
Program: Utilities/Water – Capital Construction

Services Delivered:

This activity includes planning, engineering, and all construction of major water system improvements. The water system includes the treatment plant, eight reservoirs, thirteen pump stations, and 180 miles of water mains. Major repairs and improvements to the water system are financed through this capital budget. The minor repairs to the system are financed through the operating activities.

This budget sets aside funds to provide major rehabilitation of the water treatment plant, pump stations, water storage reservoirs, and the distribution system.

FY'18 Anticipated Accomplishments & Corresponding Council Goal - Strategic Plan Item:

Maintain, Operate, and Expand our Infrastructure

Objective 2: Ensure water infrastructure needs are met

Action 1: Build new Water Plant (PAVE).

- Staff continues to evaluate property options and work towards plant construction.

Action 2: Design and implement a distribution system valve exercise and replacement program to ensure system operability.

- Work is being planned in conjunction with new flushing program.

Action 3: Design/install redundant water main loop in Redwood Highway pedestrian way.

- Provides needed system redundancy and pressure and flow benefits.

Action 4: Develop emergency water hook-up at City Hall well.

- Evaluate feasibility.

Action 5: Complete projects as part of small main replacement.

- Projects will be designed and constructed.

Program: Utilities/Water – Capital Construction

Budget Highlights:

The project listing shows resources across the columns. Columns show the “Actual resources through FY’16”; the re-assessed resource needs of projects using current data for the “Revised FY’17” column, guiding our “Adopted FY’18” and resources estimated “Through FY’18”. We have “Future Years” and “Total Project” columns for each project. Refer to the Capital Budget Book for more information on individual projects.

The individual project pages describe the project, the need, future and ongoing costs, and the total project cost. The tables show when and where the money is budgeted to come from, and the expenses incurred and budgeted to incur through completion.

FY’17 Activity Review:

- Adopted Water Distribution System Master Plan.
- Continued work on the Small Main Replacement program.
- Took delivery of emergency water supply producing equipment.
- Took delivery of portable generator for pump stations and worked to implement hook-ups at appropriate locations.

Program: Utilities/Water – Capital Construction

ACTIVE CAPITAL PROJECT RESOURCES

| | Actual Through FY'16 | Estimated FY'17 | Adopted FY'18 | Total Through FY'18 | Future Years | Total Project |
|---|----------------------------|--------------------|------------------|---------------------------|-------------------|-------------------|
| WA0000 Miscellaneous Water Projects - General (758) | 313,948 | 51,960 | (60,000) | 365,908 | (99,627) | 224,281 |
| WA4742 Meadow Wood Reservoir No. 16 - Site Purchase | 350,000 | 0 | 0 | 350,000 | 0 | 350,000 |
| WA4971 Meadow Wood Reservoir No. 16 | 0 | 0 | 0 | 0 | 4,000,000 | 4,000,000 |
| WA5096 WTP Structural Repairs | 575,000 | 75,000 | 250,000 | 650,000 | 300,000 | 1,200,000 |
| WA6000 MSA Task Order #1 | 180,000 | 20,000 | 20,000 | 200,000 | 80,000 | 300,000 |
| WA6058 Water System Security Projects | 120,000 | 10,000 | 10,000 | 130,000 | 70,000 | 210,000 |
| WA6059 Pump Station Repairs | 125,000 | 25,000 | 25,000 | 150,000 | 100,000 | 275,000 |
| WA6207 WTP Replacement | 5,560,000 | 3,165,000 | 1,300,000 | 8,725,000 | 46,175,000 | 56,200,000 |
| WA6250 Water Rate & SDC Study | 70,000 | 0 | 0 | 70,000 | 0 | 70,000 |
| WA6251 Purchase Portable Generator for Pump | 75,000 | 50,000 | 0 | 125,000 | 0 | 125,000 |
| WA6252 Arc Flash Study WA and SE | 100,000 | 0 | 0 | 100,000 | 0 | 100,000 |
| WA6253 Small Main Replacement | 450,000 | 430,000 | 220,000 | 880,000 | 0 | 1,100,000 |
| NEW PROJECTS | | | | | | |
| WA6329 UDF Program | 0 | 0 | 100,000 | 0 | 0 | 100,000 |
| WA6330 Freeze Protect ARVs on Pedestrian Bridge | 0 | 0 | 50,000 | 0 | 0 | 50,000 |
| WA6331 Seismic Evaluations PS & Reservoirs | 0 | 0 | 100,000 | 0 | 0 | 100,000 |
| WA6332 Vine Street Water Line Replacement | 0 | 0 | 400,000 | 0 | 0 | 400,000 |
| Total Projects | 7,918,948 | 3,826,960 | 2,415,000 | 11,745,908 | 50,625,373 | 64,804,281 |
| Miscellaneous Water Funds | | | | | | |
| Miscellaneous Water Projects - SDC's (752) | 418,287 | 302,808 | (5,200) | 1,568,331 | 631,800 | 1,860,531 |
| Miscellaneous Water Projects - AFD's (755) | 49,697 | 8,900 | 5,000 | 71,844 | 6,000 | 67,844 |
| Miscellaneous Water Projects - LID's (759) | 0 | 0 | 0 | 12,581 | 0 | 12,581 |
| Total Miscellaneous Funds | 467,984 | 311,708 | (200) | 1,652,756 | 637,800 | 1,940,956 |
| <u>CLOSED OR CANCELLED CAPITAL PROJECT RESOURCES</u> | | | | | | |
| WA5094 Water Distribution System Master Plan Update | 250,000 | 38 | 0 | 250,038 | 0 | 250,038 |
| WA6248 Purchase of Emergency Water Pump | 200,000 | 0 | 0 | 200,000 | 0 | 200,000 |
| WA6249 Water Main Relocations | 700,000 | 275,000 | 0 | 975,000 | 0 | 975,000 |
| Total Closed Projects | 1,150,000 | 275,038 | 0 | 1,425,038 | 0 | 1,425,038 |
| Grand Total - All Projects | 9,536,932 | 4,413,706 | 2,414,800 | 14,823,702 | 51,263,173 | 68,170,275 |

