

# PUBLIC WORKS DEPARTMENT

## STATEMENT OF PURPOSE

To ensure that city-owned facilities, city-owned transportation facilities, contract solid waste management service, contract transit services and capital improvement programs are designed, constructed, maintained, and/or modified in a manner consistent with approved policies. To operate, maintain, repair, and replace the city's transportation system, water production/distribution system, wastewater collection/treatment system, and storm sewer collection/disposal system, and administer the contract for garbage, yard refuse, recycling and street sweeping services; administer the contract for intra-city/inter-city public transit; provide engineering design/assistance, and construction inspection services for public improvements in private subdivisions and city capital improvement projects; provide staff for the Safety Advisory Commission, Natural Resources Commission, Ad Hoc Bicycle Task Force, and Unitrans Advisory Committee.



### ADMINISTRATIVE - DIVISION 71

Ensure the development and implementation of approved department goals, objectives, and budget; review and improve operational procedures.

- Budget Preparation
- Departmental Safety Training
- Personnel Administration
- Emergency Preparedness
- Policy Analysis and Research

### TRANSPORTATION – DIVISION 72

Operate and maintain the city's transportation infrastructure for the safe and efficient use by bicyclists, pedestrians, automobiles, and public transit.

- Street and Bike Path Maintenance
- Traffic Engineering
- Signing and Striping
- Staff Safety Advisory Commission
- Bicycle/Pedestrian Education and Safety
- Streetlight & Traffic Signal Maintenance
- Administer Unitrans and Yalobus Contracts
- Hazardous Materials Clean-up
- Staff Unitrans Advisory Committee



### WASTEWATER - DIVISION 73

Operate and maintain the city's Wastewater Treatment Plant and associated facilities in accordance with federal, state and local regulations to ensure the efficient, economical and environmentally sound collection, treatment and disposal of the city's wastewater.

- Operate and Maintain Wastewater Treatment Plant
- Operate and Maintain City of Davis Constructed Wetlands
- Administer Industrial Pretreatment program
- 5<sup>th</sup> and G St. Remediation
- Special District Operation and Maintenance: El Macero and North Davis Meadows



### STORM SEWER - DIVISION 74

Operate and maintain the city's storm sewer infrastructure to ensure stormwater is collected and discharged in accordance with federal, state, and local environmental regulations while protecting life and property from flooding.

- Maintain Stormwater Infrastructure
- El Macero Maintenance District
- Pollution Load Reduction
- Storm/Flooding Response
- Wildlife Habitat Management



### WATER - DIVISION 75

Operate and maintain the water production and distribution infrastructure in order to deliver clean, reliable potable water for use by Davis citizens.

- Water Production, Distribution and Storage
- Meter Reading/Maintenance
- Water Conservation
- Water Quality Monitoring
- Regional Water Issues



### SUPPORT SERVICES - DIVISION 76

Provide support and assistance to Public Works' customers in order that they may carry out their work plans and tasks.

- Development Review
- Construction Inspection: New Development
- Public Works Permitting
- Final Engineering/Planning
- Electrical Maintenance of City Facilities
- Staff Natural Resources Commission
- Electric Energy/Energy Efficiency Program
- Outdoor Lighting Control



### SOLID WASTE - DIVISION 77

Provide administration of the city's refuse, recycling, and street sweeping contract to ensure their efficient, economical and environmentally sound operation.

