

California WaterFix
Change Petition Hearing
Part 2

Adaptive Management Rebuttal
Testimony of
Tom Stokely on behalf of LAND,
Sacramento County and San
Joaquin County

Issues for my rebuttal testimony

- Introduction and Background
- Trinity River Adaptive Management Experience
- Key Principles Applicable for Adaptive Management
- Proposed Tunnels AMP is Likely to Fail Due to Same Problems as Trinity River Adaptive Environmental Assessment and Management
- Petitioners Proposed Use of Adaptive Management is Overly Broad and Inappropriate

ADAPTIVE MANAGEMENT

4.2 Adaptive Management

“Adaptive Management” is defined in California Water Code, section 85052, and means “a framework and flexible decision making process for ongoing knowledge acquisition, monitoring, and evaluation leading to continuous improvements in management planning and implementation of a project to achieve specified objectives.”

APPENDIX C

Implementation Plan for the Preferred Alternative of the Trinity River EIS/EIR

The proposed action consists of 6 components: 1) an increased flow regime and associated OCAP for managing releases and reservoir levels; 2) a channel rehabilitation program (mechanical rehabilitation); 3) a coarse and fine sediment management program; 4) infrastructure modifications; 5) upslope watershed restoration; and 6) an Adaptive Environmental Assessment and Management organization.

1. Increased Flow Regime and Trinity River Operating Criteria and Procedures

1.1 Legal Principles Concerning TRD Operations

In section 3406(b)(23) of the Central Valley Project Improvement Act (CVPIA) (Public Law 102-575, 106 Stat. 4600, 4720), Congress called for the development of operating criteria and procedures (OCAP) for the Trinity River Division (TRD), along with recommendations for necessary instream fishery flow requirements, for the restoration and maintenance of the Trinity River fishery. Accordingly, this document describes the legal principles and scientific recommendations that apply to TRD operations and establishes OCAP required for the proper operation of the TRD consistent with those principles and recommendations.

This section briefly describes the legal principles that apply to the operations of the TRD. A detailed description can also be found in the FEIS/EIR, chapter 1.

In 1955, Congress authorized the construction and operation of the TRD (Public Law 84-386). Although Congress authorized the TRD as an integrated feature of the Central Valley Project, the authorizing legislation also directed the Secretary of the Interior to ensure the preservation and propagation of the Trinity River's fish and wildlife resources. A 1979 Solicitor's Opinion stated that the 1955 Act thus required sufficient in-basin flows determined by the Secretary as necessary for fish and wildlife to take precedence over exports of Trinity River flows to the Central Valley. *Proposed Contract with Grasslands Water District* (Dec. 7, 1979). Following construction and operation of the TRD in the early 1960s, substantial fish populations declines occurred. A 1980 EIS concluded that insufficient stream flows in the Trinity River represented the most critical limiting factor. Therefore, Secretary Andrus initiated the Trinity River flow study in 1981 to determine necessary instream flows in the Trinity River and other measures necessary to restore and maintain the Trinity River fishery consistent with the statutory directives of the 1955 Act and the federal government's trust responsibility to the Hoopa Valley and Yurok Tribes.

Congress reiterated the importance of the Trinity River fishery in subsequent legislation. In 1984, Congress passed the Trinity River Basin Fish and Wildlife Management Act (Public Law 98-541) that established a goal to restore the basin's fish and wildlife populations to

