

# **Water & Resource Recovery Center**

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## WATER & RESOURCE RECOVERY CENTER DEPARTMENT

Budget Highlights	FY 2019 Actual	FY 2020 Budget	FY 2021 Requested	% Change From FY 2020 Budget
<u>Expenses</u>				
Employee Expense	1,434,346	1,448,236	1,469,123	1.4 %
Supplies and Services	3,040,849	2,963,561	3,272,671	10.4 %
Payment to Construction Fund	845,000	458,758	900,000	96.2 %
Machinery and Equipment	19,439	128,275	28,380	(77.9)%
Engineering - Sewer Administration	159,611	280,899	251,566	(10.4)%
Public Works Sewer Maintenance Charges	807,281	758,438	668,693	(11.8)%
Administrative Overhead Recharge	1,376,688	1,444,114	1,539,391	6.6 %
Payment in Lieu of Taxes	142,884	142,884	142,884	— %
Debt Service	5,233,483	5,229,832	5,336,494	2.0 %
Total Expenses	13,059,581	12,854,997	13,609,202	5.9 %
<u>Resources</u>				
Operating Revenue	12,880,086	12,905,459	13,809,029	7.0 %
Total Resources	12,880,086	12,905,459	13,809,029	7.0 %
Net Operating Surplus (Deficit)	(179,495)	50,462	199,827	149,365
<b>Personnel - Authorized FTE</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>	
<b>Sanitary User Fee Rate Increase</b>	<b>3.00%</b>	<b>4.50%</b>	<b>5.00%</b>	
<b>Revenue 1% Rate Increase Generates</b>			<b>\$ 104,326</b>	

### Improvement Package Summary

#### **1 of 2**

This improvement request is for an arc flash risk assessment of 17 lift stations (including 181 individual devices) and the WRRC Facility (including 710 individual devices). The assessment consists of the following 3 phases: Phase 1 - Data collection, Phase 2 - Engineering Analysis, Phase 3 - Labels, Label Deployment, and Training. OSHA requires employers to perform a PPE hazard assessment to determine necessary PPE. This assessment satisfies OSHA and NFPA 70E requirements for the assessment of workplace electrical safety. The assessment provides information and training necessary to maintain adequate protection for employees working on or around electrical components.

Related Cost:	<u>\$71,500</u>	Sanitary User Fee	Non-Recurring	Recommend - Yes
Sanitary User Fee Impact	0.71%			

Activity: Plant Operations

#### **2 of 2**

This improvement request is for four tablets with data service and one smartphone with voice and data service. The improvement will supply two Equipment Mechanics with one tablet each, one tablet for Operations staff, and one tablet and one smartphone for the Maintenance Supervisor. This will improve efficiency and connectivity by allowing staff to directly input work order details into the asset management system. Staff will also use equipment to research and source parts, communicate with staff and vendors. The improvement supports a data driven asset and facility management system.

Related Cost:	\$4,060	Sanitary User Fee	Non-Recurring	<b>Recommend - Yes</b>
Related Cost:	\$1,824	Sanitary User Fee	Recurring	
Total Cost:	<u><u>\$5,884</u></u>			
Sanitary User Fee Impact		0.06%		
Activity: Plant Operations				

### **Significant Line Items**

#### **Employee Expense**

1. FY 2021 employee expense reflects a 1.5% wage package increase.
2. The Iowa Public Employee Retirement System (IPERS) City contribution of 9.44% is unchanged from FY 2020. The employee contribution of 6.29% is unchanged from FY 2020.
3. The City portion of health insurance expense is increased from \$921 in FY 2020 to \$1,013 in FY 2021 per month per contract which results in an annual cost increase of \$21,900 or 11.26%.
4. Overtime is unchanged from \$59,350 in FY 2020 to \$59,350 in FY 2021. FY 2019 actual was \$96,032.
5. Five-Year Retiree Sick leave payout increased from \$11,225 in FY 2020 to \$15,211 in FY 2021.
6. 50% Sick Leave Payout increased from \$0 in FY 2020 to \$3,740 in FY 2021 based on FY 2020 actual to-date. Effective July 1, 2019, employees over the sick leave cap can convert 50% of the sick leave over the cap to vacation or be paid out.

#### **Supplies & Services**

7. Property Insurance decreased from \$79,951 in FY 2020 to \$74,466 in FY 2021 based on FY 2019 actual plus 5%.
8. Sales Tax increased from \$324,762 in FY 2020 to \$345,618 in FY 2021 based on increased consumption. This expense is directly offset by sales tax revenue.
9. Electricity Utility Expense increased from \$424,777 in FY 2020 to \$579,001 in FY 2021 based on FY 2019 actual \$536,112 of plus 8%. Electrical expense for the W&RRC plant in FY 2021 is \$270,181, which includes decreased microturbine output and \$66,957 for the estimated BioResoure Development electrical usage which will be reimbursed on a monthly basis. The lift station electrical expense in FY 2021 is estimated to be \$241,863..
10. Gas Utility Expense increased from \$87,710 in FY 2020 to \$109,180 in FY 2021 based on FY 2019 actual.
11. Property Maintenance increased from \$66,350 in FY 2020 to \$66,831 in FY 2021 based on FY 2019 actual.
12. Machinery and Equipment Maintenance increased from \$309,625 in FY 2020 to \$317,935 in FY 2021. FY 2019 actual was \$333,007. This results from increasing digester cleaning (+\$40,000) based on FY 2020 year-to-date actual costs, increasing pump, grinder, and mixer maintenance (+ \$24,000) due to more frequent repair of equipment due to heavy wear from grit from I&I, and increased primary and final clarifier maintenance due to increased grit from I&I (+\$10,000). There is

a cost savings in this line item of \$50,000 due to the purchase of a pump trailer through an FY20 CIP. This line item represents samplers and lab equipment maintenance (\$3,174), digester cleaning (\$100,000), pump, grinder and mixer maintenance (\$60,000), primary and final clarifier maintenance (\$20,000), boiler treatment (\$6,000), siloxane media replacement (\$31,255), hydrogen sulfide media replacement (\$97,178), ultraviolet lamp replacement (\$25,500), water based parts washer maintenance (\$3,328), citric acid (\$1,000), backflow testing (\$2,500), monthly jetting of digester heat exchanger (\$3,000), and HVAC maintenance (\$15,000).

