

**SECOND AMENDMENT TO  
PROFESSIONAL CONSULTANT SERVICES AGREEMENT**

**CAROLLO ENGINEERS, INC.**

**(Water Cost of Service Analysis and Rate Design)**

THIS SECOND AMENDMENT TO PROFESSIONAL CONSULTANT SERVICES AGREEMENT ("Second Amendment") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by and between the CITY OF RIVERSIDE, a California charter city and municipal corporation ("City"), and CAROLLO ENGINEERS, INC., a Delaware corporation authorized to do business in California ("Consultant"), with respect to the following facts:

**RECITALS**

WHEREAS, on or about May 19, 2015, City and Consultant entered into a Professional Consultant Services Agreement for Water Cost of Service Analysis and Rate Design ("Agreement"); and

WHEREAS, on or about May 26, 2016, City and Consultant entered into a First Amendment to Professional Consultant Services Agreement for Water Cost of Service Analysis and Rate Design ("First Amendment");

WHEREAS, City is satisfied with the performance of Consultant; and

WHEREAS, City and Consultant desire to extend the term of the agreement to April 30, 2018, for Consultant to provide additional Services under the Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals which are incorporated herein by this reference, City and Consultant agree as follows:

1. Section 1, "Scope of Services" is hereby amended by adding the additional services identified in Exhibit "A-2," attached hereto and incorporated herein by this reference.
2. Section 2, "Compensation/Payment" is hereby amended by adding \$75,110 for the additional services, as identified in Exhibit B-2.
3. The term of the Agreement is hereby extended to April 30, 2018.
4. All terms and conditions of the Agreement not inconsistent with this Second Amendment, shall remain in full force and effect and are incorporated herein by this reference as if set forth in full.

[Signatures on Next Page]

IN WITNESS WHEREOF, City and Consultant have caused this Second Amendment to Professional Consultant Services Agreement for Water Cost of Service Analysis and Rate Design to be duly executed on the day and year first above written.

CITY OF RIVERSIDE, a California  
charter city and municipal corporation

CAROLLO ENGINEERS, INC., a  
Delaware corporation authorized to do  
business in California

By: \_\_\_\_\_  
City Manager

By:  \_\_\_\_\_

Attest: \_\_\_\_\_  
City Clerk

At [Name and Title] Adam Zachary, Vice President

By:  \_\_\_\_\_

Certified as to Availability of Funds:

[Name and Title] Gil Covas, Senior Vice President

By: \_\_\_\_\_  
CFO/Treasurer

By:  \_\_\_\_\_  
Assistant City Attorney

**EXHIBIT "A-2"**

**Scope of Services**

October 4, 2016

Mr. Brian Seinturier, Fiscal Manager  
Riverside Public Utilities  
3901 Orange Street  
Riverside, CA 92501

Subject: ***Second Amendment to Water Cost of Service and Rate Design Contract***

Dear Mr. Seinturier:

Thank you for the opportunity to continue to serve the City of Riverside in performing the Water Cost of Service and Rate Design Project (Water COS Project) for the City of Riverside Public Utilities (RPU).

At your request, we have developed this second amendment to our original contract to continue ongoing efforts on the Water COS Project. RPU would like to continue to review alternatives and update the analysis with the most recent inputs, as well as incorporate the impacts of the lifting of RPU's mandatory water conservation requirements. The continued scope of work will update the cost of service analysis with an updated retail sales forecast, an updated 10 year financial proforma, the most recent customer usage and billing data, updated cost allocations, and the impact on rate design alternatives.

The proposed additions to the scope and associated budget are necessary to provide continued analytical support to RPU through completion of the Water COS Project. The attachments to this document describe the additional work that will be required as well as the associated amendment to the project budget. The budget for the amendment is \$75,110 based on time and materials.

Sincerely,

CAROLLO ENGINEERS, INC.



Robert S. Grantham  
Vice President

**City Of Riverside  
Riverside Public Utilities  
Second Amendment to the  
Water Cost of Service and Rate Design Contract**

**Objective:**

Amend the Water COS Project contract to include budget necessary to continue the analysis and review alternatives, and extend the term of the agreement to provide additional support through April 30, 2018.

