

## Project Management Team and Science Team Responses to National Science Panel Recommendations

*June 13-14, 2005 Meeting Report*

<b>NSP Recommendation (section in the NSP report)</b>	<b>PMT/ST Response</b>
PMT, ST and CT need to be in sync and move toward a common goal (Section 2.0, paragraph 1)	1) LS met regularly with CT on key issues, esp. modeling & EIR/EIS direction. 2) LS, ST and PMT provided comments on modeling strategy and EIR/EIS alternatives development. 3) CT scope for Year 3-5 reflects changes on modeling and alternatives development to reflect common direction.
Address conflict of interest issues regarding ST members' role in RFPs (Section 2.0, paragraph 2)	ST discussed this at meeting of 09/12 and will have a formal statement by 10/27.
Provide science guidance to ISP managers (Section 2.0, paragraph 3)	1) LS held a Pond Ecology and Management Workshop on Aug 17. 2) LS will a Pond Ecology Science Synthesis in December. 3) LS worked with Jim Cloern's lab (USGS) to develop a work plan that benefits ISP water quality monitoring. 4) LS will hold a second Pond Workshop in January 2005 focused on designing monitoring and research for ponds managed under ISP.
NSP sees "stairway" approach as an important development (Section 2.0, paragraph 4)	The PMT is using this process to guide the development of the EIR/EIS and to make Adaptive Management central to project implementation.
Develop an Island Ponds RFP (Section 3.1)	LS is drafting an Island Ponds RFP to collect data and address key uncertainties. Final RFP will go out in mid-November. Process follows ST guidelines to avoid conflicts of interest.
Learn from the ISP (Section 3.2): 1) Make monitoring data available  2) Provide small grants to students to address focused questions  3) Identify funds and develop RFP for multi-year studies of ponds under ISP management	1) Jim Cloern's lab is inventorying and collating ISP monitoring and provide it in a form that can be used by researchers; USGS is preparing a report on 2 years of monitoring for PMT and public; ISP monitoring results are on the website. 2) Second Pond Workshop will develop these key research questions for the ISP; LS will work with ST to implement this recommendation. 3) EPM is working to identify funds. LS will develop the RFP for ISP pond research.
Make adaptive management work—less complex management structure, transparency for public and a central data clearinghouse in AMP (Section 3.3)	LS will address all points in this section in the revised draft Adaptive Management Plan (AMP).
Initiate development of a model that integrates multiple processes over a range of spatial and temporal scales that integrates Project information, provides predictive capabilities and makes data and findings available to researchers and the public (Section 4.0)	1) EPM identified NOAA RFP as a potential funding source. EPM and LS worked with ST modelers and others to develop a proposal for the 10/25/05 deadline to begin model development. 2) EPM is seeking funding from other sources to support a Project-issued RFP.
Add Social Scientist(s) to the Science Team (Section 5.0)	RFQ issued on 09/06/05; To be selected during week of October 31, 2005

\*Acronyms (in alphabetical order): CT=Consultant Team; EPM=Executive Project Manager; ISP=Initial Stewardship Plan; LS=Lead Scientist; NSP=National Science Panel; PMT=Project Management Team; RFP/Q=Request for Proposals/Qualifications; ST=Science Team

October 31, 2005

*October 12-13, 2004 Meeting Report*

<b>NSP Recommendation (section in the NSP report)</b>	<b>PMT/ST Response</b>
Complete Science Syntheses (Section 2)	Syntheses 1-3, 5-10 completed and posted on Project website; Synthesis 4 in production
Create closer connections between the Science Team and Consultant Team (Section 2)	Regular meetings between LS and Consultant Team managers; meeting between ST and CT members on key issues, especially modeling
Review of key Consultant Team products by Science Team members not involved in product development (Section 2)	Consultant Team models and modeling strategy reviewed and commented on by Science Team members and others not associated with CT modeling
Combine Science Team work, especially Science Syntheses, and Consultant Team work to guide planning and implementation (Section 2)	Adaptive Management Plan is the vehicle whereby Project planning and Science Team work is integrated; specific integration elements are the “staircase” vision now being used as a project alternative in the EIR; applied studies program needs being used to direct Phase 1 actions; conceptual models being used to guide monitoring and applied studies for Phase 1
Hold a Charette (Section 3)	Held in February 2005
Link science and public education (Section 4)	Stakeholder Forum meetings focused on AMP; AMP available for public review; Technical Workshops include public participation; field trips to discuss public access and wildlife interactions; Science products on the website
Learn from ISP (Section 5)	Applied studies planned and underway to study bird use of managed ponds and habitats in the South Bay adjacent to ISP ponds; Hg study underway to characterize baseline levels of Hg in sentinel species; monitoring and analysis of data to assess impacts of ISP operation on ponds, sloughs and Bay; Pond Ecology Workshop 1 and 2 to clarify our understanding of pond systems and to design applied studies specifically for ISP-managed ponds.
Add Social Scientist to Science Team	RFQ issued on 09/06/05; To be selected during week of October 31, 2005

