's Transportation System Plan and is a major east-west connection. It is planned to extend easterly from Thatcher Road to Highway 47 as a two-lane arterial facility with left-turn lanes at major intersections. Washington County has pledged funds from the Major Streets Transportation Improvement Program (MSTIP).

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0
Construction	0	0	0	0	0	0
TOTAL COSTS	**0**	**8,000,000**	**0**	**0**	**0**	**8,000,000**
FUNDING SOURCE						
County MSTIP	0	8,000,000	0	0	0	8,000,000
TOTAL FUNDING SOURCES	**0**	**8,000,000**	**0**	**0**	**0**	**8,000,000**

ST 012 **TV HWY & QUINCE STREET**
Street Department

PROJECT DESCRIPTION:
This project consists of constructing intersection improvements to improve performance of the intersection.

DISCUSSION OF PROJECT:

The Results from an Access Management Plan Alternative analysis on Highway 47 shows growth in traffic demands at Pacific Avenue and Highway 47. The additional traffic does not result in performance below ODOT operating standards, but significant delay does exist at the intersection as the volume to capacity ration (0.93) is expected to approach the upper limit (0.99). This project will add right turn lanes and improve the turning radius on both the northeast and northwest corners. These improvements are expected to improve the capacity of the intersection.

Costs shown are City Funds only. Grant funds are not included in the cost listed below.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	358,723	0	0	0	358,723
TOTAL COSTS	**0**	**358,723**	**0**	**0**	0	**358,723**
FUNDING SOURCE						
Other/MSTIP	0	358,723	0	0	0	358,723
TOTAL FUNDING SOURCES	**0**	**358,723**	**0**	**0**	0	**358,723**

ST 015 **19TH AVENUE W. EXTENSION**
Street Department

PROJECT DESCRIPTION:
Extend 19th Avenue west and connect to E Street and Pacific Avenue with round-about.

DISCUSSION OF PROJECT:
Development of the property located south of E St. & Pacific Ave. will require the extension of 19th Avenue. This project should move forward only as this property develops. The City will have partial participation according to the TIF or TDT statutes.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	115,000	1,466,000	0	0	0	1,581,000
TOTAL COSTS	**115,000**	**1,466,000**	**0**	**0**	**0**	**1,581,000**
FUNDING SOURCE						
TIF/TDT	115,000	1,466,000	0	0	0	1,581,000
TOTAL FUNDING SOURCES	**115,000**	**1,466,000**	**0**	**0**	**0**	**1,581,000**

ST 018 **26TH AVENUE**
Street Department

PROJECT DESCRIPTION:
Improve 26th Avenue from Hawthorne west to Sunset.

DISCUSSION OF PROJECT:
26th Avenue from Hawthorne to Sunset needs improvement. However, this road is currently within Washington County's jurisdiction. If this road transfers to the City's jurisdiction, the City would work with neighboring property owners to improve this road by reconstructing it up to the City's standard of a collector road, which would include sidewalks and a parkway. Because these improvements would benefit the abutting properties, those properties would be assessed for their share, either through a local improvement district or through a reimbursement district.

COSTS	2013-14	2014-15	2015-16	2016-17	2017-18	5-YR TOTAL
Design/Engineering	327,971	0	0	0	0	327,971
TOTAL COSTS	**327,971**	**0**	**0**	**0**	**0**	**327,971**
FUNDING SOURCE						
Local Improvement or Reimbursement District	327,971	0	0	0	0	327,971
TOTAL FUNDING SOURCES	**327,971**	**0**	**0**	**0**	**0**	**327,971**

ST 020 **Safe Routes to School**
Street Department

PROJECT DESCRIPTION:
Improve pedestrian safety access to Harvey Clarke School along B Street

DISCUSSION OF PROJECT:
This project is in partnership with the Oregon Department of Transportation to install sidewalks along B Street to Harvey Clarke School, to improve pedestrian safety. ODOT received a Safe Routes to School grant of $350,000, and Forest Grove is matching $50,000.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	400,000	0	0	0	0	400,000
TOTAL COSTS	**400,000**	**0**	**0**	**0**	0	**400,000**
FUNDING SOURCE						
TIF/TDT	50,000	0	0	0	0	50,000
ODOT SRTS	350,000	0	0	0	0	350,000
TOTAL FUNDING SOURCES	**400,000**	**0**	**0**	**0**	0	**400,000**

ST 022 **"B" STREET NORTH**
Street Department

PROJECT DESCRIPTION:
Extend "B" Street north from Hartford Drive to David Hill Road.

DISCUSSION OF PROJECT:
This project would extend "B" Street from the current north end at the intersection with Hartford Drive to the future intersection with David Hill Road. This project is scheduled in future years and will be funded by both private development and TIF or TDT monies.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	0	6,100,000	0	0	0	6,100,000
TOTAL COSTS	**0**	**6,100,000**	**0**	**0**	**0**	**6,100,000**
FUNDING SOURCE						
TIF/TDT	0	6,100,000	0	0	0	6,100,000
TOTAL FUNDING SOURCES	**0**	**6,100,000**	**0**	**0**	**0**	**6,100,000**

ST 026 **GROVE LINK**
Street Department

PROJECT DESCRIPTION:
Project is to add benches along the bus parking zone and add 5 shelters throughout Forest Grove.

DISCUSSION OF PROJECT:
$42,000 for an additional bus and $7,000 for additional benches in 2014-15
$42,500 for an additional bus in 2015-16

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Purchase	49,000	42,500	0	0	0	91,500
TOTAL COSTS	**49,000**	**42,500**	**0**	**0**	**0**	**91,500**
FUNDING SOURCE						
TIF	49,000	42,500	0	0	0	91,500
TOTAL FUNDING SOURCES	**49,000**	**42,500**	**0**	**0**	**0**	**91,500**

ST 050 **WILLAMINA AVENUE**
Street Department

PROJECT DESCRIPTION:
Reconstruction of Main Street to Sunset through reimbursement of future development along street. Construction includes street lighting and sewer

DISCUSSION OF PROJECT:
Reconstruction of Main Street to Sunset through reimbursement of future development along street. Construction includes street lighting and sewer

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	156,856	0	0	0	0	156,856
TOTAL COSTS	**156,856**	**0**	**0**	**0**	**0**	**156,856**
FUNDING SOURCE						
TDT/TIF	156,856	0	0	0	0	156,856
TOTAL FUNDING SOURCES	**156,856**	**0**	**0**	**0**	**0**	**156,856**

ST 051 **ADA Transition Plan & ADA Improvements**
Street Department

PROJECT DESCRIPTION:
$80,000 scheduled in 2014-15 to conduct study on improving ADA transitions throughout Forest Grove and look at improvement possibilities. $20,000 is scheduled in years after for construction and implementation of study.

DISCUSSION OF PROJECT:
$80,000 scheduled in 2014-15 to conduct study on improving ADA transitions throughout Forest Grove and look at improvement possibilities. $20,000 is scheduled in years after for construction and implementation of study.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YR TOTAL**
Study	0	80,000	0	0	0	80,000
Construction	0	0	20,000	20,000	20,000	60,000
TOTAL COSTS	**0**	**80,000**	**20,000**	**20,000**	**20,000**	**140,000**
FUNDING SOURCE						
Street Fees	0	80,000	20,000	20,000	20,000	140,000
TOTAL FUNDING SOURCES	**0**	**80,000**	**20,000**	**20,000**	**20,000**	**140,000**

ST 052 **Council Creek Trail**
Street Department

PROJECT DESCRIPTION:
Study current route of trail and look at expansion. Study will start at trailhead of the Banks-Vernonia Linear State Trail and will move southeasterly through Washington County to Forest Grove, then easterly through Cornelius to the Max Line in Hillsboro

DISCUSSION OF PROJECT:
Study current route of trail and look at expansion. Study will start at trailhead of the Banks-Vernonia Linear State Trail and will move southeasterly through Washington County to Forest Grove, then easterly through Cornelius to the Max Line in Hillsboro

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Design	100,000	0	0	0	0	100,000
TOTAL COSTS	**100,000**	**0**	**0**	**0**	**0**	**100,000**
FUNDING SOURCE						
STP	100,000	0	0	0	0	100,000
TOTAL FUNDING SOURCES	**100,000**	**0**	**0**	**0**	**0**	**100,000**

ST 053 **MAIN STREET NORTH**
Street Department

PROJECT DESCRIPTION:
Extending Main Street North. Paid through reimbursement of future development.

DISCUSSION OF PROJECT:
Extending Main Street North. Paid through reimbursement of future development.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	0	6,100,000	0	0	0	6,100,000
TOTAL COSTS	**0**	**6,100,000**	**0**	**0**	**0**	**6,100,000**
FUNDING SOURCE						
TIF/TDT	0	6,100,000	0	0	0	6,100,000
TOTAL FUNDING SOURCES	**0**	**6,100,000**	**0**	**0**	**0**	**6,100,000**

SW 001 **REPLACE / REHABILITATE OLD SEWERS**
Sewer Department

PROJECT DESCRIPTION:
Reconstruct existing sewer mains as needed due to pipe condition. This is an ongoing project designed to replace all old and deteriorated sewers. Projects are generally scheduled to coincide with proposed street reconstruction projects.

DISCUSSION OF PROJECT:
The Sewer Master Plan recommends annual replacement/rehabilitation of portions of the old collection piping until it is completely upgraded. The goal is to rehabilitate 1,500 linear feet of sewer each year. Projects are generally selected to coincide with paving projects so that we minimize cutting trenches through good roads.

Recent improvements in technology have allowed more thorough inspection of pipe sections, leading to a series of maintenance projects in older areas of the city. Problems include pipe clogging, infiltration by ground water, or damage by roots or other organic matter. While these pipes overall are still functioning, there is a concern that maintenance costs will continue to increase and flow capacity will be compromised. Over the CIP period of FY 2013-14 through 2017-18, pipe sections along 22nd Ave, 24th Ave, Gales Way at Rodlun Ct, and Cedar Street (alley) have been selected for further review for possible replacement.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-Year TOTAL**
Construction	30,000	30,000	30,000	30,000	30,000	150,000
TOTAL COSTS	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**	**150,000**
FUNDING SOURCE						
Sewer Fund	30,000	30,000	30,000	30,000	30,000	150,000
TOTAL FUNDING SOURCES	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**	**150,000**

SW 002 **SEWER OVERSIZING PARTICIPATION**
Sewer Department

PROJECT DESCRIPTION:
Developments in certain areas of the City may trigger the need for excess pipe capacity for future growth that is beyond what that specific developer needs. This project allows the City flexibility to cost participate in the oversizing of sewer pipes to adequately prepare for future growth.

