city of forest grove

# CAPITAL IMPROVEMENTS PROGRAM 2012 - 2017

# CAPITAL IMPROVEMENTS PROGRAM

## CITY OF FOREST GROVE

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forest grove

**May 2012**

## CITY OF FOREST GROVE

## 2012-2017 CAPITAL IMPROVEMENTS PROGRAM (CIP)

**PURPOSE:** To achieve two primary objectives:

**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.

**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 four categories. They include Utility and Transportation Projects; Public Safety Projects; Culture and Recreation Projects; and General Government Projects. These categories do not necessarily correspond to specific departments or funds in the City's annual budget. Each project in the CIP will be budgeted in the fund responsible for managing the project in the annual budget document.

**Utility and Transportation 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, electrical


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distribution, 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.

**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 and 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.

**General Government Projects:** Projects within this category are for providing capital equipment and facilities to support the general operations of City government. This includes building construction, repair and maintenance outside of the areas listed above, as well as maintaining general parking facilities. Significant technological improvements are also included in this category, such as replacing software systems or advancing the architecture of the city computer network.

## UTILITY AND TRANSPORTATION PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| **LIGHT AND POWER FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| LP1 | Major Tools and Equipment | 87,000 | 16,500 | 20,000 | 20,000 | 20,000 | 163,500 |
| LP2 | Substation Upgrades | 1,250,000 | 2,220,000 | 2,025,000 | 145,000 | 110,000 | 5,750,000 |
| LP4 | Property Improvements & Office Building | 510,700 | 50,000 | 25,000 | 25,000 | 25,000 | 635,700 |
| LP8 | L&P Vehicle Replacement Program | 240,000 | 290,000 | 165,000 | 100,000 | 125,000 | 920,000 |
| LP9 | L&P Specialized Equipment | 26,000 | 30,000 | 30,000 | 30,000 | 30,000 | 146,000 |
| LP22 | Distribution System Additions And Upgrades | 65,000 | 50,000 | 50,000 | 50,000 | 50,000 | 265,000 |
| | **LIGHT AND POWER TOTALS** | **2,178,700** | **2,656,500** | **2,315,000** | **370,000** | **360,000** | **7,880,200** |
| | | | | | | | |
| **EQUIPMENT FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| EQ1 | Equipment Replacement Program | 110,000 | 697,500 | 303,500 | 350,500 | 196,000 | 1,657,500 |
| | **EQUIPMENT TOTALS** | **110,000** | **697,500** | **303,500** | **350,500** | **196,000** | **1,657,500** |
| | | | | | | | |
| **STREET FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| ST1 | Gales Way (From "E" Street To 23rd Avenue) | 0 | 0 | 456,720 | 0 | 0 | 456,720 |
| ST3 | 23rd/24th Ave (Industrial Area) | 0 | 0 | 0 | 0 | 1,324,660 | 1,324,660 |
| ST5 | 19th Ave (Oak St. to Hwy 47) | 0 | 0 | 0 | 0 | 330,000 | 330,000 |
| ST10 | David Hill Road | 0 | 0 | 642,808 | 3,214,038 | 2,571,230 | 6,428,075 |
| ST12 | TV Hwy & Quince | 0 | 1,300,000 | 0 | 0 | 3,330,000 | 4,630,000 |
| ST15 | 19th Avenue Extension | 0 | 0 | 0 | 0 | 4,768,848 | 4,768,848 |
| ST17 | Thatcher Road | 0 | 0 | 0 | 0 | 3,626,136 | 3,626,136 |
| **ST18** | **26th Ave** | 250,000 | 0 | 0 | 0 | 0 | 250,000 |
| **ST19** | **Hwy 47 & Maple Street Intersection** | 0 | 0 | 0 | 200,000 | 0 | 200,000 |
| ST20 | Safe Routes to School | 50,000 | 0 | 0 | 0 | 0 | 50,000 |
| ST22 | B Street North | 0 | 0 | 0 | 0 | 6,068,623 | 6,068,623 |
| ST24 | Crosswalks - Thatcher & Gales Creek Hwy | 45,000 | 0 | 0 | 0 | 0 | 45,000 |
| **ST25** | **20th Place** | 0 | 280,000 | 0 | 0 | 0 | 280,000 |
| | **STREET TOTALS** | **345,000** | **1,580,000** | **1,099,528** | **3,414,038** | **22,019,497** | **28,458,062** |
| | | | | | | | |
| **SEWER FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| SW1 | Replace / Rehabilitate Old Sewers | 237,375 | 200,000 | 100,000 | 100,000 | 100,000 | 737,375 |
| SW2 | Sewer Oversizing Participation/SDC | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 250,000 |
| SW3 | CWS / City Phase III Sewer I&I Repair | 94,004 | 94,004 | 94,004 | 94,004 | 94,004 | 470,022 |
| SW4 | Maple Street Capacity Expansion | 0 | 0 | 0 | 0 | 600,000 | 600,000 |
| SW5 | Willamina Capacity Expansion | 0 | 0 | 0 | 677,250 | 837,750 | 1,515,000 |
| SW7 | Sunset Drive MSTIP/SDC | 121,995 | 121,995 | 121,995 | 121,995 | 121,995 | 609,973 |
| SW8 | 23rd/24th Avenue (Industrial Area) | 0 | 0 | 0 | 0 | 278,960 | 278,960 |
| SW9 | Mountain View Sewer Line | 0 | 0 | 0 | 0 | 600,000 | 600,000 |
| SW10 | A Street Capacity (A to 16th; 8" & 10" to 15") | 0 | 0 | 0 | 0 | 590,000 | 590,000 |
| SW11 | Fir Road | 0 | 0 | 0 | 0 | 420,000 | 420,000 |
| | **SEWER TOTALS** | **503,374** | **465,999** | **365,999** | **1,043,249** | **3,692,709** | **6,071,330** |
| | | | | | | | |

## UTILITY AND TRANSPORTATION PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| **SURFACE WATER MANAGEMENT FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| SWM2 | Hawthorne Street Drainage | 0 | 0 | 0 | 0 | 342,000 | 342,000 |
| SWM6 | 23rd/24th Drainage Culvert | 0 | 0 | 0 | 0 | 110,000 | 110,000 |
| SWM7 | Alyssum and Twinflower Drainage | 0 | 0 | 0 | 135,000 | 0 | 135,000 |
| SWM9 | Cedar Street Pump Station | 0 | 0 | 0 | 0 | 360,000 | 360,000 |
| SWM11 | Higby Lane | 0 | 0 | 0 | 0 | 230,000 | 230,000 |
| SWM12 | Beal Pond | 0 | 0 | 0 | 26,000 | 0 | 26,000 |
| SWM16 | Basin 5 - 17th Ave & Hawthorne | 0 | 0 | 134,000 | 0 | 0 | 134,000 |
| SWM17 | North End Drainage | 20,000 | 0 | 0 | 0 | 0 | 20,000 |
| SWM18 | Storm Sewer Outfalls | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 50,000 |
| **SWM19** | **B Street at Harvey Clark** | 0 | 0 | 71,000 | 0 | 0 | 71,000 |
| **SWM20** | **David Hill Drainage** | 0 | 0 | 0 | 200,000 | 0 | 200,000 |
| **SWM21** | **City Parks Drainage** | 0 | 75,000 | 50,000 | 25,000 | 25,000 | 175,000 |
| | **SWM TOTALS** | **30,000** | **85,000** | **265,000** | **396,000** | **1,077,000** | **1,853,000** |

## UTILITY AND TRANSPORTATION PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| **WATER FUND FIVE YEAR CAPITAL IMPROVEMENT PROGRAM** | | | | | | | |
| W01 | Distribution Main Improvements | 100,000 | 200,000 | 100,000 | 200,000 | 100,000 | 700,000 |
| W02 | Line Oversizing Participation | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 250,000 |
| W03 | FG WTP Improvements | 52,585 | 10,000 | 10,000 | 10,000 | 10,000 | 92,585 |
| W04 | Watershed Road Improvements | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 100,000 |
| W05 | Emergency Intertie | 0 | 0 | 0 | 0 | 289,819 | 289,819 |
| W06 | 23rd/24th Ave (Industrial Area) | 0 | 0 | 0 | 129,004 | 117,396 | 246,400 |
| W07 | Gales Creek | 0 | 0 | 0 | 0 | 2,000,000 | 2,000,000 |
| W08 | Barney Buy-In | 0 | 0 | 0 | 0 | 2,400,000 | 2,400,000 |
| W09 | David Hill | 70,000 | 0 | 0 | 0 | 0 | 70,000 |
| W10 | Finished Water Storage | 0 | 103,000 | 371,315 | 0 | 0 | 474,315 |
| W11 | Water Rights Strategic Plan | 31,000 | 0 | 0 | 0 | 0 | 31,000 |
| W12 | TVID Water Supply Feasibility Study | 47,741 | 0 | 0 | 0 | 0 | 47,741 |
| W13 | Asset Management Program | 0 | 100,000 | 0 | 0 | 0 | 100,000 |
| **W14** | **Public Works' Building Improvements** | 35,000 | 0 | 0 | 0 | 0 | 35,000 |
| **W20** | **JWC Finished Water Metering** | 0 | 0 | 0 | 0 | 66,650 | 66,650 |
| **W21** | **JWC JWC Floc/Sed Basin Improvements** | 0 | 0 | 0 | 39,990 | 53,330 | 93,320 |
| **W22** | **JWC Building Improvements** | 0 | 0 | 0 | 0 | 19,995 | 19,995 |
| W23 | JWC Master Plan | 0 | 0 | 0 | 0 | 46,655 | 46,655 |
| W24 | JWC Thickener | 0 | 0 | 0 | 40,000 | 0 | 40,000 |
| W27 | JWC Equipmen t Needs | 20,000 | 15,996 | 15,996 | 9,331 | 9,331 | 70,654 |
| W28 | JWC Fern Hill Chlorine Injection System | 33,325 | 0 | 0 | 0 | 0 | 33,325 |
| W29 | JWC Seismic Retro Fit of Current Plant | 0 | 0 | 0 | 0 | 614,513 | 614,513 |
| **W30** | **JWC Hydropneumatic Actuators** | 26,660 | 0 | 0 | 0 | 0 | 26,660 |
| **W31** | **JWC Remove Lime Silo** | 0 | 0 | 0 | 0 | 6,665 | 6,665 |
| **W32** | **JWC Source Water Protection Plan** | 7,332 | 7,332 | 7,332 | 7,332 | 7,332 | 36,658 |
| **W33** | **JWC Trash Screen Improvements** | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| W39 | JWC Fish Screen At Fern Hill Pump Station | 0 | 0 | 0 | 0 | 320,000 | 320,000 |
| W41 | JWC Water Rights Consult of Record | 9,331 | 6,665 | 6,665 | 6,665 | 6,665 | 35,991 |
| **W42** | **JWC Bar Rack Cleaning System** | 0 | 0 | 0 | 0 | 93,310 | 93,310 |
| **W43** | **JWC Connecting Yard Valves** | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| **W44** | **JWC Electrical Assessment Upgrades** | 77,314 | 0 | 42,123 | 168,491 | 13,330 | 301,258 |
| **W45** | **JWC Filtration Study** | 14,034 | 20,315 | 142,204 | 40,630 | 0 | 217,183 |
| **W46** | **JWC Valve Repair/Replacement** | 26,660 | 0 | 0 | 0 | 0 | 26,660 |
| W47 | JWC On-Site Power Generation | 0 | 333,333 | 0 | 0 | 0 | 333,333 |
| **W48** | **JWC FG Transmission Line Inspection & Repair** | 0 | 0 | 0 | 0 | 119,970 | 119,970 |
| **W49** | **JWC Pump Station Improvements** | 33,325 | 0 | 19,995 | 0 | 13,330 | 66,650 |
| | **WATER TOTALS** | **654,306** | **866,640** | **785,630** | **721,443** | **6,431,611** | **9,459,630** |
| | **UTILITY AND TRANSPORTATION TOTALS** | **3,821,380** | **6,351,639** | **5,134,656** | **6,295,229** | **33,776,817** | **55,379,722** |
| **BOLD =** | **NEW PROJECTS** | | | | | | |

**LP 1** **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:

**FY 2012-13**

- Power Multimeter ($9,500) This meter will be used for testing and calibration of substation equipment
- Revolution Recording ($8,500) This digital recorder will be used tracking and correcting customer power quality issues.
- Priority 1 Tester ($25,000) This portable meter test equipment is used for testing and verifying transformer meter installations for commercial and industrial customers with high billing multipliers.
- Primary recorders ($6,500) These portable current recording devices for use on high-voltage lines will be used by line crews to perform load balancing studies and analyze load levels in various parts of our system, as required.
- Itron Mobile Collector ($12,500) This is a portable vehicle-mount meter reading device that will greatly increase the range of our remote-read capable electric and water meters and as a result, reduce the reading time.
- Substation Test Equipment ($25,000) We plan to purchase a current transformer testing for testing substation relay circuits and a dew point meter to test nitrogen bottles before they are connected to power transformers.

