

Submitted to:
Passaic Valley Sewerage Commission
(PVSC)

January 2015

Submitted by:



Proposal to Provide Program Management Services

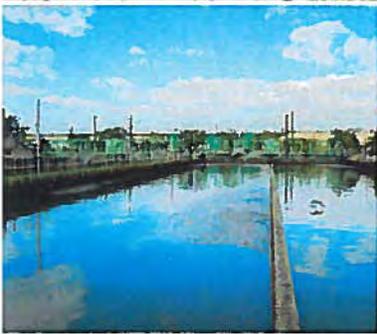
RECOVER



RESPOND



RENEW



LEADERSHIP



COMMITMENT



INTEGRATION



TRANSPARENCY



Date: January 16, 2015

Mr. Michael DeFrancisci
Executive Director
Passaic Valley Sewerage Commission
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. DeFrancisci:

The undersigned hereby submits the enclosed proposals for the position of PROGRAM MANAGEMENT SERVICES provider.

The undersigned hereby undertakes and promises that the information contained in this RFP is correct and accurate to the best of my personal knowledge.

 _____ Signature	AECOM Technical Services, Inc. _____ Business Name
David A. Blair, P.E. _____ Type or Print Full Name	Vice President, Water 1/16/15 _____ Title Date
732-564-3900 _____ Telephone Number	732-369-0123 _____ Facsimile Telephone Number

JOINT VENTURE PARTNER

 _____ Signature	HDR Engineering, Inc. _____ Business Name
Joseph Frissora, P.E. _____ Type or Print Full Name	Vice President 1/16/15 _____ Title Date
201-335-9363 _____ Telephone Number	201-335-9301 _____ Facsimile Telephone Number

TABLE OF CONTENTS

1. Cover Letter
 2. Executive Summary
 3. Approach
 - Program Understanding & Overall Approach
 - Technical Approach
 - Management Approach
 4. Attachment B - Acknowledgement of Receipt of Clarifications
 5. Schedule
 6. Attachment C - Summary of Total Man Days Estimate
 7. Attachment D - Summary of Total Project Cost
 8. Rate Sheets
- Appendix A
- Organization Chart
 - Draft PMP Table of Contents
- Appendix B
- Required Forms

SECTION 1

Cover Letter





AECOM 732.564.3900 tel
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Suite 520, Building 5
Piscataway, NJ 08854

January 16, 2015

Mr. Michael DeFrancisci
Executive Director
Passaic Valley Sewerage Commission
1600 Wilson Avenue
Newark, NJ 07015

Re: Proposal to Provide Program Management Services

Dear Mr. DeFrancisci:

AECOM+HDR is a Joint Venture Team with the leadership, commitment, and integrity to ensure PVSC's success to restore its treatment plant to a reliable state of operation and in making its treatment plant one of the most resilient facilities in the country and in incorporating the management structure, business systems, and other tools to run an efficient capital delivery program.

Just over two years since Superstorm Sandy flooded your treatment plant, PVSC is seeking to turn that natural disaster into an opportunity to ensure its main facility can maintain continuity of operations through historic storm surges and electricity outages, while also bringing its capital delivery program to the highest and most modern standards. This is a critical program for a facility that provides clean water services to New York Harbor and with a reach that extends throughout the entire Northeast United States.

PVSC will benefit from the best technical and program **leadership** in planning, design, construction, and commissioning who have experience in completing complex construction projects while maintaining plant operations and meeting ongoing regulatory obligations. Our Team's Officer-In-Charge, John Kinneen, is the leader of AECOM's North America Water Business Line Program Management Practice. PVSC will benefit from his reach into best practices from some of the top Program Management projects around the world.

PVSC will also benefit from program management leaders who will develop a framework of program controls and tools and deliver them with formal and on-the-job training. The end result will be a PVSC team that runs a capital project delivery that is cost-effective, timely, and innovative. Our Team's Program Processes are proven to deliver capital projects efficiently from pre-construction through construction to post-construction, including templates and controls for contract administration, risk management, communication and coordination with ongoing capital projects, Environmental, Health and Safety, quality assurance and control, cost controls and reporting, start-up, testing, commissioning, training, and operational transfer.

Through the completion of this Program, PVSC staff will work with our Team to develop the tools and to gain the experience implementing complex projects and programs.

Commitment to PVSC and the success of this Program is vital for our Team. Top talent from both firms has been mobilized to deliver this Program. Our Program Manager, Steve Roberts, will relinquish all other obligations and devote 100% of his time throughout the entire 7+ year life cycle of the Program. Key staff presented in our Team's SOQ has not changed and each person remains committed to making this Program their top priority when their services are required per the well-developed Program Schedule.

In addition to the Key Staff identified, PVSC will benefit from the deep bench of our combined firms representing almost 2,000 staff in the New York Metropolitan area and over 100,000 worldwide. David Blair from AECOM and Joseph Frissora from HDR own responsibility for resource allocation for their respective firms in this area. By their respective signatures below, each personally commits to ensuring that this Program is staffed with the best talent for a timely delivery. The local offices of each firm both have a long standing relationship with PVSC and a vested interest to see this Program through to its successful completion.

Integration of the PVSC leaders and key staff with our Team will form a seamless team leading to informed and efficient decisions to keep the resiliency program on track. Together, PVSC and AECOM+HDR will create an effective program management plan during the 90-day quick start and provide a clear roadmap for meeting all planning, design, construction, post-construction, and funding milestones.

PVSC seeks to conduct its business with the highest level of integrity and **transparency**. Our Team vows to work to PVSC's standards. As required by Section XVIII, our Team acknowledges that should our Team be successful, this proposal will be posted to the Sandy Transparency website established by the State of New Jersey. Our Team believes that the financial information provided in this proposal, as well as the information regarding a commercial relationship one of our firms has with a particular vendor, is confidential and should be redacted. A single copy of the proposal with that information redacted has been included in this submission.

AECOM+HDR is the team that PVSC can rely on to successfully implement the resiliency program and build a legacy for meeting future challenges. We look forward to the opportunity to discuss our proposal with you.

Sincerely,



David A. Blair, P.E.
Vice President, Water
AECOM Technical Services, Inc.

Sincerely,



Joseph Frissora, P.E.
Vice President
HDR Engineering, Inc.

SECTION 2

Executive Summary



We Understand the PVSC's Major Priorities

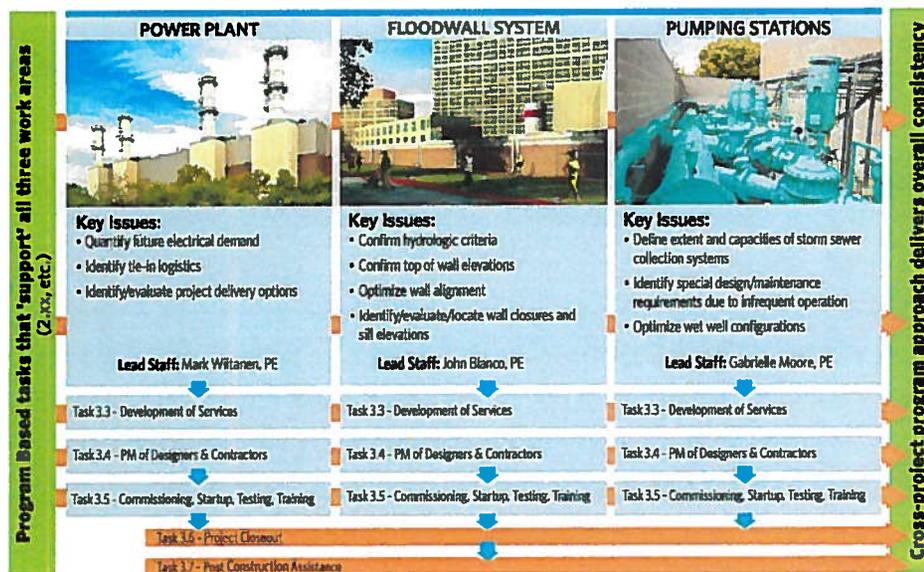
- ✓ Restore equipment and systems, while ensuring MOPO at all times
- ✓ Make plant operations resilient to future storm surges and power disruptions
- ✓ Develop efficient/effective delivery system for all required services and future PVSC needs
- ✓ Maximize the ROI on every FEMA dollar

Here's how our Team will help you ensure success on all fronts

Programmatic approach underpinned by world-class treatment plant upgrade expertise

The three key infrastructure elements (power plant, floodwall, and pumping stations) will each be the subject of a separate design and construction effort, and each will have its own set of technical issues. The great depth of technical expertise in wastewater treatment that we bring to those issues means that our program management services will be particularly "content-rich." Our own experience as a designer at major plants in cities such as Boston, New York, and Washington, D.C. means that PVSC can be confident of our ability to develop high-quality preliminary designs and to oversee detailed design with demonstrable technical authority.

As the figure below shows, we will constantly infuse such "project-level" elements with program-based management tasks that drive consistent behavior and can be replicated by PVSC on future infrastructure development initiatives. The progress of these tasks will be captured in easy-to-follow graphic presentations on our Meridian Proliance PMIS, a centralized platform that provides PVSC and its selected stakeholders the information necessary for collaboration, oversight, and performance appraisal. This helps achieve the major goal of **transparency**; the program will be seen by all to be operating efficiently and fairly.



Effective integration is vital for program success

Our Team represents the integration of staff from our two companies into one unified, "badgesless" team. There is no reason why PVSC should be aware of which company any one individual comes from. We are simply "Our Team."

Our Team brings deep technical resources that will allow PVSC staff to maintain their focus on their ongoing, core responsibilities. However, we still propose the **maximum possible integration of staff** from PVSC at all three major levels. The PVSC's chief engineer, for instance, will be a key member of the PM (Level 2) Team. A formal chartering session will be part of the program kick-off, to help ensure buy-in to a common vision, goals and methods. Everyone present forms a new "Our Team."



Integration is also the key need on site. In isolation, the power plant, floodwall, and pumping stations are large but not essentially complicated initiatives. What is truly challenging is the necessary integration of all three elements, at a site that includes a treatment facility whose operations cannot be compromised. To this end, as your PM we will develop a plant-wide logistics plan that includes an operations team leader to minimize interference and efficiently coordinate any needed shutdowns.

World-class leadership that you can trust with your program

Ultimately, nothing is more important than trusting your PM's senior leadership. **John Kinneen** and **Steve Roberts** are the men who will make this program work for PVSC. These are seasoned, proven program managers who have between them been responsible for capital improvement programs worth more than \$8 billion. Each of them has over 35 years' experience.

A Proven Track Record:

- San Francisco Water System Improvement Program
- San Diego Wastewater Capital Improvements Program
- New York's Croton Water Filtration Plant

John Kinneen

A Proven Track Record:

- New York's Jamaica WWTP BNR Upgrade
- New York's Tallman Island WWTP
- South West Water (UK) water and wastewater improvements - two consecutive 5-year programs

Steve Roberts

Unreserved commitment

John, Steve and all our named staff members will be available for 100% of the time they are needed, as reflected in their signed commitment letters. Key players like Steve Biuso, Scott Davis, VT Madhavan, and James Dedes will be at PVSC to drive the program whenever needed. Dave Blair and Joe Frissora, who you know and trust, put themselves squarely on the line in this regard.

Our Team's Roadmap for Successful Project Delivery

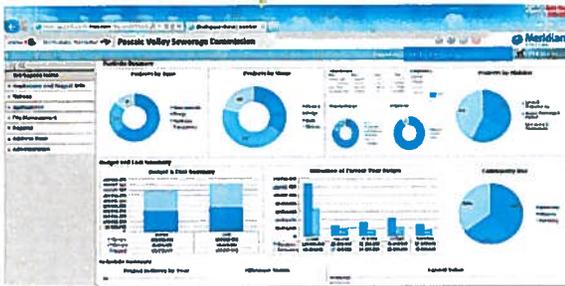
Our roadmap shows how the various tasks and subtasks fit together to form one transparent, integrated program

90 day Fast Start Plan includes breakdown and delivery of key subtasks, interim milestones, and program startup activities to drive PVSC's entire program rapidly forward.



Task 1 Document Review results integrated into 90 day start.

PMIS fully implemented following the 90 day fast start.



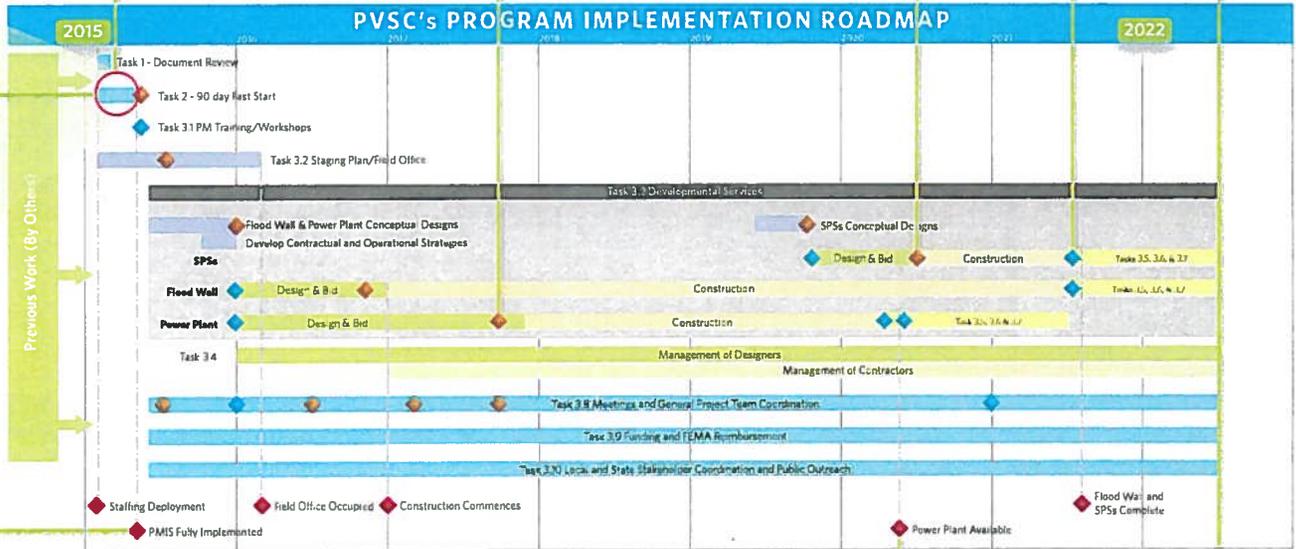
PVSC integrated with the PM team at all levels for informed and efficient delivery decisions, ensuring no delays due to mis-jointed communications.

