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## Program: Utilities/Water – Capital Construction

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### 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'20 Anticipated Accomplishments & Corresponding Council Goal - Strategic Plan Item:

#### **Maintain, Operate, and Expand our Infrastructure to Meet Community Needs**

##### **Objective 2: Ensure water infrastructure needs are met**

**Action 1:** Build new Water Plant (PAVE). \*\*\*

- Staff will continue to evaluate property options and work towards locating a new plant.

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

- Work will continue in conjunction with new flushing program.

**Action 3:** Water Plant: 18% contribution shown in debt service. \*\*URA

**Action 4:** Design/install redundant water main loop in Redwood Highway pedestrian way. \*\*

- Complete design of improvements.

**Action 5:** Develop emergency water hook-up at City Hall well. \*

- Continue testing and evaluate feasibility.

### Budget Highlights:

The project listing columns show the “Actual resources through FY’18”; the re-assessed resource needs of projects using current data for the “Estimated FY’19” column, guiding our “Adopted FY’20” and resources estimated “Through FY’21”. 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.

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## Program: Utilities/Water – Capital Construction

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### FY'19 Activity Review:

- Continued work with our Owners Representative to assist with the development of a replacement Water Treatment Plant.
- Continued with property evaluation for a replacement Water Treatment Plant.
- Continued work on the Small Main Replacement program.
- Adopted a new rate and started an SDC study for the water system.
- Continued implementation of an Asset Management program.
- Initiated design of the Redwood Highway water line loop.
- Completed the installation of a replacement water line on Vine Street.
- Completed the seismic evaluation of pump stations and reservoirs.
- Completed the UDF flushing program.

## Program: Utilities/Water – Capital Construction

### ACTIVE CAPITAL PROJECT RESOURCES

		Actual			Budget		Total Project
		Through FY'18	Estimated FY'19	Adopted FY'20	Through FY'20	Future Years	
WA0000	Miscellaneous Water Projects-General (758)	427,074	(25,000)	(40,000)	362,074	49,000	411,074
WA4742	Reservoir and Pump Station Site Purchase	350,000	0	0	350,000	0	350,000
WA4971	Meadow Wood Reservoir No. 16	0	100,000	0	100,000	4,000,000	4,100,000
WA5096	WTP Structural Repairs	800,000	75,000	75,000	950,000	150,000	1,100,000
WA6058	Water System Security Projects	140,000	10,000	100,000	250,000	40,000	290,000
WA6059	Pump Station Repairs	175,000	25,000	25,000	225,000	100,000	325,000
WA6207	WTP Replacement	10,025,000	1,750,000	2,540,000	14,315,000	66,800,000	81,115,000
WA6250	Water Rate & SDC Study	70,000	0	0	70,000	0	70,000
WA6251	Purchase Portable Generator for Pump Station	125,000	0	0	125,000	0	125,000
WA6252	Arc Flash Study WA and SE	100,000	0	0	100,000	0	100,000
WA6330	Freeze Protect ARVs on Pedestrian Bridge	50,000	0	0	50,000	0	50,000
WA6360	Small Main Replacement Program	0	300,000	320,000	620,000	880,000	1,500,000
WA6361	WTP SCADA Improvements	0	225,000	0	225,000	0	225,000
WA6362	Redwood Highway Looping	0	375,000	500,000	875,000	1,100,000	1,975,000
<b>NEW PROJECTS</b>							
WA6365	Source Water Protection Grant	12,991	52,009	0	65,000	0	65,000
WA6369	WTP Equipment Improvement	0	125,000	100,000	225,000	100,000	325,000
WA6376	General Engineering Services	0	0	40,000	40,000	80,000	120,000
	<b>Total Projects</b>	<b><u>12,275,065</u></b>	<b><u>3,012,009</u></b>	<b><u>3,660,000</u></b>	<b><u>18,947,074</u></b>	<b><u>73,299,000</u></b>	<b><u>92,246,074</u></b>
						0	
<b>Miscellaneous Water Funds</b>							
	Miscellaneous Water Projects - SDC's (752)	418,287	(700,000)	(97,000)	1,568,931	690,000	1,461,931
	Miscellaneous Water Projects - AFD's (755)	49,697	0	5,000	71,844	16,000	130,846
	Miscellaneous Water Projects - LID's (759)	0	0	0	12,581	0	12,581
	<b>Total Miscellaneous Funds</b>	<b><u>467,984</u></b>	<b><u>(700,000)</u></b>	<b><u>(92,000)</u></b>	<b><u>1,653,356</u></b>	<b><u>706,000</u></b>	<b><u>1,605,358</u></b>
<b><u>CLOSED OR CANCELLED CAPITAL PROJECT RESOURCES</u></b>							
WA6000	MSA Task Order #1	220,000	10,000	0	230,000	0	230,000
WA6253	Small Main Replacement	1,100,000	0	0	1,100,000	0	1,100,000
WA6329	UDF Program	100,000	(10,000)	0	90,000	0	90,000
WA6331	Seismic Evaluations PS & Reservoirs	200,000	(20,000)	0	180,000	0	180,000
WA6332	Vine Street Water Line Replacement	400,000	(70,000)	0	330,000	0	330,000
	<b>Total Closed Projects</b>	<b><u>2,020,000</u></b>	<b><u>(90,000)</u></b>	<b><u>0</u></b>	<b><u>1,930,000</u></b>	<b><u>0</u></b>	<b><u>1,930,000</u></b>
	<b>Grand Total - All Projects</b>	<b><u>14,763,049</u></b>	<b><u>2,222,009</u></b>	<b><u>3,568,000</u></b>	<b><u>22,530,430</u></b>	<b><u>74,005,000</u></b>	<b><u>95,781,432</u></b>

