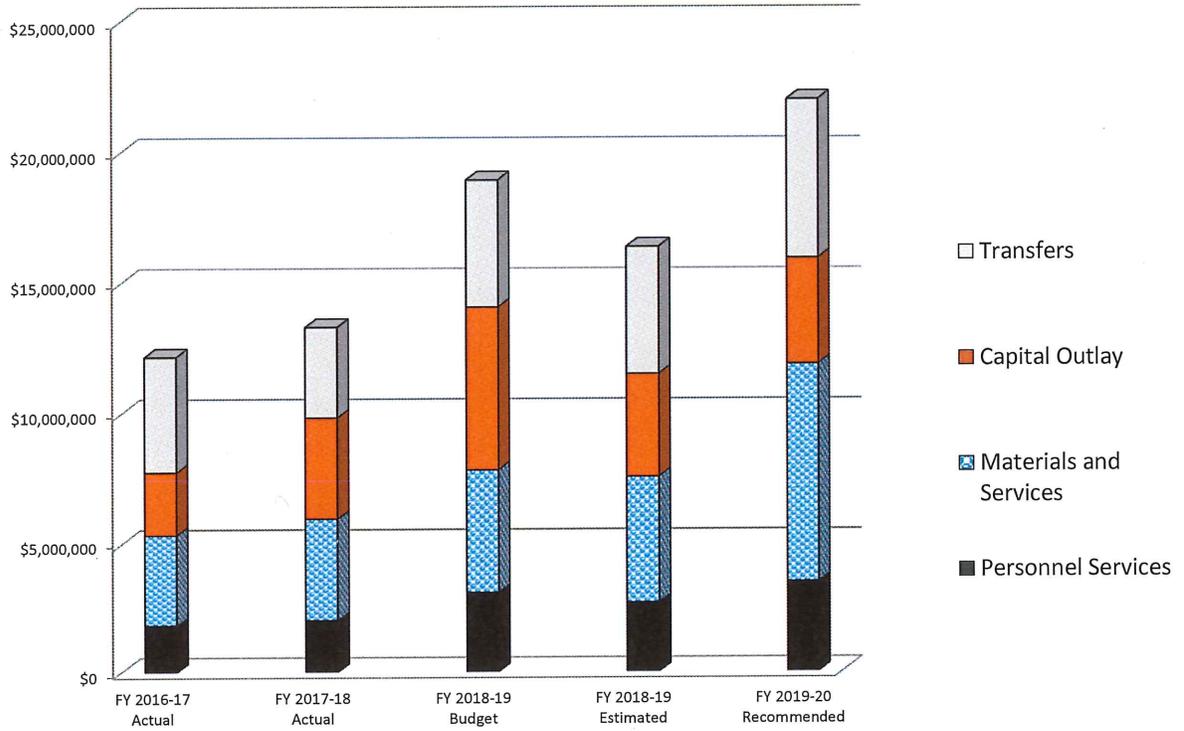




**WATER FUND  
SUMMARY  
RECOMMENDED FY 19-20**



**CITY OF BEAVERTON**

**BUDGET TREND ANALYSIS - FY 2016-17 TO FY 2019-20**

With Explanations on Significant Changes between Budgeted 2018-19 and Recommended 2019-20

Fund:	<b>Water - Summary</b>					% Change
CLASS	Actual FY 2016-17	Actual FY 2017-18	Budget FY 2018-19	Estimated FY 2018-19	Recommended FY 2019-20	Budgeted Vs. Recommended
Personnel Services	\$1,830,320	\$2,026,674	\$3,129,059	\$2,721,921	\$3,535,746	13.00%
Materials and Services	3,514,262	3,937,402	4,698,605	4,844,000	8,340,608	77.51%
Capital Outlay	2,404,567	3,874,358	6,238,714	3,938,050	4,047,907	-35.12%
Transfers	4,422,442	3,466,361	4,859,850	4,859,850	6,067,277	24.84%
<b>SUB-TOTAL</b>	<b>\$12,171,591</b>	<b>\$13,304,795</b>	<b>\$18,926,228</b>	<b>\$16,363,821</b>	<b>\$21,991,538</b>	
Contingency			7,342,101		9,410,575	
Contingency - JWC			500,000		500,000	
Reserve			600,000		600,000	
Contingency - Equip.			342,168		398,636	
<b>TOTAL</b>	<b>\$12,171,591</b>	<b>\$13,304,795</b>	<b>\$27,710,497</b>	<b>\$16,363,821</b>	<b>\$32,900,749</b>	
<b>FTE's</b>	<b>20.69</b>	<b>21.69</b>	<b>26.88</b>		<b>27.63</b>	

**Explanation of item(s) that are significant (10% and greater than \$10,000):**

**Personnel services:**

FY 2019-20 reflects a net increase of .75 FTE positions consisting of: .4 FTE reduction of Project Engineer 1, .4 FTE reduction of Engineering Construction inspector, .5 FTE increase of Engineering Technician 2, and 1 FTE of Project Engineer 2 in the Enterprise Management & Admin program; the transfer of .05 FTE Senior Accountant from the General Fund to the Water Fund to more accurately reflect the position's work plan. The Recommended Budget also includes step increases, COLA increases for BPA, SEIU, management averaging 2.87% in total, and a 3% VEBA (Voluntary Employees Beneficiary Association Plan) for management and a 1% increase to the VEBA for SEIU. Also shown are an average 0.63% increase in PERS contributions, medical insurance cost increase of 8% for Kaiser, 1.74% increase in MODA plans and 2% increase for Dental.

**Materials and services:**

FY 2019-20 reflects a \$2.18 million increase in expenditures for water wheeling services and water purchases related to the TVWD withdrawal area (The expense is offset by an increase in revenue); \$650,000 increase in professional services, including \$100k for SDC rate study, \$100k for Federal Safe Drinking Water Act report, & \$100k for water system Hydraulic Modeling & mapping; \$270,000 increase of City Right of Way Fees due to the 4107 water accounts withdrawn from TVWD.

**Capital outlay:**

FY 2019-20 reflects a \$1.5 million reduction to construction expenditures; \$250k reduction to Design & Engineering; \$835k reduction to JWC Capital Expense.

**Transfers:**

FY 2019-20 reflects a \$1 million increase in transfers to the Water Construction Fund to assist with funding water capacity capital projects.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET

<b>FUND:</b> 501 WATER	<b>SUMMARY FOR WATER FUND:</b> INCLUDING: CIP PROJECTS, FINANCE, AND PUBLIC WORKS
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**MISSION STATEMENT:**

To provide potable water to the City within the mandates of the State of Oregon Department of Human Services and Federal Environmental Protection Agency that is of sufficient quality, quantity and pressure to meet all of the applicable rules criteria.

REQUIREMENTS	FY 2016-17 ACTUAL	FY 2017-18 ACTUAL	FY 2018-19 BUDGETED	FY 2019-20 PROPOSED	FY 2019-20 ADOPTED
POSITION	20.69	21.69	26.88	27.63	0.00
PERSONNEL SERVICES	\$1,830,320	\$2,026,674	\$3,129,059	\$3,535,746	\$0
MATERIALS & SERVICES	3,514,262	3,937,402	4,698,605	8,340,608	0
CAPITAL OUTLAY	2,404,567	3,874,358	6,238,714	4,047,907	0
TRANSFERS	4,422,442	3,466,361	4,859,850	6,067,277	0
CONTINGENCY	0	0	8,784,269	10,909,211	0
<b>TOTAL</b>	<b>\$12,171,591</b>	<b>\$13,304,795</b>	<b>\$27,710,497</b>	<b>\$32,900,749</b>	<b>\$0</b>

Funding Sources:	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2019-20
Beginning Working Capital	\$11,626,817	\$12,236,827	\$13,147,277	\$12,877,835	\$0
Intergovernmental Revenue	294	101,872	88,820	80,000	0
Permits & Fees	10,134	51,989	45,000	20,000	0
Water Service Fees	12,397,485	13,693,039	14,064,000	19,359,314	0
Miscellaneous Revenues	373,688	368,348	365,400	563,600	0

Water Projects:	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2019-20
3611 Joint Water Commission Project	\$805,574	\$1,047,618	\$2,345,250	\$1,510,000	\$0
3700 Maint. & Replacement Program	32,204	30,300	100,000	0	0
3701 Water System Improvements	1,392,863	2,655,015	3,527,414	1,737,500	0

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0740 ENTERPRISE MANAGEMENT & ADMIN.	<b>PROGRAM MANAGER:</b> DAVID WINSHIP

**Program Goal:**

To provide engineering and policy expertise for management of city enterprise funds and water resources. The program participates in development of intergovernmental agreements and conducts long-term planning to ensure the city can provide an adequate supply of quality drinking water, water for firefighting, adequate funding, perpetual replacement of existing public infrastructure and extra-capacity facilities necessary to serve growth. The program also works to protect the safety and integrity of the public water system from cross connections and promote healthful drinking water by enforcement of the Beaverton Code and the Oregon Health Authority (OHA) Drinking Water Program Administrative Rules, which require the installation, inspection, operation, maintenance, and annual testing of backflow devices.

REQUIREMENTS	FY 2016-17 ACTUAL	FY 2017-18 ACTUAL	FY 2018-19 BUDGETED	FY 2019-20 PROPOSED	FY 2019-20 ADOPTED
POSITION	2.80	3.80	5.80	6.50	0.00
PERSONNEL SERVICES	\$281,138	\$415,603	\$775,982	\$1,001,634	\$0
MATERIALS & SERVICES	134,810	148,238	386,161	974,250	0
CAPITAL OUTLAY					
TRANSFERS	3,179	51,701	24,836	31,186	0
<b>TOTAL</b>	<b>\$419,127</b>	<b>\$615,542</b>	<b>\$1,186,979</b>	<b>\$2,007,070</b>	<b>\$0</b>

**Program Objectives:**

Overall responsibility for management and implementation of the multi-year Capital Improvements Plan (CIP), including administration of Water Fund (501) and Water Fund Construction (505) fund budgets and coordination and participation with regional water agencies, including emergency planning and management. Other key objectives include:

- Update and administer the current water master plan and; maintain and administer water infrastructure renewal and replacement plan.
- Ensure City compliance with OHA Drinking Water Program design standards and plan review exemption.
- For the South Cooper Mt. annexation area, Urban Reserve Area 6B, BURA, Enterprise Zone and Creekside District areas, continue to plan, design, and build required potable and non-potable water infrastructure through the CIP and/or coordination with the Site Development Division.
- Participate in committees of the Joint Water Commission (JWC), Regional Water Providers Consortium (RWPC), Barney Reservoir Joint Ownership Commission (BRJOC), and other related programs. Participate in the Willamette Water Supply Program (WWSP) and the Willamette River “Water Intake Facility” Commission as a new participating financial partner in the project.
- Provide expertise on water resource, water quality, and water rights issues, design standards and cooperative agreements to the City’s Public Works Department, and as needed for the JWC and Barney Reservoir Joint Ownership Commission.
- Provide oversight for the production and distribution of the annual US EPA-mandated Consumer Confidence Report (Water Quality) to all city water customers.
- Review and provide technical expertise to the cross connections program which administers the annual testing program for privately-owned backflow assemblies and devices as required by OHA.

**Progress on FY 2018-19 Action Plan:**

**New Water Supply Source Update**

The Beaverton City Council authorized an expenditure of \$100,000 to fund participation in the Willamette Water Supply Program (WWSP) Preliminary Design in 2013, a joint project being undertaken by the City of Hillsboro and Tualatin Valley Water District (TVWD). The new water supply source is expected to be operational by about 2026 with an approximate total cost of \$1.2 billion to withdraw water from the Willamette River and treat up to 60 million gallons per day (mgd) for drinking water.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0740 ENTERPRISE MANAGEMENT & ADMIN.	<b>PROGRAM MANAGER:</b> DAVID WINSHIP

The City currently has one member serving on the Willamette River “Water Intake Facility” Commission. The City’s total financial commitment to the WWSP is estimated at approximately \$61 million, for a total capacity of 5 mgd. Once the project is complete and operational in 2026, by IGA the project name will change to the Willamette Water Supply System (WWSS).

**FY 2019-20 Action Plan:**

**Willamette Water Supply Program (WWSP)**

The City completed negotiations on the IGA with TVWD and City of Hillsboro to become a financial partner in the WWSP. A new permanent 5 mgd water supply is vital to the City’s future, and the City intends to use its 2014 water right permit on the Willamette River as a new secondary source water supply to augment our JWC supply.

**Aquifer Storage and Recovery (ASR)**

The city will continue using ASR as an alternative means to increase water supply capacity by up to 5 mgd during the summer. ASR enables the city to meet short-term peak water demand during the summer, helping to delay the need to purchase water, and delay the need to build capital improvements for additional water treatment and storage. Two new ASR wells are scheduled to be drilled in FY19-20, and the following summarizes new activities:

**ASR3a**

A new well at the existing ASR3 site will be drilled to provide non-potable source water for the new purple pipe system (non-potable). A new pump station facility is scheduled to be completed the following year, and the new well is expected to be operational in 2021.

**ASR7a**

A new well at the Cooper Mountain Reservoir site will be drilled to provide additional water for the City’s upper elevations, with the ability to fill existing Cooper Reservoir #1, and future Cooper Reservoir #2 at the same site.

**ASR 5**

Final design for ASR Well No. 5 will start in spring 2019, and construction of a new pump station will begin in 2020. The new ASR5 facility and the City’s existing Sorrento Pump Station (originally built in 1966), will be combined into a new seismically resilient structure. ASR5 is estimated be operational in 2021. When complete, ASR5 will provide an additional 2 mgd which will increase the reliability and capacity of the City’s water supply. The project is financed by a \$5 million loan and loan-forgiveness funds from the State of Oregon Infrastructure Finance Agency (IFA) and the US EPA.

<b>Performance Measures:</b>	<b>FY 2016-17 Actual</b>	<b>FY 2017-18 Actual</b>	<b>FY 2018-19 Budgeted/Actual</b>	<b>FY 2019-20 Proposed</b>
<b>Management and Administration</b>				
Total water storage reservoir (non-groundwater storage) capacity within City limits (in million gallons - MGD)	28.5	28.5	28.5	28.5
Total ASR groundwater in MGD for summer peak use	5	5	5	5
Average daily water demand (City water customers - MGD)	6.89	7.15	7.3	9.7
Number of average demand days that can be supplied from in-City water storage reservoirs including ASR wells	13	12	11	10

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0741 WATER SERVICES	<b>DEPARTMENT HEAD:</b> DAVID DONALDSON

**Program Objectives:**

This program accounts for payments to the Joint Water Commission (JWC) for water purchased for resale and to the Tualatin Valley Water District (TVWD) for contract water meter reading. This program supports the Beaverton Community Vision Plan in these elements:

- *Community Vision Target: Be a National Leader in Sustainable Practices and Programs*
- *Community Vision Goal: Provide High Quality Public Services*

The entire water system, like the city's other utilities, is dependent on cooperation of other regional utilities which demonstrates the relevance of these City Council's priority statement for 2019:

- Build stronger relationships among local special districts.
- Prepare a long-range budget plan or philosophy to address foreseeable major expenses.

