

**ACTION MINUTES OF  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
CITY OF TULARE**

June 1, 2017

**A regular session meeting of the Board of Public Utilities Commissioners, City of Tulare, was held on Thursday, June 1, 2017, at 7:00 p.m., in the Tulare Public Library & Council Chambers.**

**BOARD MEMBERS PRESENT:** James Pennington, Howard Stroman, Gregory Blevins, Thomas Griesbach, Erica Cubas

**STAFF PRESENT:** Joe Carlini, Sarah Tobias, Trisha Whitfield, Darlene Thompson, Michael Miller, Jason Bowling, Janice Avila, Melissa Hermann, Josh Rogers

**I. CALL TO ORDER:**

President Pennington called the regular meeting to order at 7:00 p.m.

**II. PLEDGE OF ALLEGIANCE:**

Board Member Cubas led the Pledge of Allegiance and an invocation was given by Vice President Stroman.

**III. CITIZEN'S REQUEST OR COMMENTS:**

President Pennington advised that comments from the public are for items within the jurisdiction of the Board. Speakers will be allowed three minutes.

There were no citizen comments presented.

**IV. COMMUNICATIONS:**

There were no items for this section on the agenda.

**V. CONSENT CALENDAR:**

**It was moved by Vice President Stroman, seconded by Board Member Cubas, and unanimously carried that the items on the Consent Calendar be approved as presented.**

**(1) Approve minutes of May 18, 2017 regular/special meeting(s).**

**(2) Accept the monthly investment report.**

## VI. GENERAL BUSINESS:

*Comments related to General Business Items are limited to three minutes per speaker for a maximum of 30 minutes per item unless otherwise extended by the Board.*

### (1) Public Hearing:

- a. **Public Hearing to adopt Resolution 17-03 approving the 2017/18 Fiscal Year Municipal Utility Budget; to adopt Resolution 17-04 approving the 2017/18 Fiscal Year City's Utility Position Control Budget; and to adopt Resolution 17-05 approving the 2017/18-2021/22 Projects Budget (including the Capital Improvement Plan).** President Pennington opened the public hearing at 7:05 p.m.; receiving no public comment, he closed the public hearing at 7:05 p.m. Interim City Manager Joe Carlini provided an introduction to this item. Vice President Stroman brought attention to a discrepancy on Resolution 17-03. Deputy City Clerk Melissa Hermann advised that it was simply a typo, stating the correct number \$32,531,350 for the Sewer/Wastewater Fund and advised that it will be corrected and provided to the President for signature. Following discussion, it was moved by Board Member Griesbach, seconded by Board Member Cubas and unanimously carried to adopt Resolution 17-03 approving the 2017/18 fiscal year municipal utility budget with the correction.

It was moved by Board Member Blevins, seconded by Vice President Stroman and unanimously carried to adopt Resolution 17-04 approving the 2017/18 fiscal year utility position control budget.

It was moved by Board Member Griesbach, seconded by Vice President Stroman and unanimously carried to adopt Resolution 17-05 approving the 2017/18-2021/22 projects budget.

### (2) Public Works:

- a. **Authorize the Public Works Director or City Manager to execute a contract amendment to the existing professional services agreement for the purposes of developing and implementing the Ten Year Energy Plan with Hydros Agritech, Inc. of San Francisco, CA in an amount not to exceed \$115,165.00, subject to minor conforming and clarifying changes acceptable to the City Attorney and City Manager.** President Pennington opened this item for discussion. Board Member Blevins inquired about how the amount for the contract was reached. Interim City Manager Joe Carlini introduced Pat McLafferty of Hydros Agritech to address the Board's questions. Operations Manager Josh Rogers also responded to questions presented by the Board. Interim City Manager Joe Carlini stated that staff will provide a monthly dashboard regarding the status of this project. Following a

lengthy discussion, it was moved by Board Member Blevins, seconded by Board Member Cubas, and unanimously carried to accept the item as presented.

**(3) Community Development:**

- a. **Award a contract for drilling of an estimated five (5) test wells associated with project WT0025 to Johnson Drilling Co. of Reedley, CA in the amount of \$626,000.00, and authorize the City Manager to approve contract change orders in an amount not to exceed 10% (\$62,600) of the contract award amount.** President Pennington opened this item for discussion. Project Manager Trisha Whitfield provided a report for the Board's review and consideration. With no further discussion, it was moved by Vice President Stroman, seconded by Board Member Griesbach, and unanimously carried to accept the item as presented.

**VII. ITEMS OF BOARD INTERESTS** (may include City Council and Planning Commission updates) – GC 54954.2(3)

Items of Board interest were discussed among the Board and staff.

Board Member Blevins suggested participating in the Teens-On-Board program. Finance Director Darlene Thompson advised that the program is run by the Parks and Recreation Department and staff will contact them to advise of the interest.

Board Member Blevins requested a status update on the well sites. Project Manager Trisha Whitfield provided a verbal report.

**VIII. ADJOURN REGULAR MEETING**

President Pennington the regular meeting at 8:34 p.m.

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President of the Board of Public Utilities  
Commissioners of the City of Tulare

**ATTEST:**

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Secretary of the Board of  
Public Utilities Commissioners

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department:** Public Works

**For Board Meeting of:** June 15, 2017

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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***AGENDA ITEM:***

Receive the Public Works performance reports for May 2017.

***IS PUBLIC HEARING REQUIRED:***  Yes  No

***BACKGROUND/EXPLANATION:***

Public Works first reported performance dashboards for each of its divisions to the Board of Public Utilities in August 2015 with the intention of inviting additional transparency into the maintenance and operations activities for each of the divisions.

**Solid Waste**

Overall, fleet availability remained relatively static from 82% in April to 83% in May. Each division met its availability target except for the Roll Off division. In that division, Unit 5576 has been down for repair for most of the month repairing damages related to an accident. The Roll Off division has only 5 units in its fleet, with 1 unit down for an extended period, this brings the overall availability down from 93% to 71%. Availability is measured in 'Route Days' – the total number of days in the month a vehicle is available to service a route divided by the total number of days with routes that require service.

**Water**

Water delivery, or water "sold," in April 2017 was decreased by 10 million gallons (3%) as compared to April 2016. Recall that water delivery volumes lag by a month due to availability of billing data. Water production was increased by 30.8 million gallons (6%) in May 2017 as compared to May 2016. Meter Replacement hours have increased over the previous year due to the implementation of the meter replacement program which was not in place in May 2016. Time spent in the Customer Service category is reduced this May compared to the previous year. Staff has noted a drop in Water Waste related customer calls as a possible reason for this prompted and increase in community outreach.

**Conservation**

In May, Gross Gallons per capita has increased from 259 last year to 275 gallons per capita per day this year; however, the City remains in compliance with the annual gross per capita of 242 gpd by 2020. This is a measurement of water use efficiency throughout the city as a total across all customers. In April, the Residential Gallons per capita use reduced from 97.1 gpd last year to 89.8 gpd this year. Residential Gallons per capita looks specifically at residential water use only. One reason that residential use in April was lower while overall use in May was higher this year was due to the climate. April was a mild month with some precipitation,

while May began to see the temperatures increase. This is an example of the seasonal variation staff sees year over year. Similarly, increases in water use are bringing increases in water waste violations. Total Tickets in April were 40 and in May 174, an increase of 134 violations.

### **Collections**

In May, the Collections division was productive, cleaning over 48,000 feet of collection lines. Video inspection was completed on 9,802 feet. Both are marked increases over previous month's footages. Of note, the Collections division spent 33% (320 man hours) of its time in May on 'Interdepartmental Assistance' category. Twelve percent (37.5 man hours) of the 'Interdepartmental' time was spent assisting the Surface Water division. An additional 25% (82 man hours) of the 'Interdepartmental' time was spent assisting other utilities divisions, including using the Collections division's Camel truck to assist the Water division with water leak repairs. Next month, Collections will present a reconfigured dashboard that better represents the use of the division's time on corrective and preventative maintenance activities or capital projects.

### **Waste Water Treatment Plant**

In May, the WWTP performed to standards and exhibited good efficiency metrics for BOD, TSS and Ammonia. The WWTP had a sample average of 24 mg/l for BOD, which maintains the existing permit.

Operationally, the WWTP completed 20 corrective work orders and 305 preventative maintenance work orders. Only 6% of work orders were completed to address an immediate and unplanned problem. The remaining 94% of work orders were for planned and preventative maintenance. Overall, 99 of the work orders were completed for the Domestic side of the facility and 226 for the Industrial side, 30% and 70% respectively. The gross total monthly influent and effluent volumes for both the Domestic and Industrial facilities increased (21.4 MG) over April to a total of 354 MG.

### **Air Permit**

The WWTP maintains 20 total air permits throughout the facility. Currently the WWTP is compliant with all 20 of the permits.

### **10 Year Energy Plan Project**

On June 1, 2017, the BPU directed staff to include an update on the continuing 10 Year Energy Plan project and the progress on the approved Contract Amendment with Hydros Agritech for \$115,154. Since that time, Hydros Agritech has invoiced the City for \$6,861.25 (5.9% of the contract amount) for continued services in support of the contract scope.

### ***STAFF RECOMMENDATION:***

Receive the Public Works performance reports for May 2017.

***CITY ATTORNEY REVIEW/COMMENTS:***  Yes  No  N/A

***IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:***  Yes  No  N/A

***FUNDING SOURCE/ACCOUNT NUMBER:***

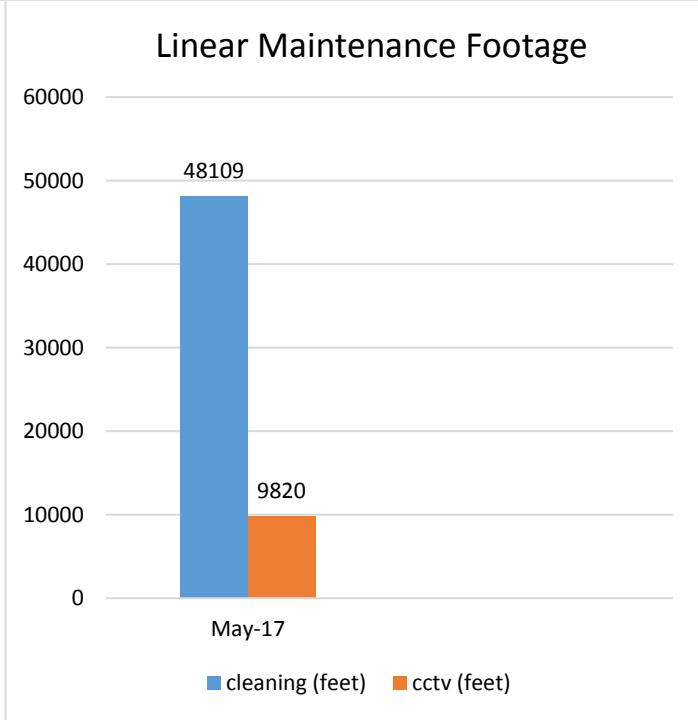
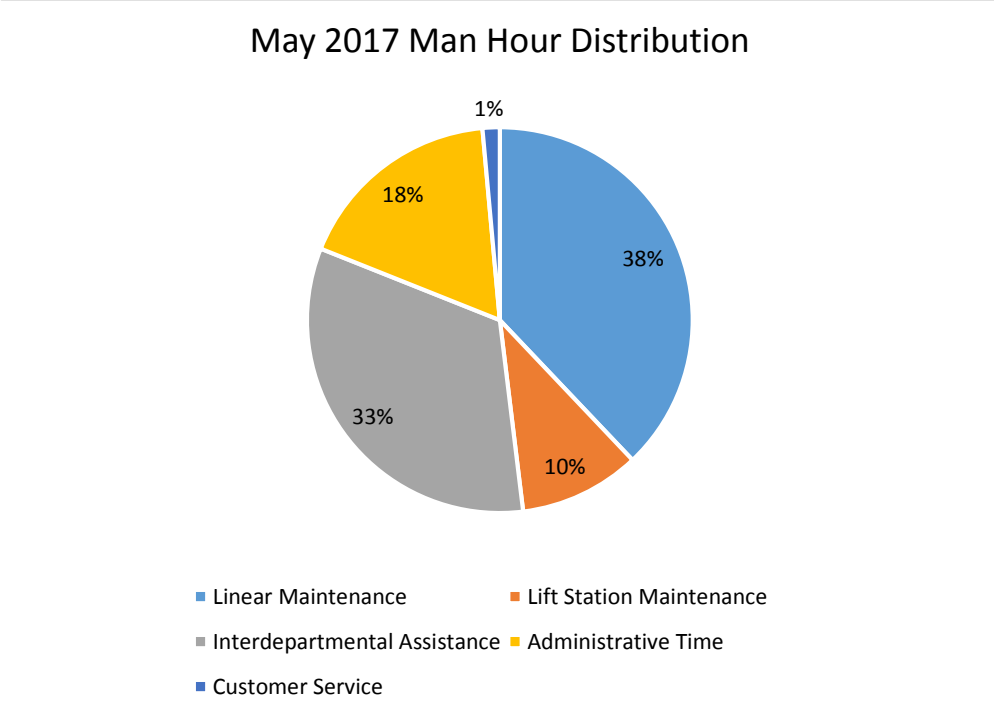
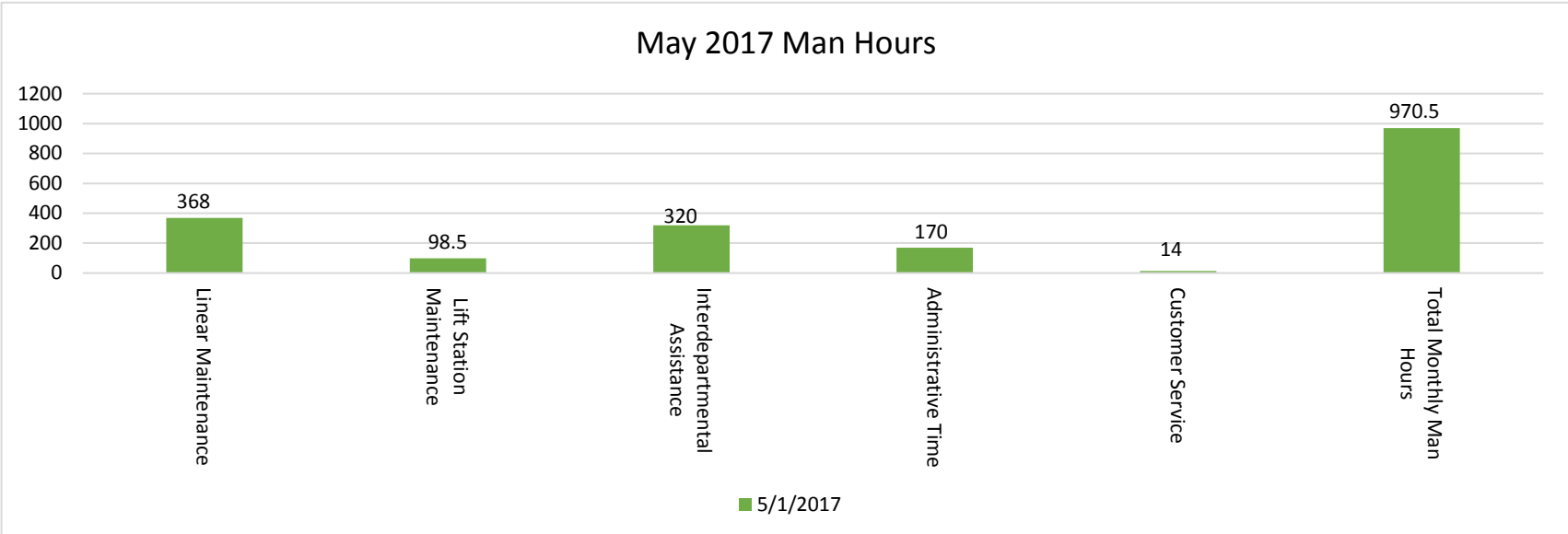
**Signed: Benjamin Siegel**

**Date: June 15, 2017**

**Title: Management Analyst**

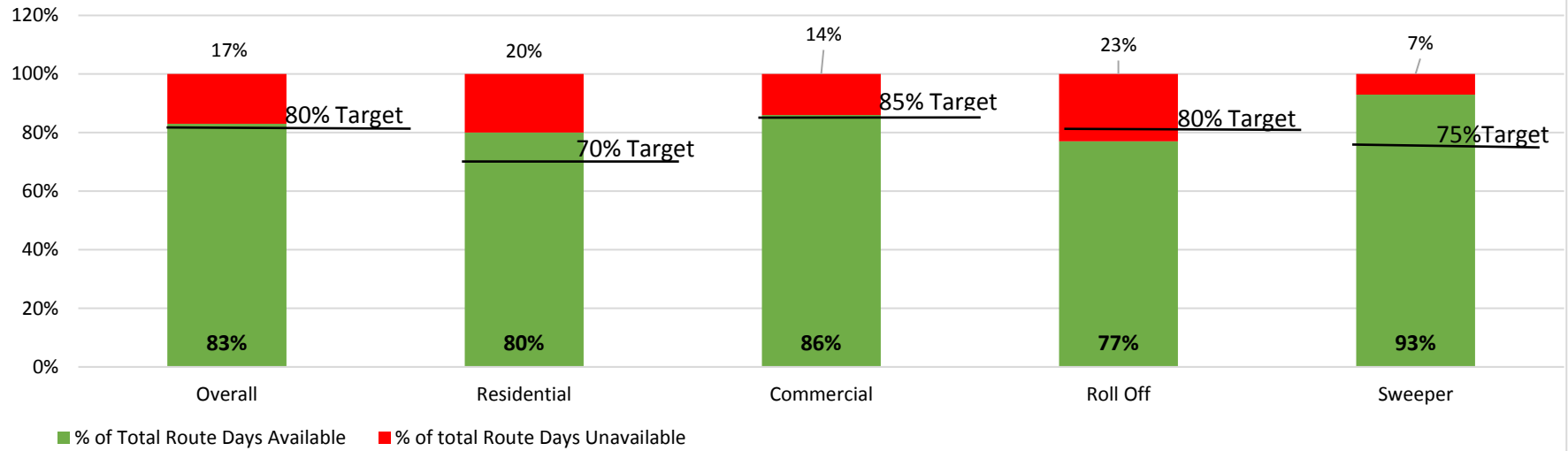
**City Manager Approval: \_\_\_\_\_**

**City of Tulare Sewer Collections Division  
May 2017 Dashboard**

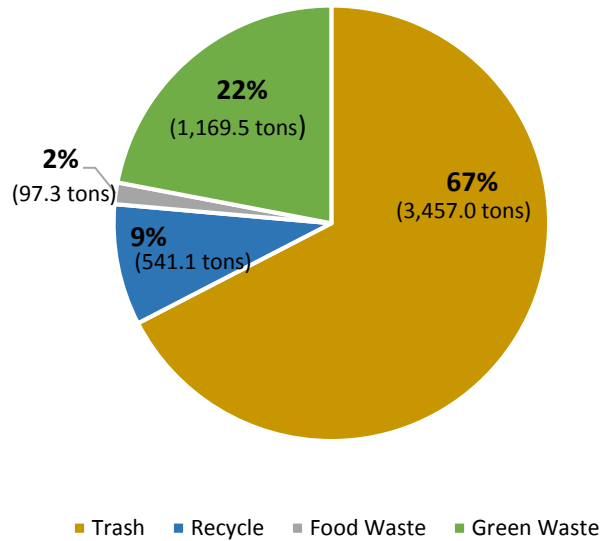


**City of Tulare Solid Waste Dashboard  
May 2017**

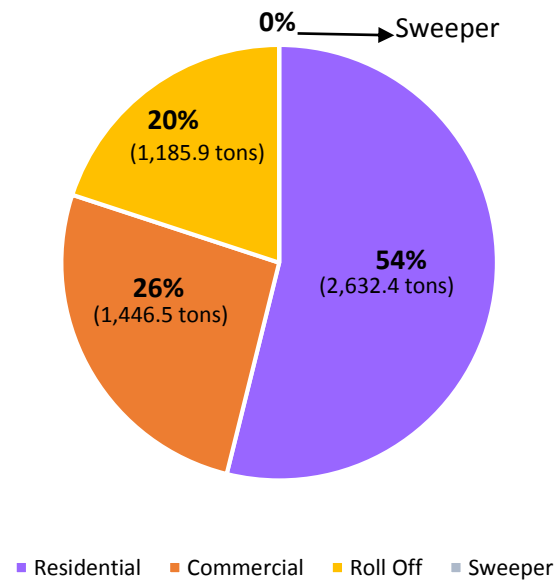
**Route Day Availability**



**Tonnage by Type**



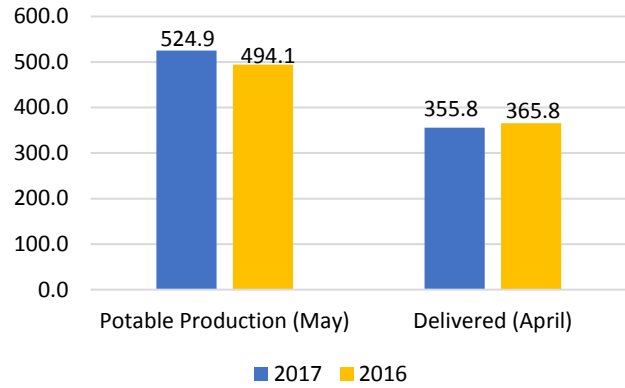
**Tonnage by Division**



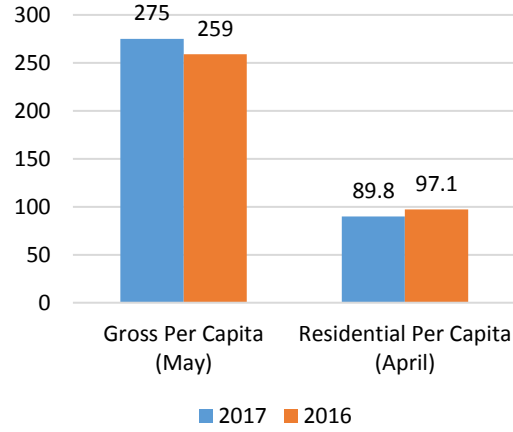


**City of Tulare Water Division  
May 2017 Dashboard**

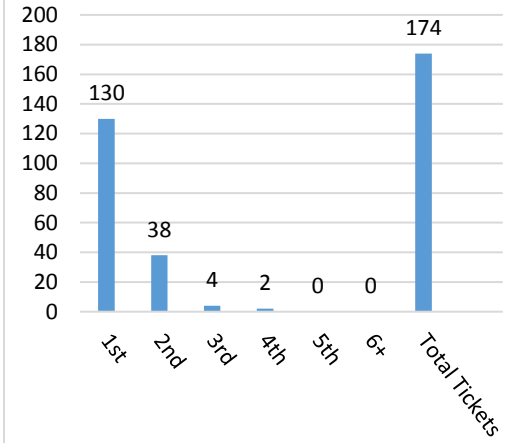
**Production & Delivery Volumes (MG)**



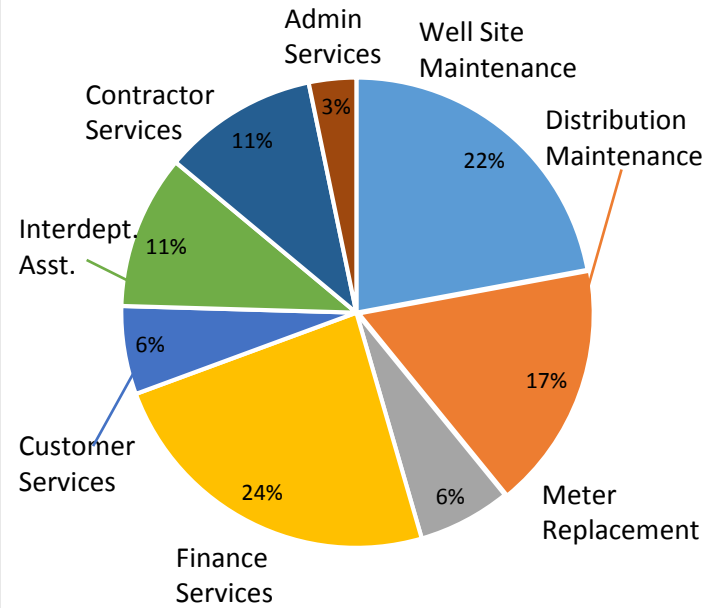
**GPCD & Residential -GPCD**



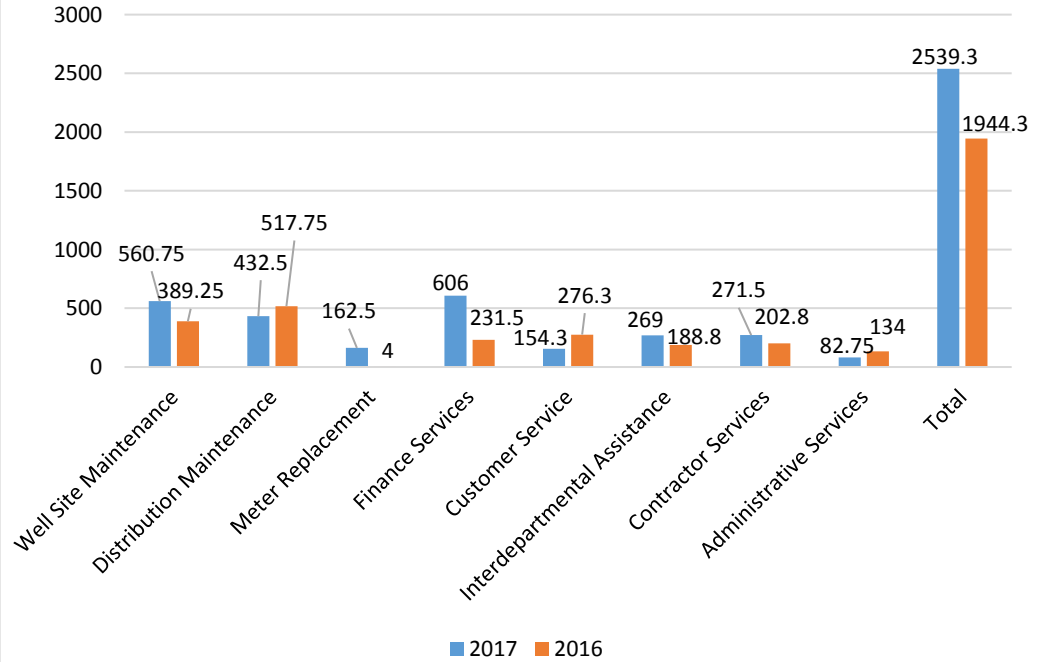
**May Water Waste Tickets**



**May 2017 Water Maintenance Man Hours**



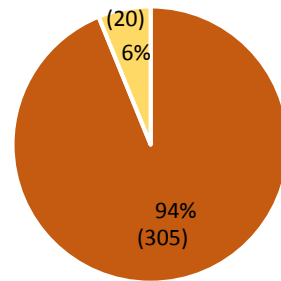
**Water Man Hours - May 2016 & 2017**



**City of Tulare WWTP Division  
May Dashboard**

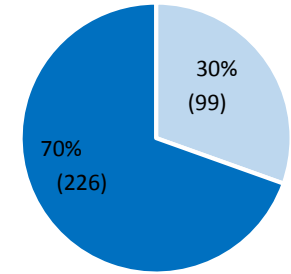
Compliance				
	BOD <40mg/l	TSS <40mg/l	Ammonia <10mg/l	Nitrogen <10mg/l
Efficiency	98%	96%	99.8%	93%
Sample Avg (mg/l)	24	19.4	0.5	4.4
Air Permits		Influent (MG)	Domestic	Industrial
# of Permits	20	Daily Avg	4.24	7.18
# Compliant	20	Total Month	131.32	222.68
		Daily Peak	5.42	9.79
Effluent (MG)				
		Combined	354	

