



**VALOR WATER**  
A N A L Y T I C S

PROPOSAL TO CONDUCT A  
WATER RATE STUDY  
FOR  
GARDEN GROVE WATER SERVICE



**GARDEN GROVE**

JULY 27, 2016

*CONTENTS*

COVER LETTER..... 3

INTRODUCTION..... 5

PROJECT TEAM..... 5

SCOPE OF SERVICES ..... 5

    Task 1 – Project Management ..... 6

    Task 2 – Project Initiation Meeting and Data Collection ..... 6

    Task 3 – Historical Review of Financial Status ..... 7

    Task 4 – Capital Facilities Plans Assessment ..... 7

    Task 5 - Revenue Requirement Projections ..... 8

    Task 6 – Classification of Costs..... 8

    Task 7 – Cost of Service..... 9

    Task 8 – Review and Development of Rate Structure ..... 9

    Task 9 – Rate Design and Comparisons ..... 10

VALOR WATER RATE SIMULATOR..... 12

    Water Rate Simulation Analytics ..... 12

    Benefits to the city of Garden Grove ..... 12

    Task 10 – Meetings and Preliminary Draft Report..... 13

    Task 11 - Presentations and Final Report ..... 13

PROJECT BUDGET..... 14



## COVER LETTER

870 Market St, #617  
San Francisco, CA 94102  
(844) 80-VALOR  
christine@valorwater.com

July 27, 2016

City of Garden Grove Water Services  
Attn.: Katie Victoria  
13802 Newhope Street  
Garden Grove, CA 92843

Re: Water Rate Study Proposal

Dear Ms. Victoria:

Valor Water Analytics (Valor) and Environmental Financial Group (EFG) are pleased to submit this proposal to conduct a *Water Rate Study* for the City of Garden Grove (City). The undersigned are authorized to sign on behalf of the two firms and submit this proposal and commit their joint resources to the project.

Valor Water Analytics has provided state-of-the art decision support tools for the water sector since 2010, and President Dr. Christine E. Boyle has been a water resources scholar and professional for the past 15 years. Environmental Financial Group has conducted over 35 water rate studies and has planned, financed and managed over \$5 billion in water and wastewater assets since its inception in 1992. Scott Harder, its founder and president, has 36 years of experience in the water industry and is both a professional engineer and trained economist. With our combined technological expertise and deep water sector experience, the Valor Water Analytics team has both the knowledge and technical skills to deliver a budget water rate schedule to the City that is defensible, equitable and reflects industry best practices.

Our joint qualifications offer the City the following benefits:

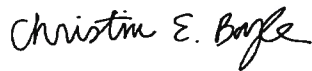
- Endorsement by the Santa Ana Watershed Project Authority (SAWPA) of our conservation-based water rate models.
- Combined 55 years of experience in our senior staff who would directly manage and conduct the services for the City.
- Unique water rate technical modeling capabilities that offer compliance with both American Water Works Association methods and Proposition 218.

- Powerful web-based and desktop tools empowering City staff to train, monitor and replicate the financial performance of water rates as conditions change in the future.
- Technical teams and corporate headquarters located entirely in California.

Our unique blend of financial ratemaking expertise and state-of-the-art water analytics and decision support software tools will provide the City both sound water rates to meet its revenue needs, as well as educational tools for City staff to update, monitor, and report on its effectiveness. Our overarching goal is to assist the City in providing clean, adequate, and affordable water supplies to their citizens. We look forward to a positive response to our proposal.

Best regards,

VALOR WATER ANALYTICS, INC



Christine Boyle, PhD  
CEO and Founder

ENVIRONMENTAL FINANCIAL GROUP, INC



Scott E. Harder, PE  
President and CEO

## INTRODUCTION

This proposal is submitted with supporting qualifications information from our statement of qualifications submitted to the City of Garden Grove last February.

This proposal document responds directly from the *Water Rate Study Request for Proposals* (RFP).

## PROJECT TEAM

The City of Garden Grove is requesting a comprehensive water rate study involving capital program development, forecasted cash flows, revenue-sufficient rate structures reflecting both existing and budget rate designs, and extensive communications of conclusions and recommendations to City staff and elected officials. As such, we are drawing from our full suite of qualifications and proposing that the following individuals form our core project team, supported by Valor's extensive analytics and software development team.