Program: Utilities/Water – Capital Construction

ACTIVE CAPITAL PROJECT SUMMARIES FOR FY'18

| | | Adopted FY'18 Beginning Fund Balance | Adopted FY'18 Revenue | Adopted FY'18 Capital Outlay | Adopted FY'18 Transfers | Adopted FY'18 Appropriated Fund Balance |
|----------------------------------|---|--|-----------------------------|---------------------------------------|-------------------------------|---|
| WA0000 | Miscellaneous Water Projects - General (758) | 239,625 | (60,000) | 0 | 0 | 179,625 |
| WA4742 | Meadow Wood Reservoir No. 16 - Site Purchase | 281,544 | 0 | 281,544 | 0 | 0 |
| WA4971 | Meadow Wood Reservoir No. 16 | 0 | 0 | 0 | 0 | 0 |
| WA5096 | WTP Structural Repairs | 200,099 | 250,000 | 450,099 | 0 | 0 |
| WA6000 | MSA Task Order #1 | 25,048 | 20,000 | 45,048 | 0 | 0 |
| WA6058 | Water System Security Projects | 39,493 | 10,000 | 49,493 | 0 | 0 |
| WA6059 | Pump Station Repairs | 37,000 | 25,000 | 62,000 | 0 | 0 |
| WA6207 | WTP Replacement | 6,836,853 | 1,300,000 | 8,136,853 | 0 | 0 |
| WA6250 | Water Rate & SDC Study | 24,907 | 0 | 24,907 | 0 | 0 |
| WA6251 | Purchase Portable Generator for Pump Station | 48,200 | 0 | 48,200 | 0 | 0 |
| WA6252 | Arc Flash Study WA and SE | 95,000 | 0 | 95,000 | 0 | 0 |
| WA6253 | Small Main Replacement | 395,542 | 220,000 | 615,542 | 0 | 0 |
| NEW PROJECTS | | | | | | |
| WA6329 | UDF Program | 0 | 100,000 | 100,000 | 0 | 0 |
| WA6330 | Freeze Protect ARVs on Pedestrian Bridge | 0 | 50,000 | 50,000 | 0 | 0 |
| WA6331 | Seismic Evaluations PS & Reservoirs | 0 | 100,000 | 100,000 | 0 | 0 |
| WA6332 | Vine Street Water Line Replacement | 0 | 400,000 | 400,000 | 0 | 0 |
| | Total Projects | <u>8,223,311</u> | <u>2,415,000</u> | <u>10,458,686</u> | <u>0</u> | <u>179,625</u> |
| Miscellaneous Water Funds | | | | | | |
| | Miscellaneous Water Projects - SDC's (752) | 1,168,530 | (5,200) | 0 | 0 | 1,163,330 |
| | Miscellaneous Water Projects - AFD's (755) | 66,844 | 5,000 | 0 | 0 | 71,844 |
| | Miscellaneous Water Projects - LID's (759) | 0 | 0 | 0 | 0 | 0 |
| | Total Miscellaneous Funds | <u>1,235,374</u> | <u>(200)</u> | <u>0</u> | <u>0</u> | <u>1,235,174</u> |
| | Grand Total - All Projects | <u>9,458,685</u> | <u>2,414,800</u> | <u>10,458,686</u> | <u>0</u> | <u>1,414,799</u> |

