ITEM NO. 12

STAFF REPORT

CITY OF OCEANSIDE

DATE: December 10, 2008

TO: Honorable Mayor and City Council Members

FROM: Water Utilities Department

SUBJECT: **APPROVAL OF A PROFESSIONAL SERVICES AGREEMENT WITH MADDAUS WATER MANAGEMENT IN THE AMOUNT OF $125,000 TO PREPARE THE OCEANSIDE WATER CONSERVATION MASTER PLAN**

SYNOPSIS

Staff and the Utilities Commission recommend that the City Council approve a professional services agreement with Maddaus Water Management of Alamo, California, in the amount of $125,000 to prepare the Oceanside Water Conservation Master Plan (Exhibit A), and authorize the City Manager to execute the agreement.

BACKGROUND

The City Council approved the Integrated Water Utilities Master Plan (IWUMP) on July 9, 2008. The water supply analysis in the IWUMP included a section on water conservation that detailed Oceanside's current and proposed future water conservation measures. Since the City's water conservation program was analyzed in the IWUMP, severe drought and court-ordered pumping restrictions have caused California's water supply to drop to historic low levels. Water Utilities staff was directed to prepare a more comprehensive water conservation master plan in response to the existing drought that will probably cause mandatory water restrictions as early as 2009 and to ongoing limitations on future water supply.

ANALYSIS

The water supply outlook for the San Diego region has worsened since the IWUMP was adopted. The City Council adopted a Drought Response Conservation ordinance on July 9, 2008 that establishes four levels of drought conditions with increasing water use restrictions. The Water Conservation Master Plan is intended to develop measures that will achieve water conservation goals and comply with best management practices during the drought and in more normal water supply years.

A request for proposal was sent out in September to six consultants (Exhibit B). On October 30, 2008, proposals were received from two of the solicited consultants. In accordance with the City's procedure, a panel was selected to evaluate the proposals.

Maddaus Water Management (MWM) was the low bidder with an amount not to exceed $125,000. The second proposal was from PBS&J with a cost of $175,000 to perform the work. The panel recommended that the proposal from MWM be selected. MWM has prepared several water conservation plans for cities and water agencies in California and other states. MWM was also the sub-contractor that prepared the water conservation section in the City's IWUMP.

FISCAL IMPACT

The Miscellaneous Water Projects budget (712.858240) has an FY 2007-08 carry forward of $473,036. There are sufficient funds budgeted for the project.

COMMISSION OR COMMITTEE REPORT

The Utilities Commission approved staff's recommendation at its regular meeting on November 18, 2008.

CITY ATTORNEY'S ANALYSIS

The referenced documents have been reviewed by the City Attorney's office and approved as to form.

RECOMMENDATION

Staff and the Utilities Commission recommend that the City Council approve a professional services agreement with Maddaus Water Management of Alamo, California, in the amount of $125,000 to prepare the Oceanside Water Conservation Master Plan, and authorize the City Manager to execute the agreement.

PREPARED BY:

Greg Blakely
Administration Manager

SUBMITTED BY:

Peter A. Weiss
City Manager

REVIEWED BY:

Michelle Skaggs Lawrence, Deputy City Manager

Lonnie Thibodeaux, Water Utilities Director

Teri Ferro, Financial Services Director

for

Exhibit A - PSA
Exhibit B - Request for proposal mailing list

City of Oceanside Water Conservation Master Plan

CITY OF OCEANSIDE

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT, dated November 12, 2008 for identification purposes, is made and entered into by and between the CITY OF OCEANSIDE, a municipal corporation, hereinafter designated as "CITY", and Maddaus Water Management, hereinafter designated as "CONSULTANT".

RECITALS

A. CITY desires to obtain professional engineering services from an independent contractor for the above named project.

B. CONSULTANT has submitted a proposal to provide engineering services for the CITY in accordance with the terms set forth in this Agreement.

C. CITY desires to contract with CONSULTANT as an independent contractor and CONSULTANT desires to provide services to CITY as an independent contractor.

D. CONSULTANT has demonstrated its competence and professional qualifications necessary for the satisfactory performance of the services designated herein by virtue of its experience, training, education and expertise.

NOW, THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1.0 **SCOPE OF WORK.** The CONSULTANT will prepare a Water Conservation Master Plan for the City of Oceanside. The project is more particularly described in CONSULTANT'S Scope of Work dated September 29, 2008, and attached hereto and incorporated as Exhibit A.