Regular, ongoing MOPO reviews prioritized to ensure continuous plant operation.

Stormwater Pumping Stations and Floodwall construction, commissioning, training and startup coordinated for optimum delivery.

Training is prioritized to ensure that PVSC staff are totally familiar with and able to ensure the continued performance of the new systems and constructed projects.

At Project Close PVSC owns a world-class proven program delivery process and system.



Power Plant scheduled for an 'early as possible' finish.

Our Team's Program Management Information System (PMIS) will be the single, shared, easy to access source of "program truth" for all data and documents. The system's "dashboard", as shown to the left, is particularly easy to navigate. It summarizes more detailed reports and presentations and also tracks performance indicators and metrics, greatly facilitating informed decision-making.

This Roadmap was developed specifically by our Team for PVSC. Key milestones, program phases, reviews, and training sessions are all shown over the program's duration. Management and technical tasks are sequenced to deliver the best results. See Section 3 for the full-sized roadmap with legends and additional detail.

SECTION 3

Approach

Program Understanding & Overall Approach

Technical Approach

Management Approach



PROPOSAL CHECKLIST

Evaluation Criteria | Location in Proposal

AECOM+HDR is a Joint Venture Team with the leadership, commitment, and integrity to ensure PVSC's success to restore its treatment plant to a reliable state of operation and in making its treatment plant one of the most resilient facilities in the country and in incorporating the management structure, business systems, and other tools to run an efficient capital delivery program.

Our Team's proposal starts with a Program Understanding and Overall Approach. These areas are represented on the following two pull-out pages:

- Challenges and Issues
- Project Roadmap

PVSC has outlined the Evaluation Criteria that may be used for ranking purposes in Section VI of the Request For Proposal (RFP). In addition, the RFP requests that the proposal specifically address the Scope of Services provided in Section VIII. The table below provides a checklist of the evaluation criteria and the tasks and subtasks addressed in our proposal and provides a summary of where they are addressed.

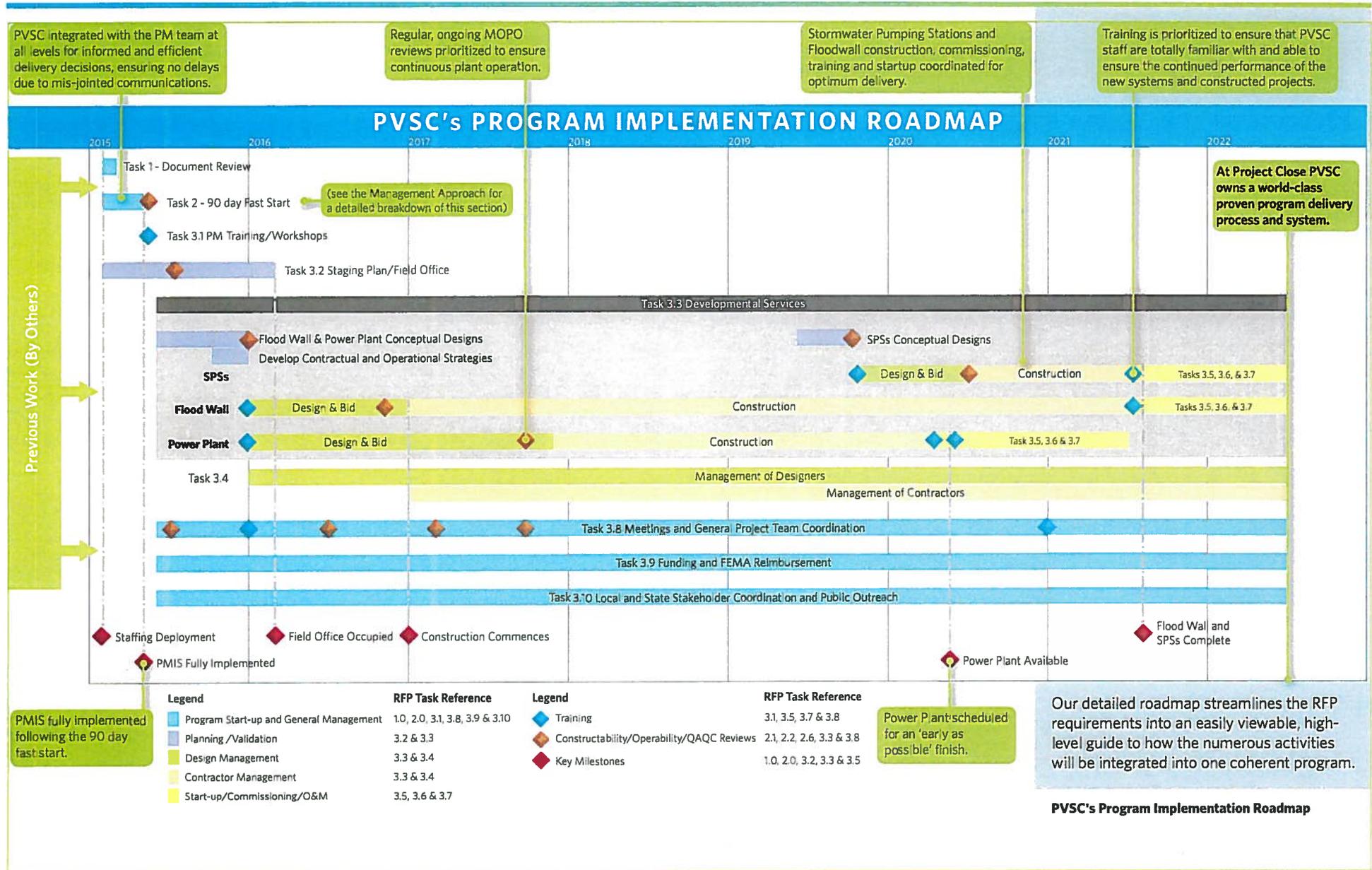
Our Team Provides PVSC with:

- » Leadership
- » Commitment
- » Integration
- » Transparency
- » Resiliency projects completed in a timely and cost-effective manner
- » PVSC staff able to maintain ongoing plant operations

	Description	Tasks Addressed	Location in Proposal
Statement of Qualifications			
✓	Statement of Qualifications	N/A	Previously Submitted
Technical Approach			
✓	Description of the proposed technical approach	Task 1 Subtasks 3.3, 3.4, 3.5, 3.6, 3.7	Section 3 - Technical Approach
✓	Schedule for completion of tasks	All	Section 5 - Schedule
✓	Proposed methodology and strategy	Task 1 Subtasks 3.3, 3.4, 3.5, 3.6, 3.7	Section 3 - Technical Approach
✓	Staffing Analysis (Attachment C)	All	Section 6 - Summary of Total Man Days Estimate
Management Approach			
✓	Description of the proposed management approach - what will be accomplished in first 90 days	Task 2	Section 3 - Management Approach
✓	Organizational structure including integration plan, quality and timeliness, challenges and M/WBE participation	Subtasks 3.1, 3.2, 3.8, 3.9 and 3.10	Section 3 - Management Approach
✓	Commitment to the Program	All	Section 3 - Management Approach
Summary of Total Project Cost			
✓	Summary of Total Man Days Estimate (Attachment C)	All	Section 6 - Summary of Total Man Days Estimate
✓	Summary of Total Project Cost (Attachment D)	All	Section 7 - Summary of Total Project Cost
✓	Rate Sheets	All	Section 8 - Rate Sheets
Required Forms			
✓	Required Forms	N/A	Appendix B - Required Forms

SECTIONS OF THIS PAGE HAVE BEEN REDACTED FOR THE PURPOSE OF MAINTAINING SECURITY- A COPY OF THE FULL AGREEMENT IS AVAILABLE FOR REVIEW AT THE OFFICES OF THE PASSAIC VALLEY SEWERAGE COMMISSION

<p>1. Managing Site Logistics</p> <ul style="list-style-type: none"> Challenge/Issue Unprecedented volume of construction traffic and work. Security, transportation and coordination of construction employee site access will be critical. Approach/Deliverables Develop a plant-wide logistics plan headed by site management team to coordinate plant construction related activity and space utilization constraints. Result Zero or minimal disruption to plant operations. Zero accident rate as a result of onsite construction traffic. 	<p>2. Health & Safety</p> <ul style="list-style-type: none"> Challenge/Issue Goal of zero employee injuries and no property damage while fostering an environmentally friendly and sustainable workplace. Approach/Deliverables Develop a framework for a safe and healthy workplace. Result Minimal to zero lost time incidences. Positive program publicity. 	<p>3. Maintenance of Plant Operations (MOP)</p> <ul style="list-style-type: none"> Challenge/Issue Intense construction activities could affect day-to-day plant operations and maintenance. Approach/Deliverables Appoint an operations logistics team leader to oversee and to coordinate construction activities with plant maintenance and operations staff. Team leader will work closely with PVSC from design through startup to minimize interference to efficiently coordinate shutdowns. Result No unplanned plant shutdowns or disruptions. Trouble-free integration of new plant and equipment. 	<p>4. Robust Levee/Floodwall</p> <ul style="list-style-type: none"> Challenge/Issue The floodwall must mitigate the type of floods that occurred as a result of Superstorm Sandy and protect both parts of the separated plant site, with openings that accommodate operations and that can be closed quickly. Approach/Deliverables Agree on optimal alignment, establish design criteria that satisfy State and Federal requirements. Determine appropriate balance between maximizing areas protected and minimizing height and length. Stay in close contact with USACE. Design charrettes for creative solutions. Ensure early and meaningful dialogue with plant personnel, outside Agencies, and other key stakeholders. Result Robust, properly designed and constructed floodwall that protects the plant and does not impede operations. 	<p>5. Integration of Standby Power Plant</p> <ul style="list-style-type: none"> Challenge/Issue Crucial for future resilience. Will need major work at Substation #1, 13.8kV switchgear. A. Key objective will be reliability, economics and resiliency. Develop schedule that reflects impacts on operations and includes safety considerations. Approach/Deliverables Build in a location and height that prevents any future flooding issues, improve MOP, seek rapid permit approvals, early development of design criteria, and engage stakeholders early in the process. Result Avoid future flooding level, allow for access during such events. Ensure an as early as possible finish for construction. 	<p>6. Reliable Stormwater Pumping Stations</p> <ul style="list-style-type: none"> Challenge/Issue Reliable operations vital to achieve overall flood control. Approach/Deliverables Provide technical knowledge and experience so pumping stations are economical, reliable and operationally sound. Design pumping stations as a critical component of the floodwall system. Coordination between wall and pumping stations. Result Integrated, robust floodwall/storm pumping system to maximize plant protection. 	<p>7. Maximize FEMA Funding & Reimbursement</p> <ul style="list-style-type: none"> Challenge/Issue Eliminating FEMA (and State) delays, expediting payments. Maximize the ROI on every FEMA dollar. Approach/Deliverables Maintain meticulous records documenting the 'who', 'what', 'when', 'where', 'why' and 'how much' for every single item of work. Leverage our strong FEMA relationships and experience to implement robust design and CM quality practices. Create and maintain Financial/FEMA reimbursement plan. Reporting as required, including NJET. Find other funding sources including energy funding. Result Maximize FEMA funding, no de-obligation. 	<p>8. Other Capital/Maintenance Projects</p> <ul style="list-style-type: none"> Challenge/Issue Non-Program Team contracts could be uncoordinated and cause disruption and/or delay. Approach/Deliverables Include all other capital and planned maintenance contracts in the PM Team master schedule to identify conflicts. Set-up across contract liaison group. Include all contracts in the logistics plan. Integrate results. Result No disruption, delay, or change order claims for all contracts in place across the plant.
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TECHNICAL APPROACH

In this Section, we provide a **detailed description of the proposed technical approach** and describe our **proposed methodology and strategy** for performance of the required services. Specifically, this Section will address our approach to reviewing existing documents (Task 1) and implementation of the Flood Wall, Stormwater Pump Stations and Power Plant (Subtasks 3.3, 3.4, 3.5, 3.6 and 3.7). Task 2 and the remaining subtasks in Task 3 are covered in the next Section - Management Approach.

Our Program Manager, Steve Roberts, has led a team to develop a detailed schedule for performing the required services. The **Schedule** is provided as a full size pullout in a sleeve attached to this Proposal in Section 5.

Our Team's **Staffing Analysis** is introduced at the conclusion of this Technical Approach. Attachment C - Summary of Total Man Days Estimate, Attachment D - Summary of Total Project Cost and a Rate Sheet are provided as Sections 6, 7 and 8 of this Proposal.

Background

Recent catastrophic events such as Superstorm Sandy have redirected the way water and wastewater facilities approach their core mission of providing clean water for their customers and the surrounding environment. Facilities must be resilient to provide continuous, reliable treatment capabilities. PVSC operates the fifth largest wastewater plant in the country, but the facility has a much broader reach throughout the entire Northeast through its liquid waste and biosolids acceptance programs. Being out of service for an extended period of time will result in a large environmental impact throughout several states. With financial support from FEMA, PVSC is embarking on a journey to restore its facility to a reliable state of operation while also making the facility more resilient against future flooding events. The core work of this Resiliency Program is centered around three large projects:

- **POWER:** a new 30 MW standby power generation facility to ensure that plant processes and pumps function in the event of a grid-wide outage or any disturbance in PSEG supplied power;
- **FLOODWALL:** a new floodwall to protect key/critical existing infrastructure at the facility from coastal flooding;
- **STORMWATER PUMP STATIONS:** new Pumping Stations to evacuate rainfall runoff and storm flows within the flood-wall protected area.



PVSC Plant Proximity to Newark Bay as a Flooding Source is driving the need for this Program.