DISCUSSION OF PROJECT:
Revenue is collected as system development charges on new sewer hook-ups. The money is used to provide funding flexibility to cost participate with developers to provide increased capacity in the sewer system.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL COSTS	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**
FUNDING SOURCE						
Sewer SDC	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL FUNDING SOURCES	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

SW 004 **MAPLE STREET CAPACITY EXPANSION**
Sewer Department

PROJECT DESCRIPTION:
Increase sanitary sewer capacity by installing a pipe that would parallel the existing system from the intersection of Laurel Street and 22nd Avenue to the south side of Pacific Avenue then east to Maple Street then south to 19th Avenue:

1. Intersection of Laurel Street and 22nd Avenue to the south side of Pacific Avenue
   1100 feet of pipeline

2. South side of Pacific Avenue east to Maple Street
   300 feet of pipeline

3. Intersection of Pacific Avenue and Maple Street south to 19th Avenue
   500 feet of pipeline

DISCUSSION OF PROJECT:
The CWS Sewer System Master Plan Update (dated April 1995) identifies existing capacity deficiencies in the Maple Street Trunk F-3.
The 2007 City of Forest Grove Master Plan recommends this project should be considered "contingent" and the City need not move forward with it until the need has been verified through flow monitoring.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YR TOTAL**
Construction	0	0	0	0	1,058,000	1,058,000
TOTAL COSTS	**0**	**0**	**0**	**0**	**1,058,000**	**1,058,000**
FUNDING SOURCE						
Sewer SDC	0	0	0	0	529,000	529,000
Sewer	0	0	0	0	529,000	529,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**1,058,000**	**1,058,000**

SW 005 **WILLAMINA AVENUE CAPACITY EXPANSION**
SEWER DEPARTMENT

PROJECT DESCRIPTION:
Upgrading 9,800 feet of 15-inch and 18-inch to 30-inch along Willamina between Main Street and Gales Creek Road.

DISCUSSION OF PROJECT:
This project was identified in CWS 2001 flow model as a high priority project. This project will be built only when the existing line reaches capacity. The point at which this line reaches capacity is contingent on the pace of future development.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	0	0	677,250	837,750	0	1,515,000
TOTAL COSTS	**0**	**0**	**677,250**	**837,750**	**0**	**1,515,000**
FUNDING SOURCE						
Sewer SDC	0	0	677,250	837,750	0	1,515,000
TOTAL FUNDING SOURCES	**0**	**0**	**677,250**	**837,750**	**0**	**1,515,000**

SW 008 **23RD/24TH AVENUE INDUSTRIAL AREA**
Sewer Department

PROJECT DESCRIPTION:
Construct new road to connect Hawthorne Street and Quince Street. This project is to construct a new sewer line under that road. Project will include Asphaltic Concrete (AC) pavement, curbs, gutter, sidewalk, storm drain, sewer, water line, and landscaping to current construction standards.

DISCUSSION OF PROJECT:
This section of roadway is identified on the Transportation System Plan. This project is needed to carry east/west traffic in the north part of town to relieve congestion on Pacific Avenue and provide access to the industrial land identified in the Comprehensive Plan. This project has been postponed pending development of the area. Cost participation will come from adjacent development.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Design/Engineering	0	0	0	0	25,360	25,360
Construction	0	0	0	0	253,600	253,600
TOTAL COSTS	**0**	**0**	**0**	**0**	**278,960**	**278,960**
FUNDING SOURCE						
Sewer SDC	0	0	0	0	278,960	278,960
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**278,960**	**278,960**

SW 009 **MOUNTAIN VIEW LANE**
Sewer Department

PROJECT DESCRIPTION:
Replace the 12" line on Mountain View Lane south of the Southern Pacific Railroad (SPRR) and the 18" line north of SPRR.

DISCUSSION OF PROJECT:
The existing 12" line located to the west of Mountain View Lane and south of the SPRR trunk will require replacement. Additionally, this project should include improvements made to the north of the SPRR. The Mountain View Lane south of the railroad trunk will be increased in size from 12 to 18-inch diameter line covering approximately 1,300 lineal feet. Lines located north of the railroad trunk will be increased from 18" to 21" for approximately 1,000 lineal feet. The north and south segments 2030 design flow is approximately 2,100 gpm and 1,550 gpm respectively.

This CIP should be considered "contingent" and the City need not move forward with it until the need has been verified through flow monitoring.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Design/Engineering	0	0	0	215,120	0	215,120
Construction	0	0	0	860,480	0	860,480
TOTAL COSTS	**0**	**0**	**0**	**1,075,600**	**0**	**1,075,600**
FUNDING SOURCE						
Sewer Fund	0	0	0	537,800	0	537,800
Sewer SDC	0	0	0	537,800	0	537,800
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**1,075,600**	**0**	**1,075,600**

SW 010 **"A" STREET CAPACITY**
SEWER DEPARTMENT

PROJECT DESCRIPTION:
The 8-inch and 10-inch diameter lines from the B Street pump station should be increased to 15-inches in diameter.

DISCUSSION OF PROJECT:
As development occurs, it is anticipated that additional sewer capacity may be needed along this route. The Sanitary Sewer Master Plan confirmed the size of capacity increase and the estimated schedule when it will occur. This project will not be required until the B Street pump station capacity is increased by CWS and development occurs in the area northwest of the Pump station, just north of Gales Creek.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	1,058,000	0	1,058,000
TOTAL COSTS	**0**	**0**	**0**	**1,058,000**	0	**1,058,000**
FUNDING SOURCE						
Sewer Fund	0	0	0	529,000	0	529,000
Sewer SDC	0	0	0	529,000	0	529,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**1,058,000**	0	**1,058,000**

SW 011 **FIR ROAD From 19th to Hwy 47**
SEWER DEPARTMENT

PROJECT DESCRIPTION:
Replace 12" Line on Fir Road from Pacific Avenue to the Southern Pacific Railroad (SPRR).

DISCUSSION OF PROJECT:
The existing 12" diameter line ties into the SPRR trunk line. Fir Road upgrades will require the existing line to be upgraded to a 15" diameter line spanning approximately 2,000 lineal feet. The total improvements along Fir Road are estimated to cost $420,000.
The 2007 City of Forest Grove Master Plan recommends this project should be considered "contingent" and the City need not move forward with it until the need has been verified through flow monitoring.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	740,600	0	740,600
TOTAL COSTS	**0**	**0**	**0**	**740,600**	**0**	**740,600**
FUNDING SOURCE						
Sewer SDC	0	0	0	740,600	0	740,600
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**740,600**	**0**	**740,600**

SW 015 CWS / CITY 23rd AVENUE INFLOW & INFILTRATION PROJECT
Sewer Department

PROJECT DESCRIPTION:
This project will rehabilitate the public sanitary sewer line and the private sanitary sewer laterals in the area around 23rd Avenue. To minimize inflow and infiltration of ground water into the existing sanitary sewer system, the public sanitary sewer lines and private service laterals need to be rehabilitated. The project area is generally bounded by 23rd to the south and Tara Court to the north, D Street to the west and A Street to the east.

DISCUSSION OF PROJECT:
This project is a joint effort between the City of Forest Grove and the Clean Water Services (CWS). CWS will design the project and provide construction administration. The City's Public Works Department will provide in-kind services such as pre-design pipe TV inspection. Project costs including engineering and inspection will be split between the City and CWS on a 50% basis. Only the City's portion of the project is shown in the CIP.
This project is estimated to cost approximately $1 million, and will be completed in two phases. The first phase will be completed in FY 13-14, and the second phase in FY 14-15. The City is responsible for 50% of the funding, and CWS the other 50%.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YR TOTAL**
Construction	275,000	0	0	0	0	275,000
TOTAL COSTS	**275,000**	**0**	**0**	**0**	**0**	**275,000**
FUNDING SOURCE						
Sewer Fund	275,000	0	0	0	0	275,000
TOTAL FUNDING SOURCES	**275,000**	**0**	**0**	**0**	**0**	**275,000**

SW 016 **SEWER DISTRICTS; 26th Ave & FIrwood; Reimbursement**
Sewer Department

PROJECT DESCRIPTION:
This project will install sewer mains and laterals in areas not previously served.

DISCUSSION OF PROJECT:
In the spring of 2013, the City went through a process and annexed properties within the bounds of the City but technically in the jurisdiction of Washington County, know as "island" properties. In the process of annexing these islands, the residents came forward and expressed interest in connecting to the City's sewer system.

Connecting to the City' sewer system is paid for by the owners of the property that benefits. At the time a new house is built within the City, the developer pays all the fees, charges, and the cost to construct the connection to the City's sewer, and all these costs are built into the price of the home. However, those previously in Washington County's jurisdiction have septic tanks, and so to connect to the City's sewer system, those property owners must pay the cost to connect, including fees, charges and construction.

The City can manage the construction and front the necessary cash to install sewer mains and laterals, but must be paid back by the benefiting property owners. The City has two main mechanisms it will explore to allow property owners to pay back the City. One mechanism is a local improvement district (LID), where property owners pay in monthly installments the cost of constructing the sewer, plus fees and charges, plus interest. The term of the LID can vary, up to 30 years. The City files a lien on the property until the amount owed is paid in full. The other mechanism is a reimbursement district, where the entire amount is due when the benefiting property makes the connection to the sewer system.

This project represents a place-holder on the City's part, in case the property owners come together in an area and decide to petition the City to install sewer mains and laterals.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YR TOTAL**
Design	51,000	0	0	0	0	51,000
TOTAL COSTS	**51,000**	**0**	**0**	**0**	**0**	**51,000**
FUNDING SOURCE						
Local Improvement District/ Reimbursement District	51,000	0	0	0	0	51,000
TOTAL FUNDING SOURCES	**51,000**	**0**	**0**	**0**	**0**	**51,000**

SW 017 **SEWER DISTRICTS; NEWLY ANNEXED**
Sewer Department

PROJECT DESCRIPTION:
This project will install sewer mains and laterals in areas not previously served.

DISCUSSION OF PROJECT:
In the spring of 2013, the City went through a process and annexed properties within the bounds of the City but technically in the jurisdiction of Washington County, know as "island" properties. In the process of annexing these islands, the residents came forward and expressed interest in connecting to the City's sewer system.

Connecting to the City' sewer system is paid for by the owners of the property that benefits. At the time a new house is built within the City, the developer pays all the fees, charges, and the cost to construct the connection to the City's sewer, and all these costs are built into the price of the home. However, those previously in Washington County's jurisdiction have septic tanks, and so to connect to the City's sewer system, those property owners must pay the cost to connect, including fees, charges and construction.

The City can manage the construction and front the necessary cash to install sewer mains and laterals, but must be paid back by the benefiting property owners. The City has two main mechanisms it will explore to allow property owners to pay back the City. One mechanism is a local improvement district (LID), where property owners pay in monthly installments the cost of constructing the sewer, plus fees and charges, plus interest. The term of the LID can vary, up to 30 years. The City files a lien on the property until the amount owed is paid in full. The other mechanism is a reimbursement district, where the entire amount is due when the benefiting property makes the connection to the sewer system.