**FY 2013-14**

- Kelvatek Breaker Profiler ($16,500) This is a sophisticated device for in-depth testing of substation breaker performance.

| LP1 MAJOR TOOLS AND EQUIPMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 87,000 | 16,500 | 20,000 | 20,000 | 20,000 | 163,500 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **87,000** | **16,500** | **20,000** | **20,000** | **20,000** | **163,500** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 87,000 | 16,500 | 20,000 | 20,000 | 20,000 | 163,500 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **87,000** | **16,500** | **20,000** | **20,000** | **20,000** | **163,500** |
| | | | | | | |

**LP2** **SUBSTATION UPGRADES**

**LIGHT & POWER**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

For FY 2012-13, the substation battery replacement for all substations will be completed. All substations will receive some maintenance and upgrades. The transformer bushings at Filbert Substation will be replaced. A replacement transformer will be purchased for Thatcher Substation. Design will be performed for a new Forest Grove Substation

For FY 2013-14, 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 2014-15, 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 will be evaluated and possibly adjusted during the Electric System Master Plan Study.

The replacement of all substation battery banks will be completed in the next several years. 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.

The Forest Grove Substation is anticipated to be completely rebuilt with a different physical layout to provide a better connection to the upgraded BPA 115 kV yard, to make better use of the property available, and to provide an improved grounding system.

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.

| LP2 SUBSTATION UPGRADES | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 250,000 | 20,000 | 25,000 | 20,000 | 10,000 | 325,000 |
| Site Preparation | 0 | 0 | 200,000 | 25,000 | 0 | 225,000 |
| Construction | 81,000 | 525,000 | 0 | 0 | 0 | 606,000 |
| Equipment/Furniture | 919,000 | 1,675,000 | 1,800,000 | 100,000 | 100,000 | 4,594,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **1,250,000** | **2,220,000** | **2,025,000** | **145,000** | **110,000** | **5,750,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 1,250,000 | 2,220,000 | 2,025,000 | 145,000 | 110,000 | 5,750,000 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **1,250,000** | **2,220,000** | **2,025,000** | **145,000** | **110,000** | **5,750,000** |
| | | | | | | |

**LP4** **PROPERTY IMPROVEMENTS AND OFFICE BUILDING**

**Light & Power**

**DEPARTMENT**

## PROJECT DESCRIPTION:

Complete renovation of the Light and Power Department office utilizing the present building. Most of the renovation has already taken place to provide adequate space for staff and equipment.

## DISCUSSION OF PROJECT:

The Light and Power Department began renovating its office building in 2009 utilizing the existing footprint of the building. The auditorium is the last phase of the renovation. Currently, the auditorium is used as a conference room and a training center. The conference and training area will receive a major upgrade. Additional office space for Light and Power Engineering and Economic Development will be created by removing the raised platform at the south end of the room and enclosing that space. Additional plumbing and electrical upgrades to the building are also planned. Finally, improvements will be made to the building entrance area including an ADA-compliant door opener.

Construction of the Vehicle Enclosure Building is nearing completion and a contract for construction of the on-site and public improvements should be awarded prior to the end of the 2012 fiscal year.

| LP4 PROPERTY IMPROVEMENTS AND OFFICE BUILDING | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 480,000 | 50,000 | 25,000 | 25,000 | 25000 | 605,000 |
| Equipment/Furniture | 30,700 | | | | | 30,700 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **510,700** | **50,000** | **25,000** | **25,000** | **25,000** | **635,700** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 510,700 | 50,000 | 25,000 | 25,000 | 25,000 | 635,700 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **510,700** | **50,000** | **25,000** | **25,000** | **25,000** | **635,700** |
| | | | | | | |

**LP8** **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 5 years, the following vehicles will be replaced:

| **FY 2012-13** | **FY 2015-16** |
|---|---|
| Single Bucket Truck – 415 | Utility Flatbed – 409 |
| Substation Utility Truck - 407 | Conservation - 404 |
| Engr/Economic Dev. - NEW | |
| | **FY 2016-17** |
| **FY 2013-14** | Crew Foreman Utility Truck -411 |
| Double Bucket Truck – 413 | Meter Reader Truck – 406 |
| | City Manager - 419 |
| **FY 2014-15** | |
| Utility Flatbed – 408 | |
| Backhoe – 422 | |
| Meter Reader – 405 | |

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.

| LP8 LIGHT AND POWER VEHICLE REPLACEMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 240,000 | 290,000 | 165,000 | 100,000 | 125,000 | 920,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **240,000** | **290,000** | **165,000** | **100,000** | **125,000** | **920,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 240,000 | 290,000 | 165,000 | 100,000 | 125,000 | 920,000 |
| Reserves | | | | | | 0 |
| Increased User Rates | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **240,000** | **290,000** | **165,000** | **100,000** | **125,000** | **920,000** |

**LP 9** **LIGHT & POWER SPECIALIZED EQUIPMENT**

**Light & Power**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Light and Power maintains a fleet of specialized utility construction equipment. This equipment is replaced as appropriate based on hours of operation and maintenance history.

**DISCUSSION OF PROJECT:**

**FY 2012-2013**

- 10 kW Generator with Light Bar ($16,000) This purchase will replace an old trailer-mounted generator and equip it with a light bar for illuminating night-time emergency repair jobs.
- Track Hoe Hammer Drill ($10,000) This is an attachment for our existing Track Hoe that will increase its capabilities.

| LP 9 LIGHT AND POWER SPECIALIZED EQUIPMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 26,000 | 30,000 | 30,000 | 30,000 | 30,000 | 146,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **26,000** | **30,000** | **30,000** | **30,000** | **30,000** | **146,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 26,000 | 30,000 | 30,000 | 30,000 | 30,000 | 146,000 |
| Reserves | | | | | | 0 |
| Increased User Rates | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **26,000** | **30,000** | **30,000** | **30,000** | **30,000** | **146,000** |

**LP22 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.

In fiscal year 2012-13, the Electric System Master Plan will be completed. This plan will outline 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 Electric System Master Plan will address replacement and expansion of substation equipment. The plan will provide an electrical model of the distribution system including a fault current analysis. (This study is funded under 610-41-20-521162 Consultants) ($60,000).

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 plans to purchase vehicle mounted remote meter reading equipment to extend the range of our remote reading capability. (The purchase of remote read meters is funded under 610-41-20-520240 Construction Supplies) ($90,000).

The Light and Power Department will continue the Cable Replacement Program which prioritizes direct-buried primary cable that has experienced multiple failures. The program involves installation of a conduit system and new cable with improved insulation design and protective jacket. (This project will use funds from 610-41-20-520240 Construction Supplies and 610-41-20-521159 Construction Contracts).

| LP22 | DISTRIBUTION SYSTEM ADDITIONS AND UPGRADES | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 0 | 0 | 0 | 0 | 0 | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 65,000 | 50,000 | 50,000 | 50,000 | 50,000 | 265,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **65,000** | **50,000** | **50,000** | **50,000** | **50,000** | **265,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Current User Rates | 65,000 | 50,000 | 50,000 | 50,000 | 50,000 | 265,000 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **65,000** | **50,000** | **50,000** | **50,000** | **50,000** | **265,000** |

**EQ1** **EQUIPMENT REPLACEMENT PROGRAM**

**Equipment**
**DEPARTMENT**

## PROJECT DESCRIPTION:

The Equipment Fund owns and maintains seventy-four (74) 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 2012-13** | **FY 2014-15** |
|---|---|
| City Hall –Admin Vehicle #707 | City Hall – Bldg Pick Up #704 |
| Public Works – One 1 Ton Dump #304 | Parks – One zero turn mower, #605 |
| Public Works – One Crane Truck #315 | Police – three patrol #525,526, 527 |
| Treatment Plant – One WTP Vehicle #485 | Public Works – One 1 ton Utility Truck #302 |
| | Public Works – One Jet Cleaner #317 |
| **FY 13-14** | Public Works – Air Compressors #'s 325,326 |
| City Hall – Eng Taurus #700 & Bld PU #703 | |
| City Hall –Admin Vehicle #705 | **FY 2015-16** |
| Parks –One ton pick up, #602, JD Tractor #610 | City Hall – Eng Suburban #701 |
| Police – Patrol SUV #500 | Parks – One 4X4, #603, One 3/4 ton pick up, #600 |
| Police – One PD Motor Bike #521 | Police – Four patrol #504,506, 507, 508 |
| Police - CSO Van #515 | Public Works – 1 ton #303, 8 yard dump #312 |
| Police – One PD Patrol Vehicle #523 | Public Works – Tractor #322 |
| Public Works – One 8 Yd Dump #313 | |
| Public Works – One Camel Cleaner #316 | **FY 2016-17** |
| Public Works – One Roller #329 | Parks – Toro mower #608 |
| | Public Works – Admin #320, Loader #324 |
| | Public Works – Boring machine #332 |
| | |

## DISCUSSION OF PROJECT:

The Equipment Fund owns vehicles and equipment used by Public Works and all other city departments except Light & Power (L&P) 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 the participating departments.

The Equipment shop also maintains and repairs the 60 vehicles owned by L&P and the Fire Department, as necessary, and bills those departments directly.

In 2012-13, City Hall will replace the Malibu with a Nissan Leaf. This Leaf was purchased by the Light & Power Department, but is not getting as much in-town use as originally anticipated. The Light and Power Department will replace the Leaf with a hybrid that has a further range. The Police Department was originally scheduled to replace its motorcycle, but it is still in excellent condition so this replacement has been postponed one year.

| EQ1 EQUIPMENT REPLACEMENT PROGRAM | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 110,000 | 697,500 | 303,500 | 350,500 | 196,000 | 1,657,500 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **110,000** | **697,500** | **303,500** | **350,500** | **196,000** | **1,657,500** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| | | | | | | 0 |
| Equipment Fund Reserve | 110,000 | 697,500 | 303,500 | 350,500 | 196,000 | 1,657,500 |
| | | | | | | |
| **TOTAL FUNDING SOURCES** | **110,000** | **697,500** | **303,500** | **350,500** | **196,000** | **1,657,500** |

**ST1** **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.

| ST1 GALES WAY (from "E" Street to 23rd Avenue) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | 0 | 45,672 | 0 | 0 | 45,672 |
| Site Preparation | | | | | | 0 |
| Construction | | 0 | 411,048 | 0 | 0 | 411,048 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **456,720** | **0** | **0** | **456,720** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| | | | | | | 0 |
| Street Fund | 0 | 0 | 456,720 | 0 | 0 | 456,720 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **456,720** | **0** | **0** | **456,720** |

**ST3** **$23^{rd}/24^{th}$ AVENUE (INDUSTRIAL AREA)**

**Street**

**DEPARTMENT**

## PROJECT DESCRIPTION:

Construct new road to connect Hawthorne Street and Quince Street. Project will include Asphaltic Concrete (AC) pavement curbs, gutter, sidewalk, storm drain 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.

| ST3 23rd/24th AVENUE (Industrial Area) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 0 | 0 | 0 | 0 | 229,110 | 229,110 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 1,095,550 | 1,095,550 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **1,324,660** | **1,324,660** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| CDBG | | | | | | 0 |
| TIF | | | | | 806,696 | 806,696 |
| Street | | | | | | 0 |
| Sewer SDC | | | | | 278,960 | 278,960 |
| SWM SDC | | | | | 110,000 | 110,000 |
| Water SDC | | | | | 129,004 | 129,004 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **1,324,660** | **1,324,660** |

**ST5** **19th AVENUE**
**(From Oak Street to Highway 47)**

**Street**

**DEPARTMENT**

## PROJECT DESCRIPTION:

Construction of a new section of 19th Avenue to collector standards in conjunction with a potential development project.