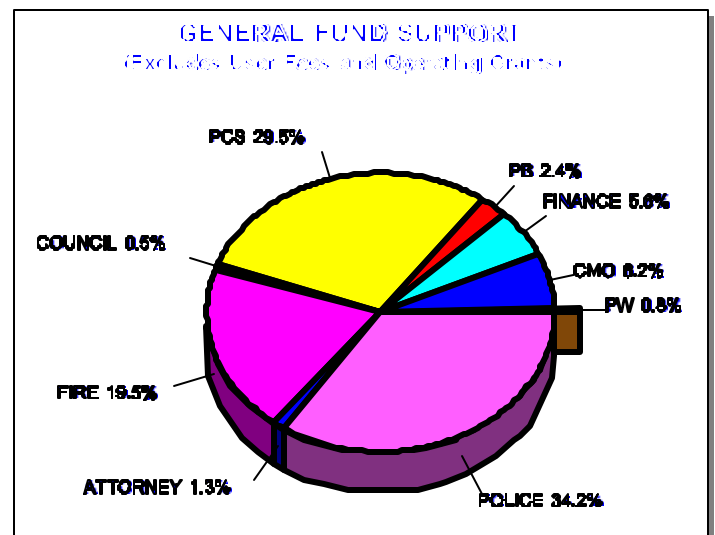
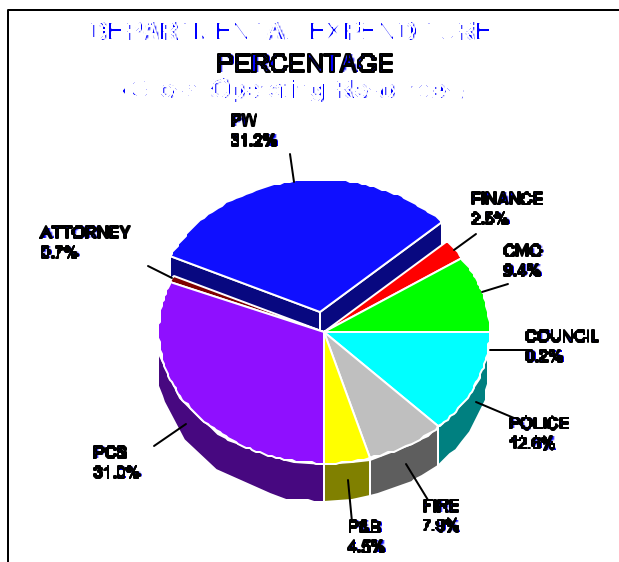
- Refuse and Recycling Collection
- Source Reduction and Recycling
- Household Hazardous Waste Drop-off Program
- Monitor Contamination at the Old Davis Landfill

DEPARTMENT  
SUMMARY

PUBLIC WORKS DEPARTMENT

Source of Funds	Actual 1999-00	Budget 2000-01	Estimated 2000-01	Budget 2001-02
General Fund Support	292,174	150,127	150,127	166,336
Construction Tax	184,987	221,465	221,465	0
Enterprise Funds	14,638,839	16,277,126	16,147,126	17,185,998
Fees & Charges	243,275	270,684	270,684	211,508
Grants/Designated Revenue	1,790	97,390	97,390	0
Internal Service Funds	122,419	120,710	120,710	133,898
Special Revenue Funds	2,337,480	2,550,364	2,595,460	3,984,045
<b>Total Revenues</b>	<b>17,820,964</b>	<b>19,687,866</b>	<b>19,602,962</b>	<b>21,681,785</b>

Expenditures	Actual 1999-00	Budget 2000-01	Estimated 2000-01	Budget 2001-02
Capital Expenditures	141,116	206,900	206,900	151,050
Operating Expenditures	12,896,177	13,974,204	13,889,300	15,665,513
Salaries and Benefits	4,783,671	5,506,762	5,506,762	5,865,222
<b>Total Expenditures</b>	<b>17,820,964</b>	<b>19,687,866</b>	<b>19,602,962</b>	<b>21,681,785</b>



## PUBLIC WORKS

### Administration

Administrative Secretary 2.0  
 Assistant Engineer 1.0  
 Assistant to the Director 2.0  
 Associate Civil Engineer 1.0  
 City Engineer 1.0  
 Office Assistant II 3.0  
 Operation Administrator 1.0  
 Public Works Director 1.0  
 Recycling Coordinator .5  
 Secretary 1.0  
 Senior Civil Engineer 1.0  
 Senior Office Assistant 1.0  
 Utility Resource Specialist 1.0

### Transportation

Bicycle/Pedestrian Coordinator 1.0  
 Public Works Crew Supervisor 3.0  
 Public Works Maint Wrk II 7.0  
 Senior Public Works Supv 1.0  
 Transportation Prog Crew Sup 1.0

### Support Services

Assistant City Engineer 1.0  
 Assistant Engineer 1.0  
 Associate Civil Engineer 2.0  
 City Electrician 1.0  
 Electrician 4.0  
 Electrician's Helper 1.0  
 Engineering Assistant 4.0  
 Engineering Technician I 1.0  
 Engineering Technician II 1.0  
 Public Works Inspector 2.0  
 Senior Electrician 1.0