### **Christine E. Boyle, PhD, Lead Economist**



Dr. Boyle has over 15 years of experience in the water sector with a focus on decision support analytics for utilities and companies. Christine served as Operations Manager for e-commerce firm hooloo.com before going on to get her doctorate in water resource planning from the University of North Carolina at Chapel Hill. While there, she led a team at Environmental Finance Center on a multiyear study of water utility data analytics for the state's Urban Water Consortium.

She has advised the national governments of China and the Maldives on national water policy in her role as a World Bank consultant. At Valor, she works with utilities worldwide to introduce technologies that drive efficiency and set a new bar for how utilities understand and utilize data.

### **Scott Harder, P.E. Lead Financial Analyst and Project Manager**



Scott has 35 years of experience in water utility management consulting. He has led or provided lead financial analysis services for over 50 water rate studies. A professional engineer and economist, he has served as expert witness in several legal proceedings defending rate structures and water utility business policies. Scott will lead the Cost of Service Review task and provide overall quality control – quality assurance on the water budget rate design development and alternative analysis. Scott is President and CEO of Environmental Financial Group, Inc., a Mill Valley, California based global consultancy.

## SCOPE OF SERVICES

The Valor Team proposes to provide a unique blend of high quality professional services to develop the critical cost of service elements of the proposed rate schedules coupled with Valor's water analytics budget rate database and water analytics software tools that provide the ability of the City to monitor and update its rates and to replicate this study using in-house resources.

## TASK 1 – PROJECT MANAGEMENT

We propose to provide project management, team and City staff coordination, and other budget and task administrative activities over the course of the project. Specific subtasks are:

- 1.1 Coordinate project activities among the Consultant's and City staff. We will provide direction as required to meet project objectives and deadlines. Quality review and assurance will be provided through continuous monitoring of all deliverables prior to submittal and through the entire City review and client process. Rather than internal quality control through a committee that meets only periodically, our procedures provide continuous review through the project schedule.
- 1.2 We propose to assist City staff in presenting study results to various elected officials and the public. (The level of effort and proposed budget for this subtask is included in tasks 4, 5, 8, 9, 10 and 11 below.)
- 1.3 We will conduct general administrative duties, including client correspondence, billing, project documentation, and administer study control plan offering a single point of contact to answer questions and provide budget and technical support information.
- 1.4 We will submit status reports on a monthly basis summarizing hours expended, tasks accomplished, assignments and action items, and significant roadblocks with suggested solutions.

### Deliverable(s):

- Monthly progress reports, submitted electronically. Other budget or task information as requested.

### Team Member(s):

- Scott Harder, EFG
- Janani Mohanakrishnan, Valor Water Analytics

## TASK 2 – PROJECT INITIATION MEETING AND DATA COLLECTION

We will attend and help to facilitate a project initiation or kickoff meeting to: establish lines of communication; review project missions, goals, and objectives; review project schedule and major milestones; collect pertinent data; and discuss relevant issues. The meeting will also confirm overall approach and strategies that will guide the conduct of the project.

- 2.1 We will prepare an initial data request and submit this to the City prior to the project initiation meeting. We anticipate that these items will include:
  - Water billing records for the past five years
  - Aerial imaging data
  - Historical evapotranspiration (ET<sub>0</sub>) data
  - Identified sources of real-time ET<sub>0</sub> data (if available)
  - Persons-per-household information (if unavailable census block level data will be used)
  - Efficiency standards information (if available)

- City's master plans and data pertinent to the future planned growth
  - Estimated costs and schedules for projected major capital improvement projects
  - Past five years audited statements for the water utility
  - Itemized operating budget information for the current budget year and three previous years
  - Bond documents, indentures, and resolutions
  - Contract agreements
  - Survey Cities data
- 2.2 The Valor Team will review all data and engage City staff in phone discussions to clarify any questions.
- 2.3 We will review the City's current policies and procedures and prepare a protocol for the electronic formatting and transfer of billing data records.

**Deliverable(s):**

- Monthly progress reports, submitted electronically. Other budget or task information as requested.

