Collaborative Storm Water Quality Project Delivery

for the Lake Tahoe Basin

- Project Delivery Process
- Interaction Protocol
- Conflict Resolution Process

Developed by: The Storm Water Quality Improvement Committee

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AND

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I. INTRODUCTION

Implementation of storm water quality projects included in the Lake Tahoe Basin (Basin) Environmental Improvement Program (EIP) involves collaboration between Federal, State and local partner agencies. These regulatory, implementation and funding partner agencies are committed to advancing Basin-wide storm water quality project-related EIP goals.

Increased funding for the EIP has become available as a result of the Southern Nevada Public Lands Management Act and Congressional earmarks. Additionally, ongoing State grant programs are expected to continue at the higher levels recently made available by State funding agencies. The higher levels of committed funding present both a significant opportunity to achieve Basin storm water quality improvement project objectives and a continuing challenge to increase project development implementation capabilities.

The Lake Tahoe Basin Executives Committee (Basin Executives) anticipated that improvements to project delivery effectiveness would lead to better coordination and predictable project delivery schedules. A more efficient, comprehensive and streamlined process would allow agencies to agree on timeframes for conducting the required project delivery tasks, including the requisite reviews. Ideally, the agencies would perform these reviews concurrently. In practice, however, the missions of the regulating, implementation and funding agencies do not always intersect clearly. Distinct levels of authority dictated by various Basin regulations and objectives determine the level of information required, the nature of the documentation, the involvement of the various Federal, State and local agencies and the standards for review. Along with constrained resources, this complicates the project delivery process.

The Basin Executives have been working on the development of a holistic Basin-wide project delivery framework designed to meet the desired project implementation targets. This project delivery framework includes enhancements to project delivery systems, as well as providing effective partnering by regulatory and funding agencies. In order to facilitate this effort, the Basin Executives *Soil Erosion Control Implementation Working Group* (Working Group) was formed. The Working Group prioritized the continuation of

efforts to improve the design and effectiveness of storm water quality improvement projects. With this in mind, the Working Group established the *Storm Water Quality Improvement Committee* (SWQIC). The foundational goals of the SWQIC were to prioritize the need to effectively respond to increased funding from various grant programs, to facilitate the implementation of the programs, to identify cross-program issues and solutions and to bring forward recommendations to the Basin Executives.

Charged with the development of a more efficient process to implement storm water quality improvement projects, the SWQIC shared the vision of a common framework based upon standard protocols and processes. Their efforts have resulted in the development of the specific framework elements and collaborative interaction protocol documented herein.

II. OVERVIEW

The implementation of storm water quality improvement projects within the Basin is a multifaceted, complex endeavor with numerous legal and procedural steps. The current approach is based upon a culture of interdependence, as individual agencies rely upon each other to accomplish Basin water quality goals and objectives. As such, members from various Basin agencies are involved in the project delivery process (PDP) and participate in the collective management of project delivery goals and objectives. This involves a consensus-based decision making approach that has distinctive procedural differences from those associated with the standards of the profession.

The SWQIC was chartered to use a consensus-based approach to develop methods that would enhance collaborative project delivery, with a focus on the project implementation element of program delivery. Objectives for the SWQIC were outlined in the original SWQIC Charter. Three of their primary objectives follow:

- To recommend approaches that incorporated the application of *Preferred Design Approach* (PDA) and a comparative analysis of alternative designs.
- To recommend a project review process that incorporated the review of project criteria from various perspectives.
- To establish a review process during various phases of a project through the completion of construction.

The proposed PDP was developed to facilitate these objectives while preserving the culture of interdependence utilized in the delivery of storm water quality improvement projects.

The SWQIC recognized that, while the PDPs utilized by the various agencies within the Basin were similar, these processes also contained a number of inherent differences. To provide for continuity between agencies and recognize inherent differences, the SWQIC developed separate PDPs for the following generalized agency groupings:

1. California Local Agency
2. Nevada Local Agency

3. California Department of Transportation
4. Nevada Department of Transportation
5. Federal (United States Forest Service)

While developing five separate processes, the SWQIC desired that these processes all contain the following characteristic core elements:

- Scoping and Funding
- Planning
- Design
- Site Improvement

These five PDP's were developed to:

- Provide for a common understanding of the requisite strategic steps necessary to delivery a storm water quality project.
- Identify key interaction points throughout the PDP where the implementing, funding and regulatory agencies need to interact.
- Assist in achieving the SWQIC Charter objective of identifying roles and responsibilities during project development process.
- Assist in the establishment of expectations and outcomes associated with the project.
- Be used as strategic tools for project planning and delivery.

The SWQIC PDP emphasizes the early development of the project scope and a refocusing of several critical process efforts into the planning phase. There are three distinct stages of interaction that occur between implementing, funding and regulatory agencies. The initial interaction stage consists of definition of project scope, purpose and need. Establishing the feasibility of a variety of possible solutions is the next interaction stage. Understanding and evaluating the details of implementation and construction is the final interaction stage. The SWQIC PDP successfully provides an appropriate process for addressing the issues at different stages. Previous practice involved addressing the majority of project-related questions during the design and construction stages of the project.

The SWQIC PDP process helps to align the previous practice by proposing robust involvement by a project specific Technical Advisory Committee (TAC) or Project

Development Team (PDT), especially during earlier stages of the PDP. The first step of the proposed PDP would be TAC project initiation meetings with the expressed purpose of developing the project criteria and proposed scope, purpose and need prior to initiation of subsequent project delivery stages. The outcome of this process is a well-defined proposed project scope tied to a reliable estimate of the PDP needs required to complete the project, with initial focus on the project-planning phase.

During the project-scoping phase, it is expected that the TAC will develop a distinctive baseline delivery schedule and work plan for the proposed project based upon the foundational steps identified in the applicable agency SWQIC PDP template. The implementation agency will develop the project schedule and work plan, using the TAC process to attain subsequent endorsement on the proposed schedule and work plan. Once agreed upon, the project will be managed and delivered pursuant to the established work plan and schedule. TAC endorsement should be obtained throughout the project delivery efforts to accommodate change during the project implementation.

Another emphasis of the PDP was to define a practical planning process. Many project proponents have historically emphasized structural solutions to water quality projects. The SWQIC wanted to achieve the charter objective to facilitate application of the PDA, which emphasizes non-structural solutions. This is accomplished through the development of the procedures document entitled *"Formulating and Evaluating Alternatives for Water Quality Improvement Projects"* (FEA).

The FEA emphasizes an open-minded conceptual planning approach that allows for the discussion and exchange of concepts early in the project delivery process, before the formal process of design begins. The FEA stresses a flexible process that encourages the screening of options systematically through both measurable and subjective criteria during the formulation and evaluation of alternatives phases of the PDP. It utilizes multi-criteria decision tools to assist the TAC members to arrive at a convergence of concepts for the preferred alternative.

These PDP elements can lead to the identification and need for further studies before beginning the project design. During the FEA process, the TAC will likely nominate a set of selected options to be evaluated in more detail. The outcome is the selection and

final scope definition of the preferred project alternative that is derived from a rating of the project alternatives based upon applicable project-specific criteria. It is preformed in conjunction with the environmental evaluation of the project alternative(s).

The SWQIC determined that the FEA process would lead to a more streamlined design phase. Throughout the FEA process, at specific pre-determined milestones, it is intended that participating agencies acknowledge project decisions prior to moving on to the subsequent stages of the PDP. At the completion of the FEA process, it is intended that the participating agencies formally acknowledge the preferred alternative prior to initiation of the design process.

With this formal acknowledgement, the project implementer will now be able to focus on the effective development of design details and drawings appropriate for the selected alternative during the design phase. The bulk of the detailed analysis and development of construction contract documents can be accomplished efficiently in this phase. The effective scoping of the project and initialization of a formal planning phase, including selection and formal acknowledgement of the preferred alternative, is intended to reduce, if not eliminate, the need to revisit prior decisions during the design phase. Productivity and timesavings should result because tasks are not duplicated and non-value adding tasks are simplified or eliminated.

Near the end of the design phase, final design review and permitting will be accomplished. Member agency TAC participants experienced with the project can lead their respective agencies in the review process and facilitate the evaluation of the project submittal for consistency with goals and objectives defined and documented during the FEA process.

The entire PDP is designed to maintain project delivery momentum and attend to the necessary interfaces between the implementation, funding and regulatory agencies. Clear definition of the PDP process at a level that all TAC members understand will help to define and guide the roles and responsibilities of the individual members. It will help to strategically guide the project delivery and will assist TAC members in identifying consequences of project related decisions relative to potential impacts to the project delivery schedule and work plan. It will lead to a greater understanding of project

objectives for the individual, as well as the collective TAC membership. Members will be committed to the project delivery plan because they will be involved with its development and management.

Application of the SWQIC PDP will require group-centered leadership by the entire TAC, in addition to individual leadership by the project implementer. TAC groups will be challenged to work responsibly and review how they are doing relative to the baseline project delivery schedule and work plan. The entire team will discuss the proposals and make decisions relative to the standards, regulations, expectations, project and Basin goals and objectives, as well as the specific project delivery schedule and work plan.

The integration of individual projects into the SWQIC PDP format will allow for a collective programmatic evaluation of multi-year programmatic funding requirements, as well as a holistic evaluation of administrative and staffing needs. A programmatic approach will allow for coordination of project delivery schedules and will provide valuable insight to help determine Basin-wide grant-funding appropriations.

The SWQIC is confident that this strategic and collaborative management approach will lead to a positive collaborative atmosphere. In turn, this will facilitate enhanced creativity, capitalize on collective wisdom, encourage deeper commitments to outcomes and promote greater TAC resourcefulness and collective excellence. It will be the catalyst that allows for improved water quality project solutions that facilitates the timely and effective use of project funding.

DESCRIPTION OF THE

PROJECT DELIVERY TOOLS

III. DESCRIPTION OF THE PROJECT DELIVERY TOOLS

The SWQIC was charged with the development of a more efficient process to implement storm water quality projects. An action plan was developed to accomplish this task. Many of these actions will be taken and addressed in the development of the following four project delivery tools. Three of these tools were developed as a hierarchical set with the lower tool being influenced by the higher tool. The fourth tool (the Conflict Resolution Process) was designed to resolve problems when the system cannot facilitate solutions. The organization of these tools can be shown in the following manner:

- Project Delivery Process
- Formulating and Evaluating Alternatives
- Interaction Protocol
- Conflict Resolution Process

PROJECT DELIVERY PROCESS

The intended purpose of this effort is to develop tools to help document, streamline and guide the water quality Project Delivery Process (PDP). Currently, this process is not well documented and partner agencies are unsure of each other's roles and responsibilities. Decisions on the individual project approaches have sometimes lagged behind the implementation agencies' development of various stages of engineering plans and specifications. Additionally, critical interactions throughout the project development process continuum are not always aligned with the sequential needs of an efficient PDP.

The tools developed by the SWQIC are intended to provide documentation of a standard PDP. The product will be a flowchart of specific tasks illustrating the sequential order in the PDP.

The relationship between each step in the PDP and further detail is illustrated in Appendix A, Figure 1 for California Local Agency grant funded projects and Appendix A, Figure 2 for Nevada projects. There will also be a United States Forest Service (USFS)

Federal PDP, and a California and Nevada Department of Transportation PDP. Each PDP reflects the needs of its respective agency.

The tools will help identify and assist in the communication of key points in the PDP where funding and regulatory agency involvement is required. They will also identify key decision points and help better establish requisite roles and responsibilities. The agreement and completion of the project delivery process tools will assist in the creation of a resulting project development protocol that will foster cooperation and involvement with an enhanced strategic emphasis. The tools are intended to establish critical points where focused and active involvement is required by members of the project's Technical Advisory Committee (TAC) and are intended to reduce, if not eliminate, the need to revisit prior decisions. This revisiting of issues has previously required duplication of development efforts and has often resulted in backwards movement in the project delivery continuum, as well as increased project costs.

FORMULATING AND EVALUATING ALTERNATIVES

The SWQIC developed a procedures document entitled *"Formulating and Evaluating Alternatives for Water Quality Improvement Projects"* (FEA). The FEA document is intended to supplement the adopted funding agency grant program Guidelines by describing methods applicable to the initial stages of project design; specifically, formulating and evaluating project alternatives. The FEA document is intended to assist implementation agencies in defining a consistent and efficient planning process that meets the goals of the grant program Guidelines and complies with the standards of engineering practice.

The need for technical guidance to implement the approach described in the grant funding Guidelines was recognized by the SWQIC, as were the constraints in developing guidance that is both scientifically based and grounded in experience in the Tahoe Basin. This first version of the FEA was prepared over a short time period. It is intended primarily as a starting point for further work. The SWQIC fully expects that the FEA document will be modified and expanded as time allows, and as the base of scientific knowledge and practical experience grows further. It is not the intent of the SWQIC to unduly constrain the creative design process needed to implement innovative solutions

to water quality problems in the Tahoe Basin. The FEA document was written to allow flexibility, and encourage design professionals to exercise discretion and judgment in project design.

INTERACTION PROTOCOL

The SWQIC members agreed that the definition of protocols of interaction would serve as guidance to individuals involved in project collaboration. A primary step in achieving this proposed strategy is to facilitate a collaborative paradigm between partner agencies. Core components based upon the SWQIC governing principles should provide for more effective collaboration.

CONFLICT RESOLUTION PROCESS

During the collaborative project development process, differences may develop, including the following:

- Disputes over the interpretations of terms.
- Disputes over information.
- Fundamental disagreements based on missions and mandates.
- Disputes associated with insufficient resources.
- Disputes caused by failure to deliver or fulfill a commitment.
- Inadequate project scoping to identify the concerns and needs of partners before the project starts and funding is secured.
- Policy-level decisions that cannot and/or should not be resolved at the individual project level.

Definition of a common conflict resolution process will allow individual project proponents to have a predetermined, established protocol to resolve differences that often occur during the development of a storm water quality project.

PROJECT DELIVERY PROCESS

IV. *PROJECT DELIVERY PROCESS*

There are differences in the project delivery processes utilized by the various implementation agencies around the Basin. Given the variety of approaches employed within the Basin, the SWQIC determined that it should define processes that are as consistent as practicable. This objective is intended to better facilitate partner agency interactions and help with ongoing education efforts related to mutual understanding of the similar critical points of interaction during the partnering process. In reviewing the different project development processes, the SWQIC determined that five processes generalize the various project delivery processes utilized around the Basin. The five processes are as follows:

- Federal Process
- California Local Agency Process
- Nevada Local Agency Process
- California Department of Transportation Process
- Nevada Department of Transportation Process

The SWQIC started with the development of a standard project delivery template for the California Local Agency Process. The California Local Agency template and Nevada Local Agency template are included within this document. One defines a generalized project delivery process for the California local agencies that is funded by California Tahoe Conservancy (CTC) and/or Federal grants. The remaining templates are being developed by the respective agencies and will be included in these protocols upon completion.

Each process will include the following fundamental elements:

- Scoping Phase
- Planning Phase
- Design (PS&E) Phase
- Construction Phase

The SWQIC focused the predominance of its attention on the development of a water quality project delivery process, with an emphasis on the planning phase of this process. It is expected that the subsequent environmental, engineering and construction phases will follow common standards of the industry and significant written guidance currently exists. Additionally, grant funding guidelines and permit requirements have helped to define the submittal expectations associated with these subsequent phases of the project development process. Therefore, the environmental, engineering and construction phases are not described in these protocols.

The five project delivery templates are intended for use by the respective implementation agencies to develop the proposed project delivery schedules for individual water quality projects.

The California Department of Transportation (Caltrans) has an established PDP that is utilized on a statewide basis. The Caltrans PDP is based upon deliverables already defined in that process. The SWQIC PDP for Caltrans will define deliverables that only Caltrans will provide. It is intended that those deliverables will provide similar information as is provided in the other PDPs.

Additional guidance on the PDPs is provided in subsequent sections of these protocols.

PREFERRED DESIGN APPROACH

In July 2001, the CTC adopted new Guidelines for erosion control projects (CTC 2001) that describe a preferred design approach (PDA) for CTC funded projects. The new Guidelines establish priorities for the use of source control measures and treatment facilities as well as the hydrologic design of erosion control projects, with the objective of improving overall water quality performance of projects. The Guidelines also recommend an analysis of project alternatives to consider potential benefits of a range of approaches. The Guidelines describe a design approach that differs from the approach used on many earlier projects; however, they do not define specific technical procedures for implementing the PDA or evaluating alternatives.

The USFS subsequently adopted the CTC Guidelines for grant-funded projects, and the Nevada Division of State Lands further refined and adopted the Guidelines. In additions, the California Regional Water Quality Control Board, Lahontan Region and the Tahoe Regional Planning Agency (TRPA) have indicated their support for the priorities described in the Guidelines.

GUIDANCE DOCUMENT- FORMULATING AND EVALUATING ALTERNATIVES FOR WATER QUALITY PROJECTS

The SWQIC worked to define procedures to implement the PDA. The procedures contained within the FEA document are intended to establish the Basin-wide planning process for implementing a water quality project and apply to actions that involve making project-related decisions. All Federal, State and local agencies are encouraged to use the FEA as a procedural framework for developing project alternatives.