There are several actions directed toward these priorities:

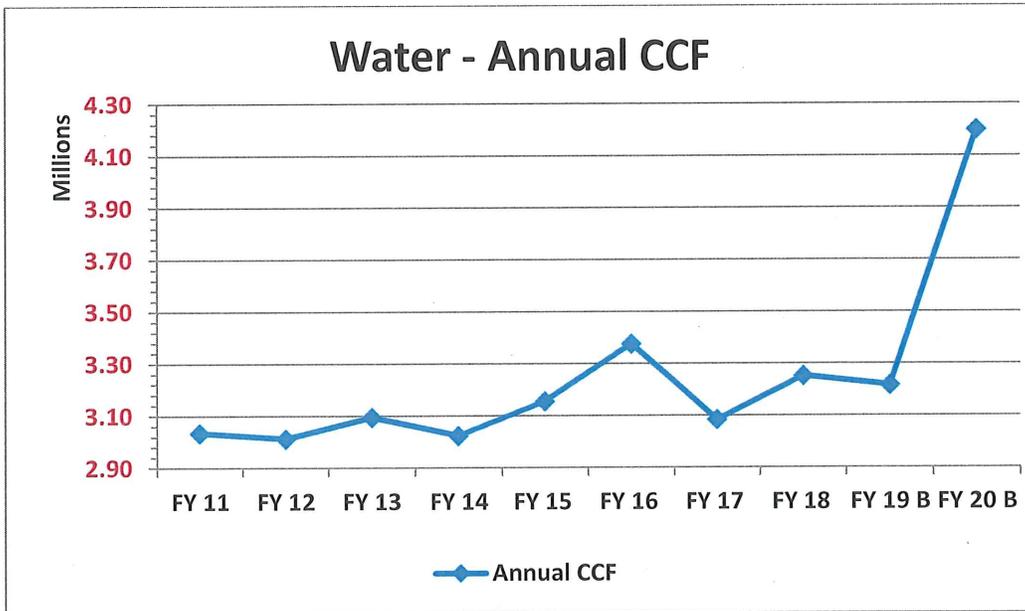
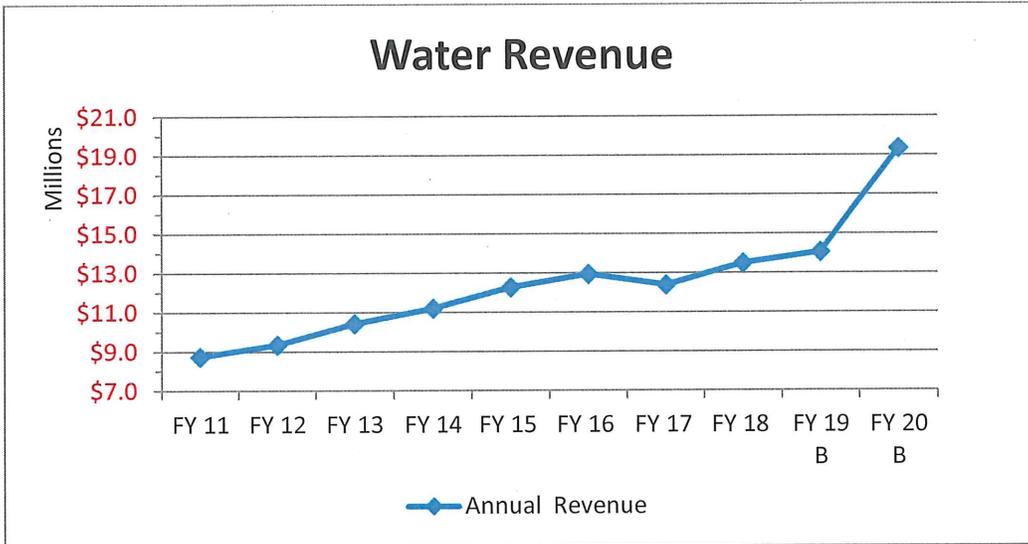
- Continue the withdrawal of service territory from TVWD
- Design series of improvements to connect to the JWC North Transmission Line to improve system resiliency, as approved by the City Council
- Join the Willamette Water Supply Project
- Complete the non-potable water irrigation project using a purple pipe system

REQUIREMENTS	FY 2016-17 ACTUAL	FY 2017-18 ACTUAL	FY 2018-19 BUDGETED	FY 2019-20 PROPOSED	FY 2019-20 ADOPTED
MATERIALS & SERVICES	\$2,298,429	\$2,650,692	\$2,786,469	\$5,534,451	\$0
CAPITAL OUTLAY					
TRANSFERS	3,929,464	2,786,239	4,123,692	5,350,787	0
CONTINGENCY	0	0	8,784,269	10,909,211	0
<b>TOTAL</b>	<b>\$6,227,893</b>	<b>\$5,436,931</b>	<b>\$15,694,430</b>	<b>\$21,794,449</b>	<b>\$0</b>

Water sale trends show an increasing trend of consumption and sales since the Great Recession. Residential and commercial vacancies have declined. The values for FY 18-19 and FY 19-20 reflect budgeted values for the year. The increase in FY 19-20 reflects additional consumption by more than 4100 customers formerly served by TVWD. During FY 18-19, these new Beaverton customers are served water through the former TVWD system in an arrangement called "wheeling". Another 260 accounts will be withdrawn from TVWD effective July 1, 2019 and "wheeled" beginning in fall 2019.

CITY OF BEAVERTON, OREGON  
 FISCAL YEAR 2019-20 BUDGET  
 CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0741 WATER SERVICES	<b>DEPARTMENT HEAD:</b> DAVID DONALDSON



Water rates may be adjusted in base charges as well as the rate per 100 cubic feet (CCF). In recent years, the practice has been to adjust both by \$1 in the base and 10¢ in the consumption rate. The budget for FY 2019-20 increases the base rate to \$16/month for a standard residential meter and changed the consumption rate to \$3.27 per CCF. Additional rate increases may occur for FY 19-20 in order to build reserves and demonstrate capacity to support a new Water Revenue Bond late in the fiscal year. The rate increases are necessary to maintain the required amount of debt service coverage reserve as well as build reserve funds for critical additions to the storage, transmission and distribution system in the coming five years.

CITY OF BEAVERTON, OREGON  
 FISCAL YEAR 2019-20 BUDGET  
 CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0741 WATER SERVICES	<b>DEPARTMENT HEAD:</b> DAVID DONALDSON

The program includes payments to the West Slope Water District for a previous transfer of 66 accounts to the City of Beaverton. This represents 4.36% of annual debt service on water reservoir bond issue and reimbursement for under consumption on the Portland water contract.

The specific financial impact of the withdrawal of more than 4100 customer accounts from TVWD can now be estimated. Wheeling water allows new city customers to be serviced by TVWD, billed by Beaverton and enjoy lower water rates. The estimates include both revenues and expenditures and account for:

- TVWD’s \$1.26 average cost per meter read to read the 4,107 meters in the withdrawal areas 12 times (monthly) per year.
- TVWD’s \$1.722 Wheeling Rate to wheel water through their system.
- JWC’s \$0.40 cost of water production for the water provided to the withdrawal areas.
- Increase in Water Demand (Meter) Revenue – approximately \$ 1,324,776
- Increase in Water Sales (Consumption) Revenue – approximately \$3,077,258
- Any potential increase in Water Operations costs have been nominal as the “wheeling” charges paid to TVWD require many expenses to be borne by TVWD. The City will begin to incur additional meter and system expenses in the coming years.

Cost/benefit analysis is now underway regarding the construction of various water mains and master meters to serve the withdrawal areas. Direct service by city crews also implies higher operational costs in labor and equipment. The city is not obligated to move to the direct service option, as wheeling may occur on a long-term basis in some areas.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0742 WATER SYSTEM DISTRIBUTION	<b>PROGRAM MANAGER:</b> BRIAN RIGWOOD

**Program Goal:**

Provide high quality potable water in sufficient quantities and at adequate pressures for residential and commercial consumption and fire protection. Perform routine maintenance of our water infrastructure to protect and preserve the public investment. Promote cooperative relationships and agreements with other public agencies which results in increased efficiency by utilizing a larger pool of industry knowledge.

REQUIREMENTS	FY 2016-17 ACTUAL	FY 2017-18 ACTUAL	FY 2018-19 BUDGETED	FY 2019-20 PROPOSED	FY 2019-20 ADOPTED
POSITION	12.75	12.75	13.50	13.50	0.00
PERSONNEL SERVICES	\$966,719	\$996,955	\$1,464,225	\$1,577,496	\$0
MATERIALS & SERVICES	462,630	495,732	666,595	839,210	0
CAPITAL OUTLAY	133,926	77,649	81,400	659,157	0
TRANSFERS	58,563	96,059	84,166	114,284	0
<b>TOTAL</b>	<b>\$1,621,838</b>	<b>\$1,666,395</b>	<b>\$2,296,386</b>	<b>\$3,190,147</b>	<b>\$0</b>

**Program Objectives:**

The water distribution system program will continue to maintain the potable water system for the City of Beaverton by performing maintenance of the distribution system. This includes replacing some of the aging components of the older fire hydrants, water meters, and water services. Flushing water mains is part of the maintenance program to ensure quality water is delivered to the consumer. Repairing leaks in the distribution system will continue to be a high priority so that drinking water is conserved and will not cause property damage.

Customer service will continue to be a major focus in addressing customer's concerns and needs. This will include turning water off/on, checking for leaks, checking pressure related issues, and addressing other concerns.

**Progress on FY 2018-19 Action Plan:**

The water distribution division accomplished the following in FY 18-19:

- The water crew worked with the CityWorks analyst to launch a mobile application for work orders.
- Replacement of failing commercial water meters continued. Radio deployment is keeping pace with new development and is ready for route integration with utility billing.
- The water crew continues to replace hydrants, repair or replace broken water mains along with other components that make up the water system. Customer response to water service requests and timely resolutions are highly successful.
- Water Distribution actively participated in the new engineering design manual and are taking the lead in implementation of the new standards.

**FY 2019-20 Action Plan:**

The water distribution division will continue to maintain the water system by:

- Continuing to review and evaluate the asset inventory to prioritize replacement of critical water infrastructure. This is important to accurately assess the substantial assets accepted from the Tualatin Valley Water District (TVWD) withdrawal process.
- Continue to replace aging infrastructure such as water mains, services, hydrants, valves and meters to maintain a robust and reliable water system that provides uninterrupted service to the customer.
- Perform valve exercising, main flushing and maintenance on components of the water system such as fire hydrants, valves and water mains.
- Implementation of the Water Master Plan, optimizing meter reading and increasing emergency response training.
- Staff up, train and develop system operators that are capable of handling any and all issues that arise with a dynamic system that is experiencing rapid growth along with increased operational complexity.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0742 WATER SYSTEM DISTRIBUTION	<b>PROGRAM MANAGER:</b> BRIAN RIGWOOD

Performance Measures:	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Budgeted/Revised	FY 2019-20 Proposed
Water Hydrant Replacement Program	28	20	25 / 7	25
Installing Dead End Blow Offs	2	0	2 / 0	0
Customer/Water Service Requests	6,000	6,500	9,250 / 6,700	8,000
Water Leak Repairs	50	45	65 / 54	60
Fire Hydrant Maintenance	2,513	2,490	2,575 / 2,550	2,575
Total Water Meters in Distribution System	18,267	18,300	19,800 / 22,456	22,756
Water Meter Replacement Program	800	680	1,000 / 600	900

**Performance Outcomes and Program Trends:**

Installing blow offs on dead end water lines is necessary to control the age of water in the system. Overall, the installation of blow offs has reached a point where most of the system's dead end lines can be flushed. Flushing the system helps to maintain adequate chlorine levels and disinfection while reducing the possible formation of harmful disinfection byproducts. Moving forward attention to flushing programs and increased collection of water quality parameters will help develop an effective control of water age.

Leak detection in the water distribution system is an important measure of the system's integrity and reliability. Consequently, leak identification and repair is a priority activity. The leak detection program identifies water leakages for repair and reduces unaccounted water loss. Our major leak detection equipment has recently been updated and we are researching some advanced techniques that may be deployed if the technology proves to be reliable.

Fire hydrant replacement, operation and maintenance are critical to ensure that the hydrants in the system are in good operable condition and are available for fire protection purposes. Hydrants in the system are also valuable and necessary points for flushing waterlines after main repair. Standardization of hydrant type has helped improve maintenance procedures and reduce necessary parts inventory. It is anticipated that all two port hydrants will be upgraded to current standards this fiscal year.

Replacement of old malfunctioning water meters is important to accurately measure water consumed by customers and to maintain the Water Fund's revenue stream and reduce unaccounted water loss. When feasible staff utilizes technology to help with efficiency and transparency for improved customer service/satisfaction. Additionally, staff is replacing the old untestable meters, meters that are beyond calibration and any meter that is not capable of data sharing. Eleven large meters were replaced this year. The new meters are remote capable with radio testing underway. QA/QC testing is complete and the technology is ready to enhance remote information gathering and streamline the process time throughout the organization.

The city continues to take over service responsibilities from selected areas within the city limits previously served by TVWD. Responsibilities include meters, customer service calls and residential notice for any change in service issues. City staff offered efficiency solutions to the TVWD meter reading staff and awaits their response.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0743 WATER SYSTEM QUALITY	<b>PROGRAM MANAGER:</b> BRIAN RIGWOOD

**Program Goal:**

To provide a reliable supply of safe drinking water that exceeds all standards at a reasonable cost. To operate, monitor and maintain the city's water supply using efficient, environmentally sound solutions that benefit present and future residents of the City of Beaverton.

REQUIREMENTS	FY 2016-17 ACTUAL	FY 2017-18 ACTUAL	FY 2018-19 BUDGETED	FY 2019-20 PROPOSED	FY 2019-20 ADOPTED
POSITION	3.50	3.50	5.50	5.50	0.00
PERSONNEL SERVICES	\$435,673	\$475,256	\$694,403	\$748,139	\$0
MATERIALS & SERVICES	476,233	489,912	708,629	801,482	0
CAPITAL OUTLAY	40,000	63,776	184,650	141,250	0
TRANSFERS	428,885	530,281	624,384	568,268	0
<b>TOTAL</b>	<b>\$1,380,791</b>	<b>\$1,559,225</b>	<b>\$2,212,066</b>	<b>\$2,259,139</b>	<b>\$0</b>

**Program Objectives:**

This program is responsible for ensuring public health protection by providing a safe uninterrupted supply of drinking water to the residents of the City of Beaverton. This program performs all required water quality testing and monitoring for reporting to EPA and/or its primacy agency. Additionally, this program is responsible for the operation and maintenance of water supply infrastructure, such as storage reservoirs, groundwater wells, pumping stations, fluoridation facilities, control valves, pressure reducing stations, large transmission lines and water system telemetry control.

Water quality testing remains one of the highest priorities of the city's Water Division to provide outstanding potable drinking water. Adequate quantity provides operating pressure, fire flow and emergency storage to maintain compliance with the standards of the Oregon Health Authority (OHA) and the Federal Environmental Protection Agency (EPA).

**Progress on FY 2018-19 Action Plan:**

The Water Quality division accomplished all of the following during FY 18-19:

- The city met or exceeded all federal and state mandated drinking water standards.
- Inspected all pressure reducing valves (PRVs) and rebuilt 5 PRVs this year.
- Maintained the ASR wells, pump stations, reservoirs and fluoride stations.
- Migration to cellular Supervisory Control and Data Acquisition (SCADA) control continued.
- Multiagency water quality team developed a viable course of action to deal with iron and manganese levels in the resource leaving the JWC treatment plant. Testing continues and on-line surrogate monitoring is installed.

**FY 2019-20 Action Plan:**

The Water Quality division will accomplish all of the following during FY 19-20:

- Meet the Federal and State mandated water quality monitoring and sampling.
- Propose optimum process to OHA to ensure optimized corrosion control at ASR entry points.
- Inspect all pressure relief valves (PRVs) and rebuild approximately 10 PRVs.
- Maintain the ASR wells, pump stations, reservoirs, and the fluoride stations.
- Continue cellular SCADA migration to replace unsupported system hardware.

CITY OF BEAVERTON, OREGON  
FISCAL YEAR 2019-20 BUDGET  
CURRENT LEVEL OF SERVICES

<b>FUND:</b> 501 WATER	<b>DEPARTMENT:</b> PUBLIC WORKS
<b>PROGRAM:</b> 0743 WATER SYSTEM QUALITY	<b>PROGRAM MANAGER:</b> BRIAN RIGWOOD

**Performance Measures:**

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Budgeted/Actual	FY 2019-20 Proposed
<b>Water Quality Testing</b>	1,280	1,960	2,000 / 2,082	2,150
<b>Average # of water samples tested per month</b>	90	164	165 / 174	179
<b>Pump Operation &amp; Maintenance.</b> Operate, inspect, and maintain pumps in four water pumping stations and three Aquifer Storage Recovery (ASR) groundwater wells in various locations throughout the City. Figure shown is for total number of pumps in these facilities.	29	28	28 / 28	28
<b>PRV Maintenance.</b> Inspect each of 161 mainline pressure-reducing valves (PRVs) every 2 months, and rebuild 10-percent per year.	151	151	157 / 157	161
<b>Solar energy production (reservoir site) kWh</b>	546,752	550,000	550,000	550,000

**Performance Outcomes and Program Trends:**

Federal and State mandated drinking water quality regulations will be more stringent over the coming years. New rule implementation will require additional staff analysis to determine how we will meet the compliance standards. It is expected that overall costs for water quality monitoring will grow due to the increased number of drinking water contaminants regulated by the US EPA. Sampling and testing required for the Stage 2 Disinfection Byproduct Rule and the Ground water rule continues for 2019/2020. Additional testing for UCMR4 is required to assist EPA in assessing the next regulated monitoring group off of the contaminant candidate list. The corrosion study to determine optimum alkalinity and pH levels at the ASR wells was completed. The next step will be to present the findings to OHA and agree on an engineered treatment solution for design.