**Team Member(s):**

- Scott Harder, EFG

**TASK 3 – HISTORICAL REVIEW OF FINANCIAL STATUS**

- 3.1 We will conduct a comprehensive review of the financial performance and status of the City's Water Services, including balance sheets, income statements, debt service coverage and cash reserves.

**Deliverable(s):**

Data Request Memorandum

**Team Member(s):**

Scott Harder, EFG

**TASK 4 – CAPITAL FACILITIES PLANS ASSESSMENT**

The Valor Team will develop a detailed 10-year capital improvement plan, accompanying financial plan, and funding memorandum. Alternative methods of financing the project, including grants, low interest loans, long-term debt, annual operating revenues, system development charge revenues, funds on hand, direct contributions, special assessments, and property taxes, will be identified and assessed.

- 4.1 We will review the latest Water Master Plan and other available documents and provide engineering cost estimates for the following proposed capital improvement projects.
- Water Master Plan Update
  - Asset Management Plan
  - Water Storage Reservoir Facility Rehabilitation Projects
  - Fire Flow Deficiency Improvements/Upgrade Projects
  - Well Improvements/Rehabilitation Projects
  - Security Improvements Water Services Replacement Projects

- Misc. O & M Projects
- SCADA/Fiber Communications
- Mobile Data Terminal Systems

4.2 Develop a 10-year capital plan that provides for an even distribution of capital expenditures per year. This will include a detailed financial plan and written description of various alternative funding sources.

**Deliverable(s):**

- Capital Funding memorandum, Capital Improvement Plan spreadsheet, Financial Plan memorandum

**Team Member(s):**

- Scott Harder, EFG

**TASK 5 - REVENUE REQUIREMENT PROJECTIONS**

For this task, the Valor Team will assess existing operating revenues, estimate future revenue requirements, and assess the City’s ability to meet projected revenue requirements. To achieve this, we will conduct the following subtasks:

- 5.1 We will attend and facilitate meetings with Garden Grove’s Finance Director and Finance Department staff to review the operating and capital improvements program (CIP) budgets, the Water budget and existing revenue requirements models, and discuss major financial policies and objectives.
- 5.2 We will estimate water revenues based on current rates, fees and charges. We will assess historical growth trends, service levels, and customer consumption patterns.
- 5.3 We will review and estimate miscellaneous operating and non-operating revenues.
- 5.4 We will develop annual revenue requirements for the target rate period.
- 5.5 We will develop a 10-year Water Services cash flow forecast and identify revenue adjustments needed to meet projected revenue requirements. This forecast will consider capital project timing and utilize various strategies to minimize borrowing.
- 5.6 We will review and evaluate existing Water Services Business Principles and develop recommendations for revisions, as necessary.
- 5.7 We will evaluate the need for a rate stabilization fund, if additional debt issuance is required.
- 5.8 We will develop a base operational cost and provide a reasonable basis on which to project costs.

**Deliverable(s):**

- Memoranda documenting various analyses, conclusions and recommendations.

**Team Member(s):**

- Scott Harder, EFG

**TASK 6 – CLASSIFICATION OF COSTS**



The Valor Team will utilize AWWA and other generally recognized cost of service principles to allocate costs to defined functional categories.

- 6.1 We will develop appropriate functional classifications.
- 6.2 We will review and evaluate the adequacy of the City's operations to accumulate, record, and report costs in the desired cost allocation classifications. We will develop recommended changes, if necessary, to provide the required data in the most useful format in the future.

Deliverable(s):

- Tabular and graphic summaries incorporated in MS-EXCEL spreadsheet models.

Team Member(s):

- Scott Harder, EFG

## TASK 7 – COST OF SERVICE

The Valor Team will utilize AWWA and other generally recognized cost of service principles to assess the appropriateness and defensibility of the following.

- 7.1 Existing meter size-method of fixed charges for single-family residential, multi-family residential, commercial, irrigation, industrial customer classes.
- 7.2 Historical water consumption, revenue records, and billing summaries to determine water usage characteristics by customer class versus meter size. We will estimate the relative responsibility of each customer class for each of the functional cost elements.
- 7.3 We will then use standard methods to allocate functional costs to each cost components, which constitute a functional classification of the different types of service the City provides.
- 7.4 We will then use standard methods to distribute the costs by functional components to the various customer classifications and meter sizes.
- 7.5 We will compare revenue under existing rates for each customer class with the allocated cost of service to determine the adequacy of existing customer class revenue and indicated adjustments necessary.