1.1 **PROFESSIONAL SERVICES PROVIDED BY CONSULTANT.** The professional services to be performed by CONSULTANT shall consist of but not be limited to the following:

1.1.1 Work closely with the Water Utilities Director in performing work in accordance with this Agreement in order to receive clarification as to the result which the CITY expects to be accomplished by CONSULTANT. The Water Utilities Director, under the authority of the City Manager, shall be the CITY'S authorized representative in the interpretation and enforcement of all work performed in connection with this Agreement. The Water Utilities Director may delegate authority in connection with this Agreement to the Water Utilities Director's

designees. For the purposes of directing the CONSULTANT'S performance in accordance with this Agreement, the Water Utilities Director delegates authority to Judith Ludlow.

1.1.2 In compliance with Government Code section 7550, the CONSULTANT shall include a separate section in the proposal prepared pursuant to this Agreement, which contains a list of all the subcontractors and dollar amounts of all contracts and subcontracts required for the preparation of work described in this Agreement.

1.1.3 Prepare and submit to the Water Utilities Director, concurrently with the Water Conservation Master Plan, the following:

a. A written estimate of probable implementation costs.

1.1.4 Provide office assistance to the City during the preparation of the Water Conservation Master Plan upon request by the Water Utilities Director.

a. Prepare needed reports and notices.

b. Attend meetings with the Water Utilities Director or his designees.

1.2 **SERVICES PROVIDED BY CITY.** The CITY shall perform the following services:

1.2.1 Provide access to all plans and records and furnish one copy of drawings and reports requested.

1.2.2 Provide all legal advertising mailings and postings required.

1.2.3 Provide overall project management.

2.0 TIMING REQUIREMENTS

2.1 Time is of the essence in the performance of work under this Agreement and the following timing requirements shall be strictly adhered to unless otherwise modified in writing as set forth in Section 2.6. Failure by CONSULTANT to strictly adhere to these timing requirements may result in termination of this Agreement by the CITY and the assessment of damages against the CONSULTANT for delays.

2.2 Phase I. CONSULTANT shall complete the 50% draft preliminary Water Conservation Master Plan to the Water Utilities Director within 120 calendar days of the execution of this Agreement. No work shall be performed by CONSULTANT beyond the Phase I stage until the Water Utilities Director has given written approval of the preliminary plan and authorization to perform Phase II.

2.3 Phase II. CONSULTANT shall complete the 75% draft preliminary Water Conservation Master Plan to the Water Utilities Director within 150 calendar days of the execution of this Agreement. No work shall be performed by CONSULTANT beyond the Phase II stage until the Water Utilities Director has given written approval of the preliminary plan and authorization to perform Phase III.

2.4 Phase III. CONSULTANT shall complete the 90% draft Water Conservation Master Plan to the Water Utilities Director within 180 calendar days of the execution of this Agreement. No work shall be performed by CONSULTANT beyond the Phase III stage until the Water Utilities Director has given authorization to perform Phase IV.

2.5 Phase IV. CONSULTANT shall prepare and deliver 5 copies of the 100% draft Water Conservation Master Plan to the Water Utilities Director within 45 calendar days of the Water Utilities Director's written request.

2.6 Phase V. CONSULTANT shall prepare and deliver 5 copies of the final Water Conservation Master Plan to the Water Utilities Director within 15 calendar days of the Water Utilities Director's written authorization to perform Phase V.

2.7 CONSULTANT shall submit all requests for extensions of time for performance in writing to the Water Utilities Director no later than ten (10) calendar days after the start of the condition which purportedly caused the delay, and not later than the date on which performance is due. The Water Utilities Director shall review all such requests and may grant reasonable time extensions for unforeseeable delays which are beyond CONSULTANT'S control.

2.8 For all time periods not specifically set forth herein, the CONSULTANT shall respond in the most expedient and appropriate manner under the circumstances, by either telephone, fax hand delivery or mail.

3.0 **DESIGN CRITERIA AND STANDARDS.** All work shall be performed in accordance with applicable CITY, state and federal codes and criteria. In the performance of its professional services, CONSULTANT shall use the degree of care and skill ordinarily exercised by CONSULTANT under similar conditions.

4.0 **INDEPENDENT CONTRACTOR.** CONSULTANT'S relationship to the CITY shall be that of an independent contractor. CONSULTANT shall have no authority, express or implied, to act on behalf of the CITY as an agent, or to bind the CITY to any obligation whatsoever, unless specifically authorized in writing by the Water Utilities Director. The CONSULTANT shall not be authorized to communicate directly with, nor in any way direct the actions of, any bidder or the construction contractor for this project without the prior written authorization by the Water Utilities Director. CONSULTANT shall be solely responsible for the performance of any of its employees, agents or subcontractors under this agreement.