**Preventative and Corrective Maintenance Work Orders**



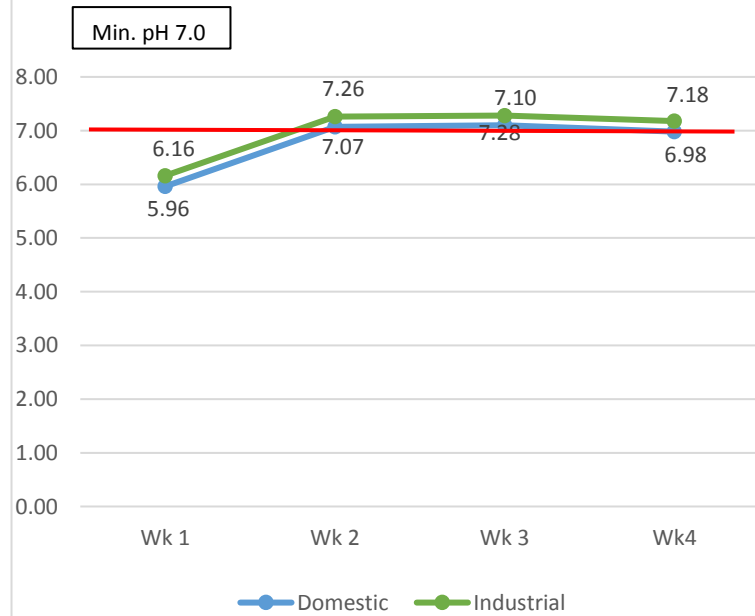
■ Preventative Maintenance  
■ Corrective Maintenance

**Domestic and Industrial Maintenance Work Orders**

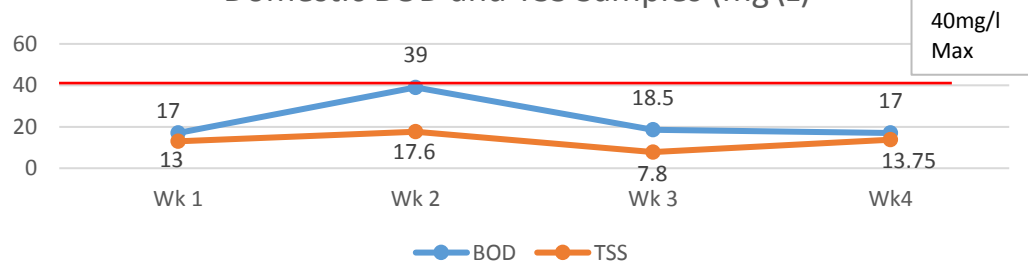


■ Domestic ■ Industrial

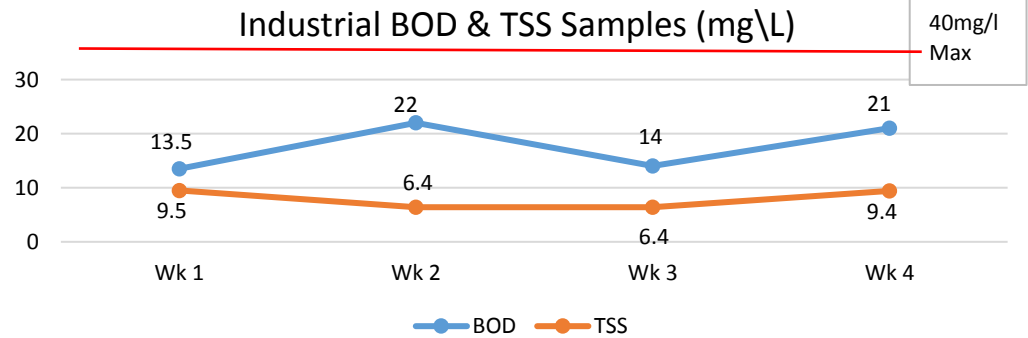
**Domestic & Industrial pH**



**Domestic BOD and TSS Samples (mg\L)**



**Industrial BOD & TSS Samples (mg\L)**



**AGENDA ITEM: Consent 3**

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department: Public Works – Water Division**

**For Board Meeting of: June 15, 2017**

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

**AGENDA ITEM:**

Accept Public Works Monthly Water System Report

**IS PUBLIC HEARING REQUIRED:**  Yes  No

**BACKGROUND/EXPLANATION:**

Resolution 16-19, adopted by the Board on November 15, 2016 directs the Public Works Director to provide monthly reports regarding the status of new connections and water system performance.

Month	System Delivery Capacity (MGD)	System Capacity Loss (MG)*	Demand (MGD)*		Pressure (PSI)		Connections Since Dec 2014 / Remainder of 952 Available Connections		
			Monthly Total	Peak Hour	Ave Max Day	Min Peak Hour	This Month	Cumulative	Remainder
May-17	31.95	-	-	-	53.32	36.77	18	664	288
Apr-17	31.95	0.78	11.86	17.08	54.57	42.07	21	646	306
Mar-17	31.95	0.31	9.95	14.33	57.18	41.75	24	625	327
Feb -17*	31.95	0.09	8.72	12.55	54.13	42.75	11	601	351
Jan - 17	31.95	0.91	8.18	11.77	53.87	42.35	15	590	362
Dec-16	31.95	0.38	9.16	13.18	53.93	42.53	41	575	377
Nov-16	31.95	0.62	10.38	14.95	54.80	42.57	33	534	418
Oct-16	31.95	1.90	12.69	18.27	52.23	38.94	15	501	451
Sep-16	31.95	0.94	16.58	23.62	51.83	35.20	26	486	466
Aug-16	31.95	1.79	19.43	25.02	54.16	33.29	25	460	492
Jul-16	31.95	2.38	17.52	26.35	53.57	31.50	30	435	517
Jun-16	31.95	1.48	18.89	24.67	52.87	32.23	22	405	547

*\*These items are based on actual retail delivery data and will lag one month behind while the meter reads are processed for the prior month.*

**Definitions:**

**Total System Delivery Capacity**

The total delivery capacity of the city wells based on their potential production expressed in terms of Million Gallons per Day (MGD).

**System Capacity Loss**

The difference between the volume of water produced and the volume of water delivered through meters expressed in MGD. This encompasses capacity lost through pipe leakage, breaks and system maintenance operations such as flushing and sampling.

**Connections**

The number of new connections completed is reported on a monthly basis by the Development Services Department.

**Monthly Total Demand**

Monthly Total Demand is the average volume of water delivered through retail meters expressed in MGD.

**Peak Hour Demand**

Peak Hour Demand is a calculated estimate of the effective demand on the City water system during the highest use periods of the month expressed in MGD.

**Average Max Day Pressure**

The Average Max Day Pressure is the average of the high pressure data points recorded in the SCADA system for each well site, each day of the month expressed in PSI.

**Peak Minimum Pressure**

Peak Minimum Pressure is the average of the lowest pressure data points recorded in the SCADA system for each well site, each day of the month expressed in PSI.

**Pressure Standards**

The minimum daily pressure standard is 30 psi. The target daily average standard psi is 35 or higher.

**STAFF RECOMMENDATION:**

Accept Public Works Monthly Water System Report.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes  No  N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**Signed:** Joseph Carlini

**Title:** Interim City Manager

**Date:** June 15, 2017

**City Manager Approval:** \_\_\_\_\_

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department:** Project Management Division

**For Board Meeting of:** June 15, 2017

**Documents Attached:** Ordinance Resolution Staff Report Other None

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**AGENDA ITEM:**

Water System Development Program update.

**IS PUBLIC HEARING REQUIRED:**  Yes  No

**BACKGROUND/EXPLANATION:**

At the February 18, 2016 Board of Public Utilities meeting, staff took an item to the Board (agenda item attached), requesting that the Board accept Carollo's Technical Memorandum No. 1 on the Matheny Sultz Water System Improvements, provide feedback on the Water System Development Program and appropriate funding for the Water System Development Program feasibility development. Carollo's Technical Memorandum No. 1 was a result of the City's concerns regarding the state of the water system and the City's ability to connect Matheny Tract (Pratt Mutual Water Company) and Soult's Mutual Water Company to the City's system. Carollo evaluated the City's water system and identified the projects needed to provided sufficient capacity to the existing system and to provide sufficient capacity for future water delivery needs. Using the Carollo study as a basis for future water system improvement projects, the Board accepted the study and created a project for the Water System Development Program.

At the June 16, 2016 Board of Public Utilities meeting the Board requested a tracking of the milestones and updates on the Water System Development Program. Since that time, staff has been providing monthly updates to the Board regarding the program. The update identifies the three major parts of the program: Water Storage, Water Wells, and the State SRF Grant for a new water well and water main extension project. As the status report is updated each month, the updated items are highlighted to make the changes easily identifiable to the Board. Attached are the anticipated milestones and updates for the project to date.

The updates since the last meeting are included and highlighted on the attached document. Those updates include the June 1, 2017 award of bid for the remaining five test wells and a revision of the timeline for the State grant related projects due to a delay in getting the test well completed at the southwest corner of Bardsley and K Street.

**STAFF RECOMMENDATION:**

Water System Development Program update.

**CITY ATTORNEY REVIEW/COMMENTS:** Yes No

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:** Yes No  
(If yes, please submit required budget appropriation request)

**Signed: Trisha Whitfield**

**Title: Project Manager**

**Date: June 7, 2017**

**City Manager Approval: \_\_\_\_\_**

## Water System Development Program

June 15, 2017

### Water Storage Tanks

Sites identified:

updated

Site 1: 1258 N. J Street

Site 2: SE corner of Alpine Avenue & Nelder Grove. Provided update to BPU on 2/2/17

Design/Construction timeline:

June 28, 2016	CEQA for city projects published. 20 day review period
July 12, 2016	RFP's for design of storage tanks published
August 4, 2016	Responses to RFP due
August 18, 2016	Award RFP at BPU meeting
October 20, 2016	BPU approved design of two, 2.0 million gallon concrete storage tanks
January 9, 2017	Planning Commission approved design review for J Street storage tank site. (amended CEQA due to change in size of tanks from 1.0 to 2.0 million gallons)
February 13, 2017	Planning Commission approved design review of Alpine storage tank site.
May 2017	Plans and Specifications completed
June 2017	Construction documents out to bid
August 2017	Begin construction of tanks

### Water Wells

Sites identified:

June 2, 2016

Site 1: Board approved suitability agreement for 333 South I Street (Well 6).

July 21, 2016

Site 2: 1258 N. J Street

Site 3: SE corner of Alpine Avenue & Nelder Grove. Provided update to BPU on 2/2/17

January 19, 2017

Site 4: Cartmill Avenue between De La Vina Street & Mooney Blvd.

Design/Construction timeline:

June 28, 2016	CEQA for city projects published. 20 day review period
July 12, 2016	Staff working with on-call Engineer to write specs for design-build wells
August 2016	RFB for test wells published
October 2016	RFP for design of water wells and hydrogeologists published
October 20, 2016	Award RFB for test wells, design of water wells and hydrogeologist consulting services Award well design to Cannon for 333 S. I Street
November 3, 2016	Award well design to Carollo Engineers for 1258 N. J Street
November 4, 2016	Held pre-construction meeting for test wells
November 14, 2016	Begin construction of test well #1 at 333 S. I Street. Estimated time frame - 6 weeks
November 2016	Begin construction of two wells. Work to include: test wells & sampling, design of well construction, construction of the well(s), installation of pump & appurtenances
December 15, 2016	Award well design to Carollo Engineers for Alpine & Nelder Grove site
December 23, 2016	Completed test well #1 at 333 S. I Street. Awaiting lab results for final design
January 3, 2017	Begin construction of test well #2 at 1258 N. J Street. Estimated time frame - 6 weeks
January 19, 2017	Present BPU with information regarding proposed Cartmill well site
February 1, 2017	Completed test well #2 at 1258 N. J Street. Awaiting lab results for final design
February 7, 2017	RFB for drilling of permanent well at 333 S. I Street published. Anticipate to award in March
March 16, 2017	Award RFB for construction of well at 333 S. I Street

March 16, 2017	Begin construction of test well #4 at Cartmill/Mooney. Estimated time frame - 6 weeks
March 21, 2017	RFB for drilling of permanent well at 1258 N. J Street published. Anticipate to award in May.
April 7, 2017	Completed test well #4 at Cartmill/Mooney. Awaiting lab results for final design
April 14, 2017	Begin construction of test well #5 at Alpine/Nelder Grove. Estimated time frame -6 wks
April 17, 2017	Begin construction of well at 333 S. I Street
May 4, 2017	Award RFB for construction of well at 1258 N. J Street. Anticipate construction to begin in May 2017
May 4, 2017	Award well design to Cannon for Cartmill & Mooney site
May 5, 2017	Completed test well #5 at Alpine/Nelder Grove. Awaiting lab results for final design
May 30, 2017	Anticipating to begin construction of well at 1258 N. J Street
June 1, 2017	Award RFB for up to five test wells to Johnson Drilling.

### State Grant - Matheny/Pratt MWC Consolidation

#### Sites identified:

July 21, 2016	Well Site 1: Closed session - real property negotiations for 2508 W. Tulare. Property negotiations cancelled - Looking for new well site. Well 14: 12" pipe north to Matheny Tract
October 6, 2016	Well Site 1: approval to purchase 820 Wright Way
June 2017	Well Site 2: City owned property at SW corner of Bardsley & K Street

#### Design/Construction timeline:

August 2016	Application for funding submitted to State
December 2016	All grant paperwork submitted and tentatively approved by the State, just waiting on CEQA required Cultural Report from consultant.
February 2017	Still working through cultural report. Anticipate final environmental by March.
February 15, 2017	Begin construction of test well #3 at 820 Wright Way. Estimated time frame - 6 weeks
March 2017	Completed test well #3 at 820 Wright Way. Final lab results determined the site the site is not suitable for a well (arsenic, TCP)
April 2017	Staff is looking for a new well site. Environmental documents on hold until a new well site is identified.
June 2017	Staff has identified the City owned lot at the SW corner of Bardsley & K Street as a potential well site. The test well will be started by the end of June and should take three weeks for drilling and an additional three weeks for lab results to come back.
July 2017	Complete application for funding (General, Technical, Environmental, & Financial)
September 2017	Finalize grant agreement with the State
November 2017	Advertise RFP for design, plans & specifications
January 2018	Award RFP for design, plans & specifications
April 2018	Plans and Specifications completed
June 2018	Construction documents out to bid
August 2018	Begin construction of well site and pipeline
January 2019	Construction of pipeline complete
July 2019	Construction well site complete



**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department:** Project Management Division

**For Board Meeting of:** June 15, 2017

**Documents Attached:** Ordinance Resolution Staff Report Other None

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**AGENDA ITEM:**

Accept as complete the contract with Anthony J. Prieto Water Well Drilling, Inc. of Selma, California on Project WT0027 – Construction of a well at 333 S. I Street; authorize the City Project Manager to sign the Notice of Completion; and direct the City Clerk to file the Notice of Completion with the Tulare County Recorder’s Office.

**IS PUBLIC HEARING REQUIRED:**  Yes  No

**BACKGROUND/EXPLANATION:**

Capital Improvement Program Project WT0027 is the construction of a well at 333 S. I Street. The project was split into three phases of construction: 1) test well, 2) drilling and development of the permanent well, and 3) well site improvements and equipping of the well (pumps and appurtenances). The Notice of Completion is for Phase 2, the drilling and development of the permanent well which was specified to include drilling a 610-foot deep hole, running an electric log and caliper log, and constructing, developing, and testing a 600-foot deep public supply well using the reverse rotary drilling method.

On March 16, 2017, a contract was awarded to the lowest responsive bidder, Anthony J. Prieto Water Well Drilling of Selma, California in the amount of \$296,440.00. This project is budgeted in the Water CIP as project no. WT0027 in the amount of \$1,500,000 and is funded through Water CIP Water Bond funds.

A summary of contract costs are as follows:

Original Contract Award:	\$ 296,440.00
Change Orders:	\$ ( 10,384.11)
Total Construction Contract Cost:	\$ 286,055.89

Change orders include deductions for only drilling the well to 570 feet (per the direction of the hydrogeologist, Ken Schmidt) and reimbursement to the City for a sewer overflow caused by the well developer. All work required of Anthony J. Prieto Water Well Drilling under this contract has been completed in accordance with the approved plans and specifications.

**STAFF RECOMMENDATION:**

Accept as complete the contract with Anthony J. Prieto Water Well Drilling, Inc. of Selma, California on Project WT0027 – Construction of a well at 333 S. I Street; authorize the City Project Manager to sign the Notice of Completion; and direct the City Clerk to file the Notice of Completion with the Tulare County Recorder’s Office.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes  N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**FUNDING SOURCE/ACCOUNT NUMBER:**

610 – Water CIP Fund

**Submitted by:** Trisha Whitfield

**Title:** Project Manager

**Date:** June 7, 2017

**City Manager Approval:** \_\_\_\_\_

**RECORDING REQUESTED BY:  
CITY OF TULARE**

**AND WHEN RECORDED MAIL TO:**

**City Clerk  
City of Tulare  
411 East Kern Avenue  
Tulare, CA 93274-4257**

**PURSUANT TO GOVERNMANET CODE SECTION 6103,  
NO RECORDING FEE REQUIRED.**

**NOTICE OF COMPLETION**

**NOTICE IS HEREBY GIVEN THAT:**

1. The City of Tulare, a Municipal Corporation, whose address is 411 East Kern Avenue, Tulare, California, is the owner of the real property, public works, or structure hereinafter described.
2. The nature of the title of the stated owner is: In fee
3. On the 15th day of June, 2017, a work of improvement on real property hereinafter described was completed pursuant to a contract to which Title 15 of Part 4 of Division 3 of the Civil Code applies.
4. The name of the Contractor who performed said work of improvements pursuant to such contract with the City of Tulare is Anthony J. Prieto Water Well Drilling, Inc., whose address is 891 S. Golden State Blvd., Selma, CA 93662.
5. The real property or public works or structure is described as follows:  
Well #45 located at 333 S. I Street

**Dated: \_\_\_\_\_, 2017**

**CITY OF TULARE  
A Municipal Corporation,**

**By: \_\_\_\_\_  
Trisha Whitfield, Project Manager**

**VERIFICATION**

**I am the Project Manager of the City of Tulare and am authorized to make this verification on behalf of the City. I have read the foregoing Notice of Completion, know the contents thereof, and believe it to be true and correct to the best of my knowledge.**

**I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.**

**Executed on \_\_\_\_\_, 2017 at Tulare, California.**

**By: \_\_\_\_\_  
Trisha Whitfield, Project Manager**

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department: Project Management Division**

**For Board Meeting of: June 15, 2017**

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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***AGENDA ITEM:***

Receive an update, project budget and design proposal for the Cartmill Corridor Improvements project located on Cartmill Avenue between the Cartmill Avenue Interchange at Highway 99 and De La Vina St. It is recognized that that the scope of this project includes the expansion of the water and sewer system infrastructure, but because the funding required for this project does not impact the budgets under the purview of the Board of Public Utilities, this is being provided as an informational item only.

***IS PUBLIC HEARING REQUIRED:***  Yes  No

***BACKGROUND/EXPLANATION:***

This Capital Improvement Project makes improvements and enhancements to the pavement and utility infrastructure along Cartmill Avenue and provides new water, sewer and surface water facilities needed for development to occur around the east side of the Cartmill Avenue Interchange. It also makes necessary intersection and traffic signal modifications at Cartmill Avenue and Hillman Street and constructs a new traffic signal at Cartmill Avenue and Retherford Street to address current and anticipated traffic congestion and safety concerns.

A Request for Proposals for on-call engineering services was issued on April 14, 2016. Ten (10) firms submitted all the necessary information to be considered for inclusion in a list of pre-approved consultants to provide these services. The proposals were reviewed and rated in accordance with the consultant selection procedures identified in the RFQ, and the top four (4) firms were recommended for inclusion on the list of prequalified general engineering and land surveying consultants. On June 21, 2016, City Council approved this list of (4) consultants.

Peters Engineering Group of Clovis, CA is included on the list of pre-qualified on-call Engineering consultants and has demonstrated that they have the skills, expertise and resources available to meet the City's needs and timeframe to complete the design of this project. At the June 6, 2017 regularly scheduled City Council Meeting, the City Council authorized the award of a contract to Peters Engineering Group of Clovis, CA in an amount not to exceed \$623,138 for field surveying and mapping, utility coordination, geotechnical analysis, engineering design, right-of-way acquisition (appraisals, negotiation, contracts and documentation), and bidding and engineering construction support services as needed. Additionally, the City Manager, or designee, was given the ability to approve contract change orders in an amount not to exceed 10% (\$62,313.80) of the contract award amount. The proposed fee is within industry standards and is in line with costs experienced on other projects with similar scopes of work. The proposed fee is also within the amount budgeted for this work on this project. A copy of their proposal is attached.

As identified in the project budget, there are some costs that are currently unfunded. The 230 – DIF Local Streets and Traffic Signals account does not have adequate funds to cover its appropriate share of the cost of construction; however, as development occurs, revenue will be generated, and it is anticipated that this will ultimately be able to refund its portion of the improvements. Additionally, a significant portion of the utility costs are currently unfunded. Under circumstances where development “goes first,” developers typically pay the cost of the utility improvements needed to support their project. Any oversize requirements imposed by the City to provide regional capacity are subject to reimbursement through the City’s Development Impact Fees (DIF) Program; however, if the City initiates installation of the improvements, as is being proposed for this project, a means to front the cost of improvements is needed. Enterprise funds generated through utility rates paid by existing customers are intended for maintaining and improving the existing system. They are not intended to be used to pay for expansion of the system; therefore, we cannot utilize utility enterprise funds to pay for the utilities that would be installed by the proposed project. Staff is currently working with the City Attorney to identify a means by which the funding of these improvements can be addressed, including potential benefit assessment districts. In the meantime, there is adequate funding available to fund the design phase of the project.

**STAFF RECOMMENDATION:**

Receive an update, project budget and design proposal for the Cartmill Corridor Improvements project located on Cartmill Avenue between the Cartmill Avenue Interchange at Highway 99 and De La Vina St. It is recognized that that the scope of this project includes the expansion of the water and sewer system infrastructure, but because the funding required for this project does not impact the budgets under the purview of the Board of Public Utilities, this is being provided as an informational item only.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes  N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**FUNDING SOURCE/ACCOUNT NUMBER:** N/A

**Submitted by:** Nick Bartsch

**Title:** Senior Project Manager

**Date:** June 7, 2017

**City Manager Approval:** \_\_\_\_\_



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**PETERS ENGINEERING GROUP**  
A CALIFORNIA CORPORATION

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Mr. Michael Miller  
City of Tulare  
411 East Kern Avenue  
Tulare, California 93274

May 15, 2017

Subject: Cartmill Avenue Improvements between Akers Street and De La Vina Street  
Tulare, California

Dear Mr. Miller:

Please find enclosed our proposed scope of services and fee for the subject project. Our understanding of the City's requirements for this scope of work is based on our previous work on this project and City staff direction.

Thank you for the opportunity to provide you with this proposal. Please feel free to call me if you have any questions.

**PETERS ENGINEERING GROUP**

David Peters, PE, TE  
Principal Engineer

Attachment: Exhibit "A" - Scope of Services  
Exhibit "B" - Project Exhibit  
Exhibit "C" - Fee Proposal  
Exhibit "D" - Project Design Schedule

## **Exhibit “A”**

### **SCOPE OF SERVICES**

#### **Civil Engineering Services for Cartmill Avenue Improvements between Akers Street and De La Vina Street in Tulare, California**

#### **INTRODUCTION**

Peters Engineering Group (Consultant) will provide the City of Tulare (Client) with engineering services for the subject project as described herein. Consultant’s services will result in the preparation of prepare plans, specifications, and estimate for the proposed improvements to Cartmill Avenue between Akers Street and De La Vina Street as shown in Exhibit “B” and as follows:

- Widen Cartmill Avenue at its intersection with Hillman Street as necessary to construct median island improvements, dual left-turn lanes, a right-turn lane, and two thru lanes for eastbound and westbound traffic.
- Install median island improvements in Cartmill Avenue east of the intersection to De La Vina Street.
- Reconstruct Cartmill Avenue east from Hillman intersection to De La Vina to provide 2 lanes of traffic in each direction. Install transition pavement on the north and the south sides of Cartmill Avenue east from Hillman intersection to the west end of the existing subdivision on the south side of Cartmill Avenue. Install new pavement in outside eastbound travel lane area from De La Vina Street to west end of the existing subdivision on the south side of Cartmill, approximately 800 feet east of intersection.
- Install median island improvements in Cartmill Avenue west of the intersection to the northbound Freeway 99 on ramp.
- Reconstruct Cartmill Avenue west from Hillman intersection to Akers Street to provide a minimum of 2 lanes of traffic in each direction. Install transition pavement on the north and the south sides of Cartmill Avenue west of Hillman as necessary for lane reductions.
- Widen Cartmill Avenue at Retherford Street as necessary to provide for westbound left-turn lane and associated intersection improvements as required for all-way stop or traffic signal control.
- Relocate signal infrastructure on the north side of the intersection of Cartmill Avenue and Hillman Street to the ultimate location, with new curb and gutter.
- Remove portion of existing median island in Hillman Street on north side of intersection to align with relocated traffic signal infrastructure.
- Install sewer, water main and storm drain improvements per City Master plans.

## **WORK TASKS**

The Consultant will provide the following work tasks:

### **SCOPE OF SERVICES**

#### **Task 100 - Preliminary Engineering**

##### **101 Kickoff Meeting**

Peters Engineering Group (Consultant) and sub-consultants will attend a kickoff meeting with City of Tulare (City) staff to discuss expectations and objectives for the project. A field review will follow to review the project.

