

**International Congress on Ecosystem Health  
Managing for Ecosystem Health  
Discussion Forum F-3  
Managing Large and Complex Ecosystems  
August 16, 1999**

**DRAFT**

**Summary**

One of the major themes of the Congress was integration of science and policy making. At the three day Congress another major theme emerged: the need to involve the public in a meaningful manner. This message was first raised by Robert Watson from the World Bank at the beginning of the Congress and was repeated in many of the technical sessions.

The discussion focused on a key issue for managers: how to maintain broad public and political support over the 25 to 30 year lifespan of the program so that the goals and objectives will be achieved. The purpose of the discussion forum was to provide guidance for future policy-making, ecosystem management practices and needed research. Discussants drew from their experience with the CALFED Bay-Delta Program and other large, complex programs. They developed a draft framework that addressed the Congress themes and discussed examples of actions that were successful in their respective programs.

**Background**

Provided below is a brief description of the CALFED Bay-Delta Ecosystem Restoration Program (ERP), an example of a large, complex ecosystem program.

The ERP encompasses approximately 2/3 of California. The ERP's goal is to improve and increase aquatic and terrestrial habitats and improve ecological functions in the San Francisco Bay-Delta to support sustainable populations of diverse and valuable plant and animal species. It is designed to:

- reverse decline in ecosystem health,
- support a healthy Bay-Delta Ecosystem,
- support sustainable production and survival of plant and wildlife species,
- reduce conflict between fisheries and water supply opportunities.

The effort is expected to cost about \$2.5 billion over 25-30 years and will be paid for by a variety of public and private sources. In addition to restoration of ecological health the ERP will contribute to improved reliability of water supplies, improved water quality and it will produce flood management benefits. Expected beneficiaries are the public, water diverters, commercial fishing industry, recreationists and regional landowners.

**Discussion Questions**

The following questions framed the discussion.

- To date the ERP has received about 700 million in public and private funds. What are the most effective ways to maintain momentum for large scale funding? What is needed to maintain the

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- necessary public and political support?
- What are the most effective ways to explain the goals, objectives and progress of the program to the public and elected officials in order to maintain support over a 30 year time span?
- What lessons can be learned from other complex environmental restoration programs?

The fifteen to twenty discussants included a few CALFED stakeholders and others representing programs on the Chesapeake Bay, in the Florida Everglades, in the state of Kansas, in the Georgia Basin of Puget Sound. Discussants were scientists, program managers, academics, watershed specialists, a farmer, and representative of an urban water district, from the USA.

#### **Draft Framework**

The discussion focused on seven themes which addressed integration of science, policy and public involvement. These themes are presented as a draft framework to use when developing and implementing programs. Beneath each theme, is further advice provided by the discussants or actual examples of actions.

#### **Help stakeholder groups build coalitions and work together to solve problems.**

- Provide the support necessary to help them bridge their differences and develop their own solutions to engender their support and cooperation in working with managers to meet the ultimate goals of the program.

#### **Define different segments of the public.**

- Structure the messages so that they are consistent, but relevant to children and elected officials, watershed groups, NGO's, rural, urban populations, for example.
- Promote a program based on success.
- Use indicators or examples that are relevant to public. Focus on quality of life indicators.
- Use visible indicators such as pictorial thermometers to demonstrate rate of success.
- Use of indicators such as swimmable, fishable and drinkable water were successful communication tools used in the Chesapeake Bay and Puget Sound programs.

#### **Market the program to the public**

- Involve the Public in the planning and decision making, such as including them on technical advisory committees.
- Use language and messages that can be understood by those different segments.
- Make effective use of websites and include information for all types and levels of understanding.
- Provide forums for Scientists and politicians to come together and discuss issues of concern.
- Write articles for popular magazines. Audubon and Good housekeeping were mentioned.
- Participate in pre-planned annual events, such as Earth Day.
- Develop interpretive programs at restoration or demonstration sites.
- Take advantage of "pro-bono" advertizing.
- Use "What If" scenarios to tell the public what it would be like without the restoration (used successfully in the Puget Sound program).

- When educating elected officials include technical and scientific details.
- Maintain communication throughout the project.

**Bring the program to the people.**

- Hold bar-b-que's at restoration sites (successful tool used in Kansas).
- Schedule discussions with program managers at local organization meetings.
- Involve schools and others in monitoring. Front load projects with monitoring.

**Need robust governing institution.**

Such an institution is needed so the public clearly understands who is making the decisions and to help ensure the longevity and durability of the program.

**Be honest.**

- Messages from the program should honestly describe the benefits of program, accurately describe costs of actions, including environmental and social.
- Turn negatives to positives, when possible, but do not "sugar coat". The process should be transparent to the public and issues should be easy to understand.
- For programs with multiple goals (i.e. CALFED), specify what the money will be used for, i.e. restoration, or for building new infrastructure, such as water storage/conveyance facilities, reservoirs and canals.

**Balance incentives and regulatory measures.**

Coming up with the appropriate combination of incentives and regulatory measures will likely be controversial. However, having one without the other will likely lead to distrust of the process, unintended use of an incentive or measure and an incomplete program.

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