The FEA is intended to assist in the project development process by defining a consistent and efficient process to establish and select project alternatives that meet the goals of the funding agencies and comply with the standards of engineering project delivery practice.

It is anticipated that the FEA process will be universally agreed upon and adopted by partner agencies. Adoption of the FEA will allow for consistency between the various programs.

It is also anticipated that the implementation of the FEA process will differ from agency to agency. For example, the California Department of Transportation will utilize their existing project delivery process to develop deliverables similar to those described in the FEA process.

For the Nevada local agency projects, the SWQIC members recognized that there are significant differences in the funding, planning, and design processes between the Nevada and California programs. The Nevada Program is streamlined in comparison to the California Program because the California Environmental Quality Act requirements and the California funding processes are not required in Nevada. The Nevada SWQIC

members identified the FEA as a valuable tool and agreed it will be integrated into the Nevada Program as a guidance document. Each Nevada local agency project design team will independently agree on the level of utilization based on the scope of the project and the applicability of FEA elements in relation to the Nevada project delivery requirements.

The FEA is also intended to serve as a tool to familiarize all participants with the planning stages of the project delivery process by identifying the individual elements and tasks necessary to advance a water quality project through this phase of the PDP.

A critical component of this effort is to facilitate decision-making and collaborative consensus during the various stages of project planning consistent with a strategic, sequential approach to project delivery. The fundamental elements include:

- The establishment of existing conditions and problem definition.
- Project alternative formulation.
- Project alternative evaluation.
- Project alternative selection.

A formal consensus mechanism for each stage is desired to strategically move the project though the project development continuum and curtail re-visitation of prior project decisions.

The FEA should be used as a guidance document during the project's planning phase. Methods described within the FEA should be evaluated and applied to the degree warranted by each specific project. The TAC should reach agreement and complete only what is necessary to perform the recommended assessment and evaluation of project alternatives. Each TAC should evaluate the proposed application of the FEA during the water quality project scoping stage and reach consensus on the degree of applicability prior to the application of the FEA process. If warranted, the TAC should adjust the FEA approach utilizing the TAC consensus process.

There are specific milestones described within the FEA document that correspond to various stages of the FEA process. Consensus should be reached at the end of each

stage prior to moving to the next stage. At the end of the FEA process, there should be formal written acceptance of the preferred alternative to solidify the collaborative decisions developed throughout the process.

It is expected that technical guidance and procedures currently contained within the FEA document will require modification and/or expansion as the ongoing scientific research advances the understanding of how best to implement water quality solutions. Additionally, as the procedures in the FEA document are applied, discoveries may be one of the best sources of improved procedures to be incorporated into future versions. The TRPA will manage changes to the FEA document as this information becomes available. TRPA will develop a process that will formally document discoveries. These procedures are intended to allow for proactive written communication to TRPA for integration into future editions via the adaptive management process.

WORK BREAKDOWN STRUCTURES

The SWQIC wanted to provide the TAC with a tool to help define the requisite, sequential steps of the project delivery process. A typical Work Breakdown Structure (WBS) was developed as this tool. The WBS has the same four general phases described previously described herein. These phases are applicable for any of the implementing agencies. These phases are again identified as follows:

- Scoping and funding phase
- Planning phase (Includes the FEA & Environmental Review process)
- Design phase
- Construction phase

A series of WBS's are being developed to summarize these approaches. The WBS's are shown in a one-sheet summary, (Appendix A, Figure 1 and 2 show these for local California and Nevada agencies) as well as a detailed WBS's (Appendix B) that are shown in a Gantt chart. The individual WBS's will allow for individual agencies to reflect their own approach to managing a project and/or will allow for the accounting of slightly different terminology. However, the intent of the PDP is to have every agency agree on how a project would proceed.

The WBS's were developed to achieve the following benefits:

- Understanding the WBS's will increase the effectiveness of communications by using common terminology.
- The WBS will facilitate project planning.
- The WBS will establish an approach that would assist in streamlining the projects by reducing the amount of work that would be redone.

PROJECT PHASES

The project phases are briefly described in the following subsections.

SCOPING AND FUNDING PHASE

While the implementing agency contemplates which EIP project they would like to develop, the scoping and funding phase will be strongly influenced by the funding requirements and EIP objectives. For local agency programs that are grant funded, this may also include requirements of the funding agency. For these programs, the funding agency will define what applications are submitted and when they will occur, and well as determine the scheduled availability of funding for the project.

Within this phase, the scope of work for the project should become better defined, outlining the monitoring plan and the work plan to complete the study. The SWQIC is proposing that funding agencies provide additional opportunity to apply and receive funding more often then what is provided for with the current annual cycles. On a programmatic level, it is anticipated that individual projects will be on unique cycles that will be determined by project complexity and available revenues and resources. Movement into the planning and site improvement phases of individual cycles of particular project may place the funding appropriation activity unnecessarily on the project critical path if the annual appropriation methodology is maintained. This can add additional time to the PDP.

PLANNING PHASE

The planning phase covers the FEA process, from the existing conditions analysis to the selection of the preferred alternative(s), to the environmental review. To streamline the planning process, the environmental documentation should begin as alternatives are being formulated, so that alternatives that surface during the environmental scoping process can be included in the FEA. The environmental process includes completing the environmental document, the start of the permit process, and beginning the right-of-way work. Once environmental documentation is in place, the right-of-way acquisitions can begin, as well as pre-design.

DESIGN PHASE

The design phase takes the project from the environmental document through design and construction. It includes the plans, specifications, and estimate report, and bidding the project. The phase also includes acquiring permits.

CONSTRUCTION PHASE

The construction phase begins at bid award and moves through project completion. It includes monitoring and project closeout.

Project objectives, conditions and regulatory requirements established during the project planning and design phases need to be properly implemented during the construction phase. Agencies often administer project construction with staff specializing in construction management. These staff members are often different individuals then those who originally participated in the project development phase of the project. Clear communication between these differing individuals during the construction phase is critical.

POINTS OF INTERACTION

One of the key features of the project delivery process was an agreement by the agencies to work collaboratively, including bringing the regulatory agencies into the project sooner in the PDS. This collaborative process was formalized by agreeing to have a TAC to guide the project, a team comprised of implementing, funding, and regulatory agency representation. The SWQIC defined a management process that requires the partner agencies to reach collective agreement at particular stages of the PDP. Termed interaction points, it is proposed that the partner TAC member agency representatives reach agreement at these critical process milestones.

This is one of the key elements of the SWQIC PDP concept. The following table shows these interaction points, and what is required from the TAC. Table 1 describes the milestone interaction points when the partner TAC members should get together, what they should agree to, and how the partner TAC members should facilitate and document their agreement for each interaction milestone of the project as described in Appendix A, Figure 1 and 2.
This element of the PDP was included to:

- Facilitate effective partnering.
- Encourage early identification of pertinent project information and issues.
- Facilitate timely decisions and project issues resolution.
- Strategically align decision making with the corresponding stages of the PDP.

The idea was to create a pseudo-firewall that assists the TAC in discouraging:

- Movement into subsequent stages of the PDP until such time as agreement is reached.
- Re-visitation of issues after agreement.
- Backward movement in the PDP.
- Unilateral decision-making.
- Placing activities inadvertently onto the project critical-path.

What is illustrated in Table 1 is the need for TAC members interaction will be minimized to these key interaction points. While the time requirements for the implementation partner agency have not changed substantially because of the PDP, the regulatory and

funding partner agency's involvement has become more robust during the planning portion of the PDP, when many of the critical decisions are made. Expectations of TAC members are further described in the interaction protocol section of this PDP.

Table 2 shows a forecast of both the duration and level of effort estimated for the TRPA and Lahontan Regional Water Quality Control Board. These durations and level of efforts were established as suggested default review requirements, which will be incorporated into the development of the duration and resources estimates in the WBS. Durations and levels of effort for other partner reviewing agencies have not been established. The SWQIC encourages those agencies to determine default durations and resource estimates in a similar manner.

During the scoping stage and on a project-by-project basis, the SWQIC expects TAC members to use these forecasts as default estimates from which to begin negotiations. These negotiations should consider the individual needs of the distinctive circumstances at the time of negotiations, such as the availability of reviewing agency staff and project delivery resources, such as implementation agency staff and/or consultant personnel.

The permit stage of the TAC is the transitional period where the TAC process concludes. Permitting and compliance personnel may be located in different functional units of partner agencies. These staff will monitor project activities pursuant to permit conditions and applicable regulations identified in the prior stages of project delivery.

Table 1

TECHNICAL ADVISORY COMMITTEE (TAC) Points of Interaction

Lake Tahoe Environmental Improvement Program Project Delivery Process

Stage	Interaction	Deliverables	Comments
Funding/Scoping	**Initial Meeting**	**Define Roles and Responsibilities, Establish Communication Plan, Frequency of TAC meetings**	**Begin discussion on project and project alternatives**
	Site Visit Meeting	*Determine any limiting conditions on the project site*	*Mandatory attendance not required. Some entities may have gook knowledge of site*
	Preliminary Monitoring Plan Review	*The TAC reviews and agrees to the monitoring plan, then forwards to LTIMP for sign off. TAC agreement is less formal, can be e-mail acceptance by team*	*Monitoring may not be required for all projects*
	Preliminary Workplan Review	*The TAC provides comments to the Implementing Agency. The TAC should begin to resolve any outstanding issues on the workplan before comments*	
	Final Monitoring Plan Review	*The TAC should agree on the FMP and request a Permit*	
	Final Workplan and Public Outreach Plan Review	**The TAC formally approves the workplan with a letter or e-mail by TAC members to the Implementing Agency**	Outreach should be planned at project initiation
	Pre-Construction Monitoring Report Review	*The TAC provides comments on the report, then Implementing Agency forwards report for LTIMP sign off.*	
Planning	*Draft Existing Conditions and Problems Report Review*	*The TAC provides comments to Implementing Agency. The TAC should begin to resolve any outstanding issues before comments are forwarded.*	
	Final Existing Conditions and Problems Report Review	**The TAC formally approves the existing conditions report with a letter or e-mail by TAC members to the Implementing Agency**	
	Draft Conceptual Alternatives Report Review	*The TAC provides comments to Implementing Agency. The TAC should begin to resolve any outstanding issues before comments are forwarded.*	

Table 1

TECHNICAL ADVISORY COMMITTEE (TAC) Points of Interaction

Lake Tahoe Environmental Improvement Program Project Delivery Process

Stage	Interaction	Deliverables	Comments
	Final Conceptual Alternatives Report Review	**The TAC formally approves the conceptual alternatives report with a letter or e-mail by TAC members to the Implementing Agency**	
	Draft Project Alternatives Review	*The TAC provides comments to Implementing Agency. The TAC should begin to resolve any outstanding issues before comments are forwarded.*	
	Initial ID of permit requirements	**The Implementing Agency and regulatory agencies should discuss the permit process and what information will be required**	
	Final Project Alternatives Review	**The TAC formally approves the project alternatives report with a letter or e-mail by TAC members to the Implementing Agency**	
	Admin Draft IS/EA & TRPA Checklist Review	**The TAC provides comments to Implementing Agency.**	
Design	*60% Design Review*	*The TAC provides comments to Implementing Agency*	*Depending on the complexity of the job, additional design reviews may be needed*
	Pre-final Preferred Project Plan and Preferred Project Design Report	**The TAC formally approves the preferred project design report with a letter or e-mail by TAC members to the Implementing Agency**	**(Also referred to as the 100% Design Approval)**
Construction	Pre-Grade Meeting	The TAC formally approves the pre-grade plans with a letter or e-mail by TAC members to the Implementing Agency	
	Final Construction Inspection	The TAC formally approves the completion of construction with a letter or e-mail by TAC members to the Implementing Agency	
	Final Monitoring Report Review	The TAC formally approves the final monitoring report with a letter or e-mail by TAC members to the Implementing Agency	

Bold represents a critical meeting *Italics* represent optional events

Table 2

Project Development Team Members, Expected Deliverables, and Regulatory Agency Review Time Estimates

Lake Tahoe Environmental Improvement Program Project Delivery Process

Stage	Meeting	TRPA Duration (days)	TRPA Resources (days)	Lahontan Duration (days)	Lahontan Resources (days)
Funding/Scoping	Initial Meeting	15	2	15	2
	Site Visit Meeting	10	2	10	2
	Preliminary Monitoring Plan Review	5	1	5	1
	Preliminary Workplan Review	20	2	20	2
	Final Monitoring Plan Review	10	1	10	1
	Final Workplan Review	15	1	15	1
	Pre-Construction Monitoring Report Review	15	3 (Rita)	0	0
Planning (FEA)	Draft Existing Conditions and Problems Report Review	15	3	15	3
	Final Existing Conditions and Problems Report Review	10	2	10	2
	Draft Conceptual Alternatives Report Review	20	2	15	2
	Final Conceptual Alternatives Report Review	15	2	15	2
	Draft Project Alternatives Review	30	3	30	3
	Final Project Alternatives Review	30	2	30	2
Planning (Env Docs)	Admin Draft IS/EA & TRPA Checklist Review	100	5-10	100	5-10
Design	Permits	60	3	60	3
	Pre-final Preferred Project Plan and Preferred Project Design Report	30	2	30	2
Construction	Pre-Grade Meeting	5	1	5	1
	Mid Construction Review	10	1	10	1
	Winterization Inspection	10	1	10	1
	Final Construction Inspection	10	1	10	1
	Final Monitoring Report Review	30	1	30	1
	Total Days		41-46		41-46

INTERACTION PROTOCOL

V. *INTERACTION PROTOCOL*

ASPECTS OF THE INTERACTION PROTOCOL

While the project delivery process and the TAC protocol (defined below) offer specific steps for the development of any one project, these tools are to be used along with the general Interaction Protocol. The following aspects of the Interaction Protocol are defined below:

- Roles and Responsibilities
- Elements of Protocol
- Critical Role of Project Management
- Technical Advisory Committee Protocol
- Recommended Skill-set Trainings

COORDINATING PRINCIPLES

A primary step in achieving the proposed project delivery strategy is to attempt to facilitate movement into a new paradigm between partner agencies. A core component for transformation is that all partner project delivery participants need to be open and considerate of other participants' views. They also need to understand not only the fundamental elements of the entire PDP, but also how each participant fits into that PDP relative to their roles and responsibilities. Other common themes include early participation and commitment to decisions made during the project development process.

GUIDANCE, NOT PRESCRIPTION

There are several governing principles that the SWQIC incorporated into its efforts to define this paradigm. The protocols developed through the SWQIC are intended as guidance, not prescription. Special situations may dictate prudent variations. While focusing on project goals, flexibility among involved parties is emphasized in order to accommodate local conditions, individual agency sovereignty, operating relationships, existing agreements, and political considerations.

COORDINATED APPROACH

A coordinated approach to planning and project development contributes to more effective and environmentally sound decisions about EIP investment choices and trade-offs. Experience has shown that a greater commitment to the enhancement of environmental benefits and integrated agency coordination adds significant value to the EIP project decision-making process.

SUCCESS IS INTERDEPENDENT

The framework is based upon the recognition that individual and overall success is interdependent on each participant's activities and contributions. The individual objectives of partner agencies are accomplished through the implementation of projects with multiple objectives.

RESPECT INDIVIDUAL DECISIONS

The outcomes of the EIP planning and implementation processes need to be considered in a manner that respects Federal, State and local decisions and investment choices. The challenge is in reaching agreement and defining the appropriate levels and timing of Federal and State regulatory and funding agency involvement.

SHARED DECISION MAKING

Implementing, funding, and regulating agencies are engaged in the EIP with the goal of improving the Tahoe Region. As such, there is interplay in defining the EIP investment strategies, the scoping, planning and design of EIP projects, and selecting and setting priorities for EIP projects.

ADAPTIVE APPLICABILITY

There is recognition of the significant differences in the funding, planning, and design processes between the various Federal, State and local programs. Applicability and

integration of SWQIC protocols should be evaluated for each program. Furthermore, each project design team should independently agree on the level of SWQIC protocols utilized based on the specific scope of a particular storm water quality program/project. At a minimum, it is desired that all agencies adopt a similar core set of SWQIC protocols to promote consistency in process throughout the Basin.

STRATEGIC IMPLEMENTATION

Strategic approaches should be introduced to increase program efficiency. Emphasizing such elements as advanced planning, coordinated scheduling and sufficient, predetermined timelines for reviews will increase program delivery capacity. Actions that help build interagency relationships and institutionalize project management strategies define expectations and clarify each party's level of participation and contribution to enhancements in the overall project delivery process. Definition and documentation of a project delivery process will assist the partner agencies in clearly understanding how individual roles and responsibilities integrate into an overall project delivery process.

Decisions should be made at appropriate and strategic points throughout the project delivery process. Decisions should not be reconsidered unless imperative to reach project goals.

Collaborative approaches that avoid unilateral decision-making are strongly encouraged. Unilateral movement beyond key milestones without appropriate consensus should be avoided. Potential impacts to project delivery schedule critical-path timelines should be actively managed and considered when consensus is not reached. Approaches to mitigate necessary schedule delays or budgetary impacts should be pursued collaboratively, as appropriate.