##### **102 Field Surveys and Mapping**

Consultant team will perform a topographic and boundary survey of the existing features and right-of-way. The topographic survey will extend throughout the limits of the project and will be used to develop digital mapping for design of the proposed improvements. The boundary survey will assist in preparation of the right of way acquisition documents.

##### **103 Research Existing Underground Utilities**

The location of existing underground utilities will be identified through available City and utility company record drawings. Utility companies will be contacted and a request for utility records will be made. Existing underground utilities will be incorporated in digital topographic mapping and shown in both plan and profile on the construction documents. The City and any other agency affected by the project will be notified through the Preliminary Design Memorandum whether relocation or other mitigations are required. Preliminary plans will be distributed to affected agencies for assistance in utility coordination and possible relocation. While correspondence will be prepared by consultant, letters and other communications may need to be sent by City Staff to acquire the information for use by the Consultant.

It is anticipated that existing utilities will be affected by the project. Consultant will ascertain the location and status of such facilities and will make recommendations regarding relocations that may be necessary.

##### **104 Geotechnical Analysis**

Consultant team will perform a geotechnical analysis to ascertain the depth and composition of the existing pavement structural section within the project limits and will provide subgrade testing at 4 locations to determine the R-Value of the subgrade soils at selected locations. Pavement structural sections will be designed for various sections and conditions within the project limits based up a Traffic Index provided by the City.



## **105 Geometric Approval Drawings**

Consultant will prepare initial geometric plans for the proposed street improvements. Roadway impacts and constraints will be identified as well as any necessary rights-of-way or easements. The geometric approval drawings will be the basis for the roadway and utility design in subsequent milestones.

The drawings will identify the location of future curb and gutter on both the north and south sides of Cartmill within the project limits. The Consultant will calculate the ultimate elevations of the curb and gutter within these limits, and use these elevations as a basis to design edge of pavement grades for the proposed widening.

## **106 Preliminary City Utility Designs**

Consultant will prepare initial utility layout and improvement designs for water, sewer and storm drainage facilities within the project area. The improvements will be based on ultimate facilities described in each utility's Master Plan factoring in impacts resulting from the street improvements. Facilities requested to be included in the design which are not shown in the Master Plan documents will be included as Additional Services.

## **107 Preliminary Traffic Signal and Lighting Designs**

Consultant will prepare preliminary traffic signal and lighting designs that will include proposed locations for signal and lighting poles, controller cabinets, service enclosures, major pullboxes and vaults and interconnect facilities. A SCE request for service will be prepared as part of the preliminary signal and lighting designs and forwarded to the City for submission to SCE.

## **108 Preliminary Landscaping Designs**

Consultant will meet with City Public Works and Parks staff to determine the desired landscape irrigation and planting schemes considering maintenance and water use thresholds. Consultant will prepare preliminary landscaping design schemes for the median islands within the project limits.

## **109 30% Plans Submittal & Estimate**

Consultant will prepare thirty percent (30%) plans including preliminary roadway city utility, signal and lighting, and landscaping designs. Plans will be developed in AutoCAD 2015, or a version acceptable to the City. Three (3) copies of the 30% plans and a preliminary cost estimate will be submitted for City review. Copies of the 30% plans will be distributed to affected utility companies for use in their design of relocations.

## **110 Preliminary Design Memorandum (PDM)**

Consultant will prepare a Preliminary Design Memorandum (PDM) which will recommend, upon approval from the City Engineer, those areas to be removed and reconstructed and those to be rehabilitated. The PDM will discuss various design components including utility relocation, design constraints/issues, and a

recommendation which will be based on a life cycle cost analysis depicting the most cost effective strategy.

PDM will be submitted to the City in pdf format for review. A review meeting will be attended to address City comments on the PDM and 30% plans.

### **111 Council Presentation and Public Meeting**

Consultant will assist in presenting the project to the public and City Council in an effort to gain Council and public feedback on the project. Council and public comments will be considered in the development of the 95% Plans, Specifications, and Estimate (PS&E) for the project.

## **Task 200 - Construction Documents**

### **201 Right-of-Way Exhibits**

Consultant will prepare plats and legal descriptions for up to 8 parcels that will be acquired to accommodate the proposed improvements. The City will be responsible for acquisition. Field staking of the proposed right-of-way acquisitions is included in this task for up to 8 parcels. Re-staking of the information, if requested, would be performed as additional services.

### **202 Agency Coordination**

Consultant will coordinate final design of the project with the County of Tulare, Caltrans, Tulare Irrigation District and other stakeholders affected by the project. Permit requirements will be determined and prepared as necessary and delivered to the City of Tulare for submittal to various agencies.

### **203 Preliminary PS&E (95%)**

Thirty percent (30%) PS&E review comments received from the City will be addressed and incorporated into the 95% PS&E. The 95% PS&E will be submitted in pdf format for City review. Peters Engineering Group will meet with City personnel to discuss any final revisions.

### **204 Final PS&E (100%)**

Ninety five percent (95%) PS&E review comments received from the City will be addressed and incorporated into the one hundred (100%) PS&E. The 100% PS&E will be submitted in pdf format for City review. Peters Engineering Group will meet with City personnel to discuss any final revisions.

### **205 Construction Documents**

One hundred percent (100%) PS&E review comments received from the City will be addressed and incorporated into the final construction documents.

Specifications will be prepared in an electronic word processing program compatible with City software.

One (1) set of mylar plans, original specifications, and estimates will be submitted to the City. Construction documents will be stamped and signed by a registered civil engineer.

Electronic files of all construction documents will be available as requested by the City.

### **SUPPLEMENTAL SERVICES**

The following tasks are supplemental tasks which may be included in the scope of services by amendment at the desire of the City.

Right of Way Acquisition: Sub-Consultant Right of Way Agent shall represent the City of Tulare in negotiations with private property owners and shall prepare all necessary appraisals, contracts, and other documentation necessary for acquisition of right of way for the project. Proceedings for eminent domain are not included. If these become necessary, additional fees may be required.

Bidding Coordination and Support: Consultant will review and respond to requests for information (RFI's) during the bidding portion of the project and will be responsible for soliciting and receiving bids for the project. This will include preparation of advertisement and printing and distribution of plans, specifications, and addendums during the bid process.

Construction Support: Consultant will review submittals during construction. Consultant will review and respond to requests for information (RFI's) during the construction portion of the project. If an addendum or addition review is required due to a change in the scope of work, then it will be regarded as additional services.

Fees for such tasks will be determined at the time of inclusion in the scope of services.

### **CLIENT'S DUTIES AND RESPONSIBILITIES**

The Client shall:

- a) Provide all criteria and full information concerning Client's requirements for the project.
- b) Provide Consultant with plans indicating the locations, types, and sizes of any proposed improvements. City of Tulare has already provided the approved plan line for Cartmill Avenue and master plans for City water, sewer, and storm drain.
- c) Provide an arborist, as necessary.
- d) Give prompt notice to Consultant whenever Client observes or otherwise becomes aware of any development that affects the scope or timing of Consultant's services.
- e) At Client's discretion, authorize and direct Consultant to provide necessary Additional Services.

### **ADDITIONAL SERVICES**

The Client may, at its sole discretion, request that Consultant perform Additional Services. Both parties, prior to proceeding with these services, shall execute a written amendment to this Agreement.

Additional services will be required if Consultant is to perform services not specifically described herein. Additional services will be required if any additional project alternatives will be requested. Additional Services will be required if Consultant is required to attend additional meetings not already identified in this scope of work, including but not limited to project design team, public hearings, planning commission meetings, and city council meetings.

### **RIGHT TO RELY**

Consistent with the professional standard of care, Consultant shall be entitled to rely upon the accuracy of data and information provided by the Client or others without independent review or evaluation unless specifically required in the Scope of Services.

### **COMPENSATION**

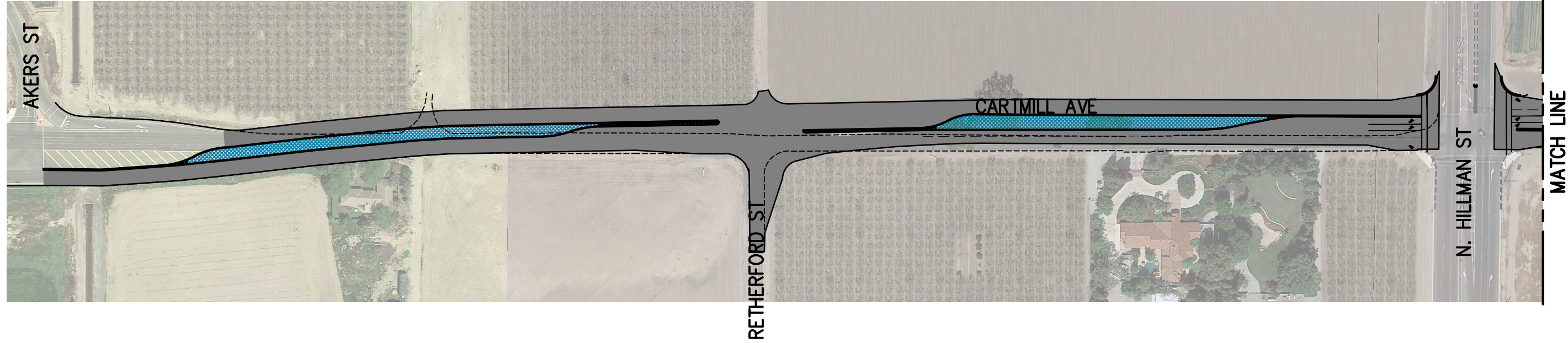
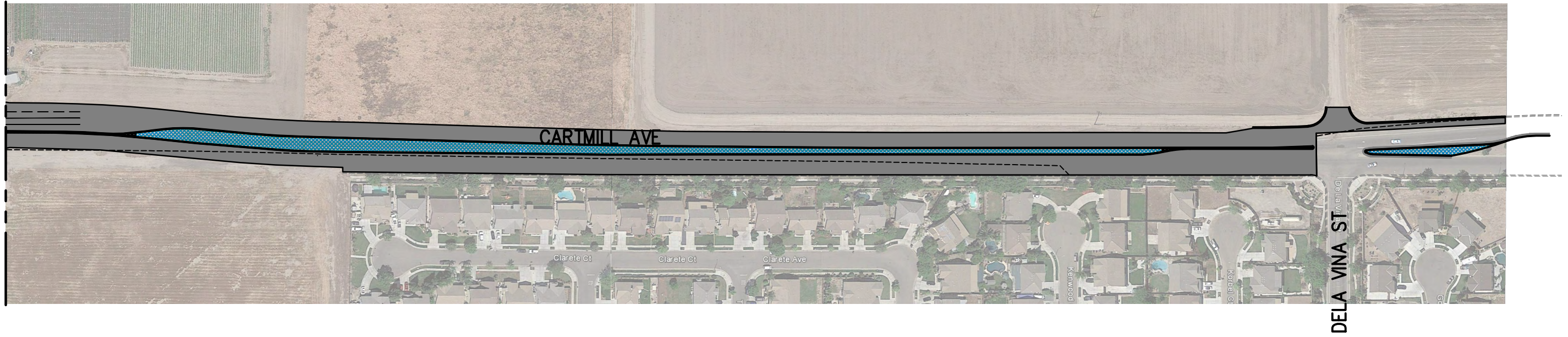
Consultant's fee for the services described herein shall be in accordance with Exhibit "C" and billed to the Client on a lump sum per task basis monthly on a percent complete basis.

### **SCHEDULE**

The task will performed in accordance with the attached schedule Exhibit "D".



SEE ABOVE RIGHT  
MATCH LINE



MATCH LINE  
SEE BELOW LEFT

CARTMILL & HILLMAN IMPROVEMENTS  
PROJECT LOCATION  
Tulare, California



SCALE: 1"=200'



**City of Tulare, Cartmill and Hillman  
Engineering Fee Proposal  
Exhibit "C"**

Task	Description	Person-Hours					Design Lab 252	RMA Geoscience	Other Direct Costs	Total
		Principal Engineer @ \$175 /hr	Senior Civil Engineer @ \$160 /hr	Staff Engineer @ \$110 /hr	Clerical @ \$65 /hr	McPheeters & Associates				
<b>100</b>	<b>PRELIMINARY ENGINEERING</b>									
101	Initial Project Coordination and Kick-off Meeting	4	10	6	4	\$500	\$500	\$500	\$100	\$4,820
102	Topographic Survey	2	20	80	4	\$34,500			\$100	\$47,210
103	Utility Research & Coordination		24	24	8				\$50	\$7,050
104	Geotechnical Engineer Report and Analysis	1	16		4			\$8,625		\$11,620
105	Preliminary Sewer, Water, and SD Design	2	80	180					\$100	\$33,050
106	Preparation of Geometric Approval Drawing, including future curb design	12	80	200					\$100	\$37,000
107	Preliminary Traffic Signal Modification plans, including interconnect	8	50	60					\$100	\$16,100
108	Preliminary Landscape and Irrigation Plans		8	4			\$7,475			\$9,195
109	Design Memorandum and Council Presentation	40	92	44	12				\$1,200	\$28,540
110	30% Plans and Estimate & Review Meeting	24	92	202	12				\$1,100	\$43,020
	<b>Total Hours</b>	<b>89</b>	<b>462</b>	<b>794</b>	<b>40</b>	<b>\$34,500</b>	<b>\$7,475</b>	<b>\$8,625</b>	<b>Total =</b>	<b>\$237,605</b>
<b>200</b>	<b>CONSTRUCTION DRAWINGS/FINAL PS&amp;E</b>									
201	Preparation of Legal Descriptions and Exhibits	4	16	16		\$10,120			\$500	\$15,640
202	Agency coordination with Caltans and Tulare County	40	60	24	8				\$500	\$20,260
203.1	Prepare 95% Cross Sections	4	24	50					\$25	
203.2	Prepare 95% Street Plan and Profiles	5	40	120					\$25	
203.3	Prepare 95% Sewer, Water and Storm Drain Plan and Profiles	5	60	180					\$25	
203.4	Prepare 95% Construction Details	5	32	120					\$25	
203.5	Prepare 95% Traffic Signal Plans	5	50	60					\$25	
203.6	Prepare 95% Striping and Signage Plans	5	40	80					\$25	
203.7	Prepare 95% Traffic Control Plans	5	50	120					\$25	
203.8	Prepare 95% Landscape and Irrigation Plans	1	4				\$11,500		\$25	
203.9	Prepare 95% Specifications	5	40	20	16				\$25	
203.10	Prepare 95% Construction Cost Estimate	4	20	48					\$25	
<b>203</b>	<b>Prepare 95% Plans, Specifications, and Estimate (total) &amp; Design Review Meeting</b>	<b>44</b>	<b>360</b>	<b>798</b>	<b>16</b>	<b>\$0</b>	<b>\$11,500</b>	<b>\$0</b>	<b>\$250</b>	<b>\$165,870</b>

Task	Description	Person-Hours					Design Lab 252	RMA Geoscience	Other Direct Costs	Total
		Principal Engineer @ \$175 /hr	Senior Civil Engineer @ \$160 /hr	Staff Engineer @ \$110 /hr	Clerical @ \$65 /hr	McPheeters & Associates				
204	Prepare 100% Plans, Specifications, and Estimate & Design Review Meeting	12	72	190	16				\$1,000	\$36,560
205	Construction Documents	8	40	60	12				\$1,000	\$16,180
<b>Total Task 3 Hours</b>		<b>108</b>	<b>548</b>	<b>1088</b>	<b>52</b>	<b>\$10,120</b>	<b>\$11,500</b>	<b>\$0</b>	<b>Total = \$254,510</b>	
<b>Total Hours</b>		<b>197</b>	<b>1010</b>	<b>1882</b>	<b>92</b>	<b>\$44,620</b>	<b>\$18,975</b>	<b>\$8,625</b>	<b>Grand Total = \$492,115</b>	
<b>300</b>	<b>SUPPLEMENTAL SERVICES</b>									
301	Right of Way Acquisition*	1	40		4				\$51,888	\$58,723
302	Bidding Coordination and Support*	4	24	16	20				\$2,500	\$10,100
303	Construction Support*	40	160	200	40				\$5,000	\$62,200
<b>Total Hours</b>		<b>45</b>	<b>224</b>	<b>216</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>Total = \$131,023</b>	

\* Preliminary fee estimates. Actual fee to be negotiated if supplemental service is requested



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**PETERS ENGINEERING GROUP**  
A CALIFORNIA CORPORATION

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**EXHIBIT "C"**

**HOURLY RATE SCHEDULE**  
(Effective 1/1/17 to 12/31/17)

<u>CLASSIFICATION</u>	<u>RATE</u>
Principal Civil Engineer	\$175/hr
Senior Civil Engineer	\$160/hr
Civil Engineer	\$125/hr
Land Surveyor	\$120/hr
Staff Engineer	\$110/hr
Draftsperson/Technician/Inspector	\$90/hr
Clerical	\$65/hr
Robotic Total Station	\$35/hr
Litigation Support	\$350/hr

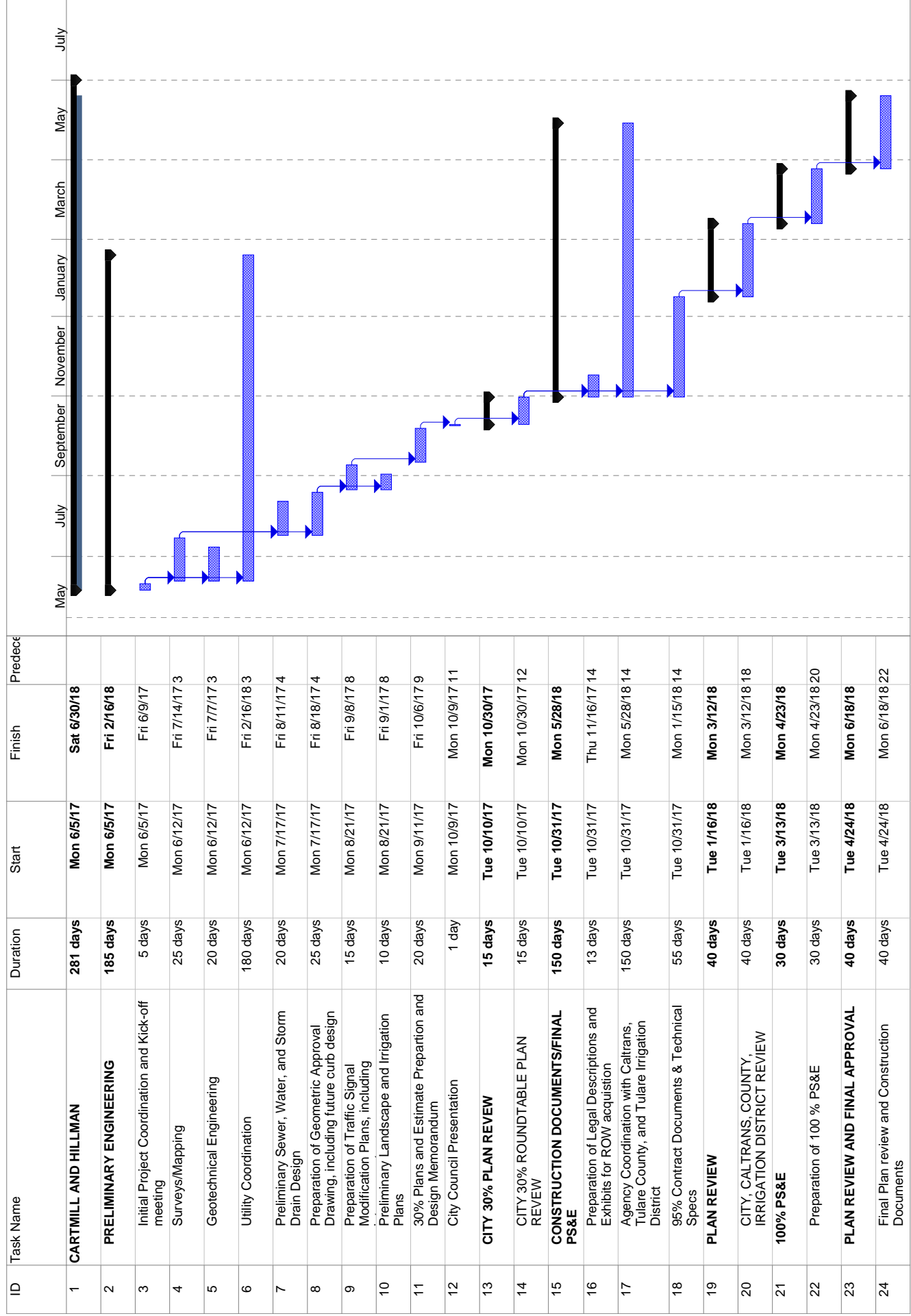
**REIMBURSABLES SCHEDULE**  
(Effective 1/1/17 to 12/31/17)

<u>DESCRIPTION</u>	<u>RATE</u>
Mileage	\$0.63/mile
Travel Subsistence	Actual Cost + 10%
Postage	Actual Cost + 10%
Reproduction	Actual Cost + 10%
Subconsultant	Actual Cost + 10%

Peters Engineering Group will furnish monthly billing for work performed in accordance with previously authorized fees and the above fee schedule. Payments shall be due upon presentation and no later than 30 days from the date of original invoice. Finance charges will apply to unpaid balances.



# CITY OF TULARE CARTMILL AND HILLMAN IMPROVEMENTS PROJECT SCHEDULE



## TRANSPORTATION PROJECT

<b>PROJECT #EN2014-2</b>
Cartmill-Hillman Improvements - Alternative 3
<b>(Capital)</b>
<b>(Capital)</b>
<b>District(s): 4,5</b>

**PROJECT MANAGER:** Nick Bartsch

**PROJECT DESCRIPTION & PURPOSE:**

Pavement Management System / Traffic Safety / Utility project on Cartmill Ave. from the Cartmill Ave. Interchange at Highway 99 to De La Vina St. Includes the build out of Cartmill Ave. between the Interchange and Hillman St.; intersection and signal improvements at Hillman St. to allow for dedicated left-turn lanes, additional queuing and enhanced traffic safety; a new traffic signal at Retherford Street; Water, Sewer and Surface Water facility improvements along the Cartmill Avenue corridor.

**KEY POINTS:**

Utility Infrastructure Improvements; Reduces traffic safety Improvements; Relief from potential liability concerns; System expansion for future development.

**PROJECT STATUS:**

Approved by TMT on 9/23/16

**PROJECTED START DATE:**

2/1/2017

**PROJECTED END DATE:**

6/30/2020

**FUTURE M & O:**

*(Additional Cost & Department Responsibility)*

No additional Cost

**CRITERIA (1-8):**

Criteria 7: Project addresses regulatory, safety, or environmental requirements that could threaten in whole or in part the City's ability to operate a core program or function at some future time if not replaced or repaired.

Costs Description	Fiscal Year					Total	Unfunded
	2017/18	2018/19	2019/20	2020/21	2021/22		
001 - Conceptual	\$0	\$0	\$0	\$0	\$0	\$0	\$0
002 - Preliminary Design	\$0	\$0	\$0	\$0	\$0	\$0	\$0
003 - Environmental	\$1,939,020	\$0	\$0	\$0	\$0	\$1,939,020	\$0
004 - Final Design	\$556,262	\$0	\$0	\$0	\$0	\$556,262	\$0
005 - Construct/Impliment	\$0	\$3,496,173	\$3,496,173	\$0	\$0	\$3,412,602	\$3,579,743
006 - Close Out	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Costs:</b>	\$2,495,282	\$3,496,173	\$3,496,173	\$0	\$0	<b>\$5,907,885</b>	<b>\$3,579,743</b>
<b>Total:</b>						<b>\$9,487,628</b>	
Funding Sources							
022 - Gas Tax	\$61,459	\$246,992	\$239,130	\$0	\$0	\$547,582	\$0
021 - Measure R-Local	\$476,785	\$80,749	\$1,888,611	\$0	\$0	\$2,446,145	\$0
230 - DIF Local Streets and Traffic Signals	\$1,766,520	\$75,000	\$75,000	\$0	\$0	\$659,250	\$1,257,270
250 - DIF - STS/MEDIANS/LANDSCAPING	\$0	\$125,280	\$125,280	\$0	\$0	\$250,560	\$0
TBD - Cartmill Water Infrastructure	\$82,217	\$491,038	\$491,038	\$0	\$0		\$1,064,293
260 - DIF - WATER SUPPLY/DISTRIBUTION/HOLDING FAC	\$0	\$8,600	\$8,600	\$0	\$0	\$17,200	\$0
TBD - Cartmill Sewer/Wastewater Infrastructure	\$96,893	\$580,644	\$580,644	\$0	\$0		\$1,258,180
290 - DIF - SEWAGE COL & WASTEWATER TREATMENT FAC	\$0	\$19,500	\$19,500	\$0	\$0	\$39,000	\$0
647 - Surface Water CIP	\$0	\$0	\$0	\$0	\$0	\$0	\$0
301 - DIF - STORM DRAIN FAC	\$11,408	\$68,370	\$68,370	\$0	\$0	\$148,148	\$0
643 - LTF	\$0	\$1,800,000	\$0	\$0	\$0	\$1,800,000	\$0
<b>Total Funding:</b>	\$2,495,282	\$3,496,173	\$3,496,173	\$0	\$0	<b>\$5,907,885</b>	<b>\$3,579,743</b>
<b>Total:</b>						<b>\$9,487,628</b>	

## Project Cost Worksheet

Expenses	Fiscal Year					Total
	2017/18	2018/19	2019/20	2020/21	2021/22	
<b>001 - Conceptual</b>						
PSR						\$0.00
						\$0.00
						\$0.00
Sub Total:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>002 - Preliminary Design</b>						
PA&ED						\$0.00
						\$0.00
						\$0.00
Sub Total:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>003 - Environmental</b>						
Environmental - CEQA	\$2,500.00					\$2,500.00
ROW	\$1,936,520.00					\$1,936,520.00
						\$0.00
						\$0.00
Sub Total:	\$1,939,020.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,939,020.00
<b>004 - Final Design</b>						
PS&E - Consultant Engineer - Plans, Specs, & Est.	\$517,453.45					\$517,453.45
PS&E - Project Management Staff Time	\$25,872.67					\$25,872.67
PS&E - Engineering Staff Time	\$12,936.34					\$12,936.34
						\$0.00
Sub Total:	\$556,262.46	\$0.00	\$0.00	\$0.00	\$0.00	\$556,262.46
<b>005 - Construct/Impliment</b>						
CON - Construction Costs		\$2,587,267.24	\$2,587,267.24			\$5,174,534.48
CON - DIF Eligible Costs (Streets & Utilities)		\$153,380.00	\$153,380.00			\$306,760.00
CON - Construction Contingency		\$381,840.09	\$381,840.09			\$763,680.17
CON - Design Engineer - Construction Support		\$25,872.67	\$25,872.67			\$51,745.34
CON - Construction Management		\$181,108.71	\$181,108.71			\$362,217.41
CON - Survey/Testing		\$129,363.36	\$129,363.36			\$258,726.72
CON - Misc. - Printing & Reimburseables		\$5,000.00	\$5,000.00			\$10,000.00
CON - Project Management Staff Time		\$25,872.67	\$25,872.67			\$51,745.34
CON - Engineering Staff Time		\$6,468.17	\$6,468.17			\$12,936.34
						\$0.00
						\$0.00
Sub Total:	\$0.00	\$3,496,172.91	\$3,496,172.91	\$0.00	\$0.00	\$6,992,345.82
<b>006 - Close Out</b>						
						\$0.00
						\$0.00
						\$0.00
Sub Total:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Costs:</b>	\$2,495,282.46	\$3,496,172.91	\$3,496,172.91	\$0.00	\$0.00	<b>\$9,487,628.28</b>
<b>Funding Sources</b>						
Funding Sources	Fiscal Year					Total
	2017/18	2018/19	2019/20	2020/21	2021/22	
022 - Gas Tax	\$61,459.46	\$246,992.16	\$239,130.16			\$547,581.77
021 - Measure R-Local	\$476,784.94	\$80,749.11	\$1,888,611.11			\$2,446,145.15
230 - DIF Local Streets and Traffic Signals	\$1,766,520.00	\$75,000.00	\$75,000.00			\$1,916,520.00
250 - DIF - STS/MEDIANS/LANDSCAPING		\$125,280.00	\$125,280.00			\$250,560.00
TBD - Cartmill Water Infrastructure	\$82,217.35	\$491,038.00	\$491,038.00			\$1,064,293.35
260 - DIF - WATER SUPPLY/DISTRIBUTION/HOLDING FAC		\$8,600.00	\$8,600.00			\$17,200.00
TBD - Cartmill Sewer/Wastewater Infrastructure	\$96,892.53	\$580,643.73	\$580,643.73			\$1,258,180.00
290 - DIF -SEWAGE COL & WASTEWATER TREATMENT FAC		\$19,500.00	\$19,500.00			\$39,000.00
647 - Surface Water CIP						\$0.00
301 - DIF - STORM DRAIN FAC	\$11,408.18	\$68,369.91	\$68,369.91			\$148,148.00
643 - LTF		\$1,800,000.00				\$1,800,000.00
						\$0.00
<b>Total Funding:</b>	\$2,495,282.46	\$3,496,172.91	\$3,496,172.91	\$0.00	\$0.00	<b>\$9,487,628.28</b>

**AGENDA ITEM: Consent 7**

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department:** Project Management Division

**For Board Meeting of:** June 15, 2017

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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**AGENDA ITEM:**

Receive updates to Administrative Policy 15-01 Transportation System Planning Policy.

