# Interagency Ecological Program Governance Framework



# **IEP Member Agencies**



- California Department of Fish and Wildlife California Department of Water Resources State Water Resources Control Board National Marine Fisheries Service U.S. Army Corps of Engineers U.S. Bureau of Reclamation U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

# IEP GOVERNANCE FRAMEWORK

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# Interagency Ecological Program Governance Framework

# Introduction

The Interagency Ecological Program (IEP) agencies have agreed upon guiding principles for adapting to emerging and new management and policy science needs. At the center of these principles is adaptability and learning. The IEP seeks to learn from past experience, identify needed improvements, transparently implement, carefully monitor and document, and adaptively manage all changes to the program. It is for this reason that the IEP embarked on the Business Practices Review as a way to enhance the program. More details on the guiding principles can be found in the IEP Guiding Principles available on the IEP website.

In 2013, the IEP initiated a review of its business practices to enhance the transparency and efficiency of the program. The Business Practices Review (BPR) has been a phased project that includes a general assessment and recommendations, and implementation of these recommendations. The recommendations are included in the *IEP Business Review Roadmap* (Roadmap, GEI 2014). As part of the BPR and as outlined in the Roadmap, documenting IEP's governance including policies, core processes, and roles and responsibilities was identified as a critical need to provide enhanced transparency and accountability to IEP's decision-making processes (GEI 2014).

# How to Use This Document

This document is intended to be utilized as a framework for IEP governance as a collaborative science program. Nine member agencies make up IEP, and each of those agencies have their own polices and processes. This document does not seek to supersede agency policies or procedures. This document should be utilized as a framework to foster, facilitate, and enhance the already highly functioning IEP teams, by documenting and standardizing governance processes and responsibilities to implement the IEP's vision and mission.

## **Core Processes**

The IEP Coordinators Team created a core processes subgroup to tackle the processoriented recommendations in the Roadmap. The subgroup developed the processes in this document and has received input from the IEP Directors, Coordinators Team, Science Management Team and Stakeholders. The process descriptions include actions to be taken to ensure the IEP is free of conflict of interests when identifying or selecting IEP projects. These core processes include:

- 1. Utilizing and Updating the IEP Strategic Plan
- 2. Development and Updating the IEP Science Agenda
- 3. What is an IEP element?
- 4. How Do Projects Become IEP Elements?

- 5. Development of the IEP Work Plan
- 6. IEP Proposal Process

## **Direction from the IEP Mission**

The mission of the IEP is to provide and integrate relevant and timely ecological information for management of the Bay-Delta ecosystem and the water that flows through it. This is accomplished through collaborative and scientifically sound monitoring, research, modeling, and synthesis efforts for various aspects of the aquatic ecosystem. The IEP addresses high priority management and policy science needs to meet the purposes and fulfill responsibilities under State and Federal regulatory requirements. The IEP relies upon multidisciplinary teams of agency, academic, non-governmental agencies (NGO), and other scientists to accomplish its mission.

#### Utilizing and Updating the IEP Strategic Plan

The *IEP Strategic Plan* outlines the purpose, function, and scope of the program. The IEP goals and strategies in the plan provide a flexible framework to meet current and emerging needs. Strategic planning will be a foundation for the IEP as it implements and coordinates science for decisions, develops partnerships, and provides information and tools for the Bay-Delta ecosystem as part of the larger science community. As shown in the graphic below, IEP will integrate strategic planning into how it accomplishes its mission and plans its work. The *IEP Strategic Plan* will be updated by a team consisting of the IEP Lead Scientist, the IEP Program Manager, and the Coordinators Team.

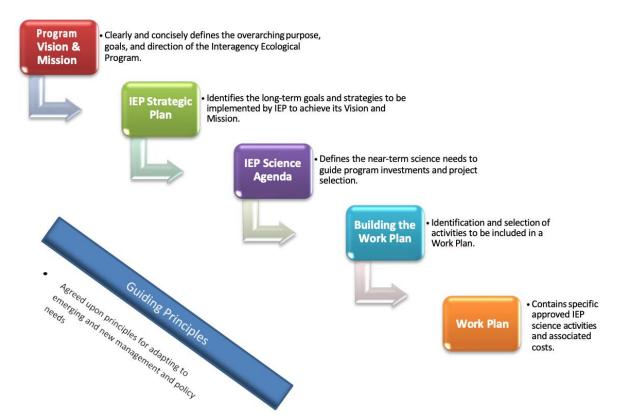


Figure 1. Integration of Strategic Planning

#### Development and Update of the IEP Science Agenda

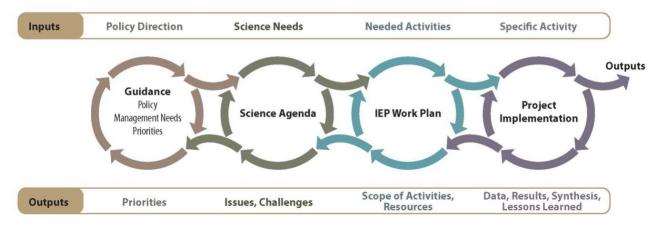
The *IEP Science Agenda* (IEP 2014 in prep) will serve as an outline for achieving important objectives by identifying and organizing science needs in the context of conceptual models, related information gaps and uncertainties, and strategies and priorities. The *IEP Science Agenda* is consistent with the recommendations outlined in the Roadmap and goals within the *IEP Strategic Plan* because it will serve as a mechanism to set priorities, while providing an opportunity for cooperation based on sharing and leveraging resources for common objectives.

