



CALIFORNIA
WATER FIX
RELIABLE. CLEAN. WATER.

DESIGN AND CONSTRUCTION ENTERPRISE GUIDELINES

Exhibit 2

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EXHIBIT B-2- GUIDELINES

Guidelines, Administrative Parameters, and Requirements Applicable to the Implementation of the California WaterFix through Design and Construction

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1.0 INTRODUCTION

The Design Construction Enterprise (DCE) for the California WaterFix program is the organization within the Delta Conveyance Design and Construction Joint Powers Authority (Authority) created for the sole purpose of planning and constructing the water conveyance facilities as described in the Joint Exercise of Power Agreement between the Authority and DWR (JEPA). Through a series of workshops, principles and guidelines were developed to govern the DCE. This document summarizes the principles, guidelines, describes the organization, and identifies roles and responsibilities.

2.0 MISSION, VISION, CULTURE AND VALUES

This section establishes the DCE management characteristics of the culture that is desired for the organization and values that are expected of all individuals working within DCE.

Executive staff, responsible for managing the completion of the California WaterFix, developed and universally endorsed a Mission Statement, Vision Statement, and Culture Statement for the DCE in January 2014. The purpose of the Mission Statement is to guide management of the California WaterFix and reflects the core purpose of the DCE. The Mission Statement intends to challenge the DCE and have broad significance to motivate and stimulate the team. By agreeing to a clear Mission Statement, common goals and expectations were set for the individuals involved in the DCE. The following is the DCE Mission Statement, established and adopted by executive leadership:

To safely design and construct the conveyance facility on time, on budget, and within specifications while prudently managing risk.

The DCE will achieve this mission by: expertly managing risk, communicating effectively, transacting all business in an open and honest manner, providing world-class project controls (budget, schedule, reporting), making decisions that are fiscally prudent with a focus on the creation of value, setting clear and comprehensive criteria for specifications and standards, and implementing an effective QA/QC program.

The Vision Statement describes the aspiration of the DCE for achieving its Mission. The following is the DCE Vision Statement, established and adopted by executive leadership:

To become a model organization for the delivery of water related megaprojects.

The DCE will achieve this vision by: controlling cost, being a respectful community partner, being innovative, efficient, developing knowledgeable team members, building trust and confidence.

The following is the DCE Culture Statement, established and adopted by executive leadership:

The DCE is a high-performing organization with world-class expertise and team members who enjoy the challenges that accompany a world-class project. It is a fun, supportive, dynamic, can-do place that

celebrates accomplishments. DCE staff conduct their work with passion, and exhibit persistence in moving work forward.

The following are the DCE values, established and adopted by executive leadership, that are expected of all individuals working within DCE. The DCE values:

- Safety – Everyone goes home safe, every day.
- Accountability – We are responsible for our actions as an individual, as a team and to the community.
- Honesty – We conduct our work in a transparent manner, tell the truth, admit our mistakes, and course correct as necessary.
- Decisiveness – We operate with a sense of urgency, we get the facts, get them fast, and make the decision.
- Solutions Oriented – Every problem presented must be accompanied by multiple alternatives for solution.
- Value Driven – Our decisions are based on creating value for all stakeholders.
- Coaching – We share our strengths, have the courage to ask for help, acknowledge and celebrate individual and team success.
- Continuous Learning – We operate in an environment where continuing education and knowledge transfer is fundamental to our success.

The DCE is committed to excellence. Through the lessons learned from resources including site visits with programs throughout the country and selected case studies, the DCE will apply this knowledge to enhance operations. Governance, organization, cost estimating, communication, risk management, procurement, project controls and quality are all areas critical to success. By creating an organizational structure that assigns single points of accountability with defined roles to maintain clear lines of responsibility, the DCE will empower the program team to be effective decision-makers.

The DCE will strive for transparency on decisions and expenditures to ensure support of all involved parties focusing on setting clear processes and procedures that can be easily monitored and enforced. With clear and measurable Key Performance Indicators (KPIs), the performance management system will be built to provide the team with timely and accurate information to highlight potential risks and expedite decision-making.

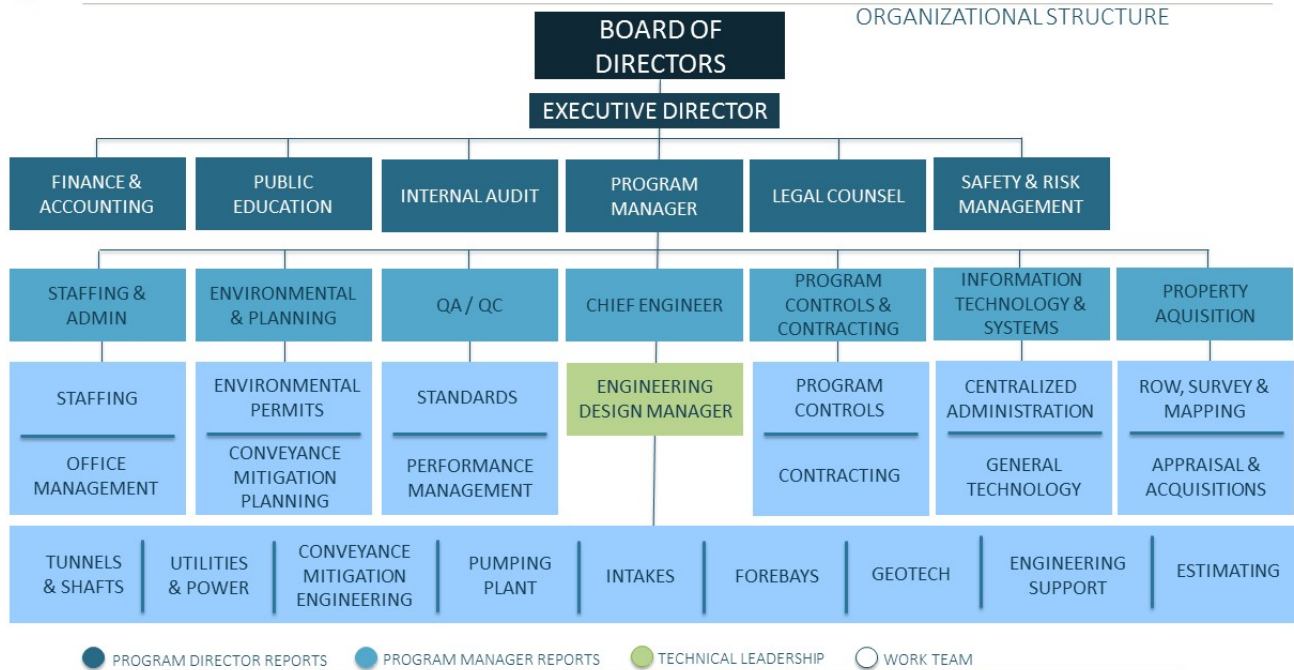
The DCE Program Controls and Contracting function will assess, implement and process systems and processes required for all program reporting. Well defined protocol and escalation will be developed providing clear delineation of decision making at the appropriate level as related to design criteria, design standards, specification changes, such as that described in detail in Section 3.C.2. The Program Controls Plan will be further defined as the program advances. The DCE will establish and maintain, in the Program Controls Plan, tools and systems to manage change; control risk; minimize cost; drive schedule; manage budget; and monitor and report progress. The Authority and DWR will be kept apprised of program progress through monthly status reports.