**IS PUBLIC HEARING REQUIRED:**  Yes  No

**BACKGROUND/EXPLANATION:**

Administrative Policy 15-01 was originally approved by the City Council on January 20, 2015 and subsequently by the Board of Public Utilities on February 5, 2015. The purpose of the policy is to describe the City's transportation system planning, operations, maintenance and project administration processes, including: (a) project and work plan prioritization and selection, (b) funding strategies and long range financial planning, and (c) maintenance strategies and standards. The intent is to optimize transportation system funding to achieve Council priorities, to effectively measure and monitor progress, and to set a framework and methodology for evaluating and addressing transportation system needs. The policy specifically identifies the basis by which City Staff will provide its recommendations and budget resources, while establishing standards and a work plan that is realistic and achievable, given limited available resources.

Since the time the current policy was developed and approved, significant changes to both the condition of the transportation system and funding available to assist on transportation related projects have occurred. Staff identified areas needing clarification and revision, and addressed City Council requested changes to specific provisions of the existing policy. Through the process, Staff conducted a workshop with representatives from both the City Council and Board of Public Utilities to review concerns and identify desired modifications to the policy. The resulting revisions were then reviewed and approved by the Transportation Management Team. At the June 6, 2017 regularly scheduled City Council Meeting, the City Council approved the updates and revisions to the policy.

A summary of the updates are listed below:

- The process and basis by which benefit assessment districts are formed is still under review by the City Attorney, so while the policy continues to recognize the potential for funding resulting from the formation of such districts, the specific requirement for new development to establish them for the maintenance of streets has been removed. It is Staff's intent to continue to review this issue with legal counsel to determine the City's ability to enforce such requirements, and to subsequently bring it back to Council for consideration once a determination is made. Based upon current legal opinion, any

such requirements imposed upon new development would be better addressed through an ordinance or resolution rather than an administrative policy.

- The use of Measure '1' funding has been added as an available funding source to various categories under transportation maintenance.
- The Transportation System cash flow and contingency reserve was reduced from one million dollars to be equal to ten percent of the anticipated annual transportation project program budget.
- Transportation project prioritization criteria were re-evaluated and determined to simply be "factors" used to prioritize projects, rather than a specified order of criteria.
- Minimum Pavement Condition Indexes for Arterial Streets were increased from 50 to 55, and for Collectors from 40 to 50.
- Clarification was provided that no replacement (or major reconstruction) projects will be planned or will occur on any other streets (other than Arterials and Collectors) until minimum standards are first met on all Arterials and Collector streets, unless dedicated or restricted funds (including utility funds) are utilized.
- Clarification was provided as to how maintenance activities are prioritized by street category: Urgency Items, Arterials Streets, Commercial Collector Streets, and then as necessary on all other streets (including local streets) to maximize street life and minimize total life costs.
- Maintenance, Replacement and Expansion category descriptions and amounts were updated/clarified based upon identified needs and specific requests (i.e. New Street Lighting, additional for School Safety – sidewalk improvements, additional for Pavement Preservation utilizing Measure '1' funding)
- As previously directed by the Board of Public Utilities, missing utility services and laterals will be installed by the City at the time of a City project to provide property owners future abilities to connect without needing to disturb the integrity of a newly paved street. Costs will be borne by the associated utility and reimbursed by the property owner at the time the service is activated.
- In an increased effort to encourage economic development, the following clause was removed: "The City will not participate financially in the expansion of the transportation system infrastructure unless adequate funds are first available to meet maintenance and replacement priorities."

**STAFF RECOMMENDATION:**

Receive updates to Administrative Policy 15-01 Transportation System Planning Policy.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes  N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**FUNDING SOURCE/ACCOUNT NUMBER:** N/A

**Submitted by:** Nick Bartsch

**Title:** Senior Project Manager

**Date:** June 7, 2017

**City Manager Approval:** \_\_\_\_\_

ADMINISTRATIVE POLICIES

OFFICE OF THE CITY MANAGER

Policy Title:	Transportation Management Team	Effective Date:
Policy No.:	15-01	Revision Date: n/a
Sections:	1 - 9	Revision Date: n/a
Reviewed by:	Team; City Council; BPU; City Attorney	Revision Date: n/a

1. PURPOSE.  
As attached.
  
2. AUTHORITY.  
As attached.
  
3. APPLICATION.  
As attached.
  
4. DEFINITIONS:  
As attached.
  
5. POLICY.  
As attached.

\_\_\_\_\_  
Joseph V. Carlini, Interim City Manager

\_\_\_\_\_  
Date

**Section 1 Policy Purpose:**

To describe the City's transportation planning and projects administration process, including: (a) project prioritization and selection, (b) funding strategies, and (c) maintenance strategies and standards. The intentions are to optimize transportation system funding to achieve Council priorities, to effectively measure and monitor progress, and to set a framework and methodology for evaluating and addressing transportation system needs.

**Section 2 Definitions:**

"Arterial Street" means the streets defined in the Transportation and Circulation Element of the City of Tulare's General Plan as Arterials (both Major Arterials and Arterials) and those streets used functionally as Arterial Streets.

"BPU" means the City of Tulare Board of Public Utilities created pursuant to the City of Tulare Charter.

"City Economic Development Benefit" means direct and quantifiable indirect revenues that will come to the City in the form of taxes or fees or assessments as the result of doing a particular project.

"City Local Funds" means funds from the City's general fund or utility funds.

"Collector Street" includes the streets defined in the Transportation and Circulation Element of the City of Tulare's General Plan as Primary Collector, Secondary Collector, Commercial Collector, and Industrial Collector Streets, and those streets used functionally as Collector Streets.

"Diffusion Factor" means a method to be determined by the Transportation Management Team to be used in project selection to assure that projects and street improvements are reasonably equitable in terms of how they are spread throughout the City.

"Local Street" means the streets defined in the Transportation and Circulation Element of the City of Tulare's General Plan under the heading "Local Streets," which are primarily serving low-density residential uses and any other Streets not included as Arterial Streets, Collector Streets, or Local Streets.

"Pavement Condition Index (PCI)" means that system of rating from zero to one-hundred commonly used by local governments to indicate the pavement condition of a street.

"Project Cost Accounting System" means the City's computerized project cost accounting system and the procedures used to account for projects.

"Project Scope Efficiency" means grouping street segments or other logical associations together into a single project to realize project economies of scale.

"Special Benefits" means the benefits over and above benefits to the community at large as this concept is used in California assessment district law.

"Traffic Safety Projects" means the following project categories from the Transportation Lists by Category: (a) traffic signal maintenance (existing signals), (b) street sign maintenance, (c) roadway lighting structures (d) striping projects, (e) crosswalks, (f) shoulders and miscellaneous projects.

“Transportation Lists by Category (TLC)” means the worksheet containing worksheet tabs for each Transportation System component category that requires maintenance or construction and upon which tabs are listed and prioritized five year work and spending plans.

“Transportation Management Team (TMT)” means the interdepartmental group of City employees who review and assemble the City’s transportation maintenance and construction plans and proposed budgets; make tactical operational decisions; and who recommend transportation related policy to the City Council.

“Transportation System” means the assets and processes used to meet the objectives included in the Transportation and Circulation Element of the City’s General Plan.

“Urgency Item” means a Transportation System condition constituting an imminent public safety threat for which some urgent action must be taken to correct or alleviate the condition or to provide reasonable warning concerning the existence of the condition until unallocated resources are reasonably available to correct or alleviate the dangerous condition.

“Warrant Studies” means engineering studies performed to determine the need for particular Transportation System appurtenances or other improvements which are intended to be in compliance with state and federal standards.

**Section 3 Transportation System Financial Strategy:**

Managing the Transportation System in its entirety is a complex function and only one of several public service functions emphasized by the City. The City’s financial strategy recognizes that this function competes with other core governmental services that rely on general fund revenues, and that utility funds (financed by customer rates) must often pay for infrastructure (pipes, pumps, etc...) that need to be done simultaneously with Transportation System maintenance, replacement, and expansions. There are annual revenues that are legally restricted to being only used for the Transportation System (such as the County-wide Measure “R,” State gasoline taxes, and federal transportation system funding) and transportation system one-time grant funding opportunities. However, the total of these funding sources are presently inadequate to maintain, replace and expand the City’s Transportation System to the degree desired by the public and the Council. This policy allows for the creation of new local funding sources (such as assessment districts) to provide additional Transportation System dedicated revenue sources so that those citizens who help raise such funds are able to get more of the service levels they desire above the general service levels provided to all of the public from general revenues.

The Transportation System financial strategy will direct and set aside funds according to the following activities:



- (a) Maintenance activities – which include activities to prolong and optimize the lives of Transportation System facilities and assets, fundamental traffic safety and control equipment and systems, pothole and crack repairs, partial dig-out and reconstruction, and other activities that allow the City to get optimal use from the existing system.
- (b) Replacement activities – which include the replacement of worn out full street segments, traffic and control equipment and systems, and the replacement of streets when utility infrastructure underlying street segments are repaired or replaced and cause significant damage to the overlying street segments.
- (c) Expansion activities – include any new construction of Transportation System facilities that enlarge the capacity or reach or both of the City's Transportation System.
- (d) Debt service activities – include payment of any previously incurred Transportation System facilities related costs from proceeds received in a current fiscal year. Payments of debt service to third parties, to benefit assessment districts, other City funds, or third party developers for oversized Transportation System expansion are among the tasks that may occur within this activity.
- (e) Planning and Administration activities – include Transportation related studies, project and financial planning, and expansion planning.

Because the City retains streets maintenance personnel on staff, assuring that enough materials and supplies can be purchased each year to fully use the services of these personnel is the top financial strategy priority. At least \$250,000 from annually renewable revenues for streets (such as general fund revenues, Measure 'R' and Measure 'I' funds and gas taxes) will be allocated for City maintenance crew materials. Projects will be approved by TMT before submittal into the Tulare Project Management System process, and will be planned, approved, managed, and closed according to the TPMS policies.

The City will maintain a cash flow and contingency reserve in its Transportation System resources (primarily unappropriated gas tax, Measure 'I' and Measure 'R' funds) equal to at least ten (10) percent of the anticipated annual transportation project program budget.

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**Section 4 Project Prioritization:**

The City Council, by formal legislative action, ultimately sets the priority criteria for allocating Transportation System funds to the financial strategy activities. Unless changed by Council, the TMT will use the following factors to prioritize projects:

- a. City Economic Development Benefit potential
- b. Urgency Items
- c. Street Category (e.g., arterials, commercial collectors, etc..., as prioritized below).
- d. PCI rating
- e. Water, sewer, and other utility project coordination needs
- f. Project Scope Efficiency
- g. Special Assessment District funds available (if owners paying for Special Benefits)
- h. System elements with existing non-conforming, non-urgency design features.
- i. Diffusion Factor
- j. Transportation maintenance resources (both funding and staff) availability and optimal use

With regard to the use of street category for selecting projects for planned activities, the selection priorities from highest to lowest are as follows: Arterial streets; then Commercial Collector Streets; then Primary Collector Streets; then Secondary Collector Streets; then Industrial Collector Streets; and finally Local Streets. No replacement (or major reconstruction) projects will be planned or occur on any street having a PCI rating higher than the following standards: a PCI rating of 55 for Arterial Streets or Commercial Collector Streets; a PCI rating of 50 for any other Collector Streets. No replacement (or major reconstruction) projects will be planned or will occur on any other streets until minimum standards are first met on all Arterial and Collector streets. The exception to the above rule is that dedicated and restricted funds from third parties (such as utility funds, grant funds or special assessment district funds and the like) may be used for their specified dedicated and restricted purposes to fund replacement (or major reconstruction) projects or to achieve higher standards. With the leverage of these additional funds to pay for the replacement of the pavement costs, if available, transportation funds may be used to supplement remaining eligible costs, such as necessary ADA improvements and related shares of indirect costs.

The City will follow best practices with regard to the use of Warrant Studies to determine the need for design and planning of Transportation System conditions and features.

Urgency items, as defined by the City Engineer, will receive the overall highest selection priority.

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**Section 5 Transportation Lists by Category (TLC) Review and Updating**

**Procedures:**

The TLC is the basis for planning and making Transportation System work and funding plans. The TMT will review the TLC at least once every six months. City staff will document safety hazards and deficient conditions as the City learns of them whereupon the TMT will plan and prioritize projects to correct such within the constraints of resources (both staffing and financial). Where funds or a corrective plan or design are unavailable, reasonable warnings will be given of the existence of such conditions until repairs can be made. TMT will review the TLC for re-prioritizations made necessary by changed conditions and where necessary return to the City Council for re-allocation of funds to shift the project order to address hazards. City departmental staff will erect suitable safety barriers and warnings where hazards warrant without awaiting decisions by the TMT if necessary to protect the public.

The TMT will evaluate each project's scope towards improving public safety, project impacts on the public and businesses, and how to optimize the benefits of the project relative to its costs. The City Engineer will have the final decision with regard to the selected treatment methods or engineered techniques using an engineering best practices standard.

**Section 6 Maintenance Activities:**

Scheduled maintenance activities will only occur when funds are available. Priorities will be based as follows: as needed for Urgency Items; on Arterial Streets and Commercial Collector Streets; as necessary on all other streets to maximize street life and minimize total life costs.

If, however, property owners join together to approve street maintenance assessment districts to provide Special Benefits to their properties, then the streets located with the scope of such assessment districts (including Local Streets) will be given higher priority and work will be scheduled to use the assessment district revenues to produce the Special Benefits contemplated by the formation and funding of the assessment district.

The City encourages the formation of such districts and will elevate planned maintenance priorities on Streets covered by such special assessment districts as an incentive to their formation. Scheduled maintenance will occur as frequently as agreed to by the City and third parties when the third parties pay additional dedicated and restricted funding sources for such special maintenance on streets in which they have an interest.

The City will maintain a five year Transportation System plan for maintenance, replacement, expansion, debt service and administration and planning. Funding allocations will be transferred to the control of the City's Project Cost Accounting system so that appropriations do not lapse from year to year.

For each maintenance and replacement categories below, the minimum budgets are as follows:

- a. **Concrete Repair – City Facilities** – a minimum of \$71,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- b. **Concrete Repair – Right of Way** – a minimum of \$32,000 from General Fund plus funds recovered from property owners to facilitate private property owner repairs to public sidewalk, and/or curb and gutter.
- c. **City Crosswalks** – a minimum of \$30,500 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- d. **Citywide Striping and Contracts** - a minimum of \$47,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- e. **Non-School Bike/Ped** - a minimum of \$39,500 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- f. **Roadway Lighting** - a minimum of \$30,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- g. **Sign Maintenance** - a minimum of \$40,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- h. **Signal Maintenance** - a minimum of \$40,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- i. **Urgency Items** – a minimum of \$50,000 to pay for the correction, alleviation, or warnings in connection with Urgency Items. Where the TMT identifies a Transportation System condition it deems to be an Urgency Item, a new project related to the Urgency Item will be reasonably promptly implemented, taking into account, among other factors, the extent of available funding and staffing. Council will be notified after the repairs are made if the urgent nature of the conditions warrant action before the item can be presented to the City Council.
- j. **Non-Conforming Design Features** - a minimum of \$38,500 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds and gas taxes).
- k. **Alley Repairs and Maintenance** – a minimum of \$31,000 from General Fund.
- l. **Asphalt Repair Materials and Contracts** – a minimum of \$135,000 from a combination of City Gas Tax, Measure ‘R’ funds, general fund transfers, and solid waste fund street repair payments.

- m. **Pavement Preservation** – a minimum of \$200,000 from Measure ‘I’ funds.
- n. **Transportation Planning and Administration Activities** – a minimum of \$196,000 consisting of City Gas Tax, Measure ‘R’ local funds, general fund transfers, plus any grants or additional funding sources received by the City for transportation planning and administration activities including the following annual activities: traffic counts, pavement management system software licensing and maintenance, speed zone surveys, traffic signal timing plan updates, traffic engineering warrant studies, ADA surveys, and other recurring studies needed to comply with federal, state and local requirements.

**Section 7 Expansion Activities:**

- a. **Priority/Growth Area Improvements** – a minimum of \$278,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds).
- b. **New Traffic Signals** – a minimum of \$175,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds).
- c. **New Street Lights** – a minimum of \$25,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds).
- d. **Safe Schools** – a minimum of \$15,000 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds).
- e. **Traffic Safety (Enhancements)** – a minimum of \$88,300 from annually renewable revenues for streets (such as general fund revenues, Measure ‘R’ and Measure ‘I’ funds).
- f. **Bus Stops and Bus Shelters** – No minimum, but annual amounts will be determined by Transit Operations from federal Transit funds.

Grant funds, additional outside funding sources, one-time City money dedicated to transportation and other budgeted amounts will be budgeted in addition to the above minimum annual funding levels. Funds may be accumulated in the Project Cost Accounting System over multiple fiscal years so that larger projects may accumulate the necessary funds.

**Section 8 Specific Category Work Plan Policies:**

Using a list of potential maintenance projects generated by the Pavement Management System Software, the Streets Manager, in consultation with the TMT, will create work plans to accomplish the approved Transportation System activities in a timely and cost effective fashion. The timing and extent of projects will always be governed first by priorities specified in this policy, then by funds available, and then by available staffing resources to manage or perform the projects.

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Street Reconstruction Projects - In an effort to maximize the condition and longevity of the transportation system, it is the City's desire to anticipate and address future utility services at the time street improvements are made. It is the City's goal to limit the amount of impact that new utility connections have on a recently reconstructed or rehabilitated street surface. On City projects, in anticipation of these connections, the City will install these services (stubbed behind curb or to the right-of-way line) at the time that street improvements are being made. When the property owner decides to connect to City services, the property owner will be required to reimburse the appropriate utility for those costs. City Staff will strive to anticipate likely connection needs that could occur within the expected serviced life of the street improvements.

Concrete (typically sidewalk) conditions – A register will be kept of sidewalk conditions requiring repair by the property owners (but performed and billed by City to owner if not completed by deadlines) in the order by which the City gains knowledge of the condition. City staff will work on such projects on such days as determined by the City Streets Manager and will only perform such work if funds are available. These repairs remain the responsibility of the property owners as described in the City's ordinances.

Expansion projects – Every expansion project will be evaluated for whether any portion of the project is to be paid from Development Impact Fees (DIF), and whether there is proportion of the project that benefits existing development that must be paid from other City resources. Special Benefit projects – Projects for which funding comes from particular development projects, special assessment funds, grant funds, or other specifically targeted funding sources (such as contributions from other local governmental agencies) will be budgeted and accounted for in a manner consistent with applicable law and any contractual terms and conditions.

School Safety project – City staff will consult with the school districts with regard to the priority, funding, and scheduling of school safety projects.

**Section 9 City Council Review:**

The City Council (and BPU as to projects requiring Utility Enterprise Funding for pipelines and utility appurtenances) will approve the Transportation Lists by Category and all funding as part of the TPMS budgeting process. TMT will report to Council (and BPU as appropriate) concerning each project's progress at least once every six months and more frequently as requested. The report will include project status updates concerning each project's schedule, scope of work, and budget versus actual expenditures and encumbrances. The report will also provide an overview of the five year plan including all anticipated and known funding sources and projects and any changes in project prioritization

**AGENDA ITEM: Consent 8**

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department:** Finance

**For BPU Meeting of:** June 15, 2017

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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**AGENDA ITEM:**

Accept Financial Status Report.

**IS PUBLIC HEARING REQUIRED:**  Yes  No

**BACKGROUND/EXPLANATION:**

**Monthly Utility Activity:**

Sewer revenue compared to the budget shows it is on track with the annual estimate. Utilities, repairs and maintenance, professional/contractual and general supplies expenses are significantly under budget throughout all the divisions.

Solid Waste revenue is tracking close to budget and expenditures are tracking below budget. Roll-Offs division is down in revenue as there was confusion about the Special Haul Commercial revenue. It had been reported in Special Haul for the Roll Off division revenue, but it should be shown in the Commercial division as the Commercial staff handles all the work for that revenue source.

Water revenue is tracking higher due to the rate increase and the increased use of water. Expenditures are less than budgeted largely due to lower utility expenses.

Ending cash balance is shown below the statement.

**STAFF RECOMMENDATION:**

Accept Financial Status Report.

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**Submitted by:** Darlene Thompson

**Title:** Finance Director

**Date:** June 7, 2017

**Interim City Manager Approval:** \_\_\_\_\_

City of Tulare  
Water Utility Funds  
Summary of Revenue/Expenditures -Budget to Actual  
For the Eleven Months Ended  
May 31, 2017

	Fund 010 Water Operations										Fund 610 Capital		Fund 680 Reserves		Water Funds				
	Admin		Distribution		Extraction		Treatment		Groundwater		Total Water Operations		CIP		Reserves		Total Water Funds		
	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	12 Mos Annual Budget FY 2017	9 Mos Actual FY2017	
<b>Revenues:</b>																			
Service Revenue - Operating Funds												\$ 5,845,600	\$ 5,875,731		\$ 1,251,328		\$ 796,266	\$ 5,845,600	\$ 7,923,325
Drought Surcharge												316,780	186,708					316,780	186,708
Water Recharge Component												450,000	193,907					450,000	193,907
Water Waste Fees												60,000	27,270					60,000	27,270
Miscellaneous Revenue												958,580	672,616					958,580	672,616
<b>Total Revenues</b>	-	-	-	-	-	-	-	-	-	-	<b>7,630,960</b>	<b>6,956,232</b>	-	<b>1,251,328</b>	-	<b>796,266</b>	<b>7,630,960</b>	<b>9,003,826</b>	
<b>Expenditures:</b>																			
Operations																			
Salaries & Benefits	400,340	325,919	848,940	702,406	195,020	162,747	136,820	117,209	22,560	18,187	1,603,680	1,326,469						1,603,680	1,326,469
Maintenance & Operations	521,200	321,437	680,220	683,699	1,712,220	1,086,002	267,760	122,212	1,399,080	1,094,924	4,580,480	3,308,274						4,580,480	3,308,274
Annual Admin, Franchise & IT Fees	136,240	130,651	1,400	-	3,000	-	-	-	-	-	140,640	130,651						140,640	130,651
Depreciation	11,750	6,898	951,890	903,956	202,750	216,005	-	-	-	-	1,166,390	1,126,859						1,166,390	1,126,859
Transfers to Surface Water									663,400	663,400	663,400	663,400						663,400	663,400
Transfers to Technology CIP	7,350	7,350	-	-	-	-	-	-	-	-	7,350	7,350						7,350	7,350
Total Operations	1,076,880	792,255	2,482,450	2,290,061	2,112,990	1,464,755	404,580	239,422	2,085,040	1,776,511	8,161,940	6,563,003	-	-	-	-	8,161,940	6,563,003	
<b>Net Revenue from Operations</b>											<b>(530,980)</b>	<b>393,228</b>	-	<b>1,251,328</b>	-	<b>796,266</b>	<b>(530,980)</b>	<b>2,440,823</b>	
<b>Other Expenditures</b>																			
Capital Outlay																			
Special M & O	252	13,277	-	-	34,300	30,887	-	-	-	-	34,552	44,163						34,552	44,163
CIP Expenditures			484,500	37,541	-	-	-	-	-	-	484,500	37,541	2,243,506	2,244,796				2,728,006	2,282,337
Total Capital Expenditures	252	13,277	484,500	37,541	34,300	30,887	-	-	-	-	519,052	81,704	2,243,506	2,244,796	-	-	2,762,558	2,326,500	
Debt Service																			
Debt Service	997,520	876,538	-	(91,549)	-	-	-	-	-	-	997,520	784,989						997,520	784,989
Total Debt Service	997,520	876,538	-	(91,549)	-	-	-	-	-	-	997,520	784,989	-	-	-	-	997,520	784,989	
<b>Total Other Expenditures</b>	997,772	889,815	484,500	(54,008)	34,300	30,887	-	-	-	-	1,516,572	866,693	2,243,506	2,244,796	-	-	3,760,078	3,111,489	
<b>Operating Transfers In(Out)</b>					(860,000)	(215,000)	(140,000)	(35,000)			(1,000,000)	(250,000)	1,000,000	250,000			-	-	
<b>Net Revenue/(Expenditures)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (3,047,552)</b>	<b>\$ (723,465)</b>	<b>\$ (1,243,506)</b>	<b>\$ (743,468)</b>	<b>\$ -</b>	<b>\$ 796,266</b>	<b>\$ (4,291,058)</b>	<b>\$ (670,667)</b>	
<b>Unadjusted Cash Balance at May 31, 2017</b>											<b>\$ 3,882,813</b>		<b>\$ 185,113</b>		<b>\$ 796,266</b>		<b>\$ 4,864,193</b>		

The Budget shown did not take into account the rate change in October, 2016.  
Expenses paid in July and August for June activities are included in the previous fiscal year's expense as the City uses a Modified Accrual Basis of accounting.



