ATTACHMENT A: PROPOSED WORK SCOPE

1. PROJECT ADMINISTRATION

a. Project Management.
This work package includes all project management and communication activities required by the consultant to perform the study, including but not limited to:
- Kickoff Meeting
- Meeting minutes
- Monthly progress reports to Fort Ord Reuse Authority (FORA) staff
- Tracking project budgets and schedules
- Coordination with FORA Staff

b. Meetings & Travel
Up to eighty (80) hours for various meetings including Technical Advisory Committee (TAC), Administrative Committee, and Board Meetings.

c. Technical Review – Quality Assurance/Control.
Utilize an internal review process prior to control and release of all deliverables such that no (0-10) mistakes in grammar, punctuation or content are found. Utilize a version control system to ensure consistency across all documents.

d. Regular Progress Reporting.
Provide monthly reports including but not limited to:
- Actions completed
- Current status
- Updated schedule
- Updated budget (printed copy and in excel) % complete, remaining
- Proposed action plans, etc…

Anticipated Deliverables:

1.1 Monthly reports.
1.2 Agendas & Minutes of meetings as needed.
1.3 Meetings – Up to eighty (80) hours.

2. BACKGROUND SURVEY

a. Records Compilation & Database development.
Numerous water feasibility studies, water supply assessments, alternative studies, and technical reports have been completed within Monterey County. To prevent re-doing work completed in previous studies, and to benefit from the valuable data collection and analysis already completed, FORA, MCWD, & MRWPCA will work collaboratively with the consultant to obtain all available studies during the data & records compilation phase.

Review previously completed water source, supply and augmentation studies including feasibility, conservation and water demand studies from Santa Cruz County and San Luis Obispo County. Compile a list of previously studied alternatives. Review existing policy framework and identify state and county laws and policies that guide water augmentation planning in Monterey County. Develop an electronic database of available resources, pertinent policies, and information identified while performing the background survey. The database must include a bibliography and previously completed: feasibility studies; technical reports; recycled water ordinances; etc. The database should include a .pdf of each study/report and a hyperlink to the location found.

Quality assurance/quality control (QA/QC) of the data shall be conducted for any duplicate records and general checking of the data from various sources for uniform formats, parameters, and spatial information. The summary of the available data, identified data gaps, and associated data management systems will be incorporated into the Final Report.

b. Review the developments that led to this Analysis.
Investigate prior relevant analyses and reference the applicable document(s). Identify gaps to be addressed in this study. Prepare Background Survey Summaries. The summaries will be incorporated into the Final Report.

i. Summarize the basis for FORA Base Reuse Plan (BRP) Water Augmentation mitigation.
Review the BRP, the U.S. Army's 1993 Environmental Impact Statement (EIS), the BRP Environmental Impact Report (EIR), the Public Facilities Implementation Plan (PFIP), and associated documents. Clearly identify the basis for the Water Augmentation program and identify as many of the assumptions used to determine the various mitigation amounts and demand.

ii. Summarize Water Supply and Demand for the former Fort Ord area.

Studies have been performed by different jurisdictions. The BRP established mitigation requirements and water demand for the Former Fort Ord area. Review BRP assumptions, historical and current development forecasts and compare the information to completed studies.

iii. Summarize the RUWAP background.
The Regional Urban Water Augmentation Project (RUWAP) approved by the FORA board in 2005, was a hybrid project of Recycled Water and Desalinization. This Analysis intends to study the water supply options to the desalinization portion of the RUWAP. Review the RUWAP history and summarize the political environment, assumptions, constraints, risks, issues, and opportunities with the project.

c. Jurisdictional Summary and Analysis.
Provide GIS map of all agencies/district's service area boundaries and facilities. Develop a summary list of the jurisdictions and agencies, their rights, responsibilities, and expected roles in the context of the RUWAP and the former Fort Ord Area. Provide one PDF map per jurisdiction/agency. Provide one PDF composite map of all jurisdiction/agencies. Provide maps in a vector format and in a .dxf file.

Anticipated Deliverables:

2.1 *Database of available resources, pertinent policies, and information identified while performing the background survey. (in Excel or web based application)*

2.2 *Technical memorandum (TM) summarizing the regulatory action triggering the need for an analysis.*

2.3 TM explaining the basis for the FORA's BRP Water Augmentation mitigation, the original analysis & its underlying assumptions, and the BRP forecast demand reassessment.

2.4 Jurisdictional Summaries and Analysis.

3. ECONOMIC CONSTRAINTS AND STRATEGY ASSUMPTIONS

a. Identify Public Funding and Financing Options
Provide a concise summary of public funding and financing sources applicable for water augmentation options/alternatives that include the: issuing agency(ies); rates and terms; application requirements; applicability; timelines for application and award; and other relevant considerations. The information will be incorporated into the Final Report.

b. Identify Funding Mechanisms and Rate Structure Options

i. Review/interview peer agency revenue mechanisms and rate structures.

ii. Summarize and prioritize potential revenue mechanisms and their constraints. Provide a summary for each water augmentation option/alternative, for the 'FORA selected Top 3', and the preferred recommendation. Summarize implementation considerations & requirements. Outline pros and cons. Summarize cost allocations.

iii. Compare revenue mechanisms, constraints, and rate structures to peer agencies & similar structures.