This project represents a place-holder on the City's part, in case the property owners come together in an area and decide to petition the City to install sewer mains and laterals.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YR TOTAL**
Construction	0	0	0	0	1,000,000	1,000,000
TOTAL COSTS	**0**	**0**	**0**	**0**	**1,000,000**	**1,000,000**
FUNDING SOURCE						
Local Improvement District/ Reimbursement District	0	0	0	0	1,000,000	1,000,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**1,000,000**	**1,000,000**

SWM 002 **HAWTHORNE STREET DRAINAGE**
Surface Water Management

PROJECT DESCRIPTION:
This project is proposed in the Storm Drainage Master Plan project list, and will provide stream restoration on open channels. The project replaces a 36-inch railroad culvert with a 54-inch culvert, and replaces Hawthorne Street's 48-inch culvert with a 54-inch culvert.

DISCUSSION OF PROJECT:
These improvements are designed to increase the storm water conveyance capacity of the City's system. Projects follow recommendations in the Storm Drainage Master Plan and are designed to alleviate localized drainage problems due in part to the lack of hydraulic capacity.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	134,000	550,000	0	0	684,000
TOTAL COSTS	**0**	**134,000**	**550,000**	**0**	**0**	**684,000**
FUNDING SOURCE						
SWM SDC	0	67,000	275,000	0	0	342,000
SWM	0	67,000	275,000	0	0	342,000
TOTAL FUNDING SOURCES	**0**	**134,000**	**550,000**	**0**	**0**	**684,000**

SWM 004 **STORM SEWER CONSTRUCTION**
Surface Water Management

PROJECT DESCRIPTION:
Expand storm sewer capacity or rehabilitate storm sewers as necessary.

DISCUSSION OF PROJECT:
No specific project has been identified. This funding is set aside in the event it is necessary for the City to expand or rehabilitation a storm sewer.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	20,000	20,000	20,000	20,000	20,000	100,000
TOTAL COSTS	**20,000**	**20,000**	**20,000**	**20,000**	**20,000**	**100,000**
FUNDING SOURCE						
SWM	20,000	20,000	20,000	20,000	20,000	100,000
TOTAL FUNDING SOURCES	**20,000**	**20,000**	**20,000**	**20,000**	**20,000**	**100,000**

SWM 007 **ALYSSUM AND TWINFLOWER DRAINAGE**
Surface Water Management

PROJECT DESCRIPTION:
This project is proposed in the Storm Drainage Master Plan project list. It replaces a 12-inch and 18-inch pipeline along Alyssum from Twinflower east approximately 550 feet.

DISCUSSION OF PROJECT:
These improvements are designed to increase the storm water conveyance capacity of the City's system. Projects follow recommendations in the Storm Drainage Master Plan and are designed to alleviate localized drainage problems due in part to the lack of hydraulic capacity.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	0	238,000	238,000
TOTAL COSTS	**0**	**0**	**0**	**0**	**238,000**	**238,000**
FUNDING SOURCE						
SWM SDC	0	0	0	0	238,000	238,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**238,000**	**238,000**

SWM 009 **CEDAR STREET PUMP STATION**
Surface Water Management

PROJECT DESCRIPTION:
This project is proposed in the Storm Drainage Master Plan project list. The current Cedar Street Pump Station will be removed and replaced with a gravity line to Douglas Street.

DISCUSSION OF PROJECT:
These improvements are designed to increase the storm water conveyance capacity of the City's system. Projects follow recommendations in the Storm Drainage Master Plan and are designed to alleviate localized drainage problems due in part to the lack of hydraulic capacity.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	0	648,900	648,900
TOTAL COSTS	**0**	**0**	**0**	**0**	**648,900**	**648,900**
FUNDING SOURCE						
SWM SDC	0	0	0	0	324,450	324,450
SWM	0	0	0	0	324,450	324,450
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**648,900**	**648,900**

SWM 011 **HIGBY LANE**
Surface Water Management

PROJECT DESCRIPTION:
Proposed in the Storm Drainage Master Plan project list. 1000-feet of excavation and defining channel through Higby Lane are proposed.

DISCUSSION OF PROJECT:
Existing flow routes are undefined. Current conveyance is land flow to Beal Pond. These improvements are designed to increase the storm water conveyance capacity of the City's system. Projects follow recommendations in the Storm Drainage Master Plan and are designed to alleviate localized drainage problems due in part to the lack of hydraulic capacity.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	405,600	0	405,600
TOTAL COSTS	**0**	**0**	**0**	**405,600**	**0**	**405,600**
FUNDING SOURCE						
SWM	0	0	0	405,600	0	405,600
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**405,600**	**0**	**405,600**

SWM 012 **BEAL POND STUDY**
Surface Water Management

PROJECT DESCRIPTION:
Install a continuous stage recording device at the pond to record the frequency of specific high water levels.

DISCUSSION OF PROJECT:
Beal Pond is located near Beal Road and Highway 47. This pond influences and plays a key role in the City's storm drainage system. A well functioning storm drainage system can prevent flooding. The Master Plan suggests that water levels in Beal Pond be studied and measured through several seasons to determine whether storm drainage flow can be improved. This project installs equipment to do that measuring.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	45,800	0	0	45,800
TOTAL COSTS	**0**	**0**	**45,800**	**0**	**0**	**45,800**
FUNDING SOURCE						
SWM	0	0	45,800	0	0	45,800
TOTAL FUNDING SOURCES	**0**	**0**	**45,800**	**0**	**0**	**45,800**

SWM 016 **17th AVENUE AND HAWTHORNE STREET**
Surface Water Management

PROJECT DESCRIPTION:
Additional storm piping with catch basins along 17th Avenue from Hawthorne east to Kingwood.

DISCUSSION OF PROJECT:
This project will construct a new storm pipe in an existing neighborhood. It is needed to pickup the slow draining intersection at 17th and Hawthorne. This project is identified in the Storm Water Master Plan.

COSTS	2013-14	2014-15	2015-16	2016-17	2017-18	5-YEAR TOTAL
Construction	0	0	0	0	236,300	236,300
TOTAL COSTS	**0**	**0**	**0**	**0**	**236,300**	**236,300**
FUNDING SOURCE						
SWM	0	0	0	0	236,300	236,300
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**236,300**	**236,300**

SWM 018 **STORM SEWER OUTFALL PROJECTS**
SURFACE WATER MANAGEMENT DEPARTMENT

PROJECT DESCRIPTION:
Various projects were identified in Clean Water Services' (CWS) report on storm sewer outfalls. This project will install headwalls on several existing culverts. The headwalls will be designed to be animal and fish friendly.

DISCUSSION OF PROJECT:
A recent study completed by Clean Water Services revealed that culverts create barriers for fish and small animals in the urban created system.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	10,000	10,000	10,000	10,000	10,000	50,000
TOTAL COSTS	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**50,000**
FUNDING SOURCE						
SWM Fund	10,000	10,000	10,000	10,000	10,000	50,000
TOTAL FUNDING SOURCES	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**50,000**

SWM 019 **B STREET AT HARVEY CLARKE**
Surface Water Management

PROJECT DESCRIPTION:
Upsize storm pipe at B Street and Harvey Clarke to alleviate flooding.

DISCUSSION OF PROJECT:
This project is south of Camino. The existing 12" storm line has had capacity issues and localized flooding has periodically been experienced.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	71,000	0	71,000
TOTAL COSTS	**0**	**0**	**0**	**71,000**	**0**	**71,000**
FUNDING SOURCE						
SWM SDC	0	0	0	71,000	0	71,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**71,000**	**0**	**71,000**

SWM 021 **CITY PARKS DRAINAGE**
Surface Water Management

PROJECT DESCRIPTION:
Design, construction and cost participate in drainage solutions at new City parks.

DISCUSSION OF PROJECT:
The City Parks Department occasionally constructs new parks. This project is to cost participate in managing the storm water run off created by new parks. Projects may include natural features, such as bioswales and wetlands, or more hard features of concrete catch basins.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	50,000	0	0	50,000
TOTAL COSTS	**0**	**0**	**50,000**	**0**	**0**	**50,000**
FUNDING SOURCE						
SWM SDC	0	0	50,000	0	0	50,000
TOTAL FUNDING SOURCES	**0**	**0**	**50,000**	**0**	**0**	**50,000**

SWM 050 Firwood Drainage Improvements/Construction
Surface Water Management

PROJECT DESCRIPTION:
Draining Improvements along FIrwood.

DISCUSSION OF PROJECT:
Draining Improvements along FIrwood.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	100,000	0	0	0	100,000
Design	9,000	0	0	0	0	9,000
TOTAL COSTS	**9,000**	**100,000**	**0**	**0**	**0**	**109,000**
FUNDING SOURCE						
SWM SDC	9,000	100,000	0	0	0	109,000
TOTAL FUNDING SOURCES	**9,000**	**100,000**	**0**	**0**	**0**	**109,000**

SWM 051 **New Park Drainage Improvements**
Surface Water Management

PROJECT DESCRIPTION:
Improvements to drainage of new parks if purchased in the upcoming fiscal year.

DISCUSSION OF PROJECT:
Improvements to drainage of new parks if purchased in the upcoming fiscal year.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	50,000	0	0	0	0	50,000
TOTAL COSTS	**50,000**	**0**	**0**	**0**	**0**	**50,000**
FUNDING SOURCE						
Sewer SDC	50,000	0	0	0	0	50,000
TOTAL FUNDING SOURCES	**50,000**	**0**	**0**	**0**	**0**	**50,000**

W 001 DISTRIBUTION MAIN IMPROVEMENTS
WATER DEPARTMENT

PROJECT DESCRIPTION:
This project is a set aside for general waterline improvements that are identified in the updated Water Master Plan, completed in 2010. These projects would improve flow and pressure at specific points in the system as identified by the hydraulic model.

DISCUSSION OF PROJECT:
These improvements are designed to increase flows to certain areas of the City for better fire protection or to replace old deteriorated pipe. Funding is from the Water Fund, to be completed by City crews.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	200,000	100,000	200,000	100,000	200,000	800,000
TOTAL COSTS	**200,000**	**100,000**	**200,000**	**100,000**	**200,000**	**800,000**
FUNDING SOURCE						
Water Fund	200,000	100,000	200,000	100,000	200,000	800,000
TOTAL FUNDING SOURCES	**200,000**	**100,000**	**200,000**	**100,000**	**200,000**	**800,000**

W 002 **LINE OVERSIZING PARTICIPATION**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Developments in certain areas of the City may trigger the need for excess pipe capacity for future growth that is beyond what that specific developer needs. This project allows the City flexibility to cost participate in the oversizing of water pipes to adequately prepare for future growth.

DISCUSSION OF PROJECT:
Revenue is collected as system development charges on new water connections. The money is used to provide funding flexibility to cost participate with developers to provide increased capacity in the water system.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YR TOTAL
Construction	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL COSTS	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**
FUNDING SOURCE						
Water SDC	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL FUNDING SOURCES	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

W 003 F.G. WATER TREATMENT PLANT MAJOR MAINTENANCE
WATER DEPARTMENT

PROJECT DESCRIPTION:
This project includes improvements to the water treatment plant as outlined in the Water Master Plan.