13. Equipment Maintenance Contract Expense decreased from \$77,293 in FY 2020 to \$76,490 in FY 2021 based on FY 2019 actual of \$72,867 plus 5%.
14. Lift Station Maintenance decreased from \$138,155 in FY 2020 to \$124,595 in FY 2021 based on a three year average. FY 2019 actual was \$112,200.
15. Polymer Expense increased from \$226,100 in FY 2020 to \$237,073 in FY 2021 based on FY 2019 actual of \$249,550 and adjusted for lower bid results in FY 2020.
16. Liquid Oxygen increased from \$427,536 in FY 2020 to \$467,041 in FY 2021. The FY 2021 budget includes \$28,362 for tank rental and \$438,679 for oxygen based on the expected loading and an 11.8% increase in bulk oxygen implemented in FY 2020. FY 2019 actual was \$420,741.
17. Hauling Service increased from \$274,300 in FY 2020 to \$304,900 in FY 2021. The increase is due to increased hauling due to digester cleanout and increased sludge production. This line item also contains bio-solids management fixed costs and hauling of drying pad material.

## Machinery & Equipment

18. Equipment replacement items include (\$28,380):

<u>Administration</u>		
Smart Phone	\$	210
<u>Plant Operations</u>		
Shop Equipment	\$	10,000
Cell Phones	\$	2,980
<u>Environmental Monitoring</u>		
Laboratory Equipment	\$	10,800
Smart Phone	\$	210
<u>Fats, Oil, Grease</u>		
Test Equipment	\$	500
<b>Recommended Improvement Packages</b>	<b>\$</b>	<b>3,680</b>
<b>Total Equipment</b>	<b>\$</b>	<b><u>28,380</u></b>

## Debt Service

19. Annual debt service payments for FY 2021 are as follows (\$5,336,494):

Amount	Debt Series	Source	Purpose	Final Payment	Call Date
\$ 61,050	G.O. 2017A	Sanitary Fees	Sanitary Sewer Improvements	2030	2025
\$ 94,990	G.O. 2018A	Sanitary Fees	Sanitary Sewer Improvements	2031	2026
\$ 44,086	G.O. 2012E	Sanitary Fees	Sanitary Forcemain Repairs	2032	2019
\$ 122,676	G.O. 2019C	Sanitary Fees	Sanitary Sewer Improvements	2033	2026
\$ 441,675	G.O. 2014B	Sanitary Fees	Sanitary Sewer Improvements	2034	2021
\$ 163,206	G.O. 2016C	Sanitary Fees	Sanitary Sewer Improvements	2035	2024
\$ 63,192	SRF 2006	Sanitary Fees	Northfork Catfish Creek	2031	
\$ 218,708	SRF 2009	Sanitary Fees	Meter Change-Out	2031	
\$ 3,697,220	SRF 2010	Sanitary Fees	W&RRC Plant Upgrade	2039	
\$ 186,320	SRF 2013	Sanitary Fees	W&RRC Cogeneration	2033	
\$ 168,660	SRF 2018	Sanitary Fees	Kerper Boulevard Sanitary	2038	
\$ 24,873	Planned	Sanitary Fees	Sanitary Projects	2040	
\$ 49,838	Planned	Sanitary Fees	Sanitary Projects	2041	
<b>\$ 5,336,494</b>			<b>Total Sanitary Annual Debt Service</b>		

## Revenue

20. Sewage Fees increased from \$10,116,942 in FY 2020 to \$10,954,278 in FY 2021 based on a 5.00% rate increase in FY 2021 and a 1% decrease in consumption in FY 2020.

21. Sewage dumping fees decreased from \$130,148 in FY 2020 to \$120,634 in FY 2021 based on FY 2019 actual of \$120,634.

22. Late Payment Penalties decreased from \$126,353 in FY 2020 to \$118,344 in FY 2021. The decrease is due to Rousselot installing a system improving industrial pre-treatment compliance.

23. The Water and Resource Recovery Center's pre-treatment largest industrial customers projected changes in revenues as follows:

- Prairie Farms increased from \$424,132 in FY 2020 to \$494,324 in FY 2021 based on FY 2020 year-to-date revenue plus 4%.
- Inland Protein decreased from \$191,967 in FY 2020 to \$163,518 in FY 2021 based on FY 2020 year-to-date revenue tracking lower (\$13,102 per month) plus 4%.
- Rousselot is increased from \$882,331 in FY 2020 to \$1,021,890 in FY 2021 based on FY 2020 year-to-date revenue tracking higher (\$81,882 per month) plus 4%.

24. High Strength Waste revenue decreased from \$189,644 in FY 2020 to \$171,999 in FY 2021 based on FY 2019 actual of \$171,999. This revenue represents other entities paying the City to take high strength waste which will be used in the anaerobic digesters to generate additional energy using the micro-turbines.

25. Gas Revenue decreased from \$221,609 in FY 2020 to \$158,686 in FY 2021. This line item represents 5% of the gross revenue for BioResource Development (\$12,000), lease of the site (\$10,000), staff time reimbursement (\$3,000), reimbursement of gas (\$51,023) and electric cost (\$82,663).

26. Fats, Oils and Grease Permit and Dumping fees decreased from \$24,614 in FY 2020 to \$23,996 in FY 2021 based on FY 2019 actual of \$23,996.

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# WATER & RESOURCE RECOVERY CENTER

The Water & Resource Recovery Center uses mechanical, physical, and biochemical processes to clean the wastewater produced by the community before it is returned to the environment. The process provides opportunities to extract resources from the water for use within the Center and the surrounding community.



## SUCCESS IS ABOUT PLANNING, PARTNERSHIPS AND PEOPLE LEADING TO OUTCOMES

### PEOPLE

W&RRC Staff, Health Department, Engineering and Public Works provided the majority of our City relationships. We also maintain relationships with local industries, the Resilient Community Advisory Commission and Regional/Local Engineers.