Program: Utilities/Water – Capital Construction

Financial Summary

| | BUDGET FY'15 # | BUDGET FY'16 # | BUDGET FY'17 # | REVISED FY'17 # | A D O P T E D FY'18 # | PROJECTED FY'19 # |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------------|-------------------------|
| Beginning Fund Balance | <u>2,618,670</u> | <u>4,587,393</u> | <u>5,433,007</u> | <u>5,433,007</u> | <u>9,458,685</u> | <u>1,414,799</u> |
| Resources | | | | | | |
| Development Charges | 367,029 | 608,527 | 150,000 | 150,000 | 488,800 | 488,800 |
| Investment Interest | 24,910 | 57,966 | 14,000 | 14,000 | 16,000 | 16,000 |
| Advance Finance Interest | 1,121 | 1,168 | 0 | 0 | 0 | 0 |
| SDC Loans | 5,349 | 5,022 | 0 | 0 | 0 | 0 |
| General Fund | 150,000 | 100,000 | 130,000 | 130,000 | 0 | 0 |
| Sewer/Transport. Projects | 135,000 | 0 | 100,000 | 100,000 | 0 | 0 |
| Water Fund | 2,174,177 | 3,313,000 | 3,425,000 | 3,425,000 | 1,905,000 | 2,125,000 |
| Advance Financing | 4,881 | 51,119 | 3,000 | 3,000 | 5,000 | 5,000 |
| Other Revenue | <u>247</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| Total Current Revenues | <u>2,862,714</u> | <u>4,136,802</u> | <u>3,822,000</u> | <u>3,822,000</u> | <u>2,414,800</u> | <u>2,634,800</u> |
| Total Resources | <u>5,481,384</u> | <u>8,724,195</u> | <u>9,255,007</u> | <u>9,255,007</u> | <u>11,873,485</u> | <u>4,049,599</u> |
| Requirements | | | | | | |
| Capital Outlay | <u>893,991</u> | <u>1,328,206</u> | <u>8,881,060</u> | <u>8,881,060</u> | <u>10,458,686</u> | <u>2,230,000</u> |
| Subtotal Expenditures | <u>893,991</u> | <u>1,328,206</u> | <u>8,881,060</u> | <u>8,881,060</u> | <u>10,458,686</u> | <u>2,230,000</u> |
| Appropriated Fund Balance | <u>4,587,393</u> | <u>7,395,989</u> | <u>373,947</u> | <u>373,947</u> | <u>1,414,799</u> | <u>1,819,599</u> |
| Total Requirements | <u>5,481,384</u> | <u>8,724,195</u> | <u>9,255,007</u> | <u>9,255,007</u> | <u>11,873,485</u> | <u>4,049,599</u> |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--|
| Project | WA0000 | Fund 758 Miscellaneous Water Projects |
|----------------|---------------|--|

Project Description

This project accounts for small miscellaneous projects, closed projects and projects that are in the process of starting up. Fund balances and miscellaneous expenditures that are not attributable to a specific project are accounted for in this project. Resources from a large variety of sources are distributed from this project to other active projects.

Need for Project

This project allows for tracking of fund balances and miscellaneous expenditures.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 1: Plan and develop infrastructure.

Estimated Total Project Cost: This project has no cost. It is an accounting entity for the purpose of accumulating resources.

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|---|----------------------------|------------------|--------------------|------------------|---------------------|--------------------|-------------|---------------------|
| Water Capital Projects | 13,207,795 | 3,425,000 | 3,425,000 | 1,905,000 | 18,537,795 | 2,125,000 | 8,361,516 | 29,024,311 |
| Water Funds to Projects | (15,781,340) | (3,420,000) | (3,420,040) | (1,975,000) | (21,176,380) | (2,080,000) | (8,555,142) | (31,811,522) |
| Advance Finance District | 896,713 | 3,000 | | | 896,713 | | 9,000 | 905,713 |
| Investment Interest | 1,302,614 | 10,000 | 47,000 | 10,000 | 1,359,614 | 10,000 | 30,000 | 1,399,614 |
| Return: Lands & Bldgs & Transportation | 440,800 | | | | 440,800 | | | 440,800 |
| Other | 247,365 | | | | 247,365 | | | 247,365 |
| Total Resources | | | | | 305,907 | | | 206,281 |

Requirements

| | | | | | | | | |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| Expenditures | 126,283 | | | | 126,283 | | | 126,283 |
| Transfers | | | | | 0 | | | 0 |
| Ending Balance by Year | 187,664 | 107,013 | 239,624 | 179,624 | 179,624 | 234,624 | 79,998 | 79,998 |
| Total Requirements | | | | | 305,907 | | | 206,281 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--|
| Project | WA4742 | Reservoir and Pump Station Site Purchases |
|----------------|---------------|--|

Project Description

This project would fund the purchase of land for future reservoir or pump station sites (i.e. reservoir Nos. 13 & 16, RCC pump station).