Anticipated Deliverables:

3.1 TM identifying Public Funding, Mechanisms, and Rate Structure Options.
3.2 TM summarizing impacts and benefits to stakeholders.
3.3 TM describing possible economic strategies for implementing alternative water augmentations projects for the primary stakeholders.

4. ESTABLISH THE ALTERNATIVES ANALYSIS GROUND RULES

a. Summarize targets against which the alternatives will be assessed.
Identify the thirty (30) year strategic goals of Water Augmentation Program for the former Fort Ord. Identify target time horizon for implementation, establish time bound objectives, key milestones and regulatory constraints. Identify Key Challenges, risks, issues and opportunities.

b. Establish a Baseline.
Identify the baseline. Identify one (1) alternative as a baseline. Assess the baseline against the target goals and objectives. Develop at least three (3) viable alternatives to be compared against the target goals and the baseline. Water conservation must be included as one of the alternatives. An alternative may be a mix of options. Define the critical questions; list assumptions and constraints. Define criteria for viable/non-viable; identify representative solutions (systems/programs); and develop operational scenarios to use for comparisons/evaluation.

c. Develop Measures and Evaluation Criteria.
Work with FORA staff and come to consensus on evaluation criteria by which alternatives will be assessed. Develop weighting and measures for, but not limited to, the following criteria: Cost Effectiveness; Value; Ability to

Engage with Other Alternatives; Ability to Engage with Existing Systems; Percentage of Solution Contribution Economic Feasibility; Implementation Feasibility; Energy Usage; Environmental Acceptance; Ease of Risk Mitigation; Maintainability; and Time to Implement. Attention should be given to the economic and energy impacts of global climate change (seawater rise, aquifer impacts), and changes due to geography (erosion, gravity, inland locations etc.).

Anticipated Deliverables:

4.1 TM summarizing thirty (30) year strategic goals, milestones and key Challenges (Risks), Issues and Opportunities.

4.2 TM defining the evaluation criteria.

4.3 Evaluation criteria and weightings matrix. (in Excel)

5. WATER AUGMENTATION AND ALTERNATIVES ANALYSIS

The analysis of alternatives should be sufficiently detailed and rigorous to permit independent comparative evaluation of the benefits, costs, and environmental risks of the baseline and each reasonable alternative. An alternative may consist of a 'portfolio of alternatives' or a mix of solutions.

a. Study and identify whether more or less than 1,427 AFY of advance treated water is needed to serve the Ord Community.

   i. Reassess the demand basis for 2,400 AFY of recycled water.
   Review the BRP Appendix B (Volume 3), PFIP figure 2-7 and the assumptions used to determine the need for 2,400 AFY. Reassess the demand forecast for recycled water given, but not limited to, the jurisdictional general plans, the long-term strategic goals, and the land use jurisdictions development forecasts over a thirty (30) year horizon.

b. Identify the Technical Requirements for each Alternative.

   Determine the technical requirements, design and regulatory constraints for each alternative. Identify the impacts on the technical requirements on the economics and feasibility of the alternative.

c. Perform a Feasibility Analysis for each Alternative.
   Perform a cost/benefit analysis for each alternative. Perform a preliminary review to determine whether the selected Alternatives are technically, financially, and operationally viable within the regulatory constraints. Determine the feasibility of implementing each alternative.

d. Perform a Cost/Benefit Analysis for each Alternative.

Determine the economics of each option, the potential scope, cost to implement and direct/indirect costs of operation.

Describe the planned approach for addressing the fully burdened cost to implement. Describe the approach to the life-cycle cost (or total ownership cost). Estimate in constant dollars, adjust for discounting (time value of money) and account for the distribution of the costs over 30 years. The cost estimates should account for any life cycle costs associated with capital assets that have remaining useful value at the end of the period of analysis. Perform a sensitivity analysis for the critical assumptions and identify the upper and lower cost bounds (or probabilistic distribution) for each alternative.

Identify the impact and benefits for each jurisdiction/agency/district. For each identified beneficiary, characterize the realized benefit(s) that would accrue because of FORA's Water Augmentation program. This summary should be qualitative in nature. The identified impacts and benefits will be incorporated into the Final Report.

e. Perform Effectiveness Analysis for each Alternative.
Summarize the analytic approach to the analysis. Address sensitivity analyses in the overall effectiveness analysis. Typically, there are a few critical assumptions that often drive the results of the analysis, and it is important to understand and point out how variations in these assumptions affect the results. In such cases, the effectiveness analysis should describe how sensitive the outcomes are to the assumed performance estimates.

f. Perform Cost vs. Effectiveness Comparative Analysis.
Compare Alternative Costs to Alternative Effectiveness. Reduce analysis down to a simple chart.

