

**Trinity River Restoration Program
Science Advisory Board (SAB) Review
Part 1 of the Draft Integrated Assessment Plan (IAP)**

Weaverville Victorian Inn, 709 Main St, Weaverville, CA 96093 (poolside)

Background

Attachment A provides background information on the IAP, and the terms of reference for the SAB review. Part 1 of the IAP presents an overview of the Program goals, a hierarchy of objectives and sub-objectives, and proposed assessments for the major objectives. Part 1 specifies WHAT assessments are proposed and WHY they should be completed. Part 1 only briefly considers WHEN and WHERE assessments should be completed, and excludes, as much as possible, HOW assessments should be completed and especially WHO should do them. Once Part 1 is approved by the Trinity Management Council (TMC), the Program will begin work on Part 2 of the IAP, which will discuss WHEN, WHERE and HOW at a more detailed level.

Meeting Objectives

1. Provide the Science Advisory Board (SAB) with an opportunity to ask questions of IAP authors, and discuss the content of the IAP, so as to have more information with which to fulfill the terms of reference of their review of Part 1 of the IAP (see six questions on last page of Attachment A);
2. Provide SAB members with an opportunity to explore their ideas for specific assessments and overall prioritization and integration, both with IAP authors and independently with other SAB members;
3. Provide SAB members with an opportunity to complete their written review, and present their findings.
4. Provide TMC and TAMWG members with a brief opportunity to hear SAB comments, to submit questions to IAP authors, and to make comments on the IAP for the consideration of the SAB.

Meeting Principles

Please abide by the following guiding principles, approved by the TMC, to maximize our progress at the meeting:

1. Be hard on the problem, and easy on the people. Truly endeavor to listen to others' points of view.
2. Respect the agreed upon agenda. Express opinions succinctly out of respect for others.
3. Clarify if your opinion is based on technical arguments or values.
4. Separate technical issues from policy issues. Policy issues should be "parked" during technical meetings, so that technical discussions will not be sidetracked.
5. Recognize that the TRRP assessment program is going to evolve over time, as candidate approaches are tested and compared.
6. Assume that all are committed to the success of the program.

Meeting Agenda

Monday, November 27, 2006

- 10:00 a.m. Introductions
 Welcome (Executive Director)
 TMC Interests (TMC Chair)
 TAMWG Interests (TAMWG Chair)
 Greetings (SAB Chair)
 Agenda Review & Ground Rules (Facilitator)
- 10:30 a.m. **Chapter 1** – Program Goal & IAP Process (Senior Scientist & Steering Cmtee Chair)
{15-minute presentation, 15 minutes for SAB questions}
- Program Goal
 - TRRP Experiment [TRFE and ROD]
 - IAP Purpose
 - IAP Structure
 - Issues Raised during IAP Process
- 11:00 a.m. Break (10 minutes)
- 11:10 a.m. IAP Presentations (Part 1) (Lead Authors)
Chapter 2 – Objectives Hierarchy and Prioritization Approach *{5-minute presentation, 10 minutes for SAB questions}*
- 11:25 a.m. **Chapter 3** – Brief Overview of Assessments (What & Why)
{< 5-minute presentation, 20 min. for SAB Questions & Answers, < 5 minutes for others' Questions and Answers}
- Objective 1:** Restore fluvial processes that create and maintain habitat required to achieve fish, riparian vegetation, and wildlife production goals.
- 11:55 a.m. **Objective 2:** Restore habitats for all freshwater life stages of anadromous salmonids.
- 12:25 p.m. LUNCH (Lunch delivered to meeting room)
- 1:00 p.m. Reconvene & continue IAP Presentations
- Chapter 3** – Brief Overview of Assessments (What & Why)
- Objective 3:** Restore and maintain natural production of anadromous fish populations.
- 1:30 p.m. **Objective 4:** Restore numbers of naturally produced salmon and steelhead to pre-Trinity River Division (TRD) population levels in the Trinity River.
- 2:00 p.m. **Objective 5:** Facilitate dependent tribal, and commercial, and sport fisheries' full participation in the benefits of restoration via enhanced harvest opportunities.
- 2:30 p.m. **Objective 6:** Establish and maintain riparian plant communities that support fish and wildlife.
- 3:00 p.m. Break (15 minutes)

- 3:15 p.m. **Objective 7:** Restore and protect wildlife habitats and restore wildlife populations to a level approximating that which existed pre-TRD.
- 3:45 p.m. Commentator Presentations {max 5 minutes, up to 12 people}
- 5:00 p.m. Meeting Recess
SAB meets with IAP Steering Committee to discuss preferred time allocations for Tuesday morning session.