EARLY AND MEANINGFUL PARTICIPATION

Early and meaningful participation by all Federal, State, and local agencies at strategic points within the project development process is strongly encouraged. The concept of adaptive management that involves continuous improvement is recognized. Protocols

will change as new concepts, policies and procedures are incorporated into the various programs.

ROLES AND RESPONSIBILITIES

The roles and responsibilities for each collaborative participant should be well defined and understood. The TAC has a collective set of primary roles and responsibilities. These include a shared responsibility to facilitate the successful completion of the project consistent with the overall EIP goals and objectives. The entire TAC holds this responsibility and each participant is equally accountable.

In addition to collective TAC responsibilities, each member has individual roles and responsibilities. Roles and responsibilities for the individual TAC participants are associated with one or more of three fundamental groups: the funding agencies, the implementation agencies and the permitting/regulatory agencies.

There are other stakeholders outside the immediate TAC process. Development of an appropriate public outreach element of the project is recognized as an integral part of a successful project delivery process. The requirements of a public outreach component and the requisite roles and responsibilities for other outside stakeholders are not discussed within the context of this document.

One of the mechanisms for achieving a variety of interrelated EIP goals and objectives is the successful implementation of water quality projects. The project task interdependencies related to EIP goals and objectives are complex and essential to overall programmatic success. They are also often essential in facilitating individual agency objectives.

Individual TAC participants should be aware of these interdependencies. Participants should utilize their collective knowledge and expertise to ensure overall project success while keeping in focus the larger EIP goals and objectives. With this objective affirmed, individual participants will be representing their agency and participating in a manner to facilitate their agency's individual needs and expectations related to their agency's Basin-wide roles and objectives.

Since any EIP project is only one of many endeavors through which the participants are attempting to realize their individual agency's goals and objectives, a statement of these goals and objectives is a useful context for the TAC at large. These declarations should be integrated into the individual project's purpose and need statement during the initial project scoping, including critical success factors and their linkage to the project. Roles and responsibilities should also be made clear at this time and participants should work to clarify them as a part of the initial TAC meetings.

A general description of the roles and responsibilities for each of the three fundamental groups is defined as follows:

ROLE OF THE IMPLEMENTATION AGENCY

The implementation agency is responsible for project programming decisions and project delivery.

Implementation agency project managers will lead projects, develop and manage project delivery schedules, facilitate project planning and design efforts, secure necessary permits, and act as a liaison with other agencies. Implementation agency project managers will conduct the TAC meetings and be responsible for the TAC meeting agenda and meeting notes.

The implementation agency is responsible for full and complete communication of project objectives, conditions and regulatory requirements established during the project planning and design phases to insure proper implemented during the construction phase.

ROLE OF FUNDING AGENCIES

Funding agencies are concerned with grant program administration and program guideline compliance. Funding agencies are also interested in managing sound investments for cost-effective, quality projects that achieve programmatic objectives and

ensuring that projects remain on schedule consistent with the timelines contained within the grant contracts.

Another role of funding agencies is to gather support from their respective legislatures for the Lake Tahoe EIP. The funding agencies help to facilitate continued political support by ensuring that measures of progress related to the EIP implementation are adequately documented as a component of the project delivery process.

ROLE OF REGULATORY/PERMITTING AGENCIES

The regulatory/permitting agencies are responsible for ensuring that projects comply with the ordinances and thresholds within the Lake Tahoe Basin. These representatives develop permit conditions and issue necessary permits.

ELEMENTS OF PROTOCOL

The following will help define Partner Interaction Protocol:

- All partner project delivery participants (participants) should be open and considerate of exploring other participants' views and perspectives. This should be actively practiced throughout all interactions.
- All participants should understand not only the fundamental elements of the entire PDP, but also how each participant strategically fits into that PDP relative to their roles and responsibilities.
- All participants have an individual responsibility to understand and adhere to these protocols. In the case where a participant is impacted by any other participant(s) not conforming to a protocol, it is expected that the affected participant will inform the TAC of those impacts as soon as possible.
- All participants should come fully prepared to meetings. Substitute representatives should participate when designated representatives are not available.
- All participants should always strive to fulfill project-related commitments that are made throughout the PDP commensurate with the strategic timing needs of the individual project delivery schedules.
- Project delivery schedules should be agreed upon during the initial scoping phases of the individual projects through the TAC process. Reaching agreements among agencies on points of concurrence, timelines for

approvals, and the written records of concurrence will set the stage for faster reviews and better management of disputes, should they arise.

- All participants should respect established project delivery schedules. If a project-elated issue could potentially impact a delivery schedule, the participants should intentionally recognize the impact to the project schedule or budget and promptly reach consensus on either schedule preservation or schedule modification.
- The TAC should actively manage project change. When confronted with a potential change, the participants should evaluate the scheduling impacts of a proposed change and weigh those impacts against the importance of the proposed change. Consideration should be given to formulate a response strategy, including evaluation and mitigation of impacts to the project schedule. Consideration should be given to programming substantive changes into an independent project, its budget or a future phase of the current project. Participants should also recognize and actively manage incremental scope creep through the TAC process.
- Given the complexity of decision-making and the diversity of competing needs to be addressed; conflict may become a part of the PDP. Various agencies operate under different missions and mandates, each of which must be accommodated. Advanced planning, coordinated scheduling, sufficient time for reviews and adequate resources will help reduce the number and intensity of disputes that occur at the planning, design and project review stages. When impasse is reached, participants must properly identify its core components in order to get back on schedule. Understanding how to move beyond impasse will help smooth the PDP in the long run.
- Participants should strive to identify creative solutions such as programmatic agreements to reduce unnecessary project delays, including delays caused by staffing constraints, and to recommend amendment of rules and policies where needed without compromising environmental quality or Basin objectives.
- Participants should look for opportunities to collaborate on project implementation by developing interagency project solutions, combining projects which capitalize on effecting regional solutions, capturing savings through economy of scale, combining construction staging opportunities and facilitating larger-scale water quality improvements.
- Participants should apply the necessary technical and financial resources to identify and resolve issues early, especially on projects that are not typical.
- Participants should emphasize the use of concurrent review of plans and projects.
- Regulatory and funding participants should provide timely review and constructive comments on project alternatives and request additional information only when needed to reach an informed decision. Implementers should ensure that design reports are reflective of the design process and adequately document funding agency programmatic objectives.
- The implementation participant, as the lead agency, must ensure compliance with all applicable environmental laws, regulations, and policies. The

regulatory and funding participants should work with project implementers to assist the implementation agencies with this compliance, and address fully any information needs associated with such statutes by providing complete and high quality information within the relevant timeframes.

- Participants should seek to identify information needs early in the project development process so the relevant regulatory elements can be addressed fully.
- The implementation participant shall ensure that they have mechanisms and capacity to communicate to the construction teams the nature of the project, conditions of the project and the reasons behind the conditions that were established during the project delivery planning and design phases of the project.

CRITICAL ROLE OF PROJECT MANAGEMENT

Active project management is critical for the individual and overall successful advancement of water quality projects in the Basin and to maintain strategic momentum. Because the water quality project development process within the multi-jurisdictional structure of the Basin is complex, active project management is necessary to provide effective coordination between Basin partners.

Active project management is critical in allowing the project manager to lead the project to successful completion. The success of the partnering relationships can be enhanced by the use of project management tools as a form of communication. For example, project management tools play an essential role in assisting TAC efforts to evaluate consequential, interrelated issues resulting from specific project decisions and/or strategies. Project management will also allow partner agencies to evaluate the progress of individual projects relative to the timely use of grant funding.

Active project management also allows all partner agencies to evaluate and manage overall issues and determine staffing needs. Project management will allow the implementation agency to determine milestone dates for submittals to regulatory agencies and assist these agencies with the facilitation of timely project reviews, especially when there are several concurrent submittals.

Effective project management will allow for strategic planning on a programmatic level. Funding sequencing opportunities can be evaluated on a holistic level and consideration

of opportunities for beneficial economies of scale resulting in shared gains or benefits can also be evaluated.

TECHNICAL ADVISORY COMMITTEE PROTOCOL

The TAC is a team of people responsible for the delivery of an effective storm water quality project. The TAC consists of participants from the implementation, regulatory and funding agencies. TAC teams should positively influence the development of the water quality project and be self-directed. Empowerment and self-direction lead to greater motivation, ownership and development of each individual's capabilities. This will maximize the contribution of the TAC and provide a mechanism for balanced, collaborative decision-making.

TAC MEETINGS

Rules to guide meetings are essential to achieving the objectives of the meeting. Discussions during TAC meetings should only begin after establishing the timeline and strategy. Timelines should be established and explicit guidelines for determining progress developed. Agreements regarding meeting protocol reached along the way need to be documented. This will help guide the meetings and keep them on track. Simple rules of thumb will help to make the discussions productive and efficient. Suggestions include the following:

- Meetings should be held as scheduled and start on time.
- Each meeting should have a predefined, written agenda and the agenda should be agreed upon at the onset of each meeting.
- Meetings should be summarized and key points of agreement and action items identified at the end of the TAC meeting. The implementation agency project manager shall prepare a written synopsis and transmit the synopsis to each TAC member within two weeks following the TAC meeting. TAC participants should provide written comments to the project manager as soon as practicable, and no later than two weeks following receipt of the written synopsis. The project manager should evaluate the comments and incorporate applicable comments in a revised synopsis and redistribute it to the TAC members. This revised synopsis should be completed and distributed as soon as

practicable, and no later than prior to the next regularly scheduled TAC meeting. The project manager shall facilitate the resolution of conflicting comments with appropriate TAC members as a part of the final synopsis effort. Review and adoption of the preceding meeting synopsis should be an action item at each TAC meeting.

- TAC member representatives should notify the implementation agency project manager prior to the TAC meeting if they are unable to attend.
- Substitute representatives who are familiar with the project should participate when regular TAC members are not available. The regular TAC member should brief the substitute representative on relevant project issues prior to the TAC meeting.
- When a TAC member does not show up at a meeting, and does not send a substitute representative, it is suggested that the implementation agency project manager call that member prior to starting the TAC meeting when critical decisions need to be made that rely upon that member's attendance and input.
- Good faith means honoring commitments to prepare for the meetings, participating consistently and providing information and decisions when promised.
- There should be open and honest communication, including respectful, active listening.
- There should be complementary expectations that lead to success.
- All participants in the process should be kept informed. Sidebar conversations between individuals should be shared with the group at appropriate times. Try to avoid surprises.
- Agency representatives need to be aware that these objectives must be achieved within the context of laws and regulations. The achievement of these objectives becomes the challenge.
- When agreed to, adherence to SWQIC processes is useful, especially in the beginning, to set the stage for timely, efficient discussions.

TAC PROBLEM SOLVING

Early stages of problem solving at TAC meetings should focus on:

- Identifying the interests that underline the stated positions of the participants. Often the "position" is stated in a manner that suggests no compromise is possible. Through careful listening and probing, positional language may reveal central interests or

objectives. In many cases the interests of several parties are held in common.

- How participants can best achieve these mutual interests. Developing comprehensive responses or considering individually recommended alternatives in an unbiased manner are examples of approaches to identifying and satisfying multiple interests, at least some of which may be held in common.

Success in negotiation and problem solving is also dependent on the knowledge and skill of the participants. Understanding the nature of the issues (technical, legal, administrative, and perhaps political aspects) is essential. In addition, process skills and personal attitudes are key.

Participants should engage in problem solving with openness and a desire to achieve mutually agreeable results. They should be candid about differences that exist and be respectful of other perspectives.

TAC COMMUNICATION

Successful TAC collaboration is linked to effective communication and is a foundational element for benchmark performance. A team with good communication skills will sustain a consistent level of performance over time. Effective communication relies on active listening, explaining perceptions, acknowledging and discussing differences in views, offering appropriate recommendations and seeking agreement.

Storm water quality project delivery involves complex issues and the use of multifaceted terms to describe complex topics. Barriers to communication can involve the lack of a shared understanding of terms born of differences in core values and terminology used by different disciplines. In complex situations, these barriers can become more pronounced and can create conflict. This is especially important in cases where there are misunderstandings or strong differences of opinion.

Communication is also a vehicle for constructive conflict management. Artful communication is a key to managing conflict, as well as issues and differences. As challenges arise and relationships become tested, first-rate communication skills

transform into superior problem solving abilities. With effective communication, TAC participants can work through important issues rather than bypassing them. It helps the TAC remain solution-oriented rather than problem-focused.

It is important for TAC participants to strive for a sustained commitment to open and honest communication. The practice of open and honest communication is essential for any team that aspires to quality and longevity.

Key components of honest communication involve:

- The tone and speed of oral communication..
- The practice of open and active listening.
- The clear communication of facts and /or points of view.
- The use of non-verbal expressions, which may either support or contradict the meaning of the words.

Suggested approaches consist of:

- Including everyone
- Asking other's opinions about a subject before presenting yours
- Being prepared and thinking things out before speaking
- Addressing one issue at a time
- Using a positive or neutral tone of voice
- Focusing on the issue, not the person; critiquing ideas, not people
- Avoiding blanket, know-it-all statements, loaded words and hyperbole
- Keeping one’s cool and not losing one’s temper
- Showing an interest in the other person's views and feelings
- Not hiding one’s feelings, but keeping one’s emotions under control
- Presenting concrete specifics instead of overriding generalizations
- Backing up opinions with a few important key points
- Portraying problems as a mutual concern
- Avoiding a hidden agenda and the potential to politicize an issue
- Finding the areas of agreement as the basis for collaboration

SCHEDULE DEVELOPMENT

Implementation agencies have the responsibility of developing and executing the project work plan. Schedule development is an integral part of successful project implementation. Implementation agencies should develop and propose project delivery schedules based upon the standard templates developed by the SWQIC.

Each project manager should employ professional judgment when utilizing the standard SWQIC templates for the development of individual project delivery schedules. The implementation agency project manager should develop the project delivery schedule during the scoping phase of the project.

It is intended that the standard templates will provide the TAC with predefined agency interaction points, which may need to be adjusted to satisfy individual project delivery needs. The points established in the standard templates can be used as starting points and are implicit minimum defaults. TAC participants should provide input to the schedule development. TAC participants should evaluate the strategic interaction/review milestones and timeline durations and reach consensus on these during the initial scoping stages of the project.

The schedule should be reviewed and considered at each TAC meeting as a standing item on the TAC meeting agenda. The schedule should also be reviewed upon the completion of significant project delivery milestone deliverables.

Project delivery is a dynamic process. Events and changes can impact project schedules. It is important to manage change, especially when it can impact project delivery schedules. TAC participants should be informed in the event that changes impact the project delivery schedule, the environmental document and/or would result in the need for additional comments/concerns from other TAC participants.

When impacts are identified, all participants should agree upon its effect on the project schedule and budget, preferably as a part of the TAC process. Project schedule and budgetary impacts should always be considered as part of an overall project change

management strategy and be proactively considered by the TAC participants when they are analyzing the effects of any particular event.

Schedules should always incorporate a contingency element (additional time) for those unanticipated issues that inevitably occur during the project delivery process.

RECOMMENDED SKILL-SET TRAININGS

- Suggest and arrange activities that encourage team building, such as partnering sessions.
- Develop collaborative processes and open the lines of communication to encourage mutual understanding and respect.
- Make available or assist with obtaining interagency training in problem solving, negotiation, and dispute resolution.
- Educate participants on how to develop interagency communication and effective collaborative interaction techniques.
- Educate participants on meeting facilitation skills and prepare participants for chairing interagency discussions.
- Develop participants' project/program management skills.
- Conduct interagency training sessions to educate participants on each other's roles, responsibilities and agency objectives.

CONFLICT RESOLUTION PROCESS

VI. CONFLICT RESOLUTION PROCESS

Conflict is an understandable and unavoidable part of interaction, especially when interdisciplinary teams with diverse perspectives are responsible for complex project management and delivery. The various implementations, regulatory and funding agencies have underlying differences in their objectives and approaches that affect their relationships with each other.

Understanding the nature of conflict and how to manage it constructively are keys to achieving desired outcomes effectively and efficiently. In the case of storm water quality projects, the dual objectives are to meet project delivery needs and protect the environment, all within a specified timeframe. Lake Tahoe Basin water quality objectives and the various related environmental policies, laws and regulations comprise the context within which conflicts among interdependent agencies must be managed.

The following sections describe each element of the conflict resolution process. The discussions assume that general agreements and operational understandings among the participating agencies have not necessarily been established at the TAC level.

GENERAL GUIDANCE

The goal of the conflict resolution process is to resolve, at the lowest possible level, technical and/or policy issues, as well as any participant's chronic lack of conformance to these protocols. Conflict does not always have to be avoided; however, it should be guided to produce the required results. Participants should strive to address conflict at the TAC level to the maximum extent practicable. Participants should avoid placing blame and emphasize resolution when initiating the conflict resolution process.

Issues should be clarified and well defined to avoid differences in perception. The TAC participants should attempt to isolate the actual areas of disagreement and proceed with what they agree upon. Whenever possible, individual TAC participants should recommend potential solutions when they initiate the conflict resolution process.