## DISCUSSION OF PROJECT:

If a proposed development project occurs, the City has the opportunity to finish 19th Avenue to Highway 47 which could give emergency vehicles another east-west route through the City. This project would allow right turn access only to and from southbound Highway 47. This project is contingent on development of the adjacent shopping center.

| ST5 19th AVENUE (Oak St. to Hwy 47) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 330,000 | 330,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **330,000** | **330,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| TIF | | | | | 330,000 | 330,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **330,000** | **330,000** |

**ST10** **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. Most of the facility will be built by adjacent development. A portion of the roadway is proposed to be funded by Traffic Impact Fees (TIF) because a significant section is along the Urban Growth Boundary, and as such development is limited to the south side of the road. Washington County has pledged County TIF dollars toward this project.

| ST10 DAVID HILL ROAD (Thatcher Road to Hwy 47) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | 642,808 | 3,214,038 | 2,571,230 | 6,428,075 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **642,808** | **3,214,038** | **2,571,230** | **6,428,075** |

| **FUNDING SOURCE** | | | | | | |
|---|---|---|---|---|---|---|
| TIF | | 0 | 321,404 | 1,607,019 | 1,285,615 | 3,214,038 |
| Private | 0 | | 321,404 | 1,607,019 | 1,285,615 | 3,214,038 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **642,808** | **3,214,038** | **2,571,230** | **6,428,075** |

**ST12** **TV HWY & QUINCE STREET**

**Street**

**DEPARTMENT**

## PROJECT DESCRIPTION:

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

## DISCUSSION OF PROJECT:

Results from an Access Management Plan Alternatives analysis on Highway 47 shows growth in demand at Pacific Avenue and Highway 47 does not result in performance below ODOT operating standards, but significant delay does exist, as the volume to capacity ratio (0.93) approaches the minimum standard (0.99). Adding turning movement capacity or turn lane channelization would improve performance or more specifically correct southbound queuing issues. Adding a north/south crosswalk with signal modifications on the east side and improving turning radius on the NE corner have also been identified to optimize intersection performance.

| ST12 TV HWY & QUINCE STREET | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2015-16** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 1,300,000 | | | 3,330,000 | 4,630,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **1,300,000** | **0** | **0** | **3,330,000** | **4,630,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| TIF | | | | | | 0 |
| SWM | | | | | | 0 |
| Reg. Flex Fund (METRO) | 0 | 1,300,000 | 0 | 0 | | 1,300,000 |
| Other/MSTIP | | | | | 3,330,000 | 3,330,000 |
| **TOTAL FUNDING SOURCES** | **0** | **1,300,000** | **0** | **0** | **3,330,000** | **4,630,000** |

**ST15** **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 statute.

| ST15 19th AVENUE W. EXTENSION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 0 | 4,768,848 | 4,768,848 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **4,768,848** | **4,768,848** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| TIF | | 0 | | 0 | 4,768,848 | 4,768,848 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **4,768,848** | **4,768,848** |

**ST17** **THATCHER ROAD**

**Street**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Re-align Thatcher Road at its intersection with Gales Creek Road to eliminate substandard angles and improve intersection spacing.

**DISCUSSION OF PROJECT:**

Thatcher Road intersects with Gales Creek Road at a bad angle which creates sight visibility problems. In addition, recent development in the west and northwest part of town has increased traffic at this intersection. This project is identified in the Transportation System Plan to study this area to determine if the intersection can be re-aligned to improve the visibility. In addition, signalization may be warranted.

| ST17 THATCHER ROAD | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | 3,626,136 | 3,626,136 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 0 | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **3,626,136** | **3,626,136** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Street Fund | | | | | | 0 |
| TIF | | | | | 3,626,136 | 3,626,136 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **3,626,136** | **3,626,136** |

**ST18** **26TH AVENUE**

**Street**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Improve 26th Avenue from Hawthorne to Juniper.

**DISCUSSION OF PROJECT:**

26th Avenue from Hawthorne to Juniper needs improvement. This project will pave a road in partnership with neighboring property owners. Because the timing of development along the road is sporadic, with some developing happening in the near future, and other development happening over the longer term, a reimbursement district is contemplated to fairly divide the costs of the road among the benefiting properties.

| ST18 26TH AVENUE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 250,000 | | | | | 250,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **250,000** | **0** | **0** | **0** | **0** | **250,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| Street Fund | | | | | | 0 |
| TIF | 250,000 | | | | | 250,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **250,000** | **0** | **0** | **0** | **0** | **250,000** |

## ST19 HWY 47 AND MAPLE INTERSECTION IMPROVEMENTS

**Street**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Improve the intersection at Highway 47 and Maple to make for safer crossings and turns.

**DISCUSSION OF PROJECT:**

This project would improve the safety of the intersection of Highway 47 and Maple Street by adding a signal. Possible funding partners include the Oregon Department of Transportation, Washington County and possibility Clean Water Services. Highway 47 is an ODOT facility, leading to their possible participation. Washington County has jurisdiction over Fern Hill Road, which is straight across Highway 47 from Maple Street, and so they would have interest in improving the intersection's safety. Clean Water Services is embarking on pedestrian friendly amenities at its treatment plant immediately south of this intersection, so pedestrian traffic down Maple Street, crossing overHighway 47 to Fern Hill Road may lead to CWS participating in the improvements.

| ST19 | HWY 47 AND MAPLE INTERSECTION IMPROVEMENTS | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 200,000 | | 200,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **200,000** | **0** | **200,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Street Fund | | | | | | 0 |
| TIF/TDT | 0 | | | 200,000 | | 200,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **200,000** | **0** | **200,000** |

**ST20** **SAFE ROUTES TO SCHOOL**

**Street**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Improve pedestrian safety access to Harvey Clark 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 Clark School, to improve pedestrian safety. ODOT received a Safe Routes to School grant of $350,000, and Forest Grove is matching $50,000.

| ST20 SAFE ROUTES TO SCHOOL | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 50,000 | | | | | 50,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **50,000** | **0** | **0** | **0** | **0** | **50,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| Street Fund | | | | | | 0 |
| TIF/TDT | 50,000 | | | | | 50,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **50,000** | **0** | **0** | **0** | **0** | **50,000** |

**ST22** **"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 monies.

| ST22 "B" STREET NORTH | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 6,068,623 | 6,068,623 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **6,068,623** | **6,068,623** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| TIF | | | | | 3,030,000 | 3,030,000 |
| Street Fund | | | | | | 0 |
| Private | | | | | 3,038,623 | 3,038,623 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **6,068,623** | **6,068,623** |

**ST24** **CROSSWALKS AT THATCHER & GALES CREEK**

**Street**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Design and construct safe pedestrian crossings on Thatcher Road at Thatcher Park and on Gales Creek Road at Forest Gale Drive.

**DISCUSSION OF PROJECT:**

The City's master trail system crosses two high volume, high speed roadways - one at Gales Creek Road and Forest Gale Drive and another at Thatcher Road and David Hill Road. Washington County has developed safety standards for the design of pedestrian crossings. Both of these locations are roads under County jurisdiction and will require approval by the County Engineer. This project will design and install two crossings with County Engineer approval.

| ST 24 CROSSWALKS: THATCHER, GALES CREEK | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 45,000 | | | | | 45,000 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **45,000** | **0** | **0** | **0** | **0** | **45,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Street Fund | 45,000 | | | | | 45,000 |
| TIF | | | | | | 0 |
| CDBG | | | | | | 0 |
| Other | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **45,000** | **0** | **0** | **0** | **0** | **45,000** |

**ST25** **20TH PLACE – HAWTHORNE TO PACIFIC**

**Street**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Half-street improvements needed; road needs curbs on south side and the condition is such it needs to be reconstructed.

**DISCUSSION OF PROJECT:**

Road had deteriorated to the point it needs to be reconstructed, and then curbs can be added on south side.

| ST25 20TH PLACE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | 280,000 | | | | 280,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **280,000** | **0** | **0** | **0** | **280,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| TIF | | | | | | 0 |
| Street Fund | | 280,000 | | | | 280,000 |
| Private | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **280,000** | **0** | **0** | **0** | **280,000** |

**SW1** **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 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 2012-13 through 2016-17, pipe sections along 20th Place, 22nd Ave, 23rd Ave, 24th Ave, Gales Way at Rodlen Ct, and Cedar Street (alley) have been selected for further review for possible replacement.

| SW1 REPLACE / REHABILITATE OLD SEWERS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 237,375 | 200,000 | 100,000 | 100,000 | 100,000 | 737,375 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **237,375** | **200,000** | **100,000** | **100,000** | **100,000** | **737,375** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer Fund | 237,375 | 200,000 | 100,000 | 100,000 | 100,000 | 737,375 |
| Sewer SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **237,375** | **200,000** | **100,000** | **100,000** | **100,000** | **737,375** |

**SW2** **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.

| SW2 SEWER OVERSIZING PARTICIPATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 250,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **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 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **50,000** | **50,000** | **50,000** | **50,000** | **50,000** | **250,000** |

**SW3** **CWS / CITY PHASE III SEWER I&I REPAIR**

**Sewer**

**DEPARTMENT**

## PROJECT DESCRIPTION:

This project was the rehabilitation of the public sanitary sewer line and the private sanitary sewer laterals in the area around Pacific Avenue and SW Cedar Street. To minimize inflow and infiltration of ground water into the existing sanitary sewer system, the public sanitary sewer lines and private service laterals were rehabilitated. The project area is generally bounded by 16th Avenue to the south and Pacific Avenue to the north, "A" Street to the west and Hawthorne Street to the east.