Trinity Management Council Subcommittee

**Trinity River Restoration
Program Evaluation
Final Report**



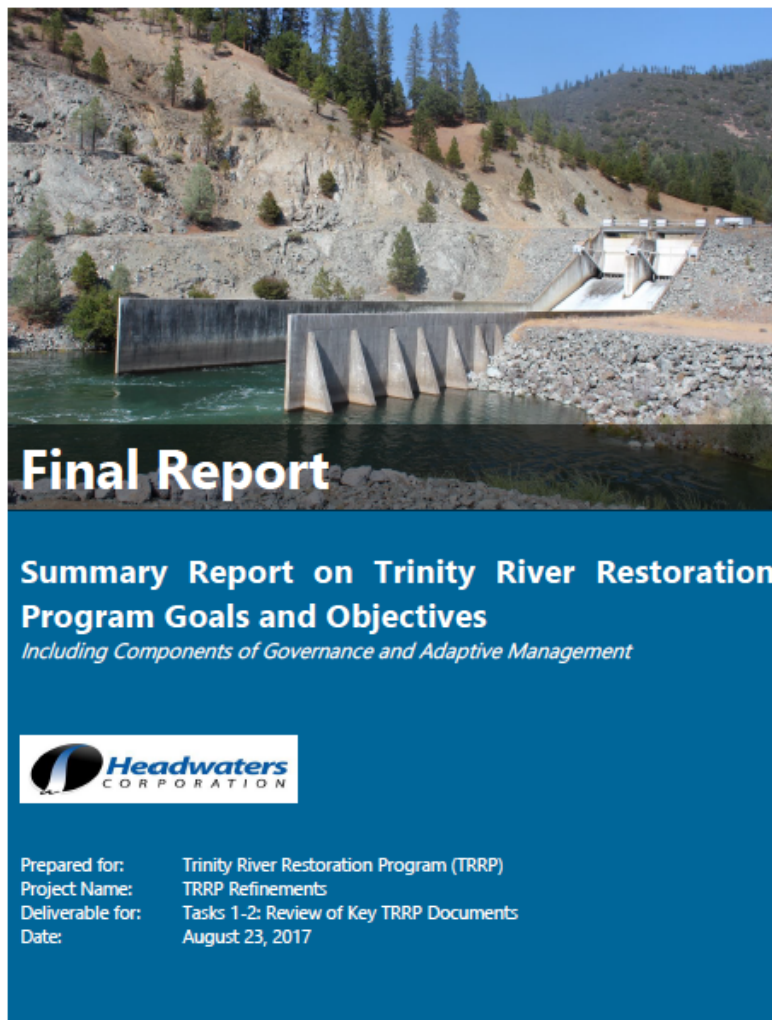
March 29, 2004

**TRINITY RIVER RESTORATION PROGRAM
SITUATION ASSESSMENT**

May 10, 2008

**Christopher W. Moore, Ph.D.
Jennifer L. Graham, M.S.**







Final Report

Summary of Trinity River Restoration Program Interviews



Prepared for: Trinity River Restoration Program (TRRP)
Project Name: TRRP Refinements
Deliverable for: Tasks 3: TRRP Interviews
Date: November 30, 2017

California WaterFix Hearing
Exhibit No. SWRCB-51

1

**ADAPTIVE MANAGEMENT IN THE SACRAMENTO-SAN
JOAQUIN DELTA:**

HOW IS IT USED AND HOW CAN IT BE IMPROVED?

A Report from the
Delta Independent Science Board

August 24, 2015

DRAFT

DISB ON ADAPTIVE MANAGEMENT:

1. Create a Delta Adaptive Management Team (AMT)
 2. Support adaptive management with funding that is dependable yet flexible.
 3. Monitor.
 4. Capitalize on unplanned experiments.
 5. Use selected restoration sites to test adaptive-management and monitoring protocols.
 6. Integrate science and regulations to enhance flexibility.
 7. Recognize where adaptive management is not appropriate.
 8. If the impediments to conducting adaptive management are insurmountable, revisit or revise the mandates.
- (SWRCB-51, pp. 2-4, 35-39.)

DISB Recommendation 1. Create A Delta Adaptive Management Team.

“...The AMT should be composed of individuals who are knowledgeable and skilled in all phases of adaptive management. These individuals may be drawn from agencies, non-governmental organizations, universities, or other sources, but all will be dedicated, full-time members of the Team who operate independently of state or federal agencies. The Team will work closely with those who plan, implement, or oversee management actions in the Delta. Strong leadership will be required to foster the mutual trust and respect among scientists, managers, stakeholders, decision-makers, and agencies that are needed to design and conduct coordinated adaptive management and navigate the tangled web of Delta interests.”

(SWRCB-51, p. 36.)

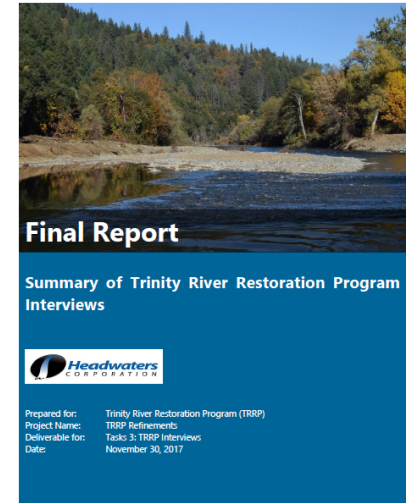
Q: What is the overall health of the TRRP organization and funding structures?