Need for Project

Land acquisition is required for the location of future, as well as replacement, reservoirs and pump stations. The sites must be located at the proper elevation and within a reasonable distance of the water system. There are very few undeveloped properties available that can meet the necessary criteria. Purchase in the near future will be necessary to avoid the need to condemn an already developed parcel at a greatly increased price.



Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 1: Plan and develop infrastructure.

Future and Ongoing Costs

Engineering assessments, appraisals and acquisitions.

Revised Estimated Total Project Cost: **\$350,000** (Revised from \$150,000 as other site acquisitions have been added)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|----------------|-----------------|--------|----------------|
| Water Capital Projects | 187,000 | | | | 187,000 | | | 187,000 |
| Water SDC | 163,000 | | | | 163,000 | | | 163,000 |
| Total Resources | | | | | 350,000 | | | 350,000 |

Requirements

| | | | | | | | | |
|-------------------------------|----------------|----------|----------------|----------|----------------|----------|----------|----------------|
| Expenditures | 18,456 | 231,647 | 50,000 | 281,544 | 350,000 | | | 350,000 |
| Transfers/Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 331,544 | 0 | 281,544 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 350,000 | | | 350,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-------------------------------------|
| Project | WA4971 | Meadow Wood Reservoir No. 16 |
|----------------|---------------|-------------------------------------|

Project Description

This project will build a new 1.3 million gallon water reservoir as identified in the Water Distribution Master Plan.

Need for Project

The Water Distribution Master Plan calls for a new reservoir to serve Zone 2 customers in the southeast portion of the City. This project will accumulate the funds needed for the construction.



Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Property acquisition will occur through project WA4742. Design and construct.

Estimated Total Project Cost: \$4,000,000 (Revised from \$1,575,000 with 2016 master plan)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|-----------|------------------|
| Water Capital Projects | | | | | 0 | | 3,000,000 | 3,000,000 |
| Water SDCs (69%) | | | | | 0 | | 1,000,000 | 1,000,000 |
| Total Resources | | | | | 0 | | | 4,000,000 |

Requirements

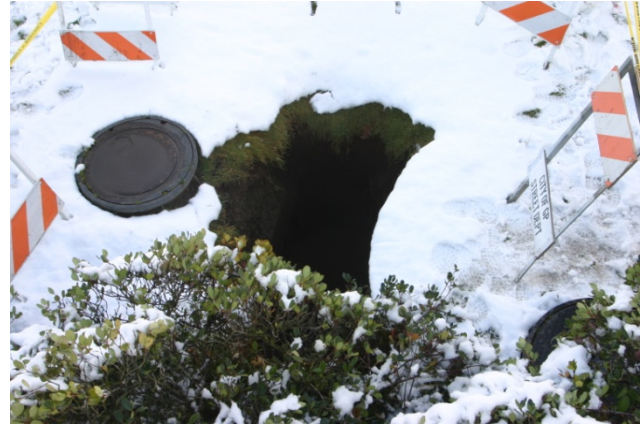
| | | | | | | | | |
|-------------------------------|----------|----------|----------|----------|----------|----------|-----------|------------------|
| Expenditures | | | | | 0 | | 4,000,000 | 4,000,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 0 | | | 4,000,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---|
| Project | WA5096 | Water Treatment Plant Structural Repairs |
|----------------|---------------|---|

Project Description

This project will fund many minor repairs necessary for the proper operation and long term maintenance of the Water Treatment Plant. Included items are: intake structure and bank stabilization, stairways and landings for basin access, basin valve repairs/replacement, lab expansion, covered pipe storage, chemical storage upgrades and sedimentation basin entrance and egress ladders.



Need for Project

The project is needed for efficiency and for safety. It will create a fund for a large number of small capital projects to ensure the longevity of the Water Treatment Plant and its supporting structures. In addition, many of the projects listed will bring current facilities into compliance with current OR-OSHA regulations and improve staff safety.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Evaluation and repair of deficiencies.