## DISCUSSION OF PROJECT:

This project was a joint effort between the City of Forest Grove and the Clean Water Services (CWS). CWS designed the project and provided construction administration. The City's Public Works Department provided in-kind services such as pre-design pipe TV inspection. Project costs including engineering and inspection have been split between the City and CWS on a 50% basis. Only the City's portion of the project is shown in the CIP. CWS funded the entire cost of the project. The City has financed its portion with CWS over a ten-year period. The amounts shown on the facing page represents the payment schedule to CWS over the next five years.

| SW3 CWS / CITY PHASE III SEWER I&I REPAIR | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other: Debt | 94,004 | 94,004 | 94,004 | 94,004 | 94,004 | 470,022 |
| | | | | | | 0 |
| **TOTAL** | **94,004** | **94,004** | **94,004** | **94,004** | **94,004** | **470,022** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| | | | | | | 0 |
| Sewer Fund | 94,004 | 94,004 | 94,004 | 94,004 | 94,004 | 470,022 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **94,004** | **94,004** | **94,004** | **94,004** | **94,004** | **470,022** |

**SW4** **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.

| SW4 MAPLE STREET CAPACITY EXPANSION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 600,000 | 600,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **600,000** | **600,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer SDC | | | | | 300,000 | 300,000 |
| Sewer | | | | | 300,000 | 300,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **600,000** | **600,000** |

**SW5** **WILLAMINA AVENUE CAPACITY EXPANSION**

Sewer

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Upgrading 9,800 feet of 15-inch and 18-inch to 30-inch along SW Willamina between SW Main Street and SW 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.

| SW5 WILLAMINA AVENUE CAPACITY EXPANSION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 677,250 | 837,750 | 1,515,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **677,250** | **837,750** | **1,515,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer SDC | | | | 677,250 | 837,750 | 1,515,000 |
| | | | | | | |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **677,250** | **837,750** | **1,515,000** |
| | | | | | | |

**SW7** **SUNSET DRIVE MSTIP**

Sewer

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Install approximately 2400 LF of 10" sanitary sewer with the reconstruction of Sunset Drive.

**DISCUSSION OF PROJECT:**

The Forest Grove Sanitary Sewer Master Plan identified portions of Sunset Drive to be served with sanitary sewer from the Council Creek trunk line. These portions of sanitary sewer have been installed with the construction of Sunset Drive. CWS funded the entire cost of the project. The City has financed its portion with CWS over a ten year period. The amounts shown on the facing page represents the payment schedule to CWS over the next five years.

| SW7 SUNSET DRIVE MSTIP | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other: Debt | 121,995 | 121,995 | 121,995 | 121,995 | 121,995 | 609,973 |
| | | | | | | 0 |
| **TOTAL** | **121,995** | **121,995** | **121,995** | **121,995** | **121,995** | **609,973** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer Fund | | | | | | 0 |
| Sewer SDC | 121,995 | 121,995 | 121,995 | 121,995 | 121,995 | 609,973 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **121,995** | **121,995** | **121,995** | **121,995** | **121,995** | **609,973** |

**SW8** **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.

| SW8 23RD/24TH AVENUE INDUSTRIAL AREA | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | 25,360 | 25,360 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 253,600 | 253,600 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **278,960** | **278,960** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer Fund | | | | | | 0 |
| Sewer SDC | | | | | 278,960 | 278,960 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **278,960** | **278,960** |

**SW9** **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.

| SW9 MOUNTAIN VIEW LANE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | 120,000 | 120,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 480,000 | 480,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **600,000** | **600,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer Fund | | | | | 300,000 | 300,000 |
| Sewer SDC | | | | | 300,000 | 300,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **600,000** | **600,000** |

**SW10** **"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 Update is confirming 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.

| SW10 A STREET CAPACITY | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 590,000 | 590,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **590,000** | **590,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer Fund | | | | | 295,000 | 295,000 |
| Sewer SDC | | | | | 295,000 | 295,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **590,000** | **590,000** |

**SW11**

**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.

| SW11 FIR ROAD (From 19th to Hwy 47) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 420,000 | 420,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **420,000** | **420,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Sewer SDC | | | | | 420,000 | 420,000 |
| Sewer | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **420,000** | **420,000** |

**SWM 2** **HAWTHORNE STREET DRAINAGE**

**Surface Water Management**

**DEPARTMENT**

## 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 Road 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.

| SWM2 HAWTHORNE STREET DRAINAGE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 342,000 | 342,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **342,000** | **342,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | | 171,000 | 171,000 |
| SWM | | | | | 171,000 | 171,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **342,000** | **342,000** |

**SWM6** **23RD/24TH DRAINAGE CULVERT**

**Surface Water Management**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Construct a new road to connect Hawthorne Street and Quince Street. The 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.

| SWM6 23rd/24th DRAINAGE CULVERT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | 10,000 | 10,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 100,000 | 100,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **110,000** | **110,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | | 110,000 | 110,000 |
| SWM | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **110,000** | **110,000** |

**SWM 7** **ALYSSUM AND TWINFLOWER DRAINAGE**

**Surface Water Management**

**DEPARTMENT**

## 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.

| SWM7 ALYSSUM AND TWINFLOWER DRAINAGE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 135,000 | | 135,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **135,000** | **0** | **135,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | 0 | 135,000 | 0 | 135,000 |
| SWM | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **135,000** | **0** | **135,000** |

**SWM 9** **CEDAR STREET PUMP STATION**

**Surface Water Management**

**DEPARTMENT**

**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.

| SWM9 CEDAR STREET PUMP STATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 360,000 | 360,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **360,000** | **360,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | 0 | 0 | 0 | 0 | 180,000 | 180,000 |
| SWM | 0 | 0 | 0 | 0 | 180,000 | 180,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **360,000** | **360,000** |

**SWM 11** **HIGBY LANE**

**Surface Water Management**

**DEPARTMENT**

**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.

| SWM11 HIGBY LANE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-2013** | **2013-2014** | **2014-2015** | **2015-2016** | **2016-2017** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 230,000 | 230,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **230,000** | **230,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | | | 0 |
| SWM | | | | | 230,000 | 230,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **230,000** | **230,000** |

**SWM 12** **BEAL POND STUDY**

**Surface Water Management**

**DEPARTMENT**

## 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.

| SWM12 BEAL POND STUDY | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 26,000 | | 26,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **26,000** | **0** | **26,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | | | 0 |
| SWM | | | | 26,000 | | 26,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **26,000** | **0** | **26,000** |

**SWM 16** **17th AVENUE AND HAWTHORNE STREET**

**Surface Water Management**

**DEPARTMENT**

**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.

| SWM16 BASIN 5 - 17th AVENUE and HAWTHORNE STREET | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | 134,000 | | | 134,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **134,000** | **0** | **0** | **134,000** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | | | 0 |
| SWM | | | 134,000 | | | 134,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **134,000** | **0** | **0** | **134,000** |

**SWM17** **NORTH END DRAINAGE**

**Sewer**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Enhance run off conveyance near Thatcher Road and David Hill Road. Improve surface run off conveyance with combination of open ditch and storm pipe.

**DISCUSSION OF PROJECT:**

Recent development near David Hill Road has concentrated storm run off water in a small area. Existing storm pipe is located just downstream from this area. This project will collect storm water and connect it to the down stream pipe.

| SWM 17 North End Drainage | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 20,000 | | | | | 20,000 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **20,000** | **0** | **0** | **0** | **0** | **20,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| SWM Fund | | | | | | 0 |
| SWM SDC | 20,000 | | | | | 20,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **20,000** | **0** | **0** | **0** | **0** | **20,000** |

**SWM 18** **STORM SEWER OUTFALL PROJECTS**

**Sewer**
**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.

| SWM 18 | STORM OUTFALL PROJECTS | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 50,000 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **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 |
| SWM SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **10,000** | **10,000** | **10,000** | **10,000** | **10,000** | **50,000** |

**SWM 19** **B STREET AT HARVEY CLARK**

**Surface Water Management**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Upsize storm pipe at B Street and Harvey Clark 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.

| SWM 19 B STREET AT HARVEY CLARK | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | 71,000 | | | 71,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **71,000** | **0** | **0** | **71,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | 71,000 | | | 71,000 |
| SWM | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **71,000** | **0** | **0** | **71,000** |

**SWM 20** **DAVID HILL ROAD DRAINAGE**

**Surface Water Management**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

Install drainage along new section of David Hill Road.

**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. Most of the facility will be built by adjacent development. A portion of the roadway is proposed to be funded by Traffic Impact Fees (TIF) because a significant section is along the Urban Growth Boundary, and as such development is limited to the south side of the road. Washington County has pledged County TIF dollars toward this project.

This project would fund the drainage portion.

| SWM 20 DAVID HILL ROAD DRAINAGE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 200,000 | | 200,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **200,000** | **0** | **200,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | | | 200,000 | | 200,000 |
| SWM | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **200,000** | **0** | **200,000** |

**SWM 21** **CITY PARKS DRAINAGE**

**Surface Water Management**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

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

**DISCUSSION OF PROJECT:**

The City Parks Department occassionally 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.

| SWM 21 CITY PARKS DRAINAGE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | 75,000 | 50,000 | 25,000 | 25,000 | 175,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **75,000** | **50,000** | **25,000** | **25,000** | **175,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| SWM SDC | | 75,000 | 50,000 | 25,000 | 25,000 | 175,000 |
| SWM | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **75,000** | **50,000** | **25,000** | **25,000** | **175,000** |

**W1** **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.

| W1 DISTRIBUTION MAIN IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 100,000 | 200,000 | 100,000 | 200,000 | 100,000 | 700,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **100,000** | **200,000** | **100,000** | **200,000** | **100,000** | **700,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 100,000 | 200,000 | 100,000 | 200,000 | 100,000 | 700,000 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **100,000** | **200,000** | **100,000** | **200,000** | **100,000** | **700,000** |

**W2** **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 sewer hook-ups. The money is used to provide funding flexibility to cost participate with developers to provide increased capacity in the water system.

| W2 LINE OVERSIZING PARTICIPATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 250,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **50,000** | **50,000** | **50,000** | **50,000** | **50,000** | **250,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 0 | 0 |
| 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** |

## W3 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. The 2001 Integrated Plan recommended replacement of the sediment basin effluent launders/weirs and installation of a mechanical sludge collection system to improve operations and pretreatment performance. The hydraulics of the sediment basin does not support good settling and therefore impact filter loading/performance. A pretreatment upgrade that would 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.

In FY 2012-13, the floc drive will be replaced, hydraulic valve actuators will be replaced, and various building improvements will be made.

| W3 F.G. WATER TREATMENT PLANT MAJOR MAINTENANCE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 52,585 | 10,000 | 10,000 | 10,000 | 10,000 | 92,585 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **52,585** | **10,000** | **10,000** | **10,000** | **10,000** | **92,585** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water | 52,585 | 10,000 | 10,000 | 10,000 | 10,000 | 92,585 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **52,585** | **10,000** | **10,000** | **10,000** | **10,000** | **92,585** |

**W4** **WATERSHED MAJOR MAINTENANCE**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Improve drainage and roadways within the Watershed.

**DISCUSSION OF PROJECT:**

The Watershed Road Survey 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. Projects will be improved to Department of Forestry Standards.

| W4 WATERSHED MAJOR MAINTENANCE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 100,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **20,000** | **20,000** | **20,000** | **20,000** | **20,000** | **100,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 100,000 |
| Water SDC | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTAL FUNDING SOURCES** | **20,000** | **20,000** | **20,000** | **20,000** | **20,000** | **100,000** |

**W5** **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.

| W5 EMERGENCY INTERTIE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 0 | 289,819 | 289,819 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **289,819** | **289,819** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | | | 0 | 289,819 | 289,819 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **289,819** | **289,819** |

## W6 23RD/24TH AVENUE (INDUSTRIAL AREA)

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Construct new water line underneath a new road that will connect Hawthorne Street and Quince Street. 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. When the new road goes in, the new water line should be constructed at that time. 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.

| W6 | 23RD/24TH AVENUE (INDUSTRIAL AREA) | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 129,004 | 117,396 | 246,400 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **129,004** | **117,396** | **246,400** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 0 | 0 |
| Water SDC | | | | 129,004 | 117,396 | 246,400 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **129,004** | **117,396** | **246,400** |

## W 7 GALES CREEK INTAKE AND PUMPING STATION

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Preliminary engineering study, permitting and building of infrastructure.