### Water

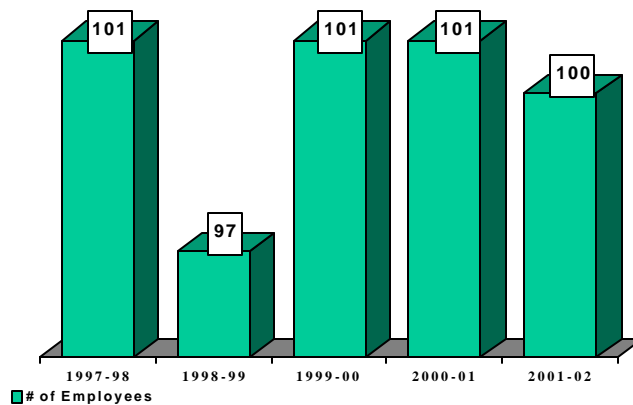
Principal Engineer 1.0  
 Principal Utility Program Supv 1.0  
 Public Works Crew Supervisor 2.0  
 Public Works Maint Wrk I 2.0  
 Public Works Maint Wrk II 5.0  
 Public Works Supervisor 1.0  
 Senior Public Works Supv 1.0  
 Senior Utility Program Tech 2.0  
 Sr Utility Resource Specialist 1.0  
 Utility Program Coordinator 1.0  
 Water & Sewer Service Worker 1.0  
 Water Meter Coord 1.0  
 Water Prodt'n Crew Supervisor 1.0  
 Water Program Crew Supervisor 1.0  
 Water System Maint Worker 2.0  
 Water System Operator 2.0

### Wastewater

Public Works Crew Supervisor 1.0  
 Public Works Maint Wrk I 2.0  
 Public Works Maint Wrk II 6.0  
 Senior Public Works Supv 1.0  
 Wastewater Administrator 1.0  
 Wildlife Res Specialist 1.0  
 WWTP Laboratory Analyst 2.0  
 WWTP Lead Operator 4.0  
 WWTP Maintenance Technician 2.0  
 WWTP Operator II 1.0  
 WWTP Senior Operator 2.0  
 WWTP Sr Maintenance Technician 1.0  
 WWTP Sr Lab Analyst 1.0  
 WWTP Supervisor 1.0

FULL TIME EQUIVALENT	(FTE)
Regular Full Time	99.00
Regular Part Time	0.50
Temporary Part Time	7.37
<b>TOTAL FTE's</b>	<b>106.87</b>

## Five Year Human Resource Trend Public Works Department



## ADMINISTRATIVE – DIVISION 71

### Major Accomplishments in FY 2000-01

- Fourth year of participation in the multi-jurisdictional performance measurement effort through the International City/County Management Association
- Continued progress toward completion of all the action items recommended in the Administrative Review of the Public Works Department Final Report as produced by Citygate Associates

### Plans / Goals for FY 2001-02

- Complete remaining recommended action items in the Administrative Review of the Public Works Department Final Report
- Develop a series of performance measurements at the program level within the department
- Assist in the citywide effort to provide department personnel with the proper emergency operations training
- Investigate new software programs for the department Work Order System.
- Implement City Council recommendations and actions related to energy conservation, production and information.
- Complete cost benefit analysis for the undergrounding of utility lines.



### How We Measure Up

Davis Public Works  
Employees per capita: 1.7  
per 1000

This compares to other  
cities as follows:

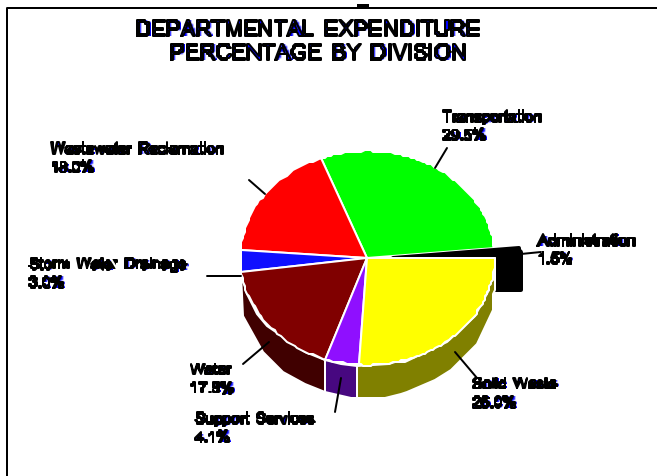
Vacaville 2.0;  
San Luis Obispo 1.9;  
Woodland 1.8;  
Chico 1.4

The results of the most  
recent citizen/customer  
survey rated quality of  
services provided by the  
department as good.

**No. 71**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
General Fund Support	60,700	46,645	46,645	65,513
Enterprise Funds	229,705	163,256	153,256	205,192
Internal Service Funds	10,000	0	0	0
Special Revenue Funds	32,664	23,322	23,322	46,426
<b>Total Revenues</b>	<b>333,069</b>	<b>233,223</b>	<b>223,223</b>	<b>317,131</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	11,529	0	0	0
Operating Expenditures	125,348	140,536	130,536	226,730
Salaries and Benefits	196,192	92,687	92,687	90,401
<b>Total Expenditures</b>	<b>333,069</b>	<b>233,223</b>	<b>223,223</b>	<b>317,131</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

The major tasks will be to obtain new work order software to enhance our ability to track and monitor our tasks, and refine the department's performance measurement system.