CONSULTANT shall report to the CITY any and all employees, agents and consultants performing work in connection with this project, and all shall be subject to the approval of the CITY.

5.0 **CITY BUSINESS LICENSE.** Prior to the commencement of any work under this agreement, the CONSULTANT shall obtain and present a copy of an Oceanside City Business License to the Water Utilities Director.

6.0 **WORKERS' COMPENSATION.** Pursuant to Labor Code section 1861, the CONSULTANT hereby certifies that the CONSULTANT is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and the CONSULTANT will comply with such provisions and provide certification of such compliance as a part of these Award Documents. The certification shall be in accordance with Subsections 7.3 through 7.8 of this Agreement.

7.0 **LIABILITY INSURANCE.**

7.1 CONSULTANT shall, throughout the duration of this Agreement, maintain comprehensive general liability and property damage insurance, or commercial general liability insurance, covering all operations of CONSULTANT, its agents and employees, performed in connection with this Agreement including, but not limited to, premises and automobile.

7.2 CONSULTANT shall maintain liability insurance in the following minimum limits:

Comprehensive General Liability Insurance
(bodily injury and property damage)

Combined Single Limit Per Occurrence	$ 1,000,000
General Aggregate	$ 2,000,000*

OR

<u>Commercial General Liability Insurance</u>
(bodily injury and property damage)

General limit per occurrence	$ 1,000,000
General limit project specific	$ 2,000,000
<u>Automobile Liability Insurance</u>	$ 1,000,000

*General aggregate per year, or part thereof, with respect to losses or other acts or omissions of CONSULTANT under this Agreement.

7.2.1 If coverage is provided through a Commercial General Liability Insurance policy, a minimum of 50% of each of the aggregate limits shall remain available at all times. If over 50% of any aggregate limit has been paid or reserved, the CITY may require additional coverage to be purchased by the CONSULTANT to restore the required limits. The CONSULTANT shall also notify the CITY'S Project Manager promptly of all losses or claims over $25,000 resulting from work performed under this contract, or any loss or claim against the CONSULTANT resulting from any of the CONSULTANT'S work.

7.3 All insurance companies affording coverage to the CONSULTANT for the purposes of this Section shall add the City of Oceanside as "additional insured" under the designated insurance policy for all work performed under this Agreement. Insurance coverage provided to the CITY as an additional insured shall be primary insurance and other insurance maintained by the CITY, its officers, agents and employees shall be excess only and not contributing with insurance provided pursuant to this Section.

7.4 All insurance companies affording coverage to the CONSULTANT pursuant to this Agreement shall be insurance organizations authorized by the Insurance Commissioner of the State of California to transact business of insurance in the state or be rated as A-X or higher by A.M. Best.

7.5 All insurance companies affording coverage shall provide thirty (30) days written notice to the CITY should the policy be cancelled before the expiration date. For the purposes of this notice requirement, any material change in the policy prior to the expiration shall be considered a cancellation.

7.6 CONSULTANT shall provide evidence of compliance with the insurance requirements listed above by providing a Certificate of Insurance and applicable endorsements, in a form satisfactory to the City Attorney, concurrently with the submittal of this Agreement.

7.7 CONSULTANT shall provide a substitute Certificate of Insurance no later than thirty (30) days prior to the policy expiration date. Failure by the CONSULTANT to provide such a substitution and extend the policy expiration date shall be considered a default by CONSULTANT and may subject the CONSULTANT to a suspension or termination of work under the Agreement.

7.8 Maintenance of insurance by the CONSULTANT as specified in this Agreement shall in no way be interpreted as relieving the CONSULTANT of any responsibility whatsoever and the CONSULTANT may carry, at its own expense, such additional insurance as it deems necessary.

8.0 **PROFESSIONAL ERRORS AND OMISSIONS INSURANCE.** Throughout the duration of this agreement and four (4) years thereafter, the CONSULTANT shall maintain professional errors and omissions insurance for work performed in connection with this Agreement in the minimum amount of One Million dollars ($1,000,000).

CONSULTANT shall provide evidence of compliance with these insurance requirements by providing a Certificate of Insurance.

9.0 **CONSULTANT'S INDEMNIFICATION OF CITY.** CONSULTANT shall indemnify and hold harmless the CITY and its officers, agents and employees against all direct claims or lawsuits for damages to persons or property to the extent arising out of the negligent acts, errors, omissions or wrongful acts or conduct of the CONSULTANT or its employees, agents, subcontractors or others in connection with the execution of the work covered by this Agreement, except for those claims arising from the willful misconduct , sole negligence or active negligence of the CITY, its officers, agents or employees. CONSULTANT'S indemnification shall include any and all costs, expenses, expert fees, attorneys' fees and liability assessed against or incurred by the CITY, its officers, agents or employees in defending against such claims or lawsuits, whether the same proceed to judgment or not. Further, CONSULTANT, at its own expense, shall, upon written request by the CITY, defend any such suit or action brought against the CITY, its officers, agents or employees resulting or arising from the tortious acts or omissions of the CONSULTANT.