The development of the *IEP Science Agenda* is part of a collaborative, iterative process (Figures 1 and 2) that integrates management and regulatory needs and science information into a cohesive strategy. The *IEP Science Agenda* is a targeted, action-oriented plan to provide focus for near-term science decisions and to set priorities for addressing overarching management challenges over a three- to five-year planning horizon. The *IEP Science Agenda* will identify and prioritize the science information needed and adaptive management questions to be answered that will help guide the development of the *IEP Work Plan*, provide a basis for project selection and long term budget and program planning, and help achieve goals of the *IEP Strategic Plan*. The *IEP Science Agenda* will also include performance measures to track progress toward applicable program goals and objectives in the *IEP Strategic Plan*.

The development of the *IEP Science* Agenda was initiated by the IEP Coordinators Team and IEP Lead Scientist in 2014 as the next linking document to the *IEP Strategic Plan*, which was approved by the Directors in December 2014. Using the *IEP Strategic Plan* as a framework, the IEP Coordinators Team and IEP Lead Scientist will solicit policy and adaptive management priorities from the Directors, and will solicit science needs, information, and data from the Science Management Team and other IEP technical teams. IEP will also solicit priorities and needs from the IEP Stakeholder Group and other external sources, including Delta Science Program's (DSP) *Delta Science Plan* and *Interim Science Action Agenda*, universities, contractors, environmental groups and other science bodies, and resource management plans and regulatory requirements. Results from recent analysis and synthesis and new policies and regulations will also be included.

The *IEP Science Agenda* process requires the IEP Coordinators Team and IEP Lead Scientist to work as a collaborative team to lead the development and regular updates of the *IEP Science Agenda* with significant input from the Directors and the Science Management Team. The IEP Lead Scientist and Science Management Team are responsible for translating scientific findings, analysis and synthesis, and related information into comparable science needs, such as categories and hypotheses. This science information is derived from IEP and the broader science community, including Project Work Teams (PWTs), focused workgroups, Science Advisory Group (SAG) reviews, analysis and synthesis workgroups, IEP Stakeholder Group, and collaboration with outside science programs and entities. This approach allows IEP to objectively and transparently plan new work and to collaborate and coordinate with other programs and plans. The Directors and Coordinators Team are responsible for translating natural resource and regulatory requirements into work planning. Prior to initiation of the annual *IEP Work Plan* process, IEP will consider updates to the *IEP Science Agenda* as the program's leadership tackles, identifies and integrates new research and monitoring

needs.



# IEP's Commitment to Adaptability and Learning

Figure 2: Adapability and Learning

# What is an IEP Element?

IEP has a long history of doing science and monitoring; being the "on-the-water" science program. The core of the program is the IEP projects that get carried out every day to meet mandated monitoring requirements and to provide answers to the tough scientific questions that are needed for management of the Bay-Delta. Simply put, an IEP element is an activity or project listed in the *IEP Work Plan*.

## How Do Projects Become IEP Elements?

Monitoring, research, modeling, and synthesis focused on the Bay-Delta aquatic ecosystem that meets the IEP mission and vision and fulfills one or more of the *IEP Strategic Plan* goals and objectives are eligible for inclusion into the *IEP Work Plan*. The IEP Science Agenda will provide guidance for development of the *IEP Work Plan* and the basis for project selection.

The Science Management Team and Program Support Team may propose new IEP elements. These teams review the proposed element to make sure that the project is consistent with the *IEP Strategic Plan* and *IEP Science Agenda*. If the proposed element meets these requirements, then the proposing team will recommend the element for inclusion into the *IEP Work Plan*. The element will then go through one of the review processes outlined below (see IEP Proposal Process Section).

On occasion, projects that are highly relevant to IEP objectives and have a high degree of coordination may be considered for inclusion in the IEP Work Plan at the specific request of the funding agency and upon special approval by the Directors. These projects are typically unplanned and of an emergency nature, and will be included in the Work Plan with a special designation, indicating their unique status. Specially designated projects will undergo administrative and technical review as soon as possible.

The implementing entity and funding agency shall agree in advance to follow agreed upon processes, procedures, and principles to ensure efficient and effective implementation of

quality collaborative science. This includes adherence to program management reporting requirements, interagency technical review, PWT participation, ensuring technical merit, quality control, adaptively managing the risk of endangered species take, and sharing of results and data.

#### Development of the IEP Work Plan

The development of the *IEP Work Plan* is an essential and necessary step to achieve honest, transparent, and collaborative interactions and partnerships. The *IEP Work Plan* reflects work by IEP agencies on projects and programs conducted in a collaborative manner within the Bay-Delta, including monitoring, studies, research, modeling, synthesis and supporting activities that are organized into the six categories listed below:

- 1. Compliance
- 2. Baseline Status and Trends
- 3. Synthesis, Modeling, and Reviews
- 4. Directed Studies
- 5. Program Management
- 6. Solicited Research
- 7. Additional special categories, for example Drought Operations, may be added as needed

The *IEP Science Agenda* will provide guidance for development of the *IEP Work Plan* and will be the basis for project selection. The *IEP Science Agenda* will clearly layout the high-priority science categories and hypotheses. Proposed elements must fall within these categories in response to identified science needs and related program support to be considered for inclusion in the *IEP Work Plan*.