**Justification:**

Carollo Engineers has been under contract with the City of Riverside Public Utilities Department since May 2015 to perform the Water COS Project. Additional time and effort is required due to the following:

1. RPU was able to self-certify that sufficient water supplies are available eliminating the State mandated conservation requirement for RPU.
2. The customer data analysis will be revisited to incorporate the latest available customer usage and account data from the enQuesta billing system. This will allow for the key usage assumptions to be updated and confirmed, and for RPU and Carollo to choose the detailed usage projections that provide the best representation of expected future usage.
3. Carollo will update the cost of service model to include the updated 10 year financial proforma, retail sales forecast, and the results of the updated customer data analysis. The update will be comprehensive, encompassing all aspects of the analysis culminating with rate design.
4. The rate design calculations will be updated based on the updated cost of service analysis. The update will entail incorporating the results of the updated customer data analysis and cost of service allocations.
5. Draft and final versions of the cost of service analysis and rate design report will be prepared to present the methodology, process, and findings of the cost-of-service analysis and proposed rates.
6. Carollo will present at two management group presentations, and a total of six public presentations, two at the RPU Board, two at the appropriate City Council Committee, and two at City Council.

**Time and Materials Budget**

Task		Project Manager	Analyst	Labor Cost		PECE 1	Expenses	Total	Description/Justification	
		\$264	\$186			\$11.70				
1	Customer Data Analysis Update									
1.1	Billing Data Analysis	2	40		\$7,968	\$491	\$ -	\$8,459	Develop analysis of enQuesta data in SPSS, new programming and syntax will be required for updated data format.	
1.2	Merge Billing Data Analysis	2	16		\$3,504	\$211	\$ -	\$3,715	Merge results of the Banner analysis into enQuesta analysis. Includes updated rate classes, MFR dwelling units, etc.	
1.3	Integration with RPU Forecast	2	16		\$3,504	\$211	\$ -	\$3,715	Develop consumption projections by class and tier to match to the RPU sales forecast by customer type. Integrate information into COSA model.	
Subtotal Task 1		6	72		\$14,976	\$913	\$0	\$15,889		
2	COSA Model Update									
2.1	Proforma and Financial Projections	2	20		\$4,248	\$257	\$ -	\$4,505	Incorporate updated 10 year financial proforma into COSA model, modify COSA model as needed. The allotted hours and budget assume a comprehensive update to the 10 year financial proforma to be completed prior to incorporating draft results into the report in Task 4.	
2.2	Cost Allocations	4	24		\$5,520	\$328	\$ -	\$5,848	Revisit and smooth cost allocations based on new information: Proforma, O&M budget, Cost of Water, Usage Projections.	
Subtotal Task 2		6	44		\$9,768	\$585	\$0	\$10,353		
3	Rate Design									
3.1	Develop Standard Class Rates	1	24		\$4,728	\$293	\$ -	\$5,021	Determine standard customer class rates based on the new financial and usage projections, make modifications made necessary by the demand rebound.	
3.2	Develop Transitional Rates	1	12		\$2,496	\$152	\$ -	\$2,648	Determine transitional rates based on new financial and usage projections, make modifications made necessary by the demand rebound.	
3.3	Develop Demand Reduction and Decoupling rates, Cost Adjustments	2	20		\$4,248	\$257	\$ -	\$4,505	Determine demand reduction, decoupling, and cost adjustment rates alternatives based on the new financial and usage projections, make modifications made necessary by the demand rebound.	
3.4	Assess Customer and Revenue Impacts	2	12		\$2,760	\$164	\$ -	\$2,924	Calculate impacts to customers based on proposed rates and project revenues by usage level and rate class. Incorporate new Residential/Commercial/Industrial/Other split into 10 year financial proforma.	
Subtotal Task 3		6	68		\$14,232	\$866	\$0	\$15,098		