Tuesday, November 28, 2006

- 8:00 a.m. **Detailed Discussion of Assessments:** SAB asks further questions of IAP authors and explores alternative approaches to assessments, priority next steps. *Time allocations may be changed based on Monday evening discussion with SAB.*
- Objective 1: Fluvial processes
- 8:30 a.m. Objective 2: Habitat
- 9:00 a.m. Objective 3: Natural anadromous production
- 9:30 a.m. Objective 4: Escapement
- 10:00 a.m. Break (15 minutes)
- 10:15 a.m. Objective 5: Harvest
- 10:45 a.m. Objective 6: Riparian
- 11:15 a.m. Objective 7: Wildlife
- 11:45 a.m. Prioritization, Integration, Other Issues
- 12:30 p.m. LUNCH (Lunch delivered to meeting room)
- 1:30 p.m. SAB Comments on the IAP Authors High Level Policy Issues for the TMC
 Other SAB issues
- 4:30 p.m. Charge to the Science Advisory Board (Senior Scientist)
- 4:45 p.m. Recess (reconvene 9:00 a.m., Friday, December 1, 2006)

Wednesday, November 29 – Thursday, November 30, 2006

Science Advisory Board deliberations (private – on-call)

Friday, December 1, 2006

- 9:00 a.m. Advice on the Integrated Assessment Plan & Science Program (Science Advisory Board)
- 11:30 a.m. LUNCH (on your own)
- 12:30 p.m. Advice Continued
- 1:55 a.m. Closing Comments (Executive Director)
- 2:00 Adjourn

Attachment A: IAP Background and Terms of Reference for SAB Review



Trinity River Restoration Program

P.O. Box 1300, 1313 South Main Street, Weaverville, California 96093
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Dear Science Advisory Board Member or Program Partner,

The Trinity River Restoration Program (Program) requests a review of the recently drafted Integrated Assessment Plan (IAP), Part 1. This request is specifically addressed to the Science Advisory Board (SAB), but applies to all parties interested in the Program. The review begins when you receive this letter, and concludes at a Program meeting in Weaverville, California, the week of November 27-December 1, 2006.

The Trinity River Flow Evaluation (TRFE) and Record of Decision (ROD) for the Trinity River Mainstem Fishery Restoration EIS/EIR provide management targets and directives to the Program. However, these documents do not provide detailed guidance on how to assess the effectiveness of the described management actions in achieving Program goals and objectives. Ongoing monitoring continues without an integrated strategy on how these monitoring tasks link to assessing progress towards Program goals or Adaptive Environmental Assessment and Management (AEAM) activities.

To ensure assessment and monitoring studies are based on sound science in support of management, the Program has undertaken the task of preparing this IAP document. The purpose of this IAP is to identify and prioritize assessments that:

1. Evaluate long-term progress towards achieving TRRP goals and objectives, and
2. Provide short-term feedback to improve Program management actions by testing key hypotheses and reducing management uncertainties.

We are providing the following information for your review of the IAP in this submittal letter:

- Background steps taken by the Program to develop this IAP document.
- A description of the IAP content.
- Proposed next steps for completing Part 2 of the IAP.
- A proposed IAP-Part 1 review process.

Background of the IAP

With regards to assessing progress towards Program goals, the March 2004 Trinity Management Council (TMC) Subcommittee Program Evaluation Final report made five recommendations for improving the science aspects of the Program. These recommendations either directly or indirectly addressed the need for completing a science framework (IAP) to support the AEAM program. The specific recommendations on Science from the Program Evaluation Report are:

1. Develop the integrated science-based modeling and assessment program that is necessary to support the AEAM program. The Program needs the capability to conduct predictive modeling and integration of multi-disciplinary assessments into comprehensive management recommendations.
2. Fully staff the TMAG with persons qualified to conduct the modeling and assessment activities, guide restoration actions, and develop the contemporary science framework process. The TMAG needs to provide Program direction based on the best available science.
3. Develop the science framework, including current status of the river (baseline) and comprehensive monitoring and assessment plans.
4. Integrate the SAB and ERP's into the science framework process.
5. Develop an RFP process for assessment of management action outcomes by tying the data to specific models and interdisciplinary analyses. Redesign the RFP process to solicit proposals that supports the Program's information needs based on the results of the science framework.