**DISCUSSION OF PROJECT:**

The City of Forest Grove proactively seeks all means to most efficiently and most economically meet long-term water demand needs. This preliminary engineering analysis will provide the City of Forest Grove with critical information necessary to best guide critical next-step decisions on developing intake facilities at Gales Creek. The work program proposed will take a preliminary look at Environmental/Regulatory Review, Preliminary Project Definition, Preliminary Hydraulic Analysis, and Preliminary Project Cost Estimates. This project will construct necessary infrastructure in the future to take advantage of this water source.

| W7 GALES CREEK INTAKE AND PUMPING STATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | 0 | 0 | 2,000,000 | 2,000,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **2,000,000** | **2,000,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 1,000,000 | 1,000,000 |
| Water SDC | 0 | 0 | 0 | 0 | 1,000,000 | 1,000,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **2,000,000** | **2,000,000** |

**W8** **BARNEY BUY-IN**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Purchase additional 800-acre feet storage capacity in Barney Reservoir.

**DISCUSSION OF PROJECT:**

The 1994 Joint Ownership Agreement – Barney Project provides an expansion in ownership to Forest Grove. This option will be exercised at the time Forest Grove's water demand shows additional water supply is necessary to meet the City's need.

| W8 BARNEY BUY-IN | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | 0 | 2,400,000 | 2,400,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **2,400,000** | **2,400,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | | | | | 0 |
| Water SDC | 0 | 0 | 0 | 0 | 2,400,000 | 2,400,000 |
| Water Revenue Bond | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **2,400,000** | **2,400,000** |

**W 9** **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.

| W9 DAVID HILL ROAD WATERLINE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 70,000 | | | | | 70,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **70,000** | **0** | **0** | **0** | **0** | **70,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | | | | | 0 |
| Water SDC | 70,000 | | | | | 70,000 |
| **TOTAL FUNDING SOURCES** | **70,000** | **0** | **0** | **0** | **0** | **70,000** |

**W 10** **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.

| W10 FINISHED WATER STORAGE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | 371,315 | | | 371,315 |
| Equipment/Furniture | | | | | | 0 |
| Other | | 103,000 | | | | 103,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **103,000** | **371,315** | **0** | **0** | **474,315** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | | | | | 0 |
| Water SDC | | 103,000 | 371,315 | | | 474,315 |
| **TOTAL FUNDING SOURCES** | **0** | **103,000** | **371,315** | **0** | **0** | **474,315** |

## W 11 WATER RIGHTS STRATEGIC PLAN

Water
**DEPARTMENT**

### PROJECT DESCRIPTION:

Develop a Water Rights Strategic Plan to utilize the City's Clear Creek and Gales Creek water rights and secure long-term water supply reliability.

### DISCUSSION OF PROJECT:

The City of Forest Grove has a certificated water right from Gales Creek and water rights permit for Roaring Creek/Clear Creek. The City's use of this water is limited by water availability in these basins during the summer months. A Water Rights Strategic Plan will evaluate the options the City has to optimize use of these water rights including using them directly or leasing the water rights to interested parties. The Strategic Plan will analyze the seasonal/monthly water availability from the Clear Creek and Gales Creek basins, especially in the summer months when the Forest Grove Water Treatment Plant is water supply-limited. The Water Rights Strategic Plan is critical to allow the City to develop a long-term water supply plan related to Joint Water Commission supply, Tualatin Basin Water Supply Project, and other supply options including Tualatin Valley Irrigation District.

| W 11 WATER RIGHTS STRATEGIC PLAN | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 31,000 | | | | | 31,000 |
| | | | | | | 0 |
| **TOTAL** | **31,000** | **0** | **0** | **0** | **0** | **31,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water | 15,500 | | | | | 15,500 |
| Water SDC | 15,500 | | | | | 15,500 |
| **TOTAL FUNDING SOURCES** | **31,000** | **0** | **0** | **0** | **0** | **31,000** |

**W12** **TVID WATER SUPPLY FEASIBILITY STUDY**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Study to evaluate the feasibility of using Tualatin Valley Irrigation District transmission lines to "wheel" (deliver) raw water from the Tualatin River to Forest Grove's Water Treatment Plant.

**DISCUSSION OF PROJECT:**

Tualatin Valley Irrigation District (TVID) has transmission line delivering irrigation water from the Tualatin River to its customers surrounding the City of Forest Grove. Based on preliminary discussions with TVID, the north transmission line (N4A) may have excess capacity (approximately 2 million gallons per day) that can be used to deliver water to the City's water treatment plant for immediate treatment or storage in a reservoir. The City's own stored water rights from Scoggins Reservoir and Barney Reservoir could be used as the source of supply. The feasibility study would evaluate the engineering feasibility, concept plan, and costs, as well as evaluating administrative and legal issues with wheeling water through TVID's transmission lines.

| W12 TVID WATER SUPPLY FEASIBILITY STUDY | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 47,741 | 0 | | | | 47,741 |
| | | | | | | 0 |
| **TOTAL** | **47,741** | **0** | **0** | **0** | **0** | **47,741** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 23,871 | 0 | | | | 23,871 |
| Water SDC | 23,871 | 0 | | | | 23,871 |
| **TOTAL FUNDING SOURCES** | **47,741** | **0** | **0** | **0** | **0** | **47,741** |

**W13** **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. The 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.

This project is for two separate asset management programs, one for the JWC and for the City's own water utility.

## DISCUSSION OF PROJECT:

An Asset Management Program has been recommended out of the both JWC's Master Plan and 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.

| W13 ASSET MANAGEMENT PROGRAM | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | | 100,000 | | | | 100,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **100,000** | **0** | **0** | **0** | **100,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | 100,000 | | | | 100,000 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **100,000** | **0** | **0** | **0** | **100,000** |

**W14** **PUBLIC WORKS CAMPUS IMPROVEMENTS**

Water
**DEPARTMENT**

## PROJECT DESCRIPTION:

The Public Works campus houses offices for the public works and parks crews, the mechanic shop, and storage for public works and parks. The buildings are owned by the Water Fund. Periodic improvements, repairs and updates are needed.

## DISCUSSION OF PROJECT:

This project will perform major maintenance and repair on the facilities at the Public Works campus. Scheduled for FY 2012-13 is to replace the roof on the Parks office and storage building.

| W14 BUILDING IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 35,000 | | | | | 35,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **35,000** | **0** | **0** | **0** | **0** | **35,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 35,000 | 0 | 0 | 0 | 0 | 35,000 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **35,000** | **0** | **0** | **0** | **0** | **35,000** |

**W20** **JWC FINISHED WATER METER**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

At the Joint Water Commission water treatment plant, install magnetic flow meters on the discharge of Pump Stations 1 and 2 for accurate metering.

**DISCUSSION OF PROJECT:**

Existing meters on both pump stations are Panametrics ultrasonic meters and are beyond their useful service life. The meter on the discharge of Pump Station #1 is field adapted and is installed in a poor location for accurate metering. Both meters would be replaced with magnetic flow meters which are considered to be the best available technology for accurate flow metering for this application.

| W20 JWC FINISHED WATER METERING | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | 66,650 | 66,650 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **66,650** | **66,650** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 66,650 | 66,650 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **66,650** | **66,650** |

**W21** **JWC FLOC SED BASIN IMPROVEMENTS**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

At the Joint Water Commission water treatment plant, install higher capacity drain lines for Floc/Sed basins D through G. Replace sludge drain valves from Floc/Sed basins A, B, C. Also, Floc/Sed Basin "A" has channel cracks and Basin "C" has floor cracks. The walls will be sand blasted to remove old paint, then recoated with a sealer. The cracks will be cleaned and injection grouted to seal leaks

**DISCUSSION OF PROJECT:**

This project will increase worker safety by replacing the sludge drain valves and adding actuators to the valves. The project will also reduce maintenance and the time to drain sludge basins.

During the Near-Term Improvement project, cracks and water seepage were observed in Basin "A" and "C". The leaks have created maintenance issues. The basins were last painted during the original construction. This paint has been peeling and is a maintenance concern.

| W21 JWC FLOC/SED BASIN IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 39,990 | 53,330 | 93,320 |
| Equipment/Furniture | | | | | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **39,990** | **53,330** | **93,320** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 39,990 | 53,330 | 93,320 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **39,990** | **53,330** | **93,320** |

**W22** **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.

| W22 | WTP INTERIOR BUILDING IMPROVEMENTS | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 19,995 | 19,995 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **19,995** | **19,995** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 19,995 | 19,995 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **19,995** | **19,995** |

**W23** **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.

| W23 JWC MASTER PLAN UPDATE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | 0 | 46,655 | 46,655 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **46,655** | **46,655** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | | | | 0 | 46,655 | 46,655 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **46,655** | **46,655** |

**W24** **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.

| W24 JWC THICKENER UPGRADE EXISTING PLANT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 0 | 0 | 0 | 40,000 | 0 | 40,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **40,000** | **0** | **40,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 40,000 | 0 | 40,000 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **40,000** | **0** | **40,000** |

**W27** **JWC EQUIPMENT NEEDS**

Water

**DEPARTMENT**

**PROJECT DESCRIPTION:**

This is a category of projects for the Joint Water Commission assets that captures equipment needs, building repair and modification needs, various reconditioning projects, etc.

**DISCUSSION OF PROJECT:**

The JWC water treatment plant and intake pump station incorporate many pieces of major mechanical equipment: pump, valves, mixers, compressors, and other items. There is also a building, area lighting and an asphalt driveway and parking. All of these items need various repairs and reconditioning over time.

In FY 12-13, the following projects will be undertaken:

- Resurface the water treatment plant driveway and parking area;
- Purchase spare steel transmission pipe;
- Recondition pumps;
- Improve area lighting.

| W27 JWC EQUIPMENT NEEDS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 20,000 | 15,996 | 15,996 | 9,331 | 9,331 | 70,654 |
| | | | | | | 0 |
| **TOTAL** | **20,000** | **15,996** | **15,996** | **9,331** | **9,331** | **70,654** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 20,000 | 15,996 | 15,996 | 9,331 | 9,331 | 70,654 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **20,000** | **15,996** | **15,996** | **9,331** | **9,331** | **70,654** |

## W28 JWC FERN HILL CHLORINE STUDY AND IMPLEMENTATION

Water
**DEPARTMENT**

### PROJECT DESCRIPTION:

Study and implement the best method of rechlorination alternatives at Fern Hill to reduce issues with periodic high chlorine residuals in water coming from the Joint Water Commission treatment plant to the City of Forest Grove.

### DISCUSSION OF PROJECT:

Twice yearly, the JWC is impacted by raw water quality changes which directly impact the residual chlorine demand in transmission lines. The south transmission line is specifically affected due to the added storage (and water aging) associated with the Fern Hill Reservoirs. The temporary solution to date has been the adjustment of the chlorine target leaving the plant. Unfortunately, this adjustment (elevation of target) causes higher than desired chlorine residual to be received in Forest Grove which is the closest JWC customer. Forest Grove therefore proposed the installation of a chlorine injection system in the South Transmission Line (on Fern Hill) to allow the JWC to provide lower chlorine residuals at the plant and then inject chlorine where it is specifically needed.

This project will evaluate the various options in FY 11-12, and then implement the recommended solution in FY 12-13 .

| W28 JWC FERN HILL CHLORINE STUDY AND IMPLEMENTATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 33,325 | 0 | 0 | 0 | 0 | 33,325 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **33,325** | **0** | **0** | **0** | **0** | **33,325** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 33,325 | 0 | 0 | 0 | 0 | 33,325 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **33,325** | **0** | **0** | **0** | **0** | **33,325** |

**W29** **JWC 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.

| W29 SEISMIC MITIGATION EXISTING PLANT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 614,513 | 614,513 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **614,513** | **614,513** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 614,513 | 614,513 |
| Water SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **614,513** | **614,513** |

**W30** **JWC HYDROPNEUMATIC ACTUATORS**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Replace hydropneumatic actuators on Filters 1-8. This project will replace the existing hydropneumatic 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.

| W30 HYDROPNEUMATIC ACTUATORS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 26,660 | 0 | 0 | 0 | 0 | 26,660 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **26,660** | **0** | **0** | **0** | **0** | **26,660** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 26,660 | 0 | 0 | 0 | 0 | 26,660 |
| Water SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **26,660** | **0** | **0** | **0** | **0** | **26,660** |

**W31** **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.

| W31 REMOVE LIME SILO | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 6,665 | 6,665 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **6,665** | **6,665** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 6,665 | 6,665 |
| Water SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **6,665** | **6,665** |

**W32** **JWC SOURCE WATER PROTECTION PLAN**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Assess ways to protect the drainage basin of the sources of the Joint Water Commission water supply.

