2019-2020 BUDGET PRESENTATION

May 3, 2019
Administration Building Complex
2550 SW Hillsboro Highway
Hillsboro, Oregon
FY 2019-20 BUDGET

Election of Presiding Officer (Chair)
FY 2019-20 BUDGET

- Clean Water Services budget prepared in accordance with:
  - Oregon Budget Law ORS 294.305
    - 294.565
Beautiful clean water for today and tomorrow
THE SERVICES WE PROVIDE

WHAT WE DO

• Water Resource Recovery
• Surface Water Management
• River Flow Management
• Watershed Restoration
Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery
CHALLENGES AHEAD

- Increasing regulatory requirements
- Meeting needs of our growing region
- Taking care of our aging infrastructure
- Changing weather patterns
- Managing risk & vulnerability
INVESTING IN RESILIENCY

- Workforce
- Facilities
- Programs & services to deliver on regional values
- Grey & green infrastructure
- Natural environment
OUR WORKFORCE

Age Bands

<table>
<thead>
<tr>
<th></th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
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<td>Gen X</td>
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<tr>
<td>Baby Boomers I &amp; II</td>
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</table>

Average: 47 years of age  Median: 48 years of age  # of employees (total = 338)

CWS Employees Retirement Eligibility as of 4/18/19

<table>
<thead>
<tr>
<th>Eligible to Retire</th>
<th>Number</th>
<th>Retirement %</th>
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<tbody>
<tr>
<td>Senior Leadership</td>
<td>7</td>
<td>13</td>
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<tr>
<td>Supervisors</td>
<td>9</td>
<td>51</td>
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<tr>
<td>Non-Supervisory</td>
<td>36</td>
<td>274</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52</td>
<td>338</td>
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</table>
THE PLAN FOR A RESILIENT WORKFORCE
INVESTMENTS IN GREY, GREEN & NATURAL SYSTEMS

- Infrastructure repair and replacement
- Protecting and restoring the watershed
- Service optimization
- System expansion
- Resource recovery
FINANCIAL ASSUMPTIONS FY 2019-20

CURRENT REVENUES: $176.4M

- CIP: $112M
- OPERATING & OTHER OUTLAYS: $98.3M
- DEBT: $22M
FY2020 MAJOR RATE ASSUMPTIONS

• Sanitary monthly rate increase (3%)

• Sanitary SDC increase to $5,800 per EDU from $5,650 (2.7%)

• SWM monthly rate increase of $0.50 per ESU per month (5.7%)

• SWM SDC increase to $560 per ESU from $545 (2.7%)

• Average monthly combined increase $1.85 (3.47%)

• Assumed service area growth of 1%
## ESTIMATED COMPARABLE RATES FY 2019-20
(at 800 cubic feet per month usage)

### Inside
- **Clean Water Services**: $9.25
- **Sanitary**: $45.95

### Outside
- **Clean Water Services**: $17.17
- **Sanitary**: $43.81

### City of Salem
- **Clean Water Services**: $11.80
- **Sanitary**: $67.53

### McMinnville
- **Clean Water Services**: $11.80
- **Sanitary**: $67.53

### Vancouver Inside
- **Clean Water Services**: $16.49
- **Sanitary**: $74.72

### Lake Oswego
- **Clean Water Services**: $11.80
- **Sanitary**: $87.06

### Vancouver Outside
- **Clean Water Services**: $30.57
- **Sanitary**: $116.57

### Portland
- **Clean Water Services**: $147.14
- **Sanitary**: $98.86
WASHINGTON COUNTY CURRENT RATES

Clean Water Services (Retail)  Beaverton  Cornelius  Forest Grove  Hillsboro  Sherwood  Tigard  Tualatin

$53.35  $57.69  $66.77  $58.47  $58.74  $63.09  $59.87  $55.18

Regional  Local
10-YEAR RATE HISTORY

10-Year Annual Average (2011-2020) of 4.11%
CURRENT REVENUES

FY 2018-19 Adopted Budget
Current Revenues of $172,695,000

Service Charges $144M (83%)
SDC's $20M (12%)
Misc. Fees and Grants $5.5M (3%)
Interest Earnings $3.2M (2%)

FY 2019-20 Proposed Budget
Current Revenues of $176,369,700

Service Charges $148.6M (84%)
SDC's $19.8M (11%)
Misc Fees & Grants $5.4M (3%)
Build America Bond Subsidy $1.5M (1%)
Interest Earnings $1.1M (1%)
CURRENT EXPENDITURES

FY 2018-19 Adopted Budget
Current Expenditures of $263,874,500

- Capital Improvements: $124.1M (47%)
- Debt Service: $22M (8%)
- Other Fund Outlays: $43.5M (17%)
- Personnel Services: $45.4M (17%)
- Materials & Services: $28.9M (11%)

FY 2019-20 Proposed Budget
Current Expenditures of $232,344,800

- Capital Improvements: $112M (48%)
- Debt Service: $22M (9%)
- Other Fund Outlays: $20.8M (9%)
- Personnel Services: $47.9M (21%)
- Materials & Services: $29.7M (13%)
OPERATING BUDGET