The SWQIC determined that the conflict resolution process should be modeled after a hierarchical problem-solving framework. The conflict resolution process described in the following sections is based on upward referral of disputes to a resolution body and/or to sequentially higher organizational levels as appropriate, for unassisted or assisted resolution.

CONFLICT RESOLUTION INITIATION

Any participant may initiate the conflict resolution process as soon as a potentially conflicting issue is identified. It is desired that the conflict resolution process be invoked before differences of opinion are allowed to become divisive or polarizing and/or significantly impact project schedules. The participant(s) desiring to invoke the conflict resolution process should notify the TAC members and follow the steps briefly described in this section.

It is suggested that TAC members first attempt to positively discuss issues at the time the issue is occurring. This is especially important when significant consequences occur, such as when any member is not adhering to these protocols. This conversation should occur within the setting of a TAC meeting and/or in a confidential meeting between affected TAC members, as warranted.

Prior to initiating the conflict resolution process, the TAC participants should reach agreement on the duration of each step pursuant to project objectives and schedules, as well as the TAC's collective judgment relative to the consequences of not resolving the issue. As a default duration, the SWQIC recommends one week between each step. In making that recommendation, the SWQIC recognizes that each issue is unique and that alternative durations may be necessary and appropriate to resolve certain issues.

The SWQIC developed a standardized form for initiating the conflict resolution process, which is based upon a form currently being used by the TRPA and a California implementer. This form includes the following elements:

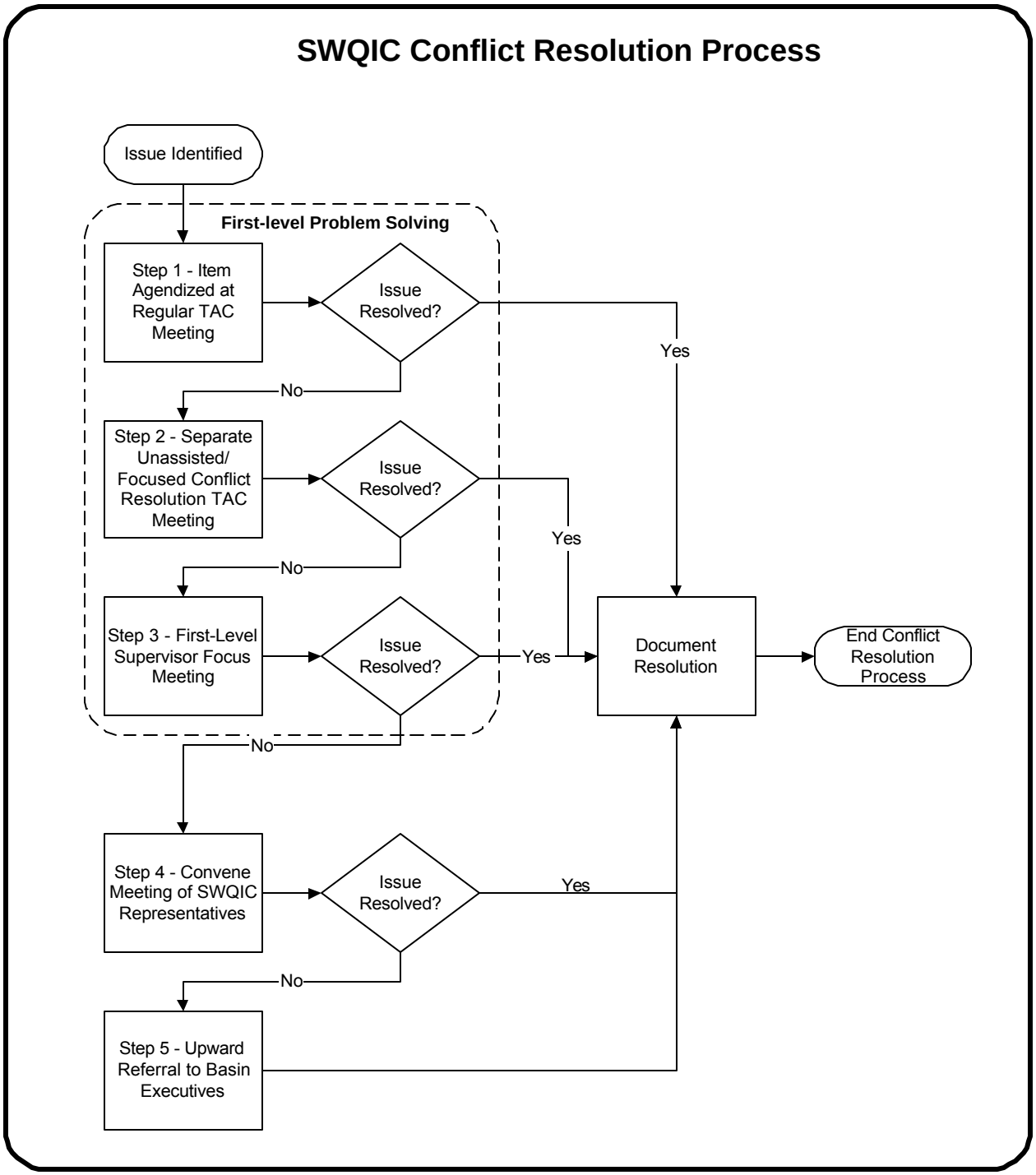
- A tracking number
- The date the conflict resolution process was initiated

- The agency initiating the process
- Involved agencies
- Contact person(s)
- Description of conflict (agreed to by all parties)
- History of problem
- Possible solutions with consequences for each
- Deadline for resolution and the consequences for not meeting the deadline
- A tracking table listing the responsible agency, date assigned, and date completed for each hierarchical level
- Final resolution
- Agency approval signatures

FIRST-LEVEL PROBLEM SOLVING

Working through disagreements is the essence of problem solving. Face-to-face dialogue is the medium of problem solving and dispute resolution. Through direct discussion, participants can share ideas, troubleshoot proposals, and negotiate agreements. Initial discussions should include strategies for resolving future disputes. When disagreements become disputes, a mechanism for resolution is often critical to reaching agreement and continuing the project delivery process.

Figure 1


SWQIC Conflict Resolution Process
Issue Identified
First-level Problem Solving
Step 1 - Item Agendized at Regular TAC Meeting
Issue Resolved?
Yes
No
Step 2 - Separate Unassisted/ Focused Conflict Resolution TAC Meeting
Issue Resolved?
Yes
No
Step 3 - First-Level Supervisor Focus Meeting
Issue Resolved?
Yes
Document Resolution
End Conflict Resolution Process
No
Step 4 - Convene Meeting of SWQIC Representatives
Issue Resolved?
Yes
No
Step 5 - Upward Referral to Basin Executives

SUGGESTED STEPS OF FIRST-LEVEL PROBLEM SOLVING

The following three steps represent a suggested approach for first-level issues resolution.

STEP 1 - ITEM AGENDIZED AT REGULAR TAC MEETING

Ideally, conflicts or failures by any participant to conform to these protocols should be identified and resolved as an action item at the regular project TAC meetings. Participants interested in having a discussion on a particular issue should work with the implementation agency project manager to place the issue on an upcoming TAC meeting agenda. The TAC participants should first work to resolve the issue through the regular TAC process.

STEP 2 - SEPARATE UNASSISTED/FOCUSED CONFLICT RESOLUTION TAC MEETING

In the event that differences resulting in conflict cannot be resolved within the context of the regular TAC meeting framework, any participant can invoke this formal, initial stage of the conflict resolution process. The participant desiring to invoke this stage should work through the implementation agency project manager to convene a separate session to address the issue independent of a TAC meeting. It is desired that such meetings involve all of the other TAC members. The intent of this step is to allow focused time for the participants to address and resolve the conflict.

Specific ground rules governing interactions among the participants should be established. Ground rules should be designed to ensure that exchanges of ideas and information are constructive and efficient. Participants should always have opportunities and ample time to present their interests and concerns, and always be treated with respect.

STEP 3 - FIRST-LEVEL SUPERVISOR FOCUS MEETING

If after the initial separate, unassisted conflict resolution meeting, any participant(s) determine that they are unable to resolve the conflicting issue, they should formalize the issue by preparing a formal conflict resolution discussion paper. Discussion papers should be prepared for all issues that are elevated to this level or higher. The discussion papers should clearly communicate the positions of all involved, present each alternative identified, and discuss the advantages and disadvantages of those alternatives.

Discussion papers should be shared with all participants. The participants should then convene a meeting (or conference call) with the involved agency's working level staff and their first-level supervisors to discuss and resolve the issue. It is expected that most issues can be resolved in this way. First-level supervisors should be identified during the initial roles and responsibilities identification process at the kick-off TAC meeting. All participants should be allowed time to review the discussion papers prior to the first-level supervisor focus meeting.

UPWARD REFERRAL OF ISSUE

Every effort should be made to resolve disputes within the framework of first-level steps. This is the level where the project and issues are well understood by the agency representatives who are familiar with the problem-solving environment and each other. In the event that the issues cannot be resolved within the framework of the first two steps, the approach described in Step 3 should be sufficient to resolve the majority of issues. Discussion papers should be prepared for all issues that are elevated to the upward referral levels.

Disputes involving reviews of storm water quality projects can be referred and/or elevated to higher-level authorities within the respective disputing agencies. The ability to refer disputes to higher levels can be crucial to quickly resolving them and maintaining momentum. Higher-level authorities may offer broader perspectives on unresolved disputes.

At these upward referral steps, implementation agencies may want to consider moving forward with other aspects of the project while attempts are made to resolve one or more specific disputes. The value of moving forward should be weighed against the risk of having to back up in the project delivery process should unresolved disputes involve decisions that impact critical-path aspects of the project schedule. These decisions should be discussed and agreed upon through the collaborative TAC process.

During initial TAC meetings at the project-scoping phase, each participant should provide the names and position titles for individuals who will be responsible for participating at each level of the conflict resolution process.

SUGGESTED CRITERIA FOR UPWARD REFERRAL

A dispute may be appropriate for upward referral based on the following criteria:

- The impasse is not broken with either unassisted negotiations or the use of the first-level supervisor focus meeting.
- The dispute involves interpretation of agency policies, procedures, legal mandates, or definitions of legal terms or regulations that could not be clarified during the first-level problem solving.
- The dispute involves conflicts in those policies, procedures, legal mandates, or definitions of legal terms or regulations of two or more agencies.
- The dispute involves or is caused by delays due to lack of sufficient agency resources.
- The dispute has broader Basin-wide policy implications.
- Other types of disputes may also be appropriate for upward referral.

SUGGESTED STEPS FOR UPWARD REFERRAL

Specific steps for upward referral of disputes are presented as follows:

STEP 1 - CONVENE MEETING OF SWQIC-LEVEL REPRESENTATIVES

Where significant issues of policy and/or conflicts between policies remain unresolved, the implementation agency should convene a meeting of the SWQIC representatives from the associated agencies to address the outstanding issue. These SWQIC representatives should be senior management representatives from the associated agencies with respective agency programmatic and policy-level knowledge. Each of these representatives should have authority to render and implement project-level decisions and/or have direct access to their agency's Chief Executive.

The implementation agency should work through the SWQIC *chairperson to convene this meeting.* The SWQIC chairperson will chair the initial and subsequent meetings for all of the relevant Federal, State and local agencies involved. The SWQIC chairperson should:

- Act impartially and facilitate a fair and balanced process.
- Promote the decision-making process.
- Extend the concept of partnership to all agencies in the process.

The involved SWQIC representatives should meet to discuss and resolve the issue. The respective agencies should draw on the description and position statements contained in the formal conflict resolution discussion papers to address the outstanding issue. If required, the SWQIC representatives may elect to draw upon the individual TAC participants and project-level staff as needed. Each SWQIC member is encouraged to seek input from his or her respective agency director as necessary. The SWQIC representatives need to be open and considerate of exploring other participants' views and perspectives to facilitate the development of non-biased, effective solutions.

STEP 2 – UPWARD REFERRAL TO BASIN EXECUTIVES

The final step is the upward referral to the Basin Executives. The individual SWQIC members should facilitate convening a meeting involving the Basin Executive member from each of the concerned agencies. This level of referral should be reserved for the most difficult cases and/or for issues that have Basin-wide policy implications.

Prior to convening a Basin Executive-level meeting, the SWQIC representatives should consult with their respective Basin Executive to brief them on the issues and provide any requisite background information. This step is designed to establish a fresh conduit between the TAC and the Basin Executives, and is specifically intended for conflict resolution. Again, this approach should be reserved for the most extreme of unresolved cases.

The involved Basin Executive representatives should meet to discuss and resolve the issue in a manner similar to that outlined for the SWQIC body previously described in Step 4. The Basin Executives will determine whether to take the referral based on several criteria, including whether the issue is of Basin-wide importance.

If the Basin Executives take the referral, several options are available for resolution. The most typical outcome is the rendering of a recommendation. The Step 5 referral process focuses on the underlying proposed action and how it does/does not meet the policy goals of the Basin/concerned agencies. Basin Executives may need to bring policy-related issues to their respective Chief Executive and/or governing board for consideration.

CONCLUSION OF CONFLICT RESOLUTION PROCESS

Upon completion of the conflict resolution process, the resolution should be documented and communicated to all TAC members. In some cases, it is important to measure how well the resolution is working. The TAC may want to consider developing associated performance measures and determining a timeline for evaluating the effectiveness of the resolution.

It is also suggested that resolution documents reside in a central location, such as the Tahoe Integrated Information Management System (TIIMS), to assist with Basin-wide adaptive management efforts.

ASSUMPTIONS

The following assumptions should be considered in this conflict resolution process:

- This conflict resolution process is not intended to replace regular problem solving and communications at the TAC level.
- Resolution should be documented and available for future reference through the adaptive management processes, especially in those cases where the discussion has Basin-wide policy implications.
- Each agency is responsible for making decisions on projects in a manner that is consistent with its own individual statutory authorities. This conflict resolution process can facilitate determination of appropriate interpretations or applications of these authorities; however, it in no way abrogates these responsibilities.
- Each agency has expertise and authority in particular areas. These conflict resolution procedures are not intended to diminish, modify, or otherwise affect current or future statutory or regulatory authorities of the agencies involved. In the event of any conflict between these procedures and other statutes or regulations, the statutes or regulations will control. In the event the statutes or regulations of different agencies are in conflict, the agencies may need to consult with their respective legal counsel to identify a resolution.

APPENDICES

Appendix A- Project Delivery Processes

Figures 1 through 3 represent the project delivery process for California Agencies, Nevada Agencies, and CalTrans. These figures and the processes they represent are expected to change over time as the process is improved.

It is expected that in the near future a project delivery process will be developed for the US Forest Service and for Nevada DOT.