3.0 ORGANIZATION

This section describes the DCE organizational structure. The DCE will be organized generally as shown in the organizational chart below. Specific work teams will be organized at the discretion of the Program Director. A general description of each team's role and list of responsibilities are provided in this section.



DESIGN AND CONSTRUCTION ENTERPRISE



DRAFT – FOR DISCUSSION PURPOSES ONLY 7-3-17

A. DETAILED ROLES AND RESPONSIBILITIES

- 1) Program Director – Overall role: Single point of accountability to the Authority and DWR for delivery of the Program design and construction. Will set the overall direction of the Program and coordinate all program execution with the Program Manager and Chief Engineer, and ensure all activities are on schedule, within budget and to specifications. In addition, the Program Director will lead external interactions, administrative support functions of the program organization, and interaction with The Authority and DWR. Specific responsibilities include:
 - a. Budget & Schedule
 - Prepares draft annual budget and schedule for approval by the Authority and DWR in accordance with Section 8 of the Agreement
 - Keeping the program on budget and on schedule
 - Keeps the Authority and DWR informed on actual and forecasted expenditures against budget
 - Submits modified budget for the Authority and DWR approval if expenditures for an individual contract or a budget category exceeds amount in the annual budget
 - b. Procurement / Contracts
 - Responsible for entire contracting process including compliance of approved contracts with applicable law
 - Oversees the issuance of contracts and ensures their progress
 - Recommends contract changes to the Authority and DWR for approval in accordance with JEPA, if contract expenditures exceed the budget or materiality thresholds.
 - c. Safety & Risk Management
 - Ensures development and implementation of safety procedures in accordance with DWR safety policy
 - Oversees the development of a program risk register with the identification of the high and critical priority risks
 - Ensures that high and critical priority risks have clear ownership and mitigation
 - Ensures that implementation of action plans when a particular risk crosses a threshold
 - d. Design Changes
 - Ensures that engineering decisions not requiring Authority and/or DWR approval pursuant to the JEPA are made on a timely basis.
 - e. Performance Evaluation (Authority and DWR, PM, and Program)
 - Directs the preparation of performance management reports on overall progress of the organization against performance indicators (e.g., cost, schedule, specs, etc.)

- Manages staff as it relates to their performance on the program (their partnering agency will continue to evaluate their performance independently)
 - f. Human Resources
 - Mobilizes and returns staff to and from partnering agency(ies) as needed
 - g. Financing
 - Works with the Authority and DWR to determine the amount of funding and timing of funding needed by the entity
 - Ensures coordination with financing entity(ies) to secure commitment dollars when needed
 - h. Audit
 - Ensures full cooperation with auditors
 - Ensures audit findings are responded to appropriately and timely
 - i. Public Affairs
 - Oversees DCE public relations/communications efforts with respect to construction activities
 - Ensures there is a liaison to public and communities impacted by construction
 - Ensures coordination of outreach efforts with the Authority and DWR Public Affairs Assistant Director
 - j. Program related Environmental Compliance and Mitigation
 - Ensures contracts and activities are done in compliance with environmental and permit requirements
 - k. Legal
 - Works with legal counsel on legal advice regarding DCE program implementation and legal compliance
 - l. Authority and DWR coordination/support
 - Facilitates coordination with the Authority and DWR in accordance with the JEPA
 - Ensures that the Authority and DWR has adequate administrative support
- 2) Program Advisory Group – Overall Role: Technical resource convened by the Executive Director, providing advice and expertise, to help shape the Executive Director’s point of view on program issues. The Authority and DWR may recommend individuals for participation on the PAG with the consent and approval of the Program Director. Specific responsibilities include:
- a. Participates full-time
 - b. Assists the staffing function in resource interactions with partnering agencies
 - c. Facilitates communication of program information to partnering agencies
 - d. Provides technical advice
 - e. Reviews program documentation at the direction of the Program Director
 - f. Assists in selecting staff and consultants

B. EXECUTIVE DIRECTOR REPORTS

- 1) Program Manager – Overall role: Ownership over all functions directly related to delivery of the facility. Provides program leadership, management, and direction to ensure the design is completed in accordance with the preferred project identified in final EIR/EIS; sets and approves program scope, schedule, and budget activities; responsible for implementing team plans, staffing levels, and setting team responsibilities; and ensures coordination and cooperation between teams. Reports to the Executive Director, and where needed can represent the Program in interactions with the Authority and DWR and external stakeholders. Specific responsibilities include:
 - a. Day to day management of program-wide priorities and strategy as related to the facility
 - b. Convenes cross-functional leadership team to deliver program (including administrative, environmental, engineering, QA/QC and Program Controls and Contracting)
 - c. Directs overall scoping and managing of contracts under Program Manager's authority
 - d. Directs contract management and review services under Program Manager's authority
 - e. Convenes working group meetings with functional teams and direct reports
 - f. Makes recommendations to Executive Director for approval on contracts, contract amendments, and budget changes
 - g. Leads or attends specific meeting forums across functions to ensure cross-functional communications and resolution of issues
 - h. Signs off on all resourcing decisions around employees and staffing (i.e. moving back to partnering agency) Reports up to Executive Director on program status and issues requiring escalation to the Authority and DWR level
 - i. Drives Environmental Planning and required permits
 - j. Ensures Property Acquisition and ROW for program activities are completed timely
 - k. Oversees performance management and adherence to standards across the program delivery organization
 - l. Examines engineering designs to identify opportunities to improve value to the program
- 2) Legal Counsel – Overall role: Provide the program with legal direction and ensure compliance with applicable laws and regulations. Review RFQ's, entity agreements, contracts, task orders, and scope of services to assess compliance. Hired by and reports to the Executive Director. Specific responsibilities include:
 - a. Provides program timely guidance and advice on all legal matters
 - b. Monitors and ensure program is in compliance with applicable laws and regulations
 - c. Ensures that all agreements and construction contracts are in conformance with applicable standards and laws
 - d. Provides advice and guidance in contractor negotiations
 - e. Assists with finalizing contract agreements
 - f. Assists in defending the program against litigation
 - g. Advises program on legal implications contracting and other relevant decisions