• $77.5 million – 4.4% increase
  ▪ Personnel services 5.3%
    ❖ 16 new positions
  ▪ Materials and services 2.9%
    ❖ Utilities
    ❖ Contracted services
    ❖ In line with inflation
SANITARY CIP FY 2020-2024

![Bar chart showing proposed and projected expenditures for different fiscal years and projects.](attachment:chart.png)
SURFACE WATER MANAGEMENT CIP FY 2020-2024

FY 20 - $5.06M
FY 21 - $5.42M
FY 22 - $4.84M
FY 23 - $4.86M
FY 24 - $5.48M
DEBT SERVICE

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Actual</th>
<th>Budget</th>
<th>Forecast</th>
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<tr>
<td>FY 2014</td>
<td>3.20</td>
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<tr>
<td>FY 2015</td>
<td>3.67</td>
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<td>FY 2016</td>
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<td>FY 2023</td>
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10-YEAR RESERVES & FORECAST

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<td>Capital</td>
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</table>

- 2014 Actuals: $50,000,000
- 2015 Actuals: $100,000,000
- 2016 Actuals: $150,000,000
- 2017 Actuals: $200,000,000
- 2018 Actuals: $250,000,000
- 2019 Budget: $300,000,000
- 2020 Forecast: $350,000,000
- 2021 Forecast: $400,000,000
- 2022 Forecast: $450,000,000
- 2023 Forecast: $500,000,000
2019 – 2020 BUDGET

Public Comments
BREAK
PROGRAMS & SERVICES

Business Services
Regulatory Affairs
Utility Operations & Services
Water Resource Recovery Operations & Services
Watershed Management

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery
OUR INVESTMENTS IN PROGRAMS & SERVICES

$30.7M | Water Resources Recovery 40¢

$18.5M | Utility Operations & Services 24¢

$14.7M | Business Services 19¢

$7.5M | Regulatory Affairs 9¢

$6.2M | Watershed Management 8¢
PROGRAMS & SERVICES DRIVERS

- GROWTH
- REGULATIONS
- ASSET MANAGEMENT
BUSINESS SERVICES

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery

CORNELIUS
BANKS
NORTH
HILLSBORO
FOREST
CORNELIUS
ABC

Barney Reservoir
Tualatin River
Hagg Lake
Tualatin
King City
Tigard
Beaverton
Hillsboro
Gaston
North Plains
Banks

CleanWater
## BUSINESS SERVICES

<table>
<thead>
<tr>
<th>Expenditure Summary</th>
<th>FY 2017 ACTUAL</th>
<th>FY 2018 ACTUAL</th>
<th>FY 2019 REVISED BUDGET</th>
<th>FY 2020 PROPOSED</th>
<th>Change from FY 19 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Departmental Expenses</strong></td>
<td></td>
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<tr>
<td>Personnel Services</td>
<td>$6,588,293</td>
<td>$7,352,973</td>
<td>$8,000,300</td>
<td>$8,800,500</td>
<td>10%</td>
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<td>Materials &amp; Services</td>
<td>5,503,796</td>
<td>5,701,370</td>
<td>6,552,000</td>
<td>5,905,600</td>
<td>- 9.9%</td>
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<tr>
<td>Capital Outlay</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>TOTAL DEPARTMENTAL BUDGET</strong></td>
<td><strong>$12,092,089</strong></td>
<td><strong>$13,054,343</strong></td>
<td><strong>$14,552,300</strong></td>
<td><strong>$14,706,100</strong></td>
<td><strong>1.1%</strong></td>
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<tr>
<td>FTE's</td>
<td>50.00</td>
<td>51.00</td>
<td>50.00</td>
<td>53.00</td>
<td></td>
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</table>
BUSINESS SERVICES 53 FULL TIME EQUIVALENTS (FTE)

Office of the CEO 4 FTE
- Overall District Administration
- - 1 Deputy General Manager

Government & Public Affairs 8 FTE
- Communications
- Education & Outreach
- Public Involvement
- Government Relations
- Legislative Affairs
- +1 Public Involvement Coordinator

Human Resources 5 FTE
- Recruitment
- Employee & Labor Relations
- Class & Compensation
- Organizational Development

Legal Services 3 FTE
- Legal Advice
- Contracts
- Real Property Acquisitions

Finance & Accounting 15 FTE
- Financial Planning
- Financial Accounting & Reporting
- Utility Billing & Collections
- Procurements
- +1 Accounting Specialist

Risk & Benefits 2 FTE
- Risk Analysis
- Loss Prevention
- Insurance Program Management
- Employee Benefits Management

Digital Solutions 14 FTE
- Technology Vision & Direction
- Infrastructure & Software Management
- +1 Business Practice Leader 2
- +1 Data Management Analyst
- -1 Information Systems Manager

Business Strategy & Performance Management 2 FTE
- Strategic Initiatives
- Business Improvement Development & Training
- +1 Business Practice Leader 1

New FTE | Mid Year | Transfer | Eliminated
FINANCE & ACCOUNTING

• Reorganization of FTE within group
  ▪ Addition of 1 Accounting Specialist
  ▪ Reclass of 1 Senior Accountant to Controller