CONSULTANT'S indemnification of CITY shall not be limited by any prior or subsequent declaration by the CONSULTANT.

10.0 **ERRORS AND OMISSIONS.** In the event that the Water Utilities Director determines that the CONSULTANT'S negligence, misconduct, errors or omissions in the performance of work under this Agreement has resulted in expense to CITY greater than would have resulted if there were no such negligence, errors or omissions in the plans or contract specifications, CONSULTANT shall reimburse CITY for the additional expenses incurred by the CITY, including engineering, construction and/or restoration expense. Nothing herein is intended to limit CITY'S rights under Sections 7, 8 or 9.

11.0 **NO CONFLICT OF INTEREST.** The CONSULTANT shall not be financially interested in any other CITY contract for this project. For the limited purposes of interpreting this section, the CONSULTANT shall be deemed a "City officer or employee", and this Section shall be interpreted in accordance with Government Code section 1090. In the event that the CONSULTANT becomes financially interested in any other CITY contract for this project, that other contract shall be void. The CONSULTANT shall indemnify and hold harmless the CITY, under Section 9 above, for any claims for damages resulting from the CONSULTANT'S violation of this Section.

12.0 **OWNERSHIP OF DOCUMENTS.** All documents, including details, computations and other documents, prepared or provided by the CONSULTANT under this Agreement shall be the property of the CITY. The CITY agrees to hold the CONSULTANT free and harmless from any claim arising from any use, other than the purpose intended, of the plans and specifications and all preliminary sketches, schematics, preliminary plans, architectural perspective renderings, working drawings, including details, computation and other documents, prepared or provided by the CONSULTANT. CONSULTANT may retain a copy of all material produced under this Agreement for the purpose of documenting their participation in this project.

13.0 **COMPENSATION.**

13.1 For work performed by CONSULTANT in accordance with this Agreement, CITY shall pay CONSULTANT in accordance with the schedule of billing rates set forth in Exhibit "A", attached hereto and incorporated herein by reference. No rate changes shall be made during the term of this Agreement without prior written approval of the Water Utilities Director. CONSULTANT'S compensation for all work performed in accordance with this Agreement shall not exceed the total contract price of $125,000.

No work shall be performed by CONSULTANT in excess of the total contract price without prior written approval of the Water Utilities Director.

CONSULTANT shall obtain approval by the Water Utilities Director prior to performing any work which results in incidental expenses to CITY as set forth in Section 13.2.2.

13.2 CONSULTANT shall maintain accounting records including the following information:

13.2.1 Names and titles of employees or agents, types of work performed and times and dates of all work performed in connection with this Agreement which is billed on an hourly basis.

13.2.2 All incidental expenses including reproductions, computer printing, postage, mileage and subsistence.

13.3 CONSULTANT'S accounting records shall be made available to the Water Utilities Director for verification of billings, within a reasonable time of the Water Utilities Director's request for inspection.

13.4 CONSULTANT shall submit monthly invoices to CITY. CITY shall make partial payments to CONSULTANT not to exceed the total contract price within thirty (30) days of receipt of invoice, subject to the approval of the Water Utilities Director, and based upon the following partial payment schedule:

13.4.1 Prior to completion of the 50% draft Water Conservation Master Plan, partial payments shall not exceed $62,500.

13.4.2 Prior to completion of the 75% draft Water Conservation Master Plan, partial payments shall not exceed $93,750.

13.4.3 Prior to completion of the 90% draft Water Conservation Master Plan, partial payments shall not exceed $112,500.

13.4.4 Prior to CITY approval of the 100 % draft Water Conservation Master Plan, partial payments shall not exceed $118,750.

13.4.5 Final payment shall be made to CONSULTANT upon CONSULTANT's preparation of Water Conservation Master Plan to the satisfaction of the Water Utilities Director.

14.0 **TERMINATION OF AGREEMENT.** Either party may terminate this Agreement by providing thirty (30) days written notice to the other party.

If any portion of the work is terminated or abandoned by the CITY, then the CITY shall pay CONSULTANT for any work completed up to and including the date of termination or abandonment of this Agreement, in accordance with Section 13. The CITY shall be required to compensate CONSULTANT only for work performed in accordance with the Agreement up to and including the date of termination.