## TRANSPORTATION - DIVISION 72

### Major Accomplishments in FY 2000-01

- Completed analysis of traffic signal efficiency on Russell Blvd., Covell Blvd., and Richards Blvd. corridor
- Completed retrofit of all green traffic signal lamps to LED fixtures through a grant from P.G.&E.
- Re-striped all traffic markings in the downtown area
- Completed contract replacement of broken/raised sidewalk, curb and gutter in the downtown area.
- Made and installed 186 Unitrans bus route signs to provide for new routes and significant changes to existing routes.
- Completed update and revision to City Bikeway Plan

### Plans / Goals for FY 2001-02

- Continue to assess and utilize, where feasible, non-paint products for use as traffic markings
- Maintain via contract and internal maintenance, a Street Pavement Condition Index of 70
- Re-paint curb markings and crosswalks at all school zones prior to school starting
- Review and implement recommendations for traffic signal efficiency
- Implement second year of multi-year project to retrofit city streetlights with fully shielded fixtures
- Implement recommended projects and programs in the City Bikeway Plan

### How We Measure Up

What does it cost to maintain city streets and bike paths?

Dollars (\$) / miles of streets and bike paths maintained:  
FY 1999-00: \$6,088.48 with Pavement Condition Index (PCI) equal to 71.

FY 1998-99: \$2,785.79 with Pavement Condition Index (PCI) equal to 72.

This compares to:

City of Vacaville = 72;

City of Sacramento = 78.

The results of the most recent customer survey showed that of those responding:

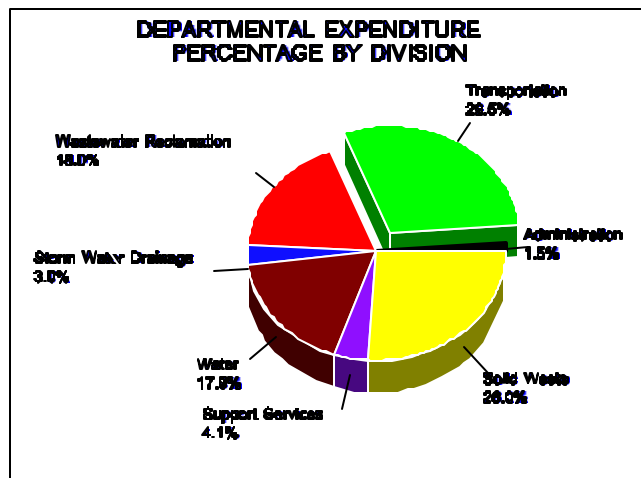
- 92% were satisfied with the city's effort to maintain local streets and roads.
- 89% indicated satisfaction with how well the city maintained bike paths and bike lanes.
- 78% were satisfied with the city's effort to coordinate traffic signals.



**No. 72**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
General Fund Support	12,417	7,141	7,141	0
Construction Tax	184,987	221,465	221,465	0
Enterprise Funds	2,253,965	2,342,894	2,222,894	2,479,170
Fees & Charges	6,472	5,300	5,300	1,950
Grants/Designated Revenue	1,790	97,390	97,390	0
Special Revenue Funds	2,281,443	2,498,572	2,543,668	3,912,004
<b>Total Revenues</b>	<b>4,741,074</b>	<b>5,172,762</b>	<b>5,097,858</b>	<b>6,393,124</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	14,959	25,000	25,000	25,000
Operating Expenditures	3,777,400	4,005,924	3,931,020	5,117,158
Salaries and Benefits	948,715	1,141,838	1,141,838	1,250,966
<b>Total Expenditures</b>	<b>4,741,074</b>	<b>5,172,762</b>	<b>5,097,858</b>	<b>6,393,124</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

Increase in street maintenance contract funding of \$271,000. Increased energy cost for streetlighting.