DISCUSSION OF PROJECT:
These improvements are needed to rehabilitate the current treatment plant to extend the service life through the next 30 years.

Following is a list of projects that has been identified in the 2010 Forest Grove Water Master Plan update (see Master Plan for more information):

- Finished water, transfer pump station, and solids transfer vaults safety improvements - environmental sensor "sniffer," air ventilation system, associated controls.
- Demo and remove old out-of-service surge tank from filter gallery area.
- Filter Backwash Supply Pump spare parts.
- Replace 12" check valve on suction side of BW pump.
- Replace valves in Filter Gallery (~10 valves) – Staff has been gradually replacing all the valves in the filter gallery with ~10 remaining and intends to include 2-3 each year in the annual budget for the plant.
- Filter media and underdrain inspection - determine if filter media and/or underdrain system (clay Leopold blocks) need replacement.
- Pretreatment Improvements (long-term) – Plate settlers, mechanical sludge collection, and effluent launder replacement. A pretreatment upgrade could include a retrofit of the basin with plate settlers (or other high rate sedimentation); new effluent launders and mechanical sludge collection would significantly improve pretreatment performance and filtration performance and would reduce the number of days that plant would need to be out of service for sludge removal and during storm events. Pre-treatment improvements should be coordinated to ensure any improvements are compatible and also to consider any future system changes that would change plant flows or raw water quality.
- Mechanical sludge/residuals collection system in sediment basins.
- Plate settlers and launder replacement.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	177,000	27,300	17,300	17,300	17,300	256,200
TOTAL COSTS	**177,000**	**27,300**	**17,300**	**17,300**	**17,300**	**256,200**
FUNDING SOURCE						
Water	177,000	27,300	17,300	17,300	17,300	256,200
TOTAL FUNDING SOURCES	**177,000**	**27,300**	**17,300**	**17,300**	**17,300**	**256,200**

W 004 **WATERSHED MAJOR MAINTENANCE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Improve drainage and roadways within the Watershed.

DISCUSSION OF PROJECT:
The Watershed Road Survey and the Watershed Stewardship Management Plan has identified hazards and problems along roads located in the watershed. Projects will install drainage crossings and re-surface existing roads for better surface water run-off, as well as decommission Deep Creek Road. Projects will be improved to Department of Forestry Standards.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	20,000	20,000	20,000	250,000	20,000	330,000
TOTAL COSTS	**20,000**	**20,000**	**20,000**	**250,000**	**20,000**	**330,000**
FUNDING SOURCE						
Water	20,000	20,000	20,000	250,000	20,000	330,000
TOTAL FUNDING SOURCES	**20,000**	**20,000**	**20,000**	**250,000**	**20,000**	**330,000**

W 005 **EMERGENCY INTERTIE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Build a water valve station at Heather Street.

DISCUSSION OF PROJECT:
A connection to the Joint Water Commission north transmission line near Heather Street has been recommended in the Forest Grove Water Master Plan. This project requires designing and constructing a valve station to meter the flow of water into the Forest Grove system. This valve would only be opened in the event of an emergency.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	432,100	0	0	432,100
TOTAL COSTS	**0**	**0**	**432,100**	**0**	**0**	**432,100**
FUNDING SOURCE						
Water Fund	0	0	432,100	0	0	432,100
TOTAL FUNDING SOURCES	**0**	**0**	**432,100**	**0**	**0**	**432,100**

W 009 **DAVID HILL ROAD WATERLINE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Construct 8" ductile iron water main.

DISCUSSION OF PROJECT:
As a part of the David Hill Road extension project, an extension of the City's water distribution piping system will also occur. It is anticipated that adjacent development will participate in the cost of this project.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	414,800	0	0	414,800
TOTAL COSTS	**0**	**0**	**414,800**	**0**	**0**	**414,800**
FUNDING SOURCE						
Water SDC	0	0	414,800	0	0	414,800
TOTAL FUNDING SOURCES	**0**	**0**	**414,800**	**0**	**0**	**414,800**

W 010 **FINISHED WATER STORAGE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Twin 0.18 million gallon reservoirs (total of 0.36 MG) and purchase of property to meet storage requirements in the upper pressure zone by 2030.

DISCUSSION OF PROJECT:
The upper pressure zone needs approximately 0.18 million gallons by 2018, growing to 0.36 million gallons by 2030, due to growth based on forecasted water demands. Twin reservoirs of 0.18 MG each will be built to meet the 2030 storage needs over the next 20 years. Property sufficient for the two reservoirs that provide the proper elevation will be identified and purchased in the next several years, with construction of one of the reservoirs following property acquisition. Currently, this is envisioned to happen within the CIP planning period.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	583,350	0	0	583,350
Other	0	194,450	0	0	0	194,450
TOTAL COSTS	**0**	**194,450**	**583,350**	**0**	0	**777,800**
FUNDING SOURCE						
Water SDC	0	194,450	583,350	0	0	777,800
TOTAL FUNDING SOURCES	**0**	**194,450**	**583,350**	**0**	**0**	**777,800**

W 013 **ASSET MANAGEMENT PROGRAM**
WATER DEPARTMENT

PROJECT DESCRIPTION:
An Asset Management Program is a tool for condition assessment of assets, in order to forecast and schedule appropriate rehabilitation and reconstruction activities in order to assist in producing an annual capital budget program. An Asset Management Program keeps track of current levels of service, life cycle trends and deterioration models. This helps to plan and develop an integrated detailed short term capital budget and projected long range capital budget.

DISCUSSION OF PROJECT:
An Asset Management Program has been recommended in the City's Water Master Plan update. These programs can help to optimize management of the physical assets of a system to maximize value. Managing assets across facilities can improve utilization and performance, reduce capital costs, reduce asset-related operating costs, extend asset life and subsequently improve return on assets.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	172,800	0	0	0	172,800
TOTAL COSTS	**0**	**172,800**	**0**	**0**	**0**	**172,800**
FUNDING SOURCE						
Water Fund	0	172,800	0	0	0	172,800
TOTAL FUNDING SOURCES	**0**	**172,800**	**0**	**0**	**0**	**172,800**

W 016 **LARGE METER REPLACEMENT**
WATER DEPARTMENT

PROJECT DESCRIPTION:
The City's water utility owns the water meters used to measure water usage. Some commercial and industrial users have large water meters, located in vaults, that are quite expensive to repair and replace.

DISCUSSION OF PROJECT:
This project is to rehabilitate vaults that house large water meters, and to replace those large water meters. In FY 13-14, a large meter and its vault that serve Pacific University will be replaced.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL COSTS	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**
FUNDING SOURCE						
Water Fund	50,000	50,000	50,000	50,000	50,000	250,000
TOTAL FUNDING SOURCES	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

W 017 **EMERGENCY WATER BLADDER & DISPENSER**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Purchase one emergency water bladder / dispenser Blivet and Trailer

DISCUSSION OF PROJECT:
During an emergency or a large scale water line break, a section of town could be without water. In this scenario, a water blivet could be used to dispense water in the interim until the distribution system is repaired. A blivet unit is a trailer mounted and can be taken to a location near the emergency area. It is connected to the water distribution system through a fire hydrant. Residential customers drive through and fill small water containers with potable water.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	0	0	20,000	20,000
TOTAL COSTS	**0**	**0**	**0**	**0**	**20,000**	**20,000**
FUNDING SOURCE						
Water Fund	0	0	0	0	20,000	20,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**20,000**	**20,000**

W 051 **LAND ACQUISITION**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Land acquisition in the future

DISCUSSION OF PROJECT:
Land acquisition in the future

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	0	0	0	500,000	500,000
TOTAL COSTS	**0**	**0**	**0**	**0**	**500,000**	**500,000**
FUNDING SOURCE						
Water Fund	0	0	0	0	500,000	500,000
TOTAL FUNDING SOURCES	**0**	**0**	**0**	**0**	**500,000**	**500,000**

W 052 **WATER TREATMENT PLANT VULNERABILITY ANALYSIS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Project to study the vulnerability of the Water Treatment Plant in the event a major earthquake hits the Forest Grove area.

DISCUSSION OF PROJECT:
FY 14-15: Projecting to complete a Request For Bid/Services in 2014-2015 to get an idea of how much a complete study would cost.
FY 15-16: An In-House estimate of how much the engineering department believes a study could potentially cost to complete.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	50,000	150,000	0	0	0	200,000
TOTAL COSTS	**50,000**	**150,000**	**0**	**0**	**0**	**200,000**
FUNDING SOURCE						
Water Fund	50,000	150,000	0	0	0	200,000
TOTAL FUNDING SOURCES	**50,000**	**150,000**	**0**	**0**	**0**	**200,000**

W 053 **WTP Mechanical Sludge Residuals Collection**
WATER DEPARTMENT

PROJECT DESCRIPTION:
A 2003 study recommended a project to improve plant solids removal capability which has the potential to reduce plant down-time throughout the year required during periods of poor raw water quality or for routine maintenance:

DISCUSSION OF PROJECT:
This project would specifically improve plant's residuals collection and management system including mechanical sludge removal for the sedimentation basin and enlargement of the backwash water ponds. Enlargement of the ponds would increase sludge storage capacity by incorporating vertical side walls. The City historically has relied on a local farm to accept sludge from the ponds, which is removed and hauled to the farm during a window of time in the spring that is determined by the farmer. Due to restrictions in the times available to accept solids, concerns over the long-term viability of depending on this method, and removal and hauling costs, the City decided to invest in dewatering equipment (filter drum) at the plant in early 2010 and seek other means of disposal. The filter drum processes sludge from the ponds at a rate of 5 gpm producing a cake that is picked up and hauled for disposal by City truck. Mechanical sludge removal is recommended to reduce maintenance efforts and plant down-time and optimize existing sedimentation basin capacity and settling performance; however, any upgrades to the sedimentation basin should be carefully planned with any future basin retrofits to ensure the systems are compatible.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	173,891	0	0	0	173,891
TOTAL COSTS	**0**	**173,891**	**0**	**0**	**0**	**173,891**
FUNDING SOURCE						
Water Fund	0	173,891	0	0	0	173,891
TOTAL FUNDING SOURCES	**0**	**173,891**	**0**	**0**	**0**	**173,891**

W 054 **WATER MASTER PLAN REVIEW**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Every 10 years the Water Department will review the FG Water Master Plan and update/change to meet our current and future predictions.

DISCUSSION OF PROJECT:
We have estimated $216,100 in FY 16-17 to begin this process and complete a new Water Master Plan for the city.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	0	216,100	0	0	216,100
TOTAL COSTS	**0**	**0**	**216,100**	**0**	**0**	**216,100**
FUNDING SOURCE						
Water Fund	0	0	216,100	0	0	216,100
TOTAL FUNDING SOURCES	**0**	**0**	**216,100**	**0**	**0**	**216,100**

W 056 **FLOW IMPROVEMENTS OAK CREST DRIVE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
The Oak Crest Drive area was just recently annexed into the city of Forest Grove. The street currently has a 2"water line for all houses on that specific street. The city is currently repairing the pip constantly and it could be improved to a 4" line as well as connecting at both ends to the overall city water system which increases the capacity and assistance with looping our current water line system in the area.