### PLANNING

The W&RRC has ongoing planning and implementation for several environmental issues including spill prevention plans, Bio-Solids Management and Nutrient Reduction.



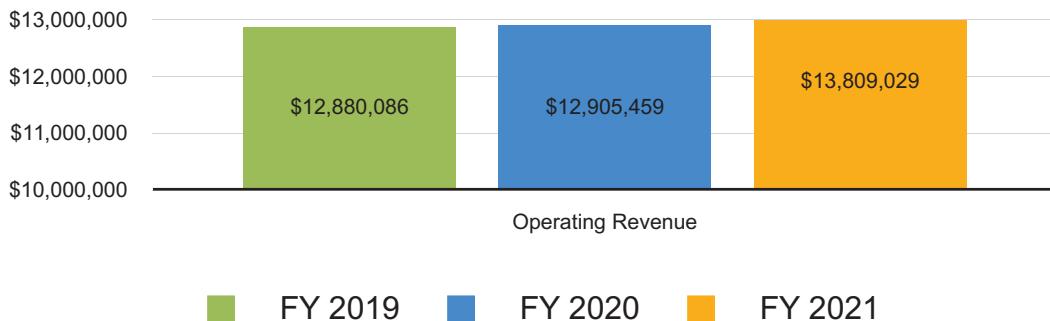
### PARTNERSHIPS

The W&RRC maintains partnerships with City Departments, Iowa Department of Natural Resources, USEPA, Local Industries and local/regional/service providers.

# WATER & RESOURCE RECOVERY CENTER

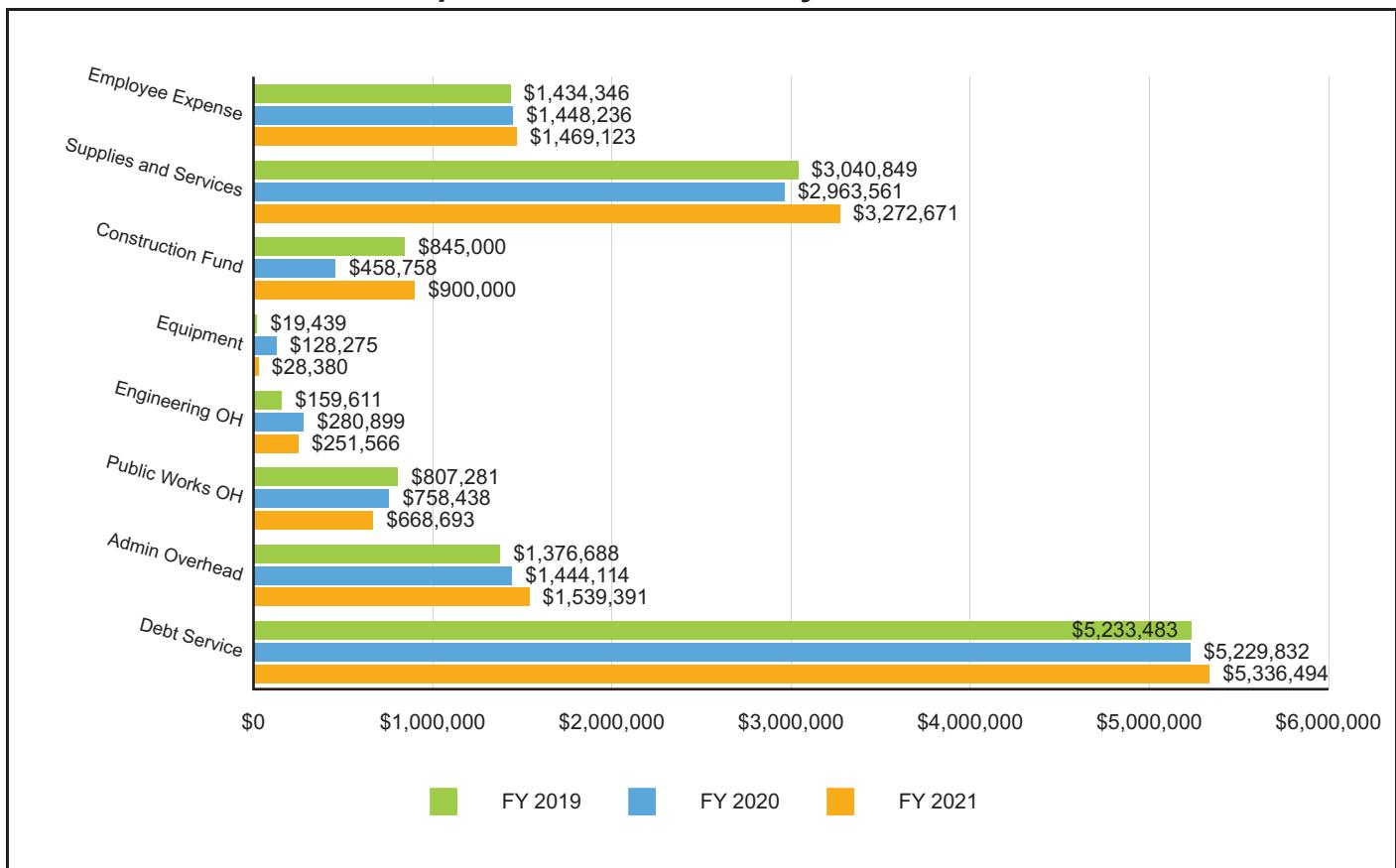
	FY 2019	FY 2020	FY 2021
Full-Time Equivalent	15.00	15.00	15.00

## Resources



The Water Resource Recovery Center is supported by 15.00 full-time equivalent employees, which accounts for 25.91% of the department expense as seen below. Overall, the department's expenses are expected to increase by 5% in FY 2021 compared to FY 2020.

## Expenditures and Debt by Fiscal Year



# WATER & RESOURCE RECOVERY CENTER

## Operations and Maintenance

### Mission & Services

Operations and maintenance of the W&RRC consists of maintaining equipment and records necessary to collect, convey, treat and release the liquid wastes discharged into the sanitary sewer system as required by state and federal regulatory agencies at the lowest possible cost while sustaining appropriate maintenance programs for plant reliability; operating and maintaining 20 pumping stations located throughout the City of Dubuque; Repairing and maintaining all equipment required for the successful and efficient operation of the W&RRC. Stocking essential spare parts and maintaining records for effective operation of the W&RRC.