- h. Coordinates with AG Counsel / the Authority and DWR
- 3) Safety and Risk Management – Overall role: The Safety and Risk Management team minimizes and controls program risks to control costs and schedule. In addition, the team identifies the program insurance requirements and enforces safety program requirements. Specific responsibilities include:
- a. Conducts risks workshops at various program stages
 - b. Prepares and organize risks and develops risk register and management plan
 - c. Monitors and reports on risk issues
 - d. Develops risk mitigation approaches
 - e. Works with engineering to find ways to minimize risks
 - f. Develops insurance recommendations for California WaterFix
 - g. Ensures that action plans are put into effect once a risk is actualized
 - h. Develops and implements safety and procedures in accordance with DWR Safety Program
- 4) Finance and Accounting – Overall role: Will manage cash flow requirement forecasts, monitors program funding and handling of payments. Specific responsibilities include:
- a. Produces cash flow requirement forecasts to be used in establishing a schedule of bond issuances
 - b. Assists partner organizations and entity staff to develop the funding requests and subsequent bonding requests for the entity, as needed
 - c. Assists partner organizations and entity staff with preparing applications to obtain grants, loans, and other financing, as well as tax waivers and governmental incentives, as needed
 - d. Oversees vendor payment processes
 - e. Establishes appropriate financial review process
 - f. Establishes financial controls and reporting procedures
 - g. Coordinates with program controls function to ensure appropriate payments are made only after work has been completed as specified in contracts
 - h. Provides routine funding and financial review reports to Program Director
 - i. Receives, reviews and pays invoices in accordance with contractual requirements
 - j. Works with entity management to manage funds
 - k. Monitors and tracks costs, including current budgets, current commitments, actual expenditures, estimates-to-complete, and estimates-at-complete forecasts
- 5) Public Education – Overall role: Will initiate, coordinate, monitor, and report on local public outreach and support Authority and DWR Public Affairs Office on program related matters. Specific responsibilities include:
- a. Establishes a local public outreach communications plan
 - b. Supports the Authority and DWR in preparing outreach materials across channels and user groups
 - c. Supports design engineering and construction efforts as needed
 - d. Coordinates with Executive Director to prioritize near-term activities

- e. Coordinates communications plans and activities with the Authority and DWR Public Affairs Assistant Director
 - f. Maintains web site content and news
- 6) Internal Audit – Overall role: Will assure conformance with approved processes and procedures. Will review the various team actions / documents, develop monitoring and audit reports, review corrective action plans, and verify corrections. Specific responsibilities include:
- a. Prepares audit plan
 - b. Audits financial processes and procedures
 - c. Audits compliance with established process and procedures
 - d. Provides audit reports to Executive Director and the Authority and DWR
 - e. Coordinates with QA/QC where necessary

C. PROGRAM MANAGER REPORTS

- 1) Chief Engineer – Overall role: Responsible for delivery of the design phase of all key work packages and support functions. Directs project management, coordination, planning and oversight of design engineering and construction. Specific responsibilities include:
- a. Determines appropriate engineering packages for procurement
 - b. Establishes scoping/management of feature design engineering contracts
 - c. Provides leadership of QA/QC, constructability reviews, program controls, and engineering support for feature design engineering contracts
 - d. Assists in the contracts team in managing and reviewing engineering contracts activities
 - e. Delivers appropriate engineering analysis to establish final system configuration
 - f. Responsible for preparation of cost estimates and contract specifications
 - g. Directs CAD , GIS and IT and other engineering support
 - h. Manages and convenes technical expert review teams (value engineering, tunneling, intake and pumping plant) as needed
 - i. Prepares status reports and updates for Program Manager and work with PM to consolidate materials for Executive Director and the Authority and DWR
 - j. Convenes forums with Safety and Risk Management, Internal Audit, Legal, and QA/QC to ensure compliance with program requirements and actions resulting from forums
 - k. Evaluates the feasibility and practicality of the Program designs
 - l. Oversees studies to analyze whether risks are properly managed, work expectations are achievable and potential bottlenecks and areas of uncertainty in the design phase are identified
 - m. Examines engineering designs to identify opportunities to improve value or reduce costs
 - n. Oversees Construction Manager and Construction Phase
- 2) Program Controls and Contracting – Overall role: The team will issue consultant proposals, assist in the selecting, negotiating, and award Engineering Design agreements. Once contracts are awarded, contracting function will be responsible for handling claims and change-orders. In addition to this core function, the team will develop, implement, monitor, and report on the

Program's scope, schedule and budget. Program controls will implement and maintain processes and procedures that monitor and track staffing, costs and budgets, schedules, current commitments, percent complete, actual expenditures, estimates-to-complete, and estimates-at-complete forecasts.