**Time and Materials Budget**

4	Report								
4.1	COSA Report Text, Tables, and Figures	5	24	\$5,784	\$339	\$ -	\$6,123	COSA report with text, tables, figures, and appendices based on updated analysis.	
4.2	Review With RPU and Legal	4	6	\$2,172	\$117	\$ -	\$2,289	Review and modify based on initial feedback from RPU and Legal. Anticipate additional WebEx meeting under this task and interim deliverable before Final report.	
4.3	Finalize Report	4	12	\$3,288	\$187	\$ -	\$3,475	Incorporate final edits to report and appendices, format and package for delivery.	
<b>Subtotal Task 4</b>		<b>13</b>	<b>42</b>	<b>\$11,244</b>	<b>\$644</b>	<b>\$0</b>	<b>\$11,888</b>		
5	Meetings and Presentations								
5.1	Weekly Check-In	6	12	\$3,816	\$211	\$ -	\$4,027	Anticipate 12 weekly calls of approximately 1 hour, includes preparation time.	
5.2	WebEx Meetings	6	12	\$3,816	\$211	\$ -	\$4,027	Anticipate 4 online meetings of approximately 2 hours, includes preparation time.	
5.3	Management Group Onsite Presentations	6	12	\$3,816	\$211	\$500	\$4,527	Assumes 2 onsite presentations and preparation time.	
5.4	Committee Presentation	8	2	\$2,484	\$117	\$500	\$3,101	Assumes 2 onsite presentations, Project Manager on site, Analyst prep only.	
5.5	Board Presentations	8	2	\$2,484	\$117	\$500	\$3,101	Assumes 2 onsite presentations, Project Manager on site, Analyst prep only.	
5.6	Council Presentations	8	2	\$2,484	\$117	\$500	\$3,101	Assumes 2 onsite presentations, Project Manager on site, Analyst prep only.	
<b>Subtotal Task 5</b>		<b>42</b>	<b>42</b>	<b>\$18,900</b>	<b>\$983</b>	<b>\$2,000</b>	<b>\$21,883</b>		
<b>Total</b>		<b>73</b>	<b>268</b>	<b>\$69,120</b>	<b>\$3,990</b>	<b>\$2,000</b>	<b>\$75,110</b>		

## **Detailed Scope of Services**

### **Task 1: Billing Data Analysis**

#### **1.1: Data Analysis**

The customer data analysis will incorporate the latest available customer usage and account data from the enQuesta system. This will allow for the key usage assumptions to be updated and confirmed, and for RPU and Carollo to choose the detailed usage projections that provide the best representation of expected future usage. Carollo will conduct a statistical analysis of RPU's past historical billing and consumption records. Due to the variable nature of the water demands and mandatory or voluntary reductions due to drought, it is important to evaluate a multi-year trend and determine potential decreases in revenue during low-usage years. We will examine the usage data and calibrate billing records against year-end financial records to prevent over or under estimation of RPU customer base. This is a critical step in setting appropriate and sufficient rates.

We will update consumption profiles based on the enQuesta billing records that illustrate usage patterns by customer class (residential, commercial, industrial, and other customer classes). Histograms and other charts will be developed for various customer class data to explore consumption patterns and potential tier breakpoints.

#### **1.2: Merge Billing Data Analysis**

Information generated from the Banner billing system analysis will be merged with the updated billing data from the enQuesta billing system. This information will include newly defined rate classes, the number of dwelling units for all multi-family accounts, inside/outside city identifiers, etc. A unique identifier for each meter that is common with each data set (Banner and enQuesta) will be needed to merge the information.

#### **1.3: Integration with RPU Usage Forecast**

RPU has developed and maintained a sales forecasting analysis that projects usage for four user types: (1) residential, (2) commercial, (3) industrial, and (4) other customers. The detailed customer data analysis will look at usage on a more granular level, by customer class and meter size. For the cost of service analysis and rate design, the detailed customer data will be combined with RPU's updated sales forecast to project usage for each customer class. Carollo will also evaluate the impact of changes to the customer classes on the amount of usage expected for each customer type. This updated forecast will then be linked to the cost of service model to become the basis of the updated rate calculations.

## **Detailed Scope of Services**

### **Task 2: Cost of Service Model Update**

Carollo will update the cost of service model to include the updated 10 year financial proforma (Proforma) and the results of the updated customer data analysis. The update will be comprehensive, encompassing all aspects of the analysis culminating with rate design.

#### **2.1: Proforma and Financial Projections**

To develop a cost-of-service basis for future years, Carollo will perform a 10-year cost-of-service analysis based on RPU's Proforma. The financial review and analysis will focus primarily on revenue sufficiency over the both short-and long-term perspectives. Revenue sufficiency will fund RPU's projected operating, capital, fiscal policy, regulatory, and asset management needs. Although budgets are prepared annually, it is essential to look long term to provide adequate funding of projects beyond the normal time horizon to mitigate potential rate shocks and account for the system's infrastructure needs.