• Customer Information System (CIS) Utility Billing software selection and implementation project
BUSINESS STRATEGY & PERFORMANCE MANAGEMENT

- Performance Excellence
  - District Strategic Approach & Plan
  - Key Outcome Indicators
  - Performance Management Software
  - Community Dashboard
  - Utility Analysis and Improvement Methodology
    - Business Process Improvement and Lean Six Sigma
BUSINESS STRATEGY

Innovation & Resource Recovery
Organizational Excellence
Integrated Water Resource Management & Resilient Watersheds
Contributing to the Region’s Environmental & Economic Vitality
Catalyzing Transformational Partnerships

Outcome

Neighborhood Livability and Social Health
Fort Collins provides a high quality built environment and supports quality, diverse neighborhoods.

Culture and Recreation
Fort Collins provides diverse cultural and recreational amenities.

Economic Health
Fort Collins has a healthy, sustainable economy, reflecting community values.

Environmental Health
Fort Collins promotes, protects and enhances a healthy and sustainable environment.

Safe Community
Fort Collins provides a safe place to live, work, learn and play.

Transportation
Fort Collins provides safe and reliable multi-modal travel to, from, and throughout the City.

High Performing Government
Fort Collins exemplifies an efficient, effective, transparent, responsive and collaborative city government.

About Performance Measurement & Community Dashboard
The City of Fort Collins is a data-driven organization with a strong commitment to transparency. Our open budgeting process is called Budgeting for
BUSINESS STRATEGY & PERFORMANCE MANAGEMENT

• Leading Water & Wastewater Utility Innovation Project
• Utility of the Future
• Effective Utility Management
• Leading Utilities of the World
DIGITAL SOLUTIONS

• Creation of Digital Solutions
  - Develop business intelligence for quantitative decision support
  - Deploy IoT technology and real time control to maximize existing capacity, performance and asset life.
  - Optimize basin planning and risk management through Technology Integration
  - Maintain reliable and up to date foundational systems and infrastructure
LEGAL SERVICES

• Advice and assistance on:
  - Contracts and Procurement
  - Real Property Transactions
  - Environmental Law
  - Municipal Law
  - Regulatory and Risk
  - Management of outside legal services
  - Day-to-day issues
LEGAL PROJECTS

- New building purchase & lease back
- Revised purchasing rules
- Cedar Mill Creek flood remediation/governance
- TVWD customer information system consulting contract
LEGAL BUSINESS PROCESS IMPROVEMENTS

- Decentralized model using templates
- Electronic signatures
- Contract tracking in legal review queue
GOVERNMENT & PUBLIC AFFAIRS

- Leadership and Legislative Engagement
  - Federal and state legislative strategies
  - Board and Clean Water Advisory Commission Liaison
- Public Involvement, Stakeholder Engagement and Policy Support
  - Tualatin Basin Joint Project
    - Public Involvement support: 1 FTE, limited duration
  - Design and Construction Standards
  - Capital Projects
GOVERNMENT & PUBLIC AFFAIRS

Marketing Our Value

• Celebrating 50th Anniversary February 3, 2020
• Behavior Change: Annual Public Awareness Campaign
• Customer Success: Billing Information Technical Committee
• External/Internal Strategic Communications
  ▪ Online College of Clean Water/Learning Management System
  ▪ Passport Program
GOVERNMENT & PUBLIC AFFAIRS

Leverage educational partnerships and align programs with Next Generation Science Standards

• Experiential Learning at Fernhill, Jackson Bottom Wetlands, and through Resource Recovery Facility Tours

• Teacher training (externships) and curriculum alignment support

• Career Technical Education (CTE) support
RISK & BENEFITS

• Insurance Program Management
  ▪ Property, Livability, Worker’s Compensation, Captive
    ❖ Market increases
    ❖ Value increases (Property)
    ❖ Exposure increases (Liability)

• Workload & Resiliency
  ▪ Personnel Expenses

• Hazard Mitigation
  ▪ Flood response, earthquake
## Human Resources Employee Turnover Data

**April 18, 2019**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>FTEs</th>
<th>Resignation</th>
<th>Retirement</th>
<th>Termination</th>
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<td>FY15</td>
<td>319.55</td>
<td>10</td>
<td>12</td>
<td>0</td>
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<tr>
<td>FY16</td>
<td>329.55</td>
<td>9</td>
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<td>FY17</td>
<td>338</td>
<td>8</td>
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<tr>
<td>FY18</td>
<td>351</td>
<td>19</td>
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<tr>
<td>FY19</td>
<td>356</td>
<td>6</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

- **FY15** - 6.88%
- **FY16** - 6.07%
- **FY17** - 6.71%
- **FY18** - 10.54%
- **FY19** - 4.21%
CREATING A RESILIENT WORKFORCE
BRINGING OUT THE BEST IN EACH OTHER

• Workforce Initiatives
  ▪ Attract, recruit and retain
    ❖ Refine marketing materials
    ❖ Build partnerships
    ❖ Classification and compensation study
    ❖ Professional development
    ❖ Succession planning