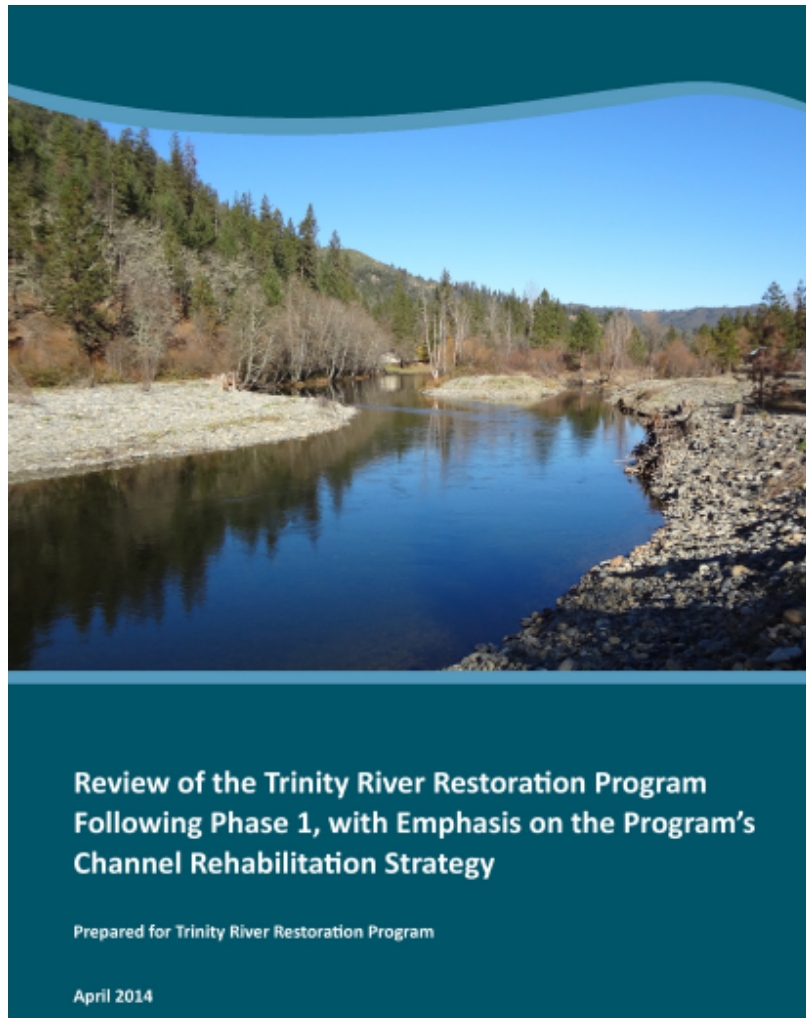
A: Interviewees were mixed in their opinions about what is working, what is not working, and what could be done to improve TRRP structure and function. Notable responses include:

- Interviewees indicated there is limited TRRP identity. People identify themselves as working for their specific agency/entity and not for the TRRP. There is little sense of team or collaborative spirit within the program.
- Several interviewees pointed to a lack of continuity in leadership as a problem for the TRRP. There is no consistent TRRP vision/plan so each new agency head brings their own interests and focus to the program, some of which frequently are not consistent with the TRRP goal.
- Regarding the role of the federal agencies in staffing the TRRP, some interviewees focused on staff in the Weaverville office as being the unit that should be transferred to an independent entity, like the USGS or a private contractor. Another option would be to continue to house TRRP staff from different agencies/entities but that the Executive Director (ED) should have direct supervisory authority over all TRRP staff housed at that office. There was no clear model described that was viewed as a way to overcome seeming internal difficulty in the relationship between Reclamation TRRP staff and Service TRRP staff.

Q: What is the relationship between the TRRP partners?

A: Several interviewees viewed the DOI agencies (Reclamation and Service) as having a great deal of animosity towards each other and not working together effectively. The Memorandum of Understanding (MOU) between Reclamation and the Service expired over a year ago and a revision has not been signed by either agency. Some interviewees felt finalizing this MOU was critical because it outlines how the Executive Director, Science Coordinator, and Implementation Branch Chief will work together as a staff leadership team for the TRRP. Many interviewees described a feeling of distrust of the Tribes by other TRRP partners. Interviewees viewed the two Tribes as not getting along which translates into difficulties at the TMC level.