Continued inspection, maintenance, and replacement of city-owned PRVs are important tasks performed by this program. PRVs separate and control Beaverton's 11 different water pressure zones that result from the topographical differences in the city's water service area. 161 larger mainline PRVs will be inspected and repaired as necessary in FY 19/20.

The 130 city-owned backflow assemblies for municipal buildings and city landscape irrigation systems must be tested annually according to the administrative rules of the Oregon Health Authority. Water quality staff ensure that our certified backflow testers perform and report these tests in addition to monitoring and reporting the required annual testing of all devices in the city that are privately owned.

Construction inspection continues to occupy approximately 1.5 FTE of the water quality staff time. There are 12 major projects coming in the FY 19/20 in which staff will be heavily participating. Processes and practices to ensure the safety of the live potable water system as these projects are constructed are in place and documented. Streamlining of disinfection has been beneficial to contractor efficiency in project completion.

Water Quality Staff is performing any additional water quality sampling and information requests as a result of the new withdrawn TVWD service areas. Staff has been working on a streamlined work request process to respond to water inquiries.

### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 03 REVENUE

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 BEGINNING WORKING CAPITAL

301 BEGINNING WORKING CAPITAL

	-11,626,817		-12,236,827		-13,147,277		-13,147,277	-13,147,277	-12,856,211		-12,877,835			
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TOTAL CLASS: 05 BEGINNING WORKING CAPITAL

	-11,626,817		-12,236,827		-13,147,277		-13,147,277	-13,147,277	-12,856,211		-12,877,835			
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CLASS: 15 INTERGOVERNMENTAL REVENUE

329 OTHER INTERGOVERNMENTAL REV

	-294		-101,872		-88,820			-88,820			-80,000			
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TOTAL CLASS: 15 INTERGOVERNMENTAL REVENUE

	-294		-101,872		-88,820			-88,820			-80,000			
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CLASS: 20 PERMITS & FEES

355 WATER METER INSTALLATION FEES

	-10,134		-51,989		-45,000		-26,031	-25,000	-20,000		-20,000			
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TOTAL CLASS: 20 PERMITS & FEES

	-10,134		-51,989		-45,000		-26,031	-25,000	-20,000		-20,000			
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CLASS: 25 SERVICE FEES

361 WATER SALES

	-9,126,336		-10,127,493		-10,200,000		-8,435,825	-11,218,780	-13,940,200		-14,037,532			
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362 UNMETERED WATER SALES

	-3,576		-29,914		-14,000		-19,184	-20,000	-15,000		-15,000			
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364 CUSTOMER SERV CHARGES

	-25,420		-27,385		-25,000		-18,940	-23,750	-25,000		-25,000			
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366 DEMAND CHARGE

	-3,305,627		-3,579,324		-3,900,000		-3,057,420	-4,161,800	-5,366,765		-5,366,782			
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369 UTILITY SALES ALLOWANCES

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**BUDGET PREPARATION WORKSHEET SUMMARY**

FUND: 501 WATER FUND

DEPT: 03 REVENUE

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
	63,474		71,077		75,000		64,071	75,000	75,000		85,000			
TOTAL CLASS: 25 SERVICE FEES														
	-12,397,485		-13,693,039		-14,064,000		-11,467,298	-15,349,330	-19,271,965		-19,359,314			
CLASS: 35 MISCELLANEOUS REVENUES														
382	SALE OF CITY OR BURA PROPERTY													
	-29,206		-12,825				-3,368	-3,368						
384	INVESTMENT INTEREST EARNINGS													
	-148,244		-206,543		-235,400		-189,882	-275,600	-313,600		-313,600			
389	MISCELLANEOUS REVENUES													
	-51,002		-34,547		-30,000		-26,806	-30,000	-30,000		-30,000			
394	MISC INTEREST EARNINGS													
	-18,108		-19,318		-40,000		-44,629	-20,000	-20,000		-20,000			
398	SRVS PROVIDED TO OTHER FUNDS													
	-121,745		-91,179		-60,000		-239,375	-300,000	-200,000		-200,000			
399	REIMBURSEMENTS - OTHER													
	-173		-280											
753	ENERGY EFFICIENCY REBATES													
							-4,096							
757	MED/LIFE INS PREM REFUND DISTRIBUTION													
	-5,210		-3,656				-2,261	-2,261						
TOTAL CLASS: 35 MISCELLANEOUS REVENUES														
	-373,688		-368,348		-365,400		-510,417	-631,229	-563,600		-563,600			
TOTAL DEPARTMENT: 03 REVENUE														
	-24,408,418		-26,452,075		-27,710,497		-25,151,023	-29,241,656	-32,711,776		-32,900,749			

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### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 PERSONNEL SERVICES

046	PRINCIPAL ENGINEER													
	52,867	.40	53,062	.40	55,197	.40	42,838	55,074	58,509	.40	57,940	.40		
068	ENGINEERING ASSOCIATE													
					37,453	1.00		26,536	83,970	1.00	83,970	1.00		
084	PROJECT ENGINEER 1													
	110,439	1.50	141,555	1.50	235,593	2.50	175,021	234,983	216,168	2.10	214,071	2.10		
123	ENGINEERING TECH 2													
											35,314	.50		
124	ENGINEERING CONST INSPECTOR													
		.40	24,829	.40	26,813	.40	19,838	27,884						
175	PROJECT ENGINEER 2													
			30,591	1.00	114,248	1.00	83,518	111,888	123,344	1.00	214,973	2.00		
221	SUPPORT SPECIALIST 2													
	22,009	.50	23,721	.50	25,646	.50	18,908	25,537	28,021	.50	28,021	.50		
299	PAYROLL TAXES AND FRINGES													
	95,823		141,845		281,032		164,785	233,863	279,130		367,345			

TOTAL CLASS: 05 PERSONNEL SERVICES

	281,138	2.80	415,603	3.80	775,982	5.80	504,908	715,765	789,142	5.00	1,001,634	6.50		
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CLASS: 10 MATERIALS & SERVICES

303	OFFICE FURNITURE & EQUIPMENT													
			1,616		5,600		879	3,500	600		3,100			
305	SPECIAL DEPARTMENT SUPPLIES													
	57		70		400		4	200	400		400			
307	MEMBERSHIP FEES													
	46,968		48,390		52,150		54,395	54,395	60,005		60,925			
314	OUTSIDE REPRODUCTION EXPENSES													
	955				1,000				1,000		1,000			
317	COMPUTER EQUIPMENT													

### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
			5,294		10,535		7,517	3,150			1,500			
318	COMPUTER SOFTWARE													
			4,000		2,000				27,000		30,000			
321	TRAVEL, TRAINING & SUBSISTENCE													
	7,124		10,785		14,600		4,437	7,000	23,425		25,825			
328	MEALS & RELATED EXPENSE													
	602		608		1,500		932	800	1,500		1,500			
341	COMMUNICATIONS EXPENSE													
					250									
361	UNIFORMS & SPECIAL CLOTHING													
			597		600		446	600	750		750			
444	ASR OPERATING & MONITORING EXP													
					195,978		195,977	195,978	306,550		306,550			
445	NON-CIP ENGINEERING EXPENSE													
											50,000			
461	SPECIAL EXPENSE													
	15,941		13,341		34,600		3,300	5,000	30,900		30,900			
511	PROFESSIONAL SERVICES													
	63,163		63,537		66,948		63,799	66,948	411,800		461,800			
TOTAL CLASS: 10 MATERIALS & SERVICES														
	134,810		148,238		386,161		331,686	337,571	863,930		974,250			
CLASS: 25 TRANSFERS														
816	TRSFERS TO REPROGRAPHICS FUND													
	2,540		3,709		3,327		1,030	3,327	1,749		1,651			
817	TRSFERS TO GARAGE FUND													
	639				857			857						
835	TRSFER TO GF, BVTN BLDG OPERATIONS													
			20,592		10,296		8,580	10,296	16,701		16,701			
836	TRSFER TO GF, BVTN BLDG DEBT SVC													

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### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
			27,400		10,356		8,630	10,356	12,834		12,834			
TOTAL CLASS: 25 TRANSFERS														
	3,179		51,701		24,836		18,240	24,836	31,284		31,186			
TOTAL DEPARTMENT: 72 CAPITAL DEVELOPMNT-ENGINEERING														
	419,127	2.80	615,542	3.80	1,186,979	5.80	854,834	1,078,172	1,684,356	5.00	2,007,070	6.50		

**BUDGET PREPARATION WORKSHEET SUMMARY**

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 PERSONNEL SERVICES

049	PROG COORDINATOR -PUBLIC WORKS		17,568	1.00	78,922	1.00	56,173	74,210	99,826	1.00	88,163	1.00		
057	PUBLIC WORKS SUPERVISOR		66,961	1.00	108,281	2.00	179,490	2.00	142,587	178,197	211,046	2.00	192,562	2.00
112	PUBLIC WORKS MANAGER 3		108,886	1.00	111,346	1.00	114,128	1.00	89,776	116,160	123,330	1.00	122,139	1.00
133	WATER CUSTOMER SERVICE TECH		57,386	1.00	62,949	1.00	67,709	1.00	60,197	70,110	76,331	1.00	66,736	1.00
162	WATER DISTRIBUTION LEAD		85,586	2.00	154,431	2.00	162,803	2.00	131,311	161,839	180,997	2.00	171,043	2.00
173	WATER DISTRIBUTION TECHNICIAN		298,262	6.00	194,214	6.00	328,100	6.00	142,469	191,045	380,307	6.00	338,999	6.00
178	WATER QUALITY TECHNICIAN		148,211	2.00	120,613		51,680	1.00	8,527	54,502	54,502	1.00	54,502	1.00
188	INVENTORY CONTROL TECHNICIAN		13,757	.25	15,822	.25								
209	WATER DISTRIBUTION EQUIP OPER		144,706	3.00	166,563	3.00	291,860	5.00	264,718	324,305	370,112	5.00	336,746	5.00
299	PAYROLL TAXES AND FRINGES		478,637		520,424		883,936		543,807	696,826	945,952		954,745	

TOTAL CLASS: 05 PERSONNEL SERVICES

	1,402,392	16.25	1,472,211	16.25	2,158,628	19.00	1,431,038	1,821,219	2,442,403	19.00	2,325,635	19.00		
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CLASS: 10 MATERIALS & SERVICES

301	OFFICE EXPENSE		65		304		900		893	1,058	1,300		1,300	
303	OFFICE FURNITURE & EQUIPMENT		1,232		1,488		1,400		355	950	2,050		2,050	
304	DEPARTMENT EQUIPMENT EXPENSE													

### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
	36,345		24,243		57,500		35,096	55,000	72,000		72,000			
305	SPECIAL DEPARTMENT SUPPLIES													
	7,884		5,983		10,800		8,939	10,800	11,800		11,800			
307	MEMBERSHIP FEES													
	11,551		11,949		14,905		13,941	14,300	15,530		16,981			
308	PERIODICALS & SUBSCRIPTIONS													
	389		200		500		532	505	870		870			
316	ADVERTISING, RECORDING & FILING													
			2,118											
317	COMPUTER EQUIPMENT													
	500						728	728	1,131		1,131			
318	COMPUTER SOFTWARE													
					13,500		8,000	8,000						
321	TRAVEL, TRAINING & SUBSISTENCE													
	8,854		10,021		13,380		12,373	13,300	31,325		31,325			
328	MEALS & RELATED EXPENSE													
	153													
341	COMMUNICATIONS EXPENSE													
	31,577		33,902		45,000		28,892	44,000	46,000		46,000			
351	UTILITIES EXPENSE													
	245,004		261,611		290,000		209,402	270,000	290,000		290,000			
361	UNIFORMS & SPECIAL CLOTHING													
	10,545		10,402		13,800		9,100	13,300	21,200		21,200			
371	EQUIPMENT OPER & MAINT EXPENSE													
									12,150		12,150			
381	BUILDING EXPENSE													
	9		6,429		20,000		403	15,000	20,000		20,000			
409	WATER PURCHASES FOR RESALE													
	1,288,362		1,383,335		1,627,525		771,866	1,499,382	2,475,491		1,684,550			
410	BARNEY RESERVOIR OPERATIONS													
	88,608		95,900		164,609		60,590	100,000	150,051		150,051			

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**BUDGET PREPARATION WORKSHEET SUMMARY**

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
413	SERVICE INSTALLATIONS													
	2,984		2,341		3,300		3,276	3,300	10,500		10,500			
417	WILLAMETTE INTAKE FACILITIES OPER													
					16,000		2,642	10,000	10,000		13,000			
418	JWC OPERATING EXP - OTHER													
	17,585		79,811		42,250		13,748	22,752	45,000		45,000			
419	CHEMICAL & LABORATORY SUPPLIES													
	41,298		33,025		66,800		60,932	60,000	78,100		78,100			
425	DUMPING EXPENSES													
	1,531		1,729		3,000		2,995	3,200	5,000		5,000			
439	WATER WHEELING SERVICES - TVWD													
							14,531	383,000	1,671,622		1,671,621			
441	LINE MAINTENANCE													
	189,296		185,760		235,475		218,110	224,000	218,000		218,000			
446	METER MAINTENANCE													
	159,795		225,024		249,126		245,026	249,000	278,062		278,062			
447	WATER PURCHASES - WHEELING													
											510,000			
448	MANHOLE / PRV VALVE ADJUSTMENTS													
	54,522		49,000		146,450		147,552	147,552	150,000		150,000			
461	SPECIAL EXPENSE													
	217		349		1,200		217	900	2,523		2,523			
497	DEBT ISSUANCE COST													
			135,399		850		850	850			150,850			
498	UNDERWRITERS DISCOUNT, BOND													
			9,816								20,000			
511	PROFESSIONAL SERVICES													
	327,811		344,899		370,020		338,354	359,800	579,500		629,500			
512	CITY RIGHT OF WAY FEES													
	619,246		641,861		652,035		543,360	732,409	919,379		919,379			
525	PMTS TO OTHER GOVERNMENT AGENCIES													

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### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
	50,924		53,778		56,400		55,891	55,891	60,000		60,000			
536	MAINTENANCE CONTRACTS													
	23,102		23,742		33,500		27,712	31,000	49,500		49,500			
551	RENTS AND LEASES													
	17,903		1,917		11,468		676	2,400	2,700		2,700			
TOTAL CLASS: 10 MATERIALS & SERVICES														
	3,237,292		3,636,336		4,161,693		2,836,982	4,332,377	7,230,784		7,175,143			

CLASS: 15 CAPITAL OUTLAY

641	VEHICLES													
	133,926		747		168,050		167,420	168,050	473,873		473,873			
670	ROLLING STOCK													
									229,934		229,934			
671	EQUIPMENT													
	40,000		140,678		98,000		98,000	98,000	96,600		96,600			
TOTAL CLASS: 15 CAPITAL OUTLAY														
	173,926		141,425		266,050		265,420	266,050	800,407		800,407			

CLASS: 25 TRANSFERS

801	TRSFER TO GENERAL FD - OVERHEAD													
	217,037		318,316		360,830		300,692	360,830	448,971		448,971			
802	TRSFER TO GENERAL FD-ACCOUNTING													
	49,312		28,616		62,355		51,963	62,355	100,875		100,875			
803	TRSFER TO GENERAL FD-LANDSCAPE													
	69,355		80,215		83,669		69,724	83,669	88,269		88,269			
804	TRSFER - OPERATIONS ADMIN													
	197,088		249,697		288,261		240,218	288,261	282,373		261,881			
805	TRSFER TO G/F BLDG MAINT													
	20,687		18,448		20,886		17,405	20,886	20,972		20,972			
808	TRSFERS TO GIS PGRM (TO ISD FUND 2018-19)													