## Program: Utilities/Water – Capital Construction

### ACTIVE CAPITAL PROJECT SUMMARIES FOR FY'20

	Adopted FY'20 Beginning Fund Balance	Adopted FY'20 Revenue	Adopted FY'20 Capital Outlay	Adopted FY'20 Transfers Out	Adopted FY'20 Appropriated Fund Balance
WA0000 Miscellaneous Water Projects-General (758)	275,796	(40,000)	0	0	235,796
WA4742 Reservoir and Pump Station Site Purchase	281,544	0	281,544	0	0
WA4971 Meadow Wood Reservoir No. 16	75,000	0	75,000	0	0
WA5096 WTP Structural Repairs	92,279	75,000	167,279	0	0
WA6000 MSA Task Order #1	0	0	0	0	0
WA6058 Water System Security Projects	23,119	100,000	123,119	0	0
WA6059 Pump Station Repairs	43,624	25,000	68,624	0	0
WA6207 WTP Replacement	10,317,160	2,540,000	12,857,160	0	0
WA6250 Water Rate & SDC Study	1,500	0	1,500	0	0
WA6251 Purchase Portable Generator for Pump Station	57,891	0	57,891	0	0
WA6252 Arc Flash Study WA and SE	95,000	0	95,000	0	0
WA6253 Small Main Replacement	0	0	0	0	0
WA6329 UDF Program	0	0	0	0	0
WA6330 Freeze Protect ARVs on Pedestrian Bridge	35,454	0	35,454	0	0
WA6331 Seismic Evaluations PS & Reservoirs	0	0	0	0	0
WA6332 Vine Street Water Line Replacement	0	0	0	0	0
WA6360 Small Main Replacement Program	150,000	320,000	470,000	0	0
WA6361 WTP SCADA Improvements	15,000	0	15,000	0	0
WA6362 Redwood Highway Looping	325,000	500,000	825,000	0	0
<b>NEW PROJECTS</b>					
WA6365 Source Water Protection Grant	40,620	0	40,620	0	0
WA6369 WTP Equipment Improvement	0	100,000	100,000	0	0
WA6376 General Engineering Services	0	40,000	40,000	0	0
<b>Total Projects</b>	<b><u>11,828,987</u></b>	<b><u>3,660,000</u></b>	<b><u>15,253,191</u></b>	<b><u>0</u></b>	<b><u>235,796</u></b>
<b>Miscellaneous Water Funds</b>					
Miscellaneous Water Projects - SDC's (752)	417,089	(97,000)	0	0	320,089
Miscellaneous Water Projects - AFD's (755)	124,828	5,000	0	0	129,828
Miscellaneous Water Projects - LID's (759)	0	0	0	0	0
<b>Total Miscellaneous Funds</b>	<b><u>541,917</u></b>	<b><u>(92,000)</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>449,917</u></b>
<b>Grand Total - All Projects</b>	<b><u>12,370,904</u></b>	<b><u>3,568,000</u></b>	<b><u>15,253,191</u></b>	<b><u>0</u></b>	<b><u>685,713</u></b>