To achieve the first two items above, Program activities and data collection must be more tightly integrated than they currently are. At the moment, Program activities are loosely organized around the ROD, but are not organized in a structured manner toward understanding system dynamics and documenting progress toward achieving the Program's *fundamental objective* of restoring in-river fish production. Annual

Formal, scientific hypothesis testing is needed.

A formal adaptive management framework is needed, as called for in the ROD (USDOI 2000), to better structure and integrate Program activities and to increase the defensibility and transparency of management actions.

DISB Recommendation 2. Support adaptive management with funding that is dependable yet flexible.

“Adaptive management in the Delta will not become a reality unless the paucity and unpredictability of funding to support critical stages of the process are remedied. Radical approaches to funding adaptive management are needed. The past and present piecemeal approaches will not provide the long-term support needed to reach the “adapt” part of the process, without which there is only a business-as-usual management approach.”

(SWRCB-51, pp. 37-38)

DISB Recommendation 3. Monitor.

“Monitoring the right things, at the right times, and in the right places, is essential. Without it, there is no way to know whether management actions are moving toward the desired goal or toward a different, less desirable, outcome. Designing monitoring protocols to fit the magnitude of management actions and the timing of important ecosystem processes would make the value of adaptive management more readily apparent. Developing an institutionalized regional approach to monitoring could also help to coordinate actions among projects and facilitate the collection, analysis, and synthesis of data that are compatible across projects.”

(SWRCB-51, p. 38.)

Q: What is the TRRP's view of adaptive management?

A: While interviewees generally agreed that adaptive management is supposed to be part of the TRRP, there was no agreement as to how (or if) the TRRP defines adaptive management and whether the TRRP is implementing adaptive management at all (or whether it wants to, or whether it can). In general, there was no clarity among interviewees as to what questions the TRRP is trying to answer, what hypotheses are to be “tested” through program implementation, how to synthesize information to make it useful for decision-makers, and how (or if) decision-makers on the TMC would even use such information. **TRRP science is viewed by many as being a lower priority in the budget than construction projects. Many interviewees described science (or adaptive management) as receiving what is left over in the budget after construction projects are funded. The TRRP was described as data rich but information poor.** For example, there is a belief that the TRRP is creating more habitat for fish and producing more juvenile fish, but there are no reports showing these results and making these connections.

Q: How does the TRRP handle the issue of “conflict of interest”?

A: This was a significant concern noted by nearly all interviewees. Interviewees stated that TMC members are voting on budgets that benefit their agencies/entities in staffing, construction projects, and monitoring and see this as a significant conflict of interest. The concept of base funding (mentioned above) was noted as one possible remedy, but there was significant concern raised by multiple interviewees that this conflict of interest in the budget, how money is allocated to projects, and how decisions are made about this allocation is a potential fatal flaw for the TRRP.

Q: How does the TRRP handle the issue of “conflict of interest”?

A: This was a significant concern noted by nearly all interviewees. Interviewees stated that TMC members are voting on budgets that benefit their agencies/entities in staffing, construction projects, and monitoring and see this as a significant conflict of interest. The concept of base funding (mentioned above) was noted as one possible remedy, but there was significant concern raised by multiple interviewees that this conflict of interest in the budget, how money is allocated to projects, and how decisions are made about this allocation is a potential fatal flaw for the TRRP.

Adaptive Management Operational Steps

SET – UP PHASE

Step 1: Stakeholders as Partners



Eureka Times-Standard (<http://www.times-standard.com>)

Records contradict feds' story behind disbanding of Trinity River watchdog group

Watchdog chairman: Says disbanding group was retaliation for conflict of interest claims
Contradictions: While the Interior Department said one thing, emails show different story

By Will Houston, Eureka Times-Standard

Monday, April 16, 2018



Federal documents and emails provided to the Times-Standard contradict and call into question the Trump administration's reasoning for disbanding a citizen's watchdog group tasked with overseeing a multi-million dollar, publicly funded Trinity River restoration project.

The U.S. Interior Department told the Times-Standard last year that the advisory group, known as the Trinity River Adaptive Management Working Group or TAMWG, was dissolved because it never turned in a short memo justifying why it should continue to be funded.