Our Team desires to serve as a fully functional extension of PVSC's staff that will provide the necessary planning, early engineering design, and management support needed to deliver these specific project components; provide structure, tools, and training to manage future Resiliency Program components; and to manage other programs. Paramount to overall project success will be the creation and retention of Project records for reimbursements as well as being readily prepared for any future FEMA/other related audits that may occur.

Our overall Program Management Team (PMT) Approach is presented, discussed and outlined on our Road Map on page 3 of this section. The Road Map was created to consolidate the RFP requirements into an easily viewable diagram that would serve as a high level guide in managing the numerous activities associated with the overall project.

This section of our proposal presents our Team's technical approach to executing the core scope of services and delivering the key project elements.

Approach, Methodology, and Strategy

Document Review (Task 1)

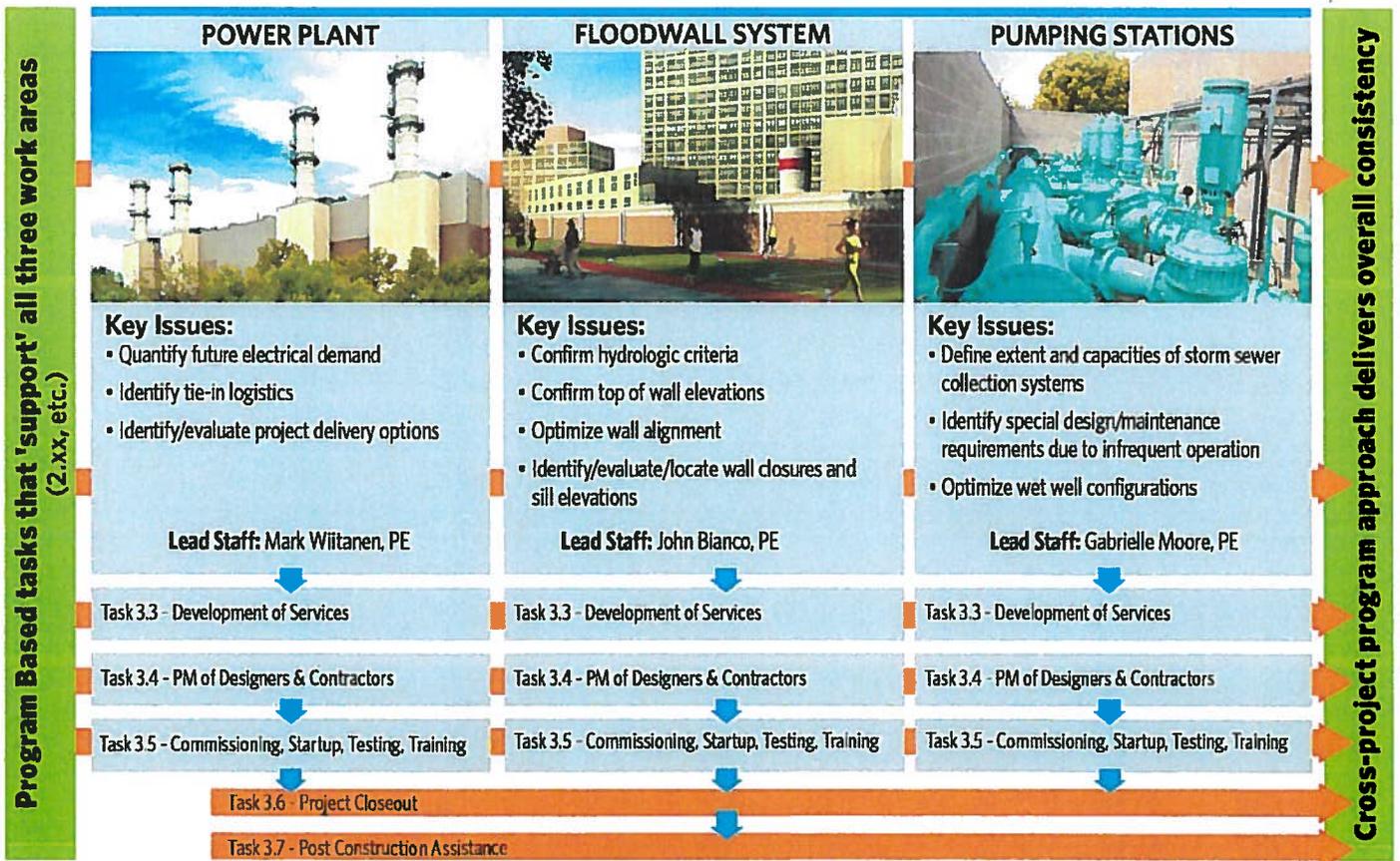
Included within our proposal is a review of the previously completed studies and reports for the 30 MW standby power generating facility, the floodwall and associated pumping stations to remove interior rainfall/runoff volumes. Our review effort will result in a draft summary of findings addressing the completeness of work to provide resiliency in maintaining treatment plant operations during extended power outages, analysis of storm/flood events with storm surge similar to Super Storm Sandy, climate change, and identifying conditions that may have changed since completion of the previous studies. Presentation of our findings will be made to PVSC's Executive Management to include costs and recommendations with a final report provided.

Implementation (Task 3)

This task will benefit from and utilize the protocols, procedures, standards and controls developed as part of Task 2 - Program Development. For Task 3, our overall starting point for the power plant, floodwall and pumping stations will be developed by combining our technical knowledge gained from our Team's previous designs of similar facilities with the document review as performed from Task 1. Each project will be a separate construction contract as noted within the RFP. Accordingly, our Team proposes that the three projects will proceed on independent, parallel tracks, with the Program Management Information System (PMIS) and other program elements providing for proper oversight, outcomes of consistent quality and timeliness, and coordination. The key technical issues to be addressed for each of the three core projects and overall workflow is summarized graphically below and described in more detail in the subsequent paragraphs.

PVSC will benefit from partnering with a highly experienced, local PM Team with the resources to meet every requirement.

Core Element Project Implementation, Delivery and Management



Power Plant Systems Delivery

Starting with a Strong Knowledge Base - PVSC has studied the feasibility of an on-site power generation facility utilizing natural gas as the primary fuel source. PVSC concluded, after an initial study conducted by HDR in 2010, that the economic drivers for this type of facility were not sufficient to move forward with the project at that time. However, after Superstorm Sandy in October 2012 left the treatment plant without power for an extended period of time, reliability became the primary driver for the facility. An updated study was conducted by HDR in 2013 providing a range of options to supply full standby power, partial standby power, and an optional Combined Heat and Power conversion. The standby power system is intended to provide power for the full site while accounting for the peak 15 minute average maximum demand. The CHP conversion option will provide for the full steam load, including the critical Zimpro process boilers.

Due to the detailed investigation performed during the Feasibility Study, our Team has the greatest level of understanding to successfully deliver this key component of the Program. We understand the critical issues that must be addressed through the conceptual design of the power plant. Mark Wiitanen, the primary author of the Feasibility Study, is proposed as the lead for the Power Generation facility under this Program.

American Power Venture's adjacent 655 MW Newark Energy Center is scheduled to be commissioned in 2015, greatly strengthening the reliability of power that is supplied through the grid. Our Team will track this new plant and its impact on the development of PVSC's off-the-grid, stand-alone Power Plant, including air permitting.

Establishing the Design Criteria - Determining the required electrical load and other key design criteria will be the initial step in the power plant conceptual design. This will require coordination with the conceptual design of the stormwater pumping stations associated with the floodwall to ensure adequate standby power is provided. The pumping stations were considered in the sizing of the facility during the feasibility study, but actual size will need to be confirmed. The pumping stations will be critical components to operate when the power facility is needed most. An analysis of future plant electrical load may also be warranted based on the planned increase in peak wet weather flow capacity to 720 MGD.

Form an Experienced, Multi-Disciplined Team

Design of the power plant will require a multi-disciplined team consisting of process, mechanical, electrical, plumbing, site/civil, fire protection, HVAC, structural, and architectural designers. We will coordinate these design staff to prepare a conceptual design of the power plant that optimizes staff access for operations and maintenance. Coordination with PVSC's staff will be essential to ensure plant operations are not impacted during construction of



Design-Build procurement was utilized for Repowering We Energies Port Washington Combined Cycle Plant, where the Team acted as the Owner's Engineer.

the power plant and that any critical tie-ins are identified in the conceptual design package.

Engine Selection and Air Emissions Control

As part of the conceptual design, we will select the preferred combustion turbine engine, based on our previous analysis in the feasibility report. Once the final configuration of the power plant is achieved, we will identify the permits required by the design professional. The primary permitting challenge will be compliance with Federal and State air pollution control requirements in a non-attainment area. The need for emission control devices must be identified and addressed in all phases of design.

Choosing the Best Contracting Strategy

Since the proposed power plant will largely be a stand-alone system on the PVSC site, the contracting and operating strategy that is most beneficial to PVSC must be evaluated. Whereas PVSC plant staff would operate any new wastewater treatment components, the power plant could be owner-operated and maintained, 3rd party operated and maintained, or some other public-private partnership combination. Similarly, construction could be via typical design-bid-build or newer options such as design-build, design-build-operate-transfer, design-prequalify-construct, or some combination where equipment is pre-purchased. As PVSC does not have significant experience with these alternative construction and operating strategies, our Team will provide an overview of options and analysis of pros and cons for each, which will include a review of expected cost and schedule savings of the various options. Our Team has

Our Team understands that companies in the Industry with the best qualifications to build power plants often operate exclusively in a public-private partnership or in a design-build-operate type environment.

extensive experience with these strategies and can share our lessons learned to ensure the optimum strategy is selected. The strategy must be determined fairly early in the conceptual design process to ensure there is

adequate time to prepare the RFQ/RFPs required for the designer or contractor.

Power Plant Challenges: Our Team is geared up to address the challenges/issues for the power plant.

Power Plant Issues	Team Solutions
Final Equipment Sizing	<ul style="list-style-type: none"> • Coordinate with PVSC to determine future electrical demand for 720 MGD • Confirm final stormwater pumping station electrical load in engine sizing
Maintenance of Plant Operations During Construction	<ul style="list-style-type: none"> • Identify key tie-in points for backup electrical supply and develop construction sequence to minimize impact on plant operation
Potential for Significant Permitting Requirements	<ul style="list-style-type: none"> • Through our experience with similar facilities, identify required permits early in conceptual design phase • Develop permit management plan, listing required permits and schedule to obtain. Oversee design engineer and support permit process • Include pollution control equipment in conceptual design

Floodwall System Delivery

Starting with a Strong Base - The preliminary conceptual design report, as submitted through the FEMA 406 application process for the levee/floodwall system and the initial review effort performed under Task 1, will form the basis of understanding for this project component. Project design criteria that would satisfy Federal and State Statutes as well as the technical requirements will be initiated and defined early during project inception.

Establishing the Right Height and Alignment - Establishing the levee/floodwall finite height is crucial to many of the technical disciplines. Height will include such key factors such as climate change (extent, size, scope and duration of future storms through multiple tide cycles), sea level rise, storm surge, wind and wave run-up analysis, regulatory requirements and potential project impacts. Along with height, alignment is considered a key design element. A project alignment that reduces the interior drainage area, the linear length and aerial extent could reduce initial construction and future operational costs, but may not be viable if the essential components of the PVSC facility are not within the protected area. Minimizing the size and the required frequency of use of closure facilities and pumping stations (integral to the line-of-protection) would also serve to reduce future operational costs, issues and complexities. Given the physical extent of the floodwall foundation system, early involvement of the LSRP will minimize delays due to the potential for discovery of contaminated soils.

We propose to address the above by assuring that the correct disciplines are engaged when necessary. Hydrologic, hydraulic, geotechnical evaluation, structural evaluation, mechanical, electrical, risk analysis, architectural, environmental and others will be essential to properly design the facility, but will need to be properly sequenced and managed. Effective management of the disciplines, design products and phases is the basis of delivering an exceptional project.



Gates similar to these designed by our Team in Haverhill, MA are required adjacent to the Sludge Storage Tanks.

Staying in Touch with the USACE - Our Team will also keep in close contact with the ongoing design for USACE's Lower Passaic River Tidal Hurricane Protection System, which is currently underway. The USACE study, if brought to construction, would be directly related to the PVSC levee/floodwall system as part of a larger protective system for the Newark, NJ area.

Levee/Floodwall Challenges: The following table briefly identifies the anticipated challenges/issues for the floodwall system and our Team's potential solutions.

Levee/Floodwall System Issues	Team Solutions
Hydraulics - Alignment	<ul style="list-style-type: none"> Optimize length of floodwall and area protected Reduce number of penetrations through floodwall structure Consider alignment impacts on loss-of-life potential; loss of use of facility; structural and content damage; and environmental, social and economic impacts
Civil - Structural Height	<ul style="list-style-type: none"> Optimize elevation based on future sea level rise Establish freeboard criteria and requirements Allow for future adaptation of increased elevation as permissible
Hydraulics - Design of low-flow gravity components	<ul style="list-style-type: none"> Include exterior side flap gates Include positive line-of-protection closure gates Maximize size as practical for unexpected future storm intensity patterns
Hydrology - Criteria for Coincident Interior Rainfall	<ul style="list-style-type: none"> Review prior report - determine degree of coincidence with high exterior stages - for pumping stations Consider Multiple Discrete Event methodology Consider Coincident Frequency Curve method
Hydrology - Size, number and location of pumping stations	<ul style="list-style-type: none"> Collect and combine interior runoff where feasible Evaluate cross connections between rings
Impact to Operations during Construction	<ul style="list-style-type: none"> Identify all utility crossings - over, under or through the line-of-protection - minimize disruptions Design and coordinate for continuity of key utilities Evaluate raising closure sill elevations to reduce frequency of operation

Stormwater Pumping Stations Delivery

The preliminary conceptual design report, as submitted through the FEMA 406 application process for the levee/floodwall system, will form the basis for the pumping station analysis. These pumping stations are considered integral to the line-of-protection (levee/floodwall system) as pumping is often required during times of blocked or high exterior stage conditions. Blocked conditions can be dependent (i.e. interior rainfall and high exterior stages occur from the same meteorological event) or simply coincident (i.e. interior rainfall occurs during a high exterior stage event).