Operations and Maintenance Funding Summary			
	FY 2019 Actual	FY 2020 Budget	FY 2021 Requested
Expenditures	\$9,175,924	\$9,289,084	\$9,632,726
Resources	\$12,665,967	\$12,738,062	\$13,660,476

Operations and Maintenance Position Summary	
	FY 2021
WRRC MANAGER	1.00
MAINTENANCE SUPERVISOR WWT	1.00
W&RRC OPERATIONS SUPERVISOR	1.00
EQUIPMENT MECHANIC - WWT	2.00
INDUSTRIAL ELECTRONICS TECH	1.00
WRRC OPERATOR CERT GR II	2.00
PLANT OPERATOR GRADE III & IV	2.00
CONFIDENTIAL ACCOUNT CLERK	1.00
<b>Total FT Equivalent Employees</b>	<b>11.00</b>

### Performance Measures

#### City Council Goal: Sustainable Environment

	Performance Measure (KPI)	Target	FY18 Actual	FY19 Actual	FY20 Estimate	Performance Indicator
1	<b>Activity Objective: Maintain proper operation and maintenance of pumping stations throughout the City to ensure untreated wastewater is not discharged to streets, storm sewers, or creeks/rivers.</b>					
	# of avg. gallons of wastewater treated per day (in millions)	7	7.13	9.17	9.30	
	# of pumping station failures/outage incidents	0	4	4	3	
	# of operators with at least Grade II Certification	5	4	4	4	
3	<b>Activity Objective: Increase energy production for use at the W&amp;RRC.</b>					
	% of energy needs self-produced by the W&RRC	68.3	51.8	33.7	36.4	

# WATER & RESOURCE RECOVERY CENTER

## Environmental Monitoring

### Mission & Services

The Environmental Monitoring Section performs the chemical, biological and bacterial sampling and analysis associated with the operations of the W&RRC and assists in the operations of additional City Departments and the community by providing analytical services.

The function of the program is to eliminate from industrial sources those materials which may cause pass through and/or interference with the operation of the City of Dubuque's Publicly Owned Treatment Works. The program is aimed at eliminating Sanitary Sewer Overflows caused by the discharge of excessive amount of fats, oils and greases into the sanitary sewer system.

Environmental Monitoring Funding Summary			
	FY 2019 Actual	FY 2020 Budget	FY 2021 Requested
Expenditures	\$443,802	\$462,900	\$457,918
Resources	\$188,001	\$158,258	\$142,147

Environmental Monitoring Position Summary	
	FY 2021
Lab Supervisor	1.00
Lab Technician	2.00
Environmental Coordinator	1.00
<b>Total FT Equivalent Employees</b>	<b>4.00</b>

### Performance Measures

#### City Council Goal: Sustainable Environment

	Performance Measure (KPI)	Target	FY18 Actual	FY19 Actual	FY20 Estimate	Performance Indicator
1	<b>Activity Objective: Maintain a Fats, Oil, and Grease (FOG) Program to protect the sanitary sewer system from blockages caused by excessive buildup, helping eliminate sanitary sewer overflows.</b>					
	# of sanitary sewer overflows caused by fats, oils, and grease	0	0	1	0	
2	<b>Activity Objective: Ensure a safe water supply in support of the Water Department.</b>					
	# of avg. water samples analyzed per week from various locations in the City	16	16	16	16	



## Recommended Operating Revenue Budget - Department Total

### 43 - WATER & RESOURCE RECOVERY

Fund	Account	Account Title	FY18 Actual Revenue	FY19 Actual Revenue	FY20 Adopted Budget	FY21 Recomm'd Budget
610	42230	SEWAGE DISPOSAL PERMITS	1,485	865	1,485	865
610	42237	FOG PERMITS	38,850	35,425	38,850	35,425
610	42331	FOG INSPECTION FEE	250	0	250	0
<b>42</b>	<b>LICENSES AND PERMITS</b>	<b>- Total</b>	<b>40,585</b>	<b>36,290</b>	<b>40,585</b>	<b>36,290</b>
610	43110	INVESTMENT EARNINGS	44,481	60,573	51,786	54,515
<b>43</b>	<b>USE OF MONEY AND PROPERTY</b>	<b>- Total</b>	<b>44,481</b>	<b>60,573</b>	<b>51,786</b>	<b>54,515</b>
610	51185	WATER TESTS-OUTSIDE	40,293	36,754	40,293	36,754
610	51205	SEWAGE FEES	10,106,780	10,100,349	10,116,942	10,954,278
610	51215	LATE PAYMENT PENALTY	306,353	163,649	126,353	118,344
610	51216	FOG PENALTIES	2,750	200	2,750	200
610	51218	ARTCO FLEETING	1,318	969	1,318	969
610	51220	SWISS VALLEY FARMS	405,868	475,312	424,132	494,324
610	51225	INLAND PROTEIN	183,701	182,967	191,967	163,518
610	51227	HIGH STRENGTH WASTE	189,644	171,999	189,644	171,999
610	51230	SEWAGE DUMPING FEES	130,148	120,634	130,148	120,634
610	51231	FOG DUMPING FEES	24,614	23,996	24,614	23,996
610	51235	WW IND. PRETREATMENT	35,990	36,634	35,990	36,634
610	51240	SAN ROUESSLOT	844,336	871,432	882,331	1,021,890
610	51256	BRD LEASE	0	10,000	10,000	10,000
610	51257	BRD STAFF REIMBURSEMENT	0	0	56,000	3,000
610	51258	BRD GAS REIMBURSEMENT	0	54,329	12,000	51,023
610	51259	BRD ELECTRIC REIMB	0	82,663	79,766	82,663
610	51260	BRD GROSS REVENUE	0	20,643	63,843	12,000
610	51261	BRD MEDIA CHANGE REIMB	0	0	25,000	0
610	51690	LANDFILL PAYMENT-LAB TEST	1,177	1,731	1,177	1,731
610	51964	ARENA NOVELT	415	460	415	460
<b>51</b>	<b>CHARGES FOR SERVICES</b>	<b>- Total</b>	<b>12,273,386</b>	<b>12,354,720</b>	<b>12,414,683</b>	<b>13,304,417</b>
610	53102	PRIVATE PARTICIPANT	50	0	50	0
610	53201	REFUNDS	0	181	0	0
610	53204	IOWA FUEL TAX REFUND	695	0	695	0
610	53520	WATER SAMPLING-PLANT	37,344	34,731	37,344	37,344
610	53523	WWT SAMPLING-OUTSIDE	24,870	27,852	24,870	24,870
610	53620	REIMBURSEMENTS-GENERAL	1,375	9	1,375	0
610	53630	SALES TAX COLLECTION	324,422	327,526	324,762	345,017
<b>53</b>	<b>MISCELLANEOUS</b>	<b>- Total</b>	<b>388,756</b>	<b>390,299</b>	<b>389,096</b>	<b>407,231</b>
610	54109	SALVAGE SALES	170	260	170	170
610	54210	GO BOND PROCEEDS	1,030,001	11,312	0	0
610	54220	BOND DISCOUNT	15,018	512	0	0
<b>54</b>	<b>OTHER FINANCING SOURCES</b>	<b>- Total</b>	<b>1,045,189</b>	<b>12,084</b>	<b>170</b>	<b>170</b>
<b>WATER &amp; RESOURCE RECOVERY - Total</b>			<b>13,792,396</b>	<b>12,853,967</b>	<b>12,896,320</b>	<b>13,802,623</b>