### BUDGET PREPARATION WORKSHEET SUMMARY

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 YTD	2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	ACT AMT	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
	101,395		165,166		179,079		149,233	179,079	177,421		177,216			
817	TRSFERS TO GARAGE FUND													
	98,923		112,814		136,655		66,885	136,655	134,214		134,214			
818	TRSFERS TO ISD-ALLOCATED													
	193,014		232,089		286,721		238,934	286,721	332,587		329,957			
819	TRSFERS TO INSURANCE FUND													
	198,941		228,792		228,792		190,660	228,792	285,990		285,990			
832	TRSFERS TO WATER DEBT SVC FUND													
	1,495,160		748,426		2,184,994		1,548,671	2,184,994	2,184,994		2,184,994			
833	TRSFERS TO WATER CONSTRUCT FUND													
	1,776,000		1,230,000		1,000,000			1,000,000	2,000,000		2,000,000			
215	TOTAL CLASS: 25 TRANSFERS													
	4,416,912		3,412,579		4,832,242		2,874,385	4,832,242	6,056,666		6,033,339			
	CLASS: 30 FUND BAL/CONTINGENCY/RESERVES													
987	RESERVE - JWC EMERGNCY EQUIPMT													
					500,000				500,000		500,000			
991	CONTINGENCY - UNRESERVED													
					7,342,101				7,078,746		9,410,575			
995	RESERVE - RATE STABILIZATION													
					600,000				600,000		600,000			
996	RESERVE - EQUIPMENT REPLACEMT													
					342,168				398,636		398,636			
	TOTAL CLASS: 30 FUND BAL/CONTINGENCY/RESERVES													
					8,784,269				8,577,382		10,909,211			
	TOTAL DEPARTMENT: 85 PUBLIC WORKS - OPERATIONS													
	9,230,522	16.25	8,662,551	16.25	20,202,882	19.00	7,407,825	11,251,888	25,107,642	19.00	27,243,735	19.00		

**WATER FUND - PUBLIC WORKS  
FY 2018-19 ADOPTED**

Code	Position Title	Actual FY 17-18	Adopted FY 18-19	New	Transfer	Reclass	Deleted	Ending FY 18-19
46	PRINCIPAL ENGINEER	0.40	0.40					0.40
49	PROG COORDINATOR -PUBLIC WORKS	1.00	1.00					1.00
57	PUBLIC WORKS SUPERVISOR	2.00	2.00					2.00
68	ENGINEERING ASSOCIATE	0.00	1.00					1.00
84	PROJECT ENGINEER 1	1.50	2.50					2.50
112	PUBLIC WORKS MANAGER 3	1.00	1.00					1.00
123	ENGINEERING TECH 2	0.00	0.00					0.00
124	ENGINEERING CONST INSPECTOR	0.40	0.40					0.40
133	WATER CUSTOMER SERVICE TECH	1.00	1.00					1.00
162	WATER DISTRIBUTION LEAD	2.00	2.00					2.00
173	WATER DISTRIBUTION TECHNICIAN	6.00	6.00					6.00
175	PROJECT ENGINEER 2	1.00	1.00					1.00
178	WATER QUALITY TECHNICIAN	0.00	1.00					1.00
188	INVENTORY CONTROL TECHNICIAN	0.25	0.00					0.00
209	WATER DISTRIBUTION EQUIP OPER	3.00	5.00					5.00
221	SUPPORT SPECIALIST 2	0.50	0.50					0.50
	<b>Total</b>	<b>20.05</b>	<b>24.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>24.80</b>

**FY 2019-20 PROPOSED**

Code	Position Title	Ending FY 18-19	New	Transfer	Reclass	Deleted	Proposed FY 19-20
46	PRINCIPAL ENGINEER	0.40					0.40
49	PROG COORDINATOR -PUBLIC WORKS	1.00					1.00
57	PUBLIC WORKS SUPERVISOR	2.00					2.00
68	ENGINEERING ASSOCIATE	1.00					1.00
84	PROJECT ENGINEER 1	2.50		(0.40) <sup>a</sup>			2.10
112	PUBLIC WORKS MANAGER 3	1.00					1.00
123	ENGINEERING TECH 2	0.00		0.50 <sup>b</sup>			0.50
124	ENGINEERING CONST INSPECTOR	0.40		(0.40) <sup>c</sup>			0.00
133	WATER CUSTOMER SERVICE TECH	1.00					1.00
162	WATER DISTRIBUTION LEAD	2.00					2.00
173	WATER DISTRIBUTION TECHNICIAN	6.00					6.00
175	PROJECT ENGINEER 2	1.00	1.00 <sup>d</sup>				2.00
178	WATER QUALITY TECHNICIAN	1.00					1.00
188	INVENTORY CONTROL TECHNICIAN	0.00					0.00
209	WATER DISTRIBUTION EQUIP OPER	5.00					5.00
221	SUPPORT SPECIALIST 2	0.50					0.50
	<b>Total</b>	<b>24.80</b>	<b>1.00</b>	<b>(0.30)</b>	<b>0.00</b>	<b>0.00</b>	<b>25.50</b>

<sup>a</sup> FY 2019-20 reallocates one Project Engineer position to more accurately reflect the position's time to 100% in the Street Fund - Traffic & Transportation Management Program.

<sup>b</sup> FY 2019-20 reallocates an Engineering Technician position to more accurately reflect the position's time to 50% in the Water Fund, 25% in the Sewer Fund, and 25% in the Storm Drain Fund.

<sup>c</sup> FY 2019-20 reallocates one of the Engineering Construction Inspector positions to more accurately reflect the position's time to 100% in the General Fund - Site Development Program.

<sup>d</sup> FY 2019-20 proposes a new 1 FTE Project Engineer 2 position in the Enterprise Management & Admin Program.

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 03 REVENUE  
 PROGRAM: 0000 UNRESTRICTED

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019 EST AMT	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE		AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 BEGINNING WORKING CAPITAL

301	BEGINNING WORKING CAPITAL												
		11,626,817	12,236,827	13,147,277	13,147,277	12,856,211		12,877,835					

TOTAL CLASS: 05 BEGINNING WORKING CAPITAL

		11,626,817	12,236,827	13,147,277	13,147,277	12,856,211		12,877,835					
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CLASS: 15 INTERGOVERNMENTAL REVENUE

329	OTHER INTERGOVERNMENTAL REV												
		294	101,872	88,820	88,820			80,000					

TOTAL CLASS: 15 INTERGOVERNMENTAL REVENUE

		294	101,872	88,820	88,820			80,000					
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CLASS: 20 PERMITS & FEES

355	WATER METER INSTALLATION FEES												
		10,134	51,989	45,000	25,000	20,000		20,000					

TOTAL CLASS: 20 PERMITS & FEES

		10,134	51,989	45,000	25,000	20,000		20,000					
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CLASS: 25 SERVICE FEES

361	WATER SALES												
		9,126,336	10,127,493	10,200,000	11,218,780	13,940,200		14,037,532					

362	UNMETERED WATER SALES												
		3,576	29,914	14,000	20,000	15,000		15,000					

364	CUSTOMER SERV CHARGES												
		25,420	27,385	25,000	23,750	25,000		25,000					

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 03 REVENUE  
 PROGRAM: 0000 UNRESTRICTED

OBJ	OBJECT DESCRIPTION	JUSTIFICATIONS
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301 BEGINNING WORKING CAPITAL

329 OTHER INTERGOVERNMENTAL REV  
 LEASE OF THE CITY'S EXCESS 2.1MGD JWC PLANT CAPACITY TO THE TUALATIN VALLEY WATER DISTRICT

355 WATER METER INSTALLATION FEES  
 CHARGES FOR NEW WATER METERS ARE INCREASING FOR METERS WHICH ARE CAPABLE OF RADIO SIGNAL READING \$20,000

361 WATER SALES  
 FY 16-17 NO RATE INCREASE IS REFLECTED IN WATER SALES  
 FY 17-18 WATER SALES REFLECTS A 3.37% INCREASE IN THE CONSUMPTION CHARGE WHICH IS A 10 CENT INCREASE FROM \$2.97 TO \$3.07 PER 100 CUBIC FEET OF WATER EFFECTIVE JULY 1, 2017  
 17 CENTS IS DEDICATED TO FUTURE CAPACITY INCREASES FOR THE WATER CONSTRUCTION FUND  
 FY 18-19 WATER SALES REFELECTS A 3.26% INCREASE ON CONSUMPTION WHICH IS A 10 CENT INCREASE FROM \$3.07 TO \$3.17 PER 100 CUBIC FEET OF WATER EFFECTIVE JULY1, 2018  
 17 CENTS IS DEDICATED TO FUTURE CAPACITY INCREASES FOR THE WATER CONSTRUCTION FUND  
 FY2018-19 REVISED ESTIMATE INCUDES:  
 3% INCREASE IN WATER SALES REVENUES OVER LAST YEAR'S ACTUALS - \$431,000  
 REVENUE FROM AREAS WITHDRAWN FROM TVWD AND BILLED BY BEAVERTON  
 AREAS 2 AND 5 BEGINNING IN DECEMBER 2018 - \$85,480  
 AREAS 3 AND 6 BEGINNING IN MARCH 2019 - \$180,580  
 AREA 4 BEGINNING IN MAY 2019 - 420,720  
 FY 19-20 WATER SALES REFELECTS A 3.15% INCREASE ON CONSUMPTION WHICH IS A 10 CENT INCREASE FROM \$3.17 TO \$3.27 PER 100 CUBIC FEET OF WATER EFFECTIVE JULY 1, 2019 \$10,863,200  
 REVENUE FROM AREAS WITHDRAWN FROM TVWD AND BILLED BY BEAVERTON  
 AREA 2 \$77,551  
 AREA 3 \$336,199  
 AREA 4 \$2,411,072  
 AREA 5 \$103,410  
 AREA 6 \$246,100

362 UNMETERED WATER SALES  
 CHARGES FOR USING WATER FROM HYDRANTS

364 CUSTOMER SERV CHARGES  
 FEES CHARGED FOR RETURNED CHECKS AND WATER METER TURN ON FEES.

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 03 REVENUE  
 PROGRAM: 0000 UNRESTRICTED

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
366	DEMAND CHARGE												
	3,305,627		3,579,324		3,900,000		4,161,800	5,366,765		5,366,782			
369	UTILITY SALES ALLOWANCES												
	-63,474		-71,077		-75,000		-75,000	-75,000		-85,000			
TOTAL CLASS: 25 SERVICE FEES													
	12,397,485		13,693,039		14,064,000		15,349,330	19,271,965		19,359,314			
CLASS: 35 MISCELLANEOUS REVENUES													
382	SALE OF CITY OR BURA PROPERTY												
	29,206		12,825				3,368						
384	INVESTMENT INTEREST EARNINGS												
	148,244		206,543		235,400		275,600	313,600		313,600			
389	MISCELLANEOUS REVENUES												
	51,002		34,547		30,000		30,000	30,000		30,000			
394	MISC INTEREST EARNINGS												
	18,108		19,318		40,000		20,000	20,000		20,000			
398	SRVS PROVIDED TO OTHER FUNDS												
	121,745		91,179		60,000		300,000	200,000		200,000			
399	REIMBURSEMENTS - OTHER												
	173		280										
753	ENERGY EFFICIENCY REBATES												
757	MED/LIFE INS PREM REFUND DISTRIBUTION												
	5,210		3,656				2,261						
TOTAL CLASS: 35 MISCELLANEOUS REVENUES													
	373,688		368,348		365,400		631,229	563,600		563,600			
TOTAL PROGRAM: 0000 UNRESTRICTED													
	24,408,418		26,452,075		27,710,497		29,241,656	32,711,776		32,900,749			

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 03 REVENUE  
 PROGRAM: 0000 UNRESTRICTED

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

366 DEMAND CHARGE  
 MONTHLY METER COMPONENT OF CUSTOMER WATER CHARGES. THIS CHARGE IS FOR THE BASE CAPACITY DEMAND THAT EACH METER PLACES ON THE SYSTEM, METER REPAIR AND REPLACEMENT, LINE MAINTENANCE AND METER READING  
 FY 16-17 NO RATE INCREASE IS REFLECTED IN WATER BASE CHARGES  
 FY 17-18 REFLECTS MODEST GROWTH IN THE NUMBER OF NEW METERS SERVED AND \$1 PER MONTH (7.69%) INCREASE ON ALL METER SIZES, EFFECTIVE 7/1/2017.  
 FY 18-19 MODEST GROWTH IN THE NUMBER OF NEW METERS SERVED AND \$1 PER MONTH (7.14%) INCREASE ON ALL METER SIZES, EFFECTIVE 7/1/2018  
 FY2018-19 ESTIMATE INCLUDES REVENUE FROM AREAS WITHDRAWN FROM TVWD DURING THE YEAR:  
 AREAS 2 AND 5 BEGINNING IN DECEMBER 2018 - \$54,950  
 AREAS 3 AND 6 BEGINNING IN MARCH 2019 - \$100,470  
 AREA 4 BEGINNING IN MAY 2019 - 154,850  
 FY 19-20 MODEST GROWTH IN THE NUMBER OF NEW METERS SERVED AND \$1 PER MONTH (7.14%) INCREASE ON ALL METER SIZES, EFFECTIVE 7/1/2019 \$3,953,475  
 REVENUE FROM AREAS WITHDRAWN FROM TVWD AND BILLED BY BEAVERTON  
 AREA 2 \$88,320  
 AREA 3 \$198,360  
 AREA 4 \$991,253  
 AREA 5 \$12,178  
 AREA 6 \$123,196

369 UTILITY SALES ALLOWANCES  
 BILLING ADJUSTMENTS TO CUSTOMER ACCOUNTS FOR LEAKS, WRITE OFF OF DELINQUENT CHARGES, WHEN APPLICABLE AND WRITE OFF OF UNCOLLECTIBLE ACCOUNTS -\$85,000

382 SALE OF CITY OR BURA PROPERTY

384 INVESTMENT INTEREST EARNINGS  
 INTEREST EARNINGS IS BASED ON AVAILABLE CASH BALANCES AND INTEREST RATES:  
 FY 16-17 BUDGETED INTEREST EARNINGS ARE BASED UPON .55%  
 FY 17-18 BUDGETED INTEREST EARNINGS ARE BASED UPON 1.10%  
 FY 18-19 BUDGETED INTEREST EARNINGS ARE BASED UPON 1.75% FY 19-20 BUDGETED INTEREST EARNINGS ARE BASED UPON 3.00% \$313,600

389 MISCELLANEOUS REVENUES  
 AT&T CELL TOWER SITE LEASE, T-MOBILE CELL TOWER SITE LEASE, HYDRANT METER RENTALS, 3RD PARTY RECOVERIES FOR DAMAGES TO CITY PROPERTY

394 MISC INTEREST EARNINGS  
 REVENUES FROM DELINQUENT CHARGES ASSESSED THROUGH THE CITY'S UTILITY BILLING SYSTEM \$20,000

398 SRVS PROVIDED TO OTHER FUNDS  
 REIMBURSEMENTS RECEIVED FROM OTHER FUNDS FOR PROVIDING IN-HOUSE ENGINEERING SERVICES FOR CAPITAL PROJECTS. \$200,000

399 REIMBURSEMENTS - OTHER

753 ENERGY EFFICIENCY REBATES

757 MED/LIFE INS PREM REFUND DISTRIBUTION  
 MODA MEDICAL INSURANCE PREMIUM EXPERIENCE REBATE DISTRIBUTION TO OPERATING FUNDS

**BP WORKSHEET & JUSTIFICATION**

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
TOTAL DEPARTMENT: 03 REVENUE													
	24,408,418		26,452,075		27,710,497		29,241,656	32,711,776		32,900,749			