15.0 **ASSIGNMENT AND DELEGATION.** This Agreement and any portion thereof shall not be assigned or transferred, nor shall any of the CONSULTANT'S duties be delegated, without the express written consent of the CITY. Any attempt to assign or delegate this Agreement without the express written consent of the CITY shall be void and of no force or effect. A consent by the CITY to one assignment shall not be deemed to be a consent to any subsequent assignment.

This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

16.0 **ENTIRE AGREEMENT.** This Agreement comprises the entire integrated understanding between CITY and CONSULTANT concerning the work to be performed for this project and supersedes all prior negotiations, representations or agreements.

17.0 **INTERPRETATION OF THE AGREEMENT.** The interpretation, validity and enforcement of the Agreement shall be governed by and construed under the laws of the State of California. The Agreement does not limit any other rights or remedies available to CITY.

The CONSULTANT shall be responsible for complying with all local, state and federal laws whether or not said laws are expressly stated or referred to herein.

Should any provision herein be found or deemed to be invalid, the Agreement shall be construed as not containing such provision and all other provisions, which are otherwise lawful, shall remain in full force and effect, and to this end the provisions of this Agreement are severable.

18.0 **AGREEMENT MODIFICATION.** This Agreement may not be modified orally or in any manner other than by an Agreement in writing, signed by the parties hereto.

19.0 **DISPUTE RESOLUTION.**

a. Any controversy or claim arising out of or relating to this Agreement, or concerning the breach or interpretation thereof, shall be first submitted to mediation, the cost of which shall be borne equally by the parties.

b. No suit shall be brought on this contract unless all statutory claims filing requirements have been met.

20. **NOTICES.** All notices, demands, requests, consents or other communications which this Agreement contemplates or authorizes, or requires or permits either party to give to the other, shall be in writing and shall be personally delivered or mailed to the respective party as follows:

TO CITY:	**TO CONSULTANT:**
Lonnie Thibodeaux Water Utilities Director 300 North Coast Highway Oceanside, CA 92054	William O. Maddaus Maddaus Water Management 9 Via Cerrada Alamo, CA 94507-1522

Either party may change its address by notice to the other party as provided herein.

Communications shall be deemed to have been given and received on the first to occur:

a. Actual receipt at the offices of the party to whom the communication is to be sent, as designated above, or

b. Three (3) working days following the deposit in the United States mail of registered or certified mail, postage prepaid, return receipt requested, addressed to the offices of the party to whom the communication is to be sent, as designated above.

21.0 **SIGNATURES.** The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity and authority to enter into and to execute this Agreement on behalf of the respective legal entities of the CONSULTANT and the CITY.

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Professional Services Agreement to be executed by setting hereunto their signatures:

MADDAUS WATER MANAGEMENT

By: William Maddaus - Owner
Name/Title

By: —
Name/Title

94-3261231
Employer ID No.

Nov 12, 2008
Date of Signing

CITY OF OCEANSIDE

By: _____
Peter A. Weiss, City Manager

APPROVED AS TO FORM:

Barbara Hamilton, ASST.
City Attorney

NOTARY ACKNOWLEDGMENTS OF CONSULTANT MUST BE ATTACHED.

See Attached
Loose Certificate
CW 11/12/08

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ACKNOWLEDGMENT

State of: CALIFORNIA

County of: CONTRA COSTA

On Nov 12 2008, before me, Chris Nicol, NOTARY PUBLIC

personally appeared

William O Maddaus

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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

WITNESS my hand and official seal.

CHRIS NICOL
Commission # 1569441
Notary Public - California
Contra Costa County
My Comm. Expires Apr 20, 2009

(Seal)

Signature of Notary Public

My Commission Expires: April 20, 2009

OPTIONAL

Description of Attached Document

Title or Type of Document: Contract

Document Date: 10-24-08

Number of Pages: 11

OBJECTIVE OF PLAN

Oceanside's stated objective is to develop a master plan to attain the water efficiency goals in a cost-effective manner that is feasible to implement by City staff. Key components of the plan include:

- Updating and further examining the 10% savings already committed to by Oceanside to identify the best method of achieving those savings and the timing of achieving those savings.
- A long-term plan for achieving the additional 20% per capita savings by 2020.
- Considering any collective water supply limitations that may exist within the time horizon for this plan (2009 and 2019).

PROJECT APPROACH

The starting point for this evaluation will be the technical analysis completed by Maddaus Water Management (MWM) for the City, during preparation of the City's Integrated Resource Plan. In some ways this project will be an update of prior work, but where appropriate MWM will begin anew and not be constrained by prior conclusions or recommendations. One example will be the consideration of all reasonable conservation measures for possible implementation, rather than the list of measures considered in 2005-6.