But records and emails from U.S. Fish and Wildlife Service officials — who acted as the liaison between the Interior Department and the advisory group — show that they had submitted several justification memos last year, which were either rejected or left unresponded to by the Interior Department.

Months before being dissolved, the advisory group had reasserted its concerns of conflict of interest and self-dealing by the government council it is tasked with advising: the Trinity River Management Council. The council manages the restoration project and is made up of several government agencies — including two Interior Department agencies — and tribal nations.

One of the advisory group's final actions at its last meeting in March 2017 was to put a statement on the record calling the Trinity Management Council "inherently corrupt."

LAND-271

Adequate Funding Necessary for AM

The strongest, most uniform response we received, however, was *disagreement* with the statement that “Monitoring is adequately funded to support adaptive management.” This concern will emerge often in this report; we consider it further in Section VI.

DISB, SWRCB-51, p. 12

Success of the adaptive management process outlined within this AMP hinges upon significant new investments in related research, monitoring and modeling that build on existing efforts. These investments will address key uncertainties related to water operations and threatened and endangered species that have been raised in a number of different venues (e.g., the IEP Management, Analysis, and Synthesis Team SWRCB-107, Att. 5, p. 4

B. Adaptive Management Resource Needs

The key issue is whether existing efforts, individually and collectively, have enough capacity – both in terms of staff capacity and senior researcher capacity, and have stable funding to ensure a long-term scientific basis to support successful adaptive management decision making that is relevant to project operations now and in the future.

SWRCB-104, Appx.3H, p. 3

Success of the adaptive management process outlined within this AMP hinges upon significant new investments in related research, monitoring and modeling that build on existing efforts. These investments will address key uncertainties related to water operations and threatened and endangered species that have been raised in a number of different venues (e.g., the IEP Management, Analysis, and Synthesis Team and Salmon and Sturgeon Assessment of Indicators by Lifestage and the Collaborative Science and Adaptive Management Program (CSAMP) Salmon Scoping Team) as well as during the development of a Biological Assessment for CWF. The Implementing Entities are committed to leveraging the expertise found in these different venues; filling critical data and information gaps in the areas of integrated monitoring and research, mechanistic studies and models, information synthesis, and data access.

SWRCB-107, Att. 5, p. 4

B. Adaptive Management Resource Needs

The key issue is whether existing efforts, individually and collectively, have enough capacity – both in terms of staff capacity and senior researcher capacity, and have stable funding to ensure a long-term scientific basis to support successful adaptive management decision making that is relevant to project operations now and in the future.

SWRCB-104, Appx.3H, p. 3

Jeffrey Michael's Testimony on CWF Financial Feasibility

19 **VI. There is considerable evidence that the WaterFix is not financially feasible.**

20 In summer and fall of 2017, state and federal customers were asked by DWR to vote on
21 whether they would fund their share of construction costs, defined as the share of water
22 exported from the Delta that they receive. In September 2017, the largest potential agricultural
23 water contractor voted 7-1 not to participate in the WaterFix, and afterwards stated, “from
24 Westlands’ perspective, the project is not financially viable.”¹³ Subsequent to this,
25 Reclamation stated that it would not be funding the WaterFix, and DWR had assumed
26 Reclamation would pay 45% of the project costs. The WaterFix did not fare much better on

27

28 ¹³ <https://mavensnotebook.com/2017/09/20/this-just-in-westlands-water-district-statement-on-california-waterfix/>

WATER CODE SECTION 85989

Construction of a new Delta conveyance facility shall not be initiated until the persons or entities that contract to receive water from the State Water Project and the federal Central Valley Project or a joint powers authority representing those entities have made arrangements or entered into contracts to pay for both of the following:

(a) The costs of the environmental review, planning, design, construction, mitigation, including mitigation required pursuant to Division 13 (commencing with Section 21000 of the Public Resources Code) required but for the construction, operation, and maintenance of any new Delta water conveyance facility.