City of Tulare  
Solid Waste Funds  
Summary of Revenue/Expenditures -Budget to Actual  
For the Eleven Months Ended  
May 31, 2017

	Funds 012 - Solid Waste Operations											Fund 612 Capital		Solid Waste		
	Residential		Commercial		Street Sweeping		Roll-Offs		Other Revenue		Total		CIP		Total Solid Waste	
	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual Total	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual FY 2017
<b>Revenues:</b>																
Service Revenue - Operating Funds	\$ 4,705,000	\$ 4,398,637	\$ 1,639,000	\$ 1,704,301	\$ 992,260	\$ 999,040	\$ 733,100	\$ 583,649			\$ 8,069,360	\$ 7,685,628			\$ 8,069,360	\$ 7,685,628
Recycle Sales	47,000	28,212	23,350	21,150	-	-	3,500.00	4,268	\$ 6,000	\$ -	79,850	53,630			79,850	53,630
Miscellaneous Revenue									202,000	252,698	202,000	252,698			202,000	252,698
Interfund Loan Repayment									133,550		133,550	-			133,550	-
<b>Total Revenues</b>	<b>4,752,000</b>	<b>4,426,849</b>	<b>1,662,350</b>	<b>1,725,451</b>	<b>992,260</b>	<b>999,040</b>	<b>736,600</b>	<b>587,917</b>	<b>341,550</b>	<b>252,698</b>	<b>8,484,760</b>	<b>7,991,956</b>	<b>-</b>	<b>-</b>	<b>8,484,760</b>	<b>7,991,956</b>
<b>Expenditures:</b>																
Operations																
Salaries & Benefits	1,497,050	1,357,841	835,220	641,932	283,090	211,457	211,780	250,455			2,827,140	2,461,684			2,827,140	2,461,684
Maintenance & Operations	2,418,990	1,813,771	1,144,520	880,188	342,160	282,652	497,730	358,213			4,403,400	3,334,824			4,403,400	3,334,824
Annual Admin, Franchise & IT Fees	141,150	141,031	80,840	80,840	9,580	9,580	29,780	29,780			261,350	261,231			261,350	261,231
Depreciation	15,780	7,228					-				15,780	7,228			15,780	7,228
Transfers to Technology CIP	6,150	6,150					-				6,150	6,150			6,150	6,150
Total Operations	4,079,120	3,326,021	2,060,580	1,602,960	634,830	503,689	739,290	638,448	-	-	7,513,820	6,071,117	-	-	7,513,820	6,071,117
<b>Net Revenue from Operations</b>	<b>672,880</b>	<b>1,100,828</b>	<b>(398,230)</b>	<b>122,491</b>	<b>357,430</b>	<b>495,351</b>	<b>(2,690)</b>	<b>(50,530)</b>	<b>341,550</b>	<b>252,698</b>	<b>970,940</b>	<b>1,920,839</b>	<b>-</b>	<b>-</b>	<b>970,940</b>	<b>1,920,839</b>
<b>Other Expenditures</b>																
Capital Outlay																
Special M & O	100,800	51,578	33,600	17,193	16,800	8,596	16,800	8,596			168,000	85,964			168,000	85,964
CIP Expenditures	147,500	85,297	61,000	8,160			11,500	1,174			220,000	94,631	23,043	8,556	243,043	103,187
Total Capital Expenditures	248,300	136,876	94,600	25,352	16,800	8,596	28,300	9,770	-	-	388,000	180,595	23,043	8,556	411,043	189,151
<b>Net Revenue/(Expenditures)</b>	<b>\$ 424,580</b>	<b>\$ 963,953</b>	<b>\$ (492,830)</b>	<b>\$ 97,139</b>	<b>\$ 340,630</b>	<b>\$ 478,158</b>	<b>\$ (30,990)</b>	<b>\$ (60,301)</b>	<b>\$ 341,550</b>	<b>\$ 252,698</b>	<b>\$ 582,940</b>	<b>\$ 1,740,244</b>	<b>\$ (23,043)</b>	<b>\$ (8,556)</b>	<b>\$ 559,897</b>	<b>\$ 1,731,688</b>
<b>Unadjusted Cash Balance at May 31, 2017</b>											<b>\$ 4,493,361</b>		<b>\$ 431,452</b>		<b>\$ 4,924,812</b>	

Expenses paid in July and August for June activities are included in the previous fiscal year's expense as the City uses a Modified Accrual Basis of accounting.

City of Tulare  
Sewer/Wastewater Utility Funds  
Summary of Revenue/Expenditures -Budget to Actual  
For the Eleven Months Ended  
May 31, 2017

	Funds 015 Sewer - Wastewater Operations											Fund 615 Capital		Fund 685 Reserves		Sewer Wastewater		
	Sewer Collection		Domestic Wastewater		Industrial Wastewater		Pretreatment		Energy		Total Sewer Wastewater Operations		CIP		Reserves		Total Funds	
	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual	Annual Budget FY 2017	Actual
																	12 Mos	9 Mos
<b>Revenues:</b>																		
Service Revenue - Operating Funds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,588,540	\$ 17,826,597	\$ -	\$ 4,609,947	\$ -	\$ 1,120,000	\$ 25,588,540	\$ 23,556,544
Miscellaneous Revenue											2,798,380	2,816,370					2,798,380	2,816,370
<b>Total Revenues</b>	-	-	-	-	-	-	-	-	-	-	<b>28,386,920</b>	<b>20,642,967</b>	-	<b>4,609,947</b>	-	<b>1,120,000</b>	<b>28,386,920</b>	<b>26,372,914</b>
<b>Expenditures:</b>																		
Operations																		
Salaries & Benefits	705,290	614,558	1,080,620	831,110	1,370,460	1,144,171	81,650	95,553	14,910	10,576	3,252,930	2,695,969					3,252,930	2,695,969
Maintenance & Operations	1,186,366	659,083	2,837,180	1,907,050	2,565,950	1,673,542	269,020	32,458	929,514	121,330	7,788,030	4,393,463	722,600	36,883			8,510,630	4,430,345
Annual Admin, Franchise & IT Fees	(15,120)	(15,120)	134,720	101,277	191,170	184,046	13,210	13,210	18,620	18,620	342,600	302,032					342,600	302,032
Depreciation	1,314,870	1,230,824	1,030,040	907,825	2,721,560	2,606,527	-	510,810	468,243	5,577,280	5,213,419					5,577,280	5,213,419	
Transfers to Surface Water			424,770	424,770						424,770	424,770					424,770	424,770	
Transfers to Technology CIP	-	-	12,290	12,290						12,290	12,290					12,290	12,290	
Total Operations	3,191,406	2,489,345	5,519,620	4,184,322	6,849,140	5,608,286	363,880	141,221	1,473,854	618,769	17,397,900	13,041,943	722,600	36,883	-	-	18,120,500	13,078,825
<b>Net Revenue from Operations</b>											<b>10,989,020</b>	<b>7,601,024</b>	<b>(722,600)</b>	<b>4,573,065</b>	-	<b>1,120,000</b>	<b>10,266,420</b>	<b>13,294,089</b>
<b>Other Expenditures</b>																		
Capital Outlay																		
Special M & O		271,768	269,196	9,520	628,196	237,263					897,392	518,552					897,392	518,552
CIP Expenditures	32,500	28,321	90,000								122,500	28,321	149,700	82,182			272,200	110,503
Total Capital Expenditures	32,500	300,089	359,196	9,520	628,196	237,263	-	-	-	-	1,019,892	546,873	149,700	82,182	-	-	1,169,592	629,055
Debt Service																		
Debt Service	964,300	288,243	4,051,820	2,422,965	8,876,430	4,784,225			623,770	291,094	14,516,320	7,786,527					14,516,320	7,786,527
Total Debt Service	964,300	288,243	4,051,820	2,422,965	8,876,430	4,784,225	-	-	623,770	291,094	14,516,320	7,786,527	-	-	-	-	14,516,320	7,786,527
<b>Total Other Expenditures</b>	996,800	588,332	4,411,016	2,432,485	9,504,626	5,021,489	-	-	623,770	291,094	15,536,212	8,333,399	149,700	82,182	-	-	15,685,912	8,415,581
<b>Operating Transfers In(Out)</b>	(500,000)	(125,000)	(500,000)	(125,000)	-	-	-	-	-	-	(1,000,000)	(250,000)	1,000,000	250,000	-	-	-	-
<b>Net Revenue/(Expenditures)</b>											<b>\$ (5,547,192)</b>	<b>\$ (982,375)</b>	<b>\$ 127,700</b>	<b>\$ 4,740,883</b>	<b>\$ -</b>	<b>\$ 1,120,000</b>	<b>\$ (5,419,492)</b>	<b>\$ 4,878,508</b>
<b>Unadjusted Cash Balance at May 31, 2017</b>												<b>\$ 13,072,061</b>	<b>\$ 6,358,587</b>	<b>\$ 1,120,000</b>	<b>\$ 20,550,648</b>			

The Budget shown did not take into account the rate change in October, 2016.  
Expenses paid in July and August for June activities are included in the previous fiscal year's expense as the City uses a Modified Accrual Basis of accounting.

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department: Public Works – Wastewater Division**

**For Board Meeting of: June 15, 2017**

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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***AGENDA ITEM:***

Authorize the Public Works Director or City Manager to execute a twenty (20) year Gas Purchase Agreement with Fuel Cell Energy, Inc. of Danbury, Connecticut (FCE) at a fixed minimum rate of \$5.00 per MMBtu with the potential of additional revenue if the BioMat tariff is revised upwards during the term of this agreement subject to minor conforming and clarifying changes acceptable to the City Attorney and City Manager.

***IS PUBLIC HEARING REQUIRED:***  Yes  No

***BACKGROUND/EXPLANATION:***

On February 16, 2017, the Board of Public Utilities was updated on the proposals from Fuel Cell Energy, Inc. (FCE) and Maas Energy Works, LLC regarding the utilization of biogas produced by the city's Wastewater Treatment Facility (WWTF). Since the last update, the City pursued negotiations for a fuel purchase agreement (FPA) with FCE for a duration of 20 years that is consistent with FCE's proposal for the use of the biogas for their fuel cells as presented to the Board and identified in the City's 10 year Energy Plan. FCE will utilize the biogas to generate electricity and sell that electricity to Southern California Edison (SCE) under a specific tariff as described below.

The Bio-energy Market Adjusting Tariff (BioMAT) is a tariff that establishes contracted pricing for electricity produced from bio-energy projects. In order to reduce the risk of BioMAT pricing fluctuations and improve the City's overall savings, FCE has agreed to a minimum price of \$5.00 per MMBtu if the BioMAT tariff were to fall below current pricing of \$0.1277 per kWh. Any increases to the BioMAT pricing will be split evenly between the City and FCE.

**Project Description:**

- Fuel Cell Energy will construct a 2.8 MW DFC3000 fuel cell power plant at the City of Tulare Wastewater Treatment Plant (WWTP)
- 20-year Fuel Purchase Agreement
- Full turnkey engineering, permitting and construction (EPC) project performed by FCE
- Waste heat recovered, converted to hot water, and supplied to the WWTF by FCE at no cost
- Biogas fuel supplied by the City of Tulare as produced by the WWTF

**DISCUSSION:**

This agreement offers the City long term revenue for its biogas which is a byproduct of its water treatment processes. The agreement also assists the City to minimize the flaring of biogas which is addressed in the City's SJAPCD permits.

Specific elements of the agreement are addressed in the attached Fuel Purchase Contract Summary. A copy of the full agreement has been attached.

The financial condition of any contractor purchasing fuel from the City is a concern. The City has monitored FCE's overall financial condition during the negotiations. This is of particular interest because the agreement is of a long-term nature. The following points recap relevant details about FCE's current operations and financial condition.

- FuelCell Energy is a publicly traded company (NASDAQ: FCEL) and a leader for the supply, recovery and storage of energy with innovative fuel cell solutions operating on three continents. FCE was founded in Connecticut in 1969 and have been growing with the demand for reliable, clean power ever since. FCE currently employs over 400 skilled associates at facilities in Connecticut and nearly 500 total associates globally, including 13 in California.
- Strategic and Financing partners strengthen the FCE business model: It has a committed \$40 million multi-year construction/project financing facility extended by NRG Energy, the largest Independent Power Producer (IPP) in the U.S., and NRG owns approximately 4% of FCEL common stock. FCE also has a licensing agreement with POSCO Energy to serve the Asian market: POSCO Energy is an independent power producer that owns over 3,000 megawatts of power generation assets and is, a leading global steel producer with 2015 revenue of approximately \$48 billion. POSCO Energy owns approximately 8 percent of FCEL common stock. FCE has worked recently with PNC Energy Capital, who has financed approximately \$50 million of fuel cell projects, including most recently, a 5.6 megawatt installation at Pfizer Inc. R&D facility in Groton Connecticut.
- As of January 31, 2017, the most recent quarter end, consolidated cash and cash equivalents totaled approximately \$101.2 million, of which \$57.6 million is cash and cash equivalents, and \$43.6 million is restricted cash. Fuel cell installations have grown substantially in recent months. Over the past 12 months, 17 megawatts have been installed, and another 30 megawatts are to be commissioned within the next six months. Overseas and in the U.S., FCE has over 200 MW of fuel cell plants operating.

Over the last several months, much attention has been paid to addressing the risks to the City in the agreement. A summary of the potential risks to the City are presented:

- FCE failing to use the biogas purchased from the City. FCE has offered a "take or pay" guarantee to the City. If for any reason (except force majeure), including technology risks, FCE does not "take" the City's biogas, it will pay the agreed upon amount for two years giving the City time to find a replacement purchaser for the City's biogas.
- The City does not produce the quantity or quality of biogas agreed. The City has commissioned an engineering analysis to assess both of these issues. The agreement with FCE requires a certification of biogas availability before it is effective. This engineering study and assessment will provide the basis for this certification. The City

has excluded regular and known maintenance activities in the agreement so these activities will be accommodated in the agreement.

- Out years risk. In years after the commissioning of the fuel cell, if the City does not produce the quantity or quality of biogas required, the City's Energy Counsel, Hydros Agritech, and City management has negotiated a number of provisions to mitigate the City's risk. Both parties explicitly agree to work in good faith to correct deficiencies if any occur and minimize impacts.

Further detail in each of these risk areas, with references to relevant sections of the Gas Purchase Agreement, can be found in the following table:

Item	Risk	Mitigation	Agreement Ref.
1	City's waste water plant produces inadequate quantity of biogas for 2.8MW of electricity – start of project	It is a condition precedent to the effectiveness of the agreement that the City shall conduct an engineering analysis to formally verify gas quantity. If insufficient quantity exists, the agreement will not take effect.	1.3(g)
2	City's waste water plant produces inadequate quantity of biogas to meet guaranteed delivery amount – during the project	Parties agree to work together to find a secondary source of biogas. If successful, City is only responsible for delta in price between price of secondary source and \$5/MMBtu; if unsuccessful, City is responsible for shortfall in Buyer's revenues under the BioMAT tariff	3.4
3	Fermenter cover will need to be replaced estimated in 2023, which will interrupt gas flow for six weeks	Buyer acknowledges that the interruption will take place, and agrees to place the fuel cell plant in standby for the duration. City agrees to a proportional reduction in ADG price to enable Buyer cost reduction to offset lost revenues during maintenance to fermenter cover	3.4
4	Quality of raw biogas not meeting Buyer's specifications	Buyer acknowledges that currently the raw biogas quality is acceptable for operation of the fuel cell system. To the extent that fuel quality deteriorates, City agrees to install additional cleanup equipment, or reimburse Buyer for Buyer's investment in additional cleanup equipment. (Fuel quality degradation is not a condition of default.)	3.5
5	Buyer's purchase obligation	Buyer agrees that it shall pay for the biogas delivered or capable of being delivered by the City to Buyer up to quantities specified in Exhibit G (full usage), regardless of whether or not the fuel cell is in a condition to accept the delivery of biogas ("take or pay" obligation on Buyer). Exception in cases of force majeure or City misconduct.	3.7
6	City's responsibility for termination of Buyer's PPA with So Cal Edison	Buyer's PPA with Southern California Edison under the BioMAT program is subject to termination for significant shortfalls in delivered power (less than approx. 25% of rated output)	7.1(f) 7.2 Exh A, 1(g)

		<p>over two consecutive years. To the extent that a termination of Buyer's PPA arises due to such an extended interruption in biogas deliveries from City to Buyer, and Buyer's PPA is terminated:</p> <ul style="list-style-type: none"> <li>• City has no obligation to Buyer in the event that interruptions in biogas are the result of force majeure.</li> <li>• Should actions by the City not arising from force majeure result in termination of Buyer's PPA: <ul style="list-style-type: none"> <li>○ City and Buyer agree to cooperate to identify alternative sources of revenue to substitute for the BioMAT PPA; and</li> <li>○ City and Buyer mutually agree to investigate sale of electricity to City at \$0.1277/kWh.</li> <li>○ If neither of the above two options are possible, City would be responsible for Default Payment</li> <li>○ Default Payment is the difference between Buyer's revenues under the BioMAT PPA net of costs, and the revenues to Buyer from another purchaser of the fuel cell output, net of costs, plus any documented penalties imposed on Buyer by SCE</li> <li>○ Buyer agrees to take all appropriate measures to minimize the Default Payment</li> </ul> </li> </ul>	
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The City has a long record of biogas production and operation at this particular WWTP. The likelihood of the City failing to produce biogas sufficient to avoid default under this agreement is remote. Because the City must operate the plant for health and safety reasons and as a condition of its state permits, such risks may be considered theoretical.

**STAFF RECOMMENDATION:**

Authorize the Public Works Director or City Manager to execute a twenty (20) year Gas Purchase Agreement with Fuel Cell Energy, Inc. of Danbury, Connecticut (FCE) at a fixed minimum rate of \$5.00 per MMBtu with the potential of additional revenue if the BioMat tariff is revised upwards during the term of this agreement subject to minor conforming and clarifying changes acceptable to the City Attorney and City Manager.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes     No     N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**     Yes     No   

**FUNDING SOURCE/ACCOUNT NUMBER:**

**Signed:** Joseph Carlini

**Title:** Interim City Manager

**Date:** June 8, 2017

**City Manager Approval:** \_\_\_\_\_

## FUEL CELL ENERGY

### Fuel Purchase Contract Summary

#### **Project Description:**

Installation of a DFC3000 2.8 MW fuel cell plant at the Tulare Wastewater Treatment Plant (WWTP) in Tulare, California. FCE would purchase biogas from the City of Tulare for a period of 20 years, and sell power generated by the fuel cell to Southern California Edison (SCE) under the Bioenergy Market Adjusting Tariff schedule (BioMAT) feed-in tariff program. This system will be installed at the expense of FCE, inclusive of engineering, permitting, interconnection, biogas fuel piping and cleanup, and commissioning, as well as ongoing maintenance.

<b>CRITICAL ISSUES</b>	<b>VALUE TO CITY (\$)</b>	<b>RISK MANAGEMENT</b>	<b>OTHER</b>
Track Record of Technology		The DFC 3000 unit is a fifth generation unit that is deployed by FCE worldwide. In order to protect the City from technology risk, FCE offers to pay for biogas regardless of fuel cell performance (See "take or pay" below)	
Pricing	\$5.00MMBtu -the quantity of fuel to be purchased will generate a projected steady revenue stream of \$900,000 per year for the City- <b>20 year Est. \$18,000,000</b>		If Biomat tariff increases City will receive 50% of additional revenue. An increase of \$.01 per kWh would provide an additional \$100,000.00 in annual revenue to the City
Term of Contract	20 years		
Time to Construct	4-6 months		
Estimated Date of Commissioning Project	Feb. '18		

Special Permits Needed			SJAPCD discretionary permit not required; ministerial permit required
Electric Tariff	Biomat SCE		
Interconnection			Interconnection and metering to be secured by Proposer at its expense (up to \$300,000)
Non-Performance by Proposer- Mitigations and Penalties		FCE will agree to “take or pay” contract conditions under which FCE is obligated to pay for biogas up to 180,418 MMBtu HHV annually whether or not such biogas is converted into electricity in the fuel cell.	
Proposer’s Financial Capacity	Fuel Cell Energy is a publicly traded company. NASDAQ reports FCE has better price to earnings ratios than the industry as a whole and has “strong buy” recommendations from 2 analysts.		See transmittal for further details
Biogas Standards/Treatment	Biogas Treatment will be the responsibility of the Proposer. Proposer requires the option of operating the existing gas treatment facility owned by the City.	Should natural gas be required as a backup for operation, FCE will be responsible for cost.	If additional biogas becomes available for an additional 1.4 MW fuel cell, FCE would discuss the installation of another unit to generate further revenue
Penalties for City’s failure to provide biogas		FCE requests that the City undertake a formal investigation to confirm current and future biogas production potential, to ensure sufficient quantities are available to provide for full 2.8 MW output from the fuel cell.	See transmittal for discussion



Heat Utilization Requirement		Proposer requires City to utilize heat produced to enable qualification for Biomat tariff if required by SCE	
Land for Siting project/O&M	Proposer requires a lease or license for land for project at WWTP		

## DIGESTER GAS PURCHASE AGREEMENT

THIS DIGESTER GAS PURCHASE AGREEMENT (this “*DGPA*”) is made and entered into as of \_\_\_\_\_, 2017 (the “*Effective Date*”), by and between Central CA Fuel Cell 2, LLC, a Delaware limited liability company, with its principal place of business c/o FuelCell Energy, Inc., 3 Great Pasture Road, Danbury, Connecticut 06810 (“*Buyer*”), and the City of Tulare, a California municipal corporation, with its principal place of business at 411 East Kern Avenue, Tulare, California 93274 (“*Seller*”). Buyer and Seller are sometimes hereinafter referred to individually as a “*Party*” and collectively as the “*Parties*.”

### RECITALS

A. Buyer intends to design, build, own, operate and maintain a nominally rated 2.8MW fuel cell power plant fueled by anaerobic digester gas (“*ADG*”) and associated fuel cleanup system (“*ADG Cleanup Equipment*”, together the “*System*”), which System will produce electricity for sale to the local electric distribution utility under a power purchase agreement as prescribed by the California Bioenergy Market Adjusting Tariff (“*BioMAT PPA*”). The System will be located on property owned by Seller, located at 1875 S. West Street, Tulare, California 93274 and described in **Exhibit B** hereto (the “*Property*”).

B. Seller desires to sell to Buyer, and Buyer desires to purchase from Seller, ADG produced by Seller-owned digesters located on the Property for the operation of the System in accordance with the terms of this DGPA.

### AGREEMENT

In consideration of the foregoing recitals, the mutual agreements, representations, warranties, and covenants set forth in this DGPA and the Exhibits and other attachments hereto, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Seller and Buyer agree as follows:

#### ARTICLE 1

##### DEFINED TERMS; RULES OF INTERPRETATION; TERM

1.1 Defined Terms. Capitalized terms used in this DGPA will have the meanings ascribed to them in **Exhibit A**, the *Schedule of Definitions and Rules of Interpretation*, attached hereto and made a part of this DGPA by this reference. The rules of interpretation in **Exhibit A**, the *Schedule of Definitions and Rules of Interpretation*, will apply to this DGPA unless expressly provided otherwise.

1.2 Term.

(a) The term of this DGPA (the “*Term*”) will commence on the Effective Date and will be in effect until 00:00 hours Pacific Prevailing Time on the 20<sup>th</sup> anniversary of the Commercial Operation Date, unless terminated earlier as provided in **6.2** (System Loss), **6.5** (Force Majeure), or **7.2** (Event of Default). Subject to mutual agreement of the Parties, the Term may be extended for one or more five (5) year renewal terms.

(b) Except where Buyer is the Non-Defaulting Party, Buyer will, within one hundred and eighty (180) days following the end of the Term, at Buyer’s sole cost and expense, remove the System, except for the Existing ADG Cleanup Equipment and the Sludge Dryer, from the Installation Site and restore the Installation Site to its original condition, normal wear and tear excluded. For purposes of clarity, Buyer shall not be required to reinstall any removed Existing ADG Equipment as provided for in Section 2.10. Buyer and its agents, consultants and representatives will have access at all reasonable times to the Installation Site and the System for purposes of such removal, subject to Seller’s reasonable access, safety and security procedures, as provided in Section 2.1 hereof.

1.3 Conditions Precedent. The respective rights and obligations of the Parties under this DGPA (other than those contained in this **Article 1** and **Articles 10** (Representations and Warranties), **11** (Indemnity; Limitations), **12** (Confidentiality; Publicity), **13** (Dispute Resolution), **14** (Notices), **15** (Assignment; Financing) and **16**

(Miscellaneous), each of which are binding upon the Parties as of the Effective Date, are conditioned upon the satisfaction in full by Seller or Buyer, as applicable, of the following, or, with respect to subsections (c) and (d) below only, waiver by Buyer:

(a) Buyer has, at Buyer's sole cost and expense, obtained or caused others to obtain all consents, permits, approvals, authorizations, qualifications, and orders of all Governmental Entities required to own, construct, operate or maintain the System and in connection with this DGPA and the transactions contemplated hereby (collectively, "**Governmental Approvals**"), or the applicable Government Entities will have waived the requirement for such Governmental Approval(s);

(b) Buyer has, at Buyer's sole cost and expense, completed a physical inspection of the Property and the Parties mutually agree on an installation site for the System on the Property that is at least 4,800 square feet for the fuel cell plus necessary square footage for the ADG Cleanup Equipment (the "**Installation Site**") including, if applicable, geotechnical work and real estate due diligence to confirm the suitability of the Installation Site for the System;

(c) Buyer has, at Buyer's sole cost and expense, obtained approvals and an agreement for interconnection of the System to the electric distribution and transmission grid;

(d) Buyer has, at Buyer's sole cost and expense, obtained approvals and an agreement for interconnection of the System to the local natural gas distribution system to facilitate the supply of natural gas for supplemental fueling and operation of the System;

(e) Buyer has, within ninety (90) days of the Effective Date, at Buyer's sole cost and expense, executed BioMAT PPA on terms acceptable to Buyer in Buyer's sole discretion;

(f) Buyer has, at Buyer's sole cost and expense, and with reasonable assistance from Seller, contracted for or arranged the supply of water and natural gas for supplemental fueling and operating the System;

(g) Seller has, within ninety (90) days of the Effective Date, at Seller's sole cost and expense, confirmed that sufficient quantities of ADG are available in the minimum monthly and annual amounts specified in **Exhibit G**;

(h) Seller has provided access to the Installation Site to Buyer at no cost to Buyer;

(i) Buyer has commenced construction no later than three hundred (300) calendar days after the Effective Date;

(j) Buyer has filed interconnection applications as necessary with the local electric distribution company and the local natural gas distribution company, respectively, no later than ninety (90) calendar days after the Effective Date; and

(k) The management or, if deemed necessary by Buyer, the board of directors of Buyer's parent company, has approved this DGPA and the transactions contemplated herein.