Deliverable(s):

- Tabular and graphic summaries incorporated in MS-EXCEL spreadsheet models.

Team Member(s):

- Scott Harder, EFG

## TASK 8 – REVIEW AND DEVELOPMENT OF RATE STRUCTURE

At this point in the analysis the Valor Team will review the City's existing water rate structure and compare the level of fixed costs and average usage charges, assessing the capabilities of the City's existing billing system, consistency with industry practices, required operation and maintenance, future capital facility improvements/upgrades, and revenue stability. We will then design rate structures that are in compliance with Proposition 218 and provide equity, defensibility and ease of implementation.

- 8.1 We will evaluate the City's existing water rate structures in terms of reasonableness of criteria used, and equitability among users.
- 8.2 We will develop appropriate alternate rate structures that meet financial and other cost of service objectives.
- 8.3 We will review fixed costs and make recommendations to avoid a reduction in revenues while State mandated water use efficiency regulations are in place and/or in wet years.
- 8.4 We will assess customer affordability issues and develop affordability indices and strategies as necessary.
- 8.4 We will attend and facilitate as necessary an internal review process involving staff and elected officials. It is assumed that three meetings will be necessary.
- 8.5 We will develop a comparative rate survey from the City's "Survey Cities" and surrounding municipalities.

Deliverable(s):

- Meeting handouts, tabular water survey

Team Member(s):

- Scott Harder, EFG

## TASK 9 – RATE DESIGN AND COMPARISONS

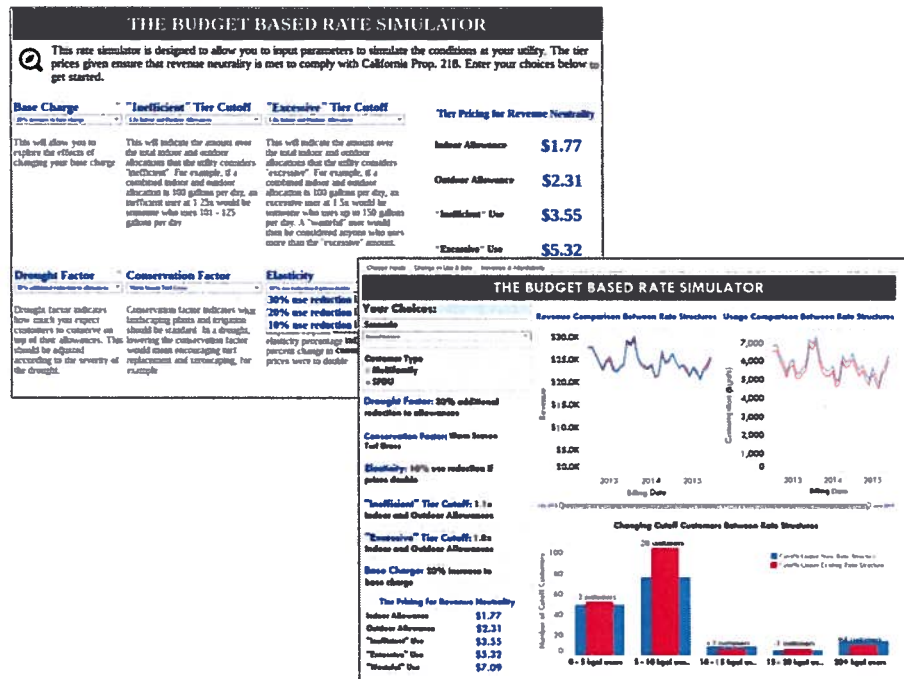
The Valor Team will then develop a rate design for implementation by the City. The final rate structure alternatives will include at least two options for consideration.