**AGREEMENT FOR IMPLEMENTATION OF AN ADAPTIVE MANAGEMENT
PROGRAM
FOR PROJECT OPERATIONS**

1.0 PURPOSES OF THIS AGREEMENT

Scientific uncertainty exists regarding the Delta ecosystem, including the effects of Central Valley Project/State Water Project (CVP/SWP) operations and the related operational criteria on the Protected Species and their habitats. To address this uncertainty, the Parties to this agreement will establish a robust program of collaborative science, monitoring, and adaptive management. The purposes of this Agreement are to set forth the Parties shared intentions to: 1) confirm the Parties' commitment to implementation of an Adaptive Management Program (Program) for the California Water Fix, including the Adaptive Management Framework (attached), and Current Biological Opinions on the combined operations of the Central Valley and State Water Projects consistent with the Biological Opinions and Permits, 2) clarify the provisions related to Adaptive Management expressed in related documents and the processes the Parties intend to follow to ensure successful implementation of the Adaptive Management Program, and 3) delineate responsibilities among the Parties in implementing the Adaptive Management Program.

2.0 PARTIES TO THIS AGREEMENT

This Agreement is made and entered into by and among the State of California, acting through the California Department of Water Resources (DWR) and the California Department of Fish and Wildlife (CDFW) of the State of California Natural Resources Agency, certain State Water Project and Central Valley Project contractor water agencies (SWP/CVP Contractors), and the United States Bureau of Reclamation (Reclamation) of the United States Department of the Interior, the United States Fish and Wildlife Service (USFWS) of the United States Department of the Interior, and the National Marine Fisheries Service (NMFS) of the United States Department of Commerce (collectively referred to as the Parties).

5.3.3 Decision-making and Review Process

Adaptive management recommendations by the IICG shall be by consensus of the representatives. In the event of a dispute within the IICG regarding different hypotheses, lines of evidence, or interpretations of science and/or data related to a proposed Adaptive Management Change, any member of the IICG may initiate a non-binding process for a review concerning the matter in dispute by providing IICG members with a written notice of dispute that describes the nature of the dispute and options that may be available to help resolve the matter. In such case, to facilitate dispute resolution the IICG will meet and confer to consider these options and to see if further collaborative work can be undertaken to determine whether agreement can be reached on the matter.

In the event that resolution of the dispute cannot be reached within the IICG, review of the issue in dispute may occur through the presentation of alternative viewpoints as part of the Long-term operations biological opinions annual review or a separate independent science review convened by the Delta Science Program. The members of the IICG, with the assistance of the IICG Manager, will describe the nature of the dispute to be considered by the panel in consultation with the Delta Science Program and the Delta Lead Scientist.

Within 30 days of the completion of panel selection, the parties to the dispute shall present their views in writing. A non-binding opinion shall be issued in writing by a majority of the panel.

Within 30 days of issuance of the panel's non-binding opinion, the entity with final decision-making authority over the matter shall consider the panel opinions and provide a written response prior to final decision.

To the extent consistent with the purposes of this Agreement and allowed by law the entity with final decision making authority over the matter shall refrain from taking any action to implement its decision until the review process has been completed

CSAMP Policy Group

Agency Representatives

Pablo Arroyave.....	U.S. Bureau of Reclamation
Charlton “Chuck” Bonham.....	CA Department of Fish and Wildlife
Bill Croyle.....	CA Department of Water Resources
Felica Marcus.....	State Water Resources Control Board
Paul Souza.....	U.S. Fish and Wildlife Service
Barry Thom.....	National Marine Fisheries Service

NGO Representatives

Gary Bobker	The Bay Institute
Noah Oppenheim	Pacific Coast Federation of Fishermen's Assoc.
Dick Pool.....	Water4Fish
Kate Poole.....	Natural Resources Defense Council
Jay Ziegler.....	The Nature Conservancy
Rachel Zwillinger	Defenders of Wildlife

Water Contractor Representatives

Bill Phillimore.....	Coalition for a Sustainable Delta
----------------------	-----------------------------------

CVP Contractors

Thad Bettner	Glenn-Colusa Irrigation District
Marguerite Patil	Contra Costa Water District
Jason Peltier.....	San Luis & Delta-Mendota Water Authority
Jason Phillips	Friant Water Authority

SWP Contractors

Curtis Creel	Kern County Water Agency
Jeff Kightlinger.....	Metropolitan Water District of Southern CA

7. **Recognize where adaptive management is not appropriate.** Adaptive management should be the default position for management actions in the Delta. In some situations, however, the approach may be inappropriate or need to be streamlined to require fewer resources and move more quickly. Such decisions should be made thoughtfully after careful consideration of the alternatives.
- 