

# The SHIBATANI GROUP, INC.

*Water Supply Strategic Planning, Climate Change Hydrology, New Reservoir Development  
And CVP/SWP Operational Compliance for California's Water Industry*

August 27, 2013

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**DELIVERED BY MAIL**

Mr. David Stoldt, P.E.  
General Manager  
Monterey Peninsula Water Management District  
5 Harris Court, Building G  
Monterey, California 93940

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MPWMD

**Re: Los Padres Dam and Reservoir Acquisition – Long-Term Strategic and Short-Term  
Tactical Plan  
Proposed Scope of Work**

Dear David:

Please find set out below for your review and consideration a Scope-of-Work regarding the above referenced matter; *Los Padres Dam Acquisition – Long-Term Strategic and Short-Term Tactical Plan* (the "Plan"). This Scope-of-Work outlines the activities proposed to be undertaken by Robert Shibatani, CEO & Principal Hydrologist with The SHIBATANI GROUP, Inc. (the "Consultant") in the development of the Plan. Work activities are identified by Tasks that follow sequential undertakings. Individual Tasks, while part of the overall Plan, can be removed at the discretion of the District or, additional Tasks added, depending on the specific interests and desires of the District and as opportunities may arise. In other words, while the Scope-of-Work identifies specific Tasks, a flexible and adaptable approach will ensure that only the most effective and opportunistic activities are pursued. The District and Consultant will maintain close collaboration to ensure the appropriate, effective, and timely engagement of the proposed work activities.

A proposed schedule and cost estimate are provided that match both the anticipated timeline and level of effort expected for this project.

## **Project Understanding and Context**

It is understood that the District seeks to enhance its long-term water supply security across its various assets (both infrastructure and entitlements). Its service area and source areas lie within the highly sensitive Carmel River watershed where future water availability through adjudicated groundwater basins, water right entitlement limitations, instream operational

constraints, and the uncertainty of future allowable diversions provide a critical backdrop in long-term water supply security planning for the District.

Increased regulatory constraints such as SWRCB Order 95-10 will have a significant effect on allowable water diversions from the Carmel River by 2017. Anticipated shortages by 2021 may exceed 7,000 AFA in a dry-year (given current supplies).

While the California American Water Company ("Cal-Am") has advanced its Monterey Peninsula Water Supply Project ("MPWSP") including many distinct though interrelated actions; the technical feasibility, permitting complexity, and imprecise costs associated with a major element, the proposed desalination plant in Marina, make the reliability of this action somewhat uncertain and should at least warrant contingency planning by affected parties.

At this time, the District seeks to further evaluate the merits of retaining the Los Padres Dam and Reservoir and explore the potential for yield enhancement of the facility perhaps as part of a wider District effort to investigate new water supplies. Several factors elevate the urgency of this objective. First, NOAA Fisheries continues to encourage Cal-Am to evaluate ultimate removal of the dam. Second, as part of Cal-Am's 2015-17 General Rate Case application to the CPUC and requested funds to initiate the evaluation of the dam's removal, Cal-Am has made it clear that its priorities are centered on appeasing NOAA Fisheries concerns (e.g., Draft South-Central California Coast Steelhead Recovery Plan).

The risk to the District is that the limited nature of the Cal-Am feasibility effort may overlook key issues that would seem relevant from a basin-wide water supply security perspective. Issues such as water rights, baseline hydrology (e.g., unimpaired flows), anticipated future extreme event hydrology, upstream habitat character, operational limitations, long-term sediment management, downstream floodplain implications, U.S. Forest Service future land and fire management practices, among many others should be part of any genuine investigation into the long-term viability of Los Padres Dam. At this time, however, Cal-Am has not committed to including these important elements in its pending Feasibility Study for the dam.

Ideally, each of the above noted factors should be incorporated into the analysis to assure that a full range of issue-sensitive alternatives is developed. These could then be ranked and screened using a variety of tiered weighting procedures. Currently, Cal-Am's alternatives are limited to only two options (i.e., dam removal and variations in reservoir restoration) with the primary focus again, seemingly directed only towards improved downstream habitat conditions.

Maintaining Los Padres Dam and Reservoir is a vital element of the District's overall future water supply reliability plan. Notwithstanding operational degradation of the reservoir storage capabilities over time, a broader more considered look into all of the related issues associated with the dam's continuing functionality is important to properly (and fully) assess the future long-term water supply implications of this facility. The District's interests in the watershed require that it consider a stronger more deliberate posture with respect to its anticipated involvement in the MPWSP and particularly, regarding the final disposition of Los Padres Dam and Reservoir.