- 3) Information Technology and Systems – Overall role: Responsible for overseeing and managing all IT functions within the DCE. Managing infrastructure architecture and design; managing operations of voice and communication systems, data network infrastructure, web services, database management and server systems; advising on technologies to support business needs of the DCE; and aligning technology with strategic plans and business unit needs. Ensures that data security measures are established and adhered to. Specific responsibilities include:
 - a. Coordinates strategic and operational development of network, server, and voice infrastructure; coordinates database development and administration; responsible for Information Technology strategic planning process; and establishes and implements standards for network architecture, database systems, and communication systems.
 - b. Manages all activities relating to the design, installation, implementation, and administration of network, server, and communication infrastructure, database administration, and data center operations; evaluates existing technology to define standards and introduce new and enhanced technology solutions
 - c. Meets other DCE teams to discuss business and technology needs and identify technology solutions; and recommends acquisition of technology to enhance DCE needs and performance.
 - d. Develops, implements, and manages programs and services to ensure availability and reliability of databases, network, server and communications infrastructure
 - e. Plans, directs, and manages the assessment of user requirements, feasibility, technical direction, cost projections, benefit analysis, schedule, and scope of a wide variety of Information Technology infrastructure needs
 - f. Participates in selection of contractors and consultants; and manages contracts
 - g. Develops and administer the annual DCE IT budget; participates in the forecast of funds needed for staffing, equipment, materials, and supplies; monitors and approves expenditures; implements adjustments; authorizes purchases; and evaluates and approves bids for consultants and service contracts
 - h. Ensures that data security measures are established and adhered to.
- 4) Property Acquisition – Overall role: Coordinating, negotiating and securing land for temporary and permanent access and ownership, as further described in the JEPA Agreement.
- 5) Staffing and Admin – Overall role: The Staffing and Administration (SAM) team controls the entity's internal staffing and resourcing demands as well as other administrative functions like non-engineering IT and office management. Staffing duties are further described in Section 4.0 – DCE Staffing Administration. Specific responsibilities include:
 - a. Manages personnel-related issues such as loans, transfers, and secondments

- b. Office and management of other entity facilities
- 6) Environment and Planning – Overall role: The Environment and Planning team shall coordinate all environmental planning priorities. Their primary responsibility is to coordinate these functions to ensure no land, permit or other right of way issues delay or prevent the program construction. In addition, this function will oversee conveyance mitigation planning. Specific responsibilities include:
- a. Ensures program is in compliance with environmental permits
 - b. Develops and monitors plan for conveyance-related mitigation
 - c. Works with Conveyance Mitigation Engineering to finalize plans and oversee execution of mitigation projects
 - d. Provides leadership of conveyance-related mitigation (some directly related to mitigation efforts in the EIR and EIS)
- 7) QA/QC – Overall role: QA/QC will develop and implement an overall QA/QC plan for the design phase. The QA/QC will be a framework for the Engineering and Design Teams in creating individual facility QC plans. QA will be responsible for surveillance and audits of the design teams. Specific responsibilities include:
- a. Establishes QA/QC standard policies, procedures and manuals
 - b. Determines the timing of technical and administrative surveillances and audits
 - c. Clearly articulates acceptance criteria across organization
 - d. Defines method and depth of review required to meet criteria
 - e. Reviews QA/QC processes for compliance with outlined policies
 - f. Monitors and tracks compliance with policies
 - g. Conducts trend analysis of non-compliance issues
 - h. Establishes performance management processes and assess program performance against these metrics
 - i. Assures that all work performed will comply with documented plans, policies and program procedures, partner organization requirements, applicable codes, legal requirements, and industry standards
 - j. Works with value engineering to perform constructability reviews prior to scheduled submittal of design packages
 - k. Maintains quality dashboards and conduct root cause analyses

D. CHIEF ENGINEER REPORTS

- 1) Engineering Design Manager – Overall Role: Will provide engineering management services to assist the Chief Engineer in the implementation of the California WaterFix during the design phase, as well as providing limited engineering design and other support services. The EDM may also provide support services during the construction phase. The EDM will, perform engineering studies, as directed. The EDM will coordinate and manage the activities of other design consultant and engineering professionals to ensure that the various conveyance features are

well designed, with high quality, on schedule and on budget, and shall incorporate environmental commitment and mitigation measures identified in the EIR. The conveyance features include but not limited to: intakes, tunnels, forebays, pumping plants, canals, roads and levees, tunnels, and power transmission systems. Specific responsibilities include:

- a. Provides program management, coordination, planning and oversight of design engineering
 - b. Assists with determining appropriate engineering packages for procurement
 - c. Recommends scoping/management of feature design engineering contracts
 - d. Manages QA/QC, constructability reviews, program controls, and engineering support for feature design engineering contracts
 - e. Assists in engineering contract management & review services
 - f. Performs appropriate engineering analysis to establish final system configuration
 - g. Prepares cost estimates and contract specifications
 - h. Manages CAD, Projectwise, and other engineering support software requirements
 - i. Coordinates CAD with GIS, Accela and other IT activities required for completion of engineering design
 - j. Supports technical expert review teams (value engineering, tunneling, intake and pumping plant) as needed
 - k. Prepares status reports and updates for Chief Engineer and assist with consolidating materials for Program Manager and Program Director
 - l. Manages forums with Safety and Risk Management, Internal Audit, Legal, and QA/QC to ensure compliance with program requirements and actions resulting from forums
 - m. Evaluates the feasibility and constructability of the Program designs.
 - n. Performs engineering studies
 - o. Performs studies to analyze whether risks are properly managed, work expectations are achievable and potential bottlenecks and areas of uncertainty in the design phase are identified
 - p. Examines engineering designs to identify opportunities to optimize conveyance, improve value or reduce costs and minimize impacts
 - q. Additional responsibilities may include engineering design support services during construction
 - r. Prepares design criteria and standards
- 2) Tunnels and Shafts – Overall role: Provide management, planning, engineering and design services, permitting assistance, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for Tunnel and Shaft facilities. Will provide engineering support during construction. Specific responsibilities include:
- a. Provides project management and engineering design services
 - b. Prepares project management plan with design schedule, budget estimates and cost management practices
 - c. Collaborates with value engineering team to optimize design
 - d. Provides expertise and assistance to meet permitting requirements