Figure 1 Stages of EIP water quality project –Local California Agencies
Figure 2 Stages of EIP water quality project –Local Nevada Agencies
Figure 3 Stages of EIP water quality project –Caltrans

Appendix A- Project Delivery Processes

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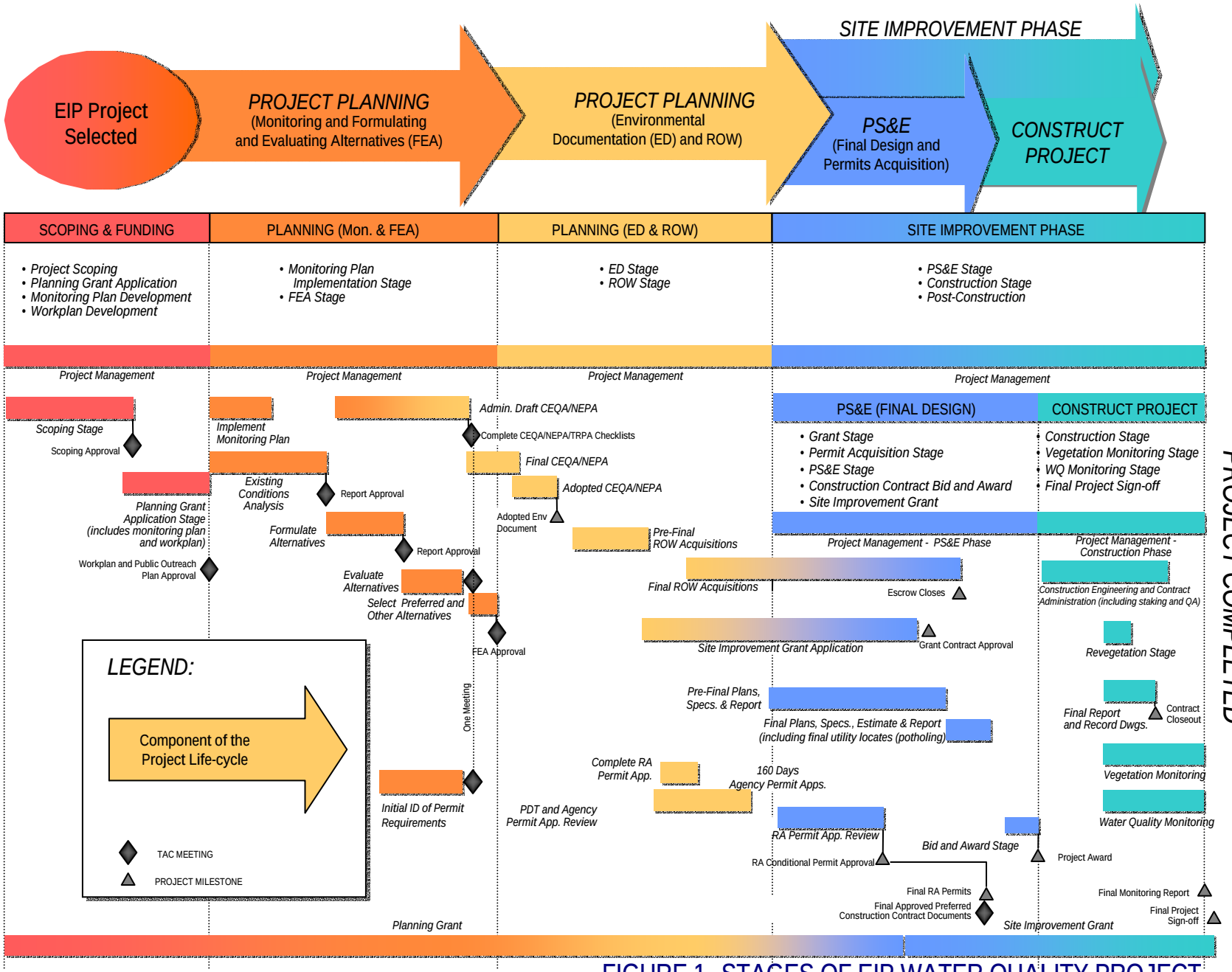

Draft of April 28, 2004

FIGURE 1--STAGES OF EIP WATER QUALITY PROJECT

Local California Agencies

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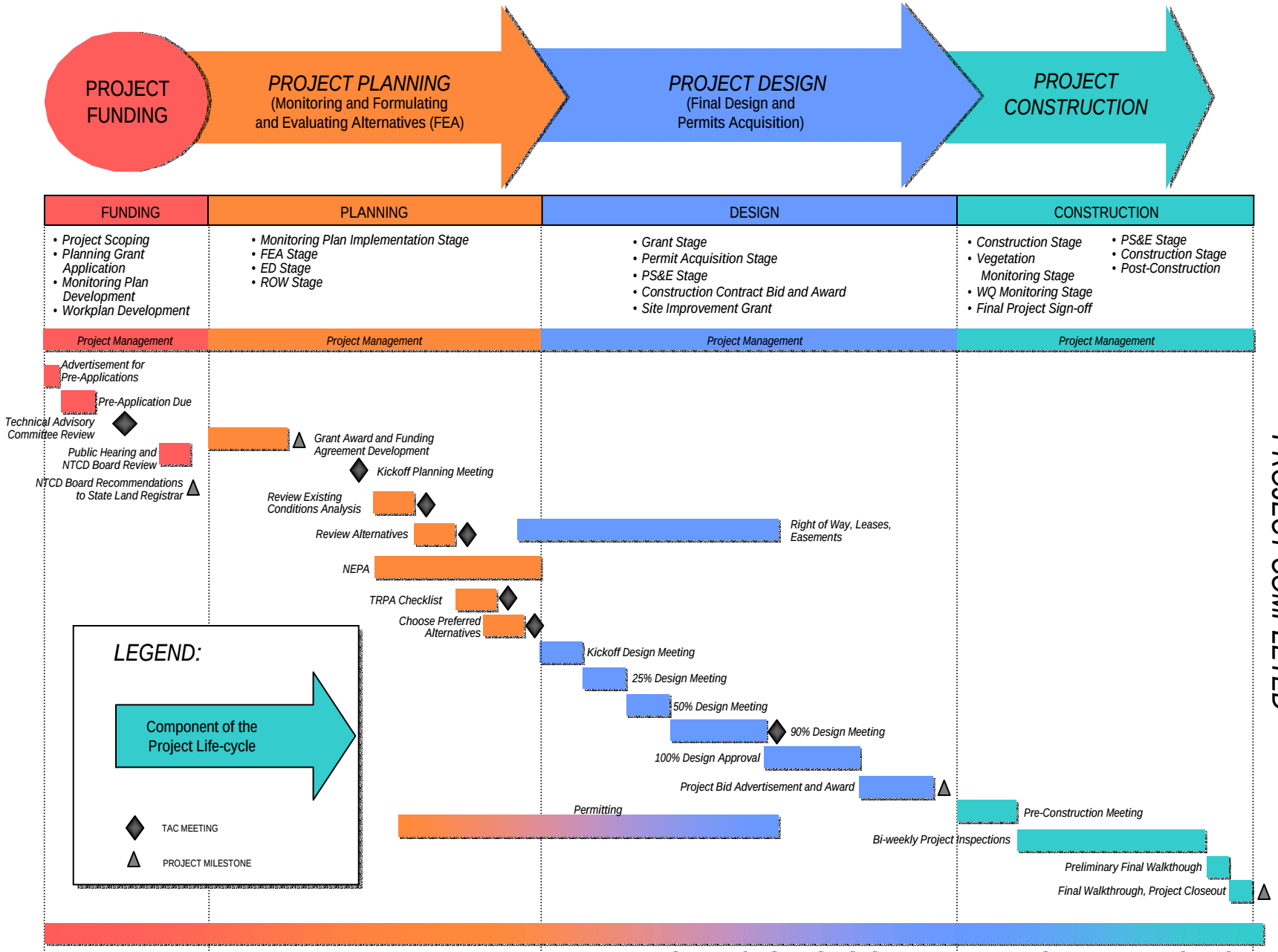

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FIGURE 2--STAGES OF EIP WATER QUALITY PROJECT

Local Nevada Agencies

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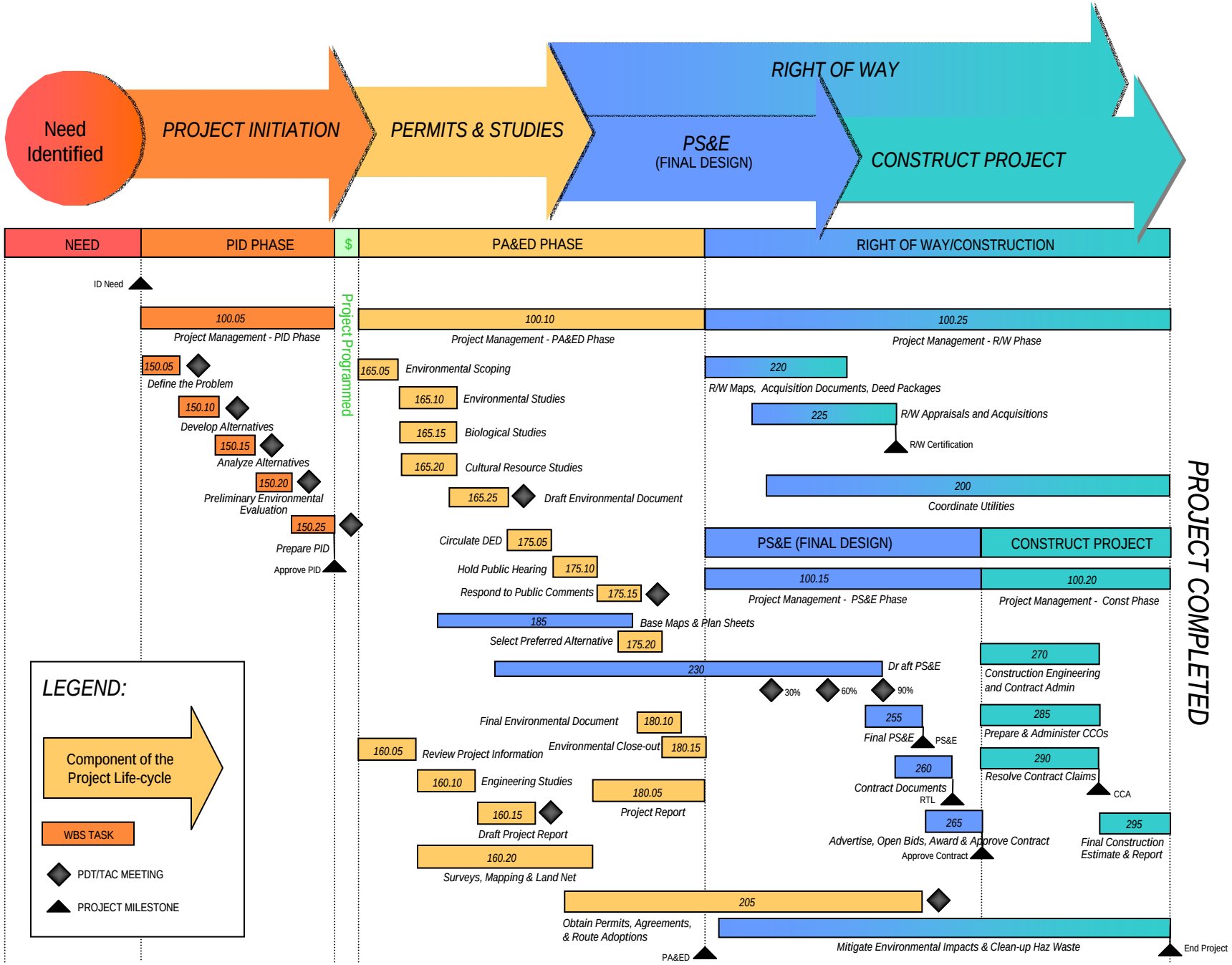


May 18, 2004

FIGURE 3--STAGES OF EIP WATER QUALITY PROJECT

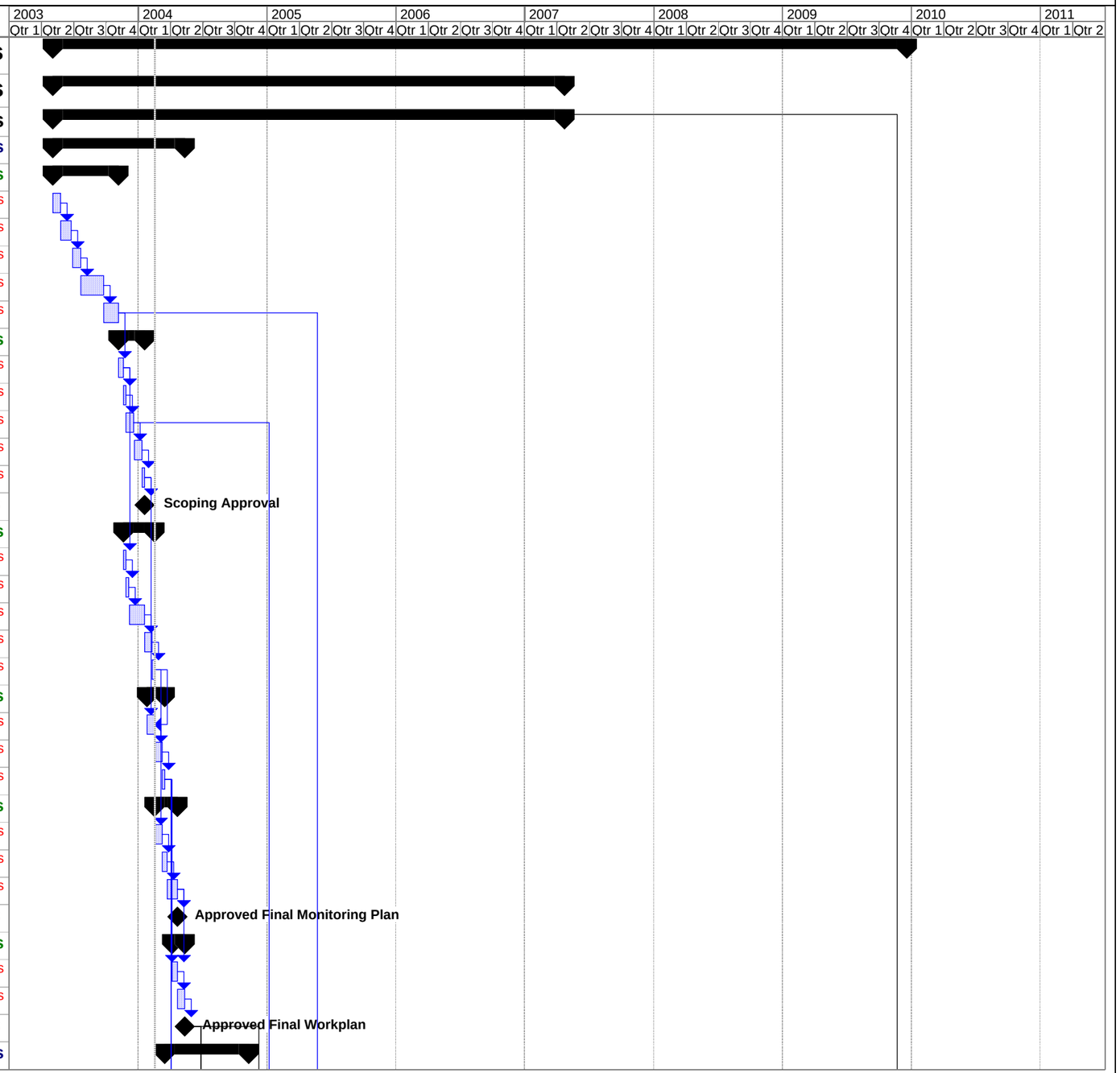
Caltrans

Appendix B- Work Breakdown Structure

The following Gantt Chart shows the recommended work breakdown structure. This process is currently a template within the Primavera system for use by EIP partners. While the time and exact steps are only guidance, great care has been taken to account for the total steps required.

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
1	**EIP PDP Prototype**	**WQ**	**1642 days**
2	**Project Planning**	**100**	**984 days**
3	**Development Phase**	**DV**	**984 days**
4	**Scoping Stage**	**01**	**255 days**
5	**Scoping Funding Step**	**01.01**	**125 days**
6	Initial Project Development Team (PDT) EIP Priority Meeting	1.1.1	15 days
7	Implementing Agency (IA) Authorization Process	1.1.2	20 days
8	IA Grant Funding Application	1.1.3	15 days
9	Funding Agency (FA) Authorization Process	1.1.4	45 days
10	IA/FA Contract Approval	1.1.5	30 days
11	**Scoping Site Visit Step**	**01.02**	**50 days**
12	IA Scoping Site Visit	1.2.2	10 days
13	IA GIS Base Map Development	1.2.2	5 days
14	IA Scoping Site Visit Report (SSVR)	1.2.3	15 days
15	PDT SSVR Review	1.2.4	15 days
16	PDT Scoping Site Visit Meeting	1.2.5	5 days
17	***Scoping Approval***	***1.2.6***	***0 days***
18	**Prelim Monitoring Plan Development Step**	**01.03**	**60 days**
19	IA Define Mon Goals	1.3.1	5 days
20	PDT Mon. Meeting - LTIMP	1.3.2	5 days
21	IA Prelim Mon Plan (PMP) Development	1.3.3	30 days
22	PDT PMP Review	1.3.4	15 days
23	PDT PMP Meeting - LTIMP Sign-off	1.3.5	5 days
24	**Prelim Workplan Development Step**	**01.04**	**35 days**
25	IA Develop Preliminary Work Plan (PWP)	1.4.1	15 days
26	PDT PWP Review	1.4.2	15 days
27	PDT Meeting - PWP	1.4.3	5 days
28	**Final Monitoring Plan Development Step**	**01.05**	**45 days**
29	IA Final Monitoring Plan (FMP)	1.5.1	15 days
30	IA Monitoring Permit Applications	1.5.2	10 days
31	PDT FMP Review - Permit & FMP Sign-off	1.5.3	20 days
32	***Approved Final Monitoring Plan***	***1.5.4***	***0 days***
33	**Final Work Plan Development Step**	**01.06**	**25 days**
34	IA Final Work Plan (FWP)	1.6.1	10 days
35	PDT FWP Review - Sign-off	1.6.2	15 days
36	***Approved Final Workplan***	***1.6.3***	***0 days***
37	**Planning Grant Stage**	**02**	**160 days**

