

## **Brief Description of DRERIP Science Team Vetting Process for Delta ERP Actions:**

The Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) approach acknowledges that the CALFED ERP has as its foundation the goals and objectives outlined in the ERP Strategic Plan, and that numerous targets and actions for implementing the ERP to meet those goals and objectives are already listed in our planning documents\*. However, these actions were never scientifically “vetted” (thoroughly scrutinized from a scientific perspective). We want to use the DRERIP process to vet all Delta actions and to incorporate the new knowledge gained about the system since 1997 when the ERP plans and actions were developed.

Our approach is to pull together lists of all actions for the Delta and to have science experts vet the actions based on broader, more general conceptual models of two types: species life history conceptual models (of at-risk and harvestable species; Goals 1 & 3, respectively) and ecosystem conceptual models. Species experts will develop and/or review species life history conceptual models and a multi-disciplinary Action Team (which includes expertise in ecological processes, habitats and reducing stressors) will develop general ecosystem models. These ecosystem elements are listed in our planning documents and include, for example, Bay-Delta aquatic food web, fresh emergent wetland (tidal), and invasive aquatic plants. Using the food web example, the idea is to put together conceptual models that describe how experts believe the Bay-Delta aquatic food web works and how improvements in food web processes will “improve ecological functions to support sustainable populations of diverse and valuable plant and animal species.” These models will put down on paper what we know and don’t know (uncertainties) about how the system works, and therefore what options are available to apply to solutions (“brainstorming on all possible solutions”).

The Action Team will then take a look at each action and, considering the species life history and ecosystem conceptual models, determine “why” each of the actions and targets is relevant for restoring the Delta ecosystem. Potential determinations could include: the action is still relevant as stated, the action is generally relevant but requires some modification, the action is no longer relevant, and/or additional action(s) are necessary because a gap was identified.

The final part of the process will be to identify “how” each action could be implemented including considering feasibility from physical, financial and socio-political standpoints. This task will be addressed in part by the Action Team with input from local engineers, but non-science issues will be addressed through agency management-level and public review.

In summary, the approach is to develop process-oriented conceptual models **\*prior to\*** determining which actions are appropriate for meeting goals and objectives, then determining and/or evaluating appropriate actions based on those models and the uncertainties they describe.

\*Planning documents include the Record of Decision (ROD), ERPP Vols. I & II, Strategic Plan, Multi-Species Conservation Strategy, Water Quality Program Plan, and Draft Stage 1 Implementation Plan. Actions include the ERP-MSCS Milestones, Stage I Actions (ROD and Strategic Plan), MSCS Conservation Measures, Water Quality Program Plan environmental water quality and other ERP Plan Vol. II actions.