- 9.1 Valor and EFG will develop a rate structure that will modify the City's current rate design to meet State water use efficiency regulations, legal requirements of Proposition 218, and recover necessary fixed costs—but otherwise maintain the general rate structure. The Water Rate Simulator software will allow the City of Garden Grove to see the effects of the changes and also apply different economic and environmental "stressors" to these rate structures.
- 9.2 Valor will develop numerous water budget rate designs using Valor's Water Rate Simulator tool. It is anticipated that the following rate designs will be developed and evaluated:
  - Tiers corresponding to indoor, outdoor, inefficient, wasteful, and unsustainable categories
  - Tiers modified to address Proposition 218 compliance requirements
  - Seasonal, monthly and daily weather  $ET_0$  inputs
  - A range of per capita indoor consumption assumptions
  - Historical, real-time, and hybrid  $ET_0$  rate structure designs
  - Integration of rainfall information to adjust  $ET_0$
  - Use of crop coefficients

For all competing design alternatives, revenue stability, revenue risk, administrative cost, efficiency considerations and equity issues will be identified and analyzed. Multi-year simulations will be developed and sensitivity of rates and rate accuracy to changes in key

economic, climatic, and cost inputs will be tested and tabulated. If available, the rate models will be run against historical ET<sub>0</sub> data to test the sensitivity of operating revenue to fluctuating weather conditions and outside water demands.

- 9.3 Valor/EFG will include a detailed graphical and tabular summary of equity considerations of each competing rate design. Graphical equity profiles will be developed which demonstrate the degree to which each design will generate tier rates that vary for a substantial percentage of customers.
- 9.4 Valor's Water Rate Simulator will include supporting analysis models such as price elasticity of demand model, cost allocation model, plant in service allocation model, and others. All the models produced by the software will be the property of the GGWS. Screenshots of the inputs and outputs are below.



- 9.5 Valor Water Analytics' software offering will further empower the staff of GGWS to test multiple rate structure effects on the customer base with minimal staff hours. For each scenario that you test, our Rate Simulator will complete, literally, millions of calculations on our servers as our algorithms optimize your rate design under a variety of scenarios. Our tool is web-based and simple to use (no clunky Excel or Access models), and our scenario analysis and "stress testing" features will enable GGWS to perform independent calculations and analysis. The training of key GGWS staff is of the paramount importance to Valor, and we will work with stakeholders to make sure that our tool is well understood and of lasting value.

Deliverable(s):

- Water budget rate designs will be included in a tabular and graphical summary of the various water budget designs. Data will also be presented in a graphical, web-based interface.
- One-day software training session.

Team Member(s):

- Christine Boyle, Valor Water Analytics
- Renee Jutras, Valor Water Analytics
- Sohaib Alam, Valor Water Analytics
- Janani Mohanakrishnan, Valor Water Analytics

### VALOR WATER RATE SIMULATOR

This tool tracks essential water consumption and sales information per customer to measure revenue trends and segmented customer impacts. The tool also monitors impacts of rate structure on different groups in order to identify areas and degrees of revenue risk facing the utility – and potential solutions. Valor’s Water Rate Simulator tool allow the agency to model a range of rate levels and structure to offset revenue risk, while meeting other rate-setting goals.

### WATER RATE SIMULATION ANALYTICS

**Monthly and Quarterly Sales Reports** (Utility billing records): Measure cumulative and per quarter water volumes and sales and compare versus historic use and volume per top ten customer and each customer type and meter size.

**Rate Change Response** (Utility billing records and rate history): Characterization of customer response to rate increases and rate structure changes.

**Capacity requirements** (Utility billing records): Analysis of customer capacity requirements.

**Change in Use Analysis** (Utility billing records): multiple analytical tools to assess change in use and the associated revenue shifts.