## **WASTEWATER - DIVISION 73**

### **Major Accomplishments in FY 2000-01**

- Completed sewer maintenance hole rehabilitation on Rd. 105 to eliminate Inflow and Infiltration
- Successfully recruited to fill the vacancy for the Wildlife Resource Specialist position
- Operated and maintained 6 sanitary sewer pump stations and 150 miles of collection lines without having any major failures or property damage
- Maintained regulatory compliance.
- Completed TV inspection of 2.5 miles of 42" and 48" sewer trunk lines

### **Plans / Goals for FY 2001-02**

- Develop work plan to comply with new NPDES permit
- Fulfill all process safety management requirements
- Implement the Laboratory Information Management System (LIMS)
- Complete emergency preparedness training on chlorine leaks in conjunction with the police and fire departments
- Complete TV inspection of the 3 miles of backyard sewer easement mainlines
- Complete the repair of 45 residential sewer service lines
- TV Inspection of the downtown and Central Davis mainline sewer system

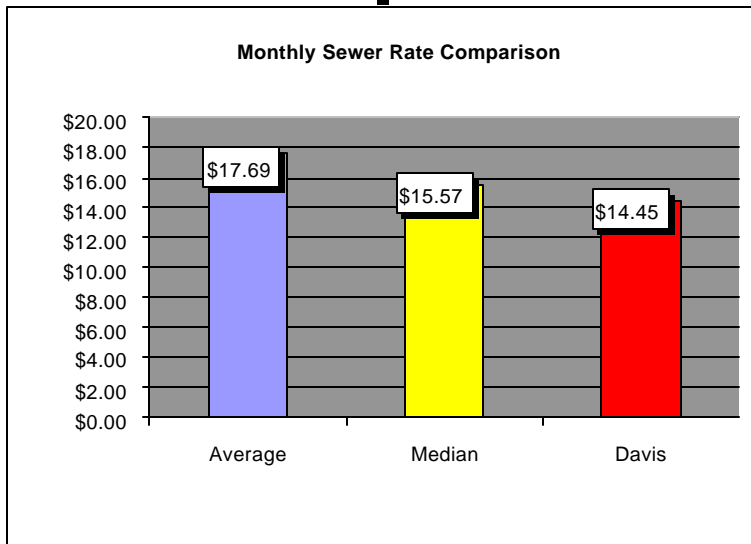
## How We Measure Up

### Wastewater Treatment Costs

Dollars (\$) per MG Wastewater Treated:

FY 1999-00: \$1,042.30/Million Gallons

FY 1998-99: \$ 934.36/Million Gallons



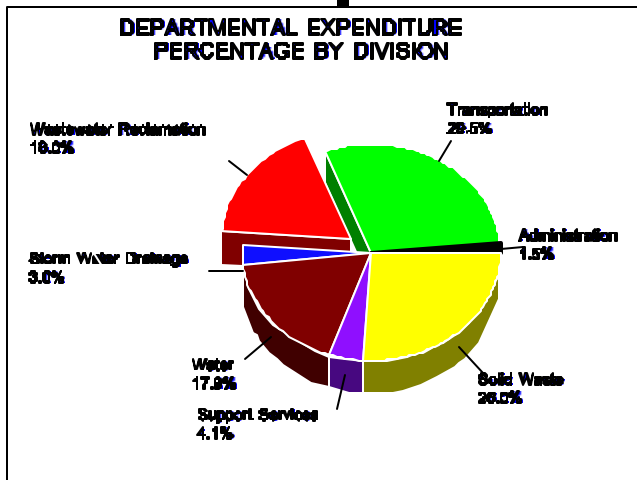
Sewer rates vs. other agencies

The results of the most recent customer survey showed that 91% of those responding were satisfied with the city's effort to provide reliable sewer services.

No. 73

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Enterprise Funds	3,242,385	3,624,567	3,624,567	3,910,183
Fees & Charges	464	0	0	0
<b>Total Revenues</b>	<b>3,242,849</b>	<b>3,624,567</b>	<b>3,624,567</b>	<b>3,910,183</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	99,757	65,000	65,000	90,000
Operating Expenditures	1,662,265	1,778,586	1,778,586	1,945,764
Salaries and Benefits	1,480,827	1,780,981	1,780,981	1,874,419
<b>Total Expenditures</b>	<b>3,242,849</b>	<b>3,624,567</b>	<b>3,624,567</b>	<b>3,910,183</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

- Assumed responsibility from the Water Division for the day to day sewer related calls from customers. This additional task will be absorbed by the current work crews.
- Bio-solid removal from oxidation ponds 2 & 3
- Assumed O&M responsibility for the North Davis Meadows sewer system

## STORM SEWER - DIVISION 74

### Major Accomplishments in FY 2000-01

- Inspected and cleaned over 2,500 drain inlets
- Completed rate review to address revenue needs and mechanism for drainage fund
- Implemented a Storm Sewer fund that consists of the current drainage fee and an additional storm sewer quality component
- Operated drainage system without any major failures or property damage

### Plans / Goals for FY 2001-02

- Replace control system at the H Street pump station
- Inspect and repair all detention ponds and channels
- Operate drainage systems without any major flooding or property damage



### How We Measure Up

Reported public property loss in Davis due to flood, last five years: \$68,000.