#### **2.2: Cost Allocations**

The cost allocations will be updated based on the updated Proforma, projected operating and maintenance costs, and customer data. Carollo will develop a cost allocation based on RPU's unique system and consider the American Water Works Association (AWWA) methodologies. The proposed allocations will be reviewed for conformance with established statutory regulations. Carollo will review and incorporate RPU's current asset and accounting records. Line-item expenditures will be allocated to customer service, base water usage, peak water usage, and fire protection. As necessary to address specific customer factors or demands, Carollo will create additional cost allocation factors or customer classes. Finally, these costs will be assigned to fixed and variable categories in order to develop fixed and variable rate components of the rate design.

### **Task 3: Rate Design**

The rate design calculations will be based on the updated cost of service allocations and customer data analysis.

#### **3.1: Standard Rate Classes**

Rate design calculations for each of the standard rate classes will incorporate the results of the updated cost of service analysis and customer data analysis. Rates for each class will be calculated and reviewed, and if necessary, modifications to the calculation methods will be made.

#### **3.2: Transitional Rates**

Rate design calculations will be updated for each of the transitional rate structures and will incorporate the results of the updated cost of service analysis and customer data analysis. Rates for each class will be calculated and reviewed, and if necessary, modifications to the calculation methods will be made.

## **Detailed Scope of Services**

### **3.3: Demand Reduction Rates, Decoupling, and Cost Adjustments**

The demand reduction rates will include the projected usage by class and tier for each customer class. That updated customer data will then be used to modify the functional and customer allocations before demand reduction rates are calculated.

Rate design calculations will be updated for each of the demand reduction scenarios, decoupling, and cost adjustment rate structure alternatives and will incorporate the results of the updated cost of service analysis and the updated customer data analysis. Rates for each class will be calculated and reviewed, and if necessary, modifications to the calculation methods will be made.

### **3.4: Customer and Revenue Impacts**

Carollo will use the results of the customer data analysis to assess the impact of the proposed rates on RPU's customers and finances. Customer impacts for select groups (i.e. low, average, and high users) will be calculated for each customer class as well as each class's overall average impact. Carollo will also evaluate the rates to determine how much revenue will be generated from specific user groups such as high usage single family customers. This information will be used to evaluate the impact of the proposed rates on revenue volatility.

### **Task 4: Report**

A draft and final version of the cost of service and rate design report will be prepared to present the methodology, process, and findings of the cost-of-service analysis and proposed rates. This report will document RPU's existing cost-of-service methodology and existing rate structure, a summary of the detailed customer demand analysis, as well as proposed rate structures. Following a meeting with RPU staff and the City Attorney's Office, comments on the draft report will be incorporated into a final report and all requested changes will be made.

### **Task 5: Meetings and Presentations**

Carollo will work closely with RPU throughout the Water COS Project. In order to foster a collaborative process, several meetings and phone conferences will be held throughout the project.

### **5.1: Weekly Progress Calls**

Carollo will schedule weekly progress calls with the core project staff at RPU. These calls will be brief (about 1 hour) and are intended to discuss progress on specific tasks, information or analysis needs, and project planning. Twelve such progress calls are anticipated for the project.

## **Detailed Scope of Services**

### **5.2: WebEx Meetings**

In addition to the weekly progress calls, Carollo anticipates holding several WebEx meetings to discuss the analysis and results in greater detail with RPU. These meetings will serve as forum in which Carollo and RPU can work collaboratively to address key concerns or issues of the analysis. Four Webex meetings are anticipated for the project.

### **5.3: Management Group Onsite Presentations**

Carollo will prepare and lead two onsite meetings to present the results of the cost of service and rate design analysis. Carollo will develop all necessary presentation materials include PowerPoint slides, handouts, and other relevant information.

### **5.3, 5.4, and 5.6: Public Presentations**

Carollo will present at a total of six public presentations, two at the RPU Board, two at the appropriate City Council Committee, and two at City Council. It is assumed that less prep time will be needed for these meetings as much of the information will have been prepared for prior presentations.

**EXHIBIT "B-2"**

**Compensation/Payment**

**Compensation/Payment included in Exhibit "A-2"**