The *IEP Work Plan* development cycle is managed by the IEP Program Manager, led by the Coordinators Team and IEP Lead Scientist, and informed by input from the Directors, Science Management Team, Stakeholder Group, Program Support Team, other interested parties, and outcomes of ongoing activities, studies and research conducted outside of the IEP. The project priorities are based on the highest priority activities from the *IEP Science Agenda*. An assessment of the current year *IEP Work Plan* will be conducted by the IEP Lead Scientist, Coordinators Team, Science Management Team, and IEP Program Manager to identify any gaps. The IEP Program Manager and Coordinators Team will then determine how, and if, IEP can fill the gaps with modifications to existing projects, or through new directed or solicited projects. Existing and ongoing activities and recommended elements will be included in the Work Plan. The steps below outline the process for the development of the *IEP Work Plan* (Figure 3).

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Figure 3. From Science Agenda to Work Plan

- 1. Continuing on from the last arrow above, all modified or new activities to be considered for inclusion in the Work Plan will go through the proposal process. Already approved and ongoing monitoring, studies, and program support are excluded.
- 2. The IEP Lead Scientist, Science Management Team and Program Support Team will recommend to the IEP Program Manager new projects or modifications to be included in a draft IEP Work Plan. For new program support activities, the IEP Program Manager and Program Support Team will recommend those activities to be included in a draft IEP Work Plan. The IEP Program Manager will prepare the draft IEP Work Plan and submit it to the Coordinators Team for review and approval. The IEP Program Manager presents the logistical aspects and IEP Lead Scientist the technical aspects of proposed IEP Work Plan elements. The Coordinators Team, IEP Lead Scientist, and IEP Program Manager will jointly present the IEP Work Plan to the Directors for final approval.
- 3. The final IEP Work Plan is approved by the Directors. The IEP Program Manager then notifies the Principal Investigators and Contract Managers to proceed with the approved work. The Program Support Team monitors and tracks project implementation with IEP Program Manager's oversight and reporting to the Coordinators Team and Directors.

## **IEP Proposal Process**

The IEP proposal process includes two major pathways: Directed and Solicited proposals. Details about each process are described below. In some cases the IEP may choose a hybrid approach, using a directed process for key high-priority issues along with a solicited process to provide broader input.

As mentioned in the previous section, all modified or new activities to be considered for inclusion in the *IEP Work Plan* will go through the proposal process, with the exception of ongoing, unmodified monitoring and previously approved projects. In some cases when funding allows, IEP will utilize proposal solicitations as a tool to solicit additional projects. For any new activities, the IEP Program Manager, Coordinators Team, and IEP Lead Scientist will define and document the criteria to be used for determining which of the identified projects will go through a *Directed Studies Process*, a competitive solicitation process, or a process that combines Directed and Solicited projects. For those studies that are selected through a competitive solicitation, the Coordinators Team will work with the IEP Lead Scientist and IEP Program Manager to establish an independent subgroup to formulate the Request for Proposals (RFP) and define how the solicitation will be performed. The subgroup members will possess the required technical expertise and ensure there is no conflict of interest relative to solicitation development or project selection. The RFP will follow funding agency processes

and protocols. The following sections provide a framework or guidelines for the proposal process for modifications of existing IEP elements, Directed Studies, and competitive solicitations.

IEP's commitment to transparency and freedom from conflict of interest while choosing projects are values core to IEP. IEP also values independent scientific peer review, which is free from conflict of interest and the perception of bias. In some cases, independent peer review may not be achievable (logistics, money, take, etc.). The IEP Lead Scientist, IEP Program Manager, and Coordinators Team will propose alternatives to the Directors for their approval.

## Modifications to Existing IEP Elements: Proposal Process

Each year during the work plan cycle, the IEP Program Manager will solicit element updates from the Principal investigators (PI) of each project. The PI's will be responsible for updating their elements annually. Existing IEP elements that do not have changes in endangered species "take", significant changes in scope, or less than a 10% change in budget will not have to go through the proposal review process. Should an element's take, scope, or budget change, then the element will need to be reviewed by the Science Management Team, utilizing the Directed Studies technical review process. The IEP Coordinators Team can also review the elements in the *IEP Work Plan* through periodic SAG reviews and other management reviews to ensure scientific rigor and usefulness.

#### **Directed Studies: Proposal Process**

Directed Studies are those activities that are identified by IEP member agencies and partners to be implemented under the auspices of IEP. There are three ways that Directed Studies can be proposed: by agency management, based on project element reviews, and recommendations of the Science Management Team. Proposals will be reviewed by the independent subgroup based on administrative and technical screening criteria similar to solicited projects and in accordance with the *IEP Science Agenda*. The purpose of the administrative review is to ensure relevancy to the IEP program and to determine if the resources are available. The purpose of the technical review is to ensure scientific rigor.

Agency management initiated Directed Studies can occur when Directors have requested studies to be implemented by IEP, such as emergency response or a similar critical nature. These studies will need to undergo independent technical peer review prior to the implementation of the study, in order to ensure that the study meets the *IEP Strategic Plan* goals and objectives and that the work is scientifically sound.

Element initiated Directed Studies are often the result of project or program reviews. These studies must undergo technical peer review and can utilize the same SAG that conducted the initial project or program review to do the technical review of their proposed projects.