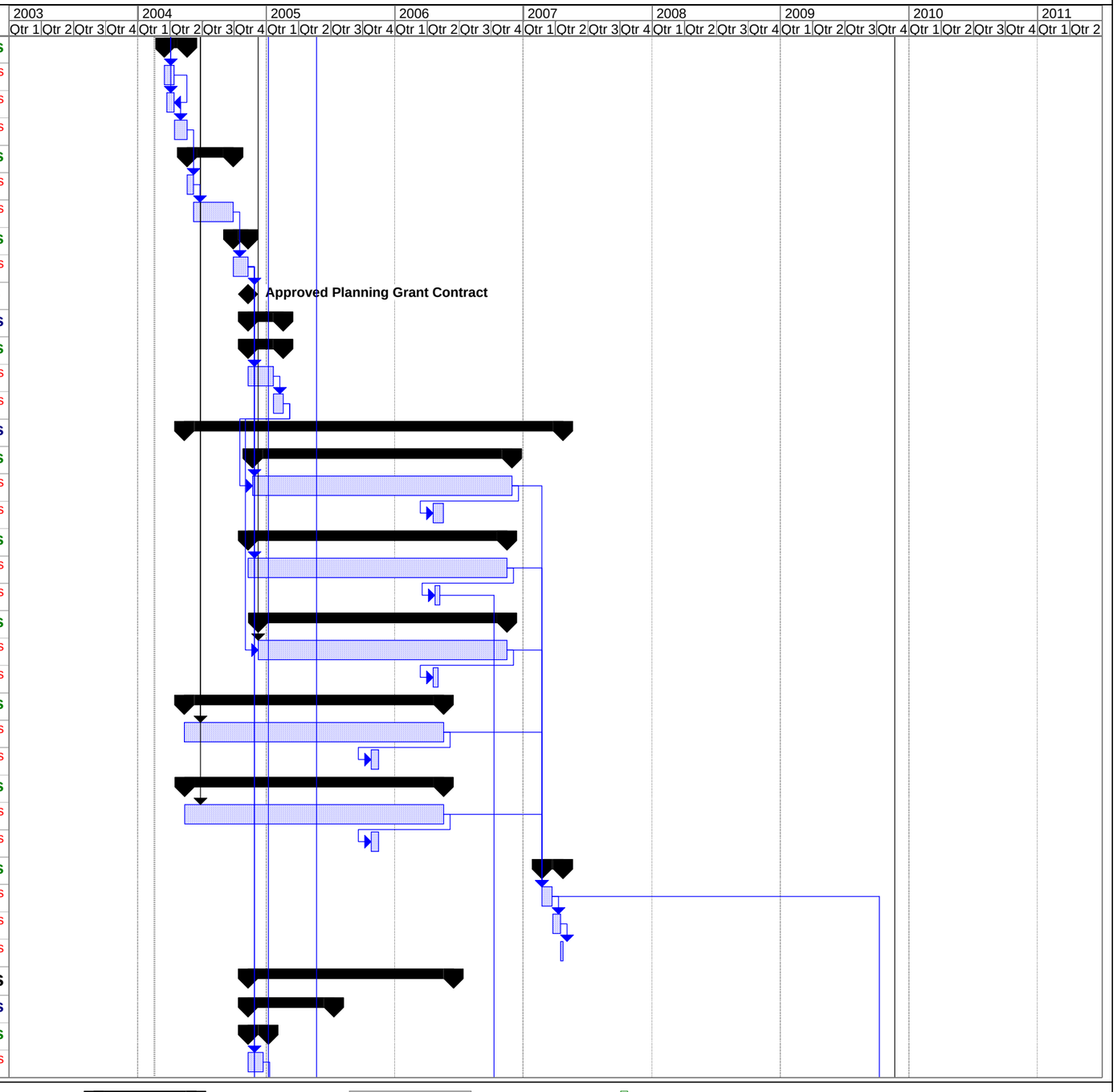


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
38	**Planning Grant Pre-App Step**	**02.01**	**45 days**
39	IA Authorization Process	2.1.1	20 days
40	IA Planning Grant Pre Application (PGPA)	2.1.2	15 days
41	FA PGPA Review	2.1.3	25 days
42	**Planning Grant Final App Step**	**02.02**	**85 days**
43	IA Planning Grant Final Application (PGFA)	2.2.1	10 days
44	FA Authorization Process	2.2.2	75 days
45	**Planning Grant Contract Step**	**02.03**	**30 days**
46	IA/FA Contract Approval	2.3.1	30 days
47	***Approved Planning Grant Contract***	***2.3.2***	***0 days***
48	**Monitoring Plan Implementation Stage**	**03**	**70 days**
49	**Monitoring Equipment Step**	**03.01**	**70 days**
50	IA Obtain Mon Equipment	3.1.1	50 days
51	IA Install Mon Equipment	3.1.2	20 days
52	**Pre Construction Monitoring Stage**	**04**	**729 days**
53	**Water Quality Monitoring Step**	**04.01**	**500 days**
54	Pre Const WQ Field Data Sampling	4.1.1	500 days
55	Pre Const WQ Subsection for Annual Report	4.1.2	20 days
56	**Photographic Monitoring Step**	**04.02**	**500 days**
57	Pre Const Photo Records	4.2.1	500 days
58	Pre Const Photo Subsection for Annual Report	4.2.2	10 days
59	**Ground Water Monitoring Step**	**04.03**	**480 days**
60	Pre Const GW Field Data	4.3.1	480 days
61	Pre Const GW Subsection for Annual Report	4.3.2	10 days
62	**Geomorphic Monitoring Step**	**04.04**	**500 days**
63	Pre Const Data Collection	4.4.1	500 days
64	Pre Const Geomorphic Subsection for Annual Report	4.4.2	15 days
65	**Biological Monitoring Step**	**04.05**	**500 days**
66	Pre Const Data Collection	4.5.1	500 days
67	Pre Const Bio Subsection for Annual Report	4.5.2	15 days
68	**Pre Construction Monitoring Report Step**	**04.06**	**40 days**
69	IA Pre-Const. Monitoring Report (PCMR)	4.6.1	20 days
70	PDT PCMR Review	4.6.2	15 days
71	PDT PCMR Meeting - LTIMP	4.6.3	5 days
72	**FEA Phase**	**FA**	**398 days**
73	**Existing Conditions Analysis Stage**	**05**	**164 days**
74	**Preliminary Baseline Survey Step**	**05.01**	**40 days**
75	IA Baseline Field Surveys	5.1.1	30 days

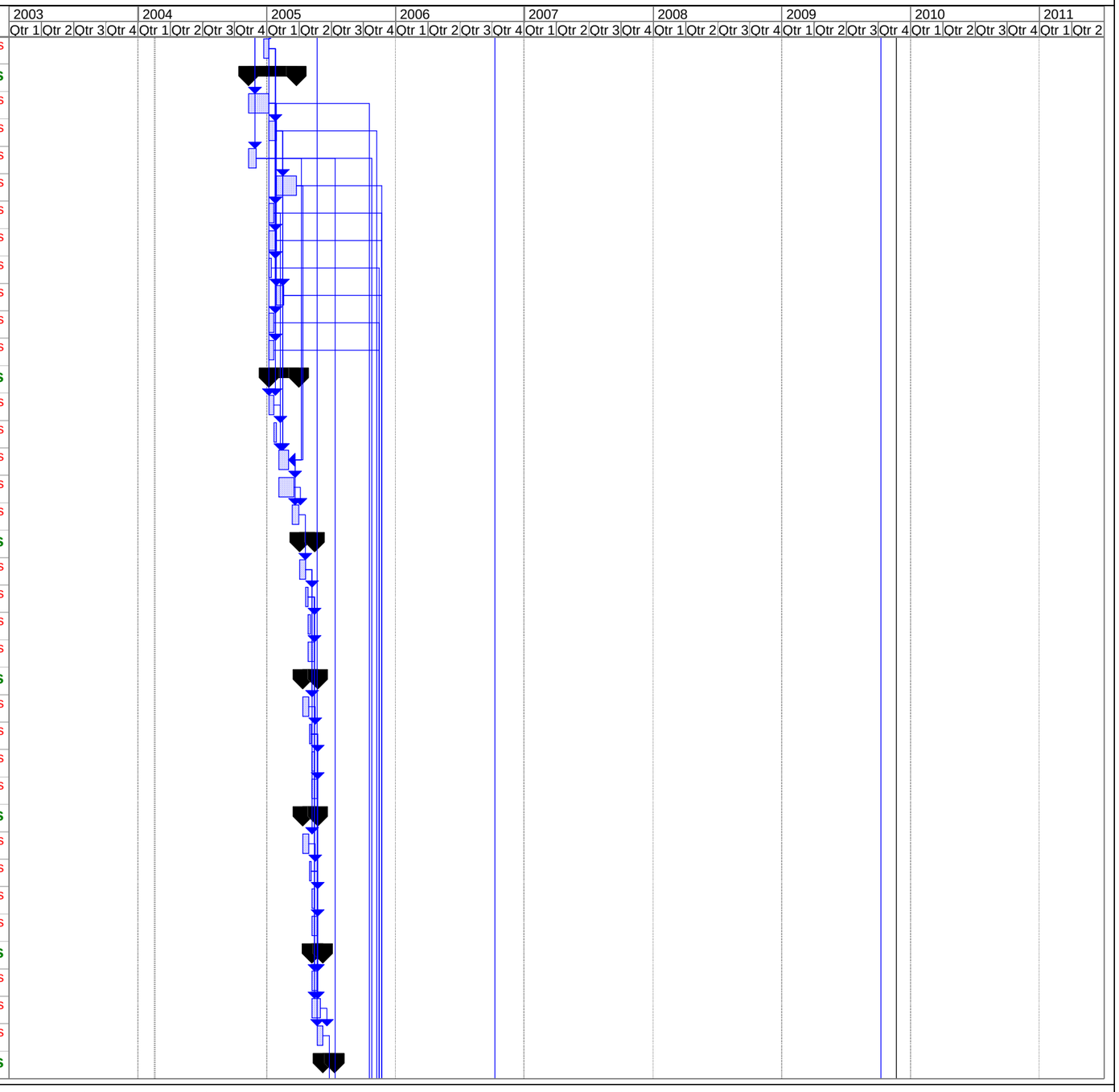


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
76	IA Baseline Reports	5.1.2	10 days
77	**Project Preliminary Base Mapping Step**	**05.02**	**95 days**
78	Site Topo/Aerial	5.2.1	40 days
79	Prelim Topo Base Map (PTBM)	5.2.2	15 days
80	Prelim Property Net Base Map (PPNBM)	5.2.3	15 days
81	Prelim Utilities Base Map (PUBM)	5.2.4	40 days
82	Prelim Soils Base Map (PSBM)	5.2.5	10 days
83	Prelim Land Capability Base Map (PLCBM)	5.2.6	15 days
84	Prelim Vegetation Base Map (PVBM)	5.2.7	5 days
85	Prelim Hydrology Base Map (PHBM)	5.2.8	15 days
86	Prelim Cultural Base Map (PCBM)	5.2.9	10 days
87	Prelim Wildlife Base Map (PWBM)	5.2.10	10 days
88	**Draft Existing Conditions Drawings and Report Ste**	**05.03**	**60 days**
89	IA ECP Site Visit	5.3.1	10 days
90	IA ECP SVR (ECPSVR)	5.3.2	5 days
91	Develop Draft ECP Drawings	5.3.3	20 days
92	Draft ECP Studies	5.3.4	30 days
93	Develop Draft ECP Report (ECPR)	5.3.5	15 days
94	**FA/IA Site Visit Step**	**05.04**	**29 days**
95	FA ECPR Review	5.4.1	12 days
96	FA/IA ECPR Meeting	5.4.2	5 days
97	FA/IA ECPR Meeting Synopsis (ECPRMS)	5.4.3	5 days
98	FA/IA ECPR Responses to Comments	5.4.4	12 days
99	**Initial Public Meeting Step**	**05.05**	**29 days**
100	ECPR Public Review	5.5.1	12 days
101	ECPR Public Meeting (PM)	5.5.2	5 days
102	IA/PM ECPRMS	5.5.3	5 days
103	IA/PM ECPR Responses to Comments	5.5.4	12 days
104	**Draft Existing Conditions PDT Meeting Step**	**05.06**	**29 days**
105	ECPR PDT Review	5.6.1	12 days
106	PDT ECPR Meeting	5.6.2	5 days
107	IA/PDT ECPRMS	5.6.3	5 days
108	IA/PDT ECPR Responses to Comments	5.6.4	12 days
109	**Final Existing Conditions Drawings and Report Ste**	**05.07**	**20 days**
110	Final ECP Drawings	5.7.1	10 days
111	Final ECP Studies	5.7.2	15 days
112	Final ECPR	5.7.3	10 days
113	**Final Existing Conditions PDT Approval Step**	**05.08**	**20 days**

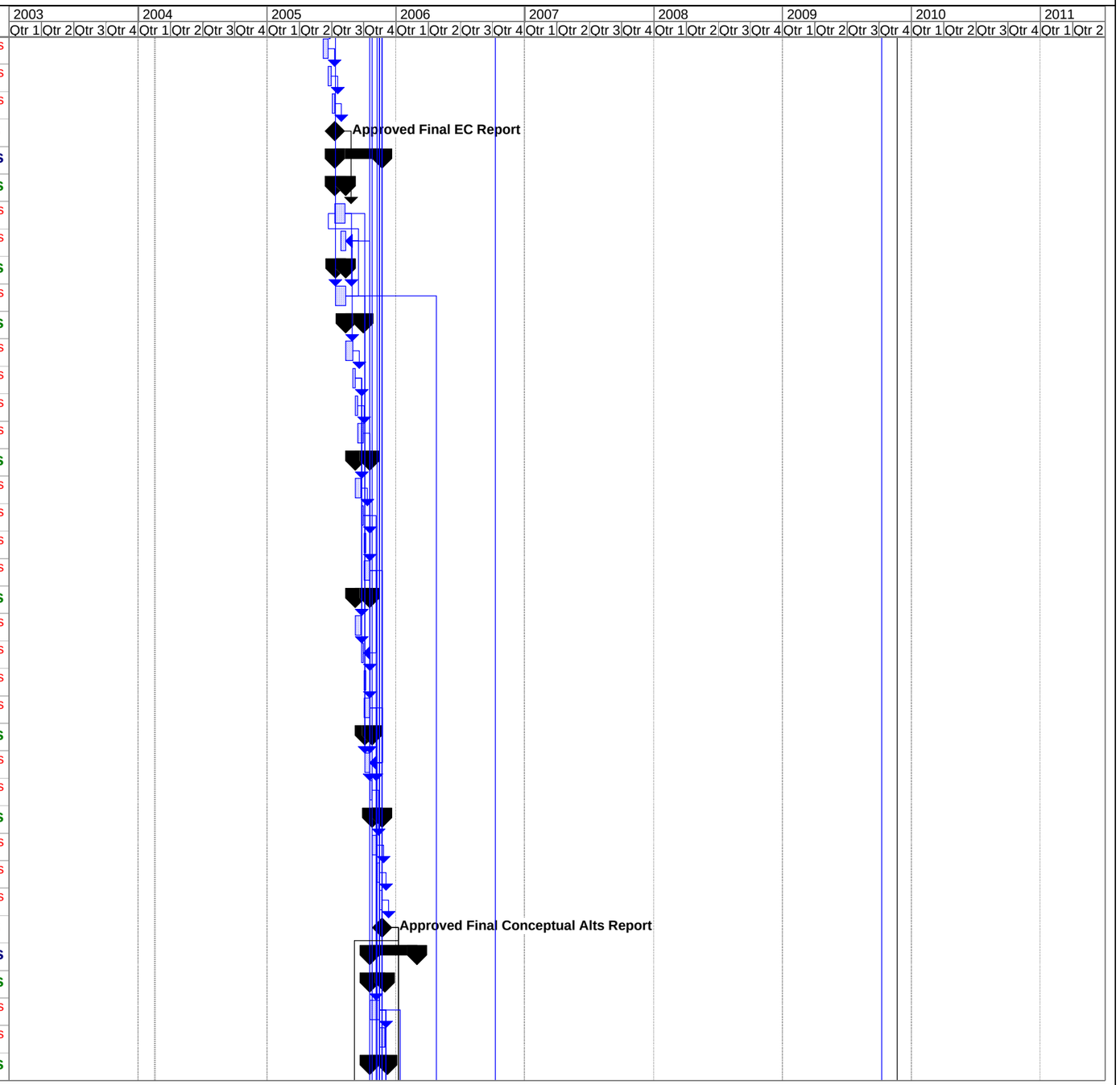


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
114	Final ECPR PDT Review	5.8.1	10 days
115	PDT ECPR Sign-off Meeting	5.8.2	5 days
116	PDT ECPR Response Letters	5.8.3	5 days
117	***Approved Final EC Report***	***05.09***	***0 mons***
118	**Formulating Alternatives Stage**	**06**	**93 days**
119	**Draft Conceptual Alternatives Drawings and Repor**	**06.01**	**22 days**
120	Develop Draft Conceptual Alts Drawings	6.1.1	20 days
121	Develop Draft Conceptual Alts Report (CAR)	6.1.2	10 days
122	**Prelim ROW Step**	**06.02**	**20 days**
123	Develop Conceptual Easement Drawings	6.2.1	20 days
124	**Draft Conceptual Alts FA/IA Meeting Step**	**06.03**	**34 days**
125	FA Draft CAR Review	6.3.1	12 days
126	FA/IA Draft CAR Meeting	6.3.2	5 days
127	FA/IA Draft CAR Meeting Synopsis (CARMS)	6.3.3	5 days
128	FA/IA Draft CAR Responses to Comments	6.3.4	12 days
129	**Draft Conceptual Alt. Public Scoping Meeting Step**	**06.04**	**29 days**
130	Draft CAR Public Review - Scoping Letter	6.4.1	12 days
131	Draft CAR Public Scoping Meeting (PSM)	6.4.2	5 days
132	Draft CAR Public Meeting Synopsis	6.4.3	5 days
133	IA/PM Draft CAR Responses to Comments	6.4.4	12 days
134	**Draft Conceptual Alt. PDT Meeting Step**	**06.05**	**29 days**
135	PDT Draft CAR Review	6.5.1	12 days
136	PDT Draft CAR Meeting	6.5.2	5 days
137	Draft CAR PDT Meeting Synopsis	6.5.3	5 days
138	IA/PDT Draft CAR Responses to Comments	6.5.4	12 days
139	**Final Conceptual Alternatives Drawings and Repor**	**06.06**	**15 days**
140	Final CA Drawings	6.6.1	10 days
141	Final CAR	6.6.2	5 days
142	**Final Conceptual Alt. PDT Meeting Approval Step**	**06.07**	**20 days**
143	PDT Final CAR Review	6.7.1	10 days
144	PDT Final CAR Meeting - Sign Off	6.7.2	5 days
145	PDT Final CAR Response Letters	6.7.3	5 days
146	***Approved Final Conceptual Alts Report***	***06.08***	***0 mons***
147	**Evaluating Alternatives Stage**	**07**	**94 days**
148	**Final Baseline Survey Step**	**07.01**	**30 days**
149	IA Baseline Surveys	7.1.1	20 days
150	IA Baseline Reports	7.1.2	10 days
151	**Final Project Base Mapping Step**	**07.02**	**35 days**