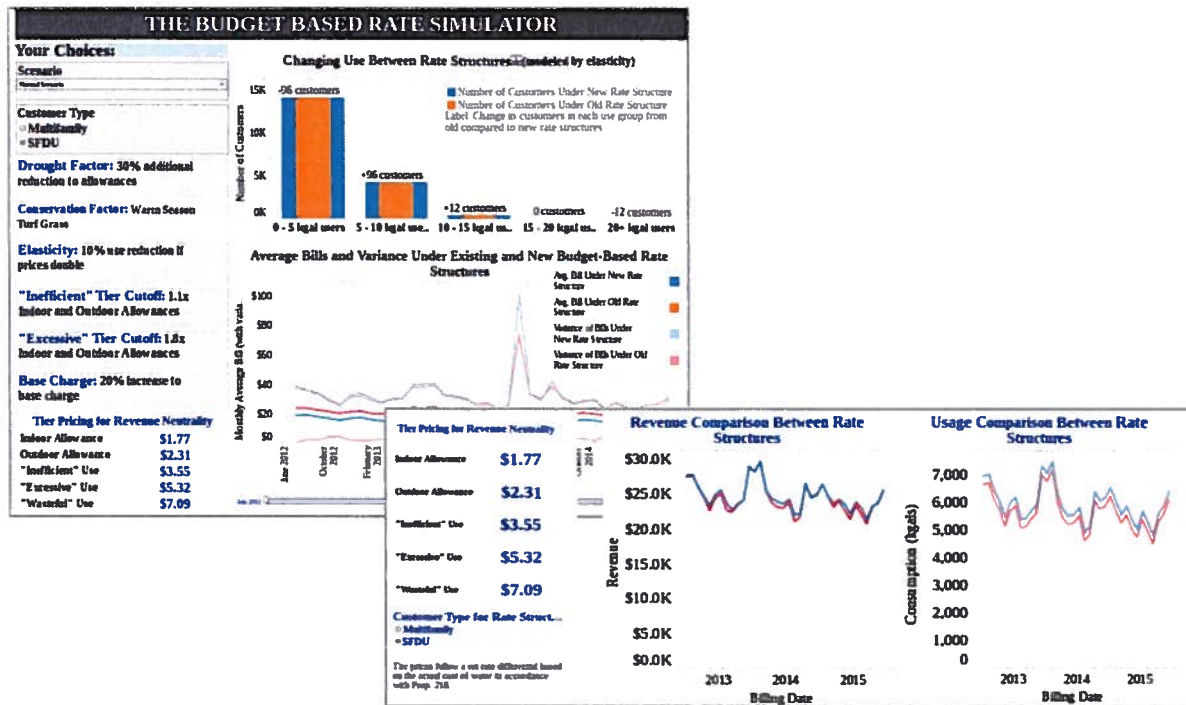
**Rate Model Simulator** (Utility billing records): Utilizes customer data to produce updated and interactive rate models, including alternative rate structures.

**Revenue risk maps** (utility billing records): Identifies revenue risk hot spots on a map.

### BENEFITS TO THE CITY OF GARDEN GROVE

- ✓ **Timely identification of revenue risks (or boons) associated with large swings in water use or peaks among large users and sectors,**
- ✓ **More timely updating of revenue and demand projections,**
- ✓ **Informing of short and long term strategies for water capacity planning, revenue forecasting, and revenue risk strategies.**
- ✓ **Cost effective solution to manage meters and customer sales,**
- ✓ **Development of responsive pricing mechanisms and adaptation for more agile management by Palm Beach County,**
- ✓ **Price elasticity analytics to understand price responsiveness of customer groups,**
- ✓ **Inform planning and strategy via more precise understanding of customer behaviors and the interplay between rates, revenue, and water sales per service area.**

Figure 1 Sample of Revenue Profile



## TASK 10 – MEETINGS AND PRELIMINARY DRAFT REPORT

We will generate 15 copies of a draft report and meet with the City, and other members deemed appropriate by staff, including City Council, to discuss preliminary results of the study.

**MEETINGS:** Valor/EFG anticipate the following meetings may be required in the course of this study. Meeting requirements and frequency will be determined based on bi-weekly feedback from dedicated Valor Project Manager and GGWS staff. Labor and other direct expenses for these meetings have been integrated into each of the Tasks and included in the Detailed Budget Worksheet.

- Kick-off
- Data Collection and Billing System
- Cost of Service Analysis
- Water Budget Rate Design Alternatives
- Rate Hearing(s)

### Team Member(s):

- Janani Mohanakrishnan, Valor Water Analytics
- GGWS staff, as required

## TASK 11 - PRESENTATIONS AND FINAL REPORT

We will prepare a final report encompassing all study findings, inputs and recommendations for a short-term and long-term financial plan and provide up to 3 presentations to City Council meetings requested

by staff. We will generate and submit 15 copies of the final report, and an electronic version of the water rate model developed with instruction for future use and revisions, to the City.

