

Review of the Science Advisory Board's Recommendation for a Decision Support System: Findings of the 2014 Phase 1 Review

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Findings in a nutshell

- TRRP management actions successfully created salmonid habitat, but insufficient information was available to critically evaluate the effect of Program activities on the *fundamental objective* (fish production) and the *means objective* (“healthy river”).
- No method for assessing the synergistic effects of Program activities (management of flow, temperature, sediment, and channel morphology) over space and time to understand the effects on fish production.

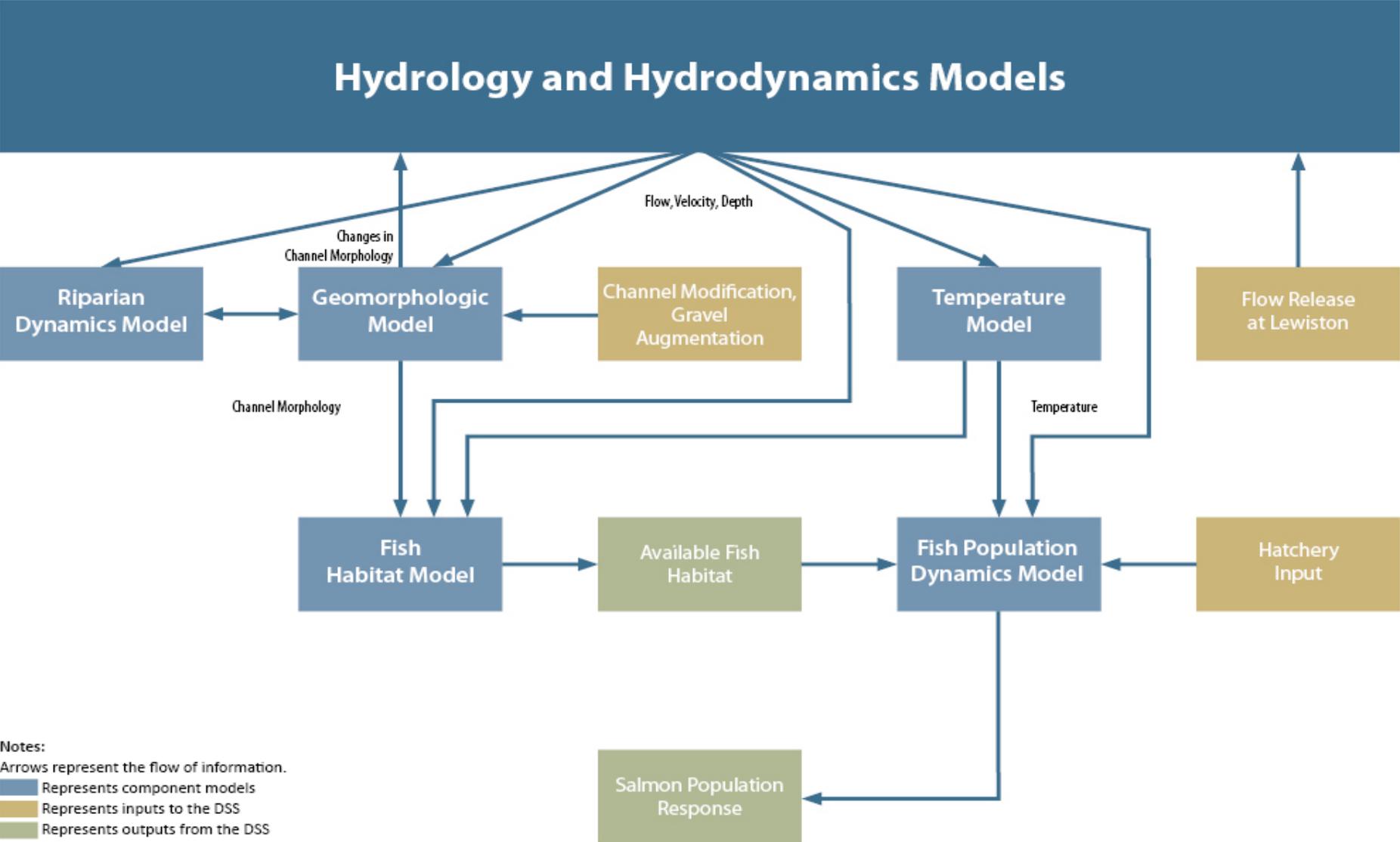
Recommendation: Development of a Decision Support System (DSS)

Implementing the Program in an adaptive management framework and assessing the efficacy of management actions requires a DSS.

Series of linked physical and biological models of dynamic system response that will allow the Program to:

- Predict site and system response to alternative management actions in relation to ROD and stakeholder objectives.
- Make such predictions in a timely fashion (ahead of monitoring results).
- Focus and refine monitoring efforts to assess predictions.
- Provide a necessary tool for adaptive management (test causal mechanisms & understand dynamic system responses).
- Help to better structure and integrate Program activities.
- Increase the defensibility and transparency of management actions.

Wire chart of envisioned DSS



Recommended Applications

- Critically assess channel rehabilitation actions needed to achieve fish population objectives.
- Formally test the foundational hypothesis that a dynamic, complex channel can be created and that, together with other Program activities, will restore fish populations.
- Critically evaluate the change in design strategy that has occurred (i.e., minimal *vs.* intensive mechanical intervention).