1.4 **Notice of Commercial Operation.** Subject to the remaining provisions of this DGPA, Buyer will notify Seller in writing when the System has achieved Commercial Operation ("**Notice of Commercial Operation**"), and will in such notice state the Commercial Operation Date. Buyer estimates, subject to interconnection timing, that the Commercial Operation Date will occur within ten (10) months of the Effective Date.

1.5 **Survival.** Effective as of any termination of this DGPA, the Parties will no longer be bound by the terms and conditions of this DGPA, except (a) to the extent necessary to enforce any rights and obligations of the Parties, including payment obligations, arising under this DGPA prior to termination of this DGPA, and (b) as provided in **Sections 7.3 through 7.8, and Articles 12, 14, and 15.**

## ARTICLE 2 LICENSE AND OBLIGATIONS REGARDING PROPERTY

2.1 Property Access Rights. Seller grants to Buyer and to Buyer's consultants, agents, employees and contractors, successors, and assigns a non-exclusive license (the "*License*") for access to, on, over, under and across a portion of the Property for the purposes of (a) planning, installing, constructing, operating, owning, inspecting, maintaining, accessing, removing and replacing the System on the Installation Site; (b) performing all of Buyer's obligations and enforcing all of Buyer's rights as set forth in this DGPA; and (c) installing, using and maintaining electric lines and equipment, including inverters and meters, necessary to interconnect the System to SCE's electric distribution system or that otherwise may from time to time be useful or necessary in connection with the construction, installation, operation, maintenance or repair of the System. The license area shall be defined by the Seller within one hundred and eighty (180) days of the Effective Date subject to timely receipt by Seller of System engineering drawings from Buyer, and subject to reasonable extensions mutually agreeable to the Parties. Buyer will notify Seller prior to entering the Property except in situations where there is imminent risk of damage to Persons or property. Buyer and Buyer's agents, employees and contractors shall comply with Seller's reasonable access, notice, safety and security procedures. The Term of the License will continue until the date that is one hundred and eighty (180) days following the date of expiration or termination of Buyer's BioMAT PPA (the "*License Term*"). During the License Term, Seller will ensure that Buyer's rights under the License and Buyer's access to the Installation Site are preserved and Seller shall not unreasonably interfere, and Seller shall not convey rights to third parties in and over the License area which unreasonably interfere, with Buyer's rights or access. Buyer shall remove the System, other than the Existing ADG Cleanup Equipment and the Sludge Dryer, during the License Term, in accordance with **Section 1.2(b)** of this DGPA. Seller agrees that Buyer may record a memorandum of license showing the Property and the Installation Site, in substantially the same form attached hereto as **Exhibit D** in the real property records respecting the License. Seller hereby agrees to execute a commercially reasonable form of ground lease or a separate license agreement as requested by Buyer or the Financing Parties, if required. Except in the case of an emergency condition, access to the System must be scheduled in advance and such access will not be unreasonably withheld.

2.2 Installation Site Preparation. Once the Parties have agreed upon an Installation Site, Buyer or its designee shall provide Seller with a written description of the work necessary to prepare the Installation Site for the System. As part of this written description, Seller will be provided with a description of any work that must be performed by Buyer, interconnecting utilities or others in order to ensure that the requisite operating parameters for air, natural gas, ADG and water will be met. Buyer will prepare the Installation Site to enable Buyer to install and operate the System in accordance with all of the requirements of this Agreement. Installation Site preparation shall be undertaken by Buyer at its sole cost and expense.

2.3 Transmission/Distribution Lines and Communication Cables. Under the License, Buyer has the right to locate electric, natural gas, ADG gas, and water transmission/distribution lines and communications cables across the Property in connection with the construction, installation, operation, maintenance or repair of the System, with Seller's input and prior written approval.

2.4 Storage and Disposal. Seller will make available to Buyer adequate storage space on the Property convenient to the Installation Site, for materials and tools used during construction, installation, operation, and maintenance of the System, spare parts, and storage for replaced Consumables. Buyer will dispose of all waste under Buyer's own waste generator identification number.

2.5 Utilities and ADG Infrastructure. Buyer shall be responsible for all infrastructure installation and commodity costs associated with water, natural gas, drainage/sewer, electricity and Internet connections necessary for operation of the System, except that Seller will supply electricity necessary for the ADG Cleanup Equipment. Seller shall provide to Buyer ADG in accordance with the provisions of **Article 3** hereof. Subject to the provisions of **Section 3.5(a)**, Buyer shall purchase and install a heat recovery sludge dryer ("**Sludge Dryer**") necessary for the processing of the ADG or other device for recovery and use of process heat, in accordance with the applicable BioMAT tariff. Subsequent to the successful commissioning of the Sludge Dryer or other device, title to the Sludge

Dryer or other device will transfer to Seller and Seller shall be responsible, at its sole cost and expense, for all necessary operation and maintenance of the Sludge Dryer or other device. Seller shall also be responsible for any necessary piping or connections to move sludge to the Sludge Dryer or other device and any necessary flares, including permitting, for disposal of ADG not consumed by the Project.

2.6 Maintenance of Property. Seller will, at its sole cost and expense, maintain the Property in good condition and repair. Buyer will promptly notify Seller of any matters of which it becomes aware pertaining to any damage to or loss of use of the Property that could reasonably be expected to adversely affect the System.

2.7 Alteration of Property. Buyer and Seller will not make any alterations or repairs to the Installation Site or facilities on property adjacent to the Installation Site that may adversely affect the operation and maintenance of the System. Seller will notify and obtain the written consent of Buyer before making any alterations or repairs to the Installation Site, except that if Seller reasonably determines that the Installation Site requires an emergency repair, Seller will notify Buyer by telephone or electronic mail prior to or as soon as reasonably practical after making the emergency repair and Buyer's verbal consent will satisfy Seller's advance notice and consent obligation to make or cause to be made the emergency repair. If Seller cannot reasonably determine whether a contemplated alteration or repair to the Installation Site or facilities on the Property adjacent to the Installation Site may cause an adverse effect to the System, Seller will notify Buyer and provide Buyer the opportunity to advise Seller and any third party in making such alterations or repairs and undertaking such construction in a manner that avoids damage to the System; but, notwithstanding any such advice, Seller will be responsible for all damage to the System caused by Seller or its contractors in undertaking such alterations or repairs. To the extent that temporary disconnection or removal of the System is necessary to perform Seller's proposed alterations or repairs, Buyer or its contractors will perform such work and any replacement of the System, and Seller will be responsible for the cost of such work and for Buyer's lost revenues that are a result of any reduced output from the System during such alterations and repairs in an amount equal to the amount that would have been otherwise received by Buyer under the BioMAT PPA during the ordinary course of the System's operation. All of Seller's alterations and repairs will be done in a good and workmanlike manner and in compliance with all applicable Laws, codes and permits.

2.8 Liens. Seller will not directly or indirectly cause, create, incur, assume or allow to exist any mortgage, pledge, lien, charge, security interest, encumbrance or other claim of any nature (collectively, "Liens") on or with respect to the System or any interest therein. Seller will immediately notify Buyer in writing of the existence of any such mortgage, pledge, lien, charge, security interest, encumbrance or other claim, and Seller will promptly cause the same to be discharged and released of record without cost to Buyer. Seller will indemnify Buyer against all costs and expenses (including reasonable attorneys' fees) incurred by Buyer in discharging and releasing any such mortgage, pledge, lien, charge, security interest, encumbrance or other claim. In accordance with the terms of **Article 11**, Buyer will indemnify Seller for any actual loss, expense and liability arising from any pledge, lien, materialman's lien, charge, security interest, encumbrance or other claim that may be placed on Seller's property by any contractor or subcontractor utilized by Buyer. Buyer shall keep Seller's Property free from all Liens resulting from the construction, installation, operation or maintenance of the System and shall indemnify, defend and hold harmless Seller from and against all costs, charges and expenses including attorney's fees and charges that Seller may incur resulting from or arising out of any such Lien. Buyer shall take prompt steps to remove or discharge any Lien filed against Seller's Property. If Buyer fails to promptly discharge, bond or otherwise assure the payment of any such Lien as required under this **Section 2.8** within thirty (30) days of Buyer becoming aware of any such Lien, Seller may promptly notify Buyer in writing and take any reasonable action to satisfy, defend, settle, discharge or otherwise remove such Lien. In such event, Buyer shall be liable to Seller for all damages, costs, losses, expenses and settlement payments incurred by Seller arising out of or relating to such removal or discharge.

2.9 Security. Seller will be responsible for maintaining the physical security of the Property in accordance with Seller's customary practices. Buyer will adopt and enforce reasonable policies relating to the safety of third parties and protecting the System from damage from third parties. Such measures will include, but are not limited to, placing appropriate fencing around the Installation Site, locking the Installation Site and the posting of appropriate notices and signs warning of the potential for personal injury or death resulting from the unauthorized access to the

Installation Site. Seller will, in cooperation with Buyer, identify restrictions to be imposed on its third-party invitees and clearly communicate such restrictions through signage and other measures.

2.10 Fuel Cleanup System. Seller will provide, at no additional cost to Buyer and for the Term of this Agreement, access to and use of Seller's pre-existing ADG cleanup equipment as defined in **Exhibit F** located on the Property ("**Existing ADG Cleanup Equipment**"). Buyer accepts the Existing ADG Cleanup Equipment as is, where is and with all faults. Buyer shall use the ADG Cleanup Equipment in the manner for which it was designed and intended, solely for Buyer's business purposes and substantially in accordance with all applicable Laws and prudent utility practice. Except as provided in **Section 2.5**, Buyer, at Buyer's sole cost and expense, shall keep the ADG Cleanup Equipment in good repair, condition and working order, ordinary wear and tear excepted, and shall be responsible for maintenance of the Existing ADG Cleanup Equipment and furnish or otherwise obtain all parts, mechanisms, devices and servicing required in the ordinary course for the Term of this Agreement. Buyer, at Buyer's sole cost and expense, shall be permitted to make any upgrades, improvements, alterations, expansion or equipment additions to the ADG Cleanup Equipment deemed necessary by Buyer in Buyer's sole discretion during the Term ("**Modifications**"), provided that same shall not diminish the current or estimated residual value, utility, function, operation or remaining useful life of the ADG Cleanup Equipment. All Modifications, replacement parts, or repairs to the ADG Cleanup Equipment or placed upon the ADG Cleanup Equipment by Buyer shall become the property of Seller. Seller further acknowledges that Buyer may need to replace some of Seller's Existing ADG Equipment with new equipment. In the event that Buyer determines it is necessary to replace Existing ADG Equipment with new equipment, (a) such replacement shall be at Buyer's sole cost and expense, (b) Buyer shall remove and dispose of the Existing ADG Equipment being replaced at Buyer's sole cost and expense in accordance with the reasonable direction of Seller, and (c) Buyer shall retain ownership of the new equipment installed and any modifications to the new equipment.

2.11 Seller anticipates an increase in ADG production at its wastewater treatment plant located at the Property. Should the Parties agree that direct pipeline injection of ADG and/or the installation of an additional fuel cell to generate electricity using some or all of the additional ADG is economically viable at any time during the first ten (10) years of the Term of the DGPA, the Parties may by mutual agreement modify the DGPA to provide for such use(s) of the additional ADG in excess of that needed to supply the minimum quantities set forth in **Exhibit G**. Any revenues from the direct pipeline injection of additional ADG, and/or additional electricity generation, over those expected from the sale of electricity under the then-applicable BioMAT tariff will be shared equally by the Parties.

### **ARTICLE 3 PURCHASE AND SALE; OUTAGES; DELIVERY; GOVERNMENTAL CHARGES**

3.1 Quantities of ADG. Upon completion of the System, Buyer will provide Seller with five (5) Business Days' notice of its need for the commencement of ADG deliveries to the System. Commencing on the date of such notice and continuing throughout the remainder of the Term, Seller will deliver to Buyer, and Buyer will purchase and take delivery of, at the ADG Delivery Point(s), up to 22.63 MMBtu (HHV) ADG per hour meeting the ADG Specifications in **Exhibit C**. Seller shall guarantee to Buyer monthly and annual ADG delivery in the quantities specified in **Exhibit G**. To the extent necessary to meet its obligations under this DGPA, Seller may supplement ADG produced by Seller-owned digesters located on the Property with ADG that meets the ADG Specifications in **Exhibit C**, and Buyer will purchase and take delivery of such ADG.

3.2 System Outages. Buyer shall provide Seller with a schedule of planned maintenance and other planned System outages for a calendar year no later than thirty (30) days prior to the start of each calendar year. Buyer shall use commercially reasonable efforts to ensure that such planned maintenance and other planned System outages shall not exceed ten (10) days per calendar year, except in years where a module change occurs, in which event it shall not exceed twenty one (21) days per calendar year. Buyer and Seller shall cooperate to minimize the impact of any planned maintenance and other planned System outages to Seller's operations. Buyer shall notify Seller by

telephone or e-mail at least one hour in advance of any planned maintenance or other planned System outage, and any unplanned outages to the extent that Buyer reasonably foresees such unplanned outages.

3.3 ADG Price. During the Term, Buyer will pay Seller Five Dollars (\$5.00) for each MMBtu HHV (higher heating value basis) of ADG meeting the ADG Specifications as specified in **Section 3.4** below, as metered at the Metering Device ("**Delivered ADG**").

3.4 Delivered ADG Guarantee. Seller guarantees that it shall deliver to Buyer monthly and annual minimums as set forth in **Exhibit G** of ADG meeting the ADG Specifications; provided, however, that Seller shall have no obligation to deliver ADG and meet monthly or annual minimum delivery requirements during any period when it is necessary for Seller to replace the cover on the fermenter at its digester facilities located on the Property. Seller shall use commercially reasonable efforts to ensure that the replacement of the fermenter cover shall only happen once during the Term, and that the replacement shall not take longer than six (6) weeks. During the year in which the fermenter cover is replaced, the ADG Price for such year shall be reduced proportionally to account for Buyer's lost revenues under the BioMAT PPA. In the event of any other shortfall in the Delivered ADG ("**Shortfall Amount**"), Seller shall pay to Buyer as a liquidated damage and not as a penalty, on the date payment would otherwise be due to Seller, the lesser of (1) an amount calculated as the positive difference, if any, obtained by subtracting (a) the price per MMBtu HHV that would have been payable to Seller for the ADG not delivered from (b) the price per MMBtu HHV paid by Buyer, acting in a commercially reasonable manner in replacing the Shortfall Amount, plus transportation costs, if any, provided that Buyer is able to timely procure replacement ADG using commercially reasonable efforts or (2)(a) the amount of electricity that Buyer would have generated utilizing the Shortfall Amount times (b) the applicable BioMAT PPA rate plus any actual, verifiable damages paid by Buyer to the BioMAT administrator ("**Shortfall Payment**"). For purposes of subdivision (1)(a) above, Buyer shall replace the Shortfall Amount with the least cost available replacement fuel that qualifies under the BioMAT PPA.

3.5 ADG Quality. Seller acknowledges that Buyer's System is designed to clean up ADG with certain characteristics and contaminants. Seller is obligated to provide raw ADG to Buyer that meets the specifications attached as **Exhibit C** hereto ("**ADG Specifications**") and at the delivery point(s) specified in **Exhibit E** (the "**ADG Delivery Point(s)**"), such that the ADG Cleanup System will be able to treat the ADG for use as fuel in Buyer's fuel cell. Buyer acknowledges that Buyer has reviewed the most recent test results for raw ADG produced by Seller-owned digesters located on the Property and confirmed that such test results are in compliance with the ADG Specifications. During the Term of this DGPA Agreement, Buyer will at Buyer's sole cost and expense, periodically sample ADG entering the ADG Cleanup Equipment. If, after the Commercial Operation Date, the ADG does not meet the ADG Specifications, Seller must promptly remedy the situation at Seller's sole cost and expense. If Seller fails to remedy such situation within ninety (90) days after written notice from Buyer, Buyer shall take the following actions, in the order Buyer chooses, as necessary to remedy the ADG quality situation: (i) relocate, modify or install any additional equipment required to remedy the situation at Seller's sole cost and expense; and/or (ii) reasonably adjust the price paid by Buyer to Seller for ADG hereunder to reflect the increased cost to Buyer caused by such failure of the ADG to meet the ADG Specifications.

3.6 Adjustments to ADG Price.

(a) Sludge Dryer. Upon receipt of written notice from Seller, Buyer agrees to purchase and install a Sludge Dryer or other heat recovery device as set forth in **Section 2.5**. Seller agrees to pay all of Buyer's actual, documented costs for the engineering, permitting, procurement, construction and installation of the Sludge Dryer, plus a five percent (5%) administrative fee, as follows ("**Sludge Dryer Cost**"). Seller agrees to pay Buyer at least twenty percent (20%) of the Sludge Dryer or other device Cost within ninety (90) days of Buyer's purchase of the Sludge Dryer or other device; the five percent (5%) administrative fee shall apply only to any unpaid balance remaining after payment by Buyer. Seller shall pay the balance of the Sludge Dryer Cost within eighteen (18) months of Buyer's purchase of the Sludge Dryer

(b) Changes in BioMAT PPA Pricing. Buyer's economics are based on a BioMAT PPA price of \$0.1277 per kWh. In the event that Buyer's BioMAT PPA rate is increased above \$0.1277 per kWh at any time during the Term, the ADG Price specified in **Section 3.3** shall be increased to provide for compensation to Seller in an amount equal to one-half of the incremental increase in payments received by Buyer under the BioMAT PPA.

3.7 Buyer's Purchase Obligation. Buyer shall be obliged to make payments to Seller for ADG capable of being delivered and meeting the ADG Specifications of up to the monthly and annual quantities contained in **Exhibit G**, regardless of the operating status of Buyer's System, unless any failure of the System to operate is as a result of Force Majeure or Seller Misconduct.

3.8 Environmental Attributes of ADG. Seller will not claim any environmental attributes, credits, benefits, emissions reductions, offsets, and allowances, howsoever titled, attributable to the ADG, the System, the generation of electrical energy from the System, renewable energy credits; avoided emissions of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; or avoided emissions of carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by Law, to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere.

3.9 Taxes and Governmental Charges.

(a) Seller is responsible for local, state and federal income taxes attributable to Seller for income received under this DGPA.

(b) Buyer is responsible for local, state and federal taxes on the System, other than the ADG Cleanup Equipment.

(c) Both Parties will use reasonable efforts to administer this DGPA and implement its provisions so as to minimize Governmental Charges. In the event any of the sales of ADG hereunder are to be exempted from or not subject to one or more Governmental Charges, the applicable Party will, promptly upon the other Party's request therefor, provide the applicable Party with all necessary documentation to evidence such exemption or exclusion.

## ARTICLE 4

### HAZARDOUS MATERIALS

4.1 Hazardous Materials. Buyer is not responsible for any Hazardous Materials released on or from the Property except to the extent introduced or caused by Buyer. Upon encountering any Hazardous Materials, Buyer will stop work in the affected area and notify Seller, and, if required by applicable Law, any Governmental Authority with jurisdiction over the Property. Upon receiving notice of the presence of any suspected Hazardous Materials at the Property, Seller or Buyer, as appropriate, shall take all measures required by applicable Law to address the Hazardous Materials released or discovered at or from the Property. If Buyer or Buyer's Contractors and subcontractors are not responsible for the release of Hazardous Materials, Seller will reimburse Buyer for all additional costs incurred by Buyer or Buyer's Contractors and subcontractors in the installation of the System resulting from the presence of and/or the remediation of Hazardous Materials, including demobilization and remobilization expenses. Notwithstanding the preceding provisions, Seller is not responsible for any Hazardous Materials introduced to or released from the Installation Site by Buyer or Buyer's Contractors or subcontractors or for any of costs relating to such Hazardous Materials.

## ARTICLE 5

### DESIGN, DEVELOPMENT, AND CONSTRUCTION OF SYSTEM

5.1 Buyer's Obligations. Buyer will, at its sole cost and expense:

(a) Design the System in accordance with Industry Standards;

(b) No later than twenty (20) calendar days prior to submittal for planning and building approvals, provide a detailed design package including industry standard architectural, structural, and electrical drawings, as well as renderings, models and mock-ups illustrating the aesthetics of the System, for approval by Seller, which may not be unreasonably withheld or delayed;

(c) Acquire and maintain all Governmental Approvals;



(d) Provide copies to Seller of all environmental impact assessments, statements or studies conducted by or for Governmental Authorities, if required;

(e) Acquire and maintain an agreement for interconnection of the System to the local natural gas system to supply natural gas for the supplemental fueling and operation of the System; and

(f) Acquire and maintain an agreement for interconnection of the System to the electric distribution and transmission grid.

5.2 Contractors and Subcontractors. Buyer will provide Seller with notice of the name and address of any of Buyer's Contractors and subcontractors who will perform work on the Installation Site.

5.3 Status Reports and Commercial Operation. Buyer shall install the System and shall cause the gas and electric system interconnection facilities to be installed in a good and workmanlike manner in accordance with all applicable Laws. Buyer shall give Seller regular updates, on a reasonable schedule, on the progress of installation of the System and shall notify Seller of when Buyer will commence testing of the System.

## ARTICLE 6

### SYSTEM OWNERSHIP; RISK OF LOSS; INSURANCE; FORCE MAJEURE; CHANGE IN LAW

#### 6.1 System Ownership.

(a) Notwithstanding the System's presence and operation on the Installation Site, Buyer will at all times retain title to and be the legal and beneficial owner of the fuel cell portion of the System and all alterations, additions or improvements to the fuel cell portion of the System, and the fuel cell portion of the System will remain the property of Buyer or Buyer's assigns. In no event may anyone claiming by, through or under Seller (including any present or future mortgagee of the Installation Site) have any rights in or to the System, other than the ADG Cleanup Equipment, at any time. Seller acknowledges that Buyer may be required to grant, or cause to be granted, to Buyer's Financing Parties a security interest in the System. Any such grant of security interest shall be deemed an assignment for purposes of **Article 15** hereof. Seller will cooperate with Buyer and execute reasonable documentation, including consents, required by Buyer's Financing Parties.

(b) Subject to the provisions of **Sections 2.5** and **2.10**, Buyer will be the owner of the System for federal income tax purposes and, as such, Buyer and/or Buyer's Financing Parties will be entitled to all depreciation deductions associated with the System, other than the ADG Cleanup Equipment, and to any and all tax credits or other tax benefits associated with the System, other than the ADG Cleanup Equipment, including any such tax credits or tax benefits under the Code.

(c) Nothing in this DGPA will be construed to convey to Seller a license or other right to trademarks, copyrights, technology or other intellectual property of Buyer or associated with the System.

#### 6.2 System Loss.

(a) Buyer will bear the risk of any ADG Cleanup Equipment Loss not covered by Seller's insurance during the Term excluding, however, the portion of any ADG Cleanup Equipment Loss caused by the gross negligence or intentional misconduct of Seller or Seller's directors, agents, employees, invitees, or contractors (collectively, "**Seller Misconduct**").

(b) In the event of any System Loss that, in the reasonable judgment of Buyer, results in less than total damage, destruction or loss of the System, this DGPA will remain in full force and effect and Buyer will, at Buyer's sole cost and expense, repair or replace the System, as quickly as practicable; except, that if more than fifty percent (50%) of the System is destroyed during the last five (5) years of the Term or if Seller elects not to repair or replace that portion of the System owned by Seller, Buyer will not be required to restore the System, but may instead terminate this DGPA. Notwithstanding the foregoing, to the extent that such total or partial System Loss has been caused by Seller Misconduct, Seller will, promptly upon demand from Buyer, pay all damages, costs and expenses arising in connection with such System Loss, including, without limitation, cost of repair where more than five (5) years of the Term remain, and lost revenues under the BioMAT PPA. Within thirty (30) Business Days after written

demand from Buyer, Seller will pre-pay or post security acceptable to Buyer for any repair expenses attributable to Seller Misconduct that are reasonably estimated by Buyer.

(c) In the event of any System Loss that, in the reasonable judgment of Buyer, results in total damage, destruction or loss of the System, Buyer will, within twenty (20) Business Days following the occurrence of such System Loss, notify Seller whether Buyer is willing, notwithstanding such System Loss, to repair or replace the System.

6.3 Insurance. The Parties will provide insurance in accordance with **Exhibit H** attached hereto.

6.4 Performance Excused by Force Majeure. To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this DGPA and such Party (the "**Claiming Party**") gives notice and details of the Force Majeure to the other Party as soon as practicable (and in any event within five (5) Business Days after the Force Majeure first prevents performance by the Claiming Party), then the Claiming Party will be excused from the performance of its obligations under this DGPA (other than the obligation to make payments then due or becoming due with respect to performance prior to the Force Majeure). The Claiming Party will use commercially reasonable efforts to eliminate or avoid the Force Majeure and resume performing its obligations under this DGPA; *provided, however*, that neither Party is required to settle any strikes, lockouts or similar disputes except on terms acceptable to such Party, in its sole discretion. Force Majeure shall not be based on (a) Buyer's inability to economically use or resell the ADG purchased pursuant to this Agreement, or (b) Seller's ability to sell the ADG at a price greater than the price set forth in this Agreement. The non-Claiming Party will not be required to perform or resume performance of its obligations to the Claiming Party corresponding to the obligations of the Claiming Party excused by Force Majeure for so long as the claim of Force Majeure continues.

6.5 Termination due to Force Majeure. If a Claiming Party claims a Force Majeure for a consecutive period of one year or longer, and such Force Majeure event has a material adverse effect on the entire System, then either Party may terminate this DGPA, in whole or in part, without any liability of the Claiming Party as a result of such termination, and Buyer will promptly remove the System from the Installation Site in accordance with **Section 1.2(b)** above. For purposes of clarity, substantial changes to or elimination of the BioMAT program is an event of Force Majeure.