## BP WORKSHEET & JUSTIFICATION

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 PERSONNEL SERVICES

046	PRINCIPAL ENGINEER												
	52,867	.40	53,062	.40	55,197	.40	55,074	58,509	.40	57,940	.40		
068	ENGINEERING ASSOCIATE												
					37,453	1.00	26,536	83,970	1.00	83,970	1.00		
084	PROJECT ENGINEER 1												
	110,439	1.50	141,555	1.50	235,593	2.50	234,983	216,168	2.10	214,071	2.10		
123	ENGINEERING TECH 2												
										35,314	.50		
124	ENGINEERING CONST INSPECTOR												
	.40		24,829	.40	26,813	.40	27,884						
175	PROJECT ENGINEER 2												
			30,591	1.00	114,248	1.00	111,888	123,344	1.00	214,973	2.00		
221	SUPPORT SPECIALIST 2												
	22,009	.50	23,721	.50	25,646	.50	25,537	28,021	.50	28,021	.50		
299	PAYROLL TAXES AND FRINGES												
	95,823		141,845		281,032		233,863	279,130		367,345			

TOTAL CLASS: 05 PERSONNEL SERVICES

	281,138	2.80	415,603	3.80	775,982	5.80	715,765	789,142	5.00	1,001,634	6.50		
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CLASS: 10 MATERIALS & SERVICES

303	OFFICE FURNITURE & EQUIPMENT												
			1,616		5,600		3,500	600		3,100			
305	SPECIAL DEPARTMENT SUPPLIES												
	57		70		400		200	400		400			

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 046 PRINCIPAL ENGINEER  
 POSITION IS ALLOCATED .40 FTE 501-72-0740 / .25 FTE 502-72-0740 / .25 FTE 513-72-0740 / AND .10 FTE 001-72-0703.
  - 068 ENGINEERING ASSOCIATE  
 FY 2018-19 REFLECTS A NEW 1 FTE ENGINEERING ASSOCIATE ADDED MID-YEAR VIA AGENDA BILL 19046
  - 084 PROJECT ENGINEER 1  
 1 FTE PROJ ENGR 1 ALLOCATED 60% 001-85-0701 AND 10% IN EACH OF THE FOLLOWING:  
 101-72-0735, 502-72-0740, 513-72-0740, 501-72-0740.  
 1 FTE PROJ ENGR 1 ALLOCATED 100% 501-72-0740.  
 1 FTE PROJ ENGR 1 ALLOCATED: 40% 513-72-0740, 40% 501-72-0740, 20% 101-72-0735.  
 FY 17-18 REFLECTS NEW 1 FTE PROJECT ENGINEER 1 POSITION.  
 FY 17-18 REFLECTS MID-YEAR RECLASSIFICATION OF 1 FTE PROJECT ENGINEER POSITION TO 1 FTE PROJECT ENGINEER 2 POSITION.  
 FY 18-19 REFLECTS A NEW 1 FTE PROJECT ENGINEER 1 POSITION 100% IN 501-72-0740.  
 FY 2019-20 REFLECTS 1 FTE PROJECT ENGR 1 POSITION BEING REALLOCATED FROM 20/40/40 IN STREET FUND / WATER FUND / STORM DRAIN FUND TO 100% IN STREET FUND PROGRAM 0735.
  - 123 ENGINEERING TECH 2  
 FY 2019-20 REFLECTS 1 FTE ET2 TRANSFERRED FROM THE GENERAL FUND - ENGINEERING TO 50 / 25 / 25 IN WATER FUND / SEWER FUND / STORM DRAIN FUND - ENTERPRISE MGMT PROGRAM.
  - 124 ENGINEERING CONST INSPECTOR  
 1 FTE ENGINEERING CONSTRUCTION INSPECTOR IS ALLOCATED  
 40% 501-72-0740, 40% 513-72-0740, 20% 101-72-0735  
 FY 2019-20 REFLECTS 1 FTE ENGR CONST INSPECTOR POSITION'S ALLOCATION CHANGING FROM 20/40/40 IN STREET FUND 101-72-0735 / WATER FUND 501-72-0740 / STORM FUND 513-72-0740 TO 100% IN GENERAL FUND (001-70-0701)
  - 175 PROJECT ENGINEER 2  
 FY 17-18 REFLECTS MID-YEAR RECLASSIFICATION OF 1 FTE PROJECT ENGINEER POSITION TO 1 FTE PROJECT ENGINEER 2 POSITION.  
 FY 19-20 REFLECTS A NEW 1 FTE PROJECT ENGINEER 2 POSITION.
  - 221 SUPPORT SPECIALIST 2  
 POSITION IS ALLOCATED .50 FTE 501-72-0740 / .25 FTE 502-72-0740 / .25 FTE 513-72-0740.
  - 299 PAYROLL TAXES AND FRINGES  
 PAYROLL TAXES AND FRINGE BENEFITS EXPRESSED AS A PERCENTAGE OF SALARY TOTALS 58.14% AS A CITY-WIDE AVERAGE AND CONSISTS OF THE FOLLOWING:  
 34.14% IN PAYROLL TAXES CONSISTING OF 7.65% FICA, AVERAGE OF 23.22% FOR RETIREMENT CONTRIBUTIONS (28.45% PERS. 19.45% OPSRP GENERAL OR 24.08% OPSRP POLICE), AND 3.27% IN OTHER TAXES (UNEMPLOYMENT, LONG TERM DISABILITY, WORKERS COMPENSATION, PEHP, AND TRIMET)  
 24.00% AS THE AVERAGE COST OF MEDICAL, DENTAL, LIFE AND AD&D INSURANCES
- 
- 303 OFFICE FURNITURE & EQUIPMENT  
 MISCELLANEOUS OFFICE FURNITURE AND EQUIPMENT \$600  
 OFFICE FURNITURE & EQUIPMENT FOR NEW PROJ ENGR 2 POSITION \$2,500
  - 305 SPECIAL DEPARTMENT SUPPLIES  
 MISCELLANEOUS SUPPLIES AND MATERIALS \$400

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
307	MEMBERSHIP FEES												
	46,968		48,390		52,150		54,395	60,005		60,925			
314	OUTSIDE REPRODUCTION EXPENSES												
	955				1,000			1,000		1,000			
317	COMPUTER EQUIPMENT												
			5,294		10,535		3,150			1,500			
318	COMPUTER SOFTWARE												
			4,000		2,000			27,000		30,000			
321	TRAVEL, TRAINING & SUBSISTENCE												
	7,124		10,785		14,600		7,000	23,425		25,825			
328	MEALS & RELATED EXPENSE												
	602		608		1,500		800	1,500		1,500			
341	COMMUNICATIONS EXPENSE												
					250								
361	UNIFORMS & SPECIAL CLOTHING												
			597		600		600	750		750			
444	ASR OPERATING & MONITORING EXP												
					195,978		195,978	306,550		306,550			
445	NON-CIP ENGINEERING EXPENSE												
										50,000			
461	SPECIAL EXPENSE												
	15,941		13,341		34,600		5,000	30,900		30,900			
511	PROFESSIONAL SERVICES												

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 307 MEMBERSHIP FEES
  - 5 - PROF ENGINEER LICENSE RENEWAL (INCLUDING NEW PE2 POSITION) \$1,000
  - 3 - ASCE (AMERICAN SOCIETY OF CIVIL ENGINEERS) (\$225EA) (DW, PD & NEW PE2) \$675
  - OREGON ASSOC OF WATER UTILITIES (CITY MEMBERSHIP) \$8,200
  - AWWA CITY MEMBERSHIP \$3,900
  - AMERICAN PUBLIC WORKS ASSOCIATION MEMBERSHIP (SS & NEW PE2) \$380
  - WATER RIGHTS EXAMINER LICENSE RENEWAL (DW) \$100
  - REGIONAL WATER PROVIDER CONSORTIUM ANNUAL DUES \$40,000
  - LEAGUE OF OREGON CITIES ANNUAL DUES (WATER PORTION) \$6,345
  - 1-PROF LAND SURVEYOR LICENSE RENEWAL (\$220EA) (DW) \$225
  - 1-PLSO MEMBERSHIP (\$100EA) (DW) \$100
- 314 OUTSIDE REPRODUCTION EXPENSES
  - AWWA COPYRIGHTED BROCHURES & MATERIALS; OTHER PRINTED MATERIALS RELATED TO WATER \$1,000
- 317 COMPUTER EQUIPMENT
  - COMPUTER EQUIPMENT & MONITORS FOR NEW PROJECT ENGINEER 2 POSITION \$1,500
- 318 COMPUTER SOFTWARE
  - SOFTWARE MODELING PACKAGE \$29,000
  - SOFTWARE FOR NEW PROJ ENGINEER 2 POSITION \$1,000
- 321 TRAVEL, TRAINING & SUBSISTENCE
  - 4 - TRAVEL/TRAINING FOR PROFESSIONAL ENGINEERS PDH TO MAINTAIN CERTICATION \$3,000
  - 1 - TRAINING FOR WATER DIST 1 PROFESSIONAL DEV HOURS (BB) \$1,200
  - 1 - PROFESSIONAL ENG/PROF LAND SURVEYOR/WATER RIGHTS (PRINCIAL ENG) \$3,500
  - 5 - PNWS-AWWA CONFERENCE REGISTRATION AND EXPENSES (\$1,500 EA) (4 PE, 1 SPECIALIST) \$7,500
  - 2 - APWA CONFERENCE AND TECHNICAL TRAINING \$3,400
  - 1 - TRAINING FOR SANITARY CERT PROFESSIONAL DEV HOURS (DW) \$1,200
  - DEPARTMENTAL PROFESSIONAL DEVELOPMENT \$2,625
  - 1 - TRAINING FOR ASSOCIATE ENGINEER \$1,000
  - FOR NEW PROJ ENGR 2 POSITION: APWA CONF AND TECHNICAL ENGINEER TRAINING \$2,400
- 328 MEALS & RELATED EXPENSE
  - PROF MEETINGS AND MEALS ASSOCIATED WITH TRAINING \$500
  - HOST WATER REGIONAL WATER PROVIDERS CONSORTIUM MEETINGS \$400
  - HOST AWWA SUBSECTION LUNCH \$600
- 341 COMMUNICATIONS EXPENSE
  - CELL PHONE USAGE FOR NEW ENGINEERING ASSOCIATE POSITION
- 361 UNIFORMS & SPECIAL CLOTHING
  - 5 - RAINGEAR, FOOTWEAR, CLOTHING, JACKETS, HARD HATS, VESTS & SAFETY EQUIP (\$150/EMPLOYEE) \$750
- 444 ASR OPERATING & MONITORING EXP
  - ASR ANNUAL REPORTING AND ON CALL SERVICES \$198,000
  - WELL TESTING/TESTING ASR6 & 7 \$108,550
- 445 NON-CIP ENGINEERING EXPENSE
  - WATER SYSTEM HYDRAULIC MODELING & MAPPING \$50,000
- 461 SPECIAL EXPENSE
  - INFORMATION DEVICES (EMERGENCY PREPAREDNESS AND WATER CONSERVATION) \$1,500
  - WATER SAVINGS KITS FOR PUBLIC DISTRIBUTION \$3,000
  - MANDATED COB WATER SYSTEM EMERGENCY RESPONSE PLAN UPDATE \$5,000
  - CITY SHARE OF JWC WASH. CO FAIR BOOTH \$500
  - MESSENGER SERVICES \$400
  - WATER SAVINGS REBATE PROGRAM \$20,000
  - CITY SHARE OF COLLEGE CAREER FAIR BOOTH FOR STAFF RECRUITMENT 500 \$500
- 511 PROFESSIONAL SERVICES

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
	63,163		63,537		66,948		66,948	411,800		461,800			
TOTAL CLASS: 10 MATERIALS & SERVICES													
	134,810		148,238		386,161		337,571	863,930		974,250			
CLASS: 25 TRANSFERS													
816	TRSFERS TO REPROGRAPHICS FUND												
	2,540		3,709		3,327		3,327	1,749		1,651			
817	TRSFERS TO GARAGE FUND												
	639				857		857						
835	TRSFER TO GF, BVTN BLDG OPERATIONS												
			20,592		10,296		10,296	16,701		16,701			
836	TRSFER TO GF, BVTN BLDG DEBT SVC												
			27,400		10,356		10,356	12,834		12,834			
TOTAL CLASS: 25 TRANSFERS													
	3,179		51,701		24,836		24,836	31,284		31,186			
TOTAL PROGRAM: 0740 ENTERPRISE MGMT & ADMIN													
	419,127	2.80	615,542	3.80	1,186,979	5.80	1,078,172	1,684,356	5.00	2,007,070	6.50		
TOTAL DEPARTMENT: 72 CAPITAL DEVELOPMNT-ENGINEERING													
	419,127	2.80	615,542	3.80	1,186,979	5.80	1,078,172	1,684,356	5.00	2,007,070	6.50		

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 72 CAPITAL DEVELOPMNT-ENGINEERING  
 PROGRAM: 0740 ENTERPRISE MGMT & ADMIN

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

CONSULTANT SERVICES FOR EPA MANDATED CONSUMER CONFIDENCE REPORT \$7,000  
 ELEMENTARY SCHOOLS WATER CONSERVATION PERFORMANCE \$2,800  
 IN-HOUSE LOCATE CHARGES \$45,000  
 S&B STUDY/TELEMETRY \$5,000  
 WATER AUDITS FOR WATER CONSERVATION \$2,000  
 WATER SDC RATE STUDY (POTABLE AND NON-POTABLE) \$100,000  
 COMMUNITY WATER SYSTEM RISK AND RESILENCE \$100,000  
 FEDERAL SAFE DRINKING WATER ACT REPORT \$100,000  
 SHAKE ALERT - TELEMETRY INTERGRATION \$25,000  
 FRACTA - PIPELINE CONDITION ASSESSMENT \$25,000  
 WATER SYSTEM HYDROLIC MODELING \$50,000

- 816 TRSFERS TO REPROGRAPHICS FUND  
 ALLOCATION OF COPIER, GRAPHICS, PRINTING, MAILING, & POSTAGE CHARGES THROUGH REPROGRAPHICS \$1,651
- 817 TRSFERS TO GARAGE FUND  
 ALLOCATION OF FLEET SERVICES (FUEL, MAINTENANCE & REPLACEMENT) PROVIDED BY THE GARAGE FUND
- 835 TRSFR TO GF, BVTN BLDG OPERATIONS  
 BEAVERTON BUILDING OPERATING EXPENSE ALLOCATION \$16,701
- 836 TRSFR TO GF, BVTN BLDG DEBT SVC  
 BEAVERTON BUILDING DEBT SERVICE EXPENSE ALLOCATION \$12,834