## Program: Utilities/Water – Capital Construction

### Financial Summary

	ACTUAL FY'17 #	ACTUAL FY'18 #	BUDGET FY'19 #	REVISED FY'19 #	A D O P T E D FY'20 #	PROJECTED FY'21 #
Beginning Fund Balance	<u>7,395,989</u>	<u>10,828,825</u>	<u>11,757,324</u>	<u>11,757,324</u>	<u>12,370,904</u>	<u>685,713</u>
<b>Resources</b>						
Development Charges	644,363	488,096	487,000	487,000	203,000	203,000
Federal/State Grants	0	7,991	0	0	0	0
Investment Interest	97,265	139,208	10,000	10,000	10,000	10,000
Advance Finance Interest	1,123	794	0	0	0	0
SDC Loans	3,857	-3,426	0	0	0	0
General Fund	130,000	0	0	0	0	0
Sewer/Transport. Projects	100,000	0	0	0	0	0
Water Fund	3,425,000	1,905,000	2,160,000	2,160,000	3,350,000	3,750,000
Advance Financing	12,178	51,007	20,000	20,000	5,000	5,000
Other Revenue	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>20,000,000</u>
<i>Total Current Revenues</i>	<u><i>4,413,786</i></u>	<u><i>2,588,670</i></u>	<u><i>2,677,000</i></u>	<u><i>2,677,000</i></u>	<u><i>3,568,000</i></u>	<u><i>23,968,000</i></u>
<b>Total Resources</b>	<b><u>11,809,775</u></b>	<b><u>13,417,495</u></b>	<b><u>14,434,324</u></b>	<b><u>14,434,324</u></b>	<b><u>15,938,904</u></b>	<b><u>24,653,713</u></b>
<b>Requirements</b>						
Capital Outlay	<u>980,950</u>	<u>1,094,311</u>	<u>13,329,791</u>	<u>13,329,791</u>	<u>15,253,191</u>	<u>23,900,000</u>
<i>Subtotal Expenditures</i>	<u><i>980,950</i></u>	<u><i>1,094,311</i></u>	<u><i>13,329,791</i></u>	<u><i>13,329,791</i></u>	<u><i>15,253,191</i></u>	<u><i>23,900,000</i></u>
Appropriated Fund Balance	<u>10,828,825</u>	<u>12,323,184</u>	<u>1,104,533</u>	<u>1,104,533</u>	<u>685,713</u>	<u>753,713</u>
<b>Total Requirements</b>	<b><u>11,809,775</u></b>	<b><u>13,417,495</u></b>	<b><u>14,434,324</u></b>	<b><u>14,434,324</u></b>	<b><u>15,938,904</u></b>	<b><u>24,653,713</u></b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA0000</b>	<b>Fund 758 Miscellaneous Water Projects</b>
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### 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