• Workplace Culture
  ▪ Diversity, equity, inclusion and principles of respect
  ▪ Passport learning opportunities
  ▪ Employee recognition
  ▪ Performance excellence

• Workplace Efficiencies
  ▪ Human Resource Management System
    ❖ Employee information database
    ❖ Employee and management self-service
    ❖ Timekeeping and attendance
    ❖ Onboarding
    ❖ Analytics
    ❖ Performance evaluations
    ❖ Benefits
BUSINESS SERVICES BY THE NUMBERS

- River Rangers educated 3,000 students & 6,000 adults
- 35% of employees have a professional certification or license
- 458 legal queue items processed since July 1, 2018
- 400+ people attended public events at Fernhill Wetlands
- 2,500 people tour a resource recovery facility
- 99% systems uptime
- 200 retailers & Amazon sell Clean Water Grow
- AAA/Aa1 CWS continues to maintain strong credit ratings
- 35% of employees have a professional certification or license
- 458 legal queue items processed since July 1, 2018
- 400+ people attended public events at Fernhill Wetlands
- 2,500 people tour a resource recovery facility
- 99% systems uptime
- 200 retailers & Amazon sell Clean Water Grow
- AAA/Aa1 CWS continues to maintain strong credit ratings
REGULATORY AFFAIRS

Catalyzing Transformational Partnerships

Integrated Water Resource Management & Resilient Watersheds

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery

Catalyzing Transformational Partnerships

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Innovation & Resource Recovery
### REGULATORY AFFAIRS

<table>
<thead>
<tr>
<th>Expenditure Summary</th>
<th>FY 2017 ACTUAL</th>
<th>FY 2018 ACTUAL</th>
<th>FY 2019 REVISED BUDGET</th>
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<tbody>
<tr>
<td><strong>Departmental Expenses</strong></td>
<td></td>
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<tr>
<td>Personnel Services</td>
<td>$4,107,363</td>
<td>$4,563,421</td>
<td>$5,222,300</td>
<td>$5,172,900</td>
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<td>Materials &amp; Services</td>
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<td>1,611,295</td>
<td>2,415,800</td>
<td>2,293,100</td>
<td>- 5.1%</td>
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<td>Capital Outlay</td>
<td>89,044</td>
<td>205,675</td>
<td>-</td>
<td>-</td>
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<td><strong>TOTAL DEPARTMENTAL BUDGET</strong></td>
<td>$5,670,825</td>
<td>$6,380,391</td>
<td>$7,638,100</td>
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<td>- 2.3%</td>
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<tr>
<td>FTE's</td>
<td>33.00</td>
<td>34.00</td>
<td>35.00</td>
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</table>
REGULATORY AFFAIRS 35 FTE

Administration
9 FTE

• Compliance with permits
• Flow and temperature management
• Research and innovation
• WQ and stormwater modeling
• -1 Principal Engineer
• -1 Water Resources Analyst

Environmental Services
8 FTE

• Industrial wastewater compliance
• Industrial stormwater compliance
• Complaint response & IDDEs
• Pollution prevention
• +1 Environmental Services Supervisor

Laboratory Services
18 FTE

• Compliance demonstration analysis
• Data to support efficient operations
• Research support
• Field monitoring for environmental health
• Stormwater quality
• +1 Laboratory Specialist

New FTE  Mid Year  Transfer  Eliminated
COMPLIANCE SERVICES

- Initiated regulatory updates including updated Total Maximum Daily Load (TMDL)
- Submitted mercury variance
- Created a modeling team with initial focus on temperature management and nutrient and algal impacts
- Maintained permit compliance under rapid growth
RESEARCH & INNOVATION

• Managed over 14 research studies and 18 directed innovation projects

• Developed procedures for successful operation of Fernhill wetland and documented compliance

• Purchased building and initiated design of new Clean Water Research & Innovation Center @ Fernhill

• Advanced acceptance of potable reuse through successful use of Pure Water Wagon
ENVIRONMENTAL SERVICES

• Instituted field collection of data

• Updated permitting and inspection and procedures to focus on outcomes

• Developed benchmarking and dash-boarding for environmental inspections

• Effectively conducted compliance oversight of both industrial sources and industrial stormwater dischargers

Catalyzing Transformational Partnerships

Integrated Water Resource Management & Resilient Watersheds

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery
LABORATORY SERVICES

- Created on-site direct support at Durham and Rock Creek
- Developed procedures for measurement of complex organic compounds and volatile acids
- Modernized equipment to improve efficiency
- Initiated automated data management and reporting processes
- Developed laboratory equipment asset management system
PROCESS IMPROVEMENT

• Reduced the number of management levels in the laboratory and environmental services to improve productivity
• Created an incident response team
• Coupled permit requirements with efficient treatment plant operations
• Promoted innovative application of watershed permit
REGULATORY AFFAIRS BY THE NUMBERS

- 6 State Permits managed with full Compliance & 4,000 hours technical support
- 372 inspections on industrial facilities providing 3.3 billion gallons of wastewater
- 177 EcoBiz certified businesses
- 83 water quality investigations
- Over 18,500 individual analyses
- 14 research projects & 18 operations projects
UTILITY OPERATIONS & SERVICES