This Plan, in one document, would provide the District with a contemporary and forward-looking assessment of the technical and institutional challenges, benefits, and opportunities regarding the acquisition of Los Padres Dam and Reservoir and a stepwise plan of action for the short-, intermediate, and long-term.

### **Project Objective**

*The project objective is to prepare a **multi-faceted long-term strategic and short-term tactical plan** that, through an evaluation of the benefits and risks of the District acquiring the Los Padres Dam and Reservoir, will generate technical and institutional information that can be used as negotiating support with Cal-Am, NMFS, other public trust resource agencies, and vested stakeholders.*

### **Proposed Work Activities (Scope-of-Services)**

The proposed work activities can be categorized into several areas; information consolidation, issue-specific evaluation and presentation (e.g., trial balloons), identification of District actions, and integrated Plan preparation and review. In summary, the Plan will provide various categorized rationale that can be used as supporting arguments to Cal-Am, NMFS, and other agencies/stakeholders for the District to retain Los Padres Dam. The rationale themselves can be viewed as *trial balloons* since they can serve as independent supporting arguments in the District's ongoing discussions with Cal-Am and others.

Critical to the effective execution and progress of this Scope-of-Work will be the requirement for close integration and partnering with District staff. Working closely with the District Engineer and, as necessary, the Water Resources and Water Demand managers, the Consultant will undertake the activities in a phased manner. The General Manager will provide strategic oversight consistent with the agreed upon approach and is expected to offer continual *ad hoc* direction and guidance as circumstances and specific issues unfold.

The District has already identified the need for specific studies involving a range of instream and unimpaired flow analyses necessary in order to properly establish a new hydrological baseline for the watershed. These would be performed under varying long-term management scenarios for Los Padres Dam. This Scope-of-Work assumes that consultant teams are already undertaking those efforts on behalf of the District (e.g., updated IFIM studies to characterize current Cal-Am operations on the Carmel River). Similarly, it is recognized that a full economic cost-benefit analysis on various yield enhancement scenarios and an environmental effects evaluation of the two Cal-Am alternatives is being conducted by separate consultant teams. These ongoing parallel efforts can help support this current Scope-of-Work.

The following specific Tasks make up this Scope-of-Services:

### **Task 1            Review and Consolidate Pertinent Data and Information**

Consultant will review and consolidate the extensive information data that exists related to Los Padres Dam and Reservoir. This effort will be necessary to support Tasks 2 and 3 following. Key issues will be fashioned from recent studies, data trends (e.g., from MPWRS reporting), MPWSP progress reports, Recovery Plan preparations, etc. This consolidation will help focus development of the rationale documents in Tasks 2 and 3. An outline of the Plan will be prepared during this initial Task and vetted by District staff.

### **Task 2            Develop Technical Rationale**

Consultant will develop technical rationale for each of the key issues related to Los Padres Dam. At this time, Consultant envisions five technical area constraints and opportunities. These include:

1. Dam Facility (tied to dam removal or enhancement)
2. Dam Operations/Sediment Management (tied to dam removal or enhancement)
3. Instream Hydrological Conditions (current and future)
4. Instream Habitat Conditions
5. Water Demand/Supply

The rationale will be technically based and highlight both constraints and opportunities to both the District and Cal-Am. As noted previously, supplemental and supporting information currently being generated by the District will be integrated as appropriate into these five technical areas. So, for example, the environmental effects analysis associated with dam removal or enhancement will provide additional insight into the Dam Facility rationale.

DELIVERABLES: Five technical rationale statements.

### **Task 3            Develop Institutional and Regulatory Rationale**

Consultant will develop rationale for each of the institutional and regulatory issue related to Los Padres Dam. At this time, Consultant envisions four areas of relevant institutional and regulatory constraint.

1. Water Rights
2. Steelhead Recovery Plan Implementation
3. MPWSP Implementation
4. Seaside Groundwater Basin

The rationale will be focused on the institutional and regulatory constraints posed by these categories. All federal ESA issues, for example, will be included under the Steelhead Recovery Plan Implementation rationale. There will be some overlap with the technical rationale since each issue is complex and possesses multiple implications. Water supply enhancement at Los Padres Reservoir, for example, while a technical water supply issue also involves land governance and institutional issues as the high water mark, depending on the size of the expansion, could inundate portions of the Ventana Wilderness. Water portfolio analysis and firm yield risk analysis will occur under the MPWSP Implementation rationale where each of the water supply "projects" are integrated into an overall future basin water supply demand. An

expanded Los Padres Reservoir supply, from the District's perspective, is an important consideration that merits continued exploration and inclusion in any future basin-wide supply investigation.

DELIVERABLES: Four institutional and regulatory rationale statements.

