

STAFF REPORT

DATE: June 20, 2017

TO: City Council

FROM: Robert A. Clarke, Public Works Director
Stan Gryczko, Assistant Public Works Director
Richard Tsai, Environmental Resources Manager

SUBJECT: Organics Processing Facility Feasibility and Solid Waste Rate Studies

Recommendation

1. Approve Resolutions (Attachments 1 and 2) authorizing the City Manager to enter into Agreements with:
 - a. Clements Environmental Corporation to perform the Organics Processing Facility Feasibility Study for a not-to-exceed fee of \$82,050; and
 - b. R3 Consulting Group, Inc. to perform the Solid Waste Rate Study for a not-to exceed fee of \$89,750
2. Approve Budget Adjustment (Attachment 3) in the amount of \$171,800 from the Solid Waste Fund (520) to fund these two expenses.

Fiscal Impact

Sufficient funds exist in the unallocated Solid Waste fund balance to accommodate the budget adjustment.

Council Goal

While not specific tasks, performing these studies are consistent with the Council Goal to Pursue Environmental Sustainability and Objective 3 to Conserve Resources in an Environmentally Responsible Manner.

Background and Analysis

Organics Processing Facility Feasibility Study

The City prepared a Request for Proposals (RFP) for an Organics Processing Feasibility Analysis, which included input from the Natural Resources Commission (NRC) zero waste subcommittee and the Utility Rate Advisory Commission (URAC), during February of 2017. In March 2017, the City received four proposals for this project and members of the Public Works Department's Environmental Resources Division (Richard Tsai, Jennifer Gilbert, and Dawn Calciano) ranked the proposals using the following criteria: project team experience and qualifications, scope of services, and cost. To ensure the selection of the most qualified applicant, the cost of each proposal was reviewed after the other criteria were scored. Clements Environmental Corporation (Clements) was the top ranked proposer.

Clements provided clear and detailed tasks and sub-tasks within the scope of work. Clements understands the objective of this analysis is to help the City assess options for processing organic materials at Yolo County Central Landfill or through the construction of a new organics facility

owned by the City. Clements proposes to provide a table of the different options available that provide the most environmental and economically preferred technology. The recommended consultant also has experience with permitting and development of constructing new organics processing facilities. Clements understands the objective of this analysis is to help the City assess options for processing organic materials at Yolo County Central Landfill, through the construction of a new organics facility owned by the City, or through a potential partnership with other entities, such as UCD. Overall, Clements Environmental Corporation's proposal meets the City's proposal requirements and their reference projects are relevant to the scope of the analysis Davis wishes to pursue.

At their April and May meetings, the NRC and URAC reviewed Clements' scope of services and supported staff's recommendation for requesting City Council approval of the agreement with Clements.

The findings from the organics processing feasibility study will provide City Council with options to consider associated with organics material handling and processing. This information will provide input to the solid waste rate study to capture anticipated future costs for organic materials handling and processing.

Solid Waste Rate Study

With the exception of annual cost of living adjustments to solid waste rates, charges to customers have remained flat since 2013. The Organics program adopted by Council was implemented in 2016. The existing rate modeling did not include organics program enhancements approved by Council in 2016 (extra loose yard waste pickups) nor did it anticipate up to 30% increases in organic disposal fees imposed by Yolo County. The City of Davis Finance Department estimates that the Solid Waste Fund (520) will have revenue of \$11.5M and expenditures of \$13.1M in FY17/18 largely due to the adopted Organics program and increases to Yolo County Landfill tipping fees. A solid waste rate study is necessary to set customer rates to match program design, handle customer demand, and provide contingency funding to remove debris after storm related events. The study will look at a variety of solid waste handling options, with associated rate implications, for Council to consider.

The City prepared and released an RFP for a Solid Waste Cost of Service & Rate Design Study. In March 2017, the City received one proposal, submitted by R3 Consulting Group, Inc. (R3). Staff has worked with R3 in the past with very positive results. R3 is very familiar with Davis' solid waste program, solid waste rates, revenue requirements and in 2015, R3 provided a review of the current Davis Waste Removal solid waste agreement. R3 also has an office local to Davis and is considered a local vendor with a Davis business license number. The URAC reviewed R3's scope of services in April and recommended Council approve the contract with R3 Consulting Group, Inc., with the modifications to the scope of services as provided in the meeting. Staff has modified the scope of services as recommended by the URAC.