Upon constructing surrounding plant floodwalls, two separate storm sewer collection systems will serve to convey the plant's stormwater runoff by gravity to the designated East and West Stormwater Pumping Stations. Reliable operation of these stations is of vital performance to achieving PVSC's overall flood control goal of uninterrupted operation of the

treatment plant. Additionally, pumping stations are inherently expensive to construct, maintain and operate and must be properly planned, designed and constructed to achieve PVSC's goals. Our Team will provide the necessary guidance and technical experience throughout the project life cycle so these stormwater pumping stations will be economically justified, reliable and operationally sound.

East Pumping Station - The study's proposed East Stormwater Pumping Station is located on the eastern side of the plant in close proximity to Newark Bay. The station includes a 72-inch reinforced concrete pipe (RCP) influent storm sewer pipe followed by screening and channelized flow into a segregated wet well. There are three (3) submersible pumps designated for low flow (5,000 gpm each) and four (4) submersible pumps designated for high flow (20,000 gpm each). Subsequently, seven (7) independent pump discharge lines transfer stormwater flow into a downstream concrete energy dissipater before flowing into Newark Bay.

West Pumping Station - The study's proposed East Stormwater Pumping Station is in proximity to Jasper Creek. This station includes a 84-inch RCP influent storm sewer pipe followed by screening and channelized flow into a segregated wet well. There are three (3) submersible pumps designated for low flow (5,000 gpm each) and four (4) submersible pumps designated for high flow (20,000 gpm each). Subsequently, up to (7) independent submersible pump discharge lines pump incoming stormwater flow into a downstream concrete energy dissipater before flowing into Jasper Creek. Documents note that water surface elevation are controlled by three (3) drainage culverts under a railroad crossing of Jasper Creek located East of Doremus Avenue.

Stormwater Pumping Station Challenges: The following table briefly identifies the anticipated challenges/issues for the pumping stations and our Team's potential solutions.



103 MGD CSO Pumping Station; Holyoke, MA. Utilized a "trench" wet well design to improve hydraulics for (4) 24,000 gpm pumps and to reduce accumulation of debris.

Stormwater Pumping Station Issues	Team Solutions
Civil	<ul style="list-style-type: none"> ▪ Minimize utility conflicts ▪ Minimize storm sewer pipeline excavation depths ▪ Minimize adding of impervious areas ▪ Review accessibility to facilities
Architectural	<ul style="list-style-type: none"> ▪ Ensure building code/safety compliance ▪ Incorporate building energy efficiency ▪ Utilize sustainable, durable, long-lasting materials ▪ Match architectural context of surrounding buildings
Structural	<ul style="list-style-type: none"> ▪ Proper foundation support determination ▪ Include building waterproofing and moisture control ▪ Incorporate means to reduce sedimentation/debris ▪ Incorporate constructability and operability reviews
Mechanical/Plumbing	<ul style="list-style-type: none"> ▪ Verify redundancy in pumping ▪ Design hardened pumping units and piping ▪ Ensure ease of maintenance and operations (e.g., screenings, sluice/slide gates, etc.) ▪ Detail energy efficient pumping units
Electrical	<ul style="list-style-type: none"> ▪ Provide provisions for primary and backup power ▪ Hardening of electrical infrastructure ▪ Include resilient/efficient motor control centers ▪ Locate in separate climate controlled area
HVAC	<ul style="list-style-type: none"> ▪ Size to provide the required number of air changes ▪ Design heating and cooling energy efficiency ▪ Design for proper moisture control ▪ Ventilation controls located in electrical/dry area
Instrumentation & Control	<ul style="list-style-type: none"> ▪ Provide reliability, maintainability and safety ▪ Incorporate proper pump monitoring and control ▪ Customize to plant's existing SCADA system ▪ Develop robust pump control logic

Subtask 3.3)

power plant, floodwall system conceptual design documents for review and approval to Proceed for contractors. Our Team will provide overarching management and oversight of 30% conceptual designs for each facility, including design strategies and construction phasing and guide design professionals for each facility through the issuance of bid documents. This includes conducting risk workshops throughout the project life cycle, facilitate review of design and the comments of PVSC staff and, where applicable, key stakeholder groups.

For 30 % Design - Our Team will be providing technical management and oversight of the project design documents, schedule and working cost estimate. The preliminary design documents will include drawings and key specifications that represent the major project concepts, and will provide the necessary review, validation, and vetting of the scope items and concepts identified in the prior planning/permitting stage. The preliminary design documents will also reflect the final agreement by all stakeholders of the fundamental design elements. This effort will result in complete engineering plans and specifications to the 30% design level for each facility which will be used as the basis for procuring a detailed final design and acquisition of the professional design firms.

Specific activities at this stage would include:

- acquiring meta-ocean data, coastal modeling, hydrographic and hydraulic analysis;
- conducting soil borings and topographic surveys;
- developing design drawings (floodwall and advanced process for power plant and instrumentation for pumping stations - including civil, architectural, and mechanical disciplines, basic plan and profile, electrical, heating ventilation and air conditioning (HVAC), and structural disciplines for pumping stations;
- constructability review;
- coordinating with public utilities, resource and transportation agencies, and adjacent property owners;
- drafting specifications for major items (major equipment, pipe, concrete); drafting drawing list and specifications table of contents; preparing process and major equipment calculations;
- developing draft control narratives or strategies; preparing geotechnical, hazard mitigation, acoustical, corrosion control, and hydraulics reports;
- providing AACE Class III Engineer's Estimate and Basis of Estimate Report; developing updated Critical Path Method (CPM) Construction Schedule and Basis of Schedule Report;
- performing value engineering;
- identifying training requirements for PVSC's Operation and Maintenance (O&M) staff;
- conducting required environmental studies and developing mitigation plans; and
- if required, identifying the need to perform traffic studies.

Acquisition of Design Professional Phase - Not all traditional water/wastewater engineering firms are qualified to design extensive flood wall systems or power plants. We will provide design management support by identifying qualified firms and assisting PVSC in acquiring the right final design team; via preparing a Scope of Services (SoS) to be performed by the selected firm; preparing evaluation criteria; preparing scoring methodology; and assisting as requested in the selection process.

We recognize the importance of providing opportunities for qualified design firms of all sizes and will take steps to solicit their interest and participation.

Our "Designer's Handbook" contains information to assist design engineers to drive excellent, efficient results through standard specifications, design document standards, safety protocol, QA/QC reviews, O&M, etc.

Design Management Phase - We will provide design management oversight by supervising final design, maintaining quality, budget, and schedule. Final design documents include: final design drawings (sheets for all disciplines); final specifications for the divisions (ready for submission to the Commission's Counsel for review and approval); final calculations for the project elements; final Power Reports; final AACE Class I Engineer's Estimate and Basis of Estimate Report; construction bid documents; final CPM Construction Schedule and Basis of Schedule Report. We will issue bid documents for advertisement; compile bidders questions; issue clarifications/addendums, perform bid evaluations and make recommendations.

Project Management of Design Professionals and Contractors (Subtask 3.4)

This subtask involves the construction of the power plant, floodwall system and pumping stations in accordance with contracted cost and schedule and to meet given performance standards. Design professionals retained for each facility final design phase will be responsible for the design services during construction (DSDC) and resident engineering services (RE). The PMT will provide oversight of these professionals.

Our Team possesses extensive construction management experience on large-scale wastewater treatment plant upgrades and is fully capable of providing timely extensive expertise to both the PVSC's engineering and operational and maintenance staff and the respective assigned construction management firms.

A strong emphasis and utmost focus and attention to environmental, health and safety, quality and work performance, schedule and cost will significantly contribute to overall success. The Designer of Record, Construction

Our Team has delivered significant wastewater treatment plant upgrade programs on time and budget using proven design management principles: Blue Plains, D.C., Boston, MA and many others.

Manager (CM) and respective Construction Contractors must be well-organized prior to project site mobilization. Our Team will fully coordinate all efforts in advance of construction commencement.

The chart at the end of this section depicts an overall view of Project-specific Protocols, Procedures and Processes that would be established and carried through the various Project Phases. The chart links the RFP specified subtasks to the program/project specific processes in a highly logical fashion that graphically displays the anticipated flow of products, equipment, services and operational training from pre-construction through post-construction activities.

Commissioning, Startup, Testing and Training (CSTT) (Subtask 3.5)

Our Team approach to project commissioning and startup could be summarized as "begin with the end in mind". Continuing plant operations is paramount during the construction phase. The smooth transition of construction to the operator is critical. We have found the following principles to be effective for continuity of plant operations during construction:

O&M Staff Involvement - Our proposed staff includes experienced operations specialists who will work closely with PVSC Plant operations from the beginning and confirm that operational requirements and constraints are identified and incorporated into planning, design, construction and operation in a clear and process driven manner. PVSC operations and maintenance staff will be expected to participate as joint team members so that both the program management team and the design teams understand O&M's constraints and requirements.

Efficiently Transfer O&M Data - Careful management and quality control of as-builts, O&M data, and asset management information will be built into the procedures and expressed in the construction contracts, with the goal of efficient transfer of current, accurate, and timely information at project completion. Compliance with NJAC 7:14A-6.12 is crucial in development of the O&M manuals. The code requires that O&M manuals be more than binders of cut sheets of each individual piece of equipment. The O&M manual for the new equipment must include a description of the overall system and how the equipment ties together and the system operates as a whole. The manual must also include typical operating conditions, maintenance requirements and schedule, and emergency operating

procedures. Our Team is familiar with the requirements of this code through previous work on site. We are also working with PVSC to develop an online electronic O&M (eO&M) manual that will combine all of the documentation required under NJAC 7:14A-6.12 in one location. This system was started for the new equipment installed under the Thickening Process Upgrades, however we are currently expanding the eO&M to cover the entire solids handling system. We anticipate that this eO&M manual will be required for the new contracts.

Control Related O&M Costs - O&M costs tend to spike when warranties expire, as equipment ages, and after commencement of revenue service. Consequently, careful equipment selection, excellent construction quality control, good execution of commissioning and start up, timely completion of documentation, and delivery of training is essential to minimizing future operating costs. Careful attention to this is required for proper development of construction documents.

Our Team will work with PVSC to develop detailed commissioning procedures, checklists, start up procedures, lockout/tagout procedures, parts delivery schedules, O&M documentation and detailed operator training schedules well in advance of commissioning and coordinate these items between PVSC and the construction contractors. During commissioning and start up we will make sure PVSC is fully integrated into witnessing the performance of all testing and can use the commissioning as an opportunity for on-the-job training. Finally, we require that all testing is thoroughly documented.

Project Closeout (Subtask 3.6)

Our Team will focus on areas where PVSC requires assistance after construction itself is completed. These include thorough contract closeouts; verification that all contract requirements were met; fiscal closeouts and warranty implementation. In addition, we will support troubleshooting and technical assistance for plant operations with any unexpected problems or issues with new facilities and equipment or transfer and inventory of parts and spares. Finally, we will support verification and delivery of record drawings and documentation, the final certification and documentation of FEMA requirements, and provide support for agency audits and the documentation of lessons learned.

The PMT will also work diligently to provide the necessary assistance in closing out all construction contracts. Project close out work would include: punch list; final subcontractor logs and evaluation; permits; resolution of disputed work; determination of projects final cost (Contractor Credits/Change Orders); disposal manifests; final Inspection and abatement records for all contaminants of concern; spare parts inventory and log; testing records; manufacturer certifications, warranties and licenses; M/WBE compliance reporting; substantial completion payment; certificates of occupancy; construction contractor final evaluation; regulatory transition plan for construction to operations; contractual obligations review; administrative closure; permits close-out and financial closure/final payments.

Post Construction Assistance (Subtask 3.7)

Our Team is ready to support PVSC in meeting all post-construction challenges by anticipating and incorporating these requirements into the program standard processes and procedures so that requirements will be anticipated and achieved as early as possible. We will also provide continuity and make sure staff with knowledge of the program are available in the post-construction phase and set up a help desk to handle and coordinate post-construction assistance for PVSC. Training sessions will be established for the power plant, pumping stations and moveable facilities associated with the floodwall project.

Staffing Analysis

Our Team is committed to providing the best resources to successfully deliver these Program Management services. This starts with our leadership. Our Program Manager, Steve Roberts, will relinquish all other obligations and devote 100% of his time throughout the 7+ years of the project life cycle.

The Key Team Members presented in our Statement of Qualifications has not changed. A copy of the Organization Chart is provided in Appendix A.

The Staffing Analysis completed by our Team is based on the Scope of Services in Section VIII of the Request For Proposals (RFP). Steve Roberts led a team to develop a detailed schedule to deliver the Scope of Services. This detailed schedule is provided as Section 5 of this Proposal. Key Team Members and supporting staff were assigned by subtask to complete the analysis and develop a Total Project Cost.

A summary of the Key Team Member assignments is presented below:

- **Principal-in-Charge** - It is anticipated that our Principal-in-Charge, John Kinneen, will be heavily engaged over the initial setup and then remain involved throughout the entire Program. Mr. Kinneen will be engaged for 50% of his time during Task 2 - Program Development and an overall commitment of 10% of his time.
- **Program Manager** - As noted above, Steve Roberts has been included for 100% of his time excluding holidays and paid time off.
- **Project Controls Lead** - The most crucial time for the Project Controls Lead is during the initial Program setup in Task 2. VT Madhavan has been included for 100% of his time during this period. After the initial setup and training, Mr. Madhavan will remain a resource to the Team and will provide guidance to the Project Controls team. To supplement him, a more efficiently priced Project Controls staff has been

included to run the day-to-day Project Management Information System.