## Recommended Operating Expenditure Budget - Department Total

### 43 - WATER & RESOURCE RECOVERY

Fund	Account	Account Title	FY18 Actual Expense	FY19 Actual Expense	FY20 Adopted Budget	FY 21 Recomm'd Budget
100	61010	FULL-TIME EMPLOYEES	0	4,049	0	0
610	61010	FULL-TIME EMPLOYEES	964,031	863,911	990,095	980,914
640	61010	FULL-TIME EMPLOYEES	809	0	0	0
610	61020	PART-TIME EMPLOYEES	638	174	0	0
610	61030	SEASONAL EMPLOYEES	4,473	8,600	0	0
100	61050	OVERTIME PAY	42	1,571	0	0
610	61050	OVERTIME PAY	52,124	94,461	59,350	59,350
640	61050	OVERTIME PAY	230	0	0	0
610	61071	HOLIDAY PAY-OVERTIME	24,601	24,471	17,221	17,221
640	61071	HOLIDAY PAY-OVERTIME	355	0	0	0
610	61091	SICK LEAVE PAYOFF	14,843	10,770	11,225	15,211
610	61092	VACATION PAYOFF	0	2,704	0	0
610	61096	50% SICK LEAVE PAYOUT	0	0	0	3,740
100	61310	IPERS	4	530	0	0
610	61310	IPERS	93,513	93,609	100,694	99,827
640	61310	IPERS	124	0	0	0
100	61320	SOCIAL SECURITY	3	409	0	0
610	61320	SOCIAL SECURITY	76,654	73,129	82,458	82,210
640	61320	SOCIAL SECURITY	101	0	0	0
100	61410	HEALTH INSURANCE	12	1,139	0	0
610	61410	HEALTH INSURANCE	254,095	213,504	162,540	184,440
640	61410	HEALTH INSURANCE	293	0	0	0
610	61415	WORKMENS' COMPENSATION	38,766	29,293	23,810	24,987
100	61416	LIFE INSURANCE	0	3	0	0
610	61416	LIFE INSURANCE	752	650	843	843
640	61416	LIFE INSURANCE	1	0	0	0
610	61640	SAFETY EQUIPMENT	6,837	10,968	0	250
610	61650	MEAL ALLOWANCE	0	18	0	0
610	61660	EMPLOYEE PHYSICALS	42	384	0	130
<b>61 - WAGES AND BENEFITS</b>			<b>1,533,344</b>	<b>1,434,346</b>	<b>1,448,236</b>	<b>1,469,123</b>
610	62010	OFFICE SUPPLIES	2,298	(451)	2,194	2,238
610	62011	UNIFORM PURCHASES	2,425	1,637	2,500	2,500
610	62030	POSTAGE AND SHIPPING	3,492	1,946	3,597	2,710
610	62032	FLAGS	90	0	135	135
610	62061	DP EQUIP. MAINT CONTRACTS	8,898	8,610	8,808	9,542
610	62062	JANITORIAL SUPPLIES	1,470	1,588	1,724	1,619
610	62065	LAB SUPPLIES	40,082	32,886	40,082	37,825
610	62090	PRINTING & BINDING	1,725	1,412	4,541	2,762
610	62110	COPYING/REPRODUCTION	321	376	336	376
610	62130	LEGAL NOTICES & ADS	3,575	925	100	647
610	62140	PROMOTION	0	0	600	450
610	62170	SUBSCRIPTIONS-BOOKS-MAPS	0	0	300	300
610	62190	DUES & MEMBERSHIPS	409	770	885	882
610	62204	REFUNDS	11,065	95,767	11,065	11,065
610	62206	PROPERTY INSURANCE	73,943	70,920	79,951	74,466
610	62208	GENERAL LIABILITY INSURAN	13,763	10,940	10,684	11,487
610	62210	SALES TAX	325,418	324,224	324,762	345,618
610	62310	TRAVEL-CONFERENCES	1,975	3,469	3,450	3,700