## ARTICLE 7 EVENTS OF DEFAULT; REMEDIES

7.1 Events of Default. An "**Event of Default**" means, with respect to a Party (a "**Defaulting Party**"), the occurrence of any of the following:

(a) such Party's failure to make, when due, any payment required under this DGPA if such failure is not remedied within fifteen (15) Business Days after receipt of written notice from the other Party (the "**Non-Defaulting Party**");

(b) any representation or warranty made by such Party in this DGPA is false or misleading in any material respect when made or when deemed made or repeated if such breach is not cured or remedied (including by payment of money to the Non-Defaulting Party) within twenty (20) Business Days after receipt of written notice from the Non-Defaulting Party;

(c) the failure to perform any material covenant or obligation set forth in this DGPA (except to the extent constituting a separate Event of Default), if such failure is not remedied within twenty (20) Business Days after receipt of written notice from the Non-Defaulting Party and provided that so long as the Non-Defaulting Party has initiated and is diligently attempting to effect a cure, such cure period will be extended for an additional period not to exceed forty (40) Business Days;

(d) the filing of a petition for voluntary bankruptcy or insolvency or for reorganization or arrangement under the bankruptcy Laws of the United States or under any insolvency act of any State, or such Party voluntarily takes advantage of any such Law or act by answer or otherwise;

(e) such Party fails to provide or maintain in full force and effect any required insurance, if such failure is not remedied within five (5) Business Days after receipt of written notice from the Non-Defaulting Party; and

(f) with respect to Seller, Seller's failure to deliver ADG in sufficient quantities such that Buyer's BioMAT PPA is terminated. In the event of such an Event of Default pursuant to this **Section 7.1(f)**, Buyer and Seller shall work diligently and in good faith to continue the production of electricity from the fuel cell facility and secure a revenue stream from such electricity generation (i.e., virtual net metering, Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff, or other means). For purposes of clarity, Seller's failure to deliver ADG as a result of Force Majeure shall not constitute an Event of Default.

**7.2 Remedies for Event of Default.** If at any time an Event of Default has occurred and is continuing, the Non-Defaulting Party may (a) pursue applicable remedies or damages at law or equity, or (b) with notice to the Defaulting Party, designate a date, not earlier than twenty (20) Business Days after the date such notice is effective, an early termination date in respect of this DGPA (an "**Early Termination Date**"). In the event such Early Termination Date notice is provided, the Non-Defaulting Party will have the right as of the date of such notice to (i) withhold any payments due to the Defaulting Party under this DGPA and (ii) suspend performance due to the Defaulting Party under this DGPA.

**7.3 Seller Rights Upon Termination for Default.** In the event that Seller is the Non-Defaulting Party, and Seller elects to terminate this DGPA as provided in **Section 7.2**, Seller will be entitled, at its sole discretion, to require Buyer to remove the System as provided in **Section 1.2(b)** above. Seller may pursue all other remedies or damages at law or in equity against Buyer.

**7.4 Buyer Rights Upon Termination for Default.** In the event that Buyer is the Non-Defaulting Party, and Buyer elects to terminate this DGPA as provided in **Section 7.2** for an Event of Default only as specified in **Section 7.1(f)**, Buyer will require that Seller pay the Default Payment to Buyer. Prior to terminating the DGPA for an Event of Default as specified in **Section 7.1(f)**, Buyer shall offer Seller the option, upon mutual agreement of the Parties, of having Seller purchase the output from the System at the price of \$0.1277 kWh for the remainder of the Term, in lieu of terminating the DGPA. In the event that Buyer elects the foregoing remedy, such express remedy will be the sole and exclusive remedy available to Buyer as a result of termination of this DGPA, subject to **Section 7.8** below, and Seller's liability will be limited as set forth in this **Section 7.4** and all other remedies or damages at law are hereby waived by Buyer. For purposes of clarity, no Default Payment will be due to Buyer for failure to deliver ADG resulting from Force Majeure. For all other Events of Default where Buyer is the Non-Defaulting Party and Buyer elects to terminate this DGPA as provided in **Section 7.2**, Buyer may pursue all other remedies or damages at law or in equity against Seller.

**7.5 Default Payment Notice.** In the event that the Default Payment is required to be paid to Buyer pursuant to **Section 7.4**, then Buyer will notify Seller of the amount of the Default Payment and any amount otherwise due and outstanding under this DGPA. Such notice will include a written statement explaining in reasonable detail the calculation of such amount. Seller will be required to pay the Default Payment and any amount otherwise due and outstanding under this DGPA to Buyer within thirty (30) Business Days after the receipt of such notice.

**7.6 Closeout Setoffs.** Upon the occurrence of an Event of Default, the Non-Defaulting Party will be entitled, at its option, and in its discretion, to set off against any amounts due and owing to the Defaulting Party any amounts due and owing by the Defaulting Party to the Non-Defaulting Party under this DGPA.

**7.7 Remedies Cumulative.** Except as provided in **Section 7.4**, the rights and remedies contained in this **Article 7** are cumulative with the other rights and remedies available under this DGPA or at law or in equity. The Non-Defaulting Party will be under no obligation to prioritize the order with respect to which it exercises any one or more rights and remedies available under this DGPA.

**7.8 Unpaid Obligations.** Notwithstanding anything to the contrary herein, the Defaulting Party will in all events remain liable to the Non-Defaulting Party for any amount payable by the Defaulting Party in respect of any of its obligations remaining outstanding after any such exercise of rights or remedies.

**ARTICLE 8  
METERING DEVICE AND METERING**

8.1 Metering Equipment. Buyer will utilize a thermal mass meter (“**Metering Device**”) installed at the raw ADG Delivery Point(s) to measure ADG deliveries. The Metering Device will be calibrated with the gas compositions from each digester. This data will be made available to the Seller on a real-time basis as read-only access to information collected by the Buyer’s supervisory control and data acquisition (“**SCADA**”) system. Buyer will work with the interconnecting utility to install any additional telemetry required under the BioMAT tariff.

**ARTICLE 9  
INVOICING AND PAYMENT**

9.1 Invoicing and Payment. All invoices under this DGPA will be dated as of the last day of ADG consumption for each monthly billing period hereunder. Such invoices will be due and payable not later than thirty (30) days after the date of the applicable invoice. Each Party will make payment by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any amounts not paid by the applicable due date will accrue interest at the Late Payment Interest Rate until paid in full.

9.2 Disputed Amounts. A Party may in good faith dispute the correctness of any invoice (or any adjustment to any invoice) under this DGPA at any time within three (3) months following the date the invoice (or invoice adjustment) was rendered. In the event that either Party disputes any invoice or invoice adjustment, such Party will nonetheless be required to pay the full amount of the applicable invoice or invoice adjustment (except any portions thereof that are manifestly inaccurate or are not reasonably supported by documentation, payment of which amounts may be withheld subject to adjustment as hereinafter set forth) on the applicable payment due date, except as otherwise expressly provided in this DGPA, and to give notice of the objection to the other Party. Any required payment will be made within thirty (30) Business Days after resolution of the applicable dispute, together with interest accrued at the Late Payment Interest Rate from the due date to the date paid.

9.3 Netting and Setoff. Subject to the provisions of any Financing Documents, the Parties will net any and all mutual debts and payment obligations that are due and owing under this DGPA. Accordingly, so long as such action does not violate the provisions of any Financing Documents, all amounts owed by each Party to the other Party under this DGPA, including any related damages and any applicable interest, payments or credits, will be netted such that only the excess amount remaining due will be paid by the Party that owes it. Each Party will have the right to set off any undisputed amount due and owing to such Party from the other Party under this DGPA against any undisputed amount due and owing from such Party to the other Party under this DGPA.

9.4 Records and Audits. Each Party will keep, for a period not less than two (2) years, records sufficient to permit verification of the accuracy of billing statements, invoices, charges, computations and payments relating to this DGPA. During such period each Party may, at its sole cost and expense, and upon reasonable notice to the other Party, examine the other Party’s records pertaining to this DGPA during such other Party’s normal business hours.

9.5 Currency. All pricing offered, payments made and amounts referenced hereunder are and will be in U.S. dollars.

**ARTICLE 10  
REPRESENTATIONS AND WARRANTIES**

10.1 Representations and Warranties. Each Party represents and warrants to the other Party that:

(a) such Party is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation; the execution, delivery and performance by such Party of this DGPA are within its corporate power and authority, have been duly authorized by all necessary corporate, partnership, limited liability,

or governing body action, as applicable, and do not violate any of the terms and conditions of such Party's governing documents, any contracts to which such Party is a party, or any applicable Law;

(b) this DGPA and each other document executed and delivered in accordance with this DGPA constitutes its legally valid and binding obligation enforceable against such Party in accordance with its terms, subject to any bankruptcy, insolvency, reorganization and other Laws affecting creditors' rights generally, and with regard to equitable remedies, the discretion of the applicable court;

(c) such Party is acting for its own account, and has made its own independent decision to enter into this DGPA, and is not relying upon the advice or recommendations of the other Party in so doing;

(d) such Party is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this DGPA;

(e) such Party understands that the other Party is not acting as a fiduciary for or as an adviser to it or its Affiliates;

(f) except as previously disclosed in writing to the other Party, there is no pending or, to the knowledge of such Party, threatened litigation, action or proceeding against such Party which could reasonably be expected to have a material adverse effect on such Party or its ability to perform its obligations under this DGPA or which purports to affect the legality, validity or enforceability of this DGPA or the transactions contemplated hereby;

(g) except as previously disclosed in writing to the other Party, there is no pending bankruptcy, reorganization, debt arrangement or other case or proceeding under any bankruptcy or insolvency Law, or any dissolution, winding up or liquidation proceeding, in respect to such Party; and

(h) such Party is not a "foreign person" and such Party will not assign or otherwise transfer its rights under this DGPA to a "foreign person."

10.2 Additional Representations, Warranties, and Covenants of Seller. Seller represents and warrants that:

(a) to Seller's knowledge there are no facts, circumstances or other matters that may interfere with or delay the construction and installation of the System;

(b) all information provided by Seller to Buyer, as it pertains to the physical configuration of Seller's ADG facilities at the Property and the Installation Site, is accurate in all material respects;

(c) Seller is not a public utility or a public utility holding company and is not subject to regulation as a public utility or a public utility holding company.

## ARTICLE 11 INDEMNITY; LIMITATIONS

11.1 Indemnity. Each Party (the "*Indemnitor*") hereby indemnifies and agrees to defend and hold harmless the other Party and its Affiliates, respective officers, directors, employees and agents (the "*Indemnitee*") from and against any and all Indemnity Claims, whether or not involving a third-party claim, caused by, resulting from, relating to or arising out of any breach of this DGPA by the Indemnitor or any of its directors, officers, employees or agents or any negligence or intentional misconduct on the part of the Indemnitor or any of its directors, officers, employees or agents; *provided, however,* that the Indemnitor will not have any obligation to indemnify the Indemnitee from or against any Indemnity Claims to the extent caused by, resulting from, relating to or arising out of the gross negligence or intentional misconduct of the Indemnitee or any of its directors, officers, employees or agents.

11.2 Limitation of Remedies, Liability and Damages. The express remedies and measures of damages provided in this DGPA satisfy the essential purposes hereof. For breach of any provision for which an express remedy or measure of damages is provided, such express remedy or measure of damages will be the sole and exclusive remedy, the obligor's liability will be limited as set forth in such provision and all other remedies or damages at law or in equity are waived. If no remedy or measure of damages is expressly provided herein, the obligor's liability will be limited to direct actual damages only, such direct actual damages will be the sole and exclusive remedy and all other

remedies or damages at law or in equity are waived. Without prejudice to the calculation of the amount of any Default Payment, neither Party will be liable for consequential, incidental, punitive, special, exemplary or indirect damages, lost profits, lost savings or other business interruption damages, by statute, in tort or under contract, under any indemnity provision or otherwise; *provided, however*, that notwithstanding the foregoing, in no event will the foregoing limitations of liability be applied to limit the extent of the liability of either Party to the other for intentional misconduct or for or with respect to any third party Indemnity Claims. The limitations imposed herein on remedies and the measure of damages are without regard to the applicable cause or causes, including the negligence of any Party, whether such negligence be sole, joint or concurrent, or active or passive.

11.3 Limitation on Warranties. Except as expressly provided in this DGPA, each Party hereby disclaims any and all representations, warranties and guarantees, express or implied, including warranties of merchantability and fitness for a particular purpose.

## ARTICLE 12 CONFIDENTIALITY; PUBLICITY

### 12.1 Confidentiality.

(a) Neither Party will use any Confidential Information for any purpose except such Party's performance under this DGPA. Furthermore, neither Party will disclose any Confidential Information to any third party (other than (and then only for purposes permitted by this DGPA) the Party's or its Affiliates' officers, employees, current or prospective lenders, counsel, accountants or advisors (collectively, "**Representatives**") who have a need to know such information for the purposes permitted by this Section and who have agreed to keep such terms confidential or are otherwise bound by confidentiality obligations at least as restrictive as those contained herein) except in order to comply with the requirements of any applicable Law or any exchange, control area or independent system operator rule, tariff or agreement or in connection with any judicial or regulatory proceeding or request by a Governmental Entity; *provided, however*, that each Party will use reasonable efforts to prevent or limit any such disclosure. "**Confidential Information**" means information provided by one Party to the other in connection with the negotiation or performance of this DGPA that is clearly labeled or designated by the disclosing party as "confidential" or "proprietary" or with words of like meaning or, if disclosed orally, clearly identified as confidential with that status confirmed promptly thereafter in writing.

(b) Parties are advised that Section 6253 of the California Government Code (the Public Records Act) provides that any party may receive a copy of any identifiable public record that is not exempt from disclosure under other provisions of the Public Records Act. The Seller will disclose such documents unless (1) the data submitted in connection with this DGPA is stamped "Confidential Information" or "Proprietary and Confidential"; or (2) the disclosing Party provides a brief explanation of the basis for confidentiality under the Public Records Act.

In the event that the recipient of information is requested by legal or regulatory authority or court order to disclose any Confidential Information, the recipient shall promptly notify the disclosing party of such request or requirement prior to disclosure so that the disclosing party may seek an appropriate protective order and/or waive compliance with this DGPA. In the event that a protective order or other remedy is not obtained, or the disclosing party waives compliance with the provisions hereof, the recipient agrees to furnish only that portion of the Confidential Information that it reasonably determines is consistent with the scope of the subpoena or demand, and to exercise commercially reasonable efforts to obtain assurance that confidential treatment will be accorded to such Confidential Information.

(c) Notwithstanding anything to the contrary contained herein, in order for the transactions contemplated by this DGPA not to be considered a "Confidential Transaction" within the meaning of United States Treasury Regulation 1.6011-4(b)(3), the Parties (and each Representative of the Parties) may (a) consult any tax advisor/consultant regarding the tax treatment and tax structure relating to the transactions contemplated by this DGPA, and (b) may at any time disclose to any Person, without limitation of any kind, the tax treatment and tax structure of the transactions contemplated by this DGPA and all materials of any kind (including tax opinions or other tax analysis) that are provided relating to such tax treatment or tax structure.

(d) Notwithstanding anything to the contrary contained herein, Seller acknowledges that Buyer will be required to provide information concerning the System, the ADG, and the ADG Cleanup Equipment to SCE as part of the BioMAT program.

(e) The obligations of the Parties under this **Article 12** will survive for a period of two (2) years from and after the termination of the transaction to which any Confidential Information relates.

## 12.2 Publicity.

(a) The Parties will cooperate with each other in connection with the issuance of any press releases regarding the System, this DGPA or the transactions contemplated hereby; provided, however, that neither Party will not issue any such press releases without the prior consent of the other Party, which consent may be withheld in the other Party's sole discretion.

(b) Subject only to the provisions relating to Confidential Information in **Section 12.1** above, Buyer will have the right to publish any factual information or statement related to the System on its website (or the website of an Affiliate) and through other forms of media. Such information may include the location of the System, the name of the Seller and other features of the System.

## **ARTICLE 13 DISPUTE RESOLUTION**

13.1 The Parties will negotiate in good faith and attempt to resolve any dispute, controversy, or claim arising out of or relating to this DGPA (a "*Dispute*") within thirty (30) days after the date that a Party gives written notice of such Dispute to the other Party.

13.2 In the event any Dispute is not settled to the mutual satisfaction of the Parties pursuant to **Section 13.1**, both Parties will retain the right, but not the obligation, to pursue any legal or equitable remedy available to it in a court of competent jurisdiction.

13.3 Any legal action or proceeding brought by either of the Parties against the other Party with respect to this DGPA or the transactions in connection with or relating hereto, may be brought in the courts of the County of Tulare and, by execution and delivery of this DGPA, each of the Parties hereby irrevocably accepts for itself and in respect of its property, generally and unconditionally, the non-exclusive jurisdiction of the aforesaid court and waives any objection which it may have to the laying of venue of any proceedings brought in any such court; and any claim that such proceedings have been brought in an inconvenient forum. Each of the Parties agrees that a judgment, after exhaustion of all available appeals, in any such action or proceeding will be conclusive and binding upon each of the Parties, and may be enforced in any other jurisdiction, by a suit upon such judgment, a certified copy of which will be conclusive evidence of the judgment. Each Party hereby waives trial by jury in any action, proceeding or counterclaim brought by or on behalf of either Party relating to or arising from this DGPA.

## **ARTICLE 14 NOTICES**

All notices, requests, statements or payments will be made to the addresses and Persons specified below. All notices, requests, statements or payments will be made in writing except where this DGPA expressly provides that notice may be made orally. Notices required to be in writing will be delivered by hand delivery, overnight delivery, facsimile, or e-mail (so long as a copy of such e-mail notice is provided immediately thereafter in accordance with the requirements of this **Article 14** by hand delivery, overnight delivery, or facsimile, unless confirmation of successful transmission is received). Notice by facsimile will (where confirmation of successful transmission is received) be deemed to have been received on the day on which it was transmitted (unless transmitted after 5:00 p.m. at the place of receipt or on a day that is not a Business Day, in which case it will be deemed received on the next Business Day). Notice by hand delivery or overnight delivery will be deemed to have been received when delivered. Notice by e-mail will be deemed to have been received when such e-mail is transmitted, so long as a copy of such e-mail notice is delivered immediately thereafter by hand delivery, overnight delivery, or facsimile with confirmation as noted above respectively. When notice is permitted to be provided orally, notice by telephone

will be permitted and will be deemed to have been received at the time the call is received. A Party may change its address by providing notice of the same in accordance with the provisions of this **Article 14**.

City:

The City of Tulare  
Public Works Department  
3981 South K Street  
Tulare, CA 93274  
Telephone: (559)684-4318  
Fax: (559)  
Attention: Public Works Director

Seller:

Central CA Fuel Cell 2, LLC  
c/o FuelCell Energy, Inc.  
3 Great Pasture Road  
Danbury, CT 06810  
Telephone: (203) 825-6000  
Fax: (203) 825-6069  
Attention: Legal Department

#### **ARTICLE 15 ASSIGNMENT; FINANCING**

(a) Neither Party will have the right to assign or transfer, whether voluntarily or by operation of law, any of its rights, duties or obligations under this DGPA without the prior written consent of the other Party, which consent will not be unreasonably withheld, conditioned or delayed, it being understood and agreed that neither Party will be deemed to have unreasonably withheld its consent to such assignment or transfer by the other Party of any or all of the other Party's right, title and interest in and to this DGPA if such proposed assignment or transfer is to any Person whose creditworthiness, as reasonably determined by the non-assigning Party, is unsatisfactory. For purposes of this DGPA, the following types of transactions shall be deemed assignments subject to the provisions of this Article 15(a): an assignment by a Party (i) to one or more of its Affiliates, (ii) to any present or future owner of the power generated by the System, (iii) to any Person succeeding to all or substantially all of the assets of a Party, (iv) to a successor entity in a merger or acquisition transaction, (v) to one or more Affiliates or third parties in connection with a sale-and-leaseback or other debt and/or equity financing transaction, or (vi) to any Financing Party; *provided that* such prior written consent shall not be required for (iii) or (iv) if prior notice is prohibited by any provision of applicable Law, including but not limited to the rules and regulations of the Securities and Exchange Commission. Any assignee under this DGPA will agree to be bound by the terms and conditions hereof.

(b) Subject to the foregoing restrictions on assignment, this DGPA will inure to the benefit of and be binding upon the Parties and their respective successors and permitted assigns.

#### **ARTICLE 16 MISCELLANEOUS**

16.1 **Governing Law.** This DGPA will be governed by the Laws of the state of California, without giving effect to principles of conflicts of laws.

16.2 **Duty to Mitigate.** Notwithstanding any other provision of this DGPA, each Party has a duty to mitigate damages and each Party covenants that it will use commercially reasonable efforts to minimize any damages that it may incur as a result of the other Party's performance or non-performance.



16.3 Entire Agreement; Amendments. This DGPA (including the exhibits, schedules and any written supplements or amendments) constitutes the entire agreement between the Parties, and will supersede any prior oral or written agreements between the Parties, relating to the subject matter hereof. In order to be effective, any amendment, modification or change to this DGPA must be in writing and executed by both Parties.

16.4 Non-Waiver. No failure or delay by either Party in exercising any right, power, privilege or remedy hereunder will operate as a waiver thereof. No waiver by either party of a breach of any term or provision contained herein will be effective unless signed and in writing by the waiving party. No consent by either Party to, or waiver of, a breach by either Party, whether express or implied, will be construed, operate as or constitute a consent to, waiver of or excuse of any other or subsequent or succeeding breach by either Party.

16.5 Severability. If any part, term, or provision of this DGPA is determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such determination will not affect or impair the validity, legality or enforceability of any other part, term or provision of this DGPA, and will not render this DGPA unenforceable or invalid as a whole. Rather the part of this DGPA that is found invalid or unenforceable will be amended, changed or interpreted to achieve as nearly as possible the same objectives and economic effect as the original provision, or replaced to the extent possible, with a legal, enforceable and valid provision that is as similar in tenor to the stricken provision, within the limits of applicable Law, and the remainder of this DGPA will remain in full force and effect.

16.6 No Third Party Beneficiaries. Nothing in this DGPA will provide any benefit to any third party or entitle any third party to any claim, cause of action, remedy or right of any kind.

16.7 No Recourse to Affiliates. This DGPA is solely and exclusively between the Parties, and any obligations created herein on the part of either Party will be the obligations solely of such Party. No Party will have recourse to any parent, subsidiary, partner, member, Affiliate, lender, director, officer or employee of the other Party for performance or non-performance of any obligation hereunder, unless such obligations were assumed in writing by the Person against whom recourse is sought.

16.8 Relationships of Parties. The Parties are independent contractors, and will not be deemed to be partners, joint venturers or agents of each other for any purpose, unless expressly stated otherwise herein.

16.9 Costs. Each Party will bear its own costs and expenses relating to negotiating this DGPA and any additional documents relating hereto or thereto.

16.10 Counterparts. This DGPA may be executed in one or more counterparts, each of which is an original and all of which together constitute one and the same instrument. A signature on a copy of this DGPA received by either Party by facsimile transmission or electronic signature is binding upon the other Party as an original.

16.11 Further Assurances.

(a) The Parties acknowledge that adjustments in the terms and conditions of this DGPA may be appropriate to account for rule changes in the respective Utility or Utility control areas, by the respective independent system operators, or their successors, that could not be anticipated at the date of execution of this DGPA or that are beyond the control of the Parties, and the Parties will make such commercially reasonable amendments as are reasonably required to comply therewith.

(b) The Parties will, at their own cost and expense, do such further acts, perform such further actions, execute and deliver such further or additional documents and instruments as may be reasonably required or appropriate to consummate, evidence, or confirm the agreements and understandings contained herein and to carry out the intent and purposes of this DGPA.

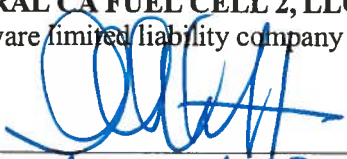
16.12 Estoppel. Either Party, without charge, at any time and from time to time and within five (5) Business Days after receipt of a written request by the other Party, will deliver a written instrument, duly executed, certifying to such requesting Party, or any other Person specified by such requesting Party; (a) that this DGPA is unmodified and in full force and effect, or if there has been any modification, that the same is in full force and effect as so modified, and identifying any such modification; (b) whether or not to the knowledge of such Party there are then existing any offsets or defenses in favor of such Party against enforcement of any of the terms, covenants and conditions of this DGPA and, if so, specifying the same and also whether or not to the knowledge of such Party the other Party has observed and performed all of the terms, covenants and conditions on its part to be observed and

performed, and if not, specifying the same; and (c) such other information as may be reasonably requested by the requesting Party. Any written instrument given hereunder may be relied upon by the recipient of such instrument, except to the extent the recipient has actual knowledge of facts contained in the certificate.

16.13 General Interpretation. The terms of this DGPA have been negotiated by the Parties hereto and the language used in this DGPA will be deemed to be the language chosen by the Parties hereto to express their mutual intent. This DGPA will be construed without regard to any presumption or rule requiring construction against the Party causing such instrument of any portion thereof to be drafted, or in favor of the Party receiving a particular benefit under the DGPA. No rule of strict construction will be applied against any Person.

Intending to be legally bound, Buyer and Seller have signed this DGPA through their duly authorized representatives effective as of the date set forth by their respective signatures below.