Estimated Total Project Cost: \$75,000/year as available (Revised from \$90,000/year)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|---------|---------------|
| Water Capital Projects | 575,000 | 75,000 | 75,000 | 250,000 | 900,000 | 75,000 | 225,000 | 1,200,000 |
| Total Resources | | | | | 900,000 | | | 1,200,000 |

Requirements

| | | | | | | | | |
|-------------------------------|----------------|---------------|----------------|----------|----------|----------|----------|-----------|
| Expenditures | 409,901 | 118,819 | 40,000 | 450,099 | 900,000 | 75,000 | 225,000 | 1,200,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 165,099 | 75,000 | 200,099 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 900,000 | | | 1,200,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-------------------------------------|
| Project | WA6000 | General Engineering Services |
|----------------|---------------|-------------------------------------|

Project Description

In May 2008, the City of Grants Pass and Murray, Smith & Associates (MSA) entered into a new, 3-year Water Master Services Agreement for Professional Engineering and Permitting Services. In May 2013, a new 3-year Master Services Agreement with MSA was entered into. With this Agreement, a number of individual task orders will be assigned, negotiated and executed to undertake a variety of assignments on the City's water facilities.

Need for Project

Given the nature of these individual assignments, it is desired for MSA to provide general engineering support and guidance for the overall water program to develop the specific individual tasks.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Development of new unidentified tasks.

Estimated Total Project Cost: \$20,000/year

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | 180,000 | 20,000 | 20,000 | 20,000 | 220,000 | 20,000 | 60,000 | 300,000 |
| Total Resources | | | | | 220,000 | | | 300,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---------------|----------|---------------|----------|----------|----------|----------|----------|
| Expenditures | 149,952 | 41,954 | 25,000 | 45,048 | 220,000 | 20,000 | 60,000 | 300,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 30,048 | 0 | 25,048 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 220,000 | | | 300,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---------------------------------------|
| Project | WA6058 | Water System Security Projects |
|----------------|---------------|---------------------------------------|

Project Description

This project will install and/or upgrade system security at all water system facilities as needed/required. The first location for security improvements will be at the Water Treatment Plant.

Need for Project

Currently, system security is in need of upgrade and standardization. This will be an ongoing project to upgrade security across the water system.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Evaluation and upgrade of unidentified deficiencies.

Estimated Total Project Cost: \$10,000/year as available (Revised from \$20,000/year)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------------|------------------|--------------------|------------------|------------------|--------------------|--------|------------------|
| Water Capital Projects | 120,000 | 10,000 | 10,000 | 10,000 | 140,000 | 10,000 | 60,000 | 210,000 |
| Total Resources | | | | | 140,000 | | | 210,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|--------|--------|--------|--------|---------|--------|--------|---------|
| Expenditures | 78,507 | 13,532 | 12,000 | 49,493 | 140,000 | 10,000 | 60,000 | 210,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 41,493 | 0 | 39,493 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 140,000 | | | 210,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-----------------------------|
| Project | WA6059 | Pump Station Repairs |
|----------------|---------------|-----------------------------|

Project Description

This project will allow for miscellaneous repairs and or upgrades to the various pump stations located throughout the water system. Examples of such are pumps, motors, equipment replacement or refurbishment, control system upgrades, painting, etc.

Need for Project

This project will account for repair or upgrade to pump station facilities as problems are identified. Additionally, pumps/motors will be changed out over a period of time to allow standardization of spare parts.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Evaluation and repair of unidentified deficiencies.

Estimated Total Project Cost: \$25,000/year as available

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------------|------------------|--------------------|------------------|------------------|--------------------|--------|------------------|
| Water Capital Projects | 125,000 | 25,000 | 25,000 | 25,000 | 175,000 | 25,000 | 75,000 | 275,000 |
| Total Resources | | | | | 175,000 | | | 275,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|---------------|----------|---------------|----------|----------|----------|----------|----------|
| Expenditures | 98,000 | 38,335 | 15,000 | 62,000 | 175,000 | 25,000 | 75,000 | 275,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 27,000 | 0 | 37,000 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 175,000 | | | 275,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--|
| Project | WA6207 | Water Treatment Plant Replacement |
|----------------|---------------|--|

Project Description

This project will begin accumulating resources for a new Water Treatment Plant (WTP). The first steps to be accomplished are a siting study and property acquisition, pilot testing of processes/technologies and a public outreach program.

Need for Project

A Facility Plan Update was completed in 2014. This facility planning effort evaluated options for the future of the WTP. These options ranged from temporary repairs, to rebuilding on-site, to relocation of the plant. The final recommended option was to build a new plant at a new location.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Once a siting study is complete and property purchased, final design of the new WTP will begin. It will take a minimum of 5 years to have the new WTP operational. The current estimated project cost is based upon the 2014 Facility Plan Update CIP.