## Recommended Operating Expenditure Budget - Department Total

### 43 - WATER & RESOURCE RECOVERY

Fund	Account	Account Title	FY18 Actual Expense	FY19 Actual Expense	FY20 Adopted Budget	FY 21 Recomm'd Budget
610	62320	TRAVEL-CITY BUSINESS	159	33	390	435
610	62360	EDUCATION & TRAINING	8,893	6,339	11,330	9,250
610	62411	UTILITY EXP-ELECTRICITY	384,033	536,112	424,777	579,001
610	62412	UTILITY EXP-GAS	87,710	109,180	87,710	109,180
610	62415	UTILITY EXPENSE STORMWATR	11,606	13,450	13,181	15,340
610	62416	UTILITY EXP-WATER	39,101	46,624	42,034	50,936
610	62421	TELEPHONE	7,184	8,042	7,173	8,666
610	62424	RADIO/PAGER FEE	2,758	2,006	2,869	2,106
610	62431	PROPERTY MAINTENANCE	69,433	66,831	66,350	66,831
610	62435	ELEVATOR MAINTENANCE	2,845	2,505	2,845	2,400
610	62436	RENTAL OF SPACE	480	440	480	480
610	62438	FIRE SUPPRESSION	0	0	5,770	0
610	62511	FUEL, MOTOR VEHICLE	10,285	7,642	10,285	10,563
610	62513	FUEL, DIESEL	389	3,753	389	4,000
610	62521	MOTOR VEHICLE MAINT.	7,260	8,354	7,405	8,521
610	62528	MOTOR VEH. MAINT. OUTSOUR	100	1,784	1,742	1,742
610	62611	MACH/EQUIP MAINTENANCE	195,639	333,007	309,625	317,935
610	62612	MAJOR REPAIR ELEMENT	0	0	75,000	50,000
610	62613	METER MAINTENANCE	5,500	5,500	0	5,500
610	62614	EQUIP MAINT CONTRACT	78,527	72,867	77,293	76,490
610	62621	O2 PLANT MAINTENANCE	100	0	0	0
610	62623	CETRIFUGE MAINTENANCE	33,924	0	34,942	34,942
610	62625	LIFT STATION MAINTENANCE	113,091	112,200	138,155	124,595
610	62628	INSTRUMENTATION MAINT	0	1,092	13,000	13,000
610	62629	INSTR MAINT CONTRACT	3,798	538	22,500	22,500
610	62631	LIME	0	0	960	0
610	62633	CHLORINE	13,892	7,609	11,000	8,000
610	62638	POLYMER	227,424	249,550	226,100	237,073
610	62639	LIQUID CO2/O2	434,495	420,741	427,536	467,041
610	62663	SOFTWARE LICENSE EXP	14,546	40,981	9,541	10,568
610	62666	CREDIT CARD CHARGE	0	424	600	600
610	62667	DATA SERVICES	395	496	480	1,721
610	62676	PIPE-SPECIAL FITTINGS	0	0	12,253	0
610	62678	EDUCATIONAL MATERIALS	120	293	0	293
610	62681	LUBRICATION PRODUCTS	4,577	6,977	4,577	6,977
610	62692	LANDFILL FEES	10,281	38,699	51,531	51,531
610	62696	OUTSIDE COLLECTOR EXPENSE	6,962	4,049	6,961	4,049
610	62712	CONSULTING ENGINEERS	19,088	17,565	0	0
610	62713	LEGAL SERVICES	7,242	1,080	5,752	0
610	62716	CONSULTANT SERVICES	8,727	28,370	12,500	85,949
610	62721	FINANCIAL CONSULTANT	7,043	0	1,177	0
610	62726	AUDIT SERVICES	2,200	2,400	2,200	2,400
610	62731	MISCELLANEOUS SERVICES	10,152	5,461	0	0
610	62732	TEMP HELP/CONTRACT SERV.	0	0	20,000	20,000
610	62733	CONTRACT CUSTODIAL	12,838	13,931	17,700	17,700
610	62736	CATERING SERVICES	82	0	300	300
610	62763	PAYMENT TO IOWA DNR	2,839	7,404	2,134	5,834
610	62767	ENVIRON. TESTING/MON.	24,967	27,028	25,000	25,000

**Recommended Operating Expenditure Budget - Department Total**  
**43 - WATER & RESOURCE RECOVERY**

Fund	Account	Account Title	FY18 Actual Expense	FY19 Actual Expense	FY20 Adopted Budget	FY 21 Recomm'd Budget
610	62780	HAULING SERVICES	265,376	274,473	274,300	304,900
		<b>62 - SUPPLIES AND SERVICES</b>	<b>2,627,010</b>	<b>3,040,849</b>	<b>2,963,561</b>	<b>3,272,671</b>
610	71120	PERIPHERALS, COMPUTER	801	85	0	3,680
610	71314	TRUCK-REPLACEMENT	0	0	50,500	0
610	71318	HEAVY EQUIP-REPLACEMENT	0	0	27,500	0
610	71410	SHOP EQUIPMENT	133	1,827	14,519	10,000
610	71413	LABORATORY EQUIPMENT	7,296	17,192	11,900	10,800
610	71421	HIGH PRESSURE SPRAY	0	0	5,000	0
610	71511	PUMPS	0	0	14,950	0
610	71520	HVAC	0	0	3,500	0
610	71610	CUSTODIAL EQUIPMENT	0	143	0	0
610	72418	TELEPHONE RELATED	291	168	406	3,400
610	72515	TEST EQUIPMENT, OTHER	1,956	24	0	500
		<b>71 - EQUIPMENT</b>	<b>10,477</b>	<b>19,439</b>	<b>128,275</b>	<b>28,380</b>
610	74111	PRINCIPAL PAYMENT	4,301,389	3,473,317	3,511,282	3,651,034
610	74112	INTEREST PAYMENT	1,829,757	1,760,167	1,718,550	1,685,460
		<b>74 - DEBT SERVICE</b>	<b>6,131,146</b>	<b>5,233,483</b>	<b>5,229,832</b>	<b>5,336,494</b>
610	91100	TO GENERAL	1,550,277	1,519,572	1,586,998	1,682,275
610	91710	TO SANITARY SEWER CONST	181,114	845,000	458,758	900,000
		<b>91 - TRANSFER TO</b>	<b>1,731,391</b>	<b>2,364,572</b>	<b>2,045,756</b>	<b>2,582,275</b>
		<b>43 - WATER &amp; RESOURCE RECOVERY TOTAL</b>	<b>12,033,368</b>	<b>12,092,689</b>	<b>11,815,660</b>	<b>12,688,943</b>

