

**Trinity River Restoration Program  
Proposed Scientific Framework**

**Summary of Process and Components  
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**Proposed Scientific Framework: Process and Components**

**Why** Adaptive management and restoration of the Trinity River requires relevant credible scientific information be collected, synthesized and provided to decision makers.

**What**

**How** The Record of Decision recognized this need when it integrated an adaptive environmental assessment and management (AEAM) program into the TRRP.

**Who**

**When** The Trinity River Flow Evaluation Study provided the historical perspective, initial conceptual models, science and recommendations that form the basis of the ROD.

The Feb 2002 Monitoring Workshop highlighted issues...

The AEAM team must now take the next steps....




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**Proposed Scientific Framework: Process and Components**

**Why** The Scientific Framework will guide the AEAM team to effectively direct restoration projects, measure success of implementation and reduce uncertainties. This systematic approach will also prioritize monitoring, modeling and research needs within an adaptive management context.

**What**

**How** The overall design will promote cooperation and partnership among agencies, organizations and stakeholders to minimize policy conflicts and to assure the financial and technical resources necessary to continue a successful program.

**Who**

**When** The Scientific Framework will build on, complement and improve existing science, monitoring and analysis efforts.




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**Proposed Scientific Framework: Process and Components**

**Why** *How will the AIEAM team (and Scientific Framework process) help support management decision-making?*

**What**  
**How**  
**Who**  
**When** Management of natural resources is difficult for two fundamental reasons:

(1) understanding of the structure and behavior of the system is limited or

(2) management policies are not designed to cope with uncertainties inherent in both the environmental and human systems.



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**Proposed Scientific Framework: Process and Components**

The AIEAM team will address these potential difficulties by:

**Why**  
**What**  
**How**  
**Who**  
**When** \*refining our understanding of the system (e.g., conceptual model development, designing experiments to address key uncertainties)

\*continually monitoring outcomes, analyzing, synthesizing, learning, improving science and management actions

\*actively engaging scientists in working directly with managers and stakeholders to facilitate the use of tools and methodologies that bridge the gap between science and decision-making

\*educating TRRP staff and partners actively incorporating AIEAM into project and restoration design and planning



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**Proposed Scientific Framework: Process and Components**

Phase One of the framework process (FY04) will:

...create clear and meaningful context for determining priority projects to guide the budget process...

...create a "living document" that summarizes TRRP goals and objectives, current understanding, tools and methods used to monitor and model the system, assumptions and uncertainties, and allows for incorporating and documenting new and revised information over time...

...further develop the TRRP collaborative process...



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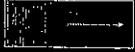
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Proposed Scientific Framework: Process and Components



Conceptual Model



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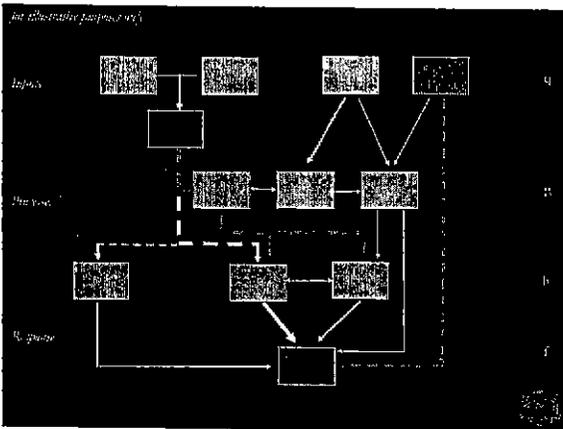
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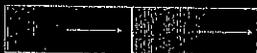
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Proposed Scientific Framework: Process and Components



Conceptual Model

Monitoring Strategy



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Proposed Scientific Framework: Process and Components



Conceptual Model

Monitoring Strategy

Modeling Strategy



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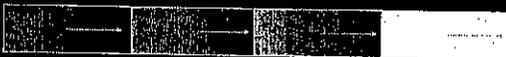
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Proposed Scientific Framework: Process and Components

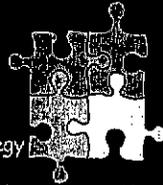


Conceptual Model

Monitoring Strategy

Modeling Strategy

Adaptive Management Plan



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Proposed Scientific Framework: Process and Components

- Why • FRRP ABAM staff (RIG and TMAC)
- What • FMC
- How • TAMWG
- Who • SAB
- When • Partner organization staff
- Consultant (technical, ABAM and facilitation expertise)
- Expert reviewers and technical specialists

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### Proposed Scientific Framework: Process and Components

Why  
What  
How  
Who  
When



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### Proposed Scientific Framework: Process and Components

Summer 03      Fall 03      Fall 03      June 04      Dec 04

*Planning Team*

*TMC/TAMWG Technical Reps Overview and Scoping Meeting*

*Workshop One*

*Workshop Two*

*Budget Team*

*Pre-workshop conceptual model teams*

*Wrap up, write up and review team*

*Subgroup meetings and TAMWG working groups*

Inputs: Program Goals and objectives, Potential Management Actions (range and bounds), summary of hypotheses, data needs and data gaps, etc.  
Products: (priority alternative) study needs summary (budget recommendations for priority projects), Using ecosystem? (summary conceptual model, integrated monitoring and evaluation strategies, MEFM plan)



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### Proposed Scientific Framework: Process and Components

Tracking the process and keeping up-to-date on progress:

- TRRP web site link
- On-going updates at TMC and TAMWG meetings
- Draft document circulation (internal)
- "Final" document distribution (external)
- Summaries of key findings from subgroups or TAMWG working groups



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