- e. Performs additional geotechnical studies as directed
 - f. Prepares geotechnical baseline report
 - g. Prepares engineering reports
 - h. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete & closeout
 - i. Prepares design status, design summary reports
 - j. Prepares Engineers construction cost estimates at 30%, 65% and 100% milestones
 - k. Provides bid phase and engineering services to support construction
- 3) Utilities and Power – Overall role: Provide management, planning, engineering and design services, permitting assistance, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for Utility and Power facilities. Will provide engineering support during construction. Specific responsibilities include:
- a. Provides project management and engineering design services
 - b. Prepares project management plan with design schedule, budget estimates and cost management practices
 - c. Collaborates with value engineering team to optimize design
 - d. Provides expertise and assistance to meet permitting requirements
 - e. Performs utilities requirement studies
 - f. Performs permanent and temporary power requirements studies
 - g. Represents entity and coordinate with power providers
 - h. Prepares engineering reports
 - i. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete and closeout
 - j. Prepares design status, design summary reports
 - k. Provides bid phase and engineering services to support construction
- 4) Conveyance Mitigation Engineering – Overall role: Provide management, engineering and design services, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for conveyance-related mitigation as necessary. Specific responsibilities include:
- a. Provides project management and engineering design services
 - b. Prepares project management plan with design schedule, budget estimates and cost management practices
 - c. Coordinates with Conveyance Mitigation Planning team in developing design
 - d. Develops engineering design, construction specifications, scheduling, cost estimating and budgeting support services as needed for mitigation activities
 - e. Collaborates with value engineering team to optimize design
 - f. Prepares design criteria and preliminary engineering reports.
 - g. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete and closeout
 - h. Prepares design status, design summary reports

- i. Prepares Engineers construction cost estimates at 30%, 65% and 100% milestones
- 5) Intakes – Overall role: Provide management, planning, engineering and design services, permitting assistance, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for Intake Facilities. Will provide engineering support during construction. Specific responsibilities include:
- a. Provides project management and engineering design services.
 - b. Prepares project management plan with design schedule, budget estimates and cost management practices
 - c. Collaborates with value engineering team to optimize design
 - d. Provides expertise and assistance to meet permitting requirements.
 - e. Performs hydraulic model studies
 - f. Prepares engineering reports
 - g. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete and closeout
 - h. Prepares design status, design summary reports
 - i. Provides bid phase and engineering services to support construction
 - j. Provides engineering support for the intake performance studies
- 6) Pumping Plant – Overall role: Provide management, planning, engineering and design services, permitting assistance, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for Pumping Plant and Pipeline Facilities. Will provide engineering support during construction. Specific responsibilities include:
- a. Prepares project management plan with design schedule, budget estimates and cost management practices
 - b. Collaborates with value engineering team to optimize design
 - c. Provides expertise/assistance to meet permitting requirements
 - d. Performs hydraulic model studies
 - e. Prepares engineering reports
 - f. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete & closeout
 - g. Prepares design status, design summary reports
 - h. Provides bid phase/engineering services to support construction
 - i. Provides engineering support during construction
 - j. Develops view on equipment procurement options and analyze options
- 7) Forebays – Overall role: Provide management, planning, engineering and design services, permitting assistance, engineering studies and reports, preliminary / final construction documents, and construction estimates and schedules for Forebay facilities. Will provide engineering support during construction. Specific responsibilities include:
- a. Provides project management and engineering design services

- b. Prepares project management plan with design schedule, budget estimates and cost management practices
 - c. Collaborates with value engineering team to optimize design
 - d. Provides expertise and assistance to meet permitting requirements
 - e. Prepares engineering reports
 - f. Prepares drawings and technical specifications at milestones 30%, 65%, 90%, 100% complete & closeout
 - g. Prepares design status, design summary reports
 - h. Provides bid phase and engineering services to support construction
 - i. Coordinates with Division of Safety of Dams
- 8) Geotech – Overall role: Develop and implement a geotechnical program which includes field exploration, laboratory testing, and data reports. Specific responsibilities include:
- a. Prepares a geotechnical services plan that will include specific scope of work, budgets, needed resources, schedule, QA/QC standards, and an organization chart
 - b. Provides geotechnical field exploration and laboratory testing services
 - c. Prepares geotechnical reports
 - d. Provides coordination with engineering management and feature design engineering staff
 - e. Provides construction support services
 - f. Provides other design services as needed
 - g. Ensures consistency between geotechnical programs, evaluations, and deliverables
- 9) Engineering Support – Overall role: The Engineering Support team will provide a number of required support services such as Information Technology, CAD support services, document control and GIS services. Specific responsibilities include:
- a. Provides support services to key work packages
 - b. Develops systems to connect and link important functions
 - c. Develops standards, platforms and protocols to create a cross-functional standard
- 10) Estimating – Overall role: The Estimating team will assist in the development of the program schedule and then use the program schedule to estimate expected costs of work packages and activities / contracts associated with work. Specific responsibilities include:
- a. Quantifying the likely time and cost associated with contracts and work packages
 - b. Revising these estimates where needed

E. PROGRAM CONTROLS AND CONTRACTING REPORTS

- 1) Program Controls – Overall role: The team will develop and implement controls and processes to monitor key metrics around budget, schedule, quality, contracting and risk. The Program Controls team should be established as an independent function to track and monitor ongoing program activities. Specific responsibilities include:
- a. Develops processes and controls to track program performance

- b. Use processes to identify places where corrective action should be taken and resources dedicated
 - c. Acts as a reference point for budget, schedule and design changes
 - d. Ensures oversight of cross-functional documents and reports
 - e. Program controls will review and make suggestions on the Work Breakdown Structure
 - f. Establishes program and task durations, milestones and schedule requirements based on design team input
 - g. Reviews, performs critical path analysis, and approves schedule submissions (baseline and monthly updates) by Designers, Program Subcontractors, Providers and others
 - h. Develops and maintains critical path method schedules for environmental documentation and engineering design performed by contractors
 - i. Provides a systematic process for tracking agreements and their associated task orders/ change orders
 - j. Develops basis for schedule development and schedule controls and maintain overall program schedule
 - k. Develops basis for budgeting and maintains overall budget
 - l. Maintains control of all drawings and documentations for program including oversight of the management of reports
 - m. Communicates program status throughout the organization
- 2) Contracting – Overall role: The Contracting team will develop initial contract agreements and monitor those already secured. The team will manage contracts made with vendors, partners and employees. Specific responsibilities include:
- a. Coordinates procurement activities across the organization
 - b. Ensures a competitive dynamic exists for all contracted services across the entity
 - c. Adheres to state and federal legislation and regulations
 - d. Adheres to surety bonds and associated statutory requirements
 - e. Analysis of equipment supply options (if needed) and negotiations to identify and capture savings
 - f. Works with engineering teams to optimize cost of designs
 - g. Ensures compliance and legal standards are upheld in contracts
 - h. Maintains contract visibility and awareness across the program
 - i. Oversees change management when required