Attachments

1. Resolution - Organics Processing Facility Feasibility Study
2. Resolution - Solid Waste Rate Study
3. Solid Waste fund budget adjustment request
4. Organics Program Update Memorandum

RESOLUTION NO. 17-XXX, SERIES 2017

**RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A
CONSULTANT AGREEMENT WITH
CLEMENTS ENVIRONMENTAL CORPORATION
FOR ORGANICS PROCESSING FACILITY FEASIBILITY ANALYSIS**

WHEREAS, the City of Davis contracts solid waste services through a franchise waste agreement with a local private hauler, Davis Waste Removal, who collects trash, recyclables, organics, yard material piles and performs street sweeping within the city limits; and

WHEREAS, in order to meet the City's 75% waste diversion goal and the greenhouse gas emission reduction goals, the City of Davis is looking at ways to increase waste diversion and minimize the amount of waste transported outside of Yolo County; and

WHEREAS, the collecting, processing and transportation costs and carbon emissions from hauling waste outside of our region could be greatly offset with a local centralized composting technology; and

WHEREAS, in July 2016, the City of Davis began a city-wide organics composting program. All residents and businesses in Davis now have access to food scrap and yard material recycling service; and

WHEREAS, at present, the City's franchised waste hauler, Davis Waste Removal (DWR), brings all organics collected from customers in Davis to the Yolo County Central Landfill (YCCL) green waste facility, where it is mixed with other organics, packed onto large shipping trucks and brought to the Napa Recycling composting facility in Zamora; and

WHEREAS, Yolo County is currently in the process of applying for a permit to build and operate an anaerobic digestion facility on site at the landfill and will likely seek some kind of commitment from the City of Davis, possibly in the form of a waste flow agreement, to send all the City's organic wastes to the County's digester; and

WHEREAS, before committing to a waste flow agreement with Yolo County, the City wishes to review any and all alternative options for management of organic wastes; and

WHEREAS, a feasibility study is necessary to assess options for processing organics materials including currently available sites and the construction of a new organics processing facility.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Davis that the Professional Services Agreement by and between the City of Davis, a Municipal Corporation, and CLEMENTS ENVIRONMENTAL CORPORATION, in the amount not to exceed \$82,050 is approved; and

BE IT FURTHER RESOLVED by the City Council of the City of Davis that the City Manager is hereby authorized to execute the Professional Services Agreement; and

BE IT FURTHER RESOLVED that all terms, conditions, and covenants of said agreement be, and the same are hereby approved, ratified, and confirmed.

PASSED AND ADOPTED by the City Council of the City of Davis this 20th day of June, 2017 by the following vote:

AYES:

NOES:

ABSENT:

Robb Davis
Mayor

ATTEST:

Zoe S. Mirabile, CMC
City Clerk

RESOLUTION NO. 17-XXX, SERIES 2017

RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A CONSULTANT AGREEMENT WITH R3 CONSULTING GROUP, INCORPORATED FOR SOLID WASTE RATE STUDY

WHEREAS, the City of Davis has been contracting solid waste services through a franchise waste agreement with a local private hauler, Davis Waste Removal (DWR), since 1976; and

WHEREAS, DWR collects trash, recyclables, organics, yard material piles and performs street sweeping within the city limits; and

WHEREAS, the City collects solid waste revenue from customers which includes both DWR direct costs and City costs to administer the service (billing, personnel costs, outreach costs, and other program costs); and

WHEREAS, the last solid waste rate study for Davis was conducted in 2013 and with the exception of annual consumer price index increases, customer rates have remained the same since 2013; and

WHEREAS, since the last rate study, the City has negotiated a new agreement with DWR, modified the organics collection program, and experienced multiple tipping fee increases imposed by the Yolo County Central Landfill; and

WHEREAS, this rate study is necessary to provide an updated rate structure for the City and to recover service costs.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Davis that the Professional Services Agreement by and between the City of Davis, a Municipal Corporation, and R3 CONSULTING GROUP, INC. in the amount not to exceed \$89,750, is approved; and

BE IT FURTHER RESOLVED by the City Council of the City of Davis that the City Manager is hereby authorized to execute the Professional Services Agreement, and

BE IT FURTHER RESOLVED that all terms, conditions, and covenants of said agreement be, and the same are hereby approved, ratified, and confirmed.

