

## ATTACHMENT A: PROPOSED WORK SCOPE

### 1. PROJECT ADMINISTRATION

a. Project Management.

This work package includes all project management activities and meeting attendance required by the consultant to facilitate the study, including but not limited to:

- Kickoff Meeting
- Maintaining progress schedules
- Budget oversight
- Monthly progress reports to Fort Ord Reuse Authority (FORA) staff
- Coordination / meetings with Technical Advisory Group (TAG) & Stakeholders

b. Technical Review – Quality Assurance/Control.

Utilize an internal review process prior to control and release of all deliverables such that no (0-5) mistakes in grammar, punctuation or content are found.

c. Coordination/Facilitation.

Coordinate, Notify and Facilitate meetings and workshops with the TAG, Jurisdictions, and Boards as needed, throughout the study. It is anticipated that the key stakeholders will be the TAG, Marina Coast Water District (MCWD), Monterey Regional Water Pollution Control Agency (MRWPCA) and FORA.

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)
- Proposed action plans

***Anticipated Deliverables:***

1.1 *Monthly reports.*

1.2 *Agendas & Minutes of public meetings as needed.*

## 2. BACKGROUND SURVEY

- a. Review the developments that led to this Initial Alternatives Analysis.  
Investigate prior relevant analyses and reference the applicable document(s) identifying the need. Highlight gaps to be addressed in this study. The summaries will be incorporated into the Final Report.
  - i. Review and 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. Research and summarize Water Supply and Demand for the former Fort Ord area.  
Alternatives studies have been performed by different jurisdictions. The BRP established mitigation requirements and water demand for the Former Fort Ord area. Review BRP assumptions and compare it to previous studies. Compile and compare existing studies, see links provided. Build upon prior studies and reassess the underlying assumptions. Summarize the existing and projected thirty (30) year water demand for the former Fort Ord area and compare it to previous studies.
  - iii. Review and 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 Initial Alternatives 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.
  - iv. Reassess the forecasted 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. Jurisdictional Summary and Analysis.

Research jurisdictions and agencies with the right to deliver water, collect and treat sewage, or provide other public services within the vicinity of the former Fort Ord. Map their service area boundaries and develop a summary list of the jurisdictions and agencies, their rights, responsibilities, and expected roles in the context of the RUWAP. Provide one map per jurisdiction/agency. Provide one composite map of all jurisdiction/agencies. Provide maps in a vector (.eps, or .pdf) and in a .GIS file.

c. Data 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 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.

***Anticipated Deliverables:***

- 2.1 *Jurisdictional Summaries and Analysis.*
- 2.2 *Technical memorandum (TM) summarizing the regulatory action triggering the need for an initial alternatives 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 *Stakeholder /Agency summary list and points of contact. (in Excel)*

2.5 *Database of available resources, pertinent policies, and information identified while performing the background survey. (in Excel)*

### 3. ECONOMIC CONSTRAINTS AND STRATEGY ASSUMPTIONS

a. Stakeholder Impacts & Benefits Assessment.

The former Fort Ord area is made up of a diverse group of stakeholders which include The Ord Military Community, five coastal cities, Monterey County, CSUMB, UCSC, and MPC Community College. It is necessary to identify and summarize the various stakeholders, and provide a stakeholder analysis for the TAG.

Identify and summarize the apparent beneficiaries of the FORA water augmentation program in order to inform cost allocation considerations for the TAG. 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.

b. Identify Public Funding and Financing Options

Provide a summary of public funding and financing options that may be relevant to consider when developing a water augmentation program financial plan, such as federal and state grant and subsidized loan programs. 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.

c. Identify Funding Mechanisms and Rate Structure Options

- i. Review/interview peer agency revenue mechanisms and rate structures. Assess water and sewer user charges, recycled connection fees and user charges, benefit assessments, developer fee/contributions, etc.
- 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 *Stakeholder impacts and benefits. (in Excel)*
- 3.4 *TM describing possible economic strategies for implementing alternative water augmentations projects for the primary stakeholders.*

**4. ESTABLISH THE ALTERNATIVES ANALYSIS GROUND RULES**

- a. Plan, Organize, and Facilitate workshops for/with the TAG:  
Develop a plan to engage member agencies. Identify and define key Risks, Issues and Opportunities (RIO) including identifying gaps, constraints and benefits. Identify and define regional long-term (30-year) strategic goals. Define measurable, time-bound objectives, resultant milestones, and applicable constraints.
- b. Establish a Work Plan.  
Identify the baseline. Develop at least four (4) viable alternatives to be compared against a baseline. Water conservation must be included as one of the alternatives. 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 the staff(s) to 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 that summarizes key Challenges (Risks), Issues, and Opportunities.*
- 4.2 *TM that summarizes thirty (30) year strategic goals with five year increments.*

- 4.3 *Time-bound objectives, milestones, and applicable constraints. (in Excel or equal)*
- 4.4 *TM that summarizes alternatives, critical questions, assumptions & constraints, viability, representations, and operational scenarios.*
- 4.5 *Evaluation criteria and weightings summary. (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.