The scope of work is designed to comply with applicable state and/or federal requirements for water conservation plans. The scope of work will generate a plan that specifically meets the intent of the City's Request for Proposal (RFP) as well as the US EPA Water Conservation Intermediate and Advanced Plan Guidelines.

WORK PLAN

Consultant will provide all necessary professional services to prepare the Water Conservation Master Plan. To this end, Consultant proposes to complete this study by working closely with the City to perform the following tasks.

Task 1 – Characterize Water Use Patterns

Compile Data. In order to conserve time, Consultant will provide the City with a list of data requirements and the City will provide all service area data, typically including the following types of data:

- Prior year(s) water use data on a monthly basis for the different classes of water users,
- Peaking factors for the water system, if available.
- Complete descriptions of past, present, and proposed future conservation programs including historic annual participation rates.
- Results of any independent analyses of water savings due to prior City programs.
- Historical and projected water system service area population, employment, land use data, and growth projections through the year 2020 or other suitable end year along with maps of the water system, political jurisdiction boundaries, and study area(s).
- Customer characteristics and data needed to characterize water conservation measures, as specified by Consultant, such as household size, dwelling unit mix, and number of facilities or businesses of a particular type.

Analyze Historical Water Use Data. Approximately five to ten years of monthly water use data will be analyzed to derive average per account per day water use. Data from each customer category will be analyzed separately. Depending upon the capabilities of the City's water billing system, residential water use will be broken down into single-family and multi-family categories. Historical data will be segregated into inside the indoor and outdoor water use by customer type using the monthly billing data.

From the above data, residential per capita water use values will be calculated for water use inside the home and outside the home. These values will be compared with other sources of municipal water use data applicable to the area. The reasonableness of the data will be checked. If necessary, the inside per capita values will be adjusted.

Other nonresidential categories of use will be analyzed separately. Average daily commercial/industrial and public water use will be expressed on a gallons per account and on a per employee or gallons per acre basis.

Task 2 - Prepare/Update Water Use Projection

Using the unit water use, demographics, land use information, and projections of population, employment and/or land use obtained from the City, Consultant will forecast water use by customer category through the year 2020 and beyond.

The purpose of this task is to identify those customer categories that have the highest potential for water conservation at average and peak demand, and to develop the data needed to quantify the savings from various measures. Consultant will develop pie diagrams showing the percentage of water consumption by customer type for current and future conditions.

Task 3 - Identify and Screen Demand Management Measures

The Consultant will review the water use profile and other sources and develop a "long-list" of potential water conservation measures that may be applicable for the service area. Consultant will include water conservation measures proposed by the City, as well as additional measures that Consultant believes may be appropriate for the area, such as the 14 California Urban Water Conservation Council Best Management Practices. Consultant recognizes that this list of BMPs is in the process of being revised and by December 2008 a new list of BMPs will be available and will be evaluated in this project.

This screen will remove measures that are inappropriate for further consideration based on the following suggested criteria:

- **Technology/Market maturity**. Is the technology commercially available and supported by the necessary service industry?
- **Service Area match.** Is the technology applicable to the climate, building stock, or equipment that is typical in the Client service area territory?
- **Customer acceptance/equity.** Are customers unwilling to implement the measure? Is it fair?
- **Secondary impacts.** Does the measure affect environmental health or safety, or raise political problems?
- **Better measure available.** If there is more than one measure that addresses a specific inefficiency in water use, is one measure equivalent in function and clearly more cost effective than other(s)?

Based on the results of the screening, a reasonable number of conservation measures (normally 20-40) will be selected for detailed analysis in Task 6.

Task 4 - Analyze Implementation Mechanisms

Consultant will evaluate a variety of program implementation mechanisms that will enhance uptake of short-listed conservation measures by City customers. This will include consideration of the following:

- **Financial incentives.** Customers may perceive barriers to adopting conservation technologies. These barriers can take a variety of forms, including lack of money, insufficient knowledge or skills, and difficulty in procuring water-efficient appliances or equipment. A water agency can offer incentives to help customers overcome these barriers. These could take the form of rebates, credits, cost sharing or low interest loans for approved conservation devices or equipment.

- **Educational.** Public information and education programs play a critical role in demand management. Education programs may be the most cost-effective way to encourage customers to adopt certain water-efficient behaviors or technologies. Consultant will identify which demand management alternatives are good candidates for education and information programs.
- **Regulatory.** A variety of mandatory measures, such as ordinances requiring retrofit upon resale or prohibitions against water waste, can be used to implement demand management alternatives. Consultant will identify measures for which ordinances or prohibitions are appropriate, taking into consideration economic and political factors.