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0741 WATER SERVICES

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 10 MATERIALS & SERVICES

316 ADVERTISING, RECORDING & FILING  
 2,118

409 WATER PURCHASES FOR RESALE  
 1,288,362      1,383,335      1,627,525      1,499,382      2,475,491      1,684,550

410 BARNEY RESERVOIR OPERATIONS  
 88,608      95,900      164,609      100,000      150,051      150,051

417 WILLAMETTE INTAKE FACILITIES OPER  
 16,000      10,000      10,000      13,000

418 JWC OPERATING EXP - OTHER  
 17,585      79,811      42,250      22,752      45,000      45,000

439 WATER WHEELING SERVICES - TWWD  
 383,000      1,671,622      1,671,621

447 WATER PURCHASES - WHEELING  
 510,000

497 DEBT ISSUANCE COST  
 135,399      850      850      150,850

498 UNDERWRITERS DISCOUNT, BOND  
 9,816      20,000

511 PROFESSIONAL SERVICES  
 233,704      248,674      226,800      226,800      310,000      310,000

512 CITY RIGHT OF WAY FEES  
 619,246      641,861      652,035      732,409      919,379      919,379

525 PMTS TO OTHER GOVERNMENT AGENCIES  
 50,924      53,778      56,400      55,891      60,000      60,000

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0741 WATER SERVICES

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS
316	ADVERTISING, RECORDING & FILING
409	WATER PURCHASES FOR RESALE FY 17-18 INCLUDES: JWC WATER TREATMENT PLANT WATER PRODUCTION CHARGES BUD \$1,400,000/ ACTUAL \$1,365,000 BUREAU OF RECLAMATION BUD \$26,000/ ACTUAL \$18,000 PORTLAND WATER BUREAU BUD \$500/ ACTUAL 500 FY 18-19 INCLUDES \$1,600,000 FOR JWC WATER AND TREATMENT PLANT COSTS, \$27,000 BUREAU OF JWC WATER TREATMENT PLANT WATER PRODUCTION CHARGES \$1,600,000 BUREAU OF RECLAMATION \$27,000 PORTLAND WATER BUREAU \$525 FY 19-20 INCLUDES: JWC WATER TREATMENT PLANT WATER PRODUCTION CHARGES \$1,656,000 BUREAU OF RECLAMATION \$28,000 PORTLAND WATER BUREAU \$550
410	BARNEY RESERVOIR OPERATIONS REFLECTS ALLOCATION OF STAFFING AND OPERATING EXPENSES FOR CITY OF HILLSBORO BETWEEN BARNEY MEMBERS. INCLUDES THE COST OF SAMPLING AND ANALYSIS FOR WATER QUALITY \$150,051
417	WILLAMETTE INTAKE FACILITIES OPER BEAVERTON'S PROPORTIONAL EXPENSE OF THE WILLAMETTE INTAKE FACILITIES COMMISSION'S OPERATIONS. \$13,000
418	JWC OPERATING EXP - OTHER MAINTENANCE PERFORMED BY JWC STAFF ON CHLORINE SCRUBBER, TRANSMISSION LINE CORRIDOR, SEDIMENT REMOVAL AND INSPECTIONS OF THE CLEARWELL AND RESERVOIRS. \$45,000
439	WATER WHEELING SERVICES - TVWD PAYMENT TO TVWD TO WHEEL WATER THROUGH TVWD'S SYSTEM FOR THE 4,077 ACCOUNTS THAT WERE WITHDRAWN FROM TVWD'S SERVICE AREA AND TRANSFERRED TO THE CITY OF BEAVERTON'S SERVICE AREA FY 2018-19 216,655 CCF OF WATER AT WHEELING CHARGE OF \$1.722 PER CCF \$373,080 FY 2019-20 970,744 CCF OF WATER AT WHEELING CHARGE OF \$1.722 PER CCF \$1,671,621
447	WATER PURCHASES - WHEELING WATER PURCHASES FROM THE JWC WATER TREATMENT PLANT THAT IS WHEELED THROUGH TVWD'S WATER SYSTEM TO SERVE THE AREAS WITHDRAWN FROM THE TVWD'S SERVICE DISTRICT AND NOW SERVED BY CITY OF BEAVERTON \$510,000
497	DEBT ISSUANCE COST BOND PAYING AGENT FEES \$850 BOND ISSUANCE COSTS FOR PROJECTED \$30 MILLION 2019 WATER REVENUE BONDS \$150,000
498	UNDERWRITERS DISCOUNT, BOND COST FOR PROJECTED \$30 MILLION 2019 WATER REVENUE BONDS \$20,000
511	PROFESSIONAL SERVICES FY 2019-20 INCREASE REFLECTS A SLIGHT INCREASE FOR GROWTH IN NUMBER OF METERS READ AND ADDITIONAL COSTS EXPECTED WITH THE TVWD WITHDRAWAL AREAS AND SOUTH COOPER MOUNTAIN \$310,000
512	CITY RIGHT OF WAY FEES THIS ACCOUNT WAS ESTABLISHED TO ACCOUNT FOR THE PAYMENT IN LIEU OF 5% ROW LICENSE FEES TO THE GENERAL FUND. FY 2019-20 INCREASE REFLECTS THE 4,077 WATER ACCOUNTS THAT WERE WITHDRAWN FROM THE TVWD AND NOW SERVED AND BILLED BY THE CITY OF BEAVERTON \$919,379
525	PMTS TO OTHER GOVERNMENT AGENCIES PAYMENTS TO WEST SLOPE WATER DISTRICT FOR TRANSFER OF 66 ACCOUNTS TO THE CITY OF BEAVERTON. INCLUDES 4.36% OF ANNUAL DEBT SERVICE ON WATER RESERVOIR BOND ISSUE AND REIMBURSEMENT FOR UNDERCONSUMPTION ON THE PORTLAND WATER CONTRACT \$60,000

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0741 WATER SERVICES

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

TOTAL CLASS: 10 MATERIALS & SERVICES

	2,298,429		2,650,692		2,786,469		3,031,084	5,641,543		5,534,451			
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CLASS: 25 TRANSFERS

801	TRSFR TO GENERAL FD - OVERHEAD	217,037		318,316		360,830	360,830	448,971		448,971			
802	TRSFR TO GENERAL FD-ACCOUNTING	49,312		28,616		62,355	62,355	100,875		100,875			
818	TRSFERS TO ISD-ALLOCATED	193,014		232,089		286,721	286,721	332,587		329,957			
819	TRSFERS TO INSURANCE FUND	198,941		228,792		228,792	228,792	285,990		285,990			
832	TRSFERS TO WATER DEBT SVC FUND	1,495,160		748,426		2,184,994	2,184,994	2,184,994		2,184,994			
833	TRSFERS TO WATER CONSTRUCT FUND	1,776,000		1,230,000		1,000,000	1,000,000	2,000,000		2,000,000			

TOTAL CLASS: 25 TRANSFERS

	3,929,464		2,786,239		4,123,692		4,123,692	5,353,417		5,350,787			
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CLASS: 30 FUND BAL/CONTINGENCY/RESERVES

987	RESERVE - JWC EMERGENCY EQUIPMT					500,000		500,000		500,000			
991	CONTINGENCY - UNRESERVED					7,342,101		7,078,746		9,410,575			
995	RESERVE - RATE STABILIZATION					600,000		600,000		600,000			
996	RESERVE - EQUIPMENT REPLACEMT					342,168		398,636		398,636			

TOTAL CLASS: 30 FUND BAL/CONTINGENCY/RESERVES

						8,784,269		8,577,382		10,909,211			
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TOTAL PROGRAM: 0741 WATER SERVICES

	6,227,893		5,436,931		15,694,430		7,154,776	19,572,342		21,794,449			
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**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0741 WATER SERVICES

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 801 TRSFR TO GENERAL FD - OVERHEAD  
 ALLOCATION OF OVERHEAD SERVICES PROVIDED BY THE GENERAL FUND  
 14.59% OF FY18-19 BUDGETED PERSONNEL SERVICES TOTAL EXPENDITURES \$448,971
- 802 TRSFR TO GENERAL FD-ACCOUNTING  
 ALLOCATION OF ACCOUNTING SERVICES PROVIDED BY THE GENERAL FUND \$100,875
- 818 TRSFRS TO ISD-ALLOCATED  
 ALLOCATION OF SERVICES PROVIDED BY THE INFORMATION SYSTEMS FUND \$246,423  
 SOFTWARE MAINTENANCE - TELEMETRY, ASSET SYSTEM, BACKFLOW SYSTEM AND UTILITY BILLINGS \$81,334  
 ENGINEERING SOFTWARE UPGRADES \$2,200
- 819 TRSFRS TO INSURANCE FUND  
 ALLOCATION OF CHARGES FOR GENERAL LIABILITY AND PROPERTY INSURANCE \$285,990
- 832 TRSFRS TO WATER DEBT SVC FUND  
 DEBT SERVICE (PRINCIPAL & INTEREST) ON OUTSTANDING WATER REVENUE BONDS. (2016 & 2018) \$2,184,994
- 833 TRSFRS TO WATER CONSTRUCT FUND  
 TRANSFER FROM WATER OPERATING FUND TO HELP COVER THE COST OF VARIOUS JWC AND EXTRA  
 CAPACITY INCREASE PROJECTS \$2,000,000

- 987 RESERVE - JWC EMERGENCY EQUIPMT  
 DEDICATED CONTINGENCY FOR JOINT WATER COMMISSION EMERGENCY PLANT EQUIPMENT \$500,000  
 (CITY'S SHARE IS 25% OF \$2,000,000)
- 991 CONTINGENCY - UNRESERVED
- 995 RESERVE - RATE STABILIZATION  
 DEDICATED CONTINGENCY FOR WATER RATE STABILIZATION PER BOND COVENANTS \$600,000
- 996 RESERVE - EQUIPMENT REPLACEMT  
 RESERVE FOR EQUIPMENT REPLACEMENT, JWC RESERVE FOR VEHICLE REPLACEMENT, COB \$398,636

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 PERSONNEL SERVICES

057	PUBLIC WORKS SUPERVISOR												
	66,961	1.00	83,693	1.00	87,437	1.00	83,817	96,474	1.00	91,050	1.00		
112	PUBLIC WORKS MANAGER 3												
	54,444	.50	55,673	.50	57,061	.50	58,079	61,661	.50	61,067	.50		
133	WATER CUSTOMER SERVICE TECH												
	57,386	1.00	62,949	1.00									
162	WATER DISTRIBUTION LEAD												
	1,851	1.00	64,571	1.00	79,415	1.00	77,616	84,827	1.00	80,966	1.00		
173	WATER DISTRIBUTION TECHNICIAN												
	298,262	6.00	194,214	6.00	328,100	6.00	191,045	380,307	6.00	338,999	6.00		
188	INVENTORY CONTROL TECHNICIAN												
	13,757	.25	15,822	.25									
209	WATER DISTRIBUTION EQUIP OPER												
	144,706	3.00	166,563	3.00	291,860	5.00	324,305	370,112	5.00	336,746	5.00		
299	PAYROLL TAXES AND FRINGES												
	329,352		353,470		620,352		479,302	667,430		668,668			

TOTAL CLASS: 05 PERSONNEL SERVICES

	966,719	12.75	996,955	12.75	1,464,225	13.50	1,214,164	1,660,811	13.50	1,577,496	13.50		
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CLASS: 10 MATERIALS & SERVICES

301	OFFICE EXPENSE												
	15		153		400		658	600		600			
303	OFFICE FURNITURE & EQUIPMENT												
	485		66		400		400	1,050		1,050			
304	DEPARTMENT EQUIPMENT EXPENSE												
	13,067		13,797		18,500		17,000	32,000		32,000			
305	SPECIAL DEPARTMENT SUPPLIES												
	6,956		5,328		6,800		6,800	6,800		6,800			

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 057 PUBLIC WORKS SUPERVISOR
  
- 112 PUBLIC WORKS MANAGER 3  
 1 FTE PUBLIC WORKS MANAGER 3 IS ALLOCATED:  
 50% 501-85-0743 / 50% 501-85-0742.
- 133 WATER CUSTOMER SERVICE TECH  
 FY 18-19 REFLECTS TRANSFER OF 1 FTE WATER CUSTOMER SERVICE TECH POSITION FROM  
 PROGRAM 0742 (WATER SYSTEM DISTRIBUTION) TO PROGRAM 0743 (WATER SYSTEM QUALITY).
- 162 WATER DISTRIBUTION LEAD
  
- 173 WATER DISTRIBUTION TECHNICIAN
  
- 188 INVENTORY CONTROL TECHNICIAN  
 FY 2018-19 REFLECTS REDISTRIBUTION OF 1 FTE INVENTORY CONTROL TECH POSITION FROM  
 25% IN 001-85 / 25% IN 101-85 / 25% IN 501-85 / 10% IN 502-85 / 15% IN 513-85 TO 100% IN  
 THE GARAGE FUND.
- 209 WATER DISTRIBUTION EQUIP OPER  
 FY 16-17 REFLECTS 1.0 FTE TRANSFERRED FROM SEWER FUND'S CONSTRUCTION PROGRAM 0757 AND  
 1.0 FTE TRANSFERRED FROM STORM DRAIN FUND'S CONSTRUCTION PROGRAM 0739  
 FY 18-19 REFLECTS 2 NEW FTE WATER DISTRIBUTION EQUIPMENT OPERATOR POSITIONS.
- 299 PAYROLL TAXES AND FRINGES  
 PAYROLL TAXES AND FRINGE BENEFITS EXPRESSED AS A PERCENTAGE OF SALARY  
 TOTALS 58.14% AS A CITY-WIDE AVERAGE AND CONSISTS OF THE FOLLOWING:  
 34.14% IN PAYROLL TAXES CONSISTING OF 7.65% FICA, AVERAGE OF 23.22% FOR  
 RETIREMENT CONTRIBUTIONS (28.45% PERS. 19.45% OPSRP GENERAL OR  
 24.08% OPSRP POLICE), AND 3.27% IN OTHER TAXES (UNEMPLOYMENT,  
 LONG TERM DISABILITY, WORKERS COMPENSATION, PEHP, AND TRIMET)  
 24.00% AS THE AVERAGE COST OF MEDICAL, DENTAL, LIFE AND AD&D INSURANCES
  


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- 301 OFFICE EXPENSE  
 OFFICE SUPPLIES \$600
- 303 OFFICE FURNITURE & EQUIPMENT  
 OFFICE FURNITURE 3 NEW LOCKERS \$1,050
- 304 DEPARTMENT EQUIPMENT EXPENSE  
 REPLACEMENT OF MISCELLANEOUS POWER TOOLS \$15,000  
 TOOL SETUP FOR VALVE TURNING PROGRAM \$4,000  
 FLUSHING PROGRAM \$2,000  
 HYDRANT REPAIR AND REBUILD \$1,500  
 CORRELATION \$2,500  
 LOCATER \$3,500  
 LINE FREEZE KIT \$3,500
- 305 SPECIAL DEPARTMENT SUPPLIES  
 PIPE TAPPING BITS \$1,500  
 LUMBER \$300  
 SAW BLADES \$1,000  
 HAND TOOLS \$2,000  
 EROSION CONTROL FOR WATER LEAKS \$500  
 TRASH PUMPS \$1,500

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
307	MEMBERSHIP FEES												
	1,367		823		2,740		2,200	3,440		3,440			
308	PERIODICALS & SUBSCRIPTIONS												
	89		200		200		200	450		450			
317	COMPUTER EQUIPMENT												
	500												
321	TRAVEL, TRAINING & SUBSISTENCE												
	5,372		5,169		5,600		5,600	19,335		19,335			
328	MEALS & RELATED EXPENSE												
	88												
361	UNIFORMS & SPECIAL CLOTHING												
	7,187		6,908		7,800		7,800	14,000		14,000			
371	EQUIPMENT OPER & MAINT EXPENSE												
								12,150		12,150			
413	SERVICE INSTALLATIONS												
	2,984		2,341		3,300		3,300	10,500		10,500			
419	CHEMICAL & LABORATORY SUPPLIES												
	9,907		155		16,800		10,000	12,100		12,100			
425	DUMPING EXPENSES												
	1,496		1,729		2,500		2,500	4,500		4,500			
441	LINE MAINTENANCE												
	156,050		153,412		160,475		152,000	180,000		180,000			

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS
307	MEMBERSHIP FEES AWWA MEMBERSHIP \$440 OHA CERTS WATER DIST, TREATMENT (7 SINGLE @140/EACH AND 2 COMBINATION @210/EACH) \$1,400 EXAM FEE REIMBURSEMENT \$600 CROSS CONNECTION SPECIALIST, TESTER (2 SINGLE @195/EACH AND 2 COMBINATION @305/EACH) \$1,000
308	PERIODICALS & SUBSCRIPTIONS WATER DISTRIBUTION & MAINTENANCE MANUALS \$450
317	COMPUTER EQUIPMENT NO APPROPRIATION REQUESTED
321	TRAVEL, TRAINING & SUBSISTENCE TRAVEL AND SUBSISTENCE NEEDED TO SUPPORT TRAINING HOTEL AND MEAL EXPENSES \$4,000 TRAINING REGISTRATION FEES FOR WATER RECERTS (6 @500/EA) \$3,000 TRAINING REGISTRATION FEES FOR CROSS CONNECTION RECERTS TESTERS(2@550 & SPEC 2@255) \$1,610 MANAGEMENT TRAINING AWWA (2@500) \$1,000 CITYWORKS STORE ROOM TRAINING (1 WEB @500 AND 1 DAY AT CITYWORKS CONFERENCE @1500) \$2,000 AWWA MANAGEMENT INST. REG AND ALL EXPENSE FOR TWO \$3,200 APWA EXPO FOR 1 \$1,900 DEPARTMENTAL PROFESSIONAL DEVELOPMENT \$2,625
328	MEALS & RELATED EXPENSE FY 2017-18 REFLECTS THIS EXPENSE IS ACCOUNTED FOR IN THE PUBLIC WORKS ADMINISTRATION FUND
361	UNIFORMS & SPECIAL CLOTHING SAFETY GEAR AND CLOTHING \$3,500 RAINGEAR \$9,000 OTHER GEAR \$1,500
371	EQUIPMENT OPER & MAINT EXPENSE HC 100 CONTROLLER/DATALOGGER \$3,200 HEAVY DUTY BUCKET \$2,300 HEAVY DUTY FORKS \$1,150 BRADCO PICKUP BROOM \$5,500
413	SERVICE INSTALLATIONS WATER SERVICE INSTALLATIONS 1" & 2" COPPER TUBING & BRASS FITTINGS \$7,500 SOUTH COOPER MOUNTAIN ADJUSTMENT PARTS \$3,000
419	CHEMICAL & LABORATORY SUPPLIES VITA DE-CHLOR TABLETS \$7,400 HOSE MONSTER \$3,500 CHLORINE TESTING EQUIPMENT AND REAGENTS \$1,200
425	DUMPING EXPENSES LANDFILL DEBRIS DISPOSAL \$3,000 HAULING ALL DEBRIS DIRECTLY TO RECEIVING FACILITY \$1,500
441	LINE MAINTENANCE MAINTENANCE & REPAIR OF WATER MAINS, VALVES, HYDRANTS, BLOWOFFS AND SERVICES \$120,000 FIRE HYDRANT REPLACEMENT PROGRAM \$60,000