PASSED AND ADOPTED by the City Council of the City of Davis this 20th day of June, 2017 by the following vote:

AYES:

NOES:

ABSENT:

Robb Davis
Mayor

ATTEST:

Zoe S. Mirabile, CMC
City Clerk

F-928-20
07/90

CITY OF DAVIS
Request for Budget Adjustment

Agenda Item: 05C
City Council Meeting Date: 6.20.17

TO: City Manager
VIA: Budget Analyst

FROM: Public Works

Dept Head [Signature] 6.13.17
Signature and Date

I request the following budget adjustments:

A. Internal Transfers of Currently Appropriated Funds:

TRANSFERS FROM PROGRAM NAME	FUND NO.	DIV/ PROG.	ACTIVITY	ELEMENT/ OBJECT	AMOUNT (CR)	HOURS
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
				TOTAL	\$0	

B. New Appropriation's Source of funding/Revised Revenue Change:

Unallocated Reserve		Solid Waste		520	\$ 171,800	
		Fund Name		Fund No.		
Unallocated Reserve		_____		_____		
		Fund Name		Fund No.		
Unallocated Reserve		_____		_____		
Circle One	Activity Elem Obj	Fund Name		Fund No.		
					\$ 171,800	

C. Allocation of Internal Transfers and/or New Appropriations:

TRANSFERS TO PROGRAM NAME	FUND NO.	DIV/ PROG.	ACTIVITY	ELEMENT/ OBJECT	AMOUNT (DR)	HOURS
Solid Waste	520	7701	490	45-50	\$ 171,800	
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
				TOTAL	\$ 171,800	

D: Reason For Adjustment (Explain fully. Attach sheet if necessary. If new revenue, record a description on reverse side on Part VI.)
To perform two studies; Organics Processing Study, not to exceed \$82,050 and Solid Waste Rate Study, not to exceed \$89,750

FINANCE DIRECTOR

A. Funds have been appropriated & are available.

B. Funds have been appropriated.
 Funds must be appropriated.

Comments:

[Signature]
Signature and Date

CITY MANAGER

A. Approved
 Disapproved

B. City Council appropriated funds.
 City Council informed of revised revenue estimate.

Comments:

Signature and Date



Memorandum

Date: April 24, 2017
To: City Council
From: Richard Tsai, Environmental Resources Manager
Jennifer Gilbert, Conservation Coordinator
Subject: Organics Program Update

Background and Analysis

In July 2016, Davis Waste Removal (DWR) began collecting food scraps, food-soiled paper, and yard materials placed in the organic cart. Most customers receive once-a-week cart pick-up during their regularly scheduled trash pick-up day and food service commercial customers receive twice-a-week pick-up. Bulky yard materials (large branches, etc.) and yard materials that do not fit inside the cart are collected loose-on-the-street in piles during the week beginning with the first Monday of each month. During peak leaf drop season (mid-October through mid-December), yard material piles are collected once-a-week. Street sweeping is performed once-a-week in the downtown core area and once-a-month in the rest of the City (during the second full week of every month). The core downtown area and The Cannery sub-division do not have loose-on-the-street service.

Davis has a goal of diverting 75% of its waste from the landfill by 2020. In 2015, CalRecycle concluded that Davis diverted 62% of its waste from the landfill. The City is looking to the organics program as a way to boost waste diversion and get closer to the 75% goal. So far, the results are promising.