**REPORTS AND DOCUMENTATION:** Valor/EFG shall develop the following reports and presentation materials:

- Meeting agendas and minutes
- Presentations, tabular summaries, graphical summaries for use in meetings
- Draft 2017 Water Budget Rate Design Report
- Final 2017 Water Budget Rate Design Report
- Presentations, tabular summaries, graphical summaries for use in rate hearings

Additional bi-weekly updates and reports will be generated by the Valor Water Project Manager as required to keep the project on schedule and budget. Labor costs and other direct expenses for this reporting have been integrated into each of the Tasks and included in the Detailed Budget Worksheet.

## *PROJECT BUDGET*

**GARDEN GROVE WATER SERVICE DEPARTMENT  
WATER RATE STUDY**

**Proposed Budget**

	Christine Boyle Valor	Janani Mohanakrishnan Valor	Renee Jutras Valor	Valor	Scott Harder EFG	TOTALS
<i>All Valor Project Management and Technical Support included in the cost of the software</i>						
Hourly Rate, USD					225.00	
<b>TASK 1 - Project Management</b>						
<i>Task 1.1</i> Coordinate Project Activities	-	5.00	-	-	-	-
<i>Task 1.2</i> Support Staff in Presenting Results		(included in Tasks 9 and 10 below)				
<i>Task 1.3</i> Administer Project Activities and Communications	-	10.00	-	-	-	-
<i>Task 1.4</i> Prepare Monthly Status Reports	-	-	-	-	-	-
SUBTOTAL LABOR	-	15.00	-	-	-	\$ -
Travel						\$ -
Other						\$ -
						<u>SUBTOTAL, USD \$ -</u>
<b>TASK 2 - Initiate Project and Collect Data</b>						
<i>Task 2.1</i> Prepare Initial Data Request	-	-	5.00	-	2.5	562.50
<i>Task 2.2</i> Review Data	-	-	10.00	-	12.0	2,700.00
<i>Task 2.3</i> Review City Billing Activities and Policies	-	-	10.00	-	4.0	900.00
SUBTOTAL LABOR	-	-	25.00	-	18.50	\$ 4,162.50
Other						\$ -
						<u>SUBTOTAL, USD \$ 4,162.50</u>
<b>TASK 3 - Initiate Project and Collect Data</b>						
<i>Task 3.1</i> Review City Water Services Financial Status	-	-	-	-	4.0	900.00
SUBTOTAL LABOR	-	-	-	-	4.00	\$ 900.00
Other						\$ -
						<u>SUBTOTAL, USD \$ 900.00</u>
<b>TASK 4 - Assess Capital Facilities Plans</b>						
<i>Task 4.1</i> Compile Engineering Cost Estimates	-	-	-	-	8.0	1,800.00
<i>Task 4.2</i> Develop 10-Year CIP	-	-	-	-	16.0	3,600.00
SUBTOTAL LABOR	-	-	-	-	24.00	\$ 5,400.00
Other						\$ -
						<u>SUBTOTAL, USD \$ 5,400.00</u>
<b>TASK 5 - Forecast Revenue Requirements</b>						
<i>Task 5.1</i> Meet with City on Capital and Operating Budgets	-	-	-	-	4.0	900.00
<i>Task 5.2</i> Prepare Water Revenues Estimates	-	-	-	-	8.0	1,800.00
<i>Task 5.3</i> Review Miscellaneous Revenues	-	-	-	-	4.0	900.00
<i>Task 5.4</i> Develop Annual Revenue Requirements	-	-	-	-	16.0	3,600.00
<i>Task 5.5</i> Develop Forecast of Cash Flows	-	-	-	-	16.0	3,600.00
<i>Task 5.6</i> Evaluate Existing Water Services Business Principles	-	-	-	-	4.0	900.00
<i>Task 5.7</i> Assess Need for Rate Stabilization Fund	-	-	-	-	2.0	450.00
<i>Task 5.8</i> Develop Base Operational Cost and Basis	-	-	-	-	2.0	450.00
SUBTOTAL LABOR	-	-	-	-	56.00	\$ 12,600.00
Travel						\$ 1,000.00
Other						\$ -
						<u>SUBTOTAL, USD \$ 13,600.00</u>
<b>TASK 6 - Classify Costs</b>						
<i>Task 6.1</i> Determine Functional Classifications	-	-	-	-	4.0	900.00
<i>Task 6.2</i> Assess Adequacy of City Cost Accounting Operations	-	-	-	-	4.0	900.00
SUBTOTAL LABOR	-	-	-	-	8.00	\$ 1,800.00
Other						\$ -
						<u>SUBTOTAL, USD \$ 1,800.00</u>