- a. Develop Baseline Metrics.  
Review the BRP and various RUWAP studies and plans. Develop the baseline metrics by which to compare alternatives. Review the metrics with the TAG prior to moving forward with the alternatives analysis.
- b. Develop an 'all-of-the-above' or 'portfolio' of water augmentation options/alternatives solutions.  
Use stakeholder input, the identified need, background, and evaluation criteria to develop no more than three 'portfolio' alternatives. A 'Portfolio Alternative' consists of two or more alternatives which, when mixed, can meet the augmentation requirement. At least one 'Portfolio Alternative' must include conservation as an alternative.
- c. Perform a Feasibility Analysis for each Alternative, and 'Portfolio Alternative'.  
Perform a preliminary review to determine whether the selected Alternatives are technically, financially, and operationally viable within the regulatory constraints.
- d. Perform a Cost Analysis for each Alternative, and 'Portfolio Alternative'.  
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.
- e. Perform Effectiveness Analysis for each Alternative, and 'Portfolio Alternative'.

Spell out the analytic approach to the analysis, which should be built upon the measures and evaluation criteria, the economic constraints, and the nature of the selected alternatives to assess the effectiveness of the alternative and its outcomes. 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 Proposed Alternatives including 'Portfolio Alternatives'.*
- 5.2 *TM that summarizes the Feasibility Analysis.*
- 5.3 *TM that summarizes the Cost Analysis.*
- 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. Facilitate Decision Making Process for recommending the Preferred Alternative.  
Coordinate, notify and facilitate a workshop with the Technical Advisory Group (TAG), to determine the TAG's preferred Alternative. Facilitate a Decision-Making Process with the TAG over 3 meetings.
- c. Recommend a Preferred Alternative.  
Identify and recommend an approach to be presented to FORA, MCWD and MRWPCA Boards for input. Plan for up to 10 meetings.

***Anticipated Deliverables:***



- 6.1 *Detailed Evaluation of the Top 3 configurations 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. *Agenda's & Minutes of public meetings as needed.*

### **2. BACKGROUND SURVEY**

- 2.1. *Jurisdictional Summary and Analysis.*
- 2.2. *Technical memorandum (TM) summarizing regulatory action triggering the need for analysis*
- 2.3. *TM explaining the basis for the FORA's BRP Water Augmentation mitigation.*
- 2.4. *Stakeholder /Agency summary list and points of contact. (in Excel)*
- 2.5. *Database of available resources, pertinent policies, and information identified. (in Excel)*

### **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. *Stakeholder impacts and benefits. (in Excel)*
- 3.4. *TM identifying and describing possible economic strategies for implementing alternative water augmentations projects for the primary stakeholders.*

### **4. ESTABLISH THE ALTERNATIVES ANALYSIS GROUND RULES**

- 4.1. *TM that summarizes key Challenges (Risks), Issues, and Opportunities.*
- 4.2. *Summary of the twenty-year strategic goals with two year and five year increments.*
- 4.3. *List of time-bound objectives, milestones, and applicable constraints (in Excel).*
- 4.4. *TM that summarizes Alternatives, critical questions, assumptions & constraints, viability, representations, and operational scenarios.*
- 4.5. *Summary of Evaluation Criteria and Weightings. (in Excel)*

### **5. WATER AUGMENTATION AND ALTERNATIVES ANALYSIS**

- 5.1. *TM that summarizes the Proposed Alternatives including 'Portfolio Alternatives'.*
- 5.2. *TM that summarizes the Feasibility Analysis.*
- 5.3. *TM that summarizes the Cost Analysis.*
- 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 determination data, cost analysis assumptions and equations, effectiveness criteria/weighting calculations, and comparative analysis.*

### **6. STRATEGY RECOMMENDATIONS**

- 6.1. *Detailed Evaluation of the Top 3 configurations 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 Review 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](#)