DISCUSSION OF PROJECT:
Town meetings for owners of property will be scheduled to discuss possible changes and updates to their water. The owners/city of Forest Grove may be in position to agree to an LID project to improve the water lines and street now that it is annexed into city boundaries.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Other	208,000	0	0	0	0	208,000
TOTAL COSTS	**208,000**	**0**	**0**	**0**	**0**	**208,000**
FUNDING SOURCE						
Water Fund	208,000	0	0	0	0	208,000
TOTAL FUNDING SOURCES	**208,000**	**0**	**0**	**0**	**0**	**208,000**

W 057 **LOOPING C STREET TO D STREET ON 19TH AVE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
The water distribution system should be capable of operating within specific system performance limits (i.e. pressures, water quality, etc), or guidelines, under several demand conditions. System performance guidelines on providing distribution system looping have been developed consistent with State requirements, American Water Works Association acceptable practice guidelines, and operational practices of similar communities. Looped water mains should normally be at least 8 inches in diameter except for short loops where 6-inch diameter mains are acceptable.

DISCUSSION OF PROJECT:
The water distribution system should be capable of operating within specific system performance limits (i.e. pressures, water quality, etc), or guidelines, under several demand conditions. System performance guidelines on providing distribution system looping have been developed consistent with State requirements, American Water Works Association acceptable practice guidelines, and operational practices of similar communities. Looped water mains should normally be at least 8 inches in diameter except for short loops where 6-inch diameter mains are acceptable.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Design	34,000	0	0	0	0	34,000
Construction	0	96,000	0	0	0	96,000
TOTAL COSTS	**34,000**	**96,000**	**0**	**0**	**0**	**130,000**
FUNDING SOURCE						
Water Fund	34,000	96,000	0	0	0	130,000
TOTAL FUNDING SOURCES	**34,000**	**96,000**	**0**	**0**	**0**	**130,000**

W 058 **HEAT PUMP REPLACEMENT**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Replace existing non-functional heat pump for Public Works Building

DISCUSSION OF PROJECT:
Half of the Public Works building has no cooling ability. Funding source for this replacement is building rental from Sewer, SWM, Street, Equipment, and Parks along with revenue from Water rates. Water Fund will be charged for this replacement. This will replace an existing non-functional heat pump that will be scrapped.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	15,000	0	0	0	0	15,000
TOTAL COSTS	**15,000**	**0**	**0**	**0**	**0**	**15,000**
FUNDING SOURCE						
Water Fund	15,000	0	0	0	0	15,000
TOTAL FUNDING SOURCES	**15,000**	**0**	**0**	**0**	**0**	**15,000**

W 059 **ELECTRIC VALVE OPERATOR**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Purchase electric/pneumatic valve operator to begin water system valve exercise program, this was approve in the FY11-12 but not purchased. This purchase also includes power source generator.

DISCUSSION OF PROJECT:
Water valve exercise is a necessary task to help maintain an operable water system. The ability to open and close all valves in your water system is dependent on consistent operation. Funding source for this valve operator is the Water fund. This will give the ability to begin our valve operating program.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	11,000	0	0	0	0	11,000
TOTAL COSTS	**11,000**	**0**	**0**	**0**	**0**	**11,000**
FUNDING SOURCE						
Water Fund	11,000	0	0	0	0	11,000
TOTAL FUNDING SOURCES	**11,000**	**0**	**0**	**0**	**0**	**11,000**

W 060 **EMERGENCY REPAIRS WATER LINES**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Holding $100,000 for emergency repairs throughout the fiscal year. This amount is in addition to replacing our normal 1% in CIP project W01. This project is for emergency repairs only.

DISCUSSION OF PROJECT:
Holding $100,000 for emergency repairs throughout the fiscal year. This amount is in addition to replacing our normal 1% in CIP project W01. This project is for emergency repairs only.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	100,000	100,000	100,000	100,000	100,000	500,000
TOTAL COSTS	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**
FUNDING SOURCE						
Water Fund	100,000	100,000	100,000	100,000	100,000	500,000
TOTAL FUNDING SOURCES	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**

JWC 001 **JWC RE-ROOFING OPERATIONS BUILDING**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Re-roofing operations building at JWC

DISCUSSION OF PROJECT:
Re-roofing operations building at JWC

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	26,660	0	0	0	0	26,660
TOTAL COSTS	**26,660**	**0**	**0**	**0**	**0**	**26,660**
FUNDING SOURCE						
Water Fund	26,660	0	0	0	0	26,660
TOTAL FUNDING SOURCES	**26,660**	**0**	**0**	**0**	**0**	**26,660**

JWC 002 **JWC ON-SITE POWER GENERATION**
WATER DEPARTMENT

PROJECT DESCRIPTION:
This project is for the installation of an on-site power generation system for the Joint Water Commission's Water Treatment Plant, to run in the event of an emergency that causes the Portland General Electric service to go down.

DISCUSSION OF PROJECT:
This project installs an on-site back up power generation system for the JWC water treatment plant. The JWC was successfully awarded a $225,000 matching grant from USAI to design the project. Additional grant funding may be available for the installation portion of the project.

Uninterruptable or redundant power supply has been identified as a priority by the Carollo Seismic Report and also the Black & Veatch Master Plan. On-site, back-up power generation was also listed as a need in the Water Treatment Plant Facility plan that was developed by CH2MHill and adopted by the JWC in April 2005.

Forest Grove's participation is equal to approximately 1 million gallons per day for approximately 3 days.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	198,600	0	0	0	0	198,600
TOTAL COSTS	**198,600**	**0**	**0**	**0**	**0**	**198,600**
FUNDING SOURCE						
Water Fund	198,600	0	0	0	0	198,600
TOTAL FUNDING SOURCES	**198,600**	**0**	**0**	**0**	**0**	**198,600**

JWC 003 **JWC Spare Pipe Replacements**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Stock-up on spare pipe for replacement and repairs

DISCUSSION OF PROJECT:
Stock-up on spare pipe for replacement and repairs

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	6,665	6,665	6,665	6,665	6,665	33,325
TOTAL COSTS	**6,665**	**6,665**	**6,665**	**6,665**	**6,665**	**33,325**
FUNDING SOURCE						
Water Fund	6,665	6,665	6,665	6,665	6,665	33,325
TOTAL FUNDING SOURCES	**6,665**	**6,665**	**6,665**	**6,665**	**6,665**	**33,325**

JWC 005 **JWC PUMP STATION IMPROVEMENTS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
This project will replace and improve various equipment and mechanical items at the Joint Water Commission water treatment plant. Projects include:

- Ball valve replacement for Pump Station #1, pumps 4 & 6.
- Installing flow meters on decant pump station to head works and into each existing floc/sed basin.
- Pump Station #1 VFD - Add one VFD to a larger pump in Pump Station #1. Will require replacement of one soft start with a VFD and replacement of one motor with an inverter duty motor.
- Replace pumps 4 & 5 in Pump Station #1
- Study whether to rebuild pump motors or replace them with newer, more efficient motors.

DISCUSSION OF PROJECT:
The seals in the existing ball valves are wearing out and beginning to fail. The leaking seals cause water to flow back from the pump header pipe back into the clearwell. In some instances, pump motors without non-reverse ratchets, will slowly spin backwards. This project corrects those problems.

Install flow meters on decant pump station to head works and into each existing floc/sed basin. The installation of flow meters will allow for greater operational control of the water treatment plant. There are no flow meters on the line from the decant station to the head works or to each floc/sed basin. This makes it difficult for operators to manage flow rate. The addition of meters will give the operators greater operational control and WTP optimization.

One VFD will be added to a larger pump in pump station #1. Pump station #1 is the primary operational pump station during winter time low flow periods. This pump station only has one small pump with a variable frequency drive. A second, larger VFD equipped pump would allow Operators greater operational control, efficiency, and better plant optimization during low demand periods.

Pumps 4 and 5 in Pump Station Number 1 (PS 1) were pulled as part of the assessment program. Based upon the wear of the pumps including extensive cavitation of the pump impellers, and the lack of replacement parts, it was determined that it was not feasible re-assemble these pumps and return them to service. Consequently these two pumps are currently being replaced. Furthermore, a study will be conducted to identify the cost/benefit of continuing to periodically rebuild the pump motors versus replacing them with newer more efficient motors.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Construction	0	0	2,666	2,666	0	5,332
TOTAL COSTS	**0**	**0**	**2,666**	**2,666**	**0**	**5,332**
FUNDING SOURCE						
Water Fund	0	0	2,666	2,666	0	5,332
TOTAL FUNDING SOURCES	**0**	**0**	**2,666**	**2,666**	**0**	**5,332**

JWC 006 **JWC S SEISMIC MITIGATION EXISTING PLANT**
WATER DEPARTMENT

PROJECT DESCRIPTION:
This project will make improvements at the existing plant to minimize damage and protect the safety of staff following a medium earthquake event.

DISCUSSION OF PROJECT:
In September 2007, the JWC engaged a consultant to perform a seismic evaluation of the JWC water treatment plant. The purpose of the evaluation was to asses the reliability of the water treatment plant and associated facilities following potential seismic event. The evaluation developed recommended improvements to mitigate identified vulnerabilities. Projects were developed at the existing plant to protect plant staff safety and minimize operational damage following a small earthquake event. See JWC master plan for a detailed list of overall project improvements.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	13,330	0	0	698,300	0	711,630
TOTAL COSTS	**13,330**	**0**	**0**	**698,300**	**0**	**711,630**
FUNDING SOURCE						
Water Fund	13,330	0	0	698,300	0	711,630
TOTAL FUNDING SOURCES	**13,330**	**0**	**0**	**698,300**	**0**	**711,630**

JWC 007 **JWC HYDROPNEUMATIC ACTUATORS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Replace hydro pneumatic actuators on Filters 1-8. This project will replace the existing hydro pneumatic actuators with electric actuators like those on Filters 9-14.

DISCUSSION OF PROJECT:
This project will increase reliability and commonality of spare parts by standardizing all actuators to electric actuators.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	26,660	0	0	26,660
TOTAL COSTS	**0**	**0**	**26,660**	**0**	**0**	**26,660**
FUNDING SOURCE						
Water Fund	0	0	26,660	0	0	26,660
TOTAL FUNDING SOURCES	**0**	**0**	**26,660**	**0**	**0**	**26,660**

JWC 009 **JWC THICKENERS – AUTOMATIC SLUDGE PUMPS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
The sludge pumps are 35 years old and are nearing the end of their useful life.
This project would replace existing valves with new actuated valves, replace the pumps, and add new sensors and telemetry in the thickeners.