Science Management Team initiated Directed Studies are often the result of scientific collaboration amongst existing IEP staff. Technical review is proportional to the scale of the investment in science. Smaller studies will receive Science Management Team technical reviews while larger studies (e.g.>\$100K) will received independent technical peer review. The IEP Lead Scientist may recommend additional or reduced review to the Coordinators

Team depending upon the nature and scope of the study.

All Directed Studies proposals must contain, at a minimum, the items listed below:

- 1. A complete description of the proposed project
- 2. Study design
- 3. Research team credentials
- 4. Timeline
- 5. Deliverables
- 6. Budget
- 7. Take of Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) species listed as threatened or endangered

Proposals will go through an administrative review by the IEP Program Manager and Program Support Team and then technical screening by a subgroup of the Science Management Team lead by the IEP Lead Scientist. Those with conflicts of interest will recuse themselves. If it is determined, based on these reviews that the proposal is lacking in administrative or technical merit, additional steps will be identified to improve the proposal, such as forming a work group, adding expertise to the project team, or similar recommendation. The proposal will be improved until it is deemed adequate to be recommended to the IEP Coordinators Team for funding and included in the *IEP Work Plan*. The IEP Lead Scientist, IEP Program Manager, and Program Support Team make this recommendation. Projects that need to be implemented on a fast timeframe should go through the review process as soon as possible. The IEP Program Manager then notifies the Principal Investigators and Contract Managers for the funding entities of the outcome and recommended inclusion in the proposed *IEP Work Plan*.

## Solicitation: Proposal Process

The Coordinators Team is aware that the solicitation process takes considerable time and depends on a substantial sum of money being dedicated in advance for the solicitation, which may not be available in many years. Defining a framework or guidelines for competitive solicitations should make implementation more efficient and less burdensome, especially when funds are released on short notice. In addition, proper documentation and transparency will provide tools to educate potential participants in advance of a given solicitation reducing these efforts during the process. The ability to partner with other entities conducting solicitations, such as the Delta Science Program, would provide another efficient mechanism for funding projects. Below are guidelines for the proposal process for an IEP solicitation.

Upon recommendation and approval by the Directors, Coordinators Team, IEP Lead Scientist, and the Science Management Team, an open Proposal Solicitation Process (PSP) or RFP may be initiated based on scientific need and the availability of funds. The steps below provide a framework for an IEP PSP:

1) IEP issues a solicitation which identifies high-priority needs and describes the selection process consistent with the *IEP Science Agenda* and this Governance Framework as approved by the Coordinators Team. The PSP or RFP will follow funding agency processes and protocols.

- 2) Solicitation will be conducted in two phases: concept proposals and then full proposals.
- 3) The brief concept proposal must be responsive to the solicitation and provide basic information to be determined when the solicitation is prepared, such as:
  - a) Project scope, purpose, and description
  - b) Timeline
  - c) Deliverables
  - d) Budget
  - e) Estimate of listed species "take."
- 4) Concept proposals will go through an administrative review by the IEP Program Manager and Program Support Team. Those with conflicts of interest will recuse themselves from the review process. The Administrative Review will evaluate the following:
  - a) Is the concept proposal complete and on time?
  - b) Did the proposal follow specified formats and content requirements?
  - c) Is the proposal signed by an authorized individual?
- 5) Concept proposals will then go through a technical screening by the Science Management team lead by the IEP Lead Scientist. This process will be conducted in a manner that avoids any conflict of interest among project proponents. The Technical Screening will evaluate the following:
  - a) Is the proposal responsive to the priorities described in the proposal solicitation?
  - b) Are project scope, budget and timeline reasonable?
  - c) Does the PI have a successful track record completing projects?
  - d) Does the PI have the skills and capabilities to conduct the study?
  - e) Are the concepts logical and appropriate?
  - f) Technical merit?
  - g) Does the concept proposal address an important management issue?
- 6) If the proposal ranks well based on the administrative and technical reviews (all elements), then the PI will be invited to submit a full proposal. Otherwise, the proposal is declined.
- 7) The full proposal will require expanded details for the minimum requirements:
  - a) A complete description of the proposed project
  - b) Study design
  - c) Research team credentials
  - d) Timeline
  - e) Deliverables
  - f) Budget
  - g) Strategy for FESA/CESA listed species "take" management.
- 8) Resources Review IEP Program Manager and Program Support Team will evaluate the budget and requests for take. The IEP Lead Scientist will also review request for

listed species take.

- 9) Technical Review Independent technical reviewers (3 or greater) will be engaged according to their expertise and invited to review the technical merits of the full proposal(s). This is intended to provide IEP an opportunity to receive additional information about the technical merit and potential gaps in proposals, which can improve the decision process and also the quality of approved projects. Technical reviewers will be provided with the evaluation criteria and scoring guidance to be provided by the IEP Lead Scientist, Science Management Team Subgroup, and the Coordinators Team. The IEP Program Manager and Program Support Team, with assistance of the IEP Lead Scientist and the Science Management Team, will prepare a summary of Technical Review scoring and Resources Review outcomes along with an overall recommendation for selection, which also considers the proposed budget and proposed take.
- 10)The proposed list of recommended projects will be presented to the Coordinators Team for consideration and approval with all supporting documentation needed to understand the basis for the recommended projects.
- 11) The IEP Program Manager then notifies the PI's of the outcome, and will notify the funding agency Contract Managers on projects recommended for inclusion in the proposed IEP Work Plan.