**DISCUSSION OF PROJECT:**

The Technical Advisory Committee has recommended that staff complete a GIS project to better assess risks to the water supply drainage basin while staff work on the development of the plan and implementation of the program. DEQ did most of this work in a project with Trust for Public Lands. They will give staff the geodatabase, but staff will need to modify it for JWC purposes and create risk layers. Staff would also like to incorporate the Barney Reservoir area and water quality data into the database to correlate the data collected with the source water assessment data risks.

| W32 SOURCE WATER PROTECTION PLAN | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 7,332 | 7,332 | 7,332 | 7,332 | 7,332 | 36,658 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **7,332** | **7,332** | **7,332** | **7,332** | **7,332** | **36,658** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 7,332 | 7,332 | 7,332 | 7,332 | 7,332 | 36,658 |
| Water SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **7,332** | **7,332** | **7,332** | **7,332** | **7,332** | **36,658** |

**W33** **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 be undertaken in coordination with the Tualatin Basin Water Supply project and coordinated with the Tualatin Valley Irrigation District.

| W33 TRASH SCREEN IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **26,660** | **26,660** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| Water SDC | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **26,660** | **26,660** |

**W39** **JWC FISH SCREEN AT FERN HILL PUMP STATION**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Replace existing fish screen on the intakes at the Joint Water Commission Plant on Fern Hill Road.

**DISCUSSION OF PROJECT:**

This federally required project requires a federal match, which has not yet been budgeted. Forest Grove is required to participate at the percent if the City's ownership.

| W39 JWC FISH SCREEN AT FERN HILL PUMP STATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 0 | 0 | 0 | 0 | 320,000 | 320,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **320,000** | **320,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 320,000 | 320,000 |
| Water SDC | 0 | 0 | 0 | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **320,000** | **320,000** |

## W41 JWC WATER RIGHTS CONSULTANT OF RECORD

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

Continuation of Joint Water Commission (JWC) project for water rights consultant of record.

**DISCUSSION OF PROJECT:**

This project provides continuation of funding for technical assistance relating to the JWC water rights permits. There are several tasks identified under this project including work on the JWC permit extension, permit amendment to move JWC permit point of diversion to the Spring Hill Pump, development of the claim of beneficial use for the Scoggins secondary permit for the JWC associated storage contracts, coordination between contract holders for the certification of Bureua of Reclamation's (BOR) secondary permit, and application for a new JWC supplemental water right at the Spring Hill Pump. The JWC water right permit (Permit S-50879 for 75 cfs) needs to be extended to maintain the water right permit for future development. Although the permit initially required construction and complete application of the water to beneficial use by October 1, 1992, the Oregon Water Resources Division (OWRD) has extended this deadline on two occasions. The current deadline for completion is October 1, 2000. The JWC filed an extension application with the OWRD on June 29, 2001 requesting additional time to complete development under the permit. The application is still pending at this time. No changes to this permit, such as a permit amendment to move the point of diversion downstream, can be approved until the pending extension is approved. The current permit application pending at the state is outdated and will be updated with current demands and for coordination with the Tualatin Basin Water Supply Project (TBWSP). After the permit extension is approved JWC will need to submit a permit amendment for a point of diversion change to the Spring Hill Pump as required by the Oregon Division of Fish and Wildlife's (ODFW) fish persistence conditions. This project also includes work to certificate the JWC member agencies contracts as part of the BOR's secondary storage permit (right to release). Finally, the JWC will need to apply for a supplemental water right to the JWC permit due to availability issues associated with that permit as previously presented.

| W41 | JWC WATER RIGHTS CONSULTANT OF RECORD | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 9,331 | 6,665 | 6,665 | 6,665 | 6,665 | 35,991 |
| | | | | | | 0 |
| **TOTAL** | **9,331** | **6,665** | **6,665** | **6,665** | **6,665** | **35,991** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 9,331 | 6,665 | 6,665 | 6,665 | 6,665 | 35,991 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **9,331** | **6,665** | **6,665** | **6,665** | **6,665** | **35,991** |

**W42** **JWC BAR RACK CLEAN SYSTEM**

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

This project will install an automated cleaning system at the raw water intake.

**DISCUSSION OF PROJECT:**

A bar rack exists upstream of the trash screens. The rack does not have a cleaning system and can only be accessed by boat. The project would install an automated trash rack cleaning system. This will increase Operator safety and reduce maintenance at the intake. However, this work on the intake structure must be undertaken in coordination with the Tualatin Basin Water Supply project and coordinated with the Tualatin Valley Irrigation District.

| W42 JWC BAR RACK CLEANING SYSTEM | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 0 | 0 | 0 | 0 | 93,310 | 93,310 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **93,310** | **93,310** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 93,310 | 93,310 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **93,310** | **93,310** |

**W43** **JWC CONNECTING YARD VALVES**

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

This project will replace several critical yard valves that are not operating correctly.

**DISCUSSION OF PROJECT:**

Several valves have been identified as not operating correctly or have seats that failed and preventing complete shutoff and creating issues during facility maintenance activities.

| W43 JWC CONNECTING YARD VALVES | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **26,660** | **26,660** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 26,660 | 26,660 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **26,660** | **26,660** |

**W44** **JWC ELECTRICAL ASSESSMENT PROJECTS**

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

In 2011, the Joint Water Commission retained a consultant to review the electrical system at the water treatment, including reviewing panels, switches, boards, etc. This study showed that many of the aging electrical systems should be replaced.

**DISCUSSION OF PROJECT:**

Projects scheduled for FY 2012-13 include:

- Panel board 4P-MCS-8 Short-Circuit Remediation: For panel board 4P-MCS-8, replacement of the existing feeding circuit breaker or installing a set of Class J or Class T fuses between the existing circuit breaker and the panel board would be a remedial solution.
- MCO Short-Circuit Remediation: For MCO, installing a set of Class J fuses, not larger than 400A, ahead of the MCO main circuit breaker, (i.e. inside of MCS, feeding MCO) would be an acceptable solution.
- Replacement of transformers T1 and T2 and switchgear SBP: The two most vulnerable elements are the main switchgear SBP and the transformers T1 and T2. These transformers and switchgear have reached the end of their useful life and should be replaced.
- Acquisition of spare MV Circuit Interrupter: The main Medium-Voltage (MV) switchgear does not have a spare circuit interrupter for the circuit feeding the treatment plant transformers T1, T2, T3, and T4. This project purchases a spare replacement 1200 A circuit interrupter and will be installed in a spare medium voltage cubicle.
- Repair of Existing MV Circuit Interrupter: The existing 1200 A Medium-Voltage circuit interrupter feeding transformers T1, T2, T3, and T4 (located in the main, MV switchgear) has difficulties in closing properly. A full-maintenance check, service, and repair of this item will be performed to ensure continued proper operation. This action requires outside, experienced and certified medium voltage equipment technicians.
- Bypass old switchgear at Spring Hill Pumping Plant: The main switchgear circuit breaker is at the end of its useful life. This project will replace the trip unit and reroute the load conductors.

| W44 JWC ELECTRIC ASSESSMENT UPGRADES | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 77,314 | | 42,123 | 168,491 | 13,330 | 301,258 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | 0 |
| **TOTAL** | **77,314** | **0** | **42,123** | **168,491** | **13,330** | **301,258** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 77,314 | 0 | 42,123 | 168,491 | 13,330 | 301,258 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **77,314** | **0** | **42,123** | **168,491** | **13,330** | **301,258** |

**W45** **JWC FILTRATION STUDY**

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

This project will test and study the capacity of the filtration system to see if it can be increased.

**DISCUSSION OF PROJECT:**

This project will modify the water treatment filtration system in order to evaluate if additional capacity can be obtained.

| W45 JWC FILTRATION STUDY | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 14,034 | 20,315 | 142,204 | 40,630 | 0 | 217,183 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | 0 |
| **TOTAL** | **14,034** | **20,315** | **142,204** | **40,630** | **0** | **217,183** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 14,034 | 20,315 | 142,204 | 40,630 | 0 | 217,183 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **14,034** | **20,315** | **142,204** | **40,630** | **0** | **217,183** |

**W46** **JWC VALVE REPAIR AND REPLACEMENT**

**Water**
**DEPARTMENT**

**PROJECT DESCRIPTION:**

The influent valves are the same age and manufacturer as the recently replaced 30" waste valves. These valves are showing signs of failure and need to be replaced.

**DISCUSSION OF PROJECT:**

Replacement seats are no longer available for these valves. During backwash operations or filter bed maintenance, a large amount of water leaks back into the basin from the settled water channel.

| W46 JWC VALVE REPAIR / REPLACEMENT PROJECT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 26,660 | | | | | 26,660 |
| Other | 0 | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **26,660** | **0** | **0** | **0** | **0** | **26,660** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 26,660 | 0 | 0 | 0 | 0 | 26,660 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **26,660** | **0** | **0** | **0** | **0** | **26,660** |

**W47** **JWC ON-SITE POWER GENERATION**

Water
**DEPARTMENT**

**PROJECT DESCRIPTION:**

This project is for the installation of an on-site power generation system to run the existing plant up to 50% of the plant rated peak capacity of 75 million gallons per day (MGD).

**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. By having the design completed it is anticipated our success in acquiring funding assistance for installation will be greatly increased.

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. The JWC is the largest conventional water treatment plant in Oregon, provides water to over 400,000 customers, and drives the economic engine of greater Washington County.

| W47 JWC ON-SITE POWER GENERATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 0 | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | 333,333 | | | | 333,333 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **333,333** | **0** | **0** | **0** | **333,333** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 333,333 | | | | 333,333 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **333,333** | **0** | **0** | **0** | **333,333** |

**W48** **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 asses 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.

| W48 FG TRANSMISSION LINE INSPECTION & REPAIR | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | 0 | 0 | | | 119,970 | 119,970 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **119,970** | **119,970** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 0 | 0 | 0 | 0 | 119,970 | 119,970 |
| Water SDC | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **119,970** | **119,970** |

**W49** **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.

## DISCUSSION OF PROJECT:

In FY 2012-13, the ball valves will be replaced in Pump Station #1. 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.

Projected in FY 2014-15, 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.