After the TMC adopted these science recommendations from the Program Evaluation Report, the Technical Modeling and Analysis (TMAG) contracted with ESSA Technologies to cooperatively develop a science framework for the Program.

Upon execution of the contract with ESSA, the TMAG worked cooperatively with a steering committee to help direct the completion of science framework document. ESSA, the TMAG, and the steering committee completed a Backgrounder Document on Program conceptual models for an AEAM Framework Workshop held October 13th-15th, 2004 in Eureka, California. The goal of this workshop was to improve both individual conceptual models and their integration, setting the stage for the development of a science framework document for the Program.

After the October 2004 workshop, ESSA and the steering committee updated the Backgrounder based on input from the workshop. The Backgrounder document was transformed into a draft report titled "Conceptual Models and Hypotheses for the Trinity River Restoration Program" which was distributed on January 31, 2005 (<ftp://ftp.usbr.gov/TRRP/IAP/Background/>). The purpose of the Conceptual Models document was 1) To document 'state-of-the science' conceptual models for the TRRP; 2) Summarized the main points from the workshop participants; and 3) Initiate more formal development of monitoring/modeling plans and Adaptive Management protocols for the TRRP Program.

Once the Conceptual Models document was completed, ESSA, the TMAG, and the steering committee started work on completing a Science Framework document for the Program. The process of writing a Science Framework document took a significant portion of the 2005 calendar year to complete. A preliminary draft of the TRRP Integrated Monitoring and Evaluation Plan (IMEP) was completed and sent out for review by all Program participants on January 23, 2006. This preliminary draft IMEP contained the following chapters:

- Chapter 1 provided a short overview of the overall monitoring and evaluation strategy, with the core monitoring components briefly described.
- Chapter 2 provided a more comprehensive overview of the monitoring and evaluation plan.
- Chapter 3 described the overall analysis and sampling strategy which includes the types of models the Program would apply, the spatial and temporal scales of interest, and the overall sampling design.
- Chapters 4 through 9 described the detailed monitoring plans for physical, riparian, fish, reptiles, amphibians, and birds.

Program participants were requested to submit comments on the IMEP by February 3, 2006 with the goal of having a Science Advisory Board (SAB) review and TMC approval of the final document by the end of April 2006. Based on the input received on the document in comments from Program participants, as well as input from the TMC, this original schedule for completion of the document was not obtainable. Also

during this time of review, the name of the document was changed from IMEP to Integrated Assessment Plan (IAP).

During the June 2006 TMC meeting the TMC directed that the steering committee work with the TMAG to complete the IAP schedule for TMC approval/consideration of the document by the December 2006 TMC meeting. Based on the comments received on the January 23, 2006 IMEP document, the steering committee determined that the IAP should document the linkages from the Program goals, to major objectives, and finally to the assessments. These linkages would then be reviewed and approved by the SAB and TMC before work is done describing the more detailed assessment plans for physical, riparian, fish, reptiles, amphibians, and birds. Another way of saying this is that the Program would get agreement on WHAT assessments will be done and WHY (linked to goals and objectives) before the Program addressed the HOW, WHEN, WHERE, and WHO.

Content of the IAP

We have separated production of the IAP into two parts. Part 1 presents an overview of the Program goals, a hierarchy of objectives and sub-objectives, and proposed assessments for the major objectives. The IAP specifies the 'What' and 'Why', and to some degree addresses the generally relevant 'When' and 'Where', and excludes, as much as possible, the 'How' and especially the 'Who'. Once Part 1 is approved by the Trinity Management Council (TMC), the Program will begin work on Part 2 which will discuss at a more detailed level the 'Where', 'When', , and also 'How' (methods).

Table 1 lists the contents of the two IAP parts. The TMC has not formally adopted the draft Program Goal statement which is undergoing a separate review by the legal and policy staff of the TMC members.

Table 1. Content of the IAP.

Part 1 (Current Review)	Program Goal (draft) Program Objectives (Sub- or Proxy Objectives) AEAM Process Linkage from Goals to Objectives to Assessment Program Success Efficacy of Annual Management Actions Core Assessments Assessment strategies & rationales Performance Measures & Analyses Space & Time frames Priorities for improving assessments Integration Challenges
Part 2 (Future Review – Summer, 2007)	Integrated Assessments Study Plans/Sampling Designs Monitoring Plan Coordination Data Requirements Acquisition Plan/RFP-Peer Review Process

The Program objectives are intended to achieve the Program goals, and the IAP writers summarized these goals and objectives from the Flow Study, Record of Decision, and legal foundations of the Program.