In addition to the pumps reaching the end of their useful life, the piping/valving from both thickeners and the two pumps are currently manually actuated. WTP operators must manually open and close valves several times per week, and sludge depth must be manually inspected to determine when to turn on and off the pumps.

DISCUSSION OF PROJECT:
The sludge pumps are 35 years old and are nearing the end of their useful life.
This project would replace existing valves with new actuated valves, replace the pumps, and add new sensors and telemetry in the thickeners.

In addition to the pumps reaching the end of their useful life, the piping/valving from both thickeners and the two pumps are currently manually actuated. WTP operators must manually open and close valves several times per week, and sludge depth must be manually inspected to determine when to turn on and off the pumps.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	26,660	0	0	0	26,660
TOTAL COSTS	**0**	**26,660**	**0**	**0**	**0**	**26,660**
FUNDING SOURCE						
Water Fund	0	26,660	0	0	0	26,660
TOTAL FUNDING SOURCES	**0**	**26,660**	**0**	**0**	**0**	**26,660**

JWC 011 **JWC FG TRANSMISSION LINE INSPECTION & REPAIR**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Inspection of two JWC concrete cylinder water transmission pipelines: 1) the South Transmission Line (45-inch and 42-inch diameter, approximately 43,700 lineal feet), and, 2) the Forest Grove/Hillsboro Line (24-inch diameter, approximately 8,137 lineal feet).

DISCUSSION OF PROJECT:
Both transmission lines from the Fern Hill reservoirs are critical infrastructure. Because they are buried it is difficult to assess the condition of these lines. The purpose of this project is to provide routine, periodic inspections of the transmission piping by excavation and physical assessment. These inspections will allow the JWC to assess the useful life of the mains and plan for their eventual replacement.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	119,970	0	0	119,970
TOTAL COSTS	**0**	**0**	**119,970**	**0**	**0**	**119,970**
FUNDING SOURCE						
Water Fund	0	0	119,970	0	0	119,970
TOTAL FUNDING SOURCES	**0**	**0**	**119,970**	**0**	**0**	**119,970**

JWC 012 **JWC REMOVE LIME SILO**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Removal of Old Lime Silo. The silo has not been utilized in many years.

DISCUSSION OF PROJECT:
The removal of the silo is for both aesthetic and maintenance needs.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	6,665	0	0	6,665
TOTAL COSTS	**0**	**0**	**6,665**	**0**	**0**	**6,665**
FUNDING SOURCE						
Water Fund	0	0	6,665	0	0	6,665
TOTAL FUNDING SOURCES	**0**	**0**	**6,665**	**0**	**0**	**6,665**

JWC 016 **JWC WTP INTERIOR BUILDING IMPROVEMENTS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Repaint Control Building, Pump Station 1 Interior and Exterior. Paint is circa 1976 and in need of recoating.

DISCUSSION OF PROJECT:
Much of the original WTP has not been repainted since the original construction in 1976. This original paint is in need of recoating from both a maintenance and aesthetic perspective.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	84,100	0	0	84,100
TOTAL COSTS	**0**	**0**	**84,100**	**0**	**0**	**84,100**
FUNDING SOURCE						
Water Fund	0	0	84,100	0	0	84,100
TOTAL FUNDING SOURCES	**0**	**0**	**84,100**	**0**	**0**	**84,100**

JWC 017 **JWC THICKENER UPGRADE EXISTING PLANT**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Make improvements to the existing Joint Water Commission (JWC) water treatment plant solids thickener system.

DISCUSSION OF PROJECT:
The pipeline between the recycle pump station and the thickeners takes a circuitous route through the main floor of the operations building and through valves that are currently inoperable. Increasing the pipe size and rerouting the pipeline outside of the operations building is desired.

Refurbish/replace the drives on two 1976 vintage thickeners, and clean, repair, and paint the structures. The drives on the two 1976 thickeners are starting to create ongoing maintenance issues. They are in need of overall rehabilitation in order to extend their useful life.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	229,900	0	0	0	229,900
TOTAL COSTS	**0**	**229,900**	**0**	**0**	**0**	**229,900**
FUNDING SOURCE						
Water Fund	0	229,900	0	0	0	229,900
TOTAL FUNDING SOURCES	**0**	**229,900**	**0**	**0**	**0**	**229,900**

JWC 018 **JWC MAJOR MAINTENANCE – PUMPS, VALVES, ETC.**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Ongoing major maintenance for the JWC plant(s). This cost is reviewed annually and updated with expected expenses for the upcoming year.

DISCUSSION OF PROJECT:
Ongoing major maintenance for the JWC plant(s). This cost is reviewed annually and updated with expected expenses for the upcoming year. This can be many different projects including pumps, valves, etc.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	39,990	138,000	138,000	138,000	138,000	593,190
TOTAL COSTS	**39,990**	**138,000**	**138,000**	**138,000**	**138,000**	**593,190**
FUNDING SOURCE						
Water Fund	39,990	138,000	138,000	138,000	138,000	593,190
TOTAL FUNDING SOURCES	**39,990**	**138,000**	**138,000**	**138,000**	**138,000**	**593,190**

JWC 020 **JWC MASTER PLAN UPDATE**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Update to the Joint Water Commission Master Plan

DISCUSSION OF PROJECT:
The Oregon Department of Human Services, Drinking Water Program, requires the JWC to maintain a current master plan for its water system. A JWC Master Plan update is recommended every five years through the planning period of this project. A regular master plan update will provide flexibility to adjust the timing and magnitude of projects based on changing water demands and other conditions.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Other	0	0	43,200	0	0	43,200
TOTAL COSTS	**0**	**0**	**43,200**	**0**	**0**	**43,200**
FUNDING SOURCE						
Water Fund	0	0	43,200	0	0	43,200
TOTAL FUNDING SOURCES	**0**	**0**	**43,200**	**0**	**0**	**43,200**

JWC 022 **JWC TRASH SCREEN IMPROVEMENTS**
WATER DEPARTMENT

PROJECT DESCRIPTION:
Improve the rotating raw water trash screen. The existing trash rack is part of original equipment for the pump station and would be rehabilitated or replaced with this project.

DISCUSSION OF PROJECT:
One of two trash screens at the raw water pump station is part of the original equipment. The screen is becoming worn and is becoming a frequent maintenance item. Staff recommends a completed refurbishment of the existing trash screen. However, this work on the intake structure must coordinate with the Tualatin Valley Irrigation District.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	0	26,660	0	0	26,660
TOTAL COSTS	**0**	**0**	**26,660**	**0**	**0**	**26,660**
FUNDING SOURCE						
Water Fund	0	0	26,660	0	0	26,660
TOTAL FUNDING SOURCES	**0**	**0**	**26,660**	**0**	**0**	**26,660**

JWC 023 **JWC Wonderware**
WATER DEPARTMENT

PROJECT DESCRIPTION:
The water treatment plan uses Wonderware software for the SCADA interface. The cost below is Forest Grove's portion of an upgrade that is due on the system.

DISCUSSION OF PROJECT:
The water treatment plan uses Wonderware software for the SCADA interface. The cost below is Forest Grove's portion of an upgrade that is due on the system.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	7,731	0	0	0	0	7,731
TOTAL COSTS	**7,731**	**0**	**0**	**0**	**0**	**7,731**
FUNDING SOURCE						
Water Fund	7,731	0	0	0	0	7,731
TOTAL FUNDING SOURCES	**7,731**	**0**	**0**	**0**	**0**	**7,731**

FF 003 **Replacement of Turnouts Safety Equipment**
Fire Department

PROJECT DESCRIPTIONS:

Replace turnouts on an annual basis and other accessories as needed to insure maintenance of required safety equipment.

DISCUSSION OF PROJECTS:
The Fire Dept. has approximately sixty-five (65) sets of turnouts in the department with an average cost of $1,700 each. Life of a set of turnouts is approximately five (5) years. The department has suspenders, gloves, and flashlights that are replaced on an as-needed basis resulting in an annual expenditure of approximately $10,000 to $25,000. Turnouts are required safety equipment and must be maintained in good condition at all times.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	19,000	19,000	19,000	19,000	19,000	95,000
TOTAL COSTS =	**19,000**	**19,000**	**19,000**	**19,000**	**19,000**	**95,000**

FUNDING SOURCE	2014-15	2014-15	2014-15	2014-15	2014-15	5-YEAR TOTAL
General Fund	9,500	9,500	9,500	9,500	9,500	47,500
Fire District	9,500	9,500	9,500	9,500	9,500	47,500
TOTAL FUNDING SOURCES =	**19,000**	**19,000**	**19,000**	**19,000**	**19,000**	**95,000**

FF 004 **Replacement of Fire Hose, Nozzles, Etc.**
Fire Department

PROJECT DESCRIPTIONS:

Replacement of fire hose on an annual basis to insure maintenance of required equipment.

DISCUSSION OF PROJECTS:
Replacement of fire hose is a continuous program that results in replacing fire hoses when it is approximately seven (7) years of age. Cost of the hose ranges from $194 per 100 feet for 1-3/4" hose to $450 per 100 feet for 4" hose with a total of approximately 26,000 feet of hose in service and a total dollar amount of $81,340 worth of hose. Also included in this is the replacement of nozzles.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	12,500	12,500	12,500	12,500	12,500	62,500
TOTAL COSTS =	**12,500**	**12,500**	**12,500**	**12,500**	**12,500**	**62,500**

FUNDING SOURCE	2014-15	2014-15	2014-15	2014-15	2014-15	5-YEAR TOTAL
General Fund	6,250	6,250	6,250	6,250	6,250	31,250
Fire District	6,250	6,250	6,250	6,250	6,250	31,250
TOTAL FUNDING SOURCES =	**12,500**	**12,500**	**12,500**	**12,500**	**12,500**	**62,500**

FF 008 **Fire Apparatus Replacement Program**
Fire Department

PROJECT DESCRIPTIONS:

The Fire Department's 14 pieces of apparatus are replaced on a scheduled basis. Capital costs are split on a 50/50 basis between the City and Rural District. Pickups are replaced every 7 to 10 years, pumpers are replaced every 17 years, and tankers and ladder trucks are replaced every 20 years.

DISCUSSION OF PROJECTS:
The City and the District both maintain a reserve to replace fire apparatus. With the reserve, money to fund replacement of vehicles is built up over the life of the vehicle. This practice maintains annual expenditures for apparatus and allows both the City and District to avoid periods of high and low spending. This funding method is the same method that the City uses to maintain its equipment fund.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	260,000	130,000	395,000	473,000	330,000	1,668,000
TOTAL COSTS =	**260,000**	**130,000**	**395,000**	**473,000**	**330,000**	**1,588,000**

FUNDING SOURCE	2014-15	2014-15	2014-15	2014-15	2014-15	5-YEAR TOTAL
FERF	130,000	65,000	197,500	236,500	165,000	794,000
Fire District	130,000	65,000	197,500	236,500	165,000	794,000
TOTAL FUNDING SOURCES =	**260,000**	**130,000**	**395,000**	**473,000**	**330,000**	**1,588,000**

FF 009 **Cardiac Monitor Replacement**
Fire Department

PROJECT DESCRIPTIONS:
Cardiac Monitor Replacement – Our replacement schedule calls for replacement of our cardiac monitors in 2013/14. TVFR just completed an analysis of cardiac monitors and will be purchasing the Phillips model – we would attach to this contract. Cardiac monitors are critical lifesaving devices that are used 5-10 times daily to monitor cardiac performance, blood oxygen, expired CO2, and blood pressure. Paramedics directly utilize these devices to determine their treatment and medications.