- **Planning/Engineering** - Our Team has proposed two staff to fill this position, Steve Biuso and Scott Davis. It is our intent to assign a lead to champion a specific group of projects. Mr. Biuso and Mr. Davis are most heavily resourced during Subtasks 3.3 through 3.7. Combined, their time commitment during the most active period of Subtask 3.3 will be 100% with an overall average commitment of 60%.
- **Project Managers** - A Project Manager will be assigned to lead the efforts for each specific project within the Program, working along with the Planning/Engineering Leads. The most active period for Project Managers will be Subtask 3.3. However, some of the Project Managers will serve a role during construction periods.
- **Construction Support** - The Scope of Services indicates that most of the Construction Management type services will be provided by the Design Engineers or PVSC. Our construction support leads will establish procedures and policies for the CM services early in the Program and then assist in overseeing the contractors with the heaviest involvement during commissioning and start up.
- **FEMA Specialist** - The FEMA Specialist will provide support as required by Subtask 3.9. In addition, the FEMA Specialist will provide overall guidance during the first 90 days with respect to FEMA Funding and will be available to support the Program Manager and project team throughout the entire Program life cycle.

While the Staffing Analysis has been developed specifically for the Scope of Services in the RFP, each person identified as a Key Team Member is committed to making this Program a top priority for the time period they are required. Should PVSC desire to use any Key Team Member for additional roles or time, our Team is committed to making them available.

As requested by the RFP, the documents listed below are provided as Attachments in this proposal. Rates have been provided for the key staff members on our Organization Chart as well as Category Rates for support staff that will be needed to help perform the scope of services and other potential services.

- Section 6 Summary of Total Man Days Estimate (Attachment "C")
- Section 7 Summary of Total Project Cost (Attachment "D")
- Section 8 Rate Sheets for all Potential PM Services

Project-Specific Protocols, Procedures and Processes

Program/Project-Specific Processes	Pre-Construction Phase (Subtask 3.3)	Construction Phase (Subtask 3.4)	Post-Construction Phase (Subtasks 3.6 and 3.7)
Contract Administration	Develop Protocols and Procedures <ul style="list-style-type: none"> PVSC Forms/Project-specific Forms/Letters, Memos, etc. Program Management Information System (PMIS) Assess & Coordination for PVSC, PM, Designer Services Tracking/Transfer System for all Project Documents (PMIS) 	<ul style="list-style-type: none"> Construction Contractor Payments Mobilization, Monthly Partial, Substantial & Partial Release of Retainage Assess and coordinate Designer DSDC and RE Services Assess CM and Contractor Services 	<ul style="list-style-type: none"> Construction Final Payment and Retainage Contract Deliverables (As-builts, O&M Manuals, Warranties, etc.) Project Records/Documents Transfer to PVSC Project Administration Assistance and Close-out
Risk Management	Program-specific Risk Management Plan Project-specific Risk Management Plans <ul style="list-style-type: none"> Develop Protocols and Procedures CM and Construction Contractor Insurance Requirements Risk Registers 	<ul style="list-style-type: none"> Contract Disputes & Claims Claims Avoidance/Assistance/Mitigation - Dispute Review Board Recognition of potential Claims Prepare "Just-in-case" additional back-up documentation 	<ul style="list-style-type: none"> Contract Disputes & Claims Close-out
Communication & Coordination	Identify & engage all Program-specific Stakeholders Program Communications Plan <ul style="list-style-type: none"> Develop Protocols and Procedures Program/Project Correspondence (oral/written/electronic) Program/Project Progress Meetings & Reporting Pre-Construction Meeting - PM to SET THE TONE Team Building/Partnering - PVSC, PM, DOR, CM Contractors 	<ul style="list-style-type: none"> Constant & effective Communication & Coordination Weekly coordination meetings Monthly Project Meetings Stakeholder coordination and public outreach meetings 	<ul style="list-style-type: none"> Communication and coordination during post-construction assistance, close-out and defects period
Environmental, Health & Safety (EHS)	<ul style="list-style-type: none"> Program-/Project-specific EHS Plans Safety in Design Program-/Project-specific Construction Contractor EHS Plans Develop Protocols and Procedures Emergency Action Plans Construction and Operational Permits Potential HAZMAT Identification Air, Water, Noise, Vibration Monitoring 	<ul style="list-style-type: none"> Safety in construction HAZMAT Abatement & Disposal Renewal of Construction and Operational Permits Monthly Status Reporting of EHS Issues CM Verification & Monitoring of all EHS Operations Weekly coordination meetings 	<ul style="list-style-type: none"> Final EHS Report Operational Permits Transfer
Quality Assurance (QA) and Quality Control (QC) Programs	<ul style="list-style-type: none"> Program-/Project-specific QA Plans Program-/Project-specific Construction Contractor QC Plans Develop Protocols & Procedures Shop Fabrication/Off-site/On-site Testing & Inspection Construction Inspection/Checklists/Daily Reports 	<ul style="list-style-type: none"> Prepare & submit detailed Daily Construction Reports Periodic QA/QC Internal Audits Proactive Non-conformance Reporting equals less punch-list items. 	<ul style="list-style-type: none"> Final QA/QC Reports Lessons learned
Cost Control & Reporting	<ul style="list-style-type: none"> Develop Protocols and Procedures, Policies and Controls Develop FEMA reimbursement plans Develop FEMA/State audit protocols 	<ul style="list-style-type: none"> Detailed Project Documentation FEMA Reimbursements Cost-to-Complete Forecasts Monthly Updates - based on remaining work/include potential extras Quantification Procedure for Payments Cash Flow Summary Reports & S-Curves 	<ul style="list-style-type: none"> Final FEMA Reimbursements Final Project Cost Report
Start Up, Testing & Commissioning (Subtask 3.5)	Project-specific Start up, Testing & Commissioning Plans <ul style="list-style-type: none"> Develop Initial Protocols and Procedures Checklists 	<ul style="list-style-type: none"> Conduct & complete Start up, Testing & Commissioning 	<ul style="list-style-type: none"> Final Equipment/Systems Reports
Training & Operational Transfer	Project-specific Training & Operational Transfer Plan <ul style="list-style-type: none"> Training Lesson Plans/O&M Manuals/Scheduled Employee Training 	<ul style="list-style-type: none"> Conduct Employee Training with Approved O&M Manuals 	<ul style="list-style-type: none"> Contract Deliverables (As-builts, O&M Manuals, Warranties, etc.) Conduct final PVSC training sessions for Power Plant, Floodwall and Pumping Stations

MANAGEMENT APPROACH

In this section we describe our approach to management issues, including activities to be performed in the critical first 90 days (Task 2), integrating our personnel into the PVSC organization, keeping PSVC apprised of project status and certain general management-related issues (raised on page 8 of the RFP), training and workshops (Subtask 3.1), setting up the Program Field offices (Subtask 3.2), meetings and general project team coordination (Subtask 3.8), funding assistance (Subtask 3.9) and stakeholder coordination/public outreach (Subtask 3.10).

PVSC will benefit from a fully functional Program Management Information System and program management structure at the end of the fast start.

Program Approach and 90 Day Plan (Task 2)

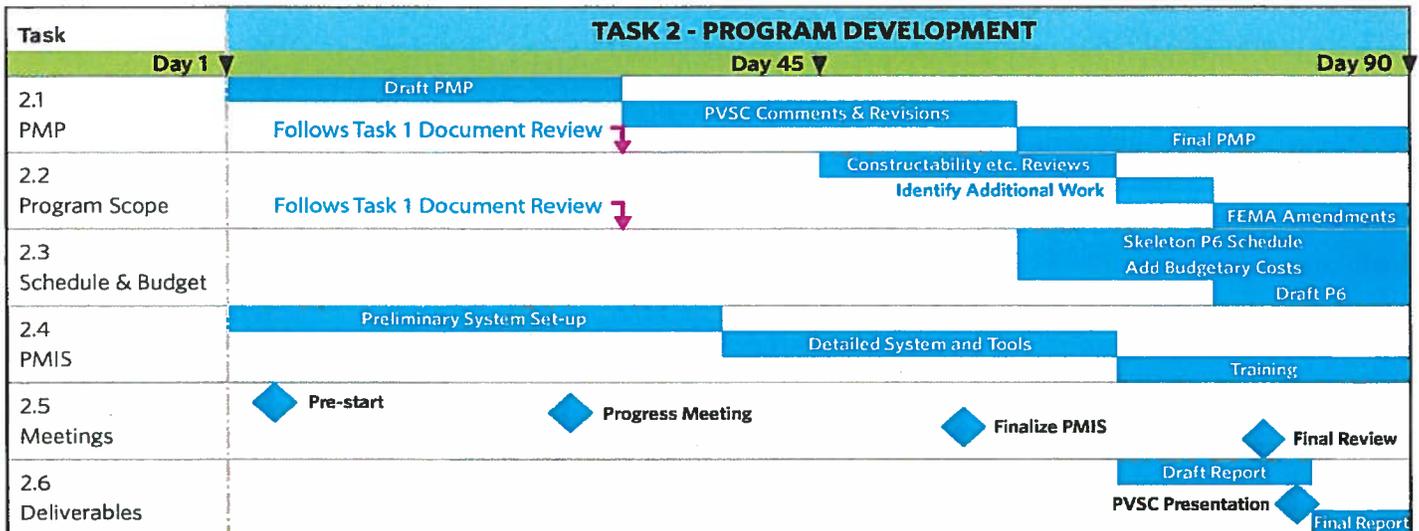
The first 90 days following NTP are a critical period for Program Development during which we will develop, review and establish with PVSC the initial framework and systems for managing the entire program. Our goal is to establish program clarity and momentum by means of a sound Program Management Plan (PMP) and that PVSC sees a return on investment in, and a benefit from, a process based PM approach within 90 days of award as shown below.

It is critical that the PMP and underlying Program Support Services infrastructure be set up in a clear and effective

manner as the framework within which all subsequent Program activities will develop and progress. We will initially focus on Program Development using a Fast Start Plan which we have implemented successfully on major capital programs to establish the initial goals, processes, systems, tools, policies and procedures on which program management will be based in order to manage the program effectively. Our program leadership team has extensive experience using the Fast Start with success elsewhere, including:

- The \$1.6 billion Miami-Dade County Sewer Repair Program
- The \$500 million Blue Plains Advanced Wastewater Treatment Plant Program
- The \$9.7 million Vancouver Annacis Island WWTP Stage 5 Expansion
- The \$980 million NYCDEP Nitrogen Program
- The \$1.2 billion Sacramento Advanced Wastewater Treatment Program
- The \$14.6 billion New Orleans Hurricane Protection System Program

90 Day Program Development Roadmap



The PMP will be the primary source of information on how the program will be planned, executed, monitored, controlled, and closed out. It will be a living document that will be constantly reviewed and updated over the life of the program.

Program Management Plan (Subtask 2.1)

A comprehensive, sound Program Management Plan provides a clear framework for development and management of the program. Our experienced staff will develop a Preliminary PMP within 30 days after completion of Existing Document Review and review with PVSC for comment. The PMP will be a living document that will be constantly reviewed and updated over the life of the program based on program changes, additions, requirements and lessons learned. We will submit a final PMP for PVSC review within 90 days.

The PMP will include, but not be limited to the following elements:

- Team's vision and mission statement
- Staffing Plan and Organizational Structure
- Resources Management (including integrated teams)
- Communications Management (Internal and External entities)
- Project Management Plan
- Scope Management
- Schedule Management
- Document Management Plan (for both electronic and hard copy versions)
- Compliance Management
- Change Management
- Financial Management Plan for audit and controls (from Independent, FEMA and State Auditors)
- Health and Safety Plan for engineers, consultants and contractors
- Integrity Oversight and Monitoring Plan
- Quality Management Plan
- Permit Management Plan
- Public information and Stakeholder Management
- Risk Management Plan
- Procurement Management Plan
- Continued Operation and Permit Management
- FEMA Reimbursement Plan
- Stakeholder Engagement Plan

Program Scope (Subtask 2.2)

Our Team will immediately focus on documenting a clear, concise definition of scope using available sources within the first 90 days. We will review all available documents and plans to verify, validate, determine and define Program Scope. This will include:

- **Resiliency reviews** to ensure compliance with FEMA elevation standards and projected sea level rise and precipitation levels during the life of the project;
- **Functionality reviews** to check whether individual projects will have the desired and designed outcomes, and whether existing project scopes are sufficient;

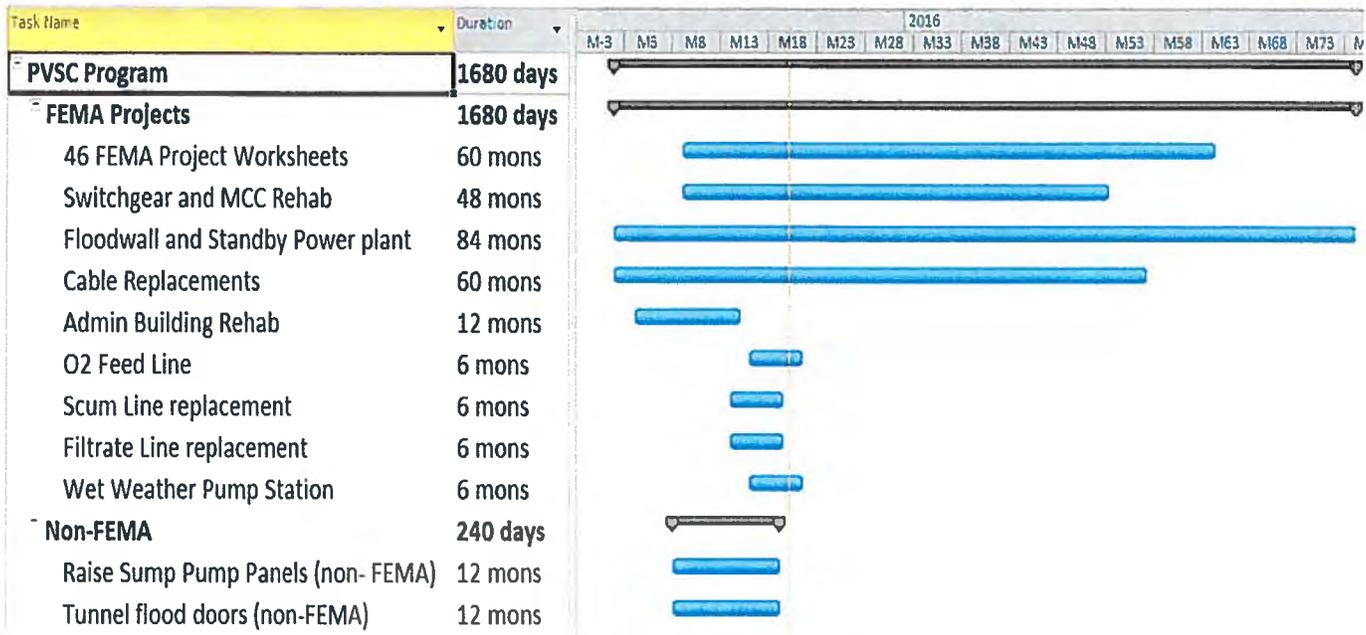
- **Existing condition assessments** to check assumptions about existing infrastructure and to coordinate work with other contracts that are ongoing or planned in a Facility Plan.
- **Constructability reviews** to examine design 'buildability' and how the designs will fit into the base schedule (any needless and/or difficult construction areas causing extended construction time);
- **Value engineering reviews** to determine whether designs can be constructed at lower cost while maintaining functionality;
- **Energy efficiency reviews** to further lower life cycle carrying costs;
- **Sustainability reviews** to identify other benefits and mitigate impacts;
- **Permit feasibility** to make sure that projects, as scoped, can be permitted and that any necessary modifications to obtain permits are identified, all to be set out in a Permit Management Plan;
- **Financial feasibility** to ensure that projects can be done within the constraints of expected FEMA (or other) funding, comply with FEMA and other applicable rules, and that necessary controls are established, all to be set forth in a Financial Management Plan; and
- **Operability review**, with significant PVSC input, so that work is planned to enable full maintenance of plant operations during and after construction, proper startup protocols are established, testing and commissioning are properly covered, shutdowns are coordinated with ongoing operations, and O&M manuals and training are provided for.