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery

Hagg Lake
Tualatin River
Barney Reservoir
ABC BUILDING
HILLSBORO
MATERIAL PROCESSING YARD
# Utility Operations & Services

## Expenditure Summary

<table>
<thead>
<tr>
<th>Expenditure Summary</th>
<th>FY 2017 ACTUAL</th>
<th>FY 2018 ACTUAL</th>
<th>FY 2019 REVISED BUDGET</th>
<th>FY 2020 PROPOSED</th>
<th>Change from FY 19 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental Expenses</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Personnel Services</td>
<td>$9,820,426</td>
<td>$10,701,280</td>
<td>$13,256,100</td>
<td>$13,927,200</td>
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<td>Materials &amp; Services</td>
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<td>2,403,707</td>
<td>3,491,000</td>
<td>4,548,400</td>
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<tr>
<td>Capital Outlay</td>
<td>186,516</td>
<td>141,988</td>
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<td><strong>TOTAL DEPARTMENTAL BUDGET</strong></td>
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<td><strong>$13,246,975</strong></td>
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<td>118.00</td>
<td>120.00</td>
<td>124.00</td>
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</tr>
</tbody>
</table>
## Utility Operations & Services

**Overview:** 124 FTE

### Administration
- 5 FTE
  - Management
  - **+1 Building & Facilities Services Manager**

### Conveyance Engineering Services
- 18 FTE
  - Design & Construction Administration of Sanitary & SWM Conveyance Projects
  - Sanitary Rehabilitation Projects
  - System Modelling
  - Master Planning
  - Capital Improvement Prioritization with Co-Implementers

### Development Services & System Planning Services
- 26 FTE
  - Development Services
  - Environmental Plan Review
  - Development Plan Review, Permitting & Inspection
  - Erosion Control Inspection
  - GIS & Mapping Services
  - Design & Construction Standards
  - Systems Planning
  - Co-Implementer Oversight
  - Private Water Quality Facility Inspection Program
  - **+1 GIS Specialist**
  - **+1 Water Resources Program Manager**

### Field Operations Division
- 75 FTE
  - Field Ops Admin
  - System Repair
  - System Maintenance
  - TV/Flow Monitoring
  - Local Repair & Construction
  - SWM Surface Facility Maintenance
  - **+1 Field Construction Maintenance Tech 2**

### Administrative Facilities Management Division
- 0 FTE
  - Administration Building Complex
  - Field Operations
  - Materials Handling Yard
  - Tualatin River Farm
  - Clean Water Research & Innovation Center

### New FTE
- **-1 Building & Facilities Services Manager**

### Mid Year
- **-1 Field Construction Maintenance Tech 2**

### Transfer

### Eliminated
UTILITY OPERATIONS & SERVICES

>1,100 Permits Issued

- 40% increase in # of facilities
- Interceptors > 40 years old
- Local Systems 100+ years old

Stormwater
CONTINUING GROWTH

Available Lot Supply

Rate of Growth

NUMBER OF LOTS


0 1000 2000 3000 4000 5000 6000 7000

Approved Lots

Building Permits

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery
Implementation of Hydromodification Base Strategy

- **Training on Updated Standards**
  - Co-Implementers
  - Engineers & Designers
- **Web & Informational Tools**
- **Fall 2019 Amendments to Standards**
REGIONAL SUB-BASIN STRATEGIES

- Planning for Expansion Areas
  - Chicken/Cedar Creek
- Supporting Major Transportation Improvements
  - 198th Ave at Butternut Creek
- Implementing Pilot Projects in Rapid Growth Areas
  - Abbey & Bethany Creeks
SYSTEM EXPANSION

• South County Investments ($40M)
  ▪ Upper Tualatin & Beef Bend Interceptors
  ▪ Brookman Trunk Evaluation
• North Hillsboro Industrial Area ($8.5M)
  ▪ Waibel Creek Trunk
  ▪ North Hillsboro Pump Station
• Local Improvement & Reimbursement Districts
• Future Large Diameter Upgrades
REHABILITATION & REPAIR

• Inflow/Infiltration (I&I) Abatement ($7.9M)
  ▪ Forest Grove - 19th/Maple
  ▪ Hillsboro – 1911/1936 District
  ▪ Southwood I&I and Stormwater Improvements

• Exposed Sewer Mains Risk Reduction
  ▪ Canyon Creek Sewer Improvements Evaluation

• Storm System Asset Management
  ▪ Aloha Storm Drainage Improvements
COLLABORATION

Cedar Mill/North Johnson

- Tualatin Watershed Enhancement Collaborative
- Murray/Walker Sewer & Stream Relocation
- Jenkins Road Sewer & Resource Enhancement
NEW BUILDINGS AND IMPROVEMENTS

Innovation & Resource Recovery
Organizational Excellence
Integrated Water Resource Management & Resilient Watersheds
Catalyzing Transformational Partnerships
Contributing to the Region's Environmental & Economic Vitality

• Clean Water Research & Innovation Center
• Tualatin River Farm
• Springer Building Programming
• Field Operations Seismic Retrofits
• ABC Facility Improvements
INVESTING IN EFFICIENCY