DISCUSSION OF PROJECTS:
Cardiac Monitor Replacement – Our replacement schedule calls for replacement of our cardiac monitors in 2013/14. TVFR just completed an analysis of cardiac monitors and will be purchasing the Phillips model – we would attach to this contract. Cardiac monitors are critical lifesaving devices that are used 5-10 times daily to monitor cardiac performance, blood oxygen, expired CO2, and blood pressure. Paramedics directly utilize these devices to determine their treatment and medications.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	60,000	0	0	0	0	60,000
TOTAL COSTS =	**60,000**	**0**	**0**	**0**	**0**	**60,000**

FUNDING SOURCE	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
FERF	30,000	0	0	0	0	30,000
Fire District	30,000	0	0	0	0	30,000
TOTAL FUNDING SOURCES =	**60,000**	**0**	**0**	**0**	**0**	**60,000**

FF 010 **HVAC & Building Repairs**
Fire Department

PROJECT DESCRIPTIONS:
Replacing HVAC for Fire House. The Current HVAC system is outdated and often fails during high use times. This project will purchase and install a new HVAC system for the Fire Hall.

DISCUSSION OF PROJECTS:
Replacing HVAC for Fire House. The Current HVAC system is outdated and often fails during high use times. This project will purchase and install a new HVAC system for the Fire Hall.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	64,500	0	0	0	0	64,500
TOTAL COSTS =	**64,500**	**0**	**0**	**0**	**0**	**64,500**

FUNDING SOURCE	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Major Maintenance	32,250	0	0	0	0	32,250
Fire District	32,250	0	0	0	0	32,250
TOTAL FUNDING SOURCES =	**64,500**	**0**	**0**	**0**	**0**	**64,500**

PD.012 REPLACEMENT OF MOBILE DATA COMPUTERS (MDC's)
POLICE DEPARTMENT

PROJECT DESCRIPTION:
On-going replacement of MDC's for the police vehicles.

DISCUSSION OF PROJECT:
The Department has a responsibility to maintain Forest Grove's part in the integrity of the countywide system. It is up to the individual departments in the County to keep current with technology. This technology ensures interoperability between regional law enforcement agencies and the countywide dispatch center. The Department must be prepared to expend the funds necessary to maintain the technology used in the rest of the County agencies. This expenditure projects for the projected life of the in-vehicle mobile data computers. The proposed configuration will support advanced emerging technologies with the mobile data computers such as GPS, mapping, and access to informational databases.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Equipment/Furniture	78,000	16,950	16,950	16,950	16,950	145,800
TOTAL COSTS =	**78,000**	**16,950**	**16,950**	**16,950**	**16,950**	**145,800**
FUNDING SOURCE						
CIP Excise Tax Fund	78,000	16,950	16,950	16,950	16,950	145,800
TOTAL FUNDING SOURCES =	**78,000**	**16,950**	**16,950**	**16,950**	**16,950**	**145,800**

PD25 HANDHELD CITATION WRITERS, PRINTERS AND SOFTWARE
POLICE DEPARTMENT

PROJECT DESCRIPTION:
Purchase handheld citation writers, printers and software for use by Traffic Officers, and upgrade Municipal Court software to accept new technology.

DISCUSSION OF PROJECT:
Traffic citations are completed by hand and are manually entered into the department's records management system by Records Clerks. They were then hand delivered to Municipal Court and again manually processed. Various officers' handwriting is routinely difficult to discern and this creates errors during data entry. Leveraging technology in this manner improves the efficiency of officers, and records and court personnel. Paper citations are prone to loss or destruction.

The ticket writers would automate citation completion in the field via use of mobile handheld computers which read barcodes on driver's licenses, automatically filling driver's information into the system. The officer would complete remaining fields and print off a copy of the citation for the violator. The information in the handheld computer would subsequently be downloaded into the department's records management system and the Municipal Court system, virtually eliminating paper documents which can be lost, and/or destroyed. With this system, downloading multiple citations can be done in seconds, with zero errors versus several minutes per citation that it takes a Records Clerk to manually enter the citations now.

This project will be reviewed after Reg JIN is implemented as part of the Reg JIN Software. This should allow officers to write citations electronically. Printers for vehicles would be needed.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment	0	0	57,250	0	0	57,250
TOTAL COSTS =	**0**	**0**	**57,250**	**0**	**0**	**57,250**
FUNDING SOURCE						
General Fund Operating	0	0	45,000	0	0	45,000
CIP Excise Tax Fund	0	0	12,250	0	0	12,250
TOTAL FUNDING SOURCES =	**0**	**0**	**57,250**	**0**	**0**	**57,250**

PD.035 **Handheld Radar Replacement and Upgrade**
Police Department

PROJECT DESCRIPTION:
Replace current and aging handheld radar units with updated and new Kustom radar units.

DISCUSSION OF PROJECT:
Until recently the Forest Grove Police Department has not updated the handheld radar units for its patrol officers. As a result the maintenance and repair of the aging units has come to a point where the value of the radar unit is less than the cost to repair the unit. Additionally, the units are outdated and have limited functionality.

Recently the department has been afforded the opportunity to acquire three new Kustom handheld radar units with protective cases and mounting systems for the vehicles. These units allow for the use while moving and provide for a far more adequate protection level than the old Phantom radar units. Currently the department has deployed the new handheld units and the response has been positive from the patrol staff. Due to the cost of these units, it would seem wise to permanently place them in the patrol vehicles in the provided mounts. This would limit damage to a sensitive and costly item.

The police department fields 9 patrol vehicles. I would encourage the budgeting and purchase of 7 additional handheld radar units to outfit all of our patrol vehicles with this updated technology. The cost for a single Kustom radar unit is $1,603. The City would need to purchase an additional 7 radar units in order to provide for the comprehensive use of radar speed enforcement.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment	9,618	1,603	0	0	0	11,221
TOTAL COSTS =	**9,618**	**1,603**	**0**	**0**	**0**	**11,221**
FUNDING SOURCE						
General Fund	9,618	1,603	0	0	0	11,221
TOTAL FUNDING SOURCES =	**9,618**	**1,603**	**0**	**0**	**0**	**11,221**

PD.036 **South Parking Lot Repair**
Police Department

PROJECT DESCRIPTION:
Resurfacing and repair of existing concrete and asphalt parking area on the south side of the Police facility.

DISCUSSION OF PROJECT:
During the fall of 2012 the Department was advised that in the recent past, issues had arisen due to excessive water filtering through the south parking area at the Police facility. Due to the disrepair of the parking area, water had flowed into the basement communications area causing failure of the City's phone system. As a result an inquiry showed that due to cracking and the lack of caulking in the seams of the south parking lot, water was penetrating into the facility sub-structure. Additionally, water also leaks into the facility firearms range, seeping out of the walls and leaking onto the ballast and bullet traps. This leakage can be seen on the walls of the department indoor range as well as water marking and rusting on the steel plates on the range.

It is common knowledge that water movement is incredibly damaging and can cause unanticipated failure of structures and equipment. This Department was also advised that discussions regarding the maintenance and repair of the south parking lot had occurred on several occasions, but no budget requests had been made by this Department.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Construction	27,129	0	0	0	0	27,129
TOTAL COSTS =	**27,129**	**0**	**0**	**0**	**0**	**27,129**
FUNDING SOURCE						
Major Maintenance Fund	27,129	0	0	0	0	27,129
TOTAL FUNDING SOURCES =	**27,129**	**0**	**0**	**0**	**0**	**27,129**

PD.040 Weapons Procurement and Replacement Program
Police Department

PROJECT DESCRIPTION:
Purchase and upgrade program for Department weapons platforms to include lethal and less-lethal applications.

DISCUSSION OF PROJECT:
Currently our deployable weapons inventory consists of the following with descriptions and status:

3	Glock G-17 training pistols.	Used for simulated use of force engagements
7	AR-15 rifles	Used for longer range engagements and penetration
1	.22 caliber rifle	Used for disposing of injured animals
6	Remington 870 Shotguns	Currently deployed as less lethal platforms
6	Remington 870 Shotguns	Off line due to age and condition
22	Glock G-17 Handguns (9mm)	Current Issue
15	Glock G-21 Handguns (.45 ACP)	Current Issue
1	Glock G-22 Handgun (.40 S&W)	Scheduled to go off line
7	Taser X-26	Current Issue (But are or are scheduled for expiration)
1	Taser X-26	Inoperative

Currently 2 of our 7 rifles are in evidence and have no release date yet. Of the remaining 5 rifles 3 are antiquated AR-15A2 rifles that have seen extensive use, both on patrol and during training. When discussing the AR-15 rifle it needs to be understood that due to the high velocity of the ammunition used, accuracy begins to diminish. Additionally, micro-cracks in the frame and tension points can cause failure of the weapons platform. Furthermore, updated accessories, optics and tactical lights are difficult to attach and utilize on these older platforms. When discussing the Taser X-26 less lethal platform it should be noted that its deployment within the public safety industry is a standard for less lethal confrontations. With that in mind, Taser Inc. does not warranty the use of the Taser beyond 5 years. As a result, the Taser platform needs to be rotated on a five year schedule. Currently nearly all of our Taser's have reached and/or surpassed the 5 year threshold. As a result, in the event of a death related to the use of the Taser, no involvement by Taser Inc., can be relied upon. After the initial purchase is made the annual cost could be reduced to $10,000 annually providing for the purchase of one 40mm launcher, 2 rifles w/accessories, 2 Taser X-26's and 3 handguns. This would allow for the unfettered replacement of aging weapons as well as the upgrade to new and advanced platforms.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Equipment/Furniture	25,000	10,000	10,000	10,000	10,000	65,000
TOTAL COSTS =	**25,000**	**10,000**	**10,000**	**10,000**	**10,000**	**65,000**
FUNDING SOURCE						
CIP Excise Tax Fund	25,000	10,000	10,000	10,000	10,000	65,000
TOTAL FUNDING SOURCES =	**25,000**	**10,000**	**10,000**	**10,000**	**10,000**	**65,000**

AQ 004 **AQUATIC CENTER ENERGY PROJECTS**
AQUATICS DEPARTMENT

PROJECT DESCRIPTION:
Explore and implement energy conservation projects at the Forest Grove Aquatic Center.