Projected in FY 2016-17, 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.

| W49 JWC PUMP STATION IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 0 | | | | | 0 |
| | | | | | | 0 |
| Construction | 33,325 | 0 | 19,995 | 0 | 13,330 | 66,650 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **33,325** | **0** | **19,995** | **0** | **13,330** | **66,650** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Water Fund | 33,325 | 0 | 19,995 | 0 | 13,330 | 66,650 |
| Water SDC | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **33,325** | **0** | **19,995** | **0** | **13,330** | **66,650** |

## PUBLIC SAFETY PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| FF3 | Replacement Of Turnouts/Safety Equipment | 30,000 | 19,000 | 19,000 | 19,000 | 19,000 | 106,000 |
| FF4 | Replacement Of Fire Hose, Nozzles, Etc. | 15,500 | 12,500 | 12,500 | 12,500 | 12,500 | 65,500 |
| FF8 | Fire Apparatus Replacement Program | 275,000 | 275,000 | 0 | 130,000 | 25,000 | 705,000 |
| FF25 | Portable Radios | 28,800 | 10,000 | 15,000 | 15,000 | 15,000 | 83,800 |
| **FF33** | **Portable Weather Station** | 9,000 | 0 | 0 | 0 | 0 | 9,000 |
| **FF34** | **Vehicle Extrication Equipment** | 22,600 | 0 | 0 | 0 | 0 | 22,600 |
| | **FIRE TOTALS** | **380,900** | **316,500** | **46,500** | **176,500** | **71,500** | **991,900** |
| | | | | | | | |
| PD11 | Replacement Of Mobile And Portable Radios | 10,800 | 10,800 | 10,800 | 10,800 | 10,800 | 54,000 |
| PD12 | Replacement Of MDC's | 0 | 0 | 18,000 | 18,000 | 18,000 | 54,000 |
| PD25 | Purchase Handheld Citation Writers, Printers And S | 0 | 0 | 57,250 | 0 | 0 | 57,250 |
| PD29 | Firearms and Weapons Replacement | 7,000 | 4,300 | 4,300 | 4,300 | 4,300 | 24,200 |
| | **POLICE TOTALS** | **17,800** | **15,100** | **90,350** | **33,100** | **33,100** | **189,450** |
| | | | | | | | |
| | **PUBLIC SAFETY TOTALS** | **398,700** | **331,600** | **136,850** | **209,600** | **104,600** | **1,181,350** |
| | | | | | | | |
| **Bold =** | **NEW PROJECTS** | | | | | | |

**FF3** **REPLACEMENT OF TURNOUTS**

**Fire**

**DEPARTMENT**

## PROJECT DESCRIPTION:

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

## DISCUSSION OF PROJECT:

The Fire Department 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 also 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.

| FF3 REPLACEMENT OF TURNOUTS/SAFETY EQUIPMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 30,000 | 19,000 | 19,000 | 19,000 | 19,000 | 106,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **30,000** | **19,000** | **19,000** | **19,000** | **19,000** | **106,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| General Fund | 15,000 | 9,500 | 9,500 | 9,500 | 9,500 | 53,000 |
| Fire District | 15,000 | 9,500 | 9,500 | 9,500 | 9,500 | 53,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **30,000** | **19,000** | **19,000** | **19,000** | **19,000** | **106,000** |

**FF4** **REPLACEMENT OF FIRE HOSE, NOZZLES, ETC.**

**Fire**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

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

**DISCUSSION OF PROJECT:**

Replacement of fire hose is a continuous program that results in replacing fire hose 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.

| FF4 REPLACEMENT OF FIRE HOSE, NOZZLES, ETC. | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 15,500 | 12,500 | 12,500 | 12,500 | 12,500 | 65,500 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **15,500** | **12,500** | **12,500** | **12,500** | **12,500** | **65,500** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| FERF | 7,750 | 6,250 | 6,250 | 6,250 | 6,250 | 32,750 |
| Fire District | 7,750 | 6,250 | 6,250 | 6,250 | 6,250 | 32,750 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **15,500** | **12,500** | **12,500** | **12,500** | **12,500** | **65,500** |

**FF8** **FIRE APPARATUS REPLACEMENT PROGRAM**

**Fire**

**DEPARTMENT**

## PROJECT DESCRIPTION:

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 PROJECT:

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.

In FY 2012-13, the principal purchase is the replacement of water tender.

| FF8 FIRE APPARATUS REPLACEMENT PROGRAM | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 275,000 | 275,000 | 0 | 130,000 | 25,000 | 705,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **275,000** | **275,000** | **0** | **130,000** | **25,000** | **705,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Fire Equipment Repl Fund | 137,500 | 137,500 | 0 | 65,000 | 12,500 | 352,500 |
| Fire District | 137,500 | 137,500 | 0 | 65,000 | 12,500 | 352,500 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **275,000** | **275,000** | **0** | **130,000** | **25,000** | **705,000** |

**FF25** **PORTABLE RADIOS**

**Fire**

**DEPARTMENT**

**PROJECT DESCRIPTION:**
Replace portable radios used in the day to day fire/rescue/EMS operations.

**DISCUSSION OF PROJECT:**
Portable radios have be replaced due to general wear and tear from daily use and due to upgrades at Washington County Consolidated Communications Center. The new radios are capable of a larger channel template. A grant was received to purchase replacement portable radios from the State Homeland Security Program in FY 2012-13, but on-going replacement will need to be maintained, and is the purpose of this project in the future.

| FF25 PORTABLE RADIOS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 28,800 | 10,000 | 15,000 | 15,000 | 15,000 | 83,800 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **28,800** | **10,000** | **15,000** | **15,000** | **15,000** | **83,800** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Fire Equipment Replacement | 0 | 5,000 | 7,500 | 7,500 | 7,500 | 27,500 |
| Fire District | 0 | 5,000 | 7,500 | 7,500 | 7,500 | 27,500 |
| Grant | 28,800 | | | | | 28,800 |
| **TOTAL FUNDING SOURCES** | **28,800** | **10,000** | **15,000** | **15,000** | **15,000** | **83,800** |

**FF33** **PORTABLE WEATHER STATION**

**Fire**

**DEPARTMENT**

**PROJECT DESCRIPTION:**
Purchase portable weather station for fire fighting response.

**DISCUSSION OF PROJECT:**
This portable weather station is being purchased with a grant from the State Homeland Security Program. This weather station will allow responders in the field to determine how smoke or chemicals released by an event will move based on the specific weather conditions at the incident site.

| FF 33 PORTABLE WEATHER STATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 9,000 | | | | | 9,000 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **9,000** | **0** | **0** | **0** | **0** | **9,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| General Fund | | | | | | 0 |
| Other | | | | | | 0 |
| Grant funding | 9,000 | | | | | 9,000 |
| **TOTAL FUNDING SOURCES** | **9,000** | **0** | **0** | **0** | **0** | **9,000** |

**FF34** **VEHICLE EXTRICATION EQUIPMENT**

**Fire**

**DEPARTMENT**

**PROJECT DESCRIPTION:**
Purchase vehicle extrication equipment to facilitate faster stabilization of and extrication from overturned vehicles.

**DISCUSSION OF PROJECT:**
Frequently we respond to overturned vehicles, and we have do not have the proper tools for stabilization and extrication for these incidents. Examples of incidents that we would utilize these tools are listed below. Currently we either have to create cribbing stabilization, or request resources from surrounding agencies to assist, which significantly increases patient extrication time. Purchase of extrication equipment will allow responders to handle the situation more faster and more effectively.

| FF 34 VEHICLE EXTRICATION EQUIPMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 22,600 | | | | | 22,600 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **22,600** | **0** | **0** | **0** | **0** | **22,600** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Rural Fire District | 11,300 | | | | | 11,300 |
| Fire Equip. Replace. Fund | 11,300 | | | | | 11,300 |
| | 0 | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **22,600** | **0** | **0** | **0** | **0** | **22,600** |

## PD11 REPLACEMENT OF MOBILE AND PORTABLE RADIOS

**Police**

**DEPARTMENT**

### PROJECT DESCRIPTION:

On-going replacement of radios to ensure properly functioning equipment capable of maintaining interagency and interoperability communications.

### DISCUSSION OF PROJECT:

The Department has a responsibility in maintaining Forest Grove's part in the integrity of the county-wide system.

| PD11 REPLACEMENT OF MOBILE AND PORTABLE RADIOS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 10,800 | 10,800 | 10,800 | 10,800 | 10,800 | 54,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **10,800** | **10,800** | **10,800** | **10,800** | **10,800** | **54,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Grants | | | | | | 0 |
| CIP Excise Tax Fund | 10,800 | 10,800 | 10,800 | 10,800 | 10,800 | 54,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **10,800** | **10,800** | **10,800** | **10,800** | **10,800** | **54,000** |

**PD12 REPLACEMENT OF MOBILE DATA COMPUTERS (MDC's)**

**Police**

**DEPARTMENT**

**PROJECT DESCRIPTION:**

On-going replacement of MDC's, aligning the purchase of new units for new 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.

| PD12 REPLACEMENT OF MDC'S | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 0 | 0 | 18,000 | 18,000 | 18,000 | 54,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **18,000** | **18,000** | **18,000** | **54,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| CIP Excise Tax Fund | 0 | 0 | 18,000 | 18,000 | 18,000 | 54,000 |
| Homeland Security Grant | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **18,000** | **18,000** | **18,000** | **54,000** |

**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.

| PD25 - HANDHELD CITATION WRITERS, PRINTERS AND SOFTWARE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 0 | 0 | 57,250 | 0 | 0 | 57,250 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **57,250** | **0** | **0** | **57,250** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| General Fund Operating | | | 45,000 | | | 0 |
| CIP Excise Tax Fund | 0 | 0 | 12,250 | 0 | 0 | 12,250 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **57,250** | **0** | **0** | **12,250** |

**PD29** **FIREARMS/WEAPONS REPLACEMENT**

**Police**

**DEPARTMENT**

## PROJECT DESCRIPTION:

The department intends to periodically replace firearms/weapons on a periodic basis to ensure no loss of operational capability and ensure firearms/weapons are available as needed to sworn personnel.

## DISCUSSION OF PROJECT:

The Department's current inventory of Remington 870 shotguns have been in service for well over 30 years. The department has been successful in repairing and maintaining these weapons, but is experiencing a diminishing return related to the serviceability of the weapons.

The Department has an inventory of AR-15 rifles. At least two of these rifles were purchased in 2002 and over time have deteriorated due to their nature as high velocity, high pressure weapons and their use as training weapons. The department intends to replace two of these weapons yearly, taking older weapons out of operational service and transferring them to exclusively training service. This will ensure 100% operational availability and readiness of this weapons platform while also allowing us to meet our annual training requirements.

The Department has a current inventory of Tasers, including two different models. The department intends to replace older models with newer models and initiate a systematic replacement program to ensure sufficient Tasers are available for operational requirements.

Due to operational and training wear and recalls, the department also intends to replace our primary handgun issued to sworn personnel. The details of the weapons platform are still subject to internal department discussions, but the replacement program would be in concert with a turn-in program to obtain credit, thereby reducing the expenditure for replacement.

The timelines for the replacement program are: 8 Years for Handguns; 5 Years for AR-15 Rifles, 10 Years for Shotguns, and Tasers as needed or manufacturer recommendation. This program will increase the presence of less-lethal options with patrol staff, increase our weapons compatibility, reduce our repair and maintenance costs, and potentially reduce risk exposure for high-risk, low-probability policing events.

| PD29 FIREARMS/WEAPONS REPLACEMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 7,000 | 4,300 | 4,300 | 4,300 | 4,300 | 19,900 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **7,000** | **4,300** | **4,300** | **4,300** | **4,300** | **19,900** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| General Fund | | | | | | 0 |
| CIP Excise Tax Fund | 7,000 | 4,300 | 4,300 | 4,300 | 4,300 | 19,900 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **7,000** | **4,300** | **4,300** | **4,300** | **4,300** | **19,900** |

## CULTURE AND RECREATION PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| L15 | Furnishings for Renovated Space | 20,000 | 0 | 0 | 0 | 0 | 20,000 |
| | **LIBRARY TOTALS** | **20,000** | **0** | **0** | **0** | **0** | **20,000** |
| | | | | | | | |
| PR9 | Rogers Park Renovation | 0 | 0 | 375,000 | 0 | 0 | 375,000 |
| PR12 | Lincoln Park Land Acquisition & Dev | 400,000 | 0 | 0 | 0 | 0 | 400,000 |
| PR13 | Trails & Greenways | 35,000 | 0 | 548,500 | 0 | 0 | 583,500 |
| PR14 | Thatcher Park Phase II | 0 | 0 | 0 | 0 | 2,000,000 | 2,000,000 |
| PR20 | Joseph Gale Park Improvements | 0 | 0 | 28,000 | 293,000 | 0 | 321,000 |
| PR25 | Bard Park Improvements | 0 | 85,000 | 0 | 0 | 0 | 85,000 |
| **PR27** | **Southern Land Acquisition** | 200,000 | 0 | 0 | 0 | 0 | 200,000 |
| PR28 | Parks Master Plan | 85,000 | 0 | 0 | 0 | 0 | 85,000 |
| PR30 | Fernhill Restroom and Shelter | 296,800 | 0 | 0 | 0 | 0 | 296,800 |
| | **AQUATICS & PARKS TOTALS** | **1,016,800** | **85,000** | **951,500** | **293,000** | **2,000,000** | **4,346,300** |
| | | | | | | | |
| | **CULTURE AND RECREATION TOTALS** | **1,036,800** | **85,000** | **951,500** | **293,000** | **2,000,000** | **4,366,300** |
| | | | | | | | |
| **Bold =** | **NEW PROJECTS** | | | | | | |

## L15 FURNISHINGS FOR RENOVATED LIBRARY SPACE

**Library**

**DEPARTMENT**

### PROJECT DESCRIPTION:

This project will provide for the purchase of a furniture, shelving, and artwork to furnish the renovated space in the library.