# **Additional Core Processes**

Additional core processes may be developed, as needed, in order to respond to the BPR Roadmap and for IEP to remain transparent and flexible in a dynamic environment. Any additional processes developed will be vetted by the Directors, Coordinators Team, Science Management Team, and Stakeholder Group and implemented to enhance the program. See Conclusion and Next Steps Section at the end of this document for further information.

# **Roles and Responsibilities**

## **Program Organization**

Collectively, IEP agency staff have scientific and management expertise that adds up to more than the sum of its parts because of the synergy arising from the interagency and interdisciplinary interactions and relationships made possible by the IEP. This synergy supports a positive environment that includes challenging assignments, professional growth, and recognition of accomplishments for those helping to achieve common goals. As a collaborative of State and Federal agencies, university and private scientists that monitor and do scientific research in the Bay-Delta, there is an opportunity to work in a cross-cutting team setting with opportunities for bottom-up, top-down and multiagency communication and coordination. To make this happen, a core leadership team of three positions (CT Chair, IEP Lead Scientist, and IEP Program Manager) described later, function closely together to communicate and coordinate at all levels.

However, the IEP is a collaborative partnership among several agencies and thus, the roles, responsibilities, and interactions among staff are more dynamic than if IEP were administered under a single-party employer. It is essential that IEP agencies and their representatives understand their roles and responsibilities to IEP to best allocate staffing resources to support the Program, while managing non-program workload to allow agencies and programs to collaboratively maximize the effective and efficient application of funds, personnel and expertise.

The roles and responsibilities were updated to meet the objectives in the *IEP Strategic Plan* consistent with the recommendations identified in the Business Practices Review. The primary roles and responsibilities of key individuals and teams are outlined in this section as part of a clarified governance framework that shows where decisions are made, who supports important processes, and emphasizes particular roles in communication. This section was drafted concurrently with updates to core processes and a new Communication and Engagement Plan.

Currently, IEP participants may fulfill the responsibilities of more than one role that has resulted in excessive workload and "burn-out" for some participants, especially those who also participate in studies and other projects endorsed by the IEP. This document will help guide and support subsequent initiatives and most effectively direct the placement of additional resources as they become available.

## **Roles and Responsibilities**

The mission of the IEP and its participants is to provide and integrate relevant and timely ecological information for management of the Bay-Delta ecosystem and the water that flows through it. This is accomplished through collaborative and scientifically sound monitoring, research, modeling, and synthesis efforts for various aspects of the aquatic ecosystem. To do so, the IEP engages its most valuable resource - its people. Collectively, IEP agency staff have scientific and management expertise that adds up to more than the sum of its parts because of the synergy arising from the interagency and interdisciplinary interactions and relationships made possible by the IEP. This valuable1 collaborative of State and Federal agencies, university and private scientists offer an opportunity to work in cross-cutting team

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settings for bottom-up, top-down and multiagency communication and coordination<sub>2</sub>.

The roles, responsibilities and interactions of the collaborative participants are not as simply defined or described as in a traditional single-party entity because one person may fulfill a variety of roles, and the organizational structure of the organization supporting them can be very dissimilar or change over time. Additionally, IEP activities are often only a portion of an individual's duties such that specific roles are not commonly defined for the individual by the member agency.

The roles and responsibilities clarified in this section are:

- 1. Directors
- 2. Coordinators Team
- 3. Coordinators Team Chair
- 4. IEP Lead Scientist
- 5. Science Management Team
- 6. Project Work Teams
- 7. Principal Investigators
- 8. IEP Program Manager
- 9. Program Support Team
- 10. Contract Managers

(Please note: the organizational chart will be updated subsequent to revisions in roles and responsibilities)

#### **Directors**<sub>3</sub>

Set the vision and direction, and then approve steps to achieve it. The Chair of the Directors will lead IEP Directors activities. As follows, the Directors:

- 1) Attend and participate in each Director's meeting, communicating:
  - a) Management challenges and information needs to make upcoming decisions;
  - b) Decisions made outside of the IEP process that may impact IEP activities or staff;
  - c) Feedback on where program information and activities were useful; and
  - d) A unified perspective for the collective benefit of the collaborative rather than positional perspectives wherever possible.

<u>Interagency Ecological Program Guiding Principles</u>, approved by the Agency Directors January 2013.

<sup>2</sup>Current State Assessment Final Interim Memo v1 1a- General Finding (1)

<sup>3</sup>The Directors agreed to allow proxies, provided two conditions are met: first, the highest level of authority needs to be applied to IEP; and second, designees need to have decision authority.

- 2) Inform, review, develop consensus on, and enable the following:
  - a) Planning for research and monitoring as documented in the Memorandum of Understanding, *IEP Strategic Plan* and *IEP Science Agenda* that will guide work planning;
  - b) Management strategies to achieve objectives and address resource needs; and
  - c) Annual IEP Work Plan.
- 3) Support and lead by:
  - a) Articulating clear priorities;
  - b) Encouraging an environment of communication and support with appropriate delegation and communication;
  - c) Removing barriers and helping to resolve conflicts amongst individual agency priorities and other relevant obstacles or disagreements;
  - d) Recognizing consequences of additional scientific demands placed on IEP resources; seeking to prioritize or bring additional resources to the program;
  - e) Engaging in interactive dialog with IEP Coordinators Team, IEP Lead Scientist, and Staff Scientists as appropriate when agency management Directed Studies are necessary; and
  - f) Ensuring contingencies are available to accommodate special studies and unforeseen program needs.
- 4) The Directors' Chair will guide the agenda, lead the meetings, and engage the others to ensure effective participation and follow-up with Directors on key topics.