## Recommended Expenditure Budget Report by Activity & Funding Source

### 43 - WATER & RESOURCE RECOVERY

#### UNDISTRIBUTED - 10610

##### FUNDING SOURCE: SEWAGE FACILITY OPERATION

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
SUPPLIES AND SERVICES	100,690	17,920	16,024
TRANSFER TO	2,364,572	2,045,756	2,582,275
<b>UNDISTRIBUTED</b>	<b>2,465,262</b>	<b>2,063,676</b>	<b>2,598,299</b>
<b>WPC ADMINISTRATION</b>	<b>- 43100</b>		

##### FUNDING SOURCE: SEWAGE FACILITY OPERATION

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
DEBT SERVICE	5,233,483	5,229,832	5,336,494
EQUIPMENT	—	346	210
SUPPLIES AND SERVICES	360,967	381,272	400,560
WAGES AND BENEFITS	151,112	148,217	150,187
<b>WRRP ADMINISTRATION</b>	<b>5,745,562</b>	<b>5,759,667</b>	<b>5,887,451</b>
<b>FLOODWALL OPER./MAINT.</b>	<b>- 43340</b>		

##### FUNDING SOURCE: GENERAL

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
WAGES AND BENEFITS	7,701	—	—
<b>FLOODWALL OPER./MAINT.</b>	<b>7,701</b>	<b>—</b>	<b>—</b>
<b>WPC PLANT OPERATIONS</b>	<b>- 43400</b>		

##### FUNDING SOURCE: SEWAGE FACILITY OPERATION

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
EQUIPMENT	2,223	116,029	16,660
SUPPLIES AND SERVICES	2,496,144	2,476,877	2,767,286
WAGES AND BENEFITS	899,373	903,060	927,622
<b>WRR PLANT OPERATIONS</b>	<b>3,397,740</b>	<b>3,495,966</b>	<b>3,711,568</b>
<b>FATS OILS GREASE</b>	<b>- 43500</b>		

##### FUNDING SOURCE: SEWAGE FACILITY OPERATION

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
EQUIPMENT	24	0	500
SUPPLIES AND SERVICES	6,935	8,791	7,626
WAGES AND BENEFITS	25,664	24,660	25,581
<b>FATS OILS GREASE</b>	<b>32,622</b>	<b>33,451</b>	<b>33,707</b>
<b>ENVIRON-MONITORING</b>	<b>- 43700</b>		

##### FUNDING SOURCE: SEWAGE FACILITY OPERATION

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget

EQUIPMENT	17,192	11,900	11,010
SUPPLIES AND SERVICES	76,113	78,701	81,175
WAGES AND BENEFITS	350,497	372,299	365,733
ENVIRON-MONITORING	443,802	462,900	457,918
<b>WATER MAIN REPLACEMENTS - 43755</b>			

**FUNDING SOURCE: WATER UTILITY OPERATION**

Account	FY19 Actual Expense	FY20 Adopted Budget	FY21 Recomm'd Budget
WAGES AND BENEFITS	0	0	0
WATER MAIN REPLACEMENTS	0	0	0
WATER & RESOURCE RECOVERY TOTAL	\$12,092,689	\$11,815,660	\$12,688,943

CITY OF DUBUQUE, IOWA  
 DEPARTMENT DETAIL - PERSONNEL COMPLEMENT  
**43 WATER AND RESOURCE RECOVERY CENTER**

FD	JC	WP-GR	JOB CLASS	FY 2019		FY 2020		FY 2021	
				FTE	BUDGET	FTE	BUDGET	FTE	BUDGET
<b>61010 Full Time Employee Expense</b>									
610	5080	GE-40	WRRC MANAGER	1.00	\$ 99,913	1.00	\$ 108,576	1.00	\$ 111,599
610	3030	GE-34	MAINTENANCE SUPERVISOR WWT	1.00	\$ 80,590	1.00	\$ 82,420	1.00	\$ 83,333
610		GE-33	WRRC OPERATIONS SUPERVISOR	1.00	\$ 66,218	1.00	\$ 67,792	1.00	\$ 69,426
610		GE-33	LAB SUPERVISOR	1.00	\$ 76,418	1.00	\$ 78,150	1.00	\$ 67,589
610		GE-31	ENVIRONMENTAL COORDINATOR	1.00	\$ 60,860	1.00	\$ 65,706	1.00	\$ 53,134
610	2100	GE-31	LAB TECHNICIAN II	2.00	\$ 123,350	2.00	\$ 121,973	2.00	\$ 126,360
610		GE-25	CONFIDENTIAL ACCOUNT CLERK	1.00	\$ 48,373	1.00	\$ 49,535	1.00	\$ 50,518
610	2400	OE-14	EQUIPMENT MECHANIC - WWT	2.00	\$ 119,494	2.00	\$ 122,200	2.00	\$ 123,556
610	2800	OE-14	MAINTENANCE ELECTRICIAN	1.00	\$ 58,864	1.00	\$ 62,125	1.00	\$ 60,753
610		OE-14	WRRC OPERATOR CERT GR IV	1.00	\$ 55,910	1.00	\$ 63,243	1.00	\$ 64,063
610		OE-13	WRRC OPERATOR CERT GR III	1.00	\$ 56,563	1.00	\$ 59,102	1.00	\$ 60,103
610	2500	OE-12	WRRC OPERATOR CERT GR II	2.00	\$ 115,175	2.00	\$ 109,273	2.00	\$ 110,480
<b>TOTAL FULL TIME EMPLOYEES</b>				15.00	\$ 961,728	15.00	\$ 990,095	15.00	\$ 980,914
<b>TOTAL WATER &amp; RESOURCE RECOVERY CENTER</b>				<b>15.00</b>	<b>\$ 961,728</b>	<b>15.00</b>	<b>\$ 990,095</b>	<b>15.00</b>	<b>\$ 980,914</b>