For each implementation mechanism, Consultant will give examples of other water agencies that have used that mechanism in demand management.

Following this evaluation, Consultant will recommend the implementation mechanisms most appropriate for each of the individual demand management measures that passed the screening criteria.

Task 5 - Evaluate Demand Management Measures

The purpose of this task is to evaluate the water savings, benefits and costs of conservation measures and associated implementation mechanisms.

Information from Task 1 will be used to develop estimates of costs and savings for all water demand management alternatives that pass the initial screening. Consultant will estimate unit costs, unit water savings, and maximum potential water savings, for different implementation methods.

Consultant will compile the best measures into alternative programs each consisting of a package of measures that can work together. Consultant will prepare an estimate of overall water savings, benefits and costs for each alternative program considered. Normally three to four alternatives with increasing water savings are presented at this stage.

Task 6 - Evaluate Impact of Long-Term Measures on Short-Term Drought Contingency Plan (Demand Hardening)

As a part of the evaluation the Consultant will analyze the impact of demand hardening on future water demand and how the effectiveness of the long-term program is diminished during drought induced water restrictions.

Analyze prior drought performance, by customer class, separating indoor and outdoor reductions to see where the reductions occurred, provided data is available. If the majority of prior cutbacks were in outdoor use, then Consultant can conclude that new long-term programs targeted at indoor water use would not reduce drought performance nor be subject of demand hardening.

Each long-term measure will be evaluated and, if necessary, lower water savings during droughts assigned, so as to preserve the ability to cutback xx percent. Each measure will be assigned savings to complete the table shown below:

Task 7 - Prepare Technical Memorandum and Present Results

The Consultant will prepare a Technical Memorandum documenting the results of the water conservation analysis conducted in Tasks 5 and 6. Consultant will present the results of the analysis in appropriate tables and graphs. Consultant will review the results of the analysis with the City in a workshop. The Consultant assumes one presentation to the Oceanside Utilities Commission and then, after revisions, a presentation to the City Council

City may suggest one revision of alternative programs consisting of different packages of measures which the Consultant will analyze and report the results to the City. The Consultant shall receive approval of the analysis and findings and preliminary recommendations before proceeding to prepare the draft report.

Task 8 - Recommend Enhancements to the City's Drought Response Plan

Based on expected levels of future shortage various coping strategies will be developed. The Consultant will review the City's current Drought Response Ordinance and suggest enhancements and revisions. Coping strategies normally range from voluntary programs to mandatory water rationing. Temporary water use reductions from these actions are typically in the range of 5 to 35 percent.

One additional coping mechanism is to develop water offsets for new development that would apply during water shortages. During water emergencies developers could be required to build more water efficient new development than is otherwise required. Other approaches that have been used included deferring installation of landscaping in new homes until the water shortage has ended. "Zero Footprint" approaches have been used as well. See AWWA Journal article on this topic by Maddaus, May 2008. Various options will be evaluated and the Consultant and the City will decide upon the best approach.

Task 9 - Develop Draft Long-Term Water Conservation Plan

The Consultant will compile the results of the tasks above into a ten-year plan. In cooperation with the City, criteria will be developed for plan selection, which may include selecting the conservation actions based on, for example, a total water savings goal, a benefit-to-cost ratio greater 1.0, and/or available budget. The plan will consider the existing water conservation plans of the City and how these existing measures will work into this project.

After reviewing the Technical Memorandum prepared in Task 7 and receiving any City input, City will indicate its preferences for a preferred alternative to be developed into a draft plan

The Consultant will compile the best program elements into an integrated program with a staffing plan and an annual budget. Evaluation methodologies to track water savings of new recommended programs and existing programs and existing programs will be included in the plan. The draft plan will be reviewed with the City before the final report is written.

Task 10 - Prepare Report

Consultant will first prepare a report outline and submit for review and comment by the City. Upon revising the outline, a technical report that meets the City's specifications will be prepared (see suggested outline in Exhibit 1). All analysis results will be summarized in the body of the report and detailed in Appendices. Each source for water savings estimates will be referenced and the reliability of the data stated. The water savings and economic analysis including present worth and benefit-to-cost ratios will be provided. Implementation recommendations for integrating efficiency improvements with capital projects will be described. Consultant will produce the draft report for review (5 copies plus an electronic copy).

Revisions to the draft report and provision of 50 copies of a final report and an electronic copy will be made within 30 days of receipt of draft report comments and a meeting to discuss the same.