Collection data from Davis Waste Removal shows that from July 2016 – April 2017, DWR collected 987.5 tons more organics for composting (yard waste and food scraps) compared to the same time period the previous year. July 2016 – April 2017 also saw a 4,702 ton decrease in material collected in yard piles and a 975.9 ton decrease in MSW (Municipal Solid Waste- the amount of garbage collected from residents and businesses weekly trash collection service) compared to the previous year.

The decrease in yard material pile collection tonnage and decrease in MSW is encouraging. This data shows that even with the reduction of on-street pile collection, customers are not placing excess yard material in the trash. If that was the case, we would see an increase in MSW tonnage. Instead, it would

Tonnage Organics Collected (carts and piles)		
July 2015 - April 2016	8,831.15	
July 2016 - April 2017	9,818.68	
Difference	+987.53	+11.2%

Total Yard Material Collected (in piles)		
July 2015 - April 2016	8,620.54	
July 2016 - April 2017	3,918.49	
Difference	-4,702.05	-54.5%

Total MSW Collected		
July 2015 - April 2016	18,513.78	
July 2016 - April 2017	17,537.83	
Difference	-975.95	-5.3%

seem that customers are finding alternative methods of managing yard materials. This may include utilizing the organics carts, having landscape maintenance companies haul the materials off site, backyard composting, grasscycling, mulching and a variety of other methods.

Staff are optimistic about the program results, but do not want to speculate about the overall diversion success without seeing the results from a full year of the new program, encompassing all the seasonal changes, plant growth cycles, customer vacation schedules, weather patterns, schools being open/closed and all the other factors that affect waste generation.

DWR Hauling Data

July 2015 - April 2016 compared to July 2016 - April 2017

Month	Yard Material Piles	Food Scraps / Organics	MSW*	Total DWR Hauled	change in tons of overall organics	% change of total organics hauled	% change in yard clippings	change in tons of yard piles	% change in MSW	change in tons of MSW	% change in total hauled
Jul-15	576.80	20.03	1874.29	2471.12							
Aug-15	538.22	15.57	1891.69	2445.48							
Sep-15	663.90	23.16	1852.40	2539.46							
Oct-15	678.02	27.23	1750.93	2456.18							
Nov-15	881.07	21.23	1758.68	2660.98							
Dec-15	1936.99	18.04	1805.18	3760.21							
Jan-16	812.97	19.84	1914.14	2746.95							
Feb-16	746.06	20.36	1817.68	2584.10							
Mar-16	992.81	19.70	1961.96	2974.47							
Apr-16	793.70	25.45	1886.83	2705.98							
Jul-16	86.29	443.23	1610.65	2140.17	67.31	11%	85.0%	490.51	14.1%	263.64	13.4%
Aug-16	136.00	548.45	1906.90	2591.35	130.66	24%	-74.7%	-402.22	0.8%	15.21	6.0%
Sep-16	185.38	558.18	1779.16	2522.72	56.50	8%	-72.1%	-478.52	-4.0%	-73.24	-0.7%
Oct-16	472.82	515.30	1660.19	2648.31	282.87	40%	-30.3%	-205.20	-5.2%	-90.74	7.8%
Nov-16	924.75	558.56	1699.01	3182.32	581.01	64%	5.0%	43.68	-3.4%	-59.67	19.6%
Dec-16	624.56	569.67	1704.36	2898.59	-760.80	-39%	-67.8%	-1312.43	-5.6%	-100.82	-22.9%
Jan-17	684.53	625.04	1952.61	3262.18	476.76	57%	-15.8%	-128.44	2.0%	38.47	18.8%
Feb-17	336.85	527.86	1720.48	2585.19	98.29	13%	-54.8%	-409.21	-5.3%	-97.20	0.0%
Mar-17	230.12	762.09	1814.64	2806.85	-20.30	-2%	-76.8%	-762.69	-7.5%	-147.32	-5.6%
Apr-17	237.19	791.81	1689.83	2718.83	209.85	26%	-70.1%	-556.51	-10.4%	-197.00	0.5%
				AVERAGE	98.75	18.0%	-54.2%	-470.21	-5.3%	-97.60	1.0%
				TOTAL	987.53			-4702.05		-975.95	

* Municipal Solid Waste-- garbage that is hauled from businesses and residents