F. INFORMATION TECHNOLOGY SYSTEMS REPORTS

- 1) Centralized Administration – Overall role: Responsible for managing and supervising the design, integration, implementation, and administration of information technology security systems and policies in coordination with DWR IT organization. Areas of responsibility include developing and implementing security standards, systems and policies for all aspects of information technology and for coordinating efforts with on board consultants and PWA agencies. Administration of DCE Enterprise databases, web services, other enterprise wide software and business systems and ensures enterprise-wide backup and recovery. Specific responsibilities:

- a. Manages the design, integration, implementation, and administration of information technology security processes; ensures that process analysis, checkpoints, and testing are complete as designed; evaluates results and assists in resolving technical problems; and develops and manages a security awareness program.
 - b. Reviews existing security processes and identifies vulnerabilities; develops policies and procedures for the DCE implementation to ensure security of computing environment; monitors existing and new security threats, ensures that critical patches and antiviral applications are current and deployed; investigates security breaches and threats and recommends changes to address security issues; manages process for operating system hardening, patch management, and intrusion detection; and manages security configurations for server, database, and application systems.
 - c. Coordinates team activities with other information technology teams and with managers and staff in DCE teams and consultants;
 - d. Provides general administration of the team including establishing and tracking team goals and objectives; analyzes team activities and prepares, develops, and monitors team budget; evaluates resource needs; assists in the development of the annual budget plan; and provides quarterly updates.
 - e. Estimates costs and staffing requirements for requested projects; assists in preparation of capital.
 - f. Ensures security systems are available and functioning at optimal levels; establishes standards and practices; monitors security; and purchases, installs, and manages system licenses.
 - g. Serves as technical advisor in the analysis, diagnosis, and resolution of applications and general information technology problems; and researches and evaluates new technologies.
 - h. Assists in developing team, methods, and procedures; and reviews and makes recommendations regarding the development of procedures and documentation.
 - i. Provides direction, guidance, and technical support to computer operators, technicians, and professional staff;
 - j. Assists in development of space planning, defining environmental controls, and services (e.g., power, air conditioning, fire suppression), and provides access control requirements ensuring facilities remain within environmental specifications, ensuring only authorized staff are accessing the facilities, also duties include analyzing and resolving issues and assists in planning upgrades to maximize availability and minimize disruptions
- 2) General Technology – Overall role: The General technology team is responsible for running, supporting, and maintaining general IT systems and network infrastructure. Specific responsibilities include:
- a. Maintains and monitors system hardware and peripherals for enterprise-wide systems. Monitors operating system software for enterprise and network server platforms

- b. Administers contracts for server hardware and software, equipment, and services for DCE's data centers and database team; establishes and implements preventative maintenance programs; and develops and revises operational policies and procedures for data center and database areas
- c. Provides direction, guidance, and technical expertise in data center operations. Serves as technical liaison for teams that support client and server hardware and software; applications hardware, software, and databases; local and wide area networks; and voice and data systems and user support
- d. Administers contracts for server hardware and software, equipment, and services for DCE data centers and database team; establishes and implements preventative maintenance programs; and develops and revises operational policies and procedures for data center and database areas.
- e. Provides assistance to other DCE teams and consultants on IT issues
- f. Provides training as needed
- g. Works closely with DWR IT organization
- h. Defines, maintains and enforces IT system policies
- i. Leads periodic IT audits
- j. Maintains desktop systems and software
- k. Monitors availability and performance of all IT infrastructure

G. PROPERTY ACQUISITION REPORTS

- 1) RoW, Survey & Mapping – Overall role: The Right of Way / Survey / Mapping team will map and develop the Right of Way (ROW) survey for the design phase, and provide support services for property acquisition.
- 2) Appraisal and Acquisitions – Overall role: Responsible for the appraisal of real property interests, and acquisition of real property for the California WaterFix. Areas of responsibility include the creation, monitoring and managing of deeds, purchase agreements, leases, licenses, encroachment permits, appraisal reports, cost studies, and researching and obtaining title reports.

H. STAFFING AND ADMINISTRATION REPORTS

- 1) Staffing – Overall role: The Staffing team supports the SAM in managing the entity's internal staffing and resourcing demands. Specific responsibilities include:
 - a. Manages personnel-related issues such as loans, transfers, and secondments
 - b. Interfaces with secondment organizations as resource needs change
 - c. Works with the partner organization's advisory group (to the PM) to ensure adequate resources are identified from partner organizations

- 2) Office Management – Overall role: The Office Management Team is responsible for all facilities management such as office rental agreements, building cleaning and security. Specific responsibilities include:
 - a. Identifies and selects office furniture
 - b. Manages maintenance of office supplies
 - c. Identifies and recommends office location
 - d. Space planning for DCE

I. ENVIRONMENTAL AND PLANNING REPORTS

- 1) Environmental Permits – Overall role: Direct and coordinate the transition from the completion of the environmental process of the planning phase into the design phase. Ensure that environmental design requirements are conveyed and incorporated into the preliminary and final design documents. Develop, submit, and coordinate program permits and their requirements. Specific responsibilities include:
 - a. Develops a summary level environmental and compliance matrix to guide the Chief Engineer and the individual Engineering and Design Contractors
 - b. Reviews design documents to ensure program is in compliance with environmental permits and work with relevant Federal and State agencies to ensure due process is followed for permits
 - c. Coordinates with regulators and the conveyance mitigation team on mitigation activities
 - d. Provides updated information to the Engineering and Design Contractors
 - e. Works with design feature managers and engineering design manager to meet environmental commitments
 - f. Works with QA/QC to establish effective compliance review process
 - g. Conducts subsequent CEQA/NEPA compliance as necessary
- 2) Conveyance Mitigation Planning – Overall role: Provide management, planning, permitting assistance and support for conveyance-related mitigation. Specific responsibilities include:
 - a. Provides expertise and assistance to meet permitting and environmental requirements
 - b. Coordinates with Environmental Permits team and regulators to identify, develop and plan mitigation activities as required in order to operate the conveyance facility
 - c. Coordinates with Engineering team to develop engineering design, construction specifications, scheduling, cost estimating and budgeting support services as needed for mitigation activities
 - d. Oversees implementation, monitoring and transition to long-term management entity