#### **Coordinators Team**

Provide leadership and coordination of IEP activities through the IEP Strategic Plan, IEP Science Agenda, IEP Work Plan, and communication:

- 1) Serve as the primary liaisons to their Director, agency and staff. Communicate agency and program needs for IEP while seeking to be a good steward of all agencies' resources.
- 2) Actively participate in Coordinators Team meetings, and help develop a unified collaborative perspective as a team to:
  - a) Provide broad strategic oversight, and resolve program issues;
  - b) Collectively work to ensure adequate resources to implement the program;
  - c) Generate policy and program management documents, participate in and guide documents that relate policy and management needs with science, and review important science products to understand management implications;
  - d) Guide and manage development and updates of programmatic IEP documents (e.g. IEP Strategic Plan, IEP Science Agenda and IEP Memorandum of Understanding) with meaningful participation of various IEP teams and Stakeholder Group as appropriate;
  - e) Approve, coordinate, and facilitate IEP activities, teams, products, and *IEP Work Plan*;
  - f) Engage with Stakeholder Group and implement the *IEP Stakeholder Engagement Plan*; and
  - g) Encourage a collaborative, positive environment that offers opportunities to scientists and support staff for professional growth, challenging assignments, and recognition of superior performance.

- 3) Actively support preparation, presentation, dialog and follow up of Director's Meetings, such as:
  - a) Engage and receive support from the Science Management Team and other teams as appropriate on relevant science and program matters in order to help inform Directors on topics including the *IEP Science Agenda* and *IEP Work Plan*;
  - b) Communicate science outcomes and opportunities to Directors in terms of policy and priority concerns in concert with the IEP Lead Scientist;
  - c) Make recommendations to the Directors on effectively implementing the program including resource and priorities; and
  - d) Interpret and apply Directors' collective vision and direction for the program and track decision and directives.

#### Coordinators Team Chair

Lead activities, strategic planning efforts, and act as the primary spokesperson for IEP:

- 1) Chair the Coordinators Team meeting;
- 2) Facilitate the Coordinators Team to translate program needs to IEP participants above and below so that resource and decision needs are clearly understood and addressed;
- Lead strategic program planning for all things that make it a program, including the IEP Strategic Plan, IEP Science Agenda, and the IEP Work Plan in consultation with the IEP Program Manager and IEP Lead Scientist;
- 4) Ensure communication and implementation of policies from the Directors to everyone in the program and acts as a liaison to teams;
- 5) Guide continuous agency alignment for the *IEP Work Plan* and implementation consistent with the *IEP Science Agenda* in coordination with the IEP Program Manager. The "Enforcer" and "Encourager" of programmatic recommendations documents and makes sure actions are completed;
- 6) Arbitrate and resolve research permit issues as necessary related to permitting and take allocation, in consultation with the Coordinators;
- 7) Find and promote opportunities for scientific collaboration and coordination among others (does not commit resources);
- 8) Assist Director's Chair with logistics of Directors' meetings; and
- 9) Provide overall leadership for IEP Coordinators Team.

## IEP Lead Scientist

Provide strategic direction for, and oversight of, IEP science efforts; act as the chief science advisor to the Coordinators and Directors; chair the Science Management Team; and serve as the primary scientific voice of IEP to all groups:

- 1) Provide scientific strategic leadership, advice, and guidance at all levels;
- Advises Coordinators Team on Science Management Team and other technical team membership, seeking to be inclusive of the broad range of expertise necessary to fulfill functions and tasks;
- 3) Acts as the technical lead, in consultation with the Science Management Team and Coordinators Team on the *IEP Science Agenda* development and implementation;
- 4) Recommends approaches to synthesis and analysis, and approaches appropriate

entities with suitable expertise to participate;

- Lead and organize SAG reviews with assistance from other program staff as appropriate, such as technical reviews of compliance and baseline status and trends elements;
- 6) As needed, solicit advice on scientific issues from the Science Management Team, Project Work Teams, Principle Investigators, regulators, and other stakeholders;
- 7) Oversee, support, and provide guidance to science synthesis, focused technical teams and special project efforts and ensure compliance with IEP processes;
- 8) Advise the Coordinators Team, Science Management team, Project Work Teams, and Principle Investigators on objectives for scientific rigor when considering inclusion of studies in the *IEP Work Plan* and publications;
- 9) Participate in the development of research solicitations, and participate in and support technical reviews of related study proposals and deliverables;
- 10)In consultation with the Science Management Team, advise the IEP Program Manager and Coordinators Team on scientific value relative to CESA/FESA "take" management to help ensure approaches are scientifically defensible;
- 11)Chair the annual IEP Science Workshop agenda;
- 12)Help to facilitate coordination, communication, and collaboration among the Project Work Teams, Science Management Team, other study teams, Coordinators Team, and Directors; and
- 13)Act as point of contact and primary technical representative in designated forums on IEP related science matters and as an independent advisor to the Coordinators Team and Directors.