As a result of this thorough scope review process, PVSC will ultimately have the benefit of fully defined Scopes of Work for the design and construction of the 30 MW standby power plant, floodwall, and stormwater pump stations.

Schedule and Budget (Subtask 2.3)

We will develop a Program Master Schedule and Budget using Primavera P6 in consultation with PVSC. A major focus will be on developing a preliminary Master Program Schedule, Master Program Budget, and Program Cash Flow within identified constraints. We will create preliminary schedules at a program level summary with inter-project links established to evaluate potential impacts, conflicts and constraints and cost loaded to model the program cash flow. We will validate available cost estimates and remaining costs for ongoing projects and develop new cost estimates for the new projects. Examples of the schedule and cash flow can be found on the next page.

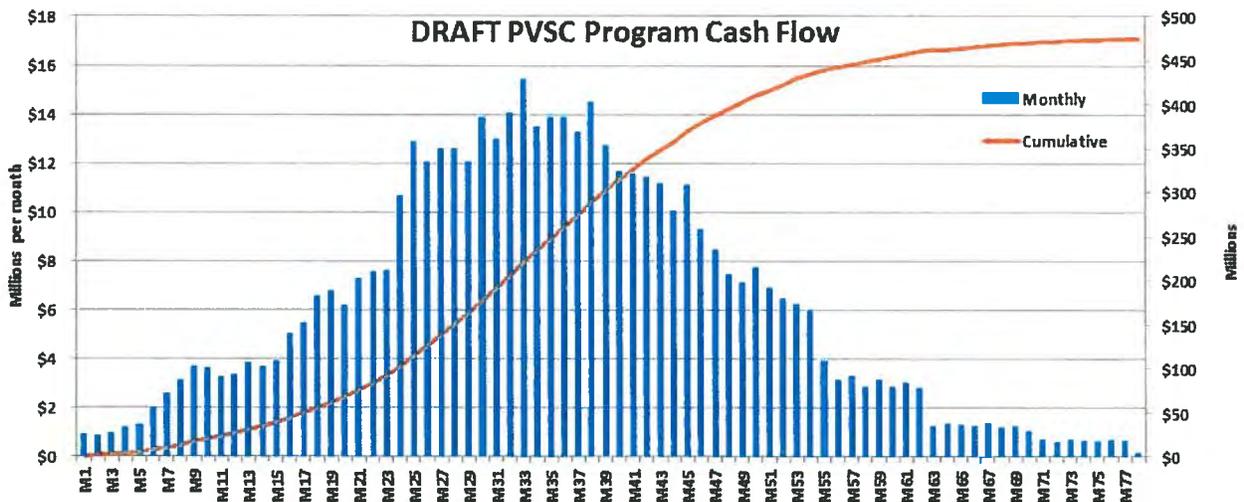
Sample Program Master Schedule



The Master Program Schedule will provide a high level snapshot of the overall program status in real time to the Stakeholders.

The Master Schedule also establishes the primary cost elements for the program and derives initial budgetary cost and cashflows required for program implementation, including PM and engineering costs. Resources, including costs, can be tracked in multiple ways - by Work Breakdown Structure, by performing entity (Program Manager, Engineer or Contractor), by Cost Accounts, and by funding source. Custom codes can be created to break down and track costs to particular PVSC or FEMA reporting requirements. Using this tool, the Program Management Team and PVSC can get an accurate, up-to-date snapshot of outgoing cash flows and understand financing needs and project and program specific costs, such as projected maximum month outflows.

Sample Program Cash Flow



Program Cash Flow will help the program team track the status of budget and actual costs and facilitate the planning of monthly and yearly spending and funding requirements.

Program and Contractor Schedules

As the program progresses, we will develop and maintain more detailed design and construction schedules and baselines in Primavera P6 for the projects identified at the Program level which will be used to update and maintain the Master Schedule. The Program Management Team will develop, monitor, and maintain schedules and baselines for all projects. Project schedules will be tracked in Primavera P6. The inter-project relationships and links will help evaluate and control schedule impacts from one project to another. The Master program schedule summary will provide real time status of the overall program to PVSC.

We will develop schedule specifications to be included in the engineering design and construction contracts and monitor Engineers' and Contractors' compliance with requirements for baseline submittal and approval and subsequent monthly schedule updates. Furthermore, we will ensure that Engineers and Contractors realize the importance of submitting a realistic and achievable schedule and adhering to it over the course of the project by closely monitoring planned vs. actual performance, earned value analysis and trend monitoring.

Program and Contractor Schedules are the essential tools by which we will monitor, control and deliver this program on time.

Schedule and Risk Workshops

Schedule and Risk workshops will ensure that all program participants understand and accept the schedule constraints and program risks. There will be multiple workshops with different stakeholders to understand their ideas, needs and expectations from the program. The output from these workshops will be the updated draft program schedule and Risk Register. MS Excel will be used initially for developing a Risk Register, an example of which is provided below. This will be used to manage qualitative risks. Later on, as the program progresses and the maturity level and sophistication of the program team in managing risk increases, advanced Risk Management tools like @RISK, PERTMASTER, Monte Carlo or ARM can be considered for quantitative risk management.

Sample Program Risk Register

AREA	SUB-AREA	RISK	EFFECT	APPROACH AND MITIGATION PLAN	ACTION REQUIRED BY	SCHEDULE					COST				
						Effect on Schedule (Y/N)	Probability (L, M or H)	Impact (L, M or H)	R ₁ (L, S)	Risk Score (L, M or H)	Effect on Cost (Y/N)	Probability (L, M or H)	Impact (L, M or H)	R ₂ (L, S)	Risk Score (L, M or H)
Programme	All Projects	1. Blanket level EIA clearance 2. Effect of revised CRZ on Environment clearance. Clearance from Velavadar Wildlife Sanctuary.	1. Delay in start of construction activities of TP roads projects. 2. Overall programme delay	TDR extension received. MDM completed on 21 Oct, public hearing conducted on 3 Jan 2014 and minutes published. Project specific EIA are to be brought under AECOM. Anna university is working on the revised CRZ for DSIR. MoEF may ask State Govt. / DSIRDA to superimpose DP on new boundary and resubmit for approval. The report is expected to be received in Feb 2014. If Central Govt objects to the development which has norm of no development within 10 Km radius, EC will ask State to get clearance from	AECOM - Environmental team to follow with GOB	Y	H	H	9	H	Y	L	L	1	L
Programme	All Projects	Formation of SPVs for execution of works	Delay in start of construction activities. Overall programme delay	Master SPV needs to be formed at the earliest. DMCCDC should be informed on regular basis.	AECOM - PD DSIRDA, DMCCDC, GICC	Y	H	H	9	H	N	L	L	1	L
Construction	Construction Phase of All Projects	GOB IRDA generally estimate the projects based on Gujarat SOR and have high Contingency factor for managing the contractors Bid. However PMNC estimates are based on prevailing prices. There is a high chance of differences in cost estimates and GOB IRDA can't process an order based on	Delay in award & construction activities	Second Workshop on Revised cost estimates (Incorporating the changes suggested by DSIRDA, GOB and DMCCDC) conducted with stakeholders on 18 Dec 2013. Detailed breakup shared. PMNC to explain the difference between TP and PMNC baseline estimates. The preliminary design costs for the different projects by their respective preliminary design consultants will be reviewed by PMNC and the reference of the PMNC baseline	AECOM - PD and Finance	Y	L	L	1	L	N	L	L	1	L
Construction	Manpower	Sufficient number of manpower may not be available	Delay in execution of construction work	With recent proposal and in principle agreement of development of IPP activation zone the construction manpower requirement will be reduced.											
Construction	Land	100% (activation zone) land possession for starting all the construction activities	Land possession is time consuming process and will impact the work	DSIR to expedite land possession process. With recent proposal and in principle agreement of development of IPP activation zone the land possession requirement will be	AECOM to follow up with DSIRDA	Y	M	M	6	M	N	L	L	1	L

The Program Risk Register will be constantly updated and monitored to ensure that qualitative and quantitative risks are captured and schedule delays and cost overruns are mitigated or controlled.

Controls for Funding and FEMA Reimbursement (Subtask 3.9)

Program success depends on full and adequate funding to complete design and construction of the three resiliency projects. This requires maximization of FEMA funds and avoidance of de-obligation, and is the primary role of the FEMA specialist. Our Team can also provide a full range of FEMA application and reimbursement services. Together with other auditors, the Team will be responsible for compliance

with FEMA requirements and any applicable NJEIT or NJERB requirements. Specific actions include:

- Creating and implementing financial controls and monthly reporting;
- Updating the Financial Management Plan;
- Updating the FEMA Reimbursement Plan;
- Monitoring payment requests from designers and contractors in a FEMA-approved disbursement process;

- Submitting reimbursement requests to FEMA;
- Preparing monthly and quarterly reports as necessary; and
- Any other tasks necessary for ensuring funding for the project.

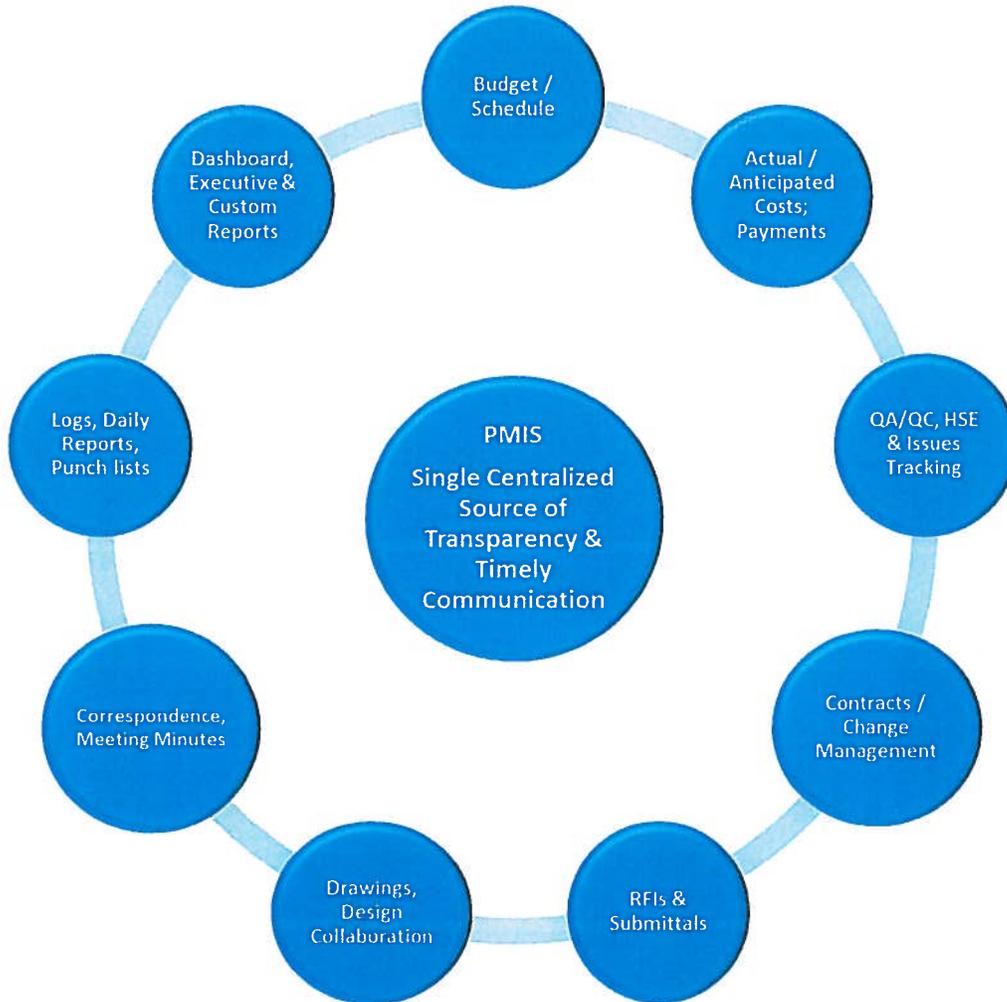
Program Management Information Management and Document Control System (Subtask 2.4)

A key tool for managing the Program will be the Program Information Management and Document Control System (PMIS), shown below; the centralized platform for program data and stakeholder communication and collaboration. PMIS provides a secure, web-based platform for storage, communication and stakeholder collaboration on all essential program documents, records and data. Customizable

dashboards and reports assure PVSC access to consistent current, accurate analysis of program status and performance at all times. PMIS provides an excellent basis for timely and defensible decision making and responsive management and can generate various reports and documents. Properly used, it will help PVSC with the goals of (1) managing information and accelerating project response time, (2) making informed choices with the best available data, and (3) transparency.