	<b>Actual Through FY'18</b>	<b>FY'19 Adopted</b>	<b>FY'19 Estimated</b>	<b>FY'20 Adopted</b>	<b>Through FY'20</b>	<b>FY'21 Projected</b>	<b>Future</b>	<b>Total Projects</b>
Water Operations	18,537,795	2,160,000	2,160,000	3,350,000	<b>24,047,795</b>	3,750,000	8,750,000	<b>36,547,795</b>
Water Capital to Projects	(21,216,267)	(2,180,000)	(2,195,000)	(3,400,000)	<b>(26,811,267)</b>	(3,750,000)	(8,750,000)	<b>(39,311,267)</b>
Advanced Finance District	896,713				<b>896,713</b>		9,000	<b>905,713</b>
Investment Interest	1,520,667	10,000	10,000	10,000	<b>1,540,667</b>	10,000	30,000	<b>1,580,667</b>
Return: Lands & Bldg & Transportation	440,800				<b>440,800</b>			<b>440,800</b>
Other	247,366				<b>247,366</b>			<b>247,366</b>
<b>Total Resources</b>					<b>362,074</b>			<b>411,074</b>

### Requirements

Expenditures	126,278				<b>126,278</b>			<b>126,278</b>
Transfers/Contingency					<b>0</b>			<b>0</b>
<b>Ending Balance by Year</b>	<b>300,796</b>	<b>179,624</b>	<b>275,796</b>	<b>235,796</b>	<b>235,796</b>	<b>245,796</b>	<b>284,796</b>	<b>284,796</b>
<b>Total Requirements</b>					<b>126,278</b>			<b>126,278</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA4742</b>	<b>Reservoir and Pump Station Site Purchases</b>
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### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	187,000				187,000			187,000
Water SDC's	163,000				163,000			163,000
<b>Total Resources</b>					<b>350,000</b>			<b>350,000</b>

### Requirements

Expenditures	18,456	281,544	50,000	281,544	350,000			350,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>331,544</b>		<b>281,544</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>350,000</b>			<b>350,000</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA4971</b>	<b>Meadow Wood Reservoir No. 16</b>
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### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects		100,000	100,000		100,000		3,000,000	3,000,000
Water SDC's (69%)					0		1,000,000	1,000,000
<b>Total Resources</b>					100,000			4,000,000

### Requirements

Expenditures		100,000	25,000	75,000	100,000		4,000,000	4,000,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	0		75,000	0	0	0	0	0
<b>Total Requirements</b>					100,000			4,000,000



## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA5096</b>	<b>Water Treatment Plant Structural Repairs</b>
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### 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/appurtenances. 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	800,000	75,000	75,000	75,000	950,000	75,000	75,000	1,100,000
<b>Total Resources</b>					950,000			1,100,000

### Requirements

Expenditures	757,721	129,984	25,000	167,279	950,000	75,000	75,000	1,100,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>42,279</b>		<b>92,279</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					950,000			1,100,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6058</b>	<b>Water System Security Projects</b>
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### 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. The ShakeAlert earthquake early warning system will be implemented through this project also.

### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	140,000	10,000	10,000	100,000	250,000	10,000	30,000	290,000
<b>Total Resources</b>					250,000			290,000

### Requirements

Expenditures	96,881	53,758	30,000	123,119	250,000	10,000	30,000	290,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>43,119</b>		<b>23,119</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					250,000			290,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6059</b>	<b>Pump Station Repairs</b>
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### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	175,000	25,000	25,000	25,000	225,000	25,000	75,000	325,000
<b>Total Resources</b>					225,000			325,000

### Requirements

Expenditures	131,376	62,565	25,000	68,624	225,000	25,000	75,000	325,000
Transfers/ Contingency					0			0
<b>Ending Balance by Year</b>	<b>43,624</b>		<b>43,624</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					225,000			325,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6207</b>	<b>Water Treatment Plant Replacement</b>
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### Project Description

This project will begin accumulating resources for a replacement 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 replacement 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 replacement WTP will begin. The current goal is to have the replacement WTP operational in 2023. The original estimated project cost is based upon the 2014 Facility Plan Update CIP.