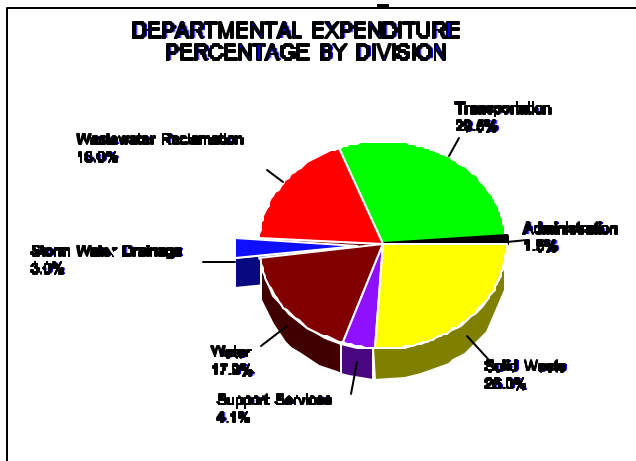
Compare this to statewide public property losses for these recent years:  
1995 \$490 million;  
1997 \$1.8 Billion;  
1998 \$550 Million.

The results of the most recent customer survey showed that 90% of those responding were satisfied with the city's effort to provide reliable storm water services.

**No. 74**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Enterprise Funds	425,103	604,316	604,316	656,518
Fees & Charges	(2)	0	0	0
<b>Total Revenues</b>	<b>425,101</b>	<b>604,316</b>	<b>604,316</b>	<b>656,518</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	4,218	0	0	2,000
Operating Expenditures	216,755	314,748	314,748	351,682
Salaries and Benefits	204,128	289,568	289,568	302,836
<b>Total Expenditures</b>	<b>425,101</b>	<b>604,316</b>	<b>604,316</b>	<b>656,518</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

Division name changed from Drainage Division to Storm Sewer Division to account for quality of flow into the system, in addition to the quantity of flow.

# WATER - DIVISION 75

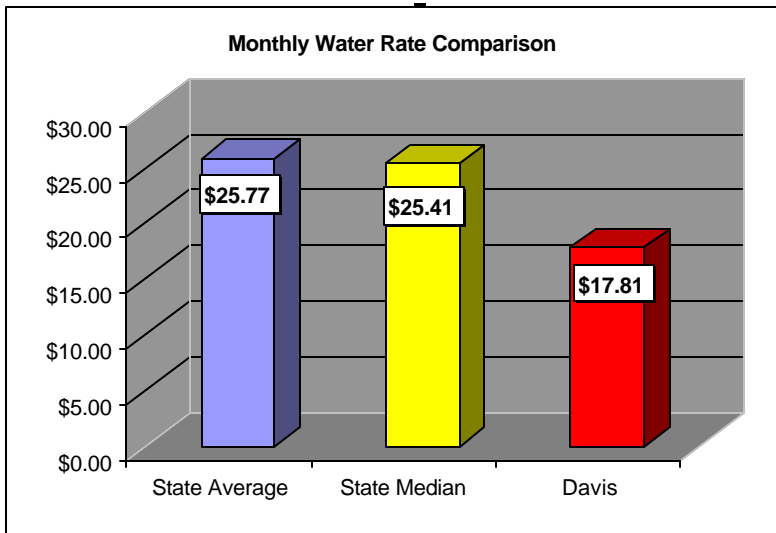
## Major Accomplishments in FY 2000-01

- Rehabilitated 4 water wells
- Tested and maintained all city owned fire hydrants
- Met department goal of verifying the proper operation of all mainline water valves
- Completed flushing of the water mains to eliminate sediment in the systems and improve water quality
- Replaced 50 older fire hydrants with newer models

## Plans / Goals for FY 2001-02

- Rehabilitate 4 additional water wells
- Continue to monitor MTBE status locally, and issues statewide
- Continue to promote rebates under the Water Conservation Incentive Program for the purchase of water conserving clothes washers
- Continue to perform water quality testing and report results to citizens annually
- Replace 50 fire hydrants as part of scheduled maintenance of the system
- Replace 100 water main line valves as part of scheduled maintenance of the system

## How We Measure Up



Davis water rate comparison with other cities.