Proposed Next Steps of the IAP

We've identified and noted several issues in Part 1 of the IAP that we were unable to resolve at the technical level. We anticipate that your advice will be highly relevant in the resolution of these issues, especially bridging the gap between science and policy within the Program. Some of these issues have

been identified as policy issues and have been sent to the TMC for decision. We will provide you a copy of these policy issues when the IAP Steering Committee submits them to the TMC.

There were many difficulties that the IAP writers experienced in completing this first part of the IAP. Working through these difficulties has made the IAP a stronger document. Unfortunately due to compacted schedules of the IAP, along with time other constraints, the writers were unable to complete some aspects of Part 1 prior to submitting the document for your review. These uncompleted items in order of importance include:

1. Prioritization of assessments for space and time, and across disciplines.
2. Integration or linkages between assessments.
3. Consistency in the structure of each sub-objective throughout the IAP document.

By not prioritizing the assessment listed in the IAP, there is an appearance of a “laundry list” of assessments which could never all be afforded by the current budget of the Program. In recognition of the importance of prioritization, the IAP writers developed a process for prioritizing these assessments (Appendix A). That process, while unsuccessful, was informative and has led to a second, revised prioritization process. The IAP Steering Committee and lead IAP writers are executing that process right now. The IAP writers are holding a meeting November 9th to continue working on the prioritization of assessments. We will submit the results of that process upon completion, hopefully before the Program review meeting. If time allows in your review period prior to the meeting, we request that you review this prioritization of assessments.

We included a column, “Priorities for integrating assessments across objectives and across management entities” in Table 3.8.1 to address integration between assessments. This column in the table is intended to identify assessment integration issues that need to be addressed prior to starting work on the more detailed assessment plan (WHEN, WHERE, HOW, etc.). Unfortunately, the IAP writers were unable to complete this task. Once this integration between assessments is completed, we will determine an appropriate mechanism for review by the SAB.

You will notice that in Chapter 3 of the IAP there is inconsistency in the structure of some of the Objectives and Sub-Objectives. This inconsistency in structure between sections is a result of having different authors writing different sub-sections. The writers attempted to have one technical writer adjust the entire document for consistency prior to the SAB review, but we underestimated the time it would take to edit and combine each of the subparts together. If you can, please disregard these inconsistencies between sections. Hopefully, the inconsistencies in the IAP will not detract from your ability to effectively review the overall document for content. The IAP writers will correct these inconsistencies prior to finalizing the document.

Proposed Review Process

We need your assistance to improve the logic and scientific basis of this plan, leading to programmatic acceptance of the IAP by the TMC. Please begin your review of Part 1 immediately upon receipt of the draft. During the review meeting during the week of November 27th, we will present and discuss the major points of the draft IAP on Day 1 of the review meeting. We request that you deliberate on the written document and meeting presentations, then provide a written review to the Program on Friday December 1st at the end of the Program review meeting. The steering committee will work with you in the coming weeks to develop a more detailed agenda for the Program review meeting.

In preparation for the Program review meeting, we request that the SAB respond to the following IAP review criteria:

1. Are the proposed assessments clearly identified as addressing and evaluating the strategy outlined in the TRFE, ROD, and/or assessing overall Program goals?
 - a. Are all necessary (core) assessments included in the IAP?
 - b. Are any assessments not clearly linked to the strategy and therefore give the appearance of being unnecessary or low priority?
 - i. Is each assessment core to the TRFE or ROD?
 - ii. Is the rationale and logic included to justify each assessment as core?
 - iii. Does the science justify each assessment as core?
2. Are high priority (core) assessments identified?
3. Are high priorities for integration amongst the assessments identified?
4. Have we adequately described a process for 'science based assessments and monitoring'?
5. Does this part of the IAP fulfill its stated purpose?
6. What are your recommendations as the SAB:
 - a. Regarding Part 1
 - i. Proposed next steps of the IAP outlined in this letter.
 - ii. Changes we can make within one week (pre-TMC meeting)
 - iii. Changes we need to make before reconvening on Part 2
 - b. For completing Part 2
 - c. Timely implementation of scientific rigor into the assessment process.

Thank you in advance for reviewing this important document for the Trinity River Restoration Program. If you have any questions regarding this review, please contact Rod Wittler (530) 623-1801.

Sincerely,

The IAP Writers