The Program Management Team will handover the Information and Document Management System (or PMIS) on completion of the contract. Prior to handover the Team will ensure that PVSC staff are highly trained, including the training of Administrators and 'Super Users', and are able to seamlessly and easily use the system to manage any future treatment plant improvement projects or programs.

Functions and Features Available in PMIS



PMIS will be the Program Management system that will serve as a central repository of all electronic documents and transactions on the program and enhance transparency, responsibility, collaboration and timely communication between program team members.

We plan to use Meridian Proliance to immediately set up the PMIS because (1) we are experienced in the use of this platform to support Fast Start in other large programs and (2) we have existing licensing and costing agreements with Proliance which give us immediate access to required technical support so that we can get right to work for PVSC. Proliance is web-based and has robust and field-tested modules for all key program and project management functions while providing a secure and robust platform for Communication, Reporting and Collaboration between all authorized stakeholders.

AECOM has an extremely beneficial licensing agreement with Meridian that will allow us to hit the ground running with a Trimble Proliance PMIS server installed and ready on Day 1. No time will be lost and PVSC will have the Program under an earliest possible control and hence get the fastest return on the investment. The Proliance system is forward looking, audit friendly (good for FEMA integrity), has active holds (for better control of projects, programs and finances) and many other attractive interfaces.

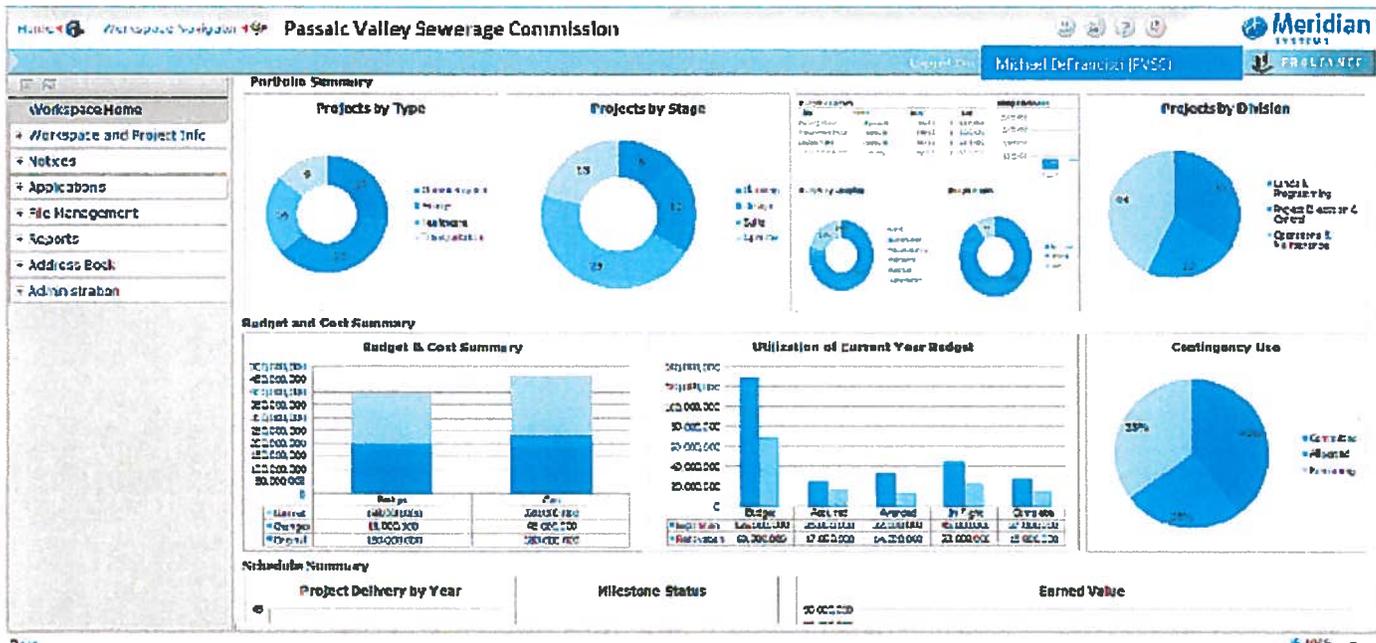
The data established in Proliance can easily be migrated to any other PMIS system or tool should PVSC decide to adopt another management system in the future, giving PVSC the benefit of a technology-neutral approach and an immediately useful database.

We understand the importance of transparency and auditability in all program transactions and decisions and that Integrity is very important to PVSC. PMIS has powerful capabilities to set limits on spending authority, holds, and audit tracking in various modules like budget, actual cost, contracts, change management, procurement and invoicing. The extensive analytical and trending capabilities of PMIS will help us plan forward and look for early warning signs of trouble so that timely and effective solutions can be implemented.

PMIS will keep track of detailed documentation and status of funding streams by using data from PVSC's existing financial system. This will enable the Program Manager and PVSC to establish auditable records and respond effectively and quickly to queries and audits by FEMA or other funding and oversight agencies.

Program status and performance will always be clear and readily accessed and understood through the use of dashboards to track key parameters and performance indicators which will be agreed upon with PVSC.

Sample PMIS Executive Dashboard



PMIS Dashboard will provide PVSC Executives with real time updates on the overall status and health of the Program along with Key Project and Program Indicators and metrics.

PMP Development Meetings in the 90 Day Program (Subtask 2.5)

We will develop the 90 Day Program and PMP in close collaboration with PVSC at all times. As shown on the 90 day schedule, we will establish a minimum of four focused and structured meetings at PVSC within the first 90 days to review documentation, organization structure, standard PVSC processes and needs and coordinate the development of the PMIS and Document Control System to support the identified needs and processes. Action items from meetings will be documented. The first kickoff meeting will include a chartering session to ensure team integration and consensus around program vision, goals and methods.

Deliverables (Subtask 2.6)

At the end of the 90 Day Program Development phase, we will furnish a draft report and provide a formal presentation to brief PVSC's Executive Management on the work completed which will include:

- Program Management Plan (PMP) [Draft PMP Table of Contents can be found in Appendix A]
- Program Scope with Constructability review and recommendations
- Program Costs and Timeline
- Information Management and Document Control System (PMIS)

We will revise the draft report to incorporate PVSC comments and submit the revised report for acceptance. Upon approval, we will then establish in detail and implement all of the policies, procedures, processes, documentation and systems outlined in the PMP and RFP before proceeding to the Implementation Phase, including:

- Detailed Policies and Procedures
- Program Cash Flow
- FEMA Funds Management and Tracking Plan
- Project prioritization and recommendations
- Program Risk Register
- Finalized Critical Success Factors (CSF) and Key Performance Indicators (KPIs) for the Program

Once PVSC approves these deliverables, they will become the standard and guiding documents by which the rest of the program will be executed and define the program's path until completion.

PVSC will benefit from our site logistical plan to minimize interference with the maintenance of plant operations.

Staging Plan and Program Field Offices (Subtask 3.2)

Several years ago, PVSC had the foresight to purchase the adjacent WITCO property and recently has begun preparing the site with a temporary surface and a new ramp leading up to the existing property. This location will serve as an ideal staging area, not only for the Program Management Field Office, but also for Contractors during the construction of the planned improvements. On December 12, 2014, our Team visited the site and identified the following benefits:

- Direct access to Doremus Avenue for the Program Team and Construction Contractors. This access will allow for less coordination issues with existing PVSC operations such as the steady stream of liquid waste vehicle traffic. A new guardhouse is planned for security purposes.
- Once inside the guardhouse, the site will have direct access to the plant through the new ramp currently being constructed.
- Significant lay down area. The planned temporary surface will cover approximately half the WITCO property allowing for parking and trailer staging. The remaining area towards the bay side of the facility will remain in its current state. There is some concern for flooding in this area and this will be addressed during the developing of the staging plan in sub-task 3.2.

Our Team will develop a staging plan and establish the Program Management Field Office for the property. As noted in our proposed Schedule, it could be as long as 12 months before the facility is completely prepared due to the procurement procedures to bring in Utilities. This may require the Program Management Team to be temporarily located and one option is the unused trailer located just inside the security gate by Rutherford Street.

PVSC will benefit from a true partner committed to the resiliency program and to helping it become a world-class utility, with access to AECOM and HDR leaders.

Program Management Training Workshop (Subtask 3.1)

Effective training will allow PVSC to realize the maximum return on their investment in Program Management and support effective staff engagement and collaboration as early as possible. Following the approval of the PMP, our Team will conduct a workshop for PVSC staff to provide an overview of the Program Management tools and processes being implemented. This Workshop will include training PVSC staff that would be using the Program

Management Tools. The Workshop will be led by the Program Manager and the Project Controls Lead. Additional instructors will be on hand to allow for small group breakout sessions to help ensure the appropriate staff has an understanding of the tools and can begin using them immediately. Our on-site staff will be available for assistance after the workshop is completed.

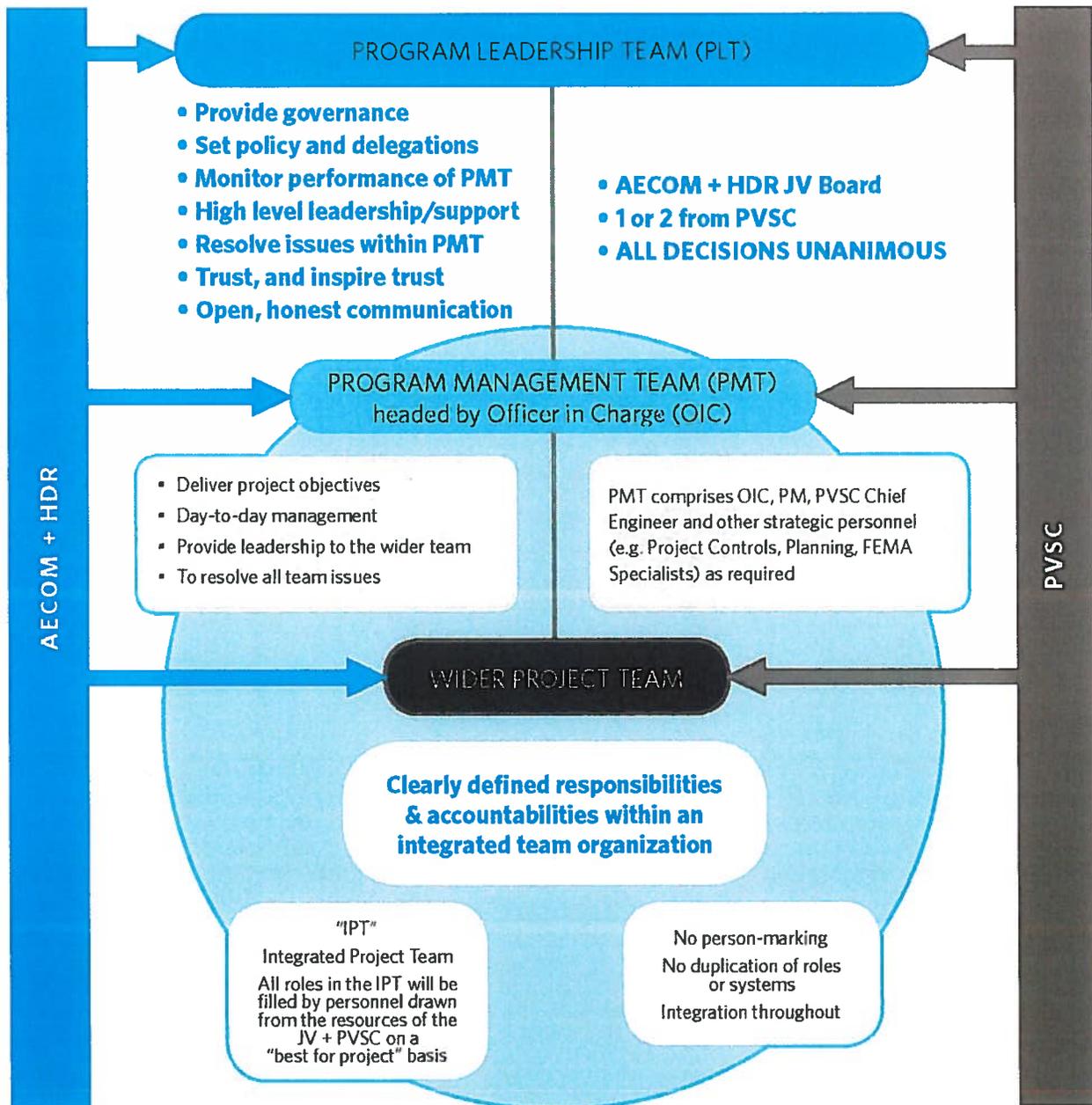
Organizational Structure

Integration of Our Team and the PVSC Organization

Our Team has built and will maintain a solutions-focused culture firmly fixed on the achievement of the program

and individual project goals, and partnering is critical to maintaining momentum. An effective and supportive program environment focused on solutions starts with strategic leadership and governance structure. Our proposed partnership with PVSC is structured to empower and support the team's performance at multiple levels, with appropriate levels of oversight and delegated authority. The graphic below illustrates this organizational structure, the roles and responsibilities and how the team will be integrated with the PVSC personnel. At every level, key Team staff will be on site working side by side with PVSC staff.

Integrated Team Roles and Responsibilities



The Program Leadership Team (PLT) will consist of representatives from our Team and PVSC Executives; our Team will be represented by the JV Board. It is common for Operations to be represented at the relevant time, thus the program may benefit from different PLT representatives as the program progresses. The PLT provides high level leadership and support, inspire trust and open and honest communication as well as providing governance.

The Program Management Team (PMT) will be headed by the Principal in Charge and should include the Program Manager, PVSC Chief Engineer and PVSC COO. The PMT is ultimately responsible for the day-to-day management of all aspects of the program. The PMT will implement the management and operational processes; deliver the work, meeting or exceeding the program objectives; measure, forecast and report to the PLT and provide leadership to the wider team. Other strategic personnel may join the PMT at critical junctures e.g. FEMA representative, Planning Specialist, etc.

