

# City of Garden Grove – Water Rate Study

## Amendment 2 to Professional Services Agreement Dated September 13, 2016 to Develop Indoor and Outdoor Water Allocations

### SCOPE OF WORK

A new Task 13 is added: Develop Indoor and Outdoor Water Allocations.

#### Task 13 – Develop Indoor and Outdoor Water Allocations:

Task 13.1. Project Management. Routine project management, preparation of invoices and status reports, and communication with client. Project Management also includes work by FG Solutions to procure subconsultant.

Task 13.2. Project Initiation Meeting and Data Collection. Subconsultant to attend a project initiation meeting at the City of Garden Grove, submit a data request to the City, and receive data from the City.

Task 13.3. Prepare Meter Service Area (“MSA”) Data. Prepare and analyze SAWPA aerial imagery data to develop landscaped area on a per-parcel basis and develop Meter Service Areas (“MSAs”) for each meter.

Task 13.4. Link Billing/Consumption Data to MSAs. Receive Garden Grove billing and consumption data and link this data to MSAs. City to provide data that includes, for each water meter: APN, service address, billing address, date of each meter read from July 1, 2015 to present, metered consumption for each meter read, whether the low water user discount was applied for each meter read, geospatial coordinates of each water meter, water meter size, service type. For multi-family residential accounts, in addition to the data requested above, City to provide the number of residential units in each account must also be included.

Task 13.5. Link CIMIS Data to MSAs. Obtain CIMIS Evapotranspiration (“ET”) data from July 1, 2015 on a daily basis for the CIMIS station most appropriate to Garden Grove.

Task 13.6. Data Analysis. Define indoor and outdoor allocations for each meter based on landscape/irrigated area, number of residential units, customer types, and ET data. FG Solutions to provide gallons per capita per day information and ET adjustment factors to use in indoor and outdoor allocation calculations, also guided by the information provided by the California Department of Water Resources. FG Solutions will also provide direction on methodology for non-residential customers. Provide quality assurance checks.

Task 13.7. Data Status Report and Field Work Plan. Prepare written documentation to describe data and outline the field work necessary to resolve outliers.

Task 13.8. Field Work. Conduct field work as needed to resolve outlier connections and develop MSAs and allocations for all meters.

Task 13.9. City Review. City will review and check results prior to accepting the data set.

Task 13.10. Rate Design/Analysis. Subconsultant work to transmit allocation data to FG Solutions in electronic, excel form for further analysis by FG Solutions to develop the rate structure.

Task 13.11. Meetings and Preliminary Draft Report. Prepare preliminary draft report summarizing indoor and outdoor water allocations for review by FG Solutions and the City of Garden Grove.

Subconsultant to attend, if needed, one meeting at the City of Garden Grove. Report to be provided in editable electronic format.

Task 13.12. Presentations and Final Report. Prepare final report. If requested by City, subconsultant to attend additional meeting to present and discuss data.

## BUDGET

The budget for this Task 13 is \$33,670. The majority of the budget is for a subconsultant, and the Subconsultant's budget of \$24,934 is shown in the Table below.

SUBCONSULTANT BUDGET				
Task Number and Description	PM	PI	Vehicle Miles	Total Fees & Expenses
	Hourly Rates ==>			
	\$110	\$90		
1 Project Management	16		504	\$2,030
2 Project Initiation Meeting and Data Collection	2	10	126	\$1,187
3 Prepare MSA Data (create MSA polys)		40		\$3,600
4 Link Billing/Consumption Data to MSAs		20		\$1,800
5 Link CIMIS Data to MSAs		10		\$900
6 Data Analysis and Quality Assurance Checks		20		\$1,800
7 Data Status Report and Field Work Plan	4	5	126	\$957
8 Field Work (meter/MSA verification)		70	630	\$6,637
9 City Review				\$0
10 Rate Design/Analysis (indoor/outdoor and land use categories)	4	40	126	\$4,107
11 Meetings and Preliminary Draft Report	4	5	126	\$957
12 Presentations and Final Report	4	5	126	\$957
Total Estimated Hours	34	225	1764	
Labor Budget	\$3,740	\$20,250		\$23,990
Expenses (8 meetings and 5 field days)				\$944
Subconsultant Total				\$24,934

PM: Bruce Miller (Project Manager)  
 PI: Doug Mende (Principal Investigator)

The total budget is shown in the Table below.

Task	Labor Hour Estimate		Labor Budget	Expenses	Budget
	Griffith	Fortin			
Develop Indoor and Outdoor Water Allocations	28	28	\$8,736	\$24,934	\$33,670
Total Hours	28	28			
<b>Total Budget</b>	\$5,376	\$3,360	\$8,736	\$24,934	<b>\$33,670</b>

### Consultant Hourly Rates

Art Griffith, Principal and Project Manager \$192  
 Debi Fortin, Principal and Senior Consultant \$120

### Expenses

Subconsultant \$24,934