**Estimated Total Project Cost:\$81,000,000** (Revised from Facility Plan Update of \$56,200,000)

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	8,525,000	1,050,000	1,050,000	2,240,000	<b>11,815,000</b>	2,700,000	4,350,000	<b>18,865,000</b>
Water SDC's	1,500,000	700,000	700,000	300,000	<b>2,500,000</b>	150,000	600,000	<b>3,250,000</b>
Water Bond					<b>0</b>	20,000,000	39,000,000	<b>59,000,000</b>
<b>Total Resources</b>					<b>14,315,000</b>			<b>81,115,000</b>

### Requirements

Expenditures	707,840	10,823,216	750,000	12,857,160	<b>14,315,000</b>	22,850,000	43,950,000	<b>81,115,000</b>
Transfers/Contingency					<b>0</b>		0	<b>0</b>
<b>Ending Balance by Year</b>	<b>9,317,160</b>		<b>10,317,160</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>14,315,000</b>			<b>81,115,000</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6250</b>	<b>Water Rate &amp; SDC Study</b>
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### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	70,000				70,000			70,000
Water SDC's					0			0
<b>Total Resources</b>					<b>70,000</b>			<b>70,000</b>

### Requirements

Expenditures	47,333	4,296	21,167	1,500	70,000			70,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>22,667</b>		<b>1,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>70,000</b>			<b>70,000</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6251</b>	<b>Purchase Portable Generator for Pump Stations</b>
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### 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

	<b>Actual Through FY'18</b>	<b>FY'19 Adopted</b>	<b>FY'19 Estimated</b>	<b>FY'20 Adopted</b>	<b>Through FY'20</b>	<b>FY'21 Projected</b>	<b>Future</b>	<b>Total Projects</b>
Water Capital Projects	125,000				125,000			125,000
<b>Total Resources</b>					125,000			125,000

### Requirements

Expenditures	57,109	48,200	10,000	57,891	125,000			125,000
Transfers/ Contingency					0			0
<b>Ending Balance by Year</b>	<b>67,891</b>		<b>57,891</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					125,000			125,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6252</b>	<b>Arc Flash Study WA and SE</b>
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### 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 regard 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	65,000				65,000			65,000
Wastewater Operations	35,000				35,000			35,000
<b>Total Resources</b>					<b>100,000</b>			<b>100,000</b>

### Requirements

Expenditures	0	95,000	5,000	95,000	100,000			100,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>100,000</b>		<b>95,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>100,000</b>			<b>100,000</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6330</b>	<b>Freeze Protect ARVs on Pedestrian Bridge</b>
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### 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

	<b>Actual Through FY'18</b>	<b>FY'19 Adopted</b>	<b>FY'19 Estimated</b>	<b>FY'20 Adopted</b>	<b>Through FY'20</b>	<b>FY'21 Projected</b>	<b>Future</b>	<b>Total Projects</b>
Water Capital Projects	50,000				50,000			50,000
<b>Total Resources</b>					50,000			50,000

### Requirements

Expenditures	9,546	35,000	5,000	35,454	50,000			50,000
Transfers/ Contingency					0			0
<b>Ending Balance by Year</b>	<b>40,454</b>		<b>35,454</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					50,000			50,000



## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6360</b>	<b>Small Main Replacement Program</b>
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### Project Description

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

NE Foster Way	SW Short Street
<del>NE Sherman Lane</del>	NE B Street (8 <sup>th</sup> to Dean)
SW Laurel (Rogue River Ave to Bridge)	SW Mary Lane
NW Gilbert Way to Midland Ave (extension)	

### Council Strategic Goal

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

### 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.

### Future and Ongoing Costs

Periodic and routine maintenance.