Estimated Total Project Cost: \$56,200,000 (Revised from \$24,500,000 after Facility Plan Update)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------------|------------------|--------------------|------------------|-------------------|--------------------|------------|-------------------|
| Water Capital Projects | 4,960,000 | 2,765,000 | 2,765,000 | 800,000 | 8,525,000 | 1,950,000 | 5,425,000 | 15,900,000 |
| Water SDC | 600,000 | 400,000 | 400,000 | 500,000 | 1,500,000 | 150,000 | 650,000 | 2,300,000 |
| Bond | | | | | 0 | | 38,000,000 | 38,000,000 |
| Total Resources | | | | | 10,025,000 | | | 56,200,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|------------------|-----------|------------------|-----------|-------------------|-----------|------------|-------------------|
| Expenditures | 388,147 | 7,470,687 | 1,500,000 | 8,136,853 | 10,025,000 | 2,100,000 | 44,075,000 | 56,200,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 5,171,853 | 24 | 6,836,853 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 10,025,000 | | | 56,200,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-----------------------------------|
| Project | WA6250 | Water Rate & SDC Study |
|----------------|---------------|-----------------------------------|

Project Description

This project will evaluate and recommend appropriate service area water system rates and System Development Charges (SDC) after the Water System Master Plans are all updated.

Need for Project

Once the Urban Growth Boundary is adjusted, Water System Master Plans will need to be updated. As part of the plan updates, new Capital Improvement Plans (CIPs) will be developed. With new CIPs, water rate and SDC methodology will need to be updated to ensure adequacy. Accurate methodology helps to ensure new system users pay an appropriate share of costs.

Council Strategic Goal

Provide Cooperative, Shared Leadership Involving Council, Staff and Community
Objective 1: Evaluate/ensure financial stability of Utility Funds.

Future and Ongoing Costs

Not applicable

Estimated Total Project Cost: \$70,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | 70,000 | | | | 70,000 | | | 70,000 |
| Water SDC | | | | | 0 | | | 0 |
| Total Resources | | | | | 70,000 | | | 70,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---------------|----------|---------------|----------|----------|----------|----------|----------|
| Expenditures | 93 | 65,000 | 45,000 | 24,907 | 70,000 | | | 70,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 69,907 | 0 | 24,907 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 70,000 | | | 70,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--|
| Project | WA6251 | Purchase Portable Generator for Pump Stations |
|----------------|---------------|--|

Project Description

Purchase a portable generator for use at remote pump station sites, which do not have emergency power generators. Some of the pump station sites require modifications to current configurations to adapt to the new generator.

Need for Project

Existing portable generator has failed and requires replacement.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Adapting specific pump stations to generator electrical configuration. Routine and periodic maintenance.

Estimated Total Project Cost: **\$125,000** revised from \$75,000 due to pump station configurations

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------------|------------------|--------------------|------------------|------------------|--------------------|--------|------------------|
| Water Capital Projects | 75,000 | 50,000 | 50,000 | | 125,000 | | | 125,000 |
| Total Resources | | | | | 125,000 | | | 125,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|---------------|----------|---------------|----------|----------|----------|----------|----------|
| Expenditures | 56,800 | 50,000 | 20,000 | 48,200 | 125,000 | | | 125,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 18,200 | 0 | 48,200 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 125,000 | | | 125,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|----------------------------------|
| Project | WA6252 | Arc Flash Study WA and SE |
|----------------|---------------|----------------------------------|

Project Description

This project will implement an arc flash hazard program to supplement/enhance our existing electrical safety program and provide additional safety measures for our employees. The project will complete an arc flash study at the Water and Wastewater Plants, as well as at the remote facilities. The intent is to label all electrical equipment with OR-OSHA compliant labels in regards to arc flash.

Need for Project

To provide compliance with OR-OSHA mandates.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Objective 3: Ensure sewer infrastructure needs are met.

Future and Ongoing Costs

Normal and routine maintenance.

Estimated Total Project Cost: \$100,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|----------------|-----------------|--------|----------------|
| Water Capital Projects | 65,000 | | | | 65,000 | | | 65,000 |
| Wastewater Ops | 35,000 | | | | 35,000 | | | 35,000 |
| Total Resources | | | | | 100,000 | | | 100,000 |

Requirements

| | | | | | | | | |
|-------------------------------|----------------|----------|---------------|----------|----------------|----------|----------|----------------|
| Expenditures | 0 | 60,000 | 5,000 | 95,000 | 100,000 | | | 100,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 100,000 | 0 | 95,000 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 100,000 | | | 100,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-------------------------------|
| Project | WA6253 | Small Main Replacement |
|----------------|---------------|-------------------------------|