Anticipated Deliverables:

5.1 TM that summarizes the reasoning for selecting the Proposed Alternatives.
5.2 TM that summarizes the Technical Requirements of each Alternative
5.3 TM that summarizes the Feasibility and Cost/Benefit Analysis for each alternative.
5.4 TM that summarizes the Effectiveness Analysis.
5.5 TM that summarizes the Cost Effectiveness Comparative Analysis.
5.6 Excel File with all forecast demand data, cost analysis assumptions and equations, effectiveness criteria/weighting calculations, and comparative analysis.

6. STRATEGY RECOMMENDATIONS

a. Evaluate the Top 3 Alternatives.
Evaluate the Top 3 Alternatives in terms of the program's operations, implementation, and service delivery capacity. Identify benefits and gaps for each. Develop a list of strategies and prioritizations for implementing each alternative.

b. Recommend a Preferred Alternative.
Identify and recommend an approach to be presented to FORA, MCWD and MRWPCA Boards for input.

Anticipated Deliverables:

6.1 Detailed Evaluation of the Top 3 Alternatives including deficiency analysis.

6.2 TM summarizing Evaluation and Recommendation of a Preferred Augmentation Approach.

7. FINAL REPORTS

a. Incorporate Technical Memos into Final Water Augmentation Initial Alternatives Report.
Upon Notice of Board Consensus, and in coordination with MCWD, incorporate the TM's and relevant information including, but not limited to, regional descriptions, objectives, stakeholder outreach and coordination into a final report. Expect to support incorporation through final release.

b. Develop a draft implementation strategy from which others may prepare a CIP development plan.
Prepare water augmentation strategy for the former Fort Ord area based on the recommended water augmentation approach. The strategy should be sufficient for the development of a Project Phasing approach to draft a CIP development plan by others.

Anticipated Deliverables:

7.1 TM proposing an implementation strategy sufficient for another entity to develop Capital Improvement Project plans.

7.2 Water Augmentation Report Incorporation Administrative Draft.

7.3 Water Augmentation Report Incorporation Draft.

7.4 Water Augmentation Report Incorporation Final Release.

DELIVERABLES LIST (SUMMARIZED)

1. PROJECT ADMINISTRATION

1.1. Monthly reports.
1.2. Agendas & Minutes of meetings as needed.
1.3. Meetings - up to 80 hours

2. BACKGROUND SURVEY

2.1. *Database of available resources, pertinent policies, and information identified while performing the background survey. (in Excel or web based application)*
2.2. *Technical memorandum (TM) summarizing the regulatory action.*
2.3. TM explaining the basis for the FORA's BRP Water Augmentation mitigation
2.4. Jurisdictional Summaries and Analysis.

3. ECONOMIC CONSTRAINTS AND STRATEGY ASSUMPTIONS

3.1. TM identifying Public Funding, Mechanisms, and Rate Structure Options.
3.2. TM summarizing impacts and benefits to stakeholders.
3.3. TM describing possible economic strategies for implementing alternative water augmentations projects for the primary stakeholders.

4. ESTABLISH THE ALTERNATIVES ANALYSIS GROUND RULES

4.1. TM summarizing thirty (30) year strategic goals, milestones and key Challenges (Risks), Issues and Opportunities.
4.2. TM defining the evaluation criteria.
4.3. Evaluation criteria and weightings matrix. (in Excel)

5. WATER AUGMENTATION AND ALTERNATIVES ANALYSIS

5.1. TM that summarizes the reasoning for selecting the Proposed Alternatives.
5.2. TM that summarizes the Technical Requirements of each Alternative
5.3. TM that summarizes the Feasibility and Cost/Benefit Analysis for each alternative.
5.4. TM that summarizes the Effectiveness Analysis.
5.5. TM that summarizes the Cost Effectiveness Comparative Analysis.
5.6. Excel File with all forecast demand data, cost analysis assumptions and equations, effectiveness criteria/weighting calculations, and comparative analysis.

6. STRATEGY RECOMMENDATIONS

6.1. *Detailed Evaluation of the Top 3 Alternatives including deficiency analysis.*
6.2. *TM summarizing Evaluation and Recommendation of a Preferred Augmentation Approach.*

7. FINAL REPORTS

7.1. TM proposing an implementation strategy sufficient for another entity to develop Capital Improvement Project plans.
7.2. *Water Augmentation Report Incorporation Administrative Draft.*
7.3. *Water Augmentation Report Incorporation Draft.*
7.4. *Water Augmentation Report Incorporation Final Release.*

Reference Material:
Click + Control to follow the hyperlink:

Fort Ord Reuse Authority (FORA)

1. FORA Database of Governing Documents
2. FORA Base Reuse Plan
3. FORA Public Facilities Implementation Plan (PFIP) See PFIP Section 3

Marina Coast Water District (MCWD)

1. MCWD Engineering Documents
2. MCWD 2015 Urban Water Management Plan
3. MCWD 2004 Ord-Community Water Distribution Master Plan