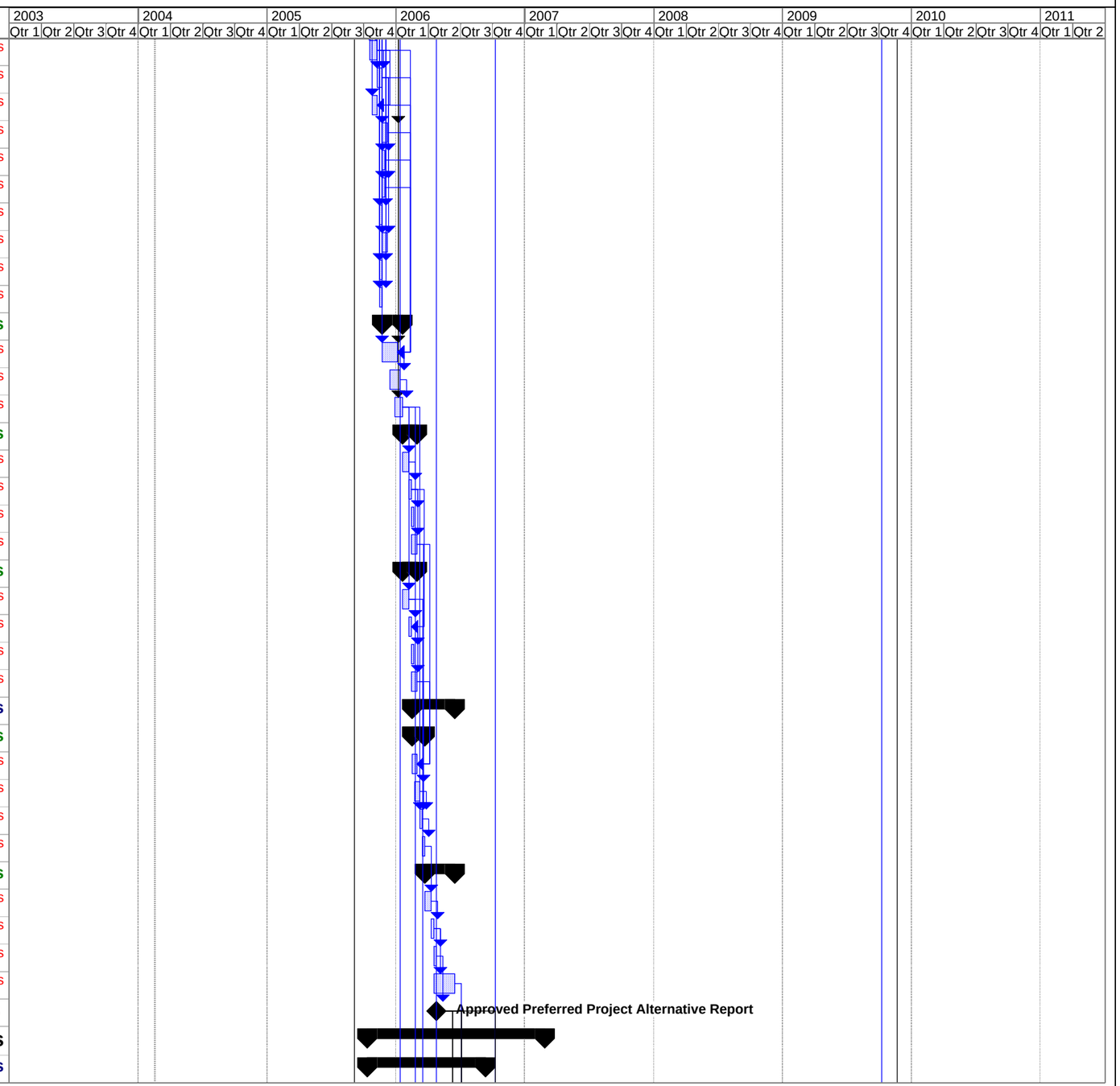


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
152	Final Site Topo	7.2.1	15 days
153	Final Topographic Base Map (FTBM)	7.2.2	10 days
154	Final Property Net Base Map (FPNBM)	7.2.3	10 days
155	Final Utilities Base Map (FUBM)	7.2.4	10 days
156	Final Soils Base Map (FSBM)	7.2.5	5 days
157	Final Land Capability Base Map (FLCBM)	7.2.6	5 days
158	Final Vegetation Base Map (FVBM)	7.2.7	5 days
159	Final Hydrology Base Map (FHBM)	7.2.8	10 days
160	Final Cultural Base Map (FCBM)	7.2.9	5 days
161	Final Wildlife Base Map (FWBM)	7.2.10	5 days
162	**Draft Project Alternatives Drawings and Report Ste**	**07.03**	**40 days**
163	Develop Draft PA Drawings	7.3.1	30 days
164	Develop Draft PA Studies	7.3.2	20 days
165	Develop Draft PA Report (PAR)	7.3.3	15 days
166	**Draft Project Alt.s Public Meeting Step**	**07.04**	**29 days**
167	Draft PAR Public Review	7.4.1	12 days
168	Draft PAR Public Meeting	7.4.2	5 days
169	Draft PAR Public Meeting Synopsis	7.4.3	5 days
170	IA/PM Draft PAR Responses to Comments	7.4.4	12 days
171	**Draft Project Alt.s PDT Meeting Step**	**07.05**	**29 days**
172	PDT Draft PAR Review	7.5.1	12 days
173	PDT Draft PAR Meeting	7.5.2	5 days
174	PDT Draft PAR Meeting Synopsis	7.5.3	5 days
175	Respond to Comments - Draft PA	7.5.4	12 days
176	**Selection of Preferred Alternative Stage**	**08**	**82 days**
177	**Final Project Alternatives Drawings and Report Ste**	**08.01**	**25 days**
178	Final PA Drawings	8.1.1	10 days
179	Final PA Studies	8.1.2	10 days
180	Final PA Report	8.1.3	5 days
181	Complete Preferred Project Regulatory Agency (RA) Permit Apr	8.1.4	5 days
182	**Final Project Preferred Alt. PDT Meeting Step - Age**	**08.02**	**57 days**
183	PDT Final PAR & Agency Permit Application Review	8.2.1	12 days
184	PDT PAR Sign-off Meeting	8.2.2	5 days
185	PDT Final PAR Response Letters	8.2.3	5 days
186	RA Final Permit Application Review	8.2.4	40 days
187	***Approved Preferred Project Alternative Report***	***8.3***	***0 mons***
188	**Environmental Documentation and ROW**	**ED**	**344 days**
189	**Preferred Project Environmental Stage**	**09**	**226 days**

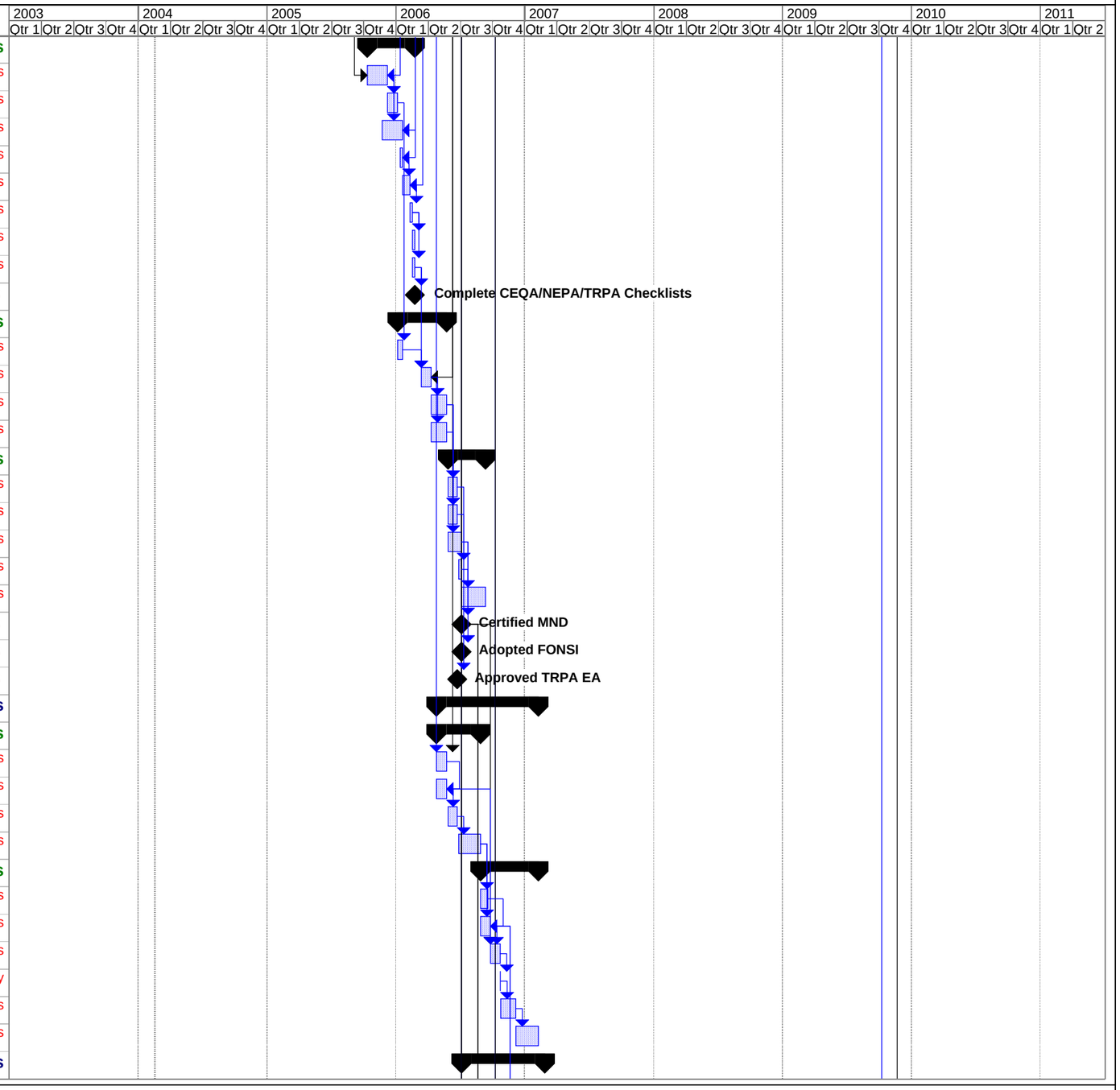


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
190	**Administrative Draft CEQA/NEPA & TRPA Checklis**	**09.01**	**95 days**
191	IS/EA Special Studies	9.1.1	40 days
192	Draft BE/BA PDT Review	9.1.2	20 days
193	Develop Admin Draft IS/EA	9.1.3	40 days
194	Complete TRPA Environmental Checklist	9.1.4	5 days
195	PDT Admin Draft IS/EA & TRPA Checklist Review	9.1.5	15 days
196	PDT Admin Draft IS/EA & TRPA Checklist Meeting	9.1.6	5 days
197	PDT Admin Draft IS/EA & TRPA Checklist Meeting Synopsis	9.1.7	5 days
198	PDT/IA Admin Draft IS/EA & TRPA Checklist Responses to Cor	9.1.8	5 days
199	***Complete CEQA/NEPA/TRPA Checklists***	***9.1.9***	***0 days***
200	**Final CEQA/NEPA & TRPA Checklist Step**	**09.02**	**96 days**
201	Final BE/BA	9.2.1	10 days
202	Final IS/EA & TRPA Checklist	9.2.2	20 days
203	Final IS/EA Public Circulation Process	9.2.3	30 days
204	Final TRPA Environmental Public Circulation Process	9.2.4	30 days
205	**Adopted CEQA/NEPA & TRPA EA Step**	**09.03**	**70 days**
206	IA IS Approval	9.3.1	20 days
207	TRPA EA Approval	9.3.2	20 days
208	Adopted FONSI	9.3.3	25 days
209	IA Certified MND	9.3.4	5 days
210	FONSI Appeal Period	9.3.5	45 days
211	***Certified MND***	***09.04***	***0 mons***
212	***Adopted FONSI***	***09.05***	***0 days***
213	***Approved TRPA EA***	***09.06***	***0 days***
214	**Pref Proj R/W Stage**	**10**	**196 days**
215	**Pre-Final ROW Acquisition Step - Appraisals & Dra**	**10.01**	**80 days**
216	Develop Final Easement Drawings & Documents	10.1.1	20 days
217	Owner Correspondence	10.1.2	20 days
218	IA Approval Process - Negotiations	10.1.3	20 days
219	Appraisals	10.1.4	40 days
220	**Final ROW Acquisition Step - Final Negotiations an**	**10.02**	**116 days**
221	FA Approval Process - Appraisals	10.2.1	15 days
222	IA Approval Process (Closed Session) - Appraisals	10.2.2	20 days
223	Property Owner Negotiations	10.2.3	20 days
224	Condemnation Period	10.2.4	1 day
225	IA Acquisition Agreement Process	10.2.5	30 days
226	Escrow	10.2.6	45 days
227	**Site Imp Pref Proj Grant Stage**	**11**	**163 days**