#### Science Management Team

Facilitate, guide, and communicate science between IEP studies, teams (Project Work Teams, Focused Technical Teams, and Synthesis) and the greater science community. Collectively seek to understand science and advise the Coordinators Team and IEP teams on the progress of science to meet management needs, identify gaps, priorities, and efficiencies. Recommend future studies, reviews, and other approaches to resolving specific science needs. (Chaired by IEP Lead Scientist):

- 1) Assist in the development of the IEP Strategic Plan, IEP Science Agenda, and IEP Work Plan.
  - a) Assist IEP Lead Scientist in identifying monitoring and research needs, and makes recommendations to the IEP Lead Scientist and Coordinators Team on information for the *IEP Science Agenda* and *IEP Work Plan* elements as appropriate;
  - b) Identify underlying science questions and information gaps that are feasible to pursue and applicable to resource management information needs identified by the Coordinators and Directors, and recommends possible scientific studies or activities that may address the information needs;
  - c) Provide feedback on a) what types of science management questions can or cannot be addressed within a given timeframe for the benefit of management; and b) new scientific questions that might NOT be explicitly noted in specific mandates, but

might be highly informative to fulfilling mandates in a new and innovative way;

- d) Provide review and input on study and monitoring designs and results as appropriate;
- e) Track, document, and report on IEP related science activities (technical aspects and recommendations) consistent with *IEP Work Plan* and the *IEP Science Agenda;* and
- f) Elevate potential resource management issues to the IEP Lead Scientist and Coordinators Team for consideration in policy and priority decisions.
- 2) Share joint understandings and seek scientific input from other Agency Scientists, Project Work teams, and other experts in the context of the latest science results, uncertainties, design of monitoring surveys, and related science and technical issues:
  - a) Collaboratively interpret and seek interagency understanding of the latest science;
  - b) Engage, guide, facilitate, and communicate with Project Work Teams, Focused Technical Teams, Synthesis Teams, and other IEP science teams;
  - c) Acts as a communication link between PWTs, PI, Coordinators Team, and Directors on science issues;
  - d) Provide support and guidance for teams performing overarching analysis and synthesis of data into information. As appropriate and available, members of the Science Management Team may participate in interagency synthesis and focus technical studies;
  - e) Contribute to IEP communications, engagement, and outreach through provision of scientific information to IEP newsletter articles, rotating editor assignments, contributions to the IEP Website, and other IEP related communications;
  - f) Organize the IEP workshop content with the IEP Lead Scientist and the IEP Program Manager utilizing a collaborative committee;
  - g) Provide peer review of publications, reports, and newsletters; and
  - h) Assist the IEP Lead Scientist with SAG reviews of program elements, including establishing review objectives, setting-up and coordinating reviews, reviewing requirements, the specific charge to the SAG, and outcomes and products.

## Project Work Teams

Serve as scientific experts and advisors for specific science topic areas to promote collaboration and cooperation between interested parties; help facilitate communication among other experts within a given topic area to more efficiently provide information to the broader science community and also to inform IEP including the Science Management Team and IEP Lead Scientist:

- 1) Provide a scientific forum for coordination, collaboration, discussion, and review of focused and specific topic areas of importance to the IEP;
- 2) Serve as the scientific connections to academia and the larger scientific community related to IEP work and relevant science topics;
- Discuss the latest science results, uncertainties, priorities, design of monitoring surveys, and related science and technical issues in a facilitated, open forum (all interested parties) on topics consistent with the approved PWT charter;
- 4) The approval of a PWT charter and confirmation of the Chair will be upon

recommendation of the IEP Lead Scientist and approval of the Coordinators Team; and

5) The PWT Chair will be expected to send meeting notes and quarterly reports to the IEP Program Manager, Coordinators Team Chair and IEP Lead Scientist. The chair may be requested to attend the Science Management Team at the request of the IEP Lead Scientist to provide expertise on their team's topic. The PWT Chair will also provide a presentation upon request of the Coordinators Team.

#### Principal Investigators

Develop and perform specific scientific investigations or data collection projects (research, monitoring, etc...) in conformance with specified contract requirements (may lead a team performing the effort):

- 1) Develop proposal and study plans that include a budget, scope of work, and timeline with clear resource requirements and expected deliverables;
- Work with the Contract Manager to have contracts in place in a timely manner and ensure the project is conducted and completed in accordance with contract requirements and all terms and conditions;
- Report status to the Contract Manager on established frequency identified in the contract;
- 4) Provide required deliverables provide and publish data per requirements;
- 5) Identify, monitor, and report take as required. Do not exceed allocated take;
- Principal Investigators must acknowledge IEP using standard language in all products and publications (papers, reports, presentations, and posters) when conducted under the auspices of IEP; and
- 7) Where specified in the contract, present the data and results at the IEP Annual Workshop or other forums.