### DISCUSSION OF PROJECT:

This project will provide for the purchase of a furniture, shelving, and artwork to furnish the renovated space in the library.

| L15 | FURNISHINGS FOR RENOVATED LIBRARY SPACE | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | 20,000 | | | | | 20,000 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **20,000** | **0** | **0** | **0** | **0** | **20,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| CIP Excise Tax Fund | 20,000 | | | | | 20,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **20,000** | **0** | **0** | **0** | **0** | **20,000** |
| | | | | | | |

**PR9** **ROGERS PARK RENOVATION**

**Parks & 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 expansion 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.

| PR9 ROGERS PARK RENOVATION | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | 25,000 | | | 25,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | 180,000 | | | 180,000 |
| Equipment/Furniture | | | 140,000 | | | 140,000 |
| Contingency | | | 30,000 | | | 30,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **375,000** | **0** | **0** | **375,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Grant funding | | | 187,500 | | | 187,500 |
| Park SDC's | | | 187,500 | | | 187,500 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **375,000** | **0** | **0** | **375,000** |

## PR12 LINCOLN PARK LAND ACQUISITION AND DEVELOPMENT

**Parks & Recreation**

**DEPARTMENT**

### PROJECT DESCRIPTION:

Ten acres of additional parkland will be purchased adjacent to Lincoln Park and will be developed.

### DISCUSSION OF PROJECT:

Lincoln Park has 22.5 acres, most of which are developed for active play. There is a need for more passive areas and picnic space. Community parks are usually 20-30 acres in size. When organized play is taking place in the park, there is little space for group and family picnics. Land acquisition will take place as property becomes available. Anticipated funding will come from SDC's.

| PR12 LINCOLN PARK LAND ACQUISITION AND DEVELOPMENT | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Land Purchase | 400,000 | | | | | 400,000 |
| | | | | | | 0 |
| **TOTAL** | **400,000** | **0** | **0** | **0** | **0** | **400,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| | | | | | | 0 |
| SDC | 400,000 | | | | | 400,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **400,000** | **0** | **0** | **0** | **0** | **400,000** |
| | | | | | | |

**PR13** **TRAILS/GREENWAYS/LINEAR PARKS**

**Park & 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 and SDC funds. The projects listed in the 5 year CIP includes continuing the loop near the B Street Trail and trail completion at Talisman Park.

| PR13 TRAILS/GREENWAYS/LINEAR PARKS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 5,000 | | 90,000 | | | 95,000 |
| Site Preparation | | | | | | 0 |
| Construction | 30,000 | | 450,000 | | | 480,000 |
| In-Kind Construction Services | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Land Acquisition | | | | | | 0 |
| Contingency | | | 8,500 | | | 8,500 |
| **TOTAL** | **35,000** | **0** | **548,500** | **0** | **0** | **583,500** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Parks Acq & Dev | 35,000 | | 329,100 | | | 364,100 |
| Grants | | | 219,400 | | | 219,400 |
| Solid Waste Contribution | | | | | | 0 |
| Street (MSTIP 3b) | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **35,000** | **0** | **548,500** | **0** | **0** | **583,500** |

**PR14** **THATCHER PARK PHASE II**

**Park & 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.

| PR14 THATCHER PARK PHASE II | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | 200,000 | 200,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | 1,800,000 | 1,800,000 |
| Equipment/Furniture | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **2,000,000** | **2,000,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Parks SDC | | | | | 2,000,000 | 2,000,000 |
| Grants | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | | | **2,000,000** |
| | | | | | | |

**PR20** **JOSEPH GALE PARK IMPROVEMENTS**

**Parks & Recreation**

**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, ballfields, 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.

| PR20 JOSEPH GALE PARK IMPROVEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | 28,000 | | | 28,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 265,000 | | 265,000 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | 28,000 | | 28,000 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **28,000** | **293,000** | **0** | **321,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| CDBG Grant | | | | 293,000 | | 293,000 |
| SDC Funds | | | 28,000 | | | 28,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **28,000** | **293,000** | **0** | **321,000** |
| | | | | | | |

**PR25** **BARD PARK IMPROVEMENTS**

**Parks & Recreation**

**DEPARTMENT**

**PROJECT DESCRIPTION:**
Continue improvements to Bard Park.

**DISCUSSION OF PROJECT:**
Bard Park received a major renovation in FY 2005-06. This project continues this renovation with construction of restrooms and new playground equipment. This well-used facility has playground equipment that was installed in the early 1990's. This equipment was not replaced in the 05-06 renovation.

| PR25 | BARD PARK IMPROVEMENTS | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | 85,000 | | | | 85,000 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **85,000** | **0** | **0** | **0** | **85,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Grants | | | | | | 0 |
| SDC Funds | | 85,000 | | | | 85,000 |
| **TOTAL FUNDING SOURCES** | **0** | **85,000** | **0** | **0** | **0** | **85,000** |
| | | | | | | |

## PR 27 SOUTHERN NEIGHBORHOOD LAND PURCHASE

**Parks & 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.

| PR27 SOUTHERN LAND PURCHASE | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Property Purchase | 200,000 | | | | | 200,000 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **200,000** | **0** | **0** | **0** | **0** | **200,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| Parks SDC | 200,000 | | | | | 200,000 |
| Grant funding | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **200,000** | **0** | **0** | **0** | **0** | **200,000** |

## PR28 PARKS, RECREATION AND OPEN SPACE MASTER PLAN UPDATE

**Parks & 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.

| PR28 | PARKS RECREATION AND OPEN SPACE MASTER PLAN UPDATE | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 85,000 | | | | | 85,000 |
| Site Preparation | | | | | | 0 |
| Construction | | | | | | 0 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **85,000** | **0** | **0** | **0** | **0** | **85,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| | | | | | | 0 |
| Parks SDC's | 85,000 | | | | | 85,000 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **85,000** | **0** | **0** | **0** | **0** | **85,000** |

**PR 30** **FERNHILL RESTROOM/SHELTER**

**Parks & Recreation**
**DEPARTMENT**

**PROJECT DESCRIPTION:**
Construction of a restroom and shelter at the Fernhill Wetlands.

**DISCUSSION OF PROJECT:**
This project will construct a small restroom and shelter facility at Fernhill Wetlands. This project is funded from three sources, including State of Oregon Lottery Grant Funds, partnership with Clean Water Services, and the Fernhill Wetlands Council. The City of Forest Grove is not incurring any costs associated with this project, only staff time.

| PR30 FERNHILL RESTROOM AND SHELTER | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | 28,000 | | | | | 28,000 |
| Site Preparation | | | | | | 0 |
| Construction | 268,800 | | | | | 268,800 |
| Equipment/Furniture | | | | | | 0 |
| Contingency | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **296,800** | **0** | **0** | **0** | **0** | **296,800** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| State Parks Grant | 109,000 | | | | | 109,000 |
| CWS | 127,000 | | | | | 127,000 |
| Fernhill Wetland Council | 60,800 | | | | | 60,800 |
| **TOTAL FUNDING SOURCES** | **296,800** | **0** | **0** | **0** | **0** | **296,800** |

## GENERAL GOVERNMENT PROJECTS

## CAPITAL OUTLAY SUMMARY SCHEDULE

| CIP# | PROJECT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | TOTAL |
|---|---|---|---|---|---|---|---|
| AS29 | Storage Building (Replace Old L&P Bldg) | 0 | 0 | 0 | 170,000 | 0 | 170,000 |
| AS33 | Downtown Parking Improvements | 0 | 0 | 0 | 0 | 90,000 | 90,000 |
| | **ADMINISTRATIVE SERVICES TOTALS** | **0** | **0** | **0** | **170,000** | **90,000** | **260,000** |
| | **GENERAL GOVERNMENT TOTALS** | **0** | **0** | **0** | **170,000** | **90,000** | **260,000** |
| **Bold =** | **NEW PROJECTS** | | | | | | |

## AS29 STORAGE BUILDING (REPLACE OLD L&P BUILDING)

**Administrative Services**

**DEPARTMENT**

### PROJECT DESCRIPTION:

The project will replace the deteriorating building on B Street across from the Transfer Station that was formerly the Light & Power Department Building.

### DISCUSSION OF PROJECT:

The old Light & Power building is currently used for storage. It is an old building and is deteriorating. Our insurance company has asked us what our plan for the building as they believe the building should be torn down and replaced if the City needs the space provided by the building. The insurance company commented the building has fallen into disrepair and will eventually become hazardous. The building is currently used by several departments to store various items. Since the City lacks indoor storage space, the preliminary plan is to construct (erect) a new storage building that can be separated into sections so departments that need to keep their items secure can have a separate area. The replacement building might not be located at that site depending on space availability at other sites.

| AS29 STORAGE BUILDING (REPLACE OLD L&P BUILDING) | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | | 0 |
| Construction | | | | 170,000 | | 170,000 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **170,000** | **0** | **170,000** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| CIP Excise Tax Fund | | | | 50,000 | | 50,000 |
| Light & Power Fund | | | | 120,000 | | 120,000 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **170,000** | **0** | **170,000** |

**AS33** **DOWNTOWN PARKING LOTS**

**Administrative Services**

**DEPARTMENT**

## PROJECT DESCRIPTION:

The project will repair and improve the City-owned downtown parking lots.

## DISCUSSION OF PROJECT:

The City-owned parking lots on 19th Street east of Main Street (including the alley from the bank parking lots) and central parking lot behind the downtown business are in need of repair. This project would repair those lots and help improve the appearance of the downtown area. No specific design has been done so the cost of the project is an estimate. For the 19th Street parking lot, it is anticipated that grinding down of some of the parking lot and an overlay with asphalt will be required.

| AS33 DOWNTOWN PARKING | | | | | | |
|---|---|---|---|---|---|---|
| **COSTS** | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** | **5-YEAR TOTAL** |
| Design/Engineering | | | | | | 0 |
| Site Preparation | | | | | 10,000 | 0 |
| Construction | | | | | 80,000 | 0 |
| Equipment/Furniture | | | | | | 0 |
| Other | | | | | | 0 |
| | | | | | | 0 |
| **TOTAL** | **0** | **0** | **0** | **0** | **90,000** | **0** |
| | | | | | | |
| **FUNDING SOURCE** | | | | | | |
| General Fund | | | | | 90,000 | 0 |
| | | | | | | 0 |
| **TOTAL FUNDING SOURCES** | **0** | **0** | **0** | **0** | **90,000** | **0** |