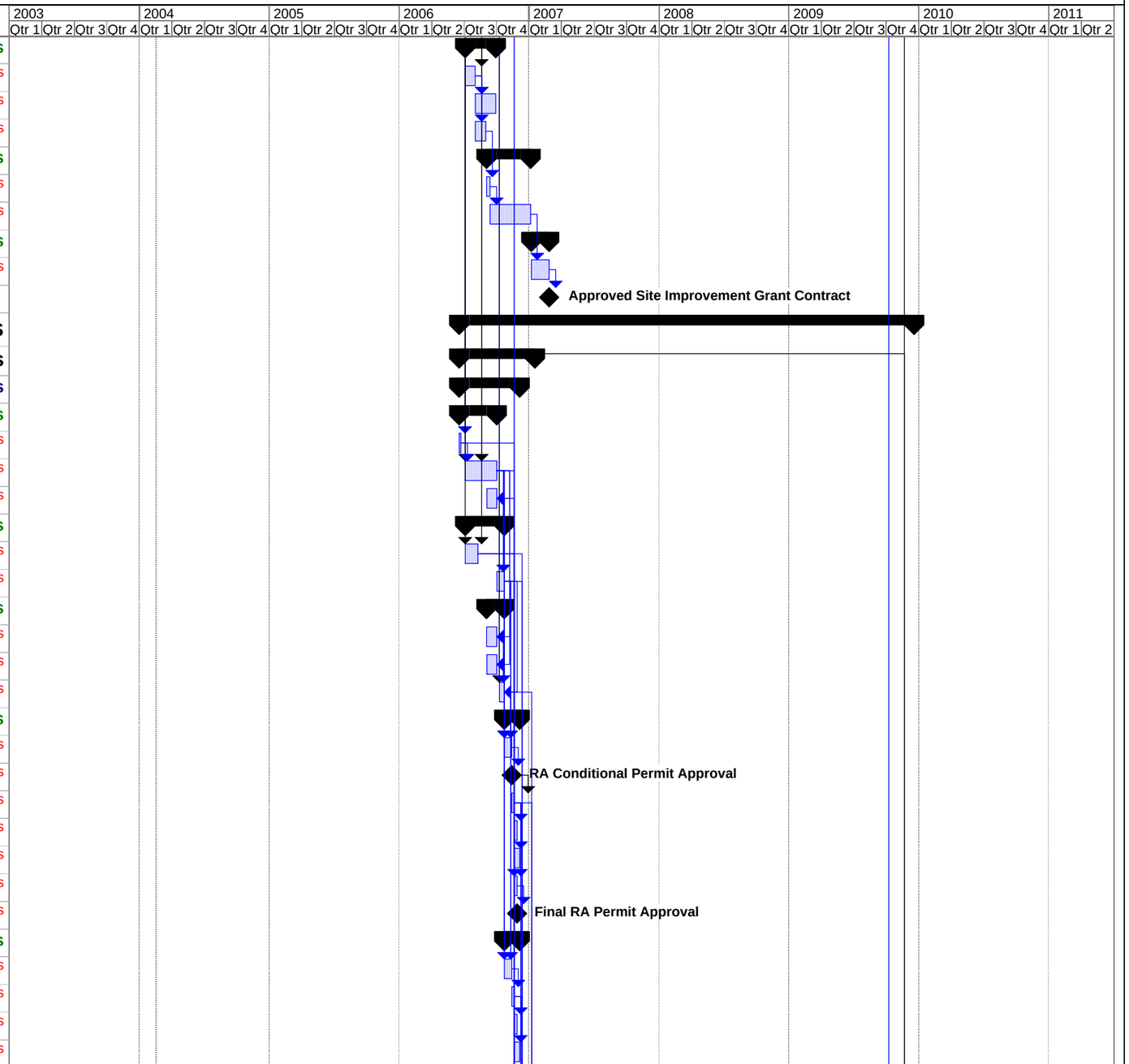


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
228	**Site Improvement Grant Pre-Application Step**	**11.01**	**59 days**
229	IA Develop Pre-App (SIGPA)	11.1.1	19 days
230	FA/IA Meeting	11.1.2	40 days
231	IA Approval Process	11.1.3	20 days
232	**Site Improvement Grant Final Application Step**	**11.02**	**88 days**
233	Final Application (SIGFA)	11.2.1	8 days
234	Funding Agency Authorization Process	11.2.2	80 days
235	**Site improvement Grant Contract Step**	**11.03**	**36 days**
236	IA/FA Contract Approval	11.3.2	36 days
237	***Approved Site Improvement Grant Contract***	***11.04***	***0 mons***
238	**Site Improvement**	**200**	**869 days**
239	**Design Phase**	**DP**	**145 days**
240	**Pre-Final Plans, Specifications, & Preferred Project Re**	**12**	**115 days**
241	**Pre-Final Preferred Project Plans Step**	**12.01**	**70 days**
242	Receive Preferred Project Agency Permit Conditions	12.1.1	5 days
243	Develop Pre-Final Preferred Project Plans - PFPPP Plans	12.1.1	60 days
244	Develop/Import Preferred Project Detail Drawings	12.1.2	20 days
245	**Pre-Final Preferred Project Specifications Step**	**12.02**	**75 days**
246	IA Preferred Project Boiler Plate Specs	12.2.1	25 days
247	IA Preferred Project Construction Technical Specs	12.2.2	15 days
248	**Pre-Final Preferred Project Report Step**	**12.03**	**36 days**
249	Develop Preferred Project Reduced Plans	12.3.1	21 days
250	Update Preferred Project Studies	12.3.2	20 days
251	Develop Preferred Project Design Report (PPDR)	12.3.3	10 days
252	**Preferred Project PDT Meeting Step - Agency Perm**	**12.04**	**30 days**
253	PDT PPDR & PFPPP Review	12.4.1	15 days
254	RA Conditional Permit Approval	12.4.1	0 days
255	PDT PPDR & PFPPP Meeting	14.4.2	5 days
256	PDT PPDR & PFPPP Meeting Synopsis	12.4.3	5 days
257	PDT Respond to Comments - PPDR & PFPPP	12.4.4	10 days
258	Final RA Permits	12.4.5	5 days
259	Final RA Permit Approval	12.4.6	0 days
260	**Preferred Project Public Meeting Step**	**12.05**	**30 days**
261	Public Review	12.5.1	15 days
262	PPDR & PFPPP PM	12.5.1	5 days
263	PM PPDR & PFPPP Synposis	12.5.3	5 days
264	PM Respond to Comments - PPDR & PFPPP	12.5.2	10 days

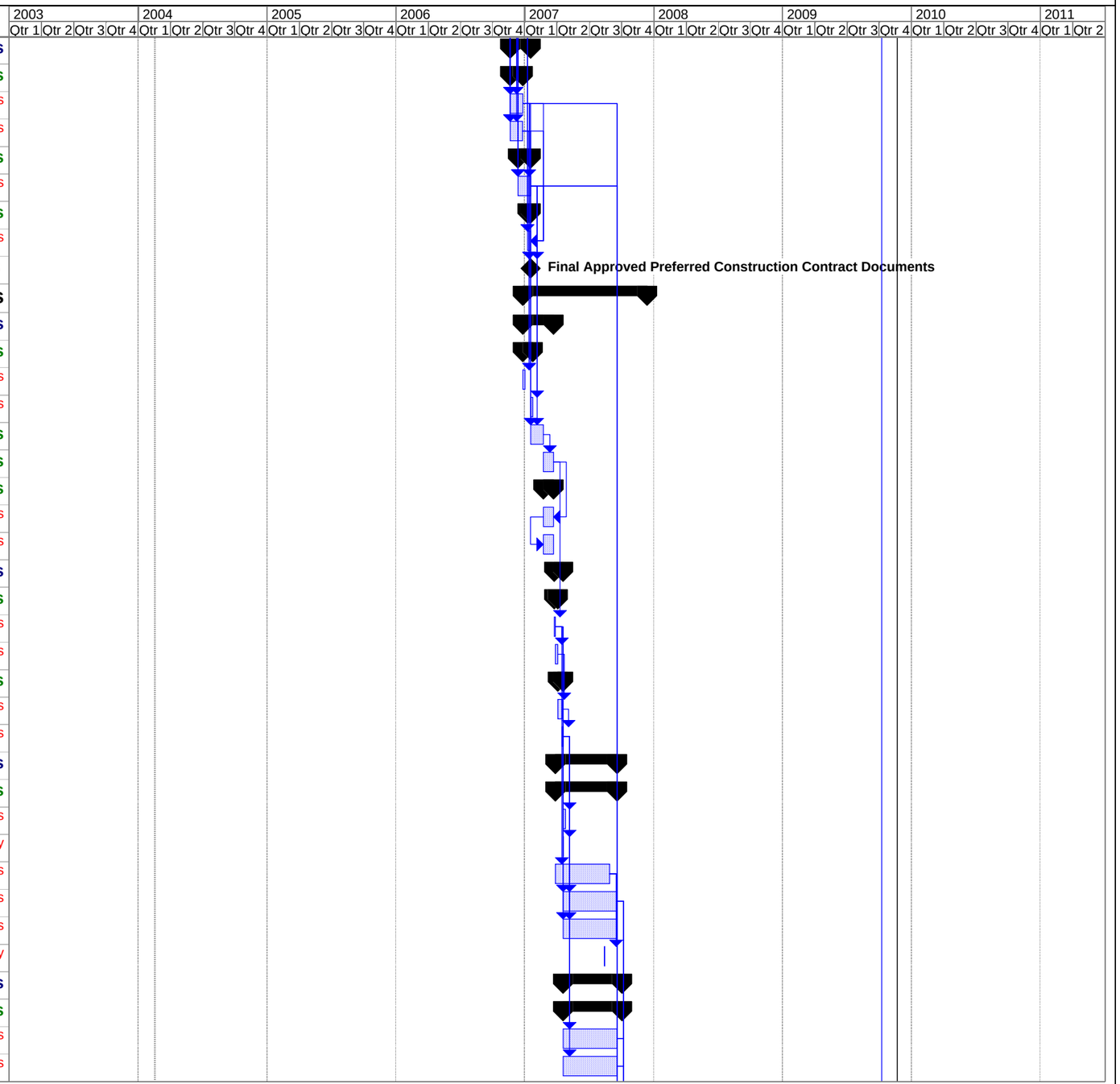


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
265	**Final Plans, Specifications, & Preferred Project Report**	**13**	**40 days**
266	**Preferred Project Final Plans Step**	**13.01**	**25 days**
267	Complete Preferred Project Final Plans	13.1.1	25 days
268	Complete Preferred Project Final Details	13.1.2	24 days
269	**Preferred Project Final Specifications Step**	**13.02**	**25 days**
270	Complete Preferred Project Final Construction Bid Documents	13.2.1	25 days
271	**Final Preferred Project Report Step**	**13.03**	**7 days**
272	Final Design Report	13.3.1	7 days
273	***Final Approved Preferred Construction Contract Dc***	***13.04***	***0 days***
274	**Construction Phase**	**CP**	**239 days**
275	**Bid Advertisement Stage**	**14**	**61 days**
276	**Bid Document Production Step**	**14.01**	**19 days**
277	Blueline FPPP Plans	14.1.1	4 days
278	Bind Preferred Final Construction Bid Docs	14.1.2	4 days
279	**IA Approval to Advertise Step**	**14.02**	**26 days**
280	**IA Advertisement Step**	**14.03**	**20 days**
281	**Pre-Bid Step**	**14.04**	**20 days**
282	Preferred Project Pre-Bid meeting	14.4.1	20 days
283	Addenda	14.4.2	20 days
284	**Award Bid Stage**	**15**	**18 days**
285	**Bid Approval Step**	**15.01**	**8 days**
286	Bid Review	15.1.1	3 days
287	Bid Protest Period	15.1.2	5 days
288	**Construction Contract Execution Step**	**15.02**	**10 days**
289	Contract Signatures	15.2.1	7 days
290	Notice to Proceed	15.2.2	3 days
291	**Construction Stage**	**16**	**115 days**
292	**Construction Step**	**16.01**	**115 days**
293	Construction Submittals	16.1.1	5 days
294	PDT Pre-Grade Meeting	16.1.2	1 day
295	Inspection/Material Testing	16.1.3	100 days
296	Const Management	16.1.4	100 days
297	Constr Staking	16.1.5	100 days
298	PDT Final Construction Inspection	16.1.6	1 day
299	**Construction Monitoring Stage**	**17**	**110 days**
300	**Construction Monitoring Step**	**17.01**	**110 days**
301	WQ	17.1.1	100 days
302	Photos	17.1.2	100 days

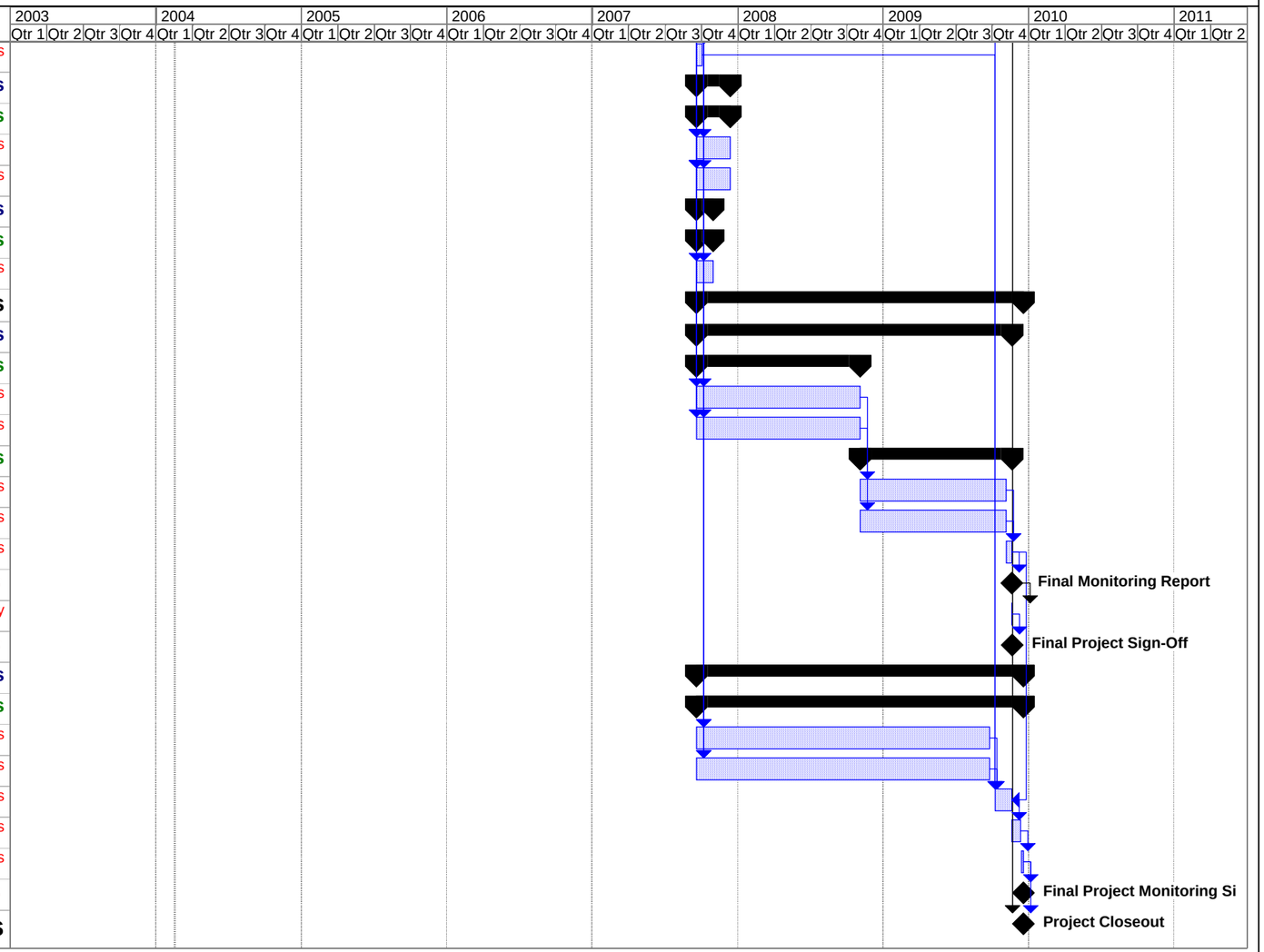


Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

LOCAL CALIFORNIA AGENCIES EIP WORKPLAN TEMPLATE

ID	Task Name	WBS	Duration
303	Construction Mon. Report	17.1.3	10 days
304	**Final Project Report & Record Drawings Stage**	**18**	**60 days**
305	**Final Project Report & Record Drawings Step**	**18.01**	**60 days**
306	Final Project Report (FPR)	18.1.1	60 days
307	Record Drawings (RD)	18.1.2	60 days
308	**Revegetation Stage**	**19**	**30 days**
309	**CCC Revegetation Step**	**19.01**	**30 days**
310	Reveg Supervision	19.1.1	30 days
311	**Post Construction**	**PC**	**560 days**
312	**Vegetation Establishment Stage**	**20**	**541 days**
313	**Year 1 Vegetation Establishment Step**	**20.01**	**280 days**
314	Irrigation	20.1.1	280 days
315	Veg Touch-up	20.1.2	280 days
316	**Year 2 Vegetation Establishment Step**	**20.02**	**261 days**
317	Irrigation	20.2.1	250 days
318	Veg Touch-up	20.2.2	250 days
319	Veg Report	20.2.3	10 days
320	***Final Monitoring Report***	***20.2.4***	***0 days***
321	PDT Project Sign-off Meeting	20.2.5	1 day
322	***Final Project Sign-Off***	***20.03***	***0 days***
323	**Post Construction Monitoring Stage**	**21**	**560 days**
324	**Post Construction Monitoring Step**	**21.01**	**560 days**
325	WQ	21.1.1	500 days
326	Photos	21.1.2	500 days
327	Final Monitoring Report (FMR)	21.1.3	30 days
328	PDT FMR Review	21.1.4	15 days
329	PDT Final Monitoring Sign-Off	21.1.5	5 days
330	***Final Project Monitoring Sign-Off***	***21.02***	***0 days***
331	**Project Closeout**	**300**	**0 mons**



Project: MasterEIPProcess-midlevel
Date: Mon 8/16/04

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

APPENDIX C - SWQIC MEMBERS:

California Tahoe Conservancy –

Steve Goldman, Program Manager, Natural Resources

California Regional Water Quality Control Board-Lahontan Region –

Doug Smith, Senior Engineering Geologist

City of South Lake Tahoe Public Works Department –

Brad Vidro, Public Works Director

County of El Dorado, Department of Transportation –

Bob Slater, Deputy Director, Engineering (SWQIC Chairperson)

County of Placer, Department of Public Works –

Peter Kraatz, Senior Civil Engineer

Nevada Division of Environmental Protection –

Jason D. Kuchnicki, Environmental Scientist

Nevada Division of State Lands, Nevada Tahoe Resource Team –

Charlie Donohue, Environmental Scientist III

Nevada Tahoe Conservation District –

Jason Drew, District Manager

State of California, Department of Transportation –

Karl Dreher, P.E., Project Manager

State of Nevada, Department of Transportation –

Steve M. Cooke, P.E., Principal Hydraulic Engineer

Tahoe Regional Planning Agency –

Jerry Dion, Senior Planner, Environmental Improvement Program

United States Forest Service, Lake Tahoe Basin Management Unit –

Sue Norman, Grants Program Manager (SWQIC Vice Chairperson)

Washoe County Public Works Department –

Kimble Corbridge, P.E.

Other Contributors:

California Tahoe Conservancy –

Kim Carr, Watershed Restoration Specialist

California Regional Water Quality Control Board-Lahontan Region –

Bob Larson, Environmental Scientist

County of El Dorado, Department of Transportation –

Steve Kooyman, Senior Civil Engineer

County of Placer, Department of Public Works –

Bob Costa, P.E., L.S., Engineering Manager

United States Army Corps of Engineers –

Phil Brozek, P.E., Senior Project Manager

CH2M Hill, Inc. –

Alan Highstreet, Senior Project Manager

Northwest Hydraulic Consultants, Inc. –

Ed Wallace, Principal