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
446	METER MAINTENANCE												
	159,795		225,024		249,126		249,000	278,062		278,062			
448	MANHOLE / PRV VALVE ADJUSTMENTS												
	54,522		49,000		146,450		147,552	150,000		150,000			
461	SPECIAL EXPENSE												
	217		295		400		100	1,523		1,523			
511	PROFESSIONAL SERVICES												
	25,246		30,063		36,620		31,000	61,000		111,000			
551	RENTS AND LEASES												
	17,287		1,269		8,484		1,800	1,700		1,700			
TOTAL CLASS: 10 MATERIALS & SERVICES													
	462,630		495,732		666,595		637,910	789,210		839,210			
CLASS: 15 CAPITAL OUTLAY													
641	VEHICLES												
	133,926		747		75,400		75,400	429,223		429,223			
670	ROLLING STOCK												
								229,934		229,934			
671	EQUIPMENT												
			76,902		6,000		6,000						
TOTAL CLASS: 15 CAPITAL OUTLAY													
	133,926		77,649		81,400		81,400	659,157		659,157			
CLASS: 25 TRANSFERS													
817	TRSFERS TO GARAGE FUND												
	58,563		96,059		84,166		84,166	114,284		114,284			
TOTAL CLASS: 25 TRANSFERS													
	58,563		96,059		84,166		84,166	114,284		114,284			

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 446 METER MAINTENANCE
  - REPLACE 1,000 5/8" METERS @ \$138.11 EA \$138,110
  - REPLACE 8 3" METERS @ \$1,920.14 EACH COMMERCIAL REPLACEMENT \$15,361
  - REPLACE 3 VAULTS @ \$3632.38 EA \$10,898
  - REPLACE 200 METER BOXES FOR 3/4" AND 1" METERS @ \$172.14 EA \$34,428
  - REPLACE 9 1 1/2" METERS @ \$1313.79 EA \$11,824
  - REPLACE 10 2" METERS @ \$1515.90 EA \$15,159
  - REPLACE 20 1" METERS @ \$197.42 EA \$3,948
  - REPLACE 20 METER BOXES FOR 1 1/2" TO 2" METERS @ \$316.37 EA \$6,327
  - REPLACE 100 REGISTERS AND ADD REMOTE READ CAPABILITY, \$155 \$15,500
  - REPLACE 300 3/4" BRASS METER TAIL PIECES @\$8.77 EA \$2,631
  - REPLACE 300 3/4" X 1 BRASS METER BUSHINGS @\$9.49 EA \$2,847
  - REPLACE 10 3/4" METER RISERS 12" @\$142.13 \$1,421
  - REPLACE 10 1" METER RISERS 12" @\$291.85 \$2,919
  - REPLACE 5 1 1/2" METER RISERS 12" @\$1532.36 \$7,662
  - REPLACE 5 2" METER RISERS 12" @\$1805.34 \$9,027
- 448 MANHOLE / PRV VALVE ADJUSTMENTS
  - CHARGES FOR ADJUSTING WATER MANHOLES AND VALVES REQUIRED DURING STREET RECONSTRUCTION. \$150,000
- 461 SPECIAL EXPENSE
  - COMMERCIAL DRIVERS LICENSE AND RENEWAL FEES (5 @\$61.50/EA) \$308
  - CDL TESTING FEE - 3RD PARTY TESTER (3@\$250/EA & DMV 3@\$155/EA) \$1,215
- 511 PROFESSIONAL SERVICES
  - TEST AND REPAIR LARGE METERS \$18,500
  - CALIBRATION FOR WATER GAUGES & LOCATING EQUIPMENT \$1,500
  - 6 HOT TAPS @ \$2,500 EACH \$15,000
  - UTILITY CUT PAVING \$4,000
  - FLAGGERS \$2,000
  - 12" LINE STOP \$20,000 WATER SYSTEM HYDRAULIC MODELING, MAPPING ETC. \$50,000
- 551 RENTS AND LEASES
  - MISCELLANEOUS EQUIPMENT RENTAL \$500
  - HEAVY EQUIPMENT RENTAL \$1,200
- 641 VEHICLES
  - 1 - REPLACEMENT FOR VEHICLE 7-609, (2003 F350 SERVICE BODY) WITH F550 4WD SERVICE BODY \$119,500  
 (COST INCLUDES VEHICLE, SERVICE BODY, REELS, GENERATOR, CRANE, LIGHTING, LICENSING)
  - 1 - NEW ADDITIONAL VEHICLE - PETERBILT 337 SERVICE TRUCK W/UTILITY BOX, ONBOARD AIR COMP  
 HEAVY DUTY CRANE, LIGHTING, REELS, WATER TANK, GENERATOR, SHELVEING AND LICENSING \$235,000
  - ADDITIONAL VEHICLE TO REPLACE VAC TRAILER 22-504. PETERBILT 220-33000GVW W/ 20FT FLATBED \$74,723
- 670 ROLLING STOCK
  - NEW COLD PLANER \$23,500
  - NEW TAKEUCHI TL 10 CRH TRACK LOADER \$58,158
  - REPLACEMENT DITCH WITCH FXT 65 TRUCK MOUNT VAC SYSTEM \$133,509
  - NEW TRIPLER AXLE LOW PROFILE TILT TRAILER 24000 LB \$14,767
- 671 EQUIPMENT
  - NO APPROPRIATION REQUESTED
- 817 TRSFRS TO GARAGE FUND
  - FLEET SERVICES PROVIDED BY THE GARAGE FUND \$114,284

City of Beaverton - Finance  
 Budget Preparation - 2020

## BP WORKSHEET & JUSTIFICATION

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

TOTAL PROGRAM: 0742 WATER SYSTEM DISTRIBUTION

	1,621,838	12.75	1,666,395	12.75	2,296,386	13.50	2,017,640	3,223,462	13.50	3,190,147	13.50		
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City of Beaverton - Finance  
Budget Preparation - 2020

## BP WORKSHEET & JUSTIFICATION

FUND: 501 WATER FUND

DEPT: 85 PUBLIC WORKS - OPERATIONS

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS



City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE

CLASS: 05 PERSONNEL SERVICES

049	PROG COORDINATOR -PUBLIC WORKS		17,568	1.00	78,922	1.00	74,210	99,826	1.00	88,163	1.00		
057	PUBLIC WORKS SUPERVISOR		24,588	1.00	92,053	1.00	94,380	114,572	1.00	101,512	1.00		
112	PUBLIC WORKS MANAGER 3		54,442	.50	55,673	.50	57,067	61,669	.50	61,072	.50		
133	WATER CUSTOMER SERVICE TECH				67,709	1.00	70,110	76,331	1.00	66,736	1.00		
162	WATER DISTRIBUTION LEAD		83,735	1.00	89,860	1.00	83,388	96,170	1.00	90,077	1.00		
178	WATER QUALITY TECHNICIAN		148,211	2.00	120,613		51,680	8,527	1.00	54,502	1.00		
299	PAYROLL TAXES AND FRINGES		149,285		166,954		263,584	217,524		278,522		286,077	

TOTAL CLASS: 05 PERSONNEL SERVICES

	435,673	3.50	475,256	3.50	694,403	5.50	607,055	781,592	5.50	748,139	5.50		
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CLASS: 10 MATERIALS & SERVICES

301	OFFICE EXPENSE		50	151	500		400	700		700			
303	OFFICE FURNITURE & EQUIPMENT		747	1,422	1,000		550	1,000		1,000			
304	DEPARTMENT EQUIPMENT EXPENSE		23,278	10,446	39,000		38,000	40,000		40,000			

305	SPECIAL DEPARTMENT SUPPLIES		928	655	4,000		4,000	5,000		5,000			
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**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 049 PROG COORDINATOR -PUBLIC WORKS  
 FY 17-18 REFLECTS MID-YEAR RECLASSIFICATION OF 1 FTE WATER QUALITY TECH POSITION TO 1 FTE PROGRAM COORDINATOR - PUBLIC WORKS POSITION.
- 057 PUBLIC WORKS SUPERVISOR  
 FY 17-18 MID-YEAR 1 FTE WATER DISTRIBUTION LEAD POSITION WAS RECLASSIFIED TO 1 FTE PUBLIC WORKS SUPERVISOR POSITION.
- 112 PUBLIC WORKS MANAGER 3  
 1 FTE PUBLIC WORKS MANAGER 3 IS ALLOCATED:  
 50% 501-85-0743 / 50% 501-85-0742.
- 133 WATER CUSTOMER SERVICE TECH  
 FY 18-19 REFLECTS TRANSFER OF 1 FTE WATER CUSTOMER SERVICE TECH POSITION FROM PROGRAM 0742 (WATER SYSTEM DISTRIBUTION) TO PROGRAM 0743 (WATER SYSTEM QUALITY).
- 162 WATER DISTRIBUTION LEAD  
 FY 17-18 MID-YEAR 1 FTE WATER DISTRIBUTION LEAD POSITION WAS RECLASSIFIED TO 1 FTE PUBLIC WORKS SUPERVISOR POSITION.
- 178 WATER QUALITY TECHNICIAN  
 FY 17-18 REFLECTS MID-YEAR RECLASSIFICATION OF 1 FTE WATER QUALITY TECH POSITION TO 1 FTE PROGRAM COORDINATOR - PUBLIC WORKS POSITION.  
 FY 18-19 REFLECTS A NEW 1 FTE WATER QUALITY TECHNICIAN POSITION.
- 299 PAYROLL TAXES AND FRINGES  
 PAYROLL TAXES AND FRINGE BENEFITS EXPRESSED AS A PERCENTAGE OF SALARY TOTALS 58.14% AS A CITY-WIDE AVERAGE AND CONSISTS OF THE FOLLOWING:  
 34.14% IN PAYROLL TAXES CONSISTING OF 7.65% FICA, AVERAGE OF 23.22% FOR RETIREMENT CONTRIBUTIONS (28.45% PERS. 19.45% OPSRP GENERAL OR 24.08% OPSRP POLICE), AND 3.27% IN OTHER TAXES (UNEMPLOYMENT, LONG TERM DISABILITY, WORKERS COMPENSATION, PEHP, AND TRIMET)  
 24.00% AS THE AVERAGE COST OF MEDICAL, DENTAL, LIFE AND AD&D INSURANCES

- 301 OFFICE EXPENSE  
 OFFICE SUPPLIES (7 EMPLOYEES @ \$100 EACH) \$700
- 303 OFFICE FURNITURE & EQUIPMENT  
 NEW OR REPLACEMENT OF MISC OFFICE EQUIPMENT FOR ASR 5 \$1,000
- 304 DEPARTMENT EQUIPMENT EXPENSE  
 CHLORINE POCKET COLORIMETER REPLACEMENTS (2 @ \$500 EA) \$1,000  
 WATER SAMPLING STATIONS (2 @ \$2,100 EA) \$4,200  
 REPLACEMENT PROBES FOR ON-LINE FLUORIDE ANALYZER (2 @ \$900 EA) \$1,800  
 REPLACEMENT PROBES FOR ON-LINE CHLORINE ANALYZERS (2 @ \$1,200 EA) \$2,400  
 ROSEMONT CHLORINE ANALYZER/PH METER MEMBRANE FILTERS \$1,000  
 HACH PH/CONDUCTIVITY PROBE (2 @ \$1000 EA) \$2,000  
 REPLACE IN-LINE FLUORIDE ANALYZER \$7,700  
 REPLACEMENT OF MULTI-PRO AIR SENSOR (2 @2000) \$4,000  
 PRESSURE TRANSDUCERS FOR ASR PROGRAM (3 @ \$2,000 EACH) \$6,000  
 STORAGE SHELVING FOR STORAGE CONTAINERS \$1,500  
 VALVE POSITION INDICATOR \$6,000  
 PRV PRESSURE TRANSMITTERS (2@ 1200) \$2,400
- 305 SPECIAL DEPARTMENT SUPPLIES  
 TELEMETRY AND PRESSURE GAUGE SUPPLIES \$1,000  
 REPLACEMENT OF TRAFFIC SAFETY EQUIPMENT/CONES AND SIGNING \$1,000  
 HAND TOOLS, BATTERIES & BUILDING SUPPLIES \$2,000  
 REPLACEMENT OF VEHICLE (TOOLS,MATS, INVERTERS,ETC) \$1,000

City of Beaverton - Finance  
 Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
307	MEMBERSHIP FEES												
	10,184		11,126		12,165		12,100	12,090				13,541	
308	PERIODICALS & SUBSCRIPTIONS												
	300				300		305	420				420	
317	COMPUTER EQUIPMENT												
							728	1,131				1,131	
318	COMPUTER SOFTWARE												
					13,500		8,000						
321	TRAVEL, TRAINING & SUBSISTENCE												
	3,482		4,852		7,780		7,700	11,990				11,990	
328	MEALS & RELATED EXPENSE												
	65												
341	COMMUNICATIONS EXPENSE												
	31,577		33,902		45,000		44,000	46,000				46,000	
351	UTILITIES EXPENSE												
	245,004		261,611		290,000		270,000	290,000				290,000	
361	UNIFORMS & SPECIAL CLOTHING												
	3,358		3,494		6,000		5,500	7,200				7,200	
381	BUILDING EXPENSE												
	9		6,429		20,000		15,000	20,000				20,000	
419	CHEMICAL & LABORATORY SUPPLIES												
	31,391		32,870		50,000		50,000	66,000				66,000	
425	DUMPING EXPENSES												
	35				500		700	500				500	
441	LINE MAINTENANCE												
	33,246		32,348		75,000		72,000	38,000				38,000	
461	SPECIAL EXPENSE												
			54		800		800	1,000				1,000	

