











# NAS Report 1 Abbreviated Implementation Plan: Ecological Modeling

22	No	Ecological Model	Use the habitat suitability analyses for the fountain darter as "back-up" to individual-based modeling (91:22).	The habitat suitability analyses done for fountain darter could act as a "back-up" to the individual-based modeling and provide additional quasi-independent results to support a weight of evidence approach for the fountain darter.	No - no current funding is identified for this additional work	N/A	<p>*Conducting this exercise would not answer questions for Phase II, the model does that.</p> <p>*Implementing this recommendation would be taking steps backwards.</p>
23	No	Ecological Model	Revisit the estimation fountain darter suitability curves (77:35).	With the availability of the monitoring data and other information, a more formal estimation of the habitat suitability curves is warranted.	No - there are no funds allocated for this exercise.	N/A - step backwards	<p>*These curves are the first step in creating the Ecological Model. If to be used for the development of the Ecological Model, we are past that point.</p> <p>*If the Fountain Darter module fails or does not calibrate, then suitability curves should be revisited.</p>
24	No	Ecological Model	Add nutrient limitation to the submerged aquatic vegetation (SAV) model formulation (82:40).	Nutrient limitation is not included presently in the model, but should be added if it is determined to be an important water quality factor affecting photosynthesis.	No - no funding to conduct the extensive research that would be needed.	N/A	<p>*Nutrients are not a limiting factor, except to algae. Algae is not in the Eco Model.</p> <p>*The SAV model is tied to Fountain Darter habitat, so therefore this is not necessary.</p>

### Clarifying Statements

- All aspects of this table are Science components
- None of the recommendations are required for compliance
- All recommendations are operational feasible except #24
- All recommendations are politically feasible
- None of the recommendations are fatal flaws of the program
- Only #11 and #21 support biological goals and objectives