#### IEP Program Manager

Lead the Program Support Team; direct, manage, and be responsible for the IEP Work Plan and administrative and logistical activities for IEP; act as IEP's main point of contact for program support:

- 1) Receive, compile, and maintain IEP program documentation (e.g. *IEP Work Plans*, budget data, take reporting, checklists, policies, procedures, contact information, etc.);
- 2) Analyze and present the draft annual *IEP Work Plan* to Directors, Coordinators Team and Science Management Team;
- 3) Act as the point of contact for inquiries regarding IEP activities relevant to *IEP Work Plan* content, and generates IEP program documents in response to requests for information (e.g. program analysis, budget sheets, species take summaries, etc.);
- 4) Support and contribute to the production of IEP program documents, such as the *IEP Strategic Plan*, *IEP Science Agenda* and others, with an emphasis on program support and feasibility;
- 5) Chairs the Program Support Team. Interact closely with all program participants on program activities, and work with Contract Managers and the Program Support Team to identify and allocate adequate resources for activities. Ensure IEP program support

activities follow appropriate processes, are documented, and tracked;

- 6) Interact with the Science Management Team, IEP Lead Scientist, and other work teams and their chairs to ensure coordination in an efficient and effective manner;
- 7) Secure permits or oversees the securing of permits for selected IEP activities, ensuring standard processes are followed and documented;
- 8) Track and account for "take" including reporting and applicable management strategies. Work with the Program Support Team to develop and coordinate take management strategies; and facilitate allocation of take in coordination with the Coordinators Chair, IEP Lead Scientist, and Science Management Team;
- 9) Organize the logistics for Coordinators Team and Science Management Team meetings and workshops;
- 10)Provide the Coordinators Team and the Coordinators Chair pertinent information between monthly meetings to maintain continuity of efforts; and
- 11)Work with Communications and Information Specialist to track and communicate events and IEP activities (IEP Calendar, List Serves, Webpage, etc.).

# Program Support Team

Provides overall program administration and business support necessary to implement IEP activities, ensuring efficiency, effectiveness and consistency. They provide support to the overall program including the Directors, Science Management Team, Coordinators Team, and IEP Lead Scientist. (Chaired by the IEP Program Manager):

- Coordinate and provide logistical support for program resources (e.g. funding, take, staff, boats, and equipment) coordinated with the IEP Program Manager, Science Management Team, and IEP Lead Scientist;
- 2) Optimizes the use of allocated resources and communicates potential resource opportunities and conflicts to the IEP Program Manager;
- 3) Track, document, and report program activities (project and deliverable status);
- 4) Provide information and develop the proposed Work Plan under the leadership of the IEP Program Manager following the appropriate processes;
- 5) Provide administrative reviews of project proposals, study plans, and budgets for inclusion in the Work Plan;
- 6) Provide technical program support and promotes information exchange on IEP projects being implemented to ensure that projects are conducted and completed correctly and as planned;
- 7) Lead the coordination of publications and related deliverables consistent with contract requirements, and ensures materials are timely and efficiently distributed;
- 8) Assist the IEP Program Manager and organizing committee to implement the annual IEP Workshop related to logistics; and
- 9) Elevate potential resource management issues to the IEP Lead Scientist and Coordinators Team for consideration in policy and priority decisions.

#### **Contract Managers**

As a part of the Program Support Team, the Contract Managers direct, manage, and are responsible for ensuring compliance with applicable requirements in contracts for IEP projects executed or funded by their agency:

- Develop, track, and manage contracts for IEP activities including collating and compiling final deliverables from contracted activities and studies, preparing and submitting status and expenditure reports, and providing information to the IEP Program Manager to eliminate duplication of efforts;
- 2) Work closely with the IEP Program Manager on the implementation of activities and reporting of status and outcomes to the IEP Lead Scientist, Science Management Team, Coordinators Team, and Directors;
- 3) Assist the IEP Program Manager with responses to requests for information regarding IEP activities, data, and documents;
- 4) Act as the liaison between the IEP Program Manager and Principal Investigators;
- 5) Provide recommendations regarding cost-sharing solutions, standardized contract language, and development and implementation of interagency research solicitations;
- 6) Provide recommendations related to contracting and work with the Coordinators Team, IEP Lead Scientist, and IEP Program Manager to ensure that goals and objectives of the *IEP Work Plan* are met.

## **Conclusion and Next Steps**

The IEP seeks to learn from past experience, identify needed improvements, transparently implement, carefully monitor and document, and adaptively manage all changes to the program. The BPR and this *Governance Framework* are ways to retrospectively analyze and enhance the program.

The IEP organization will begin utilizing the new or modified processes and roles and responsibilities and will communicate any needed adjustments to the Coordinators Team. The intent is to update and maintain the documents routinely with annual reviews as an iterative process with input from member agencies, participants, and various stakeholders.

The Coordinators Team will prioritize the remaining recommendations in the *IEP Roadmap* and facilitate scoping and drafting of additional documents or sections as needed. The near-term priority actions for pursuing the goals of the *IEP Strategic Plan* and objectives of the BPR documents are listed below.

The following are anticipated next steps or future actions related to Core Processes:

- 1) Development of the IEP Science Agenda;
- 2) Development of a new Memorandum of Understanding; and
- 3) Development of a Conflict of Interest Policy.

The following are anticipated next steps or future actions related to Roles and Responsibilities:

- 1) Define the roles and responsibilities for:
  - a) Regulatory and Operations Advisory Team;
  - b) Stakeholder Group and Lead;
  - c) Communications and Information Specialist; and
  - d) Data Utilization Work Group.
- 2) Finalize an updated IEP Organizational Chart based upon the Governance Framework, and *Communication and Engagement Plan*.

#### References

Delta Science Program. 2013. Delta Science Plan 12/30/2013.

Delta Science Program. 2014. Interim Science Action Agenda 11/07/2014.

- GEI. 2014. IEP Business Review Final Roadmap
- GEI. 2014. IEP Final Interim Memo v1
- IEP. 2014. Interagency Ecological Program Conceptual Draft Science Agenda (in prep)
- IEP. 2014. Interagency Ecological Program Strategic Plan 10/22/2014