The wider project team must have the skills and experience to effectively complete the roles; be totally accountable and understand how their role influences and drives the achievement of outstanding outcomes.



"Mr. Kinneen has demonstrated strong program and construction management (PM/CM) capabilities and a thorough understanding of the risks and challenges associated with the construction of large infrastructure projects."

Julie Labonte, PE, MS - San Francisco Water Power Sewer

Meetings and General Project Team Coordination (Subtask 3.8)

Communication is critical to overall program success. There will be many parties participating in the overall Program throughout the seven-year schedule. Meetings with the various parties will be instrumental to providing effective communication and each meeting must have a clear purpose and outcome, a leader who takes ownership of the meeting, and an efficient pace. The table below lists the meetings envisioned by PVSC in the RFP and the key PM Team lead.

Meeting Ownership

Meeting	Key Lead
Weekly executive coordination meetings	Program Manager - Steve Roberts
Design review meetings	Planning and Engineering Lead - Steve Biuso/Scott Davis
Pre-bid and Project kickoff meetings	Program Manager - Steve Roberts
Monthly Project Management meetings	Program Manager - Steve Roberts
Daily logistics meeting to coordinate shutdowns	Construction Management Lead - Steve Scaglione
Weekly health and safety meetings	Construction Management Lead - Steve Scaglione
Local and State stakeholder coordination	Stakeholder Coordination Lead - Carter Strickland

Ensuring the Quality and Timeliness of the Required Work Products

We understand that consistently high quality and timely delivery of work products is a major factor for Program success. We will develop and implement rigorous, clear and consistent Total Quality Approach, backed by complete procedures, to all work products through all phases of the Program. Quality begins with a complete understanding of the project goals and objectives throughout the organization as well as structured quality reviews. Our quality reviews will follow a Program Quality Management Plan (QMP) prepared by the Team and approved by PVSC. The QMP will facilitate sound decision-making by outlining personnel, key review milestones, content of quality reviews, and deliverables.

Our Team will assign technically qualified and experienced personnel to review the planned program of work. The Team will schedule quality review activities at key points in the schedule, including:

- Prior to finalizing the Project Management Plan;
- Prior to completing the Deliverables Report;
- Prior to submission of conceptual design report (30%, 90% and 100% design reviews);
- Prior to the completion of all contract documents, SOQs and RFPs;
- Prior to the completion of all O&M manuals and SOPs;
- Upon receipt of all Contractor submitted plans and schedules for logic, timeliness and constructability.

The QMP will be based on a programmatic process approach, supported by detailed implementation procedures, and designers and Contractors will be monitored on compliance with these procedures. The content and process of these reviews under the QMP will include a number of critical activities applied to design and construction as necessary:

- Proper application of codes, standards, and design criteria;
- Timeliness reviews and adherence to target dates and schedule activities;
- Ongoing oversight and supervision for accuracy, completeness and timeliness;
- Distribution of in-progress documents at defined intervals for quality review;
- Coordination among disciplines, designers and contractors;
- Verification of constructability, compatibility and consistency;
- Resolution and closure of in-progress review comments; and
- Consistency with MOPO targets.

PVSC will get the benefit of a programmatic approach to quality, consistent, high-quality designs, and adherence to the schedule. The system will be set up for optimization as we continuously improve our experiences and apply those lessons to future work through a formal, iterative process utilizing the PMIS system.



Developing a comprehensive, Program-specific Quality Plan was a key element in the early success of the Advanced Wastewater Treatment Program Management Services in Sacramento, CA.

Keeping PVSC Appraised of the Project Status

We will establish processes and systems to assure that PVSC is always timely and accurately informed. Importantly, we will rapidly develop Key Performance Indicators (KPIs) so that status can be measured against clear, agreed, performance goals and deviations can be quickly determined in order to correct performance going forward. The PMIS and its outputs - including the master

schedule linked to a master budget - will provide much of this information, and the program control system will thus map to the business processes and procedures so progress can be consistently analyzed, measured and reported.

One key outcome of initial meetings between our Team and PVSC will be to establish reporting procedures. Information will be uploaded to the master schedule and budget as close to real time as is possible and in accordance with PVSC's expectations, for example, daily for field reports or monthly for contractor progress updates. PVSC will be able to have information generated at any summary level desired, whether it be exception or periodic reports, forecasts or performance assessments. Formats will include:

1. Real time information by logging into PMIS
2. Daily, weekly and monthly reports printed and issued
3. Email (dashboard web parts attached for staff without PMIS license)
4. User friendly Dashboards with graphical information (with drill down capacity for senior management)
5. Portal website for disseminating information to the public

PVSC will have the benefit of a clear reporting plan that supports transparency, accountability and defensible decision-making.

Responding to Challenges as a Closely Integrated Team

Recognize that we and PVSC must operate as a tightly integrated team to successfully manage the Program. We are committed to fostering and developing superior teamwork based on trust and clear processes and procedures from beginning to end and to supporting that teamwork through best management practices. The key values of our management approach will be based on clear organization, processes and procedures that drive accountability and clarity. Every team member will thoroughly understand and commit to their agreed, defined roles and responsibilities and teamwork will be enhanced through thorough training, frequent meetings, reviews of program performance and partnering. Our approach to establishing and maintaining close collaboration and effective teamwork on the program is based on the following principles:

- Selecting the Best Team
- Setting Clear Goals, Objectives, Expectations
- Aligning Interests
- Providing Clear Implementation Processes and Procedures

- Establishing and Maintaining Effective Communications
- Applying Appropriate Technologies
- Resolving Disputes Rapidly
- Performing Sustained, Effective Monitoring

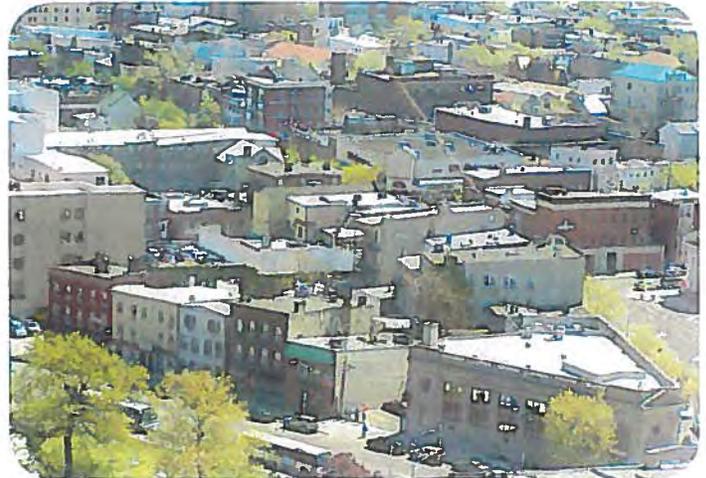
With a fully engaged team of dedicated professionals we expect and welcome differences of opinion. We believe that this is an indication of strength and will result in better projects and a better program. Our integration plan and team structure is set up to resolve disputes. We believe that full and open engagement of all team members in agreed roles, according to agreed processes, will continually build real teamwork of the highest order and enable all team members to deal rapidly and effectively with any challenge that arises. Above all, teamwork should rely on the principles of openness and mutual trust and the rapid resolution of issues and disputes as they arise. Our Team members have been selected, in part, because of their deep experience and excellent track record in dealing with very complex challenges while embedded with client organizations and we are confident that they bring team building and inter-personal skills of the highest order to the Program.

PVSC will benefit from buy-in from the neighboring community and other critical stakeholders.

Local and State Stakeholders Coordination and Public Outreach (Subtask 3.10)

Excellent, well-managed, stakeholder relations are essential to Program success. Our Team views stakeholder relations as an opportunity for PVSC to demonstrate its leadership in building tangible resiliency into its facility. In fact, the impacts of Sandy underscored that PVSC provides critical services to an entire North Jersey region. Our Team and approach will make the most of this opportunity for broadening specific and general support for PVSC's program, personnel, and infrastructure amongst all stakeholders. At the same time, our approach is mindful of the need to manage the downside risk of stakeholder relations that go off track. Complex capital improvement projects require the careful management of stakeholders to gain support and to avoid delays and operational issues. Sandy related projects will involve pressure to achieve results given that Sandy occurred more than two years ago.

Our Team understands these critical dynamics and has experience steering large capital programs through to completion in an intense media environment. Our approach will be to support PVSC with public information and relations for



Our Team's plan to engage stakeholders and local businesses will lead to program success.

key external stakeholders including local, state and federal elected officials, NJDEP, SHPO, federal agencies (EPA, HUD, FEMA), neighboring municipalities, especially Newark City Hall and Departments, haulers who use PVSC's services, press, community groups such as Ironbound Community Corporation, ratepayers, environmental groups (NY/NJ Baykeeper, Hackensack Riverkeeper), and involved staff from New Jersey's leading universities, including Rutgers, NJIT, and Stevens. We will engage in proactive communications with these groups on the overall program goals, structure, and schedule and, where appropriate, seek out their feedback on relevant issues. We propose an initial round of informal meetings with a small number of key stakeholders in the first 90 days in order to recommend to PVSC the members of the Citizen's Advisory Group.

To facilitate productive discussions, and to address inquiries proactively, our Team will develop a website with PVSC during the "quick start" process to provide essential program information in a transparent manner and with frequent updates on topics of interest, which might include short videos to efficiently transmit information and "humanize" the people and process involved in the resiliency project, interactive features to obtain feedback, and Citizen Advisory Group and public meeting materials (agendas before meetings, PowerPoints and minutes afterwards) as well as monthly updates on the progress of planning, design, and construction. Regarding the schedule, our approach will be to schedule and hold public meetings on a quarterly basis, in coordination with the Citizens Advisory Group. Our Team will support such meetings and any additional follow up meetings requested by press or other groups at PVSC's direction. In addition, the Team is prepared

to develop longer-term, “thought” pieces by key media using the PVSC projects as an example of proactive infrastructure investments to meet the challenges of climate change and resiliency during storms while achieving reliable service, environmental protection, and operational cost savings.

MBE/WBE Participation

As part of its program delivery and also stakeholder engagement plan, our Team will be a strong advocate for MBE and WBE firms in the overall Program. Both firms have a long history of successfully working together with MBE and WBE firms throughout the New York Metropolitan Area through work completed with clients in New York City, which has an active M/WBE program. In addition to M/WBE firms, our Team feels it is vitally important to encourage participation by Local Business Enterprises (LBE) and Small Business Enterprises (SBE) from PVSC’s member communities. This is an act of good faith back to the communities and encourages support of the Program and the agency by local politicians.

Some specific examples of how the Team will encourage participation by M/WBE, Local Businesses and Small Businesses are as follows:

- Develop an outreach program aimed at these types of firms. This outreach could include:
 - Events aimed at educating the firms on the Program and upcoming projects
 - Events aimed at introducing these types of firms to potential Prime Engineering firms
 - A Registration Database for firms to sign up to receive notices about upcoming potential projects.
- A set aside within the Program to pre-qualify these types of firms for some of the smaller projects in the Program. Only these pre-qualified firms would be allowed to propose on these set aside projects.
- As part of subtask 3.3, develop scoring criteria within the RFQ/RFP process to encourage participation by these types of firms.
- Projects funded by the NJEIT will include a requirement for M/WBE firms for Contractors as part of the Construction. Our Team will ensure these requirements are met by the Contractors as part of our CM Services.

Measuring Success

Our Team is successful only if PVSC is successful. It is critically important to periodically measure the conformance (or variance) of actual performance to goals as the work progresses so that management can learn from any performance shortfalls and rapidly identify corrective measures. We will work with PVSC in the first 90 days after award to establish and define performance goals and Key Performance Indicators (KPIs) for the initial phases of the work. These goals will be expanded to include successive phases of work as the program progresses. In general, performance goals should be **SMART** goals, that is, **S**pecific, **M**easurable, **A**greed, **R**ealistic, and **T**ime constrained. We will set up the PMIS to track, map and measure conformance to the agreed KPIs and periodically report conformance to PVSC. In addition to monitoring specific **performance** metrics, such as safety, budget, schedule, quality, etc., we will establish goals to measure specific **compliance** with the program processes and procedures by all participants over time. We will extract and perform root cause analysis of all non-conformances and recommend performance improvement measures and strategies so that lessons learned are applied and performance is constantly improved.

PVSC will benefit from an enduring program management structure that is built right from the start.

Commitment

PVSC is assured of the total and unreserved commitment of our firms to this assignment. Our commitment is that our Team members will be available 100% of the time that they are needed for PVSC.

We have carefully selected the most qualified persons from our companies to staff all proposed key program management positions as indicated on the Organization Chart provided with our Statement of Qualifications (SOQ) and also included in Appendix A of this proposal. Note that there are no changes to any Key Team Member from the SOQ. We have verified that none of our named Key Team Members have other anticipated commitments that would

conflict with their PVSC assignments and these personnel have committed to mobilizing immediately for PVSC work upon request.

As part of our Team’s RFQ submission, we accurately estimated the expected average work commitments of team members over the life of the program, based on a typical Scope of Services for the anticipated Program Management Services to provide PVSC a realistic expectation for the level of effort that may be required. The Staffing Analysis for this Proposal has been developed specifically for the Scope of Services in the RFP to most efficiently provide the services required. A summary of the assumptions for Key Team Members was presented in Section 2 - Technical Approach, under the Staffing Analysis section. Our companies warrant the availability and commitment of all named resources to

PVSC according to the time commitments documented in this proposal, should our proposal be accepted. Should PVSC desire to use any Key Team Member for additional roles or time, our Team is committed to making them available.

Each firm has a long standing relationship with PVSC and our Team has a vested interest to see this Program through to its successful completion.

In the event that a key person becomes unavailable during the progress of the work, our combined company resources of more than 100,000 staff, with 2,000 technical staff in the NY/NJ area (with a wealth of PVSC project experience) will enable us to promptly and adequately provide equally qualified personnel who can integrate seamlessly with the program team. We will not replace staff, however, without PVSC approval.

We are very excited by this opportunity and are personally committed to PVSC to delivering Team resources necessary for the timely and successful completion of this Program.



Joseph Frissora

**Joseph Frissora, PE
Vice President
Area Water Manager**