DISCUSSION OF PROJECT:
The City partnered with the Energy Trust of Oregon to study the energy consumption at the Aquatic Center. The study was completed in February 2012. Findings included a number of measures that could be implemented to reduce consumption and achieve payback for the investment over a relatively short amount of time for some measure, others were longer. This project addresses the Council sustainability goals at the pool. Measures included in the study are: Install automatic pool blankets and installation of UV chemical treatment systems for all pools, upgrade all HVAC systems in the natatorium and locker rooms, install heat recovery system for outside air and supply fan systems and install new boiler control system. The study showed payback periods ranging from 6.5 years to 40.5 years. This project also includes UV water treatment system to prevent chemical balance issues once the pools are covered.

In FY 14-15, the City will be exploring which projects make the most sense to embark upon first, and to ensure the City has adequate funding to pay for the projects.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Design/Engineering	0	1,000	0	0	0	1,000
Construction	0	20,000	100,000	75,000	0	195,000
Equipment/Furniture	0	163,000	0	0	0	163,000
TOTAL COSTS =	**0**	**184,000**	**100,000**	**75,000**	**0**	**359,000**
FUNDING SOURCE						
General Fund	0	184,000	100,000	75,000	0	359,000
TOTAL FUNDING SOURCES =	**0**	**184,000**	**100,000**	**75,000**	**0**	**359,000**

AQ 005 **POOL DECK**
AQUATIC DEPARTMENT

PROJECT DESCRIPTION:
Repair pool deck.

DISCUSSION OF PROJECT:
This project will replace/repair the pool deck including locker rooms. The deck was refinished during the 2001 renovation and has not met expectations. There are a number of places that are failing and becoming discolored. This is the one area that staff receive comments from patrons on how the floor appear to make the deck look unclean. This year's project will tile the shower area flooring.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	14,500	0	0	110,000	0	124,500
TOTAL COSTS =	**14,500**	**0**	**0**	**110,000**	**0**	**124,500**
FUNDING SOURCE						
Major Maintenance Fund	14,500	0	0	110,000	0	124,500
TOTAL FUNDING SOURCES =	**14,500**	**0**	**0**	**110,000**	**0**	**124,500**

PKS 009 **ROGERS PARK RENOVATION**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Make improvements to park based on master plan.

DISCUSSION OF PROJECT:
Project includes restroom construction and possible construction of an additional picnic shelter. Also includes replacement of play equipment, the relocation of sand play area and additional benches for park users. This project is identified in the Parks and Recreation Master Plan. FY 2014-15 will build a restroom facility similar to the Fernhill facility.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	10,000	15,000	0	0	25,000
Construction	0	35,000	90,000	0	0	125,000
Equipment/Furniture	0	50,000	0	0	0	50,000
Contingency	0	5,000	5,000	0	0	10,000
TOTAL COSTS =	**0**	**100,000**	**110,000**	**0**	**0**	**210,000**
FUNDING SOURCE						
Grant funding	0	0	110,000	0	0	110,000
Park SDC's	0	100,000	0	0	0	100,000
TOTAL FUNDING SOURCES =	**0**	**100,000**	**110,000**	**0**	**0**	**210,000**

PKS 013 **TRAILS/GREENWAYS/LINEAR PARKS**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Development of trails/greenways/linear parks that connect these areas to each other and various parks and recreational facilities in the community.

DISCUSSION OF PROJECT:
During the development of the Parks Master Plan in 2002 it became clear that connecting our community with trails and greenways is a high priority to the citizens. These projects provide ten opportunities to circle our community and add trail connections to parklands. Cost will be shared by in-kind donations, grant funding and SDC funds. The projects listed in the 5 year CIP includes continuing the loop near the B Street Trail and development in the western portion of Forest Grove.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	53,250	0	90,000	0	0	143,250
Construction	355,000	0	450,000	0	0	805,000
Contingency	35,000	0	8,500	0	0	43,500
TOTAL COSTS =	**443,250**	**0**	**548,500**	**0**	**0**	**991,750**
FUNDING SOURCE						
Parks Acq & Dev	147,750	0	329,100	0	0	476,850
Grants	295,500	0	219,400	0	0	514,900
TOTAL FUNDING SOURCES =	**443,250**	**0**	**548,500**	**0**	**0**	**991,750**

PKS 014 **THATCHER PARK PHASE II**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Develop 15 acres of open space and park land in the north-northwest section of Forest Grove.

DISCUSSION OF PROJECT:
Thatcher Park including the Loomis Property was purchased with Metro Greenspaces Funds in FY 2000 and completed with Bond proceeds in 2001. A portion of the site will remain a passive recreation area in accordance with the Greenspaces program. Improvements may include interpretive trail and signage, benches, picnic tables and parking area. Phase II of the active area of the park will include features approved in the Master Plan adopted in 2008. This area will include water spray recreation area, picnic areas, trail development, and additional parking.

COSTS	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**5-YEAR TOTAL**
Design/Engineering	0	0	0	0	200,000	200,000
Construction	0	0	0	0	1,800,000	1,800,000
TOTAL COSTS =	**0**	**0**	**0**	**0**	**2,000,000**	**2,000,000**
FUNDING SOURCE						
Parks SDC	0	0	0	0	2,000,000	2,000,000
TOTAL FUNDING SOURCES =	**0**	**0**	**0**	**0**	**2,000,000**	**2,000,000**

PR17 **REUTER FARM PARK DEVELOPMENT**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Development of Reuter Farm Park.

DISCUSSION OF PROJECT:
The Reuter Farm Homeowners Association donated approximately 2.25 acres to the City in FY 2000. The property includes over 20 native white oaks.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	0	0	0	50,500	50,500
TOTAL COSTS =	**0**	**0**	**0**	**0**	**50,500**	**50,500**
FUNDING SOURCE						
S.D.C.	0	0	0	0	50,500	50,500
TOTAL FUNDING SOURCES =	**0**	**0**	**0**	**0**	**50,500**	**50,500**

PKS 020 **JOSEPH GALE PARK IMPROVEMENTS**
DEPARTMENT

PROJECT DESCRIPTION:
This project will improve the park facilities to comply with ADA standards.

DISCUSSION OF PROJECT:
Joseph Gale Park continues to be a heavily used facility. The majority of the park's facilities (restrooms, ball fields, and other equipment) were constructed in the 1960's. This project will replace restrooms, construct walking paths, and upgrade all facilities to ADA standards. Additional benches, picnic tables, drinking fountains, and equipment will be included.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	0	0	15,000	0	15,000
Construction	0	0	0	100,000	0	100,000
Contingency	0	0	0	15,000	0	15,000
TOTAL COSTS =	**0**	**0**	**0**	**130,000**	**0**	**130,000**
FUNDING SOURCE						
Lottery Grant	0	0	0	65,000	0	65,000
SDC Funds	0	0	0	65,000	0	65,000
TOTAL FUNDING SOURCES =	**0**	**0**	**0**	**130,000**	**0**	**130,000**

PKS 022 **LINCOLN PARK MASTER PLAN**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Master plan updates design and construction.

DISCUSSION OF PROJECT:
Master plan updates design and construction.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	0	80,000	0	0	80,000
Construction	0	0	0	325,000	120,000	445,000
Contingency	0	0	0	35,000	15,000	50,000
TOTAL COSTS =	**0**	**0**	**80,000**	**360,000**	**135,000**	**575,000**
FUNDING SOURCE						
Parks SDC	0	0	0	80,000	360,000	440,000
Future Bond Proceeds	0	0	0	135,000	0	135,000
TOTAL FUNDING SOURCES =	**0**	**0**	**0**	**215,000**	**360,000**	**575,000**

PKS 025 BARD & TALISMAN PARK IMPROVEMENTS
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Continue improvements to Bard Park.
Add improvements to Talisman Park.

DISCUSSION OF PROJECT:
Bard Park received a major renovation in FY 2005-06. This project continues this renovation with construction of restrooms.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	0	0	15,000	0	0	15,000
Construction	0	0	50,000	0	0	50,000
Equipment/Furniture	0	0	50,000	0	0	50,000
Contingency	0	0	10,000	0	0	10,000
TOTAL COSTS =	**0**	**0**	**125,000**	**0**	**0**	**125,000**
FUNDING SOURCE						
SDC Funds	0	0	125,000	0	0	125,000
TOTAL FUNDING SOURCES =	**0**	**0**	**125,000**	**0**	**0**	**125,000**

PKS.027 SOUTHERN NEIGHBORHOOD LAND PURCHASE
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
This project purchases land in the southern portion of Forest Grove.

DISCUSSION OF PROJECT:
The Parks Recreation and Open Space Master Plan indentified a need for additional neighborhood park land in the southern section of the community. Identified as N-7 in the master plan, this project will provide space in an area that has been traditionally difficult to find property. As property opportunities occur the City should take advantage of these rare chances in an area that is underserved at this time. This becomes very significant as the City is continuing to look for property for community garden space and or additional off leash areas.

COSTS	2014-15	2015-16	2016=17	2017-18	2018-19	5-YEAR TOTAL
Property Purchase	240,000	0	0	0	0	240,000
TOTAL COSTS =	**240,000**	**0**	**0**	**0**	**0**	**240,000**
FUNDING SOURCE						
Parks SDC	240,000	0	0	0	0	240,000
TOTAL FUNDING SOURCES =	**240,000**	**0**	**0**	**0**	**0**	**240,000**

PKS.028 PARKS, RECREATION AND OPEN SPACE MASTER PLAN UPDATE
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Provide an update to the Parks, Recreation and Open Space Master Plan.

DISCUSSION OF PROJECT:
This project will update the Master Plan that was adopted by City Council in 2002. The project will include update and revision of the Parks SDC methodology and fees. Also, included will be the study of a Community Recreation Center that is a part of the Community Vision Statement.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Design/Engineering	200,000	0	0	0	0	200,000
TOTAL COSTS =	**200,000**	**0**	**0**	**0**	**0**	**200,000**
FUNDING SOURCE						
Parks SDC's	100,000	0	0	0	0	100,000
State Funding	100,000	0	0	0	0	100,000
TOTAL FUNDING SOURCES =	**200,000**	**0**	**0**	**0**	**0**	**200,000**

PKS 029 **IMPROVE PARKING LOTS AT CITY PARKS**
PARKS AND RECREATION DEPARTMENT

PROJECT DESCRIPTION:
Repair and rehabilitation parking lots at City parks.

DISCUSSION OF PROJECT:
This project will repair two (2) City owned parking lots within Lincoln Park. These lots were repaired during the renovation of the park in 2007, but they continue to show signs of failure. The project would clean, seal, crack seal, remove and replace some areas completely, and restripe with the current layout. This has been a significant deferred maintenance issue.

COSTS	2014-15	2015-16	2016-17	2017-18	2018-19	5-YEAR TOTAL
Construction	0	53,000	0	0	0	53,000
TOTAL COSTS =	**0**	**53,000**	**0**	**0**	**0**	**53,000**
FUNDING SOURCE						
MMRF	0	53,000	0	0	0	53,000
TOTAL FUNDING SOURCES =	**0**	**53,000**	**0**	**0**	**0**	**53,000**