- TV Van
- Flow Monitoring Enhancements
- Automated Vehicle Location (AVL) Improvements
- Recycler Combination Cleaner
BUSINESS PROCESS IMPROVEMENTS

• In-field Data Entry
BUSINESS PROCESS IMPROVEMENTS

- Real Time Work Tracking

**Storm TV Inspection**
- 2019

**Storm Line Cleaning**
- 2019

Foot in Thousands

- Q1
- Q2
- Q3
- Q4

Target
DATA-DRIVEN DECISIONS

● Fleet Management

- Fleet Vehicles
- Fleet Barcodes On Vehicles
- iPads
- GPS Data OBD2 Port
- Fueling Data OBD2 Port
- Lucity Fleet Matrix
- Lucity Fleet
- Lucity Fleet KPI Dashboard
- Lucity Fleet Syr Live CIP
- Lucity Fleet Matrix
- Lucity Fleet
- Lucity Fleet KPI Dashboard
- Lucity Fleet Syr Live CIP

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region's Environmental & Economic Vitality
Innovation & Resource Recovery
DATA-DRIVEN DECISIONS

- Fleet Management

Fleet Coordinator Notes: Last PM Service, vendor indicated that the motor could potentially have internal issues developing.
1,108 permits issued

11,442 catch basins cleaned

14,200 erosion control inspections

80 acres of protected and enhanced vegetated corridor

13,865 miles of streets swept

$43.9M invested in conveyance projects

9,680 feet of new and rehabilitated pipe constructed

143 manholes rehabilitated

1,378,999 feet of sanitary and SWM lines cleaned
Catalyzing Transformational Partnerships

Integrated Water Resource Management & Resilient Watersheds

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery

WATER RESOURCE RECOVERY OPERATIONS & SERVICES
“Wastewater treatment plants are NOT waste disposal facilities, but rather water resource recovery facilities that produce clean water, recover nutrients (such as phosphorus and nitrogen), and have the potential to reduce the nation’s dependence on fossil fuel through the production and use or renewable energy.”

WEF 2011
Resource Recovery Roadmap
# WATER RESOURCE RECOVERY OPERATIONS & SERVICES

<table>
<thead>
<tr>
<th>Expenditure Summary</th>
<th>FY 2017 ACTUAL</th>
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<tbody>
<tr>
<td>Departmental Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel Services</td>
<td>$11,487,734</td>
<td>$12,442,702</td>
<td>$15,787,300</td>
<td>$17,050,800</td>
<td>8%</td>
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<tr>
<td>Materials &amp; Services</td>
<td>13,153,247</td>
<td>13,196,817</td>
<td>13,238,300</td>
<td>13,685,900</td>
<td>3.4%</td>
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<tr>
<td>Capital Outlay</td>
<td>49,295</td>
<td>75,066</td>
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<tr>
<td><strong>TOTAL DEPARTMENTAL BUDGET</strong></td>
<td><strong>$24,690,276</strong></td>
<td><strong>$25,714,585</strong></td>
<td><strong>$29,025,600</strong></td>
<td><strong>$30,736,700</strong></td>
<td><strong>5.9%</strong></td>
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<tr>
<td>FTE's</td>
<td>122.00</td>
<td>127.00</td>
<td>129.00</td>
<td>136.00</td>
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</tbody>
</table>
> 12,000 people per year moving to Washington County

Disinfection byproducts, winter nitrification, copper

Facility age > 40 years
WATER RESOURCE RECOVERY OPERATIONS & SERVICES

136 FTE

Administration
12 FTE
- Management
- Business Opportunities

Durham Division
32 FTE
- Operations
- Mechanical Maintenance
- E&I Maintenance

Rock Creek Division
33 FTE
- Operations
- Mechanical Maintenance
- E&I Maintenance

Pump Stations
8 FTE
- Operations
- Mechanical Maintenance
- E&I Maintenance

Hillsboro/Forest Grove Division
11 FTE
- Operations
- Mechanical Maintenance
- E&I Maintenance

Treatment Plant Services
18 FTE
- Project Engineering
- Technology Development & Research

Biosolids, Reuse & Fernhill
2 FTE
- Biosolids
- Recycled Water
- Natural Treatment System

Technical Plant Services
20 FTE
- Support Engineering
- Controls Systems
- Asset Management
DEPARTMENTAL ORGANIZATION

• Focus decision-making responsibility within the operating programs
• Strengthen strategic planning and capital project delivery
• Improve delivery of technical support services
• Encourage collaboration across work groups

Innovation & Resource Recovery
Organizational Excellence
Contribution to the Region’s Environmental & Economic Vitality

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Innovation & Resource Recovery
WATER RESOURCE RECOVERY OPERATIONS & SERVICES
AS-IS ORGANIZATION

- Wastewater Treatment Department
  - Administration
    - Treatment Plant Services
    - Operations
    - Maintenance
    - Electrical, Instrumentation & Controls
WATER RESOURCE RECOVERY OPERATIONS & SERVICES