Project Description

This is an ongoing program to replace old, undersized cast iron water mains. Identified water mains to be replaced are listed below:

| | |
|---|---------------------------------------|
| SW Short Street | SW I Street between Leonard & Western |
| NW Lynwood Place | SE Waterman |
| NW Prospect Avenue between Manzanita and Bellevue | SE Gene |
| NW Bellevue Place – Highland to Kinny and Kinny to Prospect | |

Need for Project

The mains to be replaced do not meet adopted water service standards. Fire flow capacity is not provided and there is a relatively high rate of leak repairs. The pipes are typically clogged with rust or hardness deposits producing low delivery pressures during use. Where possible, the mains are replaced prior to scheduled street overlays.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Periodic and routine maintenance.

Estimated Total Project Cost: \$1,100,000 (Revised from \$355,000)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------------|------------------|--------------------|------------------|------------------|--------------------|--------|------------------|
| Water Capital Projects | 400,000 | 300,000 | 300,000 | 220,000 | 920,000 | | | 920,000 |
| General Fund | 50,000 | 130,000 | 130,000 | | 180,000 | | | 180,000 |
| | | | | | 0 | | | 0 |
| Total Resources | | | | | 1,100,000 | | | 1,100,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|----------------|----------|----------------|----------|-----------|----------|----------|-----------|
| Expenditures | 184,458 | 446,166 | 300,000 | 615,542 | 1,100,000 | | | 1,100,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 265,542 | 0 | 395,542 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 1,100,000 | | | 1,100,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--------------------|
| Project | WA6329 | UDF Program |
|----------------|---------------|--------------------|

Project Description

This project will provide the funding to implement a unidirectional flushing (UDF) program.

Need for Project

Annual flushing of the distribution system piping will reduce in-system chlorine demand. As part of the water distribution system master planning effort completed in 2016, a UDF pilot study was conducted. The pilot study resulted in better management of disinfection by-products. This project will develop a system wide flushing plan and purchase of necessary equipment.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Routine operation and maintenance associated with annual flushing operations.

Estimated Total Project Cost: \$100,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | | | | 100,000 | 100,000 | | | 100,000 |
| | | | | | 0 | | | 0 |
| | | | | | 0 | | | 0 |
| Total Resources | | | | | 100,000 | | | 100,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---|--|---|---------|---------|---|---|---------|
| Expenditures | | | | 100,000 | 100,000 | | | 100,000 |
| Transfers/Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 100,000 | | | 100,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---|
| Project | WA6330 | Freeze Protect ARVs on Pedestrian Bridge |
|----------------|---------------|---|

Project Description

This project will evaluate methods to freeze protect the air release valves (ARVs) on the pedestrian bridge.

Need for Project

Water pipeline insulation near the taps for the ARVs on the pedestrian bridge are in need of repair. Do to the extremely limited access, we want to ensure the correct freeze protection is incorporated into the design/repairs.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Once the correct method of freeze protection is established, the costs will be adjusted accordingly.

Estimated Total Project Cost: \$50,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | | | | 50,000 | 50,000 | | | 50,000 |
| Total Resources | | | | | 50,000 | | | 50,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---|--|---|--------|--------|---|---|--------|
| Expenditures | | | | 50,000 | 50,000 | | | 50,000 |
| Transfers/Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 50,000 | | | 50,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---|
| Project | WA6331 | Seismic Evaluation PS & Reservoirs |
|----------------|---------------|---|

Project Description

This project will perform seismic evaluations and recommendations for water pump stations and reservoirs.

Need for Project

The Water Distribution System Master Plan completed in 2016 identified a capital project to evaluate pump stations and reservoirs for seismic resiliency. The intent of the evaluation is to identify system vulnerabilities and work towards developing a plan to meet seismic response and recovery goals for water utilities presented in the Oregon Resilience Plan.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Future costs will be developed based upon the recommendations of the evaluations.

Estimated Total Project Cost: \$100,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | | | | 100,000 | 100,000 | | | 100,000 |
| Total Resources | | | | | 100,000 | | | 100,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---|--|---|---------|---------|---|---|---------|
| Expenditures | | | | 100,000 | 100,000 | | | 100,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 100,000 | | | 100,000 |

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---|
| Project | WA6332 | Vine Street Water Line Replacement |
|----------------|---------------|---|

Project Description

This project will replace a deteriorated ductile iron water main from Morgan Lane north on Vine Street for approximately 1,100 linear feet. Due to recent failures of the existing line, a corrosion study will be conducted prior to final design. The new water main will be up-sized to comply with our recently completed master plan.