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

- 307 MEMBERSHIP FEES
  - NW AWWA SUBSECTION AND INDIVIDUAL AWWA MEMBERSHIP ( 5 @ \$228) \$1,140
  - OHA DIST TREAT RENEWAL (2 COMBINATION@210) \$420
  - STATE FIRE MARSHALL HAZARDOUS MATERIALS PERMIT SITES 2 @ \$3400 EACH \$6,800
  - LIBRARY FOUNTAIN PERMIT \$300
  - OREGON ASSOCIATION OF WATER UTILITIES (SUPERVISOR AND 4 OPERATORS / \$100 EACH) \$500
  - PACIFIC NW SECTION AWWA /OREGON WATER UTILITIES COUNCIL \$2,100
  - OREGON HEALTH AUTHORITY- CROSS CONNECTION SERVICE FEE \$525
  - OHA SPECIALIST AND TESTER RENEWALS 1 COMBINATION@\$305 EACH \$305
  - HOA DUES FOR 2 LOTS FOR RESERVE AT COOPER MTN ASR \$1,451
- 308 PERIODICALS & SUBSCRIPTIONS
  - WATER QUALITY OPERATION AND MAINTENANCE MANUALS \$300
  - WATER TREATMENT MANUALS AND PERIODICALS ADDRESSING NEWEST EPA REGULATIONS \$120
- 317 COMPUTER EQUIPMENT
  - DESKTOP COMPUTER \$760
  - MONITOR (27 INCH) \$219
  - BATTERY BACKUP \$152
- 318 COMPUTER SOFTWARE
  - NO APPROPRIATION REQUESTED
- 321 TRAVEL, TRAINING & SUBSISTENCE
  - MANAGER, SUPERVISOR, LEAD PNWAWWA CONFERENCE-REG, LODGING, TRANS. \$4,200
  - AWWA SHORT SCHOOL TRAINING (3 @ \$290/EACH) \$870
  - AWWA WEBINAR \$220
  - TECHNICAL TRAINING SEMINAR ON INSTRUMENTATION \$1,200
  - OREGON ASSOCIATION OF WATER UTILITIES CONFERENCE (2@\$320/EACH) \$640
  - RECERT CROSS CONN SPECIALIST AND TESTER TRAINING (2@\$255/EA & 1@\$550/EA) \$1,060
  - APWA EXPO (2 @\$1900/EACH) \$3,800
- 328 MEALS & RELATED EXPENSE
  - FY 2017-18 REFLECTS THIS EXPENSE IS ACCOUNTED FOR IN THE PUBLIC WORKS ADMINISTRATION FUND
- 341 COMMUNICATIONS EXPENSE
  - INTERNET CHARGES AND LOCAL EXCHANGE TELEPHONE LINES FOR THE WATER TELEMTRY SYSTEM, \$46,000
- 351 UTILITIES EXPENSE
  - ELECTRICAL POWER EXPENSE TO PGE - ASR 1, ASR 2, ASR 4, FOUR PUMP STATIONS, 23 POWERED PRV STATIONS, FLUORIDE STATION. INCLUDES SOLAR PANEL EXPENSES AND REFLECTS ENERGY SAVINGS \$290,000
- 361 UNIFORMS & SPECIAL CLOTHING
  - RAIN GEAR AND SAFETY GEAR AND PERSONEL PROTECTION GEAR (6 EMPLOYEES @ \$1,200 EA) \$7,200
- 381 BUILDING EXPENSE
  - MISCELLANOUS EXPENSE FOR WATER SITE BUILDINGS/MAINTENANCE \$20,000
- 419 CHEMICAL & LABORATORY SUPPLIES
  - VARIOUS CHEMICALS FOR WATER QUALITY SITES (FLUORIDE, SODIUM HYPOCHLORITE, \$58,000
  - DE-CLOR,VITA-CLOR,WATER TESTING CHEMICAL AND REAGENTS, ETC.) \$8,000
- 425 DUMPING EXPENSES
  - LANDFILL DEBRIS DISPOSAL MISCELLANEOUS PROJECTS \$500
- 441 LINE MAINTENANCE
  - CHLORINE AND FLUORIDE INJECTION EQUIPMENT, RESERVOIRS, PUMPS AND PUMPING RELATED ITEMS \$38,000
- 461 SPECIAL EXPENSE
  - COMMERCIAL DRIVERS LICENSE AND RENEWAL \$200
  - OPERATOR CERTIFICATION TESTING AND PREP \$800

City of Beaverton - Finance  
Budget Preparation - 2020

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
DEPT: 85 PUBLIC WORKS - OPERATIONS  
PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	2017 - ACTUAL		2018 - ACTUAL		2019 BUDGETED		2019	2020 - PROPOSED		2020 - RECOMD		2020 ADOPTED	
	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE	EST AMT	AMOUNT	FTE	AMOUNT	FTE	AMOUNT	FTE
511	PROFESSIONAL SERVICES												
	68,861		66,162		106,600		102,000	208,500		208,500			
536	MAINTENANCE CONTRACTS												
	23,102		23,742		33,500		31,000	49,500		49,500			
551	RENTS AND LEASES												
	616		648		2,984		600	1,000		1,000			
TOTAL CLASS: 10 MATERIALS & SERVICES													
	476,233		489,912		708,629		663,383	800,031		801,482			
CLASS: 15 CAPITAL OUTLAY													
641	VEHICLES												
					92,650		92,650	44,650		44,650			
671	EQUIPMENT												
	40,000		63,776		92,000		92,000	96,600		96,600			
TOTAL CLASS: 15 CAPITAL OUTLAY													
	40,000		63,776		184,650		184,650	141,250		141,250			
CLASS: 25 TRANSFERS													
803	TRSFER TO GENERAL FD-LANDSCAPE												
	69,355		80,215		83,669		83,669	88,269		88,269			
804	TRSFER - OPERATIONS ADMIN												
	197,088		249,697		288,261		288,261	282,373		261,881			
805	TRSFER TO G/F BLDG MAINT												
	20,687		18,448		20,886		20,886	20,972		20,972			
808	TRSFERS TO GIS PGRM (TO ISD FUND 2018-19)												
	101,395		165,166		179,079		179,079	177,421		177,216			
817	TRSFERS TO GARAGE FUND												
	40,360		16,755		52,489		52,489	19,930		19,930			
TOTAL CLASS: 25 TRANSFERS													
	428,885		530,281		624,384		624,384	588,965		568,268			
TOTAL PROGRAM: 0743 WATER SYSTEM QUALITY													
	1,380,791	3.50	1,559,225	3.50	2,212,066	5.50	2,079,472	2,311,838	5.50	2,259,139	5.50		
TOTAL DEPARTMENT: 85 PUBLIC WORKS - OPERATIONS													
	9,230,522	16.25	8,662,551	16.25	20,202,882	19.00	11,251,888	25,107,642	19.00	27,243,735	19.00		
TOTAL FUND: 501 WATER FUND													
	12,171,591	20.69	13,304,795	21.69	27,710,497	26.88	16,363,821	32,711,776	26.13	32,900,749	27.63		

**BP WORKSHEET & JUSTIFICATION**

FUND: 501 WATER FUND  
 DEPT: 85 PUBLIC WORKS - OPERATIONS  
 PROGRAM: 0743 WATER SYSTEM QUALITY

OBJ	OBJECT DESCRIPTION
	JUSTIFICATIONS

511 PROFESSIONAL SERVICES

- TEST, REPAIR AND REPLACE (METERS, MOTORS, PUMPS, ETC) \$20,000
- CERTIFIED LABORATORY WATER QUALITY TESTING (EPA REGULATION) \$65,000
- TELEMETRY CONTROLLED MAINTENANCE & CALIBRATION \$18,000
- VIBRATION TESTING OF PUMPS AND MOTORS \$2,000
- COVERALL CLEANING \$500
- CALIBRATION FOR WATER GAUGES AND WATER LINE LOCATING EQUIPMENT \$4,000
- TELEMETRY REPAIR / LABOR \$4,000
- OVERFLOW INSPECTION OF WATERLINE PROJECTS \$95,000

536 MAINTENANCE CONTRACTS

- ELECTRIC BACK-UP GENERATORS AT WATER SITES, TESTING (5 @ \$1,500) \$7,500
- GENERATOR REPAIR \$4,000
- HACH ON-LINE ANALYZER, MAINTENANCE AND CALIBRATION ON ALL HACH EQUIPMENT \$28,000
- CONTINUED CONTRACT WITH (ECOSCONNECT LLC) BACKFLOW \$10,000

551 RENTS AND LEASES

- MISCELLANEOUS EQUIPMENT RENTAL \$1,000

641 VEHICLES

- 1 - NEW ADDITIONAL TRANSIT VAN (PRV, ARV REPAIR) COST INCLUDES LIGHTING AND SHELVES, CARGO PARTITION AND LICENSING \$44,650

671 EQUIPMENT

- REPLACE AGING TELEMETRY EQUIPMENT AT 4 SITES @ \$24,150 EACH \$96,600
- ON-GOING UPGRADES AT 27 SITES - 50% COMPLETED

803 TRSFR TO GENERAL FD-LANDSCAPE

- ALLOCATION OF LANDSCAPE MAINTENANCE SERVICES PROVIDED BY THE GENERAL FUND \$88,269

804 TRSFR - OPERATIONS ADMIN

- ALLOCATION OF SERVICES PROVIDED BY THE OPERATIONS ADMINISTRATION FUND. \$261,881

805 TRSFR TO G/F BLDG MAINT

- ALLOCATION OF BUILDING MAINTENANCE SERVICES PROVIDED BY THE GENERAL FUND \$20,972

808 TRSFRS TO GIS PGRM (TO ISD FUND 2018-19)

- ALLOCATION OF GEOGRAPHIC INFORMATION SERVICES \$177,216

817 TRSFRS TO GARAGE FUND

- ALLOCATION OF FLEET SERVICES (FUEL AND MAINTENANCE) PROVIDED BY THE GARAGE FUND \$19,930

**ESTIMATE - PAYROLL EXPENSE BY DEPARTMENT**

Thursday, April 18, 2019 4:17 PM

ACCOUNT	TITLE	FTE	REG HRS	OT HRS	HIL HRS	REG PAY	OT PAY	HIL PAY	ADD PAY	SALARY	FBAMT	TOT AMT
501-72	CAPITAL DEVELOPMNT-ENGINEERING											
501-72-0740-05-046	PRINCIPAL ENGINEER	0.40	864			55,079				55,074	26,385	81,459
501-72-0740-05-068	ENGINEERING ASSOCIATE	1.00	688			26,536				26,536	18,434	44,970
501-72-0740-05-084	PROJECT ENGINEER 1	2.50	5,103			234,982				234,983	96,699	331,682
501-72-0740-05-124	ENGINEERING CONST INSPECTOR	0.40	832	24		26,636	1,138		108	27,884	17,401	45,285
501-72-0740-05-175	PROJECT ENGINEER 2	1.00	2,121			111,888				111,888	63,750	175,638
501-72-0740-05-221	SUPPORT SPECIALIST 2	0.50	1,041	8		25,245	296			25,537	11,191	36,728
	ENTERPRISE MGMT & ADMIN	5.80	10,649	32		480,366	1,434		108	481,902	233,860	715,762
	**** DEPARTMENT TOTAL ****	5.80	10,649	32		480,366	1,434		108	481,902	233,860	715,762

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**ESTIMATE - PAYROLL EXPENSE BY DEPARTMENT**

Thursday, April 18, 2019 4:17 PM

ACCOUNT	TITLE	FTE	REG HRS	OT HRS	HIL HRS	REG PAY	OT PAY	HIL PAY	ADD PAY	SALARY	FBAMT	TOT AMT
501-85	PUBLIC WORKS - OPERATIONS											
501-85-0742-05-057	PUBLIC WORKS SUPERVISOR	1.00	2,116	28		82,033	1,784			83,817	50,375	134,192
501-85-0742-05-112	PUBLIC WORKS MANAGER 3	0.50	1,061			58,080				58,079	33,566	91,645
501-85-0742-05-162	WATER DISTRIBUTION LEAD	1.00	2,243	16		76,383	963		270	77,616	53,305	130,921
501-85-0742-05-173	WATER DISTRIBUTION TECHNICIAN	6.00	7,632	92		185,924	3,411		1,710	191,045	142,672	333,717
501-85-0742-05-209	WATER DISTRIBUTION EQUIP OPER	5.00	10,316	522		299,267	23,688		1,350	324,305	199,384	523,689
	WATER SYSTEM DISTRIBUTION	13.50	23,368	658		701,687	29,846		3,330	734,862	479,302	1,214,164
501-85-0743-05-049	PROG COORDINATOR -PUBLIC	1.00	2,083			70,340			3,870	74,210	28,542	102,752
501-85-0743-05-057	PUBLIC WORKS SUPERVISOR	1.00	2,302	3		94,196	184			94,380	48,306	142,686
501-85-0743-05-112	PUBLIC WORKS MANAGER 3	0.50	1,061			58,080				58,081	33,572	91,653
501-85-0743-05-133	WATER CUSTOMER SERVICE TECH	1.00	2,439	32		68,506	1,334		270	70,110	44,312	114,422
501-85-0743-05-162	WATER DISTRIBUTION LEAD	1.00	2,478	53		81,293	2,660		270	84,223	54,828	139,051
501-85-0743-05-178	WATER QUALITY TECHNICIAN	1.00	344			8,527				8,527	7,964	16,491
	WATER SYSTEM QUALITY	5.50	10,707	88		380,942	4,178		4,410	389,531	217,524	607,055
	**** DEPARTMENT TOTAL ****	19.00	34,075	746		1,082,629	34,024		7,740	1,124,393	696,826	1,821,219

**PROPOSE - PAYROLL EXPENSE BY DEPARTMENT**

Thursday, April 18, 2019 4:17 PM

ACCOUNT	TITLE	FTE	REG HRS	OT HRS	HIL HRS	REG PAY	OT PAY	HIL PAY	ADD PAY	SALARY	FBAMT	TOT AMT
501-72	CAPITAL DEVELOPMNT-ENGINEERING											
501-72-0740-05-046	PRINCIPAL ENGINEER	0.40	885			57,940				57,940	30,102	88,042
501-72-0740-05-068	ENGINEERING ASSOCIATE	1.00	2,096			83,700			270	83,970	56,853	140,823
501-72-0740-05-084	PROJECT ENGINEER 1	2.10	4,415			214,071				214,071	112,633	326,704
501-72-0740-05-123	ENGINEERING TECH 2	0.50	1,048	3		35,128	126		60	35,314	24,579	59,893
501-72-0740-05-175	PROJECT ENGINEER 2	2.00	3,912			214,973				214,973	129,928	344,901
501-72-0740-05-221	SUPPORT SPECIALIST 2	0.50	1,048	10		27,632	389			28,021	13,250	41,271
	ENTERPRISE MGMT & ADMIN	6.50	13,404	13		633,444	515		330	634,289	367,345	1,001,634
	**** DEPARTMENT TOTAL ****	6.50	13,404	13		633,444	515		330	634,289	367,345	1,001,634

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**PROPOSE - PAYROLL EXPENSE BY DEPARTMENT**

Thursday, April 18, 2019 4:17 PM

ACCOUNT	TITLE	FTE	REG HRS	OT HRS	HIL HRS	REG PAY	OT PAY	HIL PAY	ADD PAY	SALARY	FBAMT	TOT AMT
501-85	PUBLIC WORKS - OPERATIONS											
501-85-0742-05-057	PUBLIC WORKS SUPERVISOR	1.00	2,136	25		89,201	1,499		350	91,050	58,662	149,712
501-85-0742-05-112	PUBLIC WORKS MANAGER 3	0.50	1,088			61,067				61,067	38,638	99,705
501-85-0742-05-162	WATER DISTRIBUTION LEAD	1.00	2,136	30		78,933	1,663		370	80,966	57,280	138,246
501-85-0742-05-173	WATER DISTRIBUTION TECHNICIAN	6.00	12,816	160		331,044	6,335		1,620	338,999	274,645	613,644
501-85-0742-05-209	WATER DISTRIBUTION EQUIP OPER	5.00	10,840	295		321,868	13,368		1,510	336,746	239,443	576,189
	WATER SYSTEM DISTRIBUTION	13.50	29,016	510		882,113	22,865		3,850	908,828	668,668	1,577,496
501-85-0743-05-049	PROG COORDINATOR -PUBLIC	1.00	2,296	25		82,880	1,353		3,930	88,163	36,584	124,747
501-85-0743-05-057	PUBLIC WORKS SUPERVISOR	1.00	2,336	50		98,015	3,147		350	101,512	55,775	157,287
501-85-0743-05-112	PUBLIC WORKS MANAGER 3	0.50	1,088			61,072				61,072	38,646	99,718
250 501-85-0743-05-133	WATER CUSTOMER SERVICE TECH	1.00	2,256	20		65,594	872		270	66,736	47,759	114,495
501-85-0743-05-162	WATER DISTRIBUTION LEAD	1.00	2,336	125		83,146	6,601		330	90,077	58,645	148,722
501-85-0743-05-178	WATER QUALITY TECHNICIAN	1.00	2,096			54,232			270	54,502	48,668	103,170
	WATER SYSTEM QUALITY	5.50	12,408	220		444,939	11,973		5,150	462,062	286,077	748,139
	**** DEPARTMENT TOTAL ****	19.00	41,424	730		1,327,052	34,838		9,000	1,370,890	954,745	2,325,635