PROPOSED ORGANIZATION

136 FTE

Treatment Plant Services

- +1 Construction Coordinator

- Durham
  - +1 Operations Analyst 2

- Rock Creek
  - +1 Wastewater Plant Operator 2

- Hillsboro Forest Grove
  - +1 Plant Maintenance Tech 2

Administration

- +1 Plant Superintendent 2

Technical Plant Services

- +1 Engineering Tech 3
- +1 Principal Engineer

- Pump Stations
  - +1 Plant Maintenance Tech 2

- Biosolids, Reuse & Fernhill

Legend:
- New FTE
- Mid Year
- Transfer
- Eliminated
NEW STAFFING REQUESTS

- Program Reorganization
  - Superintendent 2

- Program Growth
  - Principal Engineer Instrumentation & Control
  - Construction Coordinator
  - Plant Maintenance Technician 2
  - Wastewater Plant Operator 2

- Program Improvement
  - Operations Analyst 2
  - Engineering Technician 3
PUMP STATIONS PROGRAM

• North Hillsboro Pump Station
  - Initial 6.3 million gallons a day (mgd) capacity, expandable to 11.5 mgd ($9.3M)
  - Serves North Hillsboro Industrial Urban Renewal District, Jackson School East, Helvetia & Jacobson areas
  - Collaborative planning with Hillsboro eliminated the need for an additional pump station in the Jacobson area
  - Partnered with Hillsboro to accelerate project delivery in 18 months
DURHAM PROGRAM

• Durham Secondary Expansion
  ▪ Adds fifth secondary treatment process train, expands capacity by 25 mgd ($28.2M)
  ▪ First new secondary treatment process train since 2000
  ▪ Increase ability to meet new, stricter winter nitrification requirements
  ▪ Incorporates state-of-the-art advances in biological phosphorus removal

Innovation & Resource Recovery
Organizational Excellence
Integrated Water Resource Management & Resilient Watersheds
Contributing to the Region’s Environmental & Economic Vitality
Catalyzing Transformational Partnerships
Innovation & Resource Recovery
ROCK CREEK/DURHAM PROGRAMS

- Disinfection Byproducts Evaluation
  - Disinfection byproducts are contaminants of emerging concern
  - Partnering with Regulatory Affairs and the Laboratory to find an alternative to ultraviolet (UV) disinfection
  - Study at Rock Creek evaluating alternative methods for disinfection ($100,000)
  - Pilot at Durham evaluating chloramine disinfection ($75,000)
BIOSOLIDS, REUSE AND FERNHILL

- Thomas Dairy Reuse
  - Irrigate 20 acres of wet prairie, 0.1 mgd
  - Expansion of Class A urban recycle water program
  - In-house construction with Field Operations and Durham crews
  - Collaboration with Regulatory Affairs & DEQ to change regulations to allow reuse on jurisdictional wetlands
HILLSBORO/FOREST GROVE PROGRAM

- Forest Grove Outfall Replacement
  - 1,800 feet of 42-inch pipeline from the Fernhill Natural Treatment System to the Tualatin River ($2.3M)
  - Innovative trenchless technology used to restore the pipeline in place
  - Originally installed in the 1950s, renewed for another 50 years useful life
  - Interdepartmental coordination with the Army Corps of Engineers reduced permitting time by nearly 6 months
BUSINESS PROCESS IMPROVEMENTS

• Durham and Rock Creek Maintenance Shops
  ▪ Part of Kaizen system for continual improvement
  ▪ Implemented in conjunction with projects to upgrade shops
  ▪ Improves efficiency, service, and safety
BUSINESS PROCESS IMPROVEMENTS

• Maintenance Management Information System (MMIS) Migration to Lucity
  ▪ Upgrades from DOS-based to Windows-based platform
  ▪ Next step in standardizing on Lucity District-wide
  ▪ Comprehensive suite of solutions
  ▪ Integrates asset management software
BUSINESS PROCESS IMPROVEMENTS

- FOG (Fats, Oils, and Grease) Feed Automation
  - FOG increases gas production & power generation by 50%
  - FOG tipping fee revenue of $350,000 per year
  - Convert automation from flow control to gas production
  - Expect 20% increase in FOG feed
WATER RESOURCE RECOVERY OPERATIONS & SERVICES
BY THE NUMBERS

Last year we transformed almost 24+ billion gallons of used water into...

- 24+ billion gallons of clean water
- 207 million gallons used for irrigation
- 11,000+ dry tons of biosolids/day
- 19 million kilowatts of renewable energy
- 755 tons of crystal green fertilizer

AWARDS:
- 2 Platinum
- 1 Gold
- 1 Silver
WATERSHED MANAGEMENT

Catalyzing Transformational Partnerships

Integrated Water Resource Management & Resilient Watersheds

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery
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</tr>
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<tbody>
<tr>
<td>Personnel Services</td>
<td>$1,766,674</td>
<td>$1,901,389</td>
<td>$3,178,100</td>
<td>$2,902,700</td>
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<td>2,472,932</td>
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<td>Capital Outlay</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>TOTAL DEPARTMENTAL BUDGET</td>
<td>$4,391,880</td>
<td>$4,374,321</td>
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<td>20.00</td>
<td>21.00</td>
<td>21.00</td>
<td>23.00</td>
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</table>
WATERSHED MANAGEMENT