Davis costs to provide water measured as dollars per million gallons of water:  
FY 99-00: \$517.06/million gallons  
FY 98-99: \$569.59/million gallons

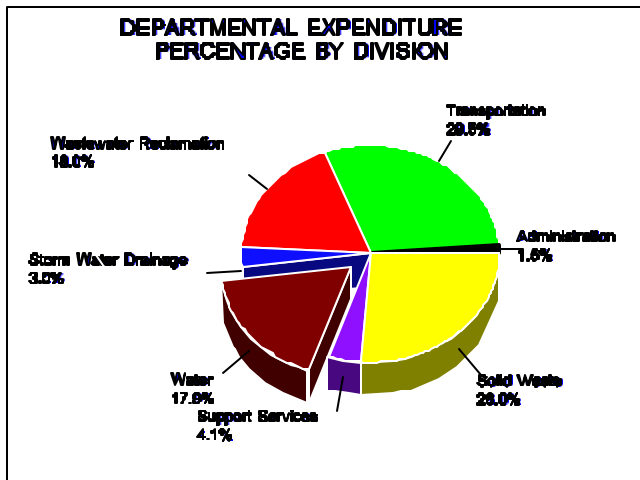
The results of the most recent customer survey showed that 87% of those responding were satisfied with the city's effort to provide reliable water service (53% of which responded that they were very satisfied with the water service).

That same survey showed that one of Davis citizen's biggest complaints is the taste of the water. 54% of those responding were dissatisfied with the city's effort to provide good-tasting water.

**No. 75**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Enterprise Funds	2,659,096	3,507,169	3,507,169	3,873,062
<b>Total Revenues</b>	<b>2,659,096</b>	<b>3,507,169</b>	<b>3,507,169</b>	<b>3,873,062</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	6,781	113,000	113,000	23,250
Operating Expenditures	1,418,009	2,019,574	2,019,574	2,271,941
Salaries and Benefits	1,234,306	1,374,595	1,374,595	1,577,871
<b>Total Expenditures</b>	<b>2,659,096</b>	<b>3,507,169</b>	<b>3,507,169</b>	<b>3,873,062</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

New Water Well #30 is now on line and has become part of the regular maintenance program. Increased energy costs due to raising energy prices.

## SUPPORT SERVICES - DIVISION 76

### Major Accomplishments in FY 2000-01

- Installed new electric panels and lighting controls at the Little League Field, Community Park and Civil Center athletic fields
- Completed first year administration, in partnership with SMUD, of a program whereby Davis residents could purchase, at a discount, roof top photovoltaic (solar) systems that can produce up to 2 kilowatts of electric power
- Retrofitted City Hall parking lot with fully shielded fixtures and decreased the lamp wattage from 150 to 100 watts
- Completed a PG&E energy audit of all city facilities
- Continued to implement, in conjunction with the Planning and Building Department, a streamlined and simplified inter-departmental review process for building inspection plan checks

### Plans / Goals for FY 2001-02

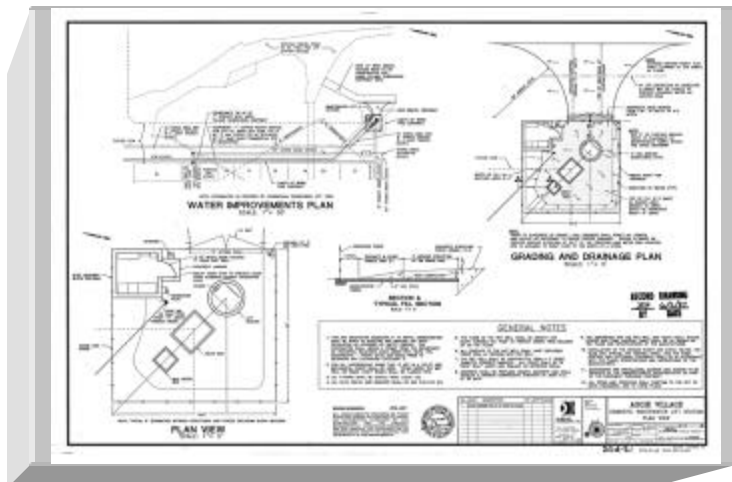
- Review and implement energy efficiency recommendations from the PG&E energy audit of city facilities
- Review alternative renewable energy sources, methods, and materials
- In conjunction with the Planning and Building department, continue to review and, as appropriate, improve the cross-departmental process for reviewing development projects
- Continue administering with SMUD the Davis residential rooftop photovoltaic program

### How We Measure Up

Percentage of plan checks completed on time - within one week: 100%

Comparison agency information regarding plan check performance will be collected over the next fiscal year.