#### **Task 4            New Alternatives**

Consultant will, based on the constraints and opportunities identified and evaluated in Tasks 2 and 3, develop potential new alternatives (not currently being considered by Cal-Am). These could include hybrid alternatives that combine or rely on various elements from the technical or institutional/regulatory rationale. New elements of the alternatives will be described. As part of the District intent to broaden the scope of Cal-Am's feasibility investigation of Los Padres Dam, Consultant will look at all possible permutations to enhance Los Padres Reservoir supply. This Task represents an important undertaking and will require close coordination between Consultant and District staff.

DELIVERABLE: Memorandum describing the New Alternatives.

#### **Task 5            Alternatives Screening**

Consultant will apply a detailed screening process to refine the listing of new alternatives down to a reasonable and feasible range. Screening criteria could be two tiered; the first set of primary criteria would focus on the direct needs and objectives of the District (e.g., there is no benefit in carrying forward alternatives that do not meet the needs of the District). The second set of criteria would cover the full range of evaluative weighting measures including regulatory, institutional, technical feasibility, water quality, timing/efficiency, public health and safety, and economics (cost/benefit) considerations as well as environmental fatal flaws. A full discussion of how each alternative fares against these criteria will be provided.

DELIVERABLE: Memorandum describing the results of the Alternatives Screening.

#### **Task 6            Identify "If/Then - Road Map"**

Consultant will develop a sequential step-by-step "road map" that will be based on a series of current and anticipated "if-then" questions or sequences. So, for example, if Cal-Am remains firm on its position to only focus its Feasibility Study on NOAA Fisheries concerns, what are the District's options? Additionally, if the SWRCB becomes amenable to a relaxation of the diversion schedule cutbacks owing to critical back-to-back dry years, how would that, if at all, influence the MPWSP objectives or District priorities?

Such a "road map" is essential for a long-term strategic plan since it lays out the critical decision points and challenges facing the District. It also provides a transparent and considered response to key decisions. It is valuable for short-term tactical positioning since it can provide the District with an immediate overview of current actions based on pre-determined decision responses;

the overall objectives are always clear and can be reviewed constantly by District Board members, management, and staff. The complexity of the "If/Then – Road Map" will require careful coordination with the District to ensure that the proper responses are captured.

**Task 7                    Integrate All Elements into Draft Plan**

All elements of the aforementioned elements (i.e., Tasks 2 through 6) will be integrated into a cohesive single document or Plan. This Plan document will be Draft in its first compilation.

DELIVERABLE: Draft Plan.

**Task 8                    Review of Draft Plan**

The Draft Plan will be circulated within the District (e.g., Water Supply Planning Committee) for review and comment. At the District's discretion, the review could be expanded to external agencies as well. Comments received from outside agencies and participating stakeholders will be reviewed collaboratively with the Consultant and District to identify contentious issues, possible risks, and the most efficient means of addressing or notating the comments. Revisions to the Draft Plan will be part of Task 9: Finalize Plan.

**Task 9                    Finalize Plan**

Consultant will work with District staff in addressing comments and questions on the Draft Plan and finalizing the Plan.

**Task 10                  Identify Potential Funding Sources**

Consultant will investigate potential funding sources to help underwrite various elements of the District's Plan and identified long-term water supply options (e.g., acquisition of Los Padres Dam). Potentially available federal and State funding sources will be explored as well as the potential bond and private equity markets. Without external funding, increased expenditures by ratepayers to fund the San Clemente Dam removal and the various water supply elements of the MPWSP, let alone removal or enhancement of Los Padres Dam will be significant and highly contentious.

**Task 11                  District Technical Planning Meetings**

It is assumed that 2 technical planning meetings will be required between the Consultant and District staff during the development of the Plan. The initial meeting will serve as the project kick-off meeting. Each technical planning meeting is assumed to be 2-3 hours. Consultant will efficiently triage issues for discussion providing agendas beforehand and documenting agreed upon actions in summary form following each meeting.

## **Task 12      Committee/Board Meetings and Presentations**

It is assumed that the Consultant will be requested to attend and/or make presentations at various Committee and/or Board meetings including, but not necessarily limited to the Carmel River Advisory Committee, District Water Supply Planning Committee, District Board of Directors' Meeting. It is assumed that a meeting with each of these groups are anticipated over the course of the project (total of 3 meetings) with preparation time included for the development of formal presentations for each group (total of 3 formal presentations).

Possible requests for meetings with various stakeholder groups including NOAA Fisheries, California Department of Fish & Wildlife, Monterey County Resource Management Agency, Monterey County Water Resources Agency, Big Sur Land Trust, Carmel River Steelhead Association, and others are likely. It is assumed that 2 additional meetings with any combination of the above groups will be required.