23 FTE

Administration
2.25 FTE

• Management
• Business Opportunities

Operations
20.75 FTE

• Water Resources Infrastructure
• Strategic Watershed Assessment & Planning
• Community Watershed Action

+1 Water Resources Analyst
+1 Project Manager 1
WATERSHED MANAGEMENT

• Water Resources Infrastructure
  ▪ Tualatin Basin Water Supply
  ▪ Stream & Wetland Enhancement

• Strategic Watershed Assessment & Planning
  ▪ Regional Restoration Collaboration
  ▪ Healthy Streams Strategy

• Community Watershed Action
  ▪ Tree for All
  ▪ Stream Stewardship
LANDSCAPE CONSERVATION APPROACH

Recreation & Human Health

Watershed Resilience

Sustainable Economies

Cultural Heritage and Local Sense of Place

Connected Habitat & Biodiversity

One Water

Catalyzing Transformational Partnerships

Integrated Water Resource Management & Resilient Watersheds

Organizational Excellence

Contributing to the Region’s Environmental & Economic Vitality

Innovation & Resource Recovery
WATER RESOURCES INFRASTRUCTURE

• Tualatin Joint Project ($9.5M)
  ▪ Engineering Preferred Option Decision Process
  ▪ Feasibility Level Design
  ▪ Environmental and Cultural Review
  ▪ Land Acquisition and Relocation Process
    ❖ Stimson Lumber and Residential Properties
NEW BUILDING

- Tualatin River Farm
  - Ecological Restoration Demonstration
  - Sustainable Ag Practices Demonstration
  - Clean Water Grow Demonstration
  - Native Plant Distribution Center
WATER RESOURCES INFRASTRUCTURE

Chicken Creek

Ash to Main - Fanno Creek
STRATEGIC WATERSHED ASSESSMENT & PLANNING

- Regional restoration collaboration
- Tualatin Conservation Partners
- Integrated sub-basin strategies
BUSINESS PROCESS IMPROVEMENT

- Green Infrastructure Asset Management Tools
  - Data integration
  - Real-time monitoring
  - Drone technology

- Transformative Partnerships Training
COMMUNITY WATERSHED ACTION

Catalyzing Transformational Partnerships
Integrated Water Resource Management & Resilient Watersheds
Organizational Excellence
Contributing to the Region’s Environmental & Economic Vitality
Innovation & Resource Recovery
WATERSHED DEPARTMENT BY THE NUMBERS

- **28,000** acres managed for watershed health
- **40,000** volunteers + **92,000** hours planting plants
- **141** river miles restored
- **40+** partners for Tree for All
- **10 million** native plants planted
2019 – 2020 BUDGET

Public Comments
## FINANCIAL SUMMARY

### TOTAL OF ALL FUNDS
**FISCAL YEAR 2019-2020**

<table>
<thead>
<tr>
<th>Description</th>
<th>Proposed Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINANCIAL SUMMARY - RESOURCES</strong></td>
<td></td>
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<tr>
<td>Beginning Fund Balance/Net Working Capital</td>
<td>270,405,800</td>
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<tr>
<td>Fees, Licenses, Permits, Fines, Assessments &amp; Other Service Charges</td>
<td>170,373,800</td>
</tr>
<tr>
<td>Federal, State and All Other Grants, Gifts, Allocations &amp; Donations</td>
<td>172,100</td>
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<tr>
<td>Interfund Transfers / Internal Service Reimbursements</td>
<td>127,950,400</td>
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<tr>
<td>All Other Resources Except Current Year Property Taxes</td>
<td>5,823,800</td>
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<tr>
<td><strong>Total Resources</strong></td>
<td>574,725,900</td>
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</table>

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
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<tbody>
<tr>
<td><strong>FINANCIAL SUMMARY - REQUIREMENTS</strong></td>
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</tr>
<tr>
<td>Business Services Department</td>
<td>14,706,100</td>
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<tr>
<td>Regulatory Affairs Department</td>
<td>7,466,000</td>
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<tr>
<td>Utility Operations &amp; Services Systems Department</td>
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<td>Water Resource Recovery Department</td>
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<td>Watershed Management Department</td>
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<tr>
<td>Capital Outlay</td>
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<td>Other Fund Outlays</td>
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<td>Contingencies</td>
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<tr>
<td>Unappropriated Ending Balance and Reserved for Future Expenditure</td>
<td>184,360,300</td>
</tr>
<tr>
<td><strong>Total Requirements</strong></td>
<td>574,725,900</td>
</tr>
</tbody>
</table>

Approval Request                                                              | 574,725,900     |
Including Unappropriated EFB of Requirements of                               | 390,365,600     |

Unappropriated Ending Balance and Reserved for Future Expenditure
MOTION TO APPROVE
FY 2019-20 BUDGET

Motion to approve the Proposed FY 2019-20 Budget in the amount of $574,725,900 as presented in the FY 2019-20 Proposed Budget document, and recommend it for adoption by the Board of Directors.