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President

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TO: CalFed and all participants, sponsors, and interested parties:

This transmits the final report on the results of the October 2, 1995 "definitional" workshop on **Goals for Restoring a Healthy Estuary**, with the hope and expectation that "downstream" workshops and processes will build on this platform. Wim Kimmerer was the rapporteur for the workshop and primary author of this report. It was circulated to participants and sponsors for peer review and consultation before it was finalized.

In transmitting this report, I want to give you NHI's views of what the workshop did and did not accomplish.

This 'definitional' workshop was sponsored by fourteen CalFed agencies and stakeholders as a first step in the direction of specifying achievable goals for improvement or restoration of environmental conditions in or associated with the delta water system. This environmental goal specification is deemed to be an early pre-requisite to the success of the CalFed program, which is designed to identify, evaluate and select packages of delta solutions that provide net gains in both ecological conditions and water supply. For the environment, in NHI's view, that means gains beyond the baseline established by the December 15, 1994 delta accord (including Category III commitments) and the 1995 Water Quality Control Plan. CalFed needs a definitive statement of the ecological improvement milestones that should be achieved in the estuary that is sufficiently precise, detailed and scientifically defensible to define the appropriate restoration actions for the development and consideration of alternatives in the CalFed planning process. The workshop was motivated by the realization that, today, there is no such definitive statement.

The results of the workshop were substantial but not spectacular, confirming that progress in developing the requisite scientific consensus on restoration goals and an action agenda will only come in deliberate, careful, incremental steps. The workshop was successful in illuminating the next steps that need to be taken in this direction. In my view, the most important results of the workshop are these:

- o There was immediate, unanimous, and hearty agreement among the participants that restoration goals should be stated in terms of the system's capacity to provide the full range of ecosystem services valued by society, rather than in terms of presumed

inherent or emergent properties of ecosystems such as "productivity" or "integrity".

- o After positing the restoration goals that respond to the desired ecological services, the next step is to define the indicators (physical or biological structures, processes or functions) that need to be protected, maintained or enhanced to advance these goals. In NHI's view, that will necessitate convening small groups of the scientific specialists on those topics in a process like the definitional workshop. There is no apparent shortcut. Generic conferences on how ecosystems function or efforts to reconstruct the historic record for this estuary are unlikely to provide much benefit.
- o The most important "downstream" workshop focus should be on the relationships between the species abundance goals in the report of the October 2 workshop and augmentation of open water and marginal habitat (and their interactions), and the relationship between these abundance goals and entrainment in the export pumps and in-delta diversions. Understanding the optimal combination of habitat enhancement and alteration of export and diversion facilities from the standpoint of the environmental goals has large implications for the CalFed process in terms of the necessary physical improvements, and, hence, the cost of delta solutions.

NHI wishes to express our sincere thanks to the participants and sponsors of the definitional workshop for providing a solid base on which take the next necessary steps toward defining an ecosystem restoration program for the estuary.

Yours sincerely,



Gregory A. Thomas