### **Contingency**

As noted previously, the development of this Plan will be a fluid and dynamic exercise. This Scope-of-Work, therefore, includes a contingency allowance. A number of hours are unallocated to specific activities. It is proposed that these hours be set aside solely to provide a means to accommodate unknown requests for activities that may arise during the course of the project. Rather than stop the process and seek contractual amendments, this Contingency provides the means to proceed with those work activities in order to avoid losing the advantages provided by the *ad hoc* opportunity. **No time can be billed to the Contingency without the express written consent of the District.** No monies under the Contingency, therefore, would be expended if no out-of-scope activities arise.

As a final suggestion, given the sensitive nature of these anticipated work activities and the need to ensure that the information is released only under the District's own strategic timetable and in the manner the District desires, District Counsel may wish to place this assignment under attorney-client privilege.

### **Proposed Schedule**

Work activities under this Scope-of-Work can commence immediately upon the District issuing a Notice to Proceed. Acknowledging the benefits of expediency, the project is proposed to be laid out over a short period of time. There is no need or benefit in extending a project schedule unnecessarily. A committed block of time has the advantage of maintaining focus on project issues, avoiding "restart" time, and generating innovative momentum.

Assuming a Notice to Proceed on **October 1, 2013**, the following expedited schedule is proposed:

<b>Task 1 Review and Consolidate Pertinent Data and Information</b>	<b>October 14, 2013</b>
<b>Task 2 Develop Technical Rationale</b>	<b>October 28, 2013</b>
<b>Task 3 Develop Institutional and Regulatory Rationale</b>	<b>November 4, 2013</b>
<b>Task 4 New Alternatives</b>	<b>November 18, 2013</b>
<b>Task 5 Alternatives Screening</b>	<b>December 2, 2012</b>
<b>Task 6 Identify "If/Then - Road Map"</b>	<b>December 9, 2013</b>
<b>Task 7 Integrate All Elements into Draft Plan</b>	<b>December 30, 2013</b>
<b>Task 8 Review of Draft Plan</b>	<b>January 17, 2014</b>
<b>Task 9 Finalize Plan</b>	<b>January 24, 2014</b>
<b>Task 10 Identify Potential Funding Sources</b>	<b>October 14, 2013</b>

Note: Highlighted key milestone deliverables.

Some flexibility should be built into the schedule to accommodate unknown meeting times with various Committees, Boards, or external parties (the latter whose schedule accommodation will remain an unknown factor).

### Proposed Budget

A preliminary proposed budget is provided below. Only professional labor is charged. The 2013 labor rate is fixed through the duration of the project.

<b>Los Padres Dam and Reservoir Acquisition – Long-Term Strategic and Short-Term Tactical Plan</b>		
<b>Task</b>	<b>Hours</b>	<b>Budget</b>
	<b>@\$225/Hr</b>	
<b>1. Review and Consolidate Pertinent Data and Information</b>	12	\$2,700
<b>2. Develop Technical Rationale</b>	40	\$9,000
<b>3. Develop Institutional and Regulatory Rationale</b>	32	\$7,200
<b>4. New Alternatives</b>	24	\$5,400
<b>5. Alternatives Screening</b>	8	\$1,800
<b>6. Identify "If/Then - Road Map"</b>	24	\$5,400
<b>7. Integrate All Elements into Draft Plan</b>	28	\$6,300
<b>8. Review of Draft Plan</b>	12	\$2,700
<b>9. Finalize Plan</b>	8	\$1,800
<b>10. Identify Potential Funding Sources</b>	8	\$1,800
<b>11. District Technical Planning Meetings</b>	16	\$3,600
<b>12. Committee/Board Meetings and Presentations</b>	36	\$8,100
<b>Total Labor</b>	<b>248</b>	<b>\$55,800</b>
<b>Total Disbursements (No expenses are charged)*</b>		<b>\$0</b>
<b>Total Estimated Budget</b>		<b>\$55,800</b>
<b>Contingency</b>	16	\$3,600
<b>Total Estimated Budget with Contingency</b>		<b>\$59,400</b>
<small>*No direct expenses such as mileage, courier/postage, supplies, copying, accommodations, etc. are charged.</small>		

The total estimated budget is **\$55,800**. If the Contingency is included, the total estimated budget is **\$59,400**.



Thank you for the opportunity to provide this Scope-of-Work. I look forward to assisting the District on this timely and important strategic planning exercise.

If you have any questions or require further enhancement, please feel free to contact me at (916) 719-7612.

Sincerely yours,

**The SHIBATANI GROUP, Inc.**

A handwritten signature in black ink, appearing to read 'R. Shibatani', with a horizontal line extending from the end of the signature.

Robert Shibatani  
CEO & Principal Hydrologist

RS/sj