J. QA/QC REPORTS

- 1) Standards – Overall role: The Standards team will set program wide expectations and standards in which performance and compliance will be measured on. These standards will be both management and technical focused. The team will be responsible for detailing the development

process and rationale of these standards and then enforcing them effectively. Specific responsibilities include:

- a. Develops and monitors program standards
- b. Provides detailed justification and rationale for standards (defined by political, schedule, operability, and cost risks)
- c. Conducts tests on management and technical requirements
- d. Defines proper acceptance criteria (regulatory compliance, contractual compliance, optimized design)

2) Performance Management – Overall role: The Performance Management team will work closely with the Standards team to evaluate the level of compliance with the set standards and expectations. The team will conduct thorough analysis of personnel and processes and work to ensure that goals are consistently being met in an effective and efficient manner. Specific responsibilities include:

- a. Conducts performance reviews and facilitates performance dialogues
- b. Works with Standards to set expectations and evaluates criteria
- c. Works with Staffing and leadership to monitor and manage personnel and resourcing issues
- d. Defines methods of review
 - Process review – focused on the process at the beginning of the program
 - Audit review – targeted portion of work
 - Systematic review – all produced is inspected by QA/QC function

4.0 DCE STAFFING ADMINISTRATION

A. DEPARTMENT STRUCTURE

A Human Resources (HR) professional titled Staffing and Administration (SAM) will be hired to manage the day-to-day administration and coordination of HR functions for the DCE. This individual should have public sector experience and excellent communication and organizational skills as a direct report to the Program Manager. Human Resources guidance and assistance will be provided to the SAM by the partnering agencies as needed. The partnering agencies include DWR and the Authority member agencies. Each Authority member agency will designate a representative to serve as the point of contact to the SAM.

HR support provided to the DCE includes assistance in hiring/staffing, job description creation, administering inter-agency agreements, assisting with employee issues for agencies “sharing” employees, HR record keeping, providing updates and reports as requested and assisting with employees transitioning back to partnering agencies. Specific HR services for individuals hired for this program will be provided by their partnering agency or consulting firm. However, these specific services will be coordinated through the SAM.

DCE will utilize matrix management practices. DCE staff will receive their day to day assignments from DCE management. Payroll, attendance, vacation, compensation, benefits and related issues will be handled by staff’s partnering agency supervisor/manager. DCE is a part of the Authority, and all DCE staff will be required to know and adhere to Authority Key Employee Policies and Guidelines, as explained below.

I. STAFFING

The SAM and the Executive Director will discuss staffing needs of the program. This includes how many staff are needed, when staff are needed, reporting relationships, types of positions and length of assignments. As staffing needs are determined, specific skills, knowledge and requirements will be documented. Staff shall be made up of the most qualified individuals with expertise relative to their duties from DWR, PWAs and private industry. All personnel shall be 100 percent dedicated to the DCE (no split assignments) unless otherwise approved by the Executive Director, shall be housed in a physically separate, discrete office section and/or building and under the management of the Executive Director.

The SAM (with assistance from the Executive Director) will establish job duties, education requirements and experience preferences. Once job information is documented, the SAM will coordinate with partnering agencies HR contacts to compare to existing job descriptions, which may include California State Civil Service.

The first positions that will be filled are the managerial level positions. The SAM will work directly with the Program Director to hire these individuals. The SAM will work directly with these new managers to

fill the other key positions as needed to support the DCE. A majority of the positions will be engineering, design or construction related.

The initial staffing need is estimated at 10 to 20 key positions. These positions will be filled first and then additional staffing needs will be determined based on program timing and cost.

The total staff for the DCE is estimated to be no more than 50 individuals.

II. JOB DESCRIPTIONS (STANDARD FORMAT TBD)

Job Descriptions will be drafted by the SAM as specific job needs are determined. These job descriptions will outline minimum requirements, job duties, desirable qualifications, and the DCE values and culture statement. They will not include a salary range unless it is determined that individuals outside of the partnering agencies will be needed.

If the selection is from one of the partnering agencies, the employee's official job title from the partnering agency will be added to the job description.

III. RECRUITMENT

Once an employment need has been determined and the appropriate job description has been written and approved, the SAM will establish selection criteria focusing on the job requirements. A job announcement will be drafted and e-mailed to the HR contact within the partnering agencies which includes DWR asking for interested candidates to submit a resume and a specific statement of qualifications according to criteria and deadlines established in the job announcement. The HR contact at the partnering agencies will update the job announcement with necessary salary and/or job classification information before distributing/posting announcement to employees.

The candidate review and interview process will be conducted for partnering agencies, including DWR, prior to the general workforce unless there is a rare and specific skillset needed that is known not to be available within the partnering agencies. If it has been determined that employees within the partnering agencies, including DWR, are not the best qualified, the SAM will conduct outreach and advertisement for the specific position through the contracting process.

IV. SELECTION PROCESS FOR PARTNERING AGENCIES (INCLUDING DWR)

- 1) Once an employment need is e-mailed to the partnering agencies, the SAM will review, screen and document applicants for best qualified.
- 2) The SAM will forward the top candidates to the Executive Director, or other manager, for review and comment.

- 3) If the Executive Director, or other manager, agrees that top candidates are qualified, the SAM will setup interviews.
- 4) The SAM will recommend interview questions and documentation process based on selection criteria established in the job announcement.
- 5) The Executive Director or Manager will inform the SAM of the best qualified candidate after the interviews are completed.
- 6) Salaries and benefits will be determined by the SAM in consultation with partnering agency HR point of contact.
- 7) If necessary, an inter-agency agreement will be established once a hiring decision is made.
- 8) The Hiring Manager or SAM will coordinate with the HR contact at the partnering agency to contact the employee and arrange logistics and start date.

V. SELECTION PROCESS FOR CONTRACT PERSONNEL

If it is determined that employees within the partnering agencies, including DWR, are not the best qualified, the SAM will establish a salary range for the position based on a market analysis.

The Contracting process will be determined by the SAM and the Executive Director in accordance with appropriate Government Code laws and rules and the advice and consultation of the Authority's contracting experts.