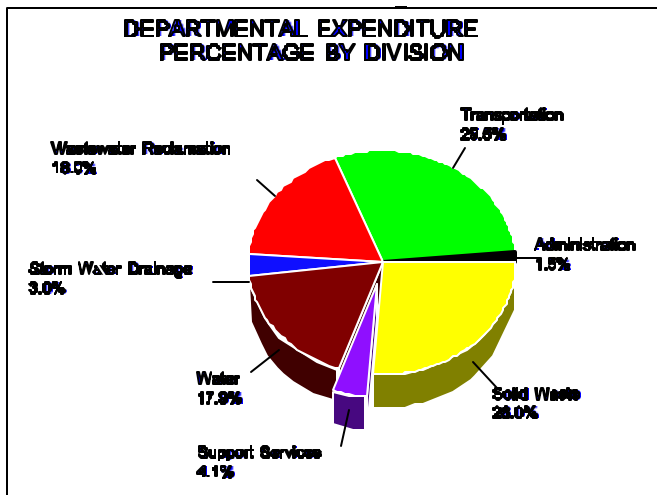
Proposed objective for FY 2001-02 is to survey our internal electrical maintenance customers to gauge level of satisfaction with service and areas of improvement.



**No. 76**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
General Fund Support	219,057	96,341	96,341	100,823
Enterprise Funds	264,656	435,856	435,856	427,142
Fees & Charges	236,341	265,384	265,384	209,558
Internal Service Funds	112,419	120,710	120,710	133,898
Special Revenue Funds	23,373	28,470	28,470	25,615
<b>Total Revenues</b>	<b>855,846</b>	<b>946,761</b>	<b>946,761</b>	<b>897,036</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Capital Expenditures	3,872	3,900	3,900	10,800
Operating Expenditures	241,921	248,979	248,979	266,519
Salaries and Benefits	610,053	693,882	693,882	619,717
<b>Total Expenditures</b>	<b>855,846</b>	<b>946,761</b>	<b>946,761</b>	<b>897,036</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

The budget reflects a decrease in human resources due to an anticipated decrease in private development.

## SOLID WASTE - DIVISION 77

### Major Accomplishments in FY 2000-01

- Updated variable can rate analysis
- Maintained 46% waste diversion
- Used oil recycling promotional efforts included magnetic signs on vehicles, and web site information
- Established used oil filter collection sites
- Hired consultant to conduct a commercial waste audit and diversion study



### Plans / Goals for FY 2001-02

- Achieve 50 % waste diversion
- Extend DWR contract term

### How We Measure Up

City of Davis achieved a diversion rate of 46% for fiscal year 1999. The state mandate is for 25% by year 1995, which has been achieved. The 1998 statewide average for diversion was 33%.

The results of the most recent customer survey showed that 95% of those responding were satisfied with the city's effort to provide reliable garbage and recycling services.



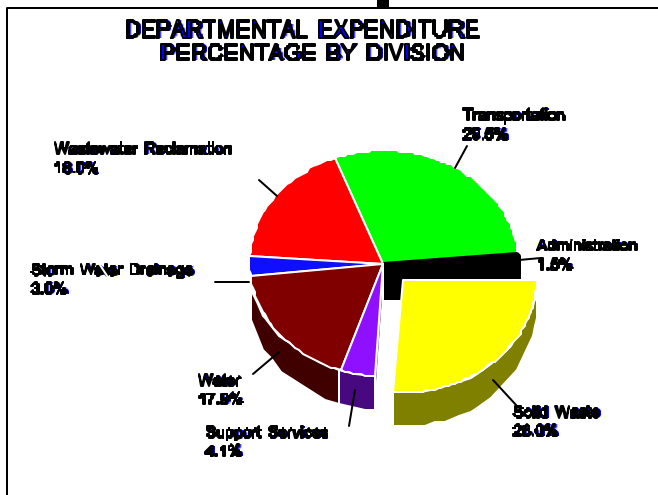
DIVISION  
SUMMARY

SOLID WASTE DIVISION

**No. 77**

<u>Source of Funds</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Enterprise Funds	5,563,929	5,599,068	5,599,068	5,634,731
<b>Total Revenues</b>	<b>5,563,929</b>	<b>5,599,068</b>	<b>5,599,068</b>	<b>5,634,731</b>

<u>Expenditures</u>	<u>Actual 1999-00</u>	<u>Budget 2000-01</u>	<u>Estimated 2000-01</u>	<u>Budget 2001-02</u>
Operating Expenditures	5,454,479	5,465,857	5,465,857	5,485,719
Salaries and Benefits	109,450	133,211	133,211	149,012
<b>Total Expenditures</b>	<b>5,563,929</b>	<b>5,599,068</b>	<b>5,599,068</b>	<b>5,634,731</b>



**SUMMARY OF MAJOR  
BUDGET CHANGES**

Rates are being increased for the first time in six years.