**GARDEN GROVE WATER SERVICE DEPARTMENT  
WATER RATE STUDY**

**Proposed Budget**

**TASK 7 - Develop Cost of Service**

<i>Task 7.1</i>	Review Existing Meter-Size Fixed Charge Methods	-	-	-	-	2.0	450.00	
<i>Task 7.2</i>	Review Historical Water and Billing Records	-	-	-	-	4.0	900.00	
<i>Task 7.3</i>	Develop Cost Allocations to Functional Classes	-	-	-	-	2.0	450.00	
<i>Task 7.4</i>	Distribute Functional Costs to Customer Classes	-	-	-	-	8.0	1,800.00	
<i>Task 7.5</i>	Compare Existing Revenue with Cost Allocations	-	-	-	-	2.0	450.00	
<b>SUBTOTAL LABOR</b>		-	-	-	-	18.00	\$ 4,050.00	
	Travel						\$ -	
	Other						\$ -	
							<b>SUBTOTAL, USD</b>	<b>\$ 4,050.00</b>

**TASK 8 - Develop Rate Structure**

<i>Task 8.1</i>	Evaluate Existing Rate Structure	-	-	-	-	4.0	900.00	
<i>Task 8.2</i>	Develop Rate Structure Modifications	-	-	-	-	16.0	3,600.00	
<i>Task 8.3</i>	Analyze Fixed Costs	-	-	-	-	4.0	900.00	
<i>Task 8.4</i>	Assess Customer Affordability and Index	-	-	-	-	4.0	900.00	
<i>Task 8.5</i>	Report to City Staff and Council	15.00	-	-	-	8.0	1,800.00	
<i>Task 8.6</i>	Conduct Rate Survey	-	-	-	-	8.0	1,800.00	
<b>SUBTOTAL LABOR</b>		15.00	-	-	-	44.00	\$ 9,900.00	
	Travel						\$ 3,000.00	
	Other						\$ -	
							<b>SUBTOTAL, USD</b>	<b>\$ 12,900.00</b>

**TASK 9 - Compare Rate Designs**

<i>Task 9.1</i>	Adapt Existing City Rate Design	-	-	-	-	8.0	1,800.00	
<i>Task 9.2</i>	Develop Budget Rate Structure	-	-	-	-	-	-	
<i>Task 9.3</i>	Develop Supporting Analysis Models	-	-	-	-	8.0	1,800.00	
<i>Task 9.4</i>	City Staff Technology Transfer and Training	-	10.00	-	-	-	-	
<b>SUBTOTAL LABOR</b>		-	10.00	-	-	16.00	\$ 3,600.00	
	Travel						\$ -	
	Valor Database Development						\$ 10,000.00	
	Valor Water Rate Simulator Tool						\$ 15,000.00	
							<b>SUBTOTAL, USD</b>	<b>\$ 28,600.00</b>

**TASK 10 - Attend Meeting And Prepare Draft Report**

	Meeting and Draft Report	-	-	-	-	40.0	9,000.00	
<b>SUBTOTAL LABOR</b>		-	-	-	-	40.00	\$ 9,000.00	
	Travel						\$ 500.00	
	Other						\$ -	
							<b>SUBTOTAL, USD</b>	<b>\$ 9,500.00</b>

**TASK 11 - Presentation and Final Report**

	Presentation and Final Report	-	-	-	-	24.0	5,400.00	
<b>SUBTOTAL LABOR</b>		-	-	-	-	24.00	\$ 5,400.00	
	Travel						\$ 500.00	
	Other						\$ -	
							<b>SUBTOTAL, USD</b>	<b>\$ 5,900.00</b>
							<b>GRAND TOTAL USD</b>	<b>\$ 86,812.50</b>