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April 20-21, 2004 Meeting Report

<b>NSP Recommendation (section in the NSP report)</b>	<b>PMT/ST Response</b>
Identify the scientific basis for the restoration approach (Section 2A)	LS worked with the Science Team to produce Science Syntheses, which were used to produce the Scientific Basis of the Project Objectives
Develop and refine the fundamental science questions (Section 2A)	LS and ST identified the highest priority key uncertainties in the Draft Science Plan, which became the basis of the Science Syntheses
Guide a scientific approach to restoration at all scales (Section 2A)	LS and ST used conceptual models developed in the Science Strategy and Science Syntheses to identify the key restoration issues and uncertainties at the landscape and slough scale, as well as the pond scale
LS must take charge of the Science Process, rather than be advisory (Section 2B)	LS worked with ST to develop the Science Program in the Science Plan; LS directed ST and others to produce Science Syntheses, she oversaw the peer-review of the syntheses, their revision and posting on the website; LS used the Science Syntheses to write the Scientific Basis of the Project Objectives; LS has directed the development and integration of adaptive management monitoring, studies and modeling into project planning and future implementation and she wrote the Adaptive Management Plan with comments from the Science Team; LS has developed and implemented a series of Technical Workshops, involving experts, the PMT, the ST, and the public, to address key science issues.
LS should be a voting member of the PMT (Section 2B)	LS is a voting member of the PMT
LS should have clear authority to set scientific objectives and process for the Project (Section 2B)	LS has worked with the ST to identify the key uncertainties and scientific issues for the project, which guide the monitoring done as well as applied studies during planning and Phase 1; scientific process for the project has been set by the LS in the Science Plan and the Adaptive Management Plan.
LS should be the liaison to the NSP, principally through the NSP chair (Section 2B)	LS and the EPM are both liaisons to the NSP
EPM should rely on LS for scientific advice and form a close partnership (Section 2B)	EPM and LS work closely together on all scientific aspects of the Project and have a very collaborative relationship
LS must set the goals for science (Section 2B)	See point 4 above
LS should be the senior author of the Science Plan, integrate information from different disciplines, provide broader framework, integrate science into the planning process (Section 2B)	LS is the senior author of the Science Plan, Scientific Basis of the Project Objectives and the Adaptive Management Plan; all three documents integrate information from diverse fields and provide the overall framework for the scientific basis of the Project, integrating science into the planning process and approach to achieving the Project Objectives.
ST evaluate amount of funding needed to support Science Program	Rough estimate is provided in the Science Plan; the ST will devote more attention to this issue in December 2005.
Develop a Science Plan that provides a guide to meeting the Project	The Science Plan included the five elements and addressed the issues raised

Objectives and includes the five elements listed in Section 2D on pages 4-5	in the NSP report. The Scientific Basis for the Project Objectives and the Adaptive Management Plan do more to provide a clear vision for how the Project can progress toward the Project Objectives
LS should develop an outline for Adaptive Management, which takes advantage of learning opportunities during planning	Outline and draft Adaptive Management Plan have been completed.
PMT should revisit the Project Objectives to determine if they are realistic	Science Syntheses and Scientific Basis for the Project Objectives provide information on conflicts between Project Objectives and likely minimum conditions needed to achieve the Project Objectives
Add a social scientist to the Science Team	RFQ issued on 09/06/05; To be selected during week of October 31, 2005
LS should ensure that scientific context is at the ecosystem scale and indicates how our knowledge of the system supports restoration	Science Syntheses, Technical Workshops and Science Program documents all have a significant focus on what we know about the system and restoration with respect to achieving the Project Objectives.
Clarify role of the Science Team in developing technical work	Science Plan began this process, which continues; as the Project evolves, so does the role of the ST
LS and others should increase visibility of the project through conference presentations	LS, EPM and others have given talks at the National Conference on Ecosystem Restoration, CalFED Science Conferences, State of the Estuary and many other scientific and public venues.

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July 10-11, 2003 Meeting Recommendations