Need for Project

The existing ductile iron pipeline is deteriorated and has several recent failures.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Periodic and routine maintenance.

Estimated Total Project Cost: \$400,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | | | | 400,000 | 400,000 | | | 400,000 |
| Total Resources | | | | | 400,000 | | | 400,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---|--|---|---------|---------|---|---|---------|
| Expenditures | | | | 400,000 | 400,000 | | | 400,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 400,000 | | | 400,000 |

Project Closed – FY 2017

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|---|
| Project | WA5094 | Water Distribution System Master Plan Update |
|----------------|---------------|---|

Project Description

This project will update the Water Distribution System Master Plan completed in 2001.

Need for Project

The Council is in the process of expanding the Urban Growth Boundary. Part of that process requires a review of the infrastructure needed to serve the new area. The Master Plan Update will identify infrastructure requirements and sizing to serve the enlarged Urban Growth Boundary. A condition assessment of all pump stations and reservoirs will also be conducted as part of the Master Plan Update.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 1: Plan and develop infrastructure.

Future and Ongoing Costs

Development of plan after UGB expansion.

Estimated Total Project Cost: \$250,000 (Revised from \$140,000 and original \$120,000 due to UGB delay)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | 250,000 | | 38 | | 250,038 | | | 250,038 |
| General Fund- Policy & Legislation | | | | | 0 | | | 0 |
| Total Resources | | | | | 250,038 | | | 250,038 |

Requirements

| | | | | | | | | |
|-------------------------------|------------|----------|----------|----------|----------|----------|----------|----------|
| Expenditures | 250,038 | | | | 250,038 | | | 250,038 |
| Transfers/Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | -38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 250,038 | | | 250,038 |

Project Closed – FY 2017

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|--|
| Project | WA6248 | Purchase of Emergency Water Producing Equipment |
|----------------|---------------|--|

Project Description

This project will purchase equipment designed for production of potable water in the event of a catastrophic failure to the Water Treatment Plant. The purchased equipment will be portable and capable of providing a minimal supply of potable water.

Need for Project

This is intended to be an interim measure until such time as a new Water Treatment Plant is constructed and operational. The existing Plant is at risk of partial or catastrophic failure.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

Storage and maintenance of equipment and supplies.

Estimated Total Project Cost: \$200,000

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|------------------------|----------------------|---------------|-----------------|---------------|---------------|-----------------|--------|---------------|
| Water Capital Projects | 200,000 | | | | 200,000 | | | 200,000 |
| General Fund | | | | | 0 | | | 0 |
| Total Resources | | | | | 200,000 | | | 200,000 |

Requirements

| | | | | | | | | |
|-------------------------------|---------------|----------|----------|----------|----------|----------|----------|----------|
| Expenditures | 164,594 | | 35,406 | | 200,000 | | | 200,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 35,406 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 200,000 | | | 200,000 |

Project Closed – FY 2017

Program: Utilities/Water – Capital Construction

| | | |
|----------------|---------------|-------------------------------|
| Project | WA6249 | Water Main Relocations |
|----------------|---------------|-------------------------------|

Project Description

This project will evaluate the potential for relocation and abandonment of old water mains located under buildings or in difficult access areas. One old sewer main will need to be replaced to facilitate new water main.

Need for Project

Old water mains located beneath buildings or in difficult to access/maintain areas can cause considerable damage to private property if they fail.

Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs
Objective 2: Ensure water infrastructure needs are met.

Future and Ongoing Costs

After evaluation, this project will accumulate resources for remediation.

Estimated Total Project Cost: \$975,000 (Revised from \$500,000 after initial evaluation)

Resources

| | Actual Through FY'16 | FY'17 Adopted | FY'17 Estimated | FY'18 Adopted | Through FY'18 | FY'19 Projected | Future | Total Project |
|--|----------------------------|------------------|--------------------|------------------|------------------|--------------------|--------|------------------|
| Water Capital Projects | 400,000 | 175,000 | 175,000 | | 575,000 | | | 575,000 |
| General Program Ops- Policy & Legislation | 200,000 | | | | 200,000 | | | 200,000 |
| Wastewater Ops | 100,000 | 100,000 | 100,000 | | 200,000 | | | 200,000 |
| Total Resources | | | | | 975,000 | | | 975,000 |

Requirements

| | | | | | | | | |
|-----------------------------------|---------------|----------|----------|----------|----------------|----------|----------|----------------|
| Expenditures | 673,237 | 325,023 | 301,763 | | 975,000 | | | 975,000 |
| Transfers/ Contingency | | | | | 0 | | | 0 |
| Ending Balance by Year | 26,763 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Requirements | | | | | 975,000 | | | 975,000 |