**CITY OF DUBUQUE, IOWA**  
**ACTIVITY PERSONNEL COMPLEMENT SUMMARY**

ACCT	FD	JC	WP-GR	POSITION CLASS	FY 2019		FY 2020		FY 2021		
					FTE	BUDGET	FTE	BUDGET	FTE	BUDGET	
<b>Water &amp; Resource Recovery Center Administration</b>											
61043100	61010	610	3300	GE-40	WRRC MANAGER	1.00	\$ 99,913	1.00	\$ 108,576	1.00	\$ 111,599
					<b>Total</b>	1.00	\$ 99,913	1.00	\$ 108,576	1.00	\$ 111,599
<b>Water &amp; Resource Recovery Center Plant Operation</b>											
61043400	61010	610	3030	GE-34	MAINTENANCE SUPERVISOR WWT	1.00	\$ 80,590	1.00	\$ 82,420	1.00	\$ 83,333
61043400	61010	610		GE-33	WRRC OPERATIONS SUPERVISOR	1.00	\$ 66,218	1.00	\$ 67,792	1.00	\$ 69,426
61043400	61010	610	2400	OE-14	EQUIPMENT MECHANIC - W&RRC	2.00	\$ 119,494	2.00	\$ 122,200	2.00	\$ 123,556
61043400	61010	610	1000	GE-25	CONFIDENTIAL ACCOUNT CERK	0.65	\$ 31,443	0.65	\$ 32,198	0.65	\$ 32,837
61043400	61010	610	3942	OE-13	W&RRC OPERATOR GR III/IV	2.00	\$ 112,473	2.00	\$ 122,345	2.00	\$ 124,166
61043400	61010	610	2500	OE-12	W&RRC OPERATOR GR II	2.00	\$ 115,175	2.00	\$ 109,273	2.00	\$ 110,480
61043400	61010	610	2800	OE-14	MAINTENANCE ELECTRICIAN	1.00	\$ 58,864	1.00	\$ 62,125	1.00	\$ 60,753
					<b>Total</b>	9.65	\$ 584,257	9.65	\$ 598,353	9.65	\$ 604,551
<b>Environmental Monitoring Lab-FT</b>											
61043700	61010	610		GE-33	LAB SUPERVISOR	1.00	\$ 76,418	1.00	\$ 78,150	1.00	\$ 67,589
61043700	61010	610	2100	GE-31	LAB TECHNICIAN II	2.00	\$ 123,350	2.00	\$ 121,973	2.00	\$ 126,360
61043700	61010	610	2228	GE-31	ENVIRONMENTAL COORDINATOR	1.00	\$ 60,860	1.00	\$ 65,706	1.00	\$ 53,134
					<b>Total</b>	4.00	\$ 260,628	4.00	\$ 265,829	4.00	\$ 247,083
<b>Fat Oils and Grease-FT</b>											
61043500	61010	610	1000	GE-25	CONFIDENTIAL ACCOUNT CLERK	0.35	\$ 16,930	0.35	\$ 17,337	0.35	\$ 17,681
						0.35	\$ 16,930	0.35	\$ 17,337	0.35	\$ 17,681
<b>TOTAL WATER &amp; RESOURCE RECOVERY DEPARTMENT</b>											
						15.00	\$ 961,728	15.00	\$ 990,095	15.00	\$ 980,914

Capital Improvement Projects by Department/Division					
WATER & RESOURCE RECOVERY					
CIP Number	Capital Improvement Project Title	FY 18 Actual Expense	FY 19 Actual Expense	FY 20 Adopted Budget	FY 21 Recomm'd Budget
7101339	SCADA SYSTEM UPGRADE	—	—	50,000	50,000
7101730	ALT O2 STUDY & IMPLEMENTA	—	—	—	—
7101731	DOG TRACK LIFT STATION	—	10,608	—	—
7101837	WRR PLANT RENOVATION	—	—	—	—
7102412	CEDAR LIFT PUMP/GEN/TRAIL	—	—	55,000	—
7102474	BRADLEY/PERRY FORCE MAIN	—	—	—	—
7102529	NUTRIENT REDUCT STRATEGY	—	—	—	—
7102530	OUTFALL MANHOLE	—	—	—	—
7102538	AIRPORT LS UPGRADES	—	13,906	—	—
7102598	CLARIFIER REALIGN/REPAIR	19,325	—	130,000	—
7102599	KERPER PUMP MOTOR/CONTROL	—	—	—	—
7102601	REPLACEMENT OF RADIOS	—	—	—	—
7102659	NUTRIENT RED/BASIN MOD 1	—	—	—	—
7102697	ASH POND ABANDONMENT	116,589	—	—	—
7102698	METHANE GAS SYSTEM WRRC	49,930	6,673	—	—
7102700	LEVEL 4 AGREEMENT	19,569	519	—	—
7102701	HS WASTE RECEIVE & STORE	—	—	—	—
7102730	FRACK TANK	10,468	—	—	—
7102749	KW CAR WASH LIFT STATION	—	—	—	—
7102750	GRANGER CREEK LIFT STATIO	—	7,142	—	—
7102787	WRRC CAMERAS	—	—	45,900	—
7102840	PUMP TRAILER WRRC	—	—	—	110,000
7102841	UV DISINFECTION WRRC	—	—	—	235,000
WATER & RESOURCE RECOVERY TOTAL		215,881	38,847	280,900	395,000

PRGRM /DEPT	PROJECT DESCRIPTION	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTAL	PAGE
<b>WATER &amp; RESOURCE RECOVERY CENTER</b>								
<b>Business Type</b>								
	Final Clarifier Rehabilitation	\$—	\$ 860,000	\$—	\$—	\$—	\$ 860,000	127
	Lift Station SCADA Upgrades	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$—	\$ 200,000	128
	Activated Sludge Process Improvements	\$—	\$—	\$—	\$ 70,000	\$ 98,000	\$ 168,000	129
	High-Strength Waste Receiving & Storage	\$—	\$ 574,371	\$ 1,057,975	\$—	\$—	\$ 1,632,346	130
	UV Disinfection System Modifications	\$ 235,000	\$—	\$—	\$—	\$—	\$ 235,000	131
	Pump Trailer	\$ 110,000	\$—	\$—	\$—	\$—	\$ 110,000	132
	<b>TOTAL</b>	<b>\$ 395,000</b>	<b>\$ 1,484,371</b>	<b>\$ 1,107,975</b>	<b>\$ 120,000</b>	<b>\$ 98,000</b>	<b>\$ 3,205,346</b>	