Task 11 - Project Management and Meetings

Close communication between City and Consultant is essential to keep the project on schedule. Depending upon the level of public and/or Commission/Council input selected an eight to twelve-month time frame is suggested for completion of this Water Conservation Master Plan. Frequent contact will be maintained between Consultant's project manager and the City's project manager. Written progress reports will be submitted by the first Friday of each month along with month invoices.

Consultant will attend four meetings with staff:

1. Kick-off meeting
2. Screening workshop (Task 3)

3. Review of results from Task 5 and 6 and Technical Memorandum described in Task 7.
4. Review comments on draft report and prepare for presentation to Utilities Commission and City Council.

The budget for Task 11 includes meetings 1 and 4. Meetings 2 and 3 are covered in tasks 3 and 7 respectively.

Other planned meetings/presentations include:
1. Two presentations described in Task 7 (budgeted in Task 7).
2. One each presentation to Utilities Commission and City Council of draft Plan (budgeted in Task 11).

Additional meetings if needed can be arranged.

Task 12 - Items to be Provided by the City

- Data as listed in Task 1 (monthly water billing data and description of current conservation program);
- Adopted population/employment projections;
- Data needed to characterize water conservation measures such as household size, dwelling unit mix, and number of facilities or businesses;
- Prompt review and comment on Technical memoranda and draft reports;
- Meeting locations and logistics for all project meetings and presentations;
- Distribution of meeting materials.
- Conservation programs in place.

PROJECT TIMELINE

MWM appreciates the need for effective communication and timely submittal of Interim Work products.

In the following table we have prepared a Preliminary Schedule. We are flexible about the schedule and have developed a schedule of tasks that will allow us to complete all work by July 1, 2009. We will provide updates of this schedule as the work progresses.

Table 7. Project Timeline

Task	Schedule (Complete By)
Kick-off Meeting with City of Oceanside staff	December 15, 2008
Complete Task 1, Characterize Water Use	January 15, 2009
Complete Task 2 - Update Demand Projection	February 16, 2009
Hold Measure Screening Workshop	March 16, 2009
Complete Task 3 -Identify/Screen Measures	March 23, 2009
Complete Task 4 -Analyze Implementation Mechanisms	March 30, 2009
Complete Task 5 -Evaluate Benefits & Costs	April 30, 2009
Complete Task 6- Evaluate Demand Hardening	May 15, 2009
Present Results to Staff, Commission, Council	June 15, 2009
Complete Task 7 -Tech Memo + Present Results	June 15, 2009
Complete Task 8 -Enhance Water Shortage Plan	June 22, 2009
Complete Task 9 -Develop Draft Plan	July 17, 2009
Submit Draft Report	July 24, 2009
Complete Task 10 - Prepare Final Report	August 17, 2009
Complete Task 11 and Project	August 17, 2009

BUDGET

Budget for Completing Tasks

Based on the assumptions inherent in Section 3, Scope of Work we have carefully estimated the number of hours by task to complete the work. Table 8 displays the detailed budget. We estimate the work will require about 640 hours and we have the resources to complete the work on schedule. Nearly all of the costs are labor costs. The estimated total cost of the work is about $125,000. This estimated budget includes 8 meetings in Oceanside. We are willing to considering fewer meetings or doing meetings as conference calls. We are flexible and open to discussing the scope and cost estimate.

Table 8. Estimated Professional Hours and for City of Oceanside Conservation Master Plan

TASK NO.	TASK DESCRIPTION	BUDGET, HOURS – Bill Maddaus $220/hr	BUDGET, HOURS – Michelle Maddaus $150/hr	OTHER DIRECT COSTS*
1	Characterize Water Use (a) Collect Data (b) Analyze Data (c) Prepare DSS Model Input Data	10	40	
2	Prepare/Update Demand Projection	10	40	
3	Identify/Screen Conservation Measures (a) Finalize Criteria (a) Compile Short-list	20	30	1,600
4	Analyze Implementation Mechanisms and Funding	20		
5	Evaluate Benefits & Costs w/DSS Model	40	80	900
6	Evaluate Demand Hardening	20		
7	Prepare Technical Memorandum and Present Results	60	40	2,400
8	Enhance Water Shortage Plan	10	20	
9	Prepare Draft Plan	20	20	
10	Prepare Final Report	40	70	
11	Project Management and Meetings	50		3,000
Sub-total Hours		300	340	
Subtotal Costs		**$66,000**	**$51,000**	**$8,000**
TOTAL	**All Tasks = $125,000**			

- Travel at actual cost, computer & telephone @$2.50 per labor hour charged