NSP Recommendations	PMT/ST Response
The NSP should report to the Executive Leadership Group	Agree. The organization chart reflects this.
The role of the NSP should be to ensure that science is used appropriately in restoration planning, that scientific study and planning activities are responsive to project goals, and to recommend course corrections as necessary. Detailed review of technical documents is not a function of the NSP.	Agree.
The NSP should meet approximately twice a year, on a schedule that corresponds with project milestones. The NSP would review materials provided in advance of these meetings, and submit written recommendations following the meetings (in addition to informal comments made during the meetings).	Agree.
The NSP would make recommendations directly to the Executive Leadership Group, in writing and in the form of presentations.	Agree.
In the case that the Executive Leadership Group does not follow NSP recommendations, a response and rationale should be provided, with further opportunity for discussion and clarification.	Agree. The responses are prepared by the Project Management Team and reviewed by the Executive Leadership Group.
The Lead Scientist should brief the NSP at each meeting, and the Lead Scientist and NSP Chair should coordinate in advance of meetings	Agree.
At each NSP meeting, it would be useful to include a scientific presentation on some relevant research topic involving the South Bay.	Agree.
Members of the NSP may undertake individual research, advisory or review contributions to overall South Bay restoration efforts, provided that such efforts are funded independently of the South Bay Salt Pond Restoration Project.	Agree.
Individual members of the NSP should be free to assist the South Bay Salt Pond Restoration Project by providing more detailed review of technical documents or specific technical support in their areas of expertise, as their time permits and independent of NSP activities. Such tasks would not be conducted in conjunction with NSP meetings, and any resulting technical reports would be submitted by individuals, and not endorsed by the NSP as a group.	Agree.
A Lead Scientist should be recruited to guide formulation of the Science Strategy and provide ongoing leadership to the science efforts. This individual should be actively recruited based on qualifications as a research scientist and effectiveness in leading a team. The NSP envisions this	Agree. Dr. Lynne Trulio was selected as the Lead Scientist.

position as being a substantial time commitment initially, with a decreasing time commitment after initial steps are completed (see below). The Lead Scientist should be provided with staff support.	
A Strategic Thinking Group should consist of three to five scientists who are “big picture” thinkers. The Lead Scientist would convene this group, and the first task would be to develop a comprehensive Science Strategy for the project.	The Group was convened consisting of five scientists (John Callaway, John Takekawa, Frederic Nichols, Jessica Lacy, and Edward Gross) led by the Lead Scientist.
The Science Board should consist of approximately 12-15 scientists who meet quarterly, and could be chaired by the Lead Scientist. This Board would likely function both as a Board and through sub-committees, and should include those with expertise in social science and engineering aspects of flood management in addition to ecological, biological, chemical, physical, sedimentological, and engineering aspects of restoration.	A Restoration Science Team (referred to as a Science Board in the NSP recommendations) was formed upon completion of the Science Strategy, consisting of 12-15 scientists (including the five Restoration Science Strategy Group participants), and will be chaired by the Lead Scientist.
The PMT, as the body overseeing the day to day restoration planning and implementation effort, needs to include the Lead Scientist to ensure the science strategy is fully incorporated into the planning and implementation efforts.	Agree.
. The role of the U. S. Army Corps of Engineers in the PMT needs to be determined.	Agree. The corps of Engineers is a co-lead agency for the South Bay Salt Pond Project EIS/EIR.
A draft Science Strategy should be developed prior to the next NSP meeting (by late 2003), and will be the primary document reviewed at the meeting. A draft Conceptual Model of the environments, habitats and process linkages to be encompassed by the restoration effort should be included in this document.	The draft Science Strategy was developed, including conceptual models illustrating system response to management action.
The Mission Statement be rephrased to show ‘publicly supported’ as the most important characteristic of the plan, and to include the concept of sustainability.	The Mission was previously agreed to by the Stakeholder Forum and remains unchanged, however the comment is noted.
Switch the order of the first two principles, so that public involvement comes first.	The Project Guiding Principles remain unchanged, however the comment is duly noted.
The Science Team needs to develop a draft Conceptual Model or series of linked Conceptual Models that will lead to formulating and guiding restoration plan, assist in identifying information needs, and lead to performance measures. The Conceptual Models should reflect the current understanding of how the system works and provide a framework for identifying system response to potential restoration measures.	Three linked conceptual models were developed in the Science Strategy to illustrate strong and weak links in our knowledge of system functioning and response to management; models were refined to guide adaptive management monitoring and applied studies identification.
It is important to ensure integration of existing/interim (Initial Stewardship Plan) measures into the long-term restoration plan.	While initially very challenging because of the timeline and purposes for the development of the Initial Stewardship Plan, integration has been occurring and continues to occur.

<p>The PMT (or the Lead Scientist) should consider hosting a scientific forum on South Bay issues relevant to the restoration project.</p>	<p>Several forums, primarily as issue workshops, have been convened to identify and address key science issues.</p>
<p>The NSP recommends that the restoration planning be conducted at a regional scale and not focus specifically on individual ponds, that it consider future environmental changes as well as current system status, and that the sediment deficit issue, already raised by many scientists, be explicitly addressed. Further, the NSP sees this project as a real opportunity for the application of adaptive management and recommends that both reference sites and areas for experimentation be identified early in the planning process to improve the science base for future restoration.</p>	<p>The PMT agrees with the NSP that the restoration planning should be conducted at a regional scale, consider future environmental changes, explicitly address the sediment deficit issue, and apply adaptive management techniques. To be determined is the role of experimentation within the restoration project and the identification of reference sites and areas for experimentation. The PMT will consider this recommendation as alternatives are developed.</p>

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