VI. HIRING PROCESS

The hiring process will vary depending on whether the individual is coming from the Authority, one of the partnering agencies or the general workforce.

Department of Water Resources:

- State of California civil service laws and rules will apply. Employees will retain their current classification or be appointed to a classification where they have obtained eligibility through the civil service examination process.

Partnering Agency:

- It is anticipated that general inter-agency, resource or similar agreements will be made between the DCE and partnering agencies to allow for long-term reassignment of staff.

Consultant staffing:

- When the skills, knowledge and qualifications are not available through DWR or one of the partnering agencies, consultant contract(s) will be used.

On-boarding process (orientation, policies, procedures, etc.) for all DCE hires:

- The first day of assignment to the DCE will include an orientation with the employee, Executive Director and SAM. The purpose is to review a checklist of items that need to be addressed, such as, office rules, technical access, HR policies, conflict of interest, training, timekeeping, travel and any other additional expectations.

VII. ON-GOING HR POLICIES

- 1) HR functions and processes for all DCE staff will be coordinated through the SAM. This will allow the SAM to provide updates and reports to the Program Manager on a regular basis.
- 2) Employees that are selected to work in the DCE from one of the partnering agencies will follow their partnering agency's billing/timekeeping, payroll, travel, compensation and benefits processes.
- 3) Employees that are selected to work in the DCE from a California State Agency will follow the State's billing/timekeeping, payroll, travel, compensation and benefits processes.
- 4) California State Agency and PWA staff working in the DCE will be subject to their partnering agency performance evaluation criteria. DCE management will consult as necessary with partnering agency managers on performance evaluation issues.
- 5) Employees that are hired as consultants will be evaluated according to contract agreements. State and Federal Human Resources laws such as Sexual Harassment, Discrimination, etc. will be applicable to all consultants/contractors.
- 6) Salaries, benefits, incentive/perks will be determined based on the partnering agency policies, rules and union agreements.
- 7) If performance issues arise with an employee on an inter-agency agreement, the employee's partnering agency will be contacted and the procedures outlined with that partnering agency will be followed.
- 8) All persons working in or for the DCE will receive and acknowledge receipt of DWR's Employee Policies and Guidelines, or Key Employee Policies and Guidelines for Consultants and Contractors, as appropriate.

VIII. OFF-BOARDING (HOW STAFF WILL TRANSITION OFF PROGRAM)

As the program or employee assignment comes to completion, the SAM will work with the HR point of contact at the partnering agencies to transition employees back to their partnering agencies to a classification no lower than the classification they were appointed to at the time they were assigned to the program.

5.0 MEETING CADENCE

Meetings are an important and essential element for the DCE. In order to be efficient, the Executive staff developed a series of tables to provide an example of the types of meetings and frequency with which they occur. The tables are intended as a guideline and will be modified to meet the demands of the program.

Each Level of the organization will require meeting forums at different times and cadences, as shown in the table below:

Forum	Meeting Type	Description	Frequency*	Participants
<i>Authority and DWR</i>	Annual Review	<ul style="list-style-type: none"> Review staff survey Review annual strategy Review of forecast and budget Approval of annual report 	<ul style="list-style-type: none"> Annually 	<ul style="list-style-type: none"> PD and direct reports with DWR and the Authority
	The Authority and DWR Deep-dive	<ul style="list-style-type: none"> Update the Authority and DWR on changes to schedule, design or other program-wide issues that may not occur monthly 	<ul style="list-style-type: none"> Quarterly 	<ul style="list-style-type: none"> PD and direct reports if needed DWR and the Authority
	Regular Coordination Meetings	<ul style="list-style-type: none"> Sharing PD monthly dashboard with the Authority and DWR 	<ul style="list-style-type: none"> Monthly 	<ul style="list-style-type: none"> PD DWR and the Authority

* Or as needed.

The following table describes the meeting cadence across the organization:

Meetings ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DWR and the Authority												
Annual Review			•									
DWR and the Authority Deep-dive			•			•			•			•
Coordination Meetings	•	•	•	•	•	•	•	•	•	•	•	•
PD Team												
Quarterly Meetings			•			•			•			•
Monthly PD Meetings	•	•	•	•	•	•	•	•	•	•	•	•
Weekly PD Meetings	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••
PM Team												
Quarterly Meetings			•			•			•			•
Monthly Meetings	•	•	•	•	•	•	•	•	•	•	•	•
Weekly Meetings	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••
Functions / Work Packages												
Monthly Functional Review	•	•	•	•	•	•	•	•	•	•	•	•
Operating Meetings	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••	•••••

¹ Monthly meeting could replace weekly meetings once a month; similarly every third monthly meeting could be replaced by the quarterly meeting

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6.0 MOBILIZATION

When funding becomes available, the DCE will formally organize, commence recruiting, and mobilize the resources necessary to adequately staff the organization. During this phase, staffing will undertake mission critical activities. It is anticipated that it will take 18 months to fully staff the DCE and complete the activities listed below.

During program mobilization, the DCE will:

- Create Project Management Plan
- Select and hire key staff
- Issuance of RFQs and selection of consultants
- Selection of EDM
- Development and implementation of construction contract phasing
- Initiate preliminary design phase
- Initiate property acquisition
- Initiate geotechnical program
- Ensure sufficient funding for design and construction activities
- Continue permitting efforts
- Implement Intake Performance Studies
- Create annual budget
- Establish a fully functioning office with the computing, administrative and other support needs to serve all members of the DCE
- Develop a Key Performance Indicator (KPI) plan
- Based on current design, prepare a Preliminary Program Schedule comprising design procurement and construction schedules
- Comprehensive program controls system including but not limited to business processes, engineering tracking, trending and change management, risk assessment, quantity unit rate and quantity tracking, cost and commitment, manpower and installation tracking, schedule types (engineering procurement, construction, start-up and tie-ins), and all other systems and reporting necessary to meet the needs of all program stakeholders
- Produce a complete set of standard administrative procedures, guidelines and other requirements for the efficient and consistent completion of all work within the program, including design, procurement, construction and start-up
- Develop a program team internal communication system that is fully coordinated and linked to the DCE communication operations for both internal communications within the Authority and DWR; and with safeguards and procedural compliances and protocols for outside and public communications. Such communication system shall be approved and coordinated with the Authority and DWR