**CENTRAL CA FUEL CELL 2, LLC**  
a Delaware limited liability company

By:   
Name: Arthur A. Bottone  
Title: CEO & President  
FuelCell Energy, Inc., Sole Member of FuelCell  
Energy Finance, LLC, Sole Member  
Date: 6-8-2017

**THE CITY OF TULARE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

## EXHIBIT A

### SCHEDULE OF DEFINITIONS AND RULES OF INTERPRETATION

**1. Definitions.** The definitions provided below and elsewhere in this DGPA will apply to the defined terms used in this DGPA:

- (a) **“Affiliate”** means, with respect to any entity, such entity’s general partner or manager, or any other entity that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such entity.
- (b) **“Bankrupt”** means that a Party or other entity (as applicable): (i) is dissolved (other than pursuant to a consolidation, amalgamation or merger); (ii) becomes insolvent or is unable to pay its debts or fails (or admits in writing its inability) generally to pay its debts as they become due; (iii) makes a general assignment, arrangement or composition with or for the benefit of its creditors; (iv) has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency Law or other similar Law affecting creditor’s rights, or a petition is presented for its winding-up, reorganization or liquidation, which proceeding or petition is not dismissed, stayed or vacated within forty-five (45) Business Days thereafter; (v) commences a voluntary proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency Law or other similar Law affecting creditors’ rights; (vi) seeks or consents to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all of its assets; (vii) has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all of its assets except for, with respect to Buyer, any enforcement of rights by Buyer’s Financing Parties pursuant to the Financing Documents; (viii) causes or is subject to any event with respect to it which, under the applicable Laws of any jurisdiction, has an analogous effect to any of the events specified in clauses (i) to (vii) inclusive; or (ix) takes any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the foregoing acts.
- (c) **“Business Day”** means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday.
- (d) **“Code”** means the Internal Revenue Code of 1986, as amended.
- (e) **“Commercial Operation”** means that the System is accepted as complete and generating electricity for sale in accordance with the terms of the BioMAT PPA.
- (f) **“Commercial Operation Date”** shall be as determined by the BioMAT PPA.
- (g) **“Default Payment”** means the amount equal to any actual, demonstrable, verifiable costs payable by Buyer to a third party, including the BioMAT administrator, as a direct result of Seller’s Event of Default, plus the difference, if any, between the BioMAT PPA rate and the rate received for any electricity generated and sold pursuant to the provisions of **Section 7.1 (f)**, plus any unrecovered cost of the Sludge Dryer, and less the amount of any federal, state or local incentives, including any tax incentives received by Buyer and not recaptured as a result of the Event of Default. Buyer and Seller shall work diligently and in good faith to mitigate any Default Payment due under this Agreement.
- (h) **“Financing Documents”** means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, interest rate exchanges, or swap agreements, and any other documents relating to the development, bridge construction or the permanent financing for the System, even if more than one financing arrangement exists at any time and even if the financing arrangements are of different tiers or tranches, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications or supplements to the foregoing that may be entered into from time to time. **“Buyer’s Financing Parties”** means any Persons, and their permitted successors and assignees, providing funding in connection with any development,

bridge, construction, permanent debt or tax equity financing, sale-leaseback financing or refinancing for the System.

(i) **“Financing Parties”** means any Persons, and their permitted successors and assignees, providing funding in connection with any development, bridge, construction, permanent debt, or tax equity financing, sale-leaseback financing or refinancing for the System.

(j) **“Force Majeure”** means any event or circumstance that prevents a Party from performing any of its obligations under this DGPA, which event or circumstance (i) is not within the reasonable control, or is not the result of the negligence, of the Claiming Party, examples of ‘not within the reasonable control’ include blizzard, hurricane, earthquake, volcano, war, strikes, fires, floods, acts of God, civil disobedience, and declaration of bankruptcy by an equipment supplier, and (ii) by the exercise of reasonable due diligence, the Claiming Party is unable to overcome or avoid or cause to be avoided.

(k) **“Governmental Charges”** means all applicable federal, state and local taxes (other than taxes based on income or net worth but including sales, use, gross receipts or similar taxes), governmental charges, emission allowance costs, duties, tariffs, levies, licenses, fees, permits, assessments, adders or surcharges (including public purposes charges and low income bill payment assistance charges), imposed or authorized by a Governmental Entity, independent system operator, utility, transmission and distribution provider or other similar entity, on or with respect to the Energy Output or this DGPA.

(l) **“Governmental Entity”** means any government or any agency, bureau, board, commission, court, department, official, political subdivision, tribunal, program administrator or other instrumentality of any government, whether federal, state or local, domestic or foreign, or any Person, owned, operated, managed or otherwise controlled thereby, but not including the Buyer.

(m) **“Hazardous Material”** means any substance, waste, contaminant or other material that is listed, defined, designated, classified or regulated as hazardous, radioactive or toxic, or as a pollutant or contaminant, under or pursuant to any environmental Law or Governmental Approval.

(n) **“Indemnity Claims”** means all losses, liabilities, damages, costs, expenses and attorneys’ fees, whether incurred by settlement or otherwise, related to injury to Persons or damage to property.

(o) **“Industry Standards”** means good utility practices and those practices, methods, procedures and standards generally prevailing, and as may change from time to time, that are commonly used or applied in the United States of America in the economical and prudent performance of work that is identical or substantially similar to the work to be performed hereunder and in the economical and prudent engineering, design, procurement, fabrication, assembly and construction of fuel cell generation facilities similar to the System. Industry Standards also shall include any of the practices, methods and acts that, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost. Industry Standards are not intended to be the optimum practice, method or act to the exclusion of all others, but rather to be a spectrum of acceptable practices, methods or acts generally accepted in the applicable industry.

(p) **“Late Payment Interest Rate”** means, for any date, the lesser of (i) the per annum rate of interest equal to the Prime lending rate as may from time to time be published in The Wall Street Journal under “Money Rates” on such day (or, if not published on such day, on the most recent preceding day on which published), and (ii) the maximum rate permitted by applicable Law.

(q) **“Law”** means any national, regional, state or local law, statute, rule, regulation, code, ordinance, administrative ruling, judgment, decree, order, or directive of any jurisdiction applicable to this DGPA, the System, the Installation Site, or the transaction contemplated hereby.

(r) **“Metering Device”** means the manufacturer’s onboard instrumentation utilized for the registration, recording, and transmission of information regarding the Energy Output generated by the System.

- (s) **“Person”** means an individual, general or limited partnership, corporation, municipal corporation, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Entity, limited liability company, or any other entity of whatever nature.
- (t) **“System”** will have the meaning ascribed to it in the Recitals.
- (u) **“System Assets”** means each and all of the assets of which the System is comprised, and other related equipment and components installed on the Installation Site, electric lines, conduits and other facilities required to connect such equipment to the Delivery Point and to the electric distribution and transmission grid, protective and associated equipment, improvements, and other tangible and intangible assets, permits, property rights and contract rights reasonably necessary for the construction, operation, and maintenance of the System.
- (v) **“System Loss”** means a substantial and material loss, theft, damage or destruction of the System or System Assets, or any other occurrence or event that prevents or limits the System from operating in whole or in substantial part, resulting from or arising out of any cause (including casualty, condemnation or Force Majeure) other than mechanical failure or planned or unplanned maintenance.

**2. Rules of Interpretation.** In this DGPA, unless expressly provided otherwise:

- (a) the words “herein,” “hereunder” and “hereof” refer to the provisions of this DGPA and a reference to a recital, Article, Section, subsection or paragraph of this DGPA or any other agreement is a reference to a recital, Article, Section, subsection or paragraph of this DGPA or other agreement in which it is used unless otherwise stated;
- (b) references to this DGPA, or any other agreement or instrument, includes any schedule, exhibit, annex or other attachment hereto or thereto;
- (c) a reference to a paragraph also refers to the subsection in which it is contained, and a reference to a subsection refers to the Section in which it is contained;
- (d) a reference to this DGPA, any other agreement or an instrument or any provision of any of them includes any amendment, variation, restatement or replacement of this DGPA or such other agreement, instrument or provision, as the case may be;
- (e) a reference to a statute or other Law or a provision of any of them includes all regulations, rules, subordinate legislation and other instruments issued or promulgated thereunder as in effect from time to time and all consolidations, amendments, re-enactments, extensions or replacements of such statute, Law or provision;
- (f) the singular includes the plural and vice versa;
- (g) a reference to a Person includes a reference to the Person’s executors and administrators (in the case of a natural person) and successors, substitutes (including Persons taking by novation) and permitted assigns;
- (h) words of any gender will include the corresponding words of the other gender;
- (i) “including” means “including, but not limited to,” and other forms of the verb “to include” are to be interpreted similarly;
- (j) references to “or” will be deemed to be disjunctive but not necessarily exclusive, (i.e., unless the context dictates otherwise, “or” will be interpreted to mean “and/or” rather than “either/or”);
- (k) where a period of time is specified to run from or after a given day or the day of an act or event, it is to be calculated exclusive of such day; and where a period of time is specified as

commencing on a given day or the day of an act or event, it is to be calculated inclusive of such day;

(l) a reference to a Business Day is a reference to a period of time commencing at 9:00 a.m. local time on a Business Day and ending at 5:00 p.m. local time on the same Business Day;

(m) if the time for performing an obligation under this DGPA expires on a day that is not a Business Day, the time will be extended until that time on the next Business Day;

(n) a reference to (i) a day is a reference to a calendar day unless the defined term "Business Day" is used, (ii) a month is a reference to a calendar month and (iii) a year is a reference to a calendar year;

(o) where a word or phrase is specifically defined, other grammatical forms of such word or phrase have corresponding meanings;

(p) a reference to time is a reference to the time in effect in San Diego, California on the relevant date; and

(q) if a payment prescribed under this DGPA to be made by a Party on or by a given Business Day is made after 2:00 pm Pacific Prevailing Time on such Business Day, it is taken to be made on the next Business Day.

**EXHIBIT B**

**PROPERTY**

**Address:**

**Legal Description:**

## EXHIBIT C

### ADG Specifications

ADG entering the ADG Cleanup Equipment must be at a pressure between 5 – 35 inches water column. The limits of contaminants are listed in the table below.

Contaminant	Limit
<b>1. Total Sulfur, ppbv (Notes 1,2)</b>	<b>140,000</b>
<b><u>Inorganic Sulfur</u></b>	
<b>Total Inorganic S, ppbv (Note 1)</b>	<b>140,000</b>
- H <sub>2</sub> S, ppbv	140,000
- COS, ppbv	300
- CS <sub>2</sub> , ppbv	150
<b><u>Organic Sulfur</u></b>	
<b>Total Mercaptan, ppbv (Note 1)</b>	<b>2,000</b>
- Methyl Mercaptan, ppbv	1,500
- Ethyl Mercaptan, ppbv	1,500
- n-Propyl Mercaptan, ppbv	2,000
- Iso propyl Mercaptan, ppbv	2,000
- Iso butyl mercaptan, ppbv	2,000
- Tertiary butyl mercaptan, ppbv	2,000
- n-butyl mercaptan, ppbv	2,000
<b>Total Sulfides, ppbv (Note 1)</b>	<b>400</b>
-Tetra hydro thiophene, ppbv	200
-Thiophene, ppbv	200
-Dimethyl Sulfide, ppbv	300
-Methyl Ethyl Sulfide, ppbv	300
-Dimethyl Disulfide, ppbv	300
-Other High Molecular weight sulfides, ppbv	400
<b>2. Halogens (Note 3)</b>	
<b>Total Halogens, ppbv (Note 1)</b>	<b>300</b>
- Methylene Chloride, ppbv	100
- Methyl Chloride, ppbv	100
- Freon-12, ppbv	300
- Freon-114, ppbv	300
- Vinyl Chloride, ppbv	300
- Methyl Bromide, ppbv	300
- Ethyl Chloride, ppbv	300
- Freon-11, ppbv	300
- Vinylidene Chloride, ppbv	300



Contaminant	Limit
- Freon-113, ppbv	300
- 1,1-Dichloroethane, ppbv	300
- cis-1,2-Dichloroethane, ppbv	300
- Chloroform, ppbv	300
- 1,1,1-Trichloroethane, ppbv	300
- 1,2-Dichloroethane, ppbv	300
- Carbon Tetrachloride, ppbv	300
- 1, 2-Dichloropropane, ppbv	300
- Trichloroethylene, ppbv	300
- cis-1,3-Dichloropropylene, ppbv	300
- trans-1,3-Dichloropropylene, ppbv	300
- 1,1,2-Trichloroethane, ppbv	300
- 1, 2-Dibromoethane, ppbv	300
- Tetrachloroethylene, ppbv	300
- Chlorobenzene, ppbv	300
- 1,1,2,2-Tetrachloroethane, ppbv	300
- 1,3-Dichlorobenzene, ppbv	300
- 1,4-Dichlorobenzene, ppbv	300
- Benzyl chloride, ppbv	300
- 1,2-Dichlorobenzene, ppbv	300
- 1,2,4-Trichlorobenzene, ppbv	300
- Hexachlorobutadiene, ppbv	300
<b>3. Siloxanes, ppbv</b>	<b>10,000</b>

Note 1: Each individual contaminant must be less than the listed limit and the sum of individual contaminants must be less than the total limit for each category.

Note 2: ASTM D-5504 Method: GC-SCD is employed to analyze all sulfur compounds (inorganic and organic) to a detection limit of at least as low as 10 ppbv level concentrations.

Note 3: NIOSH 7903 Method: This method is employed to measure halogenated hydrocarbons to a detection limit of 10 ppbv.

**EXHIBIT D**

[Form of Memorandum of License]

RECORDING REQUESTED

AND WHEN RECORDED

RETURN TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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(space above this line reserved for recorder's use)

**MEMORANDUM OF LICENSE**

THIS MEMORANDUM OF LICENSE is made and entered into the day of \_\_\_\_\_, 2017 by and between The City of Tulare. ("**Licensor**") and Central CA Fuel Cell 2, LLC ("**Licensee**").

A. Licensor is the owner of certain real property ("**Property**"), located in Tulare County, California, described in Exhibit A attached to and incorporated herein by reference.

B. Licensor and Licensee have entered into a Fuel Purchase Agreement dated as of \_\_\_\_\_, 2017 (the "**DGPA**") under which Licensee has agreed to finance, design, develop, and operate a fuel cell electric generating system ("**System**") on the Property.

C. Licensor and Licensee have executed and acknowledged this Memorandum of License and are recording the same for the purpose of providing constructive notice of the DGPA and Licensee's rights there under. Capitalized terms used and not defined herein shall have the meaning ascribed to them in the DGPA.

NOW, THEREFORE, for and in consideration of the promises, covenants and agreements of Licensor and Licensee contained in the DGPA and herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Licensor and Licensee agree as follows:

1. Licensor hereby grants to Licensee and to Licensee's agents, employees and contractors a non-exclusive license (the "**License**") for access to, on, over, under and across the Property as more particularly described in **Exhibit B** (the "**License Area**") for the purposes of (a) installing, constructing, operating, owning, maintaining, accessing, removing and replacing the System; (b) performing all of Licensee's obligations and enforcing all of Licensee's rights as set forth in the DGPA; and (c) installing, using and maintaining electric lines and equipment, including inverters and meters, necessary to interconnect the System to Licensor's electric system at the Property and/or to the Utility's electric distribution system or that otherwise may from time to time be useful or necessary in connection with the construction, installation, operation, maintenance or repair of the System.

2. The Term of the License shall expire on the date that is one hundred eighty (180) days after the expiration of the DGPA.

3. The System shall at all times remain the personal property of Licensee and shall not be deemed to be a part of, or fixture to, the Property. Licensor shall have no ownership, lien, security or other interest (including any lien that might otherwise be implied by Law in the System, or in any profits or income derived there from.

4. The DGPA is for the additional purposes, is of the nature, and is subject to the requirements and limitations, set forth therein. The DGPA also contains various other covenants, obligations, and rights of the parties, including,

without limitation, provisions relating to payments, repairs and maintenance, ownership of tax credits, notices, outages, relocation, and removal of the System, assignment, and financing protections.

5. The Property shall be held, conveyed, hypothecated, encumbered, leased, used and occupied subject to the covenants, terms and provisions set forth in the DGPA, License, and herein, which shall run with the Property and each portion thereof and interest therein as equitable servitudes, and shall be binding upon and inure to the benefit of the parties and any other Person or entity having any interest therein during their ownership thereof, and their respective grantees, heirs, executors, administrators, successors and assigns, and all Persons claiming under them.

6. The terms, conditions, and covenants of the DGPA and the License are incorporated herein by reference as though fully set forth herein. This Memorandum of License shall not be deemed to modify, alter, or amend in any way the provisions of the License or the DGPA. In the event of a conflict between the terms of the License and/or the DGPA and this Memorandum, the terms of the License and/or the DGPA, as applicable shall control.

7. This Memorandum of License may be executed with counterpart signature pages and in duplicate originals, each of which shall be deemed an original, and all of which shall collectively constitute a single instrument.

The undersigned have executed this Memorandum of License as of the date first written above.

**LICENSOR:**

**THE CITY OF TULARE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE OF [INSERT]

COUNTY OF

On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public, personally appeared \_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of [INSERT] that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary Public

**EXHIBIT E**

**ADG DELIVERY POINT(S)**

The Delivery Points of the raw ADG will be to the feeds of the Existing ADG Cleanup Equipment shown in the figure below.



**Figure E- 1 Locations of the Existing ADG Cleanup Equipment at Tulare WWTP**

The Delivery Point of the domestic raw ADG will be after the gas compressor and before the H<sub>2</sub>S scrubber beds. This point coincides with the existing piping tee connection with the line from the gas compressor to the domestic flare.

The Delivery Point of the industrial raw ADG will be a tee off the line before the existing carbon beds. This is upstream of the Existing ADG Cleanup Equipment and does not include ownership of the carbon beds, the compressors and the flare.



## EXHIBIT F

### Existing ADG Cleanup Equipment

The existing raw ADG from the Tulare WWTP is currently treated in two biogas cleanup systems: the Domestic Biogas Cleanup Skid and the Industrial Biogas Cleanup Skid. The Domestic Biogas Cleanup Skid is pictured below.



**Figure F- 2 Existing Domestic Biogas Cleanup Skid**

This system consists of two H<sub>2</sub>S scrubbers (one is not shown in the photograph), two iron sponge beds, two siloxane removal beds, and a chiller (not shown). The compressor feeding this system is not considered part of the Cleanup Skid as that also services the flare.

The Industrial Biogas Cleanup Skid is shown in the photograph below. This system consists of two carbon beds and a compressor. The compressor also services the flare.



**Figure F- 3 Existing Industrial Biogas Cleanup Skid**

**Exhibit G**

**Annual Fuel Use**

<b>Year</b>	<b>Fuel Use, MMBtu (HHV)</b>
1	180,418
2	180,418
3	180,418
4	180,418
5	175,006
6	180,418
7	180,418
8	180,418
9	180,418
10	180,418
11	180,418
12	175,006
13	180,418
14	180,418
15	180,418
16	180,418
17	180,418
18	180,418
19	180,418
20	180,418

**Fuel Use by Month\***

Month	Fuel Use, MMBtu (HHV)
January	15,323
February	13,840
March	15,323
April	14,829
May	15,323
June	14,829
July	15,323
August	15,323
September	14,829
October	15,323
November	14,829
December	15,323
Total per Year:	180,418
<i>* except in years 5 and 12</i>	



## Exhibit H

### Insurance Requirements

**Buyer's Insurance.** Buyer shall procure at its own expense and maintain in full force and effect with responsible insurance carriers with a Best Insurance Reports rate of "A-" or better and a financial size category of "IX" or higher, the following insurance in at least the minimum amounts specified. Such insurance (a) shall be primary and not excess to or contributing with any insurance or self-insurance maintained by Seller, and (b) shall provide for claims by one insured against another, such that, except for the limits of insurance, the insurance shall apply separately to each insured against whom a claim is made or suit is brought, subject to the policies' terms and conditions. In addition, Buyer shall provide at least thirty (30) Days prior Notice to Seller and its designees of any cancellation. Within ten (10) Days of the Effective Date, Buyer shall deliver to Seller certificates of insurance signed by Buyer's insurance broker evidencing the insurance coverage required under this **Exhibit H**.

1. **Buyer's Insurance Requirements.** The insurance to be maintained by Buyer is as follows:

(a) Employer's Liability Insurance with total limit of at least five hundred thousand dollars (\$500,000) each accident for bodily injury by accident and five hundred thousand dollars (\$500,000) each employee for bodily injury by disease.

(b) Commercial General Liability (CGL) Insurance on an occurrence basis (occurrence form policy) against claims for personal injury (including bodily injury and death) and property damage. Such insurance shall provide coverage for products-completed operations, blanket contractual, explosion, collapse, and underground coverage, broad form property damage, personal injury insurance, hostile fire liability, with at least a one million dollar (\$1,000,000) limit per occurrence for combined bodily injury and property damage provided that policy aggregates, if any, shall apply separately to claims occurring with respect to the Work.

(c) Automobile Liability Insurance against claims for personal injury (including bodily injury and death) and property damage covering all owned, leased non-owned and hired motor vehicles, including loading and unloading, with at least a one million dollar (\$1,000,000) limit per occurrence for combined bodily injury and property damage and containing appropriate no-fault insurance provisions wherever applicable.

(d) Excess Liability Insurance on an occurrence basis covering claims in excess of the underlying insurance described in (a), (b), and (c) above, with a ten million dollar (\$10,000,000) limit per occurrence, provided that policy aggregates, if any, shall apply separately on a per project basis.

(e) Workers' Compensation Insurance as required by applicable state laws where the work is to be performed or as required by any other state or federal law where the employee performing the work is normally employed.

(f) Buyer shall obtain Contractor's Pollution Liability Insurance with limits not less than three million dollars (\$3,000,000) each occurrence and three million dollars (\$3,000,000) in annual aggregate. Such insurance will cover sudden and gradual pollution losses arising from the work performed under this DGPA.

**Waiver of Subrogation.** Buyer shall waive, and shall cause the insurance required by this **Exhibit H** to be amended to waive, where allowed by laws and codes, rights of subrogation for loss or damage that may be

covered under their insurance, and Buyer hereby releases, and shall cause its subcontractors to release, Seller and its respective Affiliates, directors, officers, and employees for such loss or damage to the extent of recoveries from Buyer's insurance.

2. **Seller's Insurance.** Seller shall procure at its own expense and maintain in full force and effect during the life of this Contract with responsible insurance carriers with a Best Insurance Reports rate of "A-" or better and a financial size category of "IX" or higher, the following insurance in the amounts specified. Seller shall provide at least thirty (30) Days' Notice to Buyer and its designees of any termination or cancellation. On or before the date of commencement of construction, Seller shall deliver to Buyer certificates of insurance signed by Seller's insurance broker evidencing the insurance coverage required under this **Exhibit H**. The insurance to be maintained by Seller is as follows:

(a) Employer's Liability Insurance with a five hundred thousand dollar (\$500,000) limit per accident.

(b) Commercial General Liability (CGL) Insurance on an occurrence basis (occurrence form policy) against claims for personal injury (including bodily injury and death) and property damage. Such insurance shall provide coverage for products-completed operations, blanket contractual, explosion, collapse, and underground coverage, broad form property damage, personal injury insurance, hostile fire liability, with at least a one million dollar (\$1,000,000) limit per occurrence for combined bodily injury and property damage provided that policy aggregates, if any, shall apply separately to claims occurring with respect to the Work.

(c) Automobile Liability Insurance against claims for personal injury (including bodily injury and death) and property damage covering all owned, leased non-owned and hired motor vehicles, including loading and unloading, with at least a one million dollar (\$1,000,000) limit per occurrence for combined bodily injury and property damage and containing appropriate no-fault insurance provisions wherever applicable.

(d) Excess Liability Insurance covering claims in excess of the underlying insurance described in (a), (b), and (c) above, with a ten million dollar (\$10,000,000) limit per occurrence.

(e) Workers' Compensation Insurance as required by applicable state laws where the work is to be performed or as required by any other state or federal law where the employee performing the work is normally employed.

**Waiver of Subrogation.** Seller shall waive, and shall cause the insurance required by this **Exhibit H** to be amended to waive, where allowed by laws and codes, rights of subrogation for loss or damage that may be covered under their insurance, and Seller hereby releases, and shall cause its subcontractors to release, Buyer and its respective Affiliates, directors, officers, and employees for such loss or damage to the extent of recoveries from Seller's insurance.

**CITY OF TULARE, CALIFORNIA  
BOARD OF PUBLIC UTILITIES COMMISSIONERS  
AGENDA ITEM TRANSMITTAL SHEET**

**Submitting Department: Public Works**

**For Board Meeting of: June 15, 2017**

**Documents Attached:**  Ordinance  Resolution  Staff Report  Other  None

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***AGENDA ITEM:***

Receive status update on Public Works CMMS implementation project.

***IS PUBLIC HEARING REQUIRED:***  Yes  No

***BACKGROUND/EXPLANATION:***

**Background**

On September 15, 2016, the BPU approved a contract with Ewers Engineering, Inc. for implementation of a Computerized Maintenance Monitoring System (CMMS) for the Water, Sewer Collections and Surface Water Management divisions. City Council also approved this contract on September 20, 2016 due to the inclusion of the Surface Water Management division which is partially funded through General Fund. At that time, staff recommended implementing Hach's Job Cal as the standard CMMS software for assets associated with the Water, Sewer and Surface Water utilities. This was based on Job Cal's strength in its simplicity to maintain the most Operations and Maintenance (O & M) intensive aspects of its Water and Sewer utilities, stand-alone facilities like pump stations, valves, and sampling stations. It was thought that retaining the existing Hansen/Infor system for distribution line repair or replacement would work in coordination with the Job Cal system. Ewers Engineering, in addition to setting up the Job Cal system for Water, Sewer Collections and Surface Water Management, would work with division staff to incorporate a criticality model to prioritize work order tasks based on risk and importance to the system.

**Current Status**

This project was structured in 2 phases: Phase 1 will be implementation for the Water and Sewer Collections systems, and Phase 2 will implement the Surface Water Management division system. Each phase will include 3 sub-levels: Planning, Prioritize, and Implement.

- Phase 1 Plan - 100% complete
  - Conducted personal interviews to determine users, available inventory information and requirements, needs, and maintenance practices.
  - Assessed data quality, strategies for working with Job Cal Plus field structures to implement the criticality model.

- Phase 1 Prioritize -100% complete
  - Met with Public Works staff to identify criticality factors to use in the model, the numerical structure that will be used, and what should not be included.
- Phase 1 Implement - Work 5% complete
  - Infor database exported to spreadsheets.
  - Working with Public Works staff to investigate possible modification of scope to also leverage GIS resources with CMMS.

Ewers Engineering has completed two of the three legs of Phase 1 of CMMS implementation and is exploring the possibility of incorporating GIS mapping resources into the CMMS program. GIS mapping will allow staff to coordinate assets and resources to geographic locations on map layers, creating greater operational and work tracking capabilities. Incorporating GIS capabilities will also allow staff to remove the Hansen/Infor system currently used for linear maintenance (pipes), leaving a unified and coordinated CMMS system in place. If the Hansen/Infor system is replaced, the City can realize savings upwards of \$70,000 in costs to upgrade the current Hansen/Infor system which also includes annual maintenance costs of approximately \$13,000.

Phase 2 will begin this month and is expected to be a smoother, more efficient process due to the similarities of Surface Water Management assets (lift stations and pumps) to those in the Sewer Collections division. A considerable factor in the timeliness of this project will be determined by the type and nature of changes to the scope of work. Ewers Engineering is currently assisting the City in developing this new scope.

**STAFF RECOMMENDATION:**

Receive status update on Public Works CMMS implementation project.

**CITY ATTORNEY REVIEW/COMMENTS:**  Yes  No  N/A

**IS ADDITIONAL (NON-BUDGETED) FUNDING REQUIRED:**  Yes  No  N/A

**FUNDING SOURCE/ACCOUNT NUMBER:**

**Signed: Jason Bowling**

**Title: Interim Public Works Director**

**Date: June 8, 2017**

**City Manager Approval: \_\_\_\_\_**