**Estimated Total Project Cost: \$1,500,000**

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects		300,000	300,000	320,000	620,000	320,000	560,000	1,500,000
<b>Total Resources</b>					620,000			1,500,000

### Requirements

Expenditures		300,000	150,000	470,000	620,000	320,000	560,000	1,500,000
Transfers/ Contingency					0			0
Ending Balance by Year	0		150,000	0	0	0	0	0
<b>Total Requirements</b>					620,000			1,500,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6361</b>	<b>WTP SCADA Improvements</b>
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### Project Description

This project will update the Water Treatment Plant (WTP) SCADA and Network to be in line with the improvements being installed at the Water Restoration Plant (WRP).

### Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

### Need for Project

To replace dated hardware and software equipment. Updating and matching the SCADA systems between the WRP and WTP allows for easier maintenance of both systems. Ultimate integration of the systems into asset management will be more cost effective.

### Future and Ongoing Costs

Periodic and routine maintenance

**Estimated Total Project Cost: \$225,000** (revised from \$200,000 after proposals received)

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects		200,000	225,000		225,000			225,000
<b>Total Resources</b>					225,000			225,000

### Requirements

Expenditures		200,000	210,000	15,000	225,000			225,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>0</b>		<b>15,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					225,000			225,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6362</b>	<b>Redwood Highway Looping</b>
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### Project Description

This project will design approximately 9,700 linear feet of 16" water main to provide a water service loop in the Redwood area. The installation of approximately 4,500 linear feet of 16" water main will complete the initial looping required for a secondary feed at Dowell Road.

### Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

### Need for Project

To meet fire flow requirements for an RCC expansion, a 16" water line is required from approximately Allen Creek Road to Hubbard Lane. This water line will also provide a secondary feed for all water users west of Allen Creek Road. This project is anticipated to be built in phases.

### Future and Ongoing Costs

Periodic and routine maintenance.

**Estimated Total Project Cost:           \$3,400,000**

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects		400,000	375,000	500,000	<b>875,000</b>	500,000	600,000	<b>1,975,000</b>
<b>Total Resources</b>					<b>875,000</b>			<b>1,975,000</b>

### Requirements

Expenditures		400,000	50,000	825,000	<b>875,000</b>	500,000	600,000	<b>1,975,000</b>
Transfers/ Contingency					<b>0</b>			<b>0</b>
<b>Ending Balance by Year</b>	<b>0</b>		<b>325,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>875,000</b>			<b>1,975,000</b>

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6365</b>	<b>Source Water Protection Grant</b>
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### Project Description

This project is a pass-through grant from the EPA to OHA to Business Oregon to the City of Grants Pass and surrounding communities.

### Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

### Need for Project

For instructional materials and small projects to help educate and protect our drinking water source – the Rogue River and tributaries.

### Future and Ongoing Costs

Once grant is expended – no future or ongoing costs.

**Estimated Total Project Cost:       \$ 65,000**

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	5,000				5,000			5,000
Federal Grant	7,991		52,009		60,000			60,000
<b>Total Resources</b>					65,000			65,000

### Requirements

Expenditures	4,380		20,000	40,620	65,000			65,000
Transfers/ Contingency					0			0
<b>Ending Balance by Year</b>	<b>8,611</b>		<b>40,620</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					65,000			65,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6369</b>	<b>WTP Equipment Improvement</b>
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### Project Description

This is the replacement/refurbishment fund for miscellaneous equipment such as pumps, motors, mixers, compressors and valves.

### Council Strategic Goal

Maintain, Operate and Expand our infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

### Need for Project

Each year pieces of equipment fail due to age and/or mechanical failure. This project will allow the funding of replacement or refurbished equipment as needed until the replacement water treatment plant is functional.

### Future and Ongoing Costs

Evaluation and repair of unanticipated problems.

**Estimated Total Project Cost: \$325,000**

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects			125,000	100,000	225,000	100,000		325,000
<b>Total Resources</b>					225,000			325,000

### Requirements

Expenditures			125,000	100,000	225,000	100,000		325,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	0		0	0	0	0	0	0
<b>Total Requirements</b>					225,000			325,000

## Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6376</b>	<b>General Engineering Services</b>
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### Project Description

Using our Water Master Services Agreement for Professional Engineering and Permitting Services, a number of individual task orders will be assigned, negotiated and executed to undertake a variety of assignments on the City's water infrastructure/facilities.

### Council Strategic Goal

Maintain, Operate and Expand our Infrastructure to Meet Community Needs

Objective 2: Ensure water infrastructure needs are met.

### Need for Project

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

### Future and Ongoing Costs

Development of new unidentified tasks.

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

### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects				40,000	<b>40,000</b>	20,000	60,000	<b>120,000</b>
Interest Income					0			0
					0			0
					0			0
<b>Total Resources</b>					<b>40,000</b>			<b>120,000</b>

### Requirements

Expenditures				40,000	<b>40,000</b>	20,000	60,000	<b>120,000</b>
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>40,000</b>			<b>120,000</b>

## Project Closed – FY2019

### Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6000</b>	<b>General Engineering Services</b>
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#### 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. In 2016 the City of Grants Pass executed the renewable 3-year option on this agreement. 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	220,000	20,000	10,000		230,000			230,000
<b>Total Resources</b>					230,000			230,000

#### Requirements

Expenditures	205,356	33,495	24,644		230,000			230,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>14,644</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					230,000			230,000

## Project Closed – FY2019

### Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6253</b>	<b>Small Main Replacement</b>
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#### Project Description

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

NW Clarke Street (A to D)	SW I Strt btwn Leonard & Western
<del>NW Lynwood Place</del>	<del>SE Waterman</del>
<del>NW Prospect Avenue between Manzanita and Bellevue</del>	<del>SE Gene</del>
<del>NW Bellevue Place – Highland to Kinny and Kinny to Prospect</del>	Blenda Court

#### 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	920,000				920,000			920,000
General Fund - Policy & Legislation	180,000				180,000			180,000
<b>Total Resources</b>					<b>1,100,000</b>			<b>1,100,000</b>

#### Requirements

Expenditures	868,799	253,042	231,201		1,100,000			1,100,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>231,201</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>1,100,000</b>			<b>1,100,000</b>



## Project Closed – FY2019

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### Program: Utilities/Water – Capital Construction

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<b>Project</b>	<b>WA6329</b>	<b>UDF Program</b>
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#### 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 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	100,000		(10,000)		90,000			90,000
<b>Total Resources</b>					<b>90,000</b>			<b>90,000</b>

#### Requirements

Expenditures	48,542	50,000	41,458		90,000			90,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>51,458</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>90,000</b>			<b>90,000</b>

## Project Closed – FY2019

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### Program: Utilities/Water – Capital Construction

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<b>Project</b>	<b>WA6331</b>	<b>Seismic Evaluation PS &amp; Reservoirs</b>
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#### 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:**        **\$200,000** revised from \$100,000 after initial evaluation

#### Resources

	Actual Through FY'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	200,000		(20,000)		180,000			180,000
<b>Total Resources</b>					180,000			180,000

#### Requirements

Expenditures	97,648	100,000	82,352		180,000			180,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>102,352</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					180,000			180,000

## Project Closed – FY2019

### Program: Utilities/Water – Capital Construction

<b>Project</b>	<b>WA6332</b>	<b>Vine Street Water Line Replacement</b>
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#### Project Description

This project will replace a deteriorated water main from Morgan Lane north on Vine Street for approximately 1100 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 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'18	FY'19 Adopted	FY'19 Estimated	FY'20 Adopted	Through FY'20	FY'21 Projected	Future	Total Projects
Water Capital Projects	400,000		(70,000)		330,000			330,000
<b>Total Resources</b>					<b>330,000</b>			<b>330,000</b>

#### Requirements

Expenditures	36,532	350,000	293,468		330,000			330,000
Transfers/Contingency					0			0
<b>Ending Balance by Year</b>	<b>363,468</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Requirements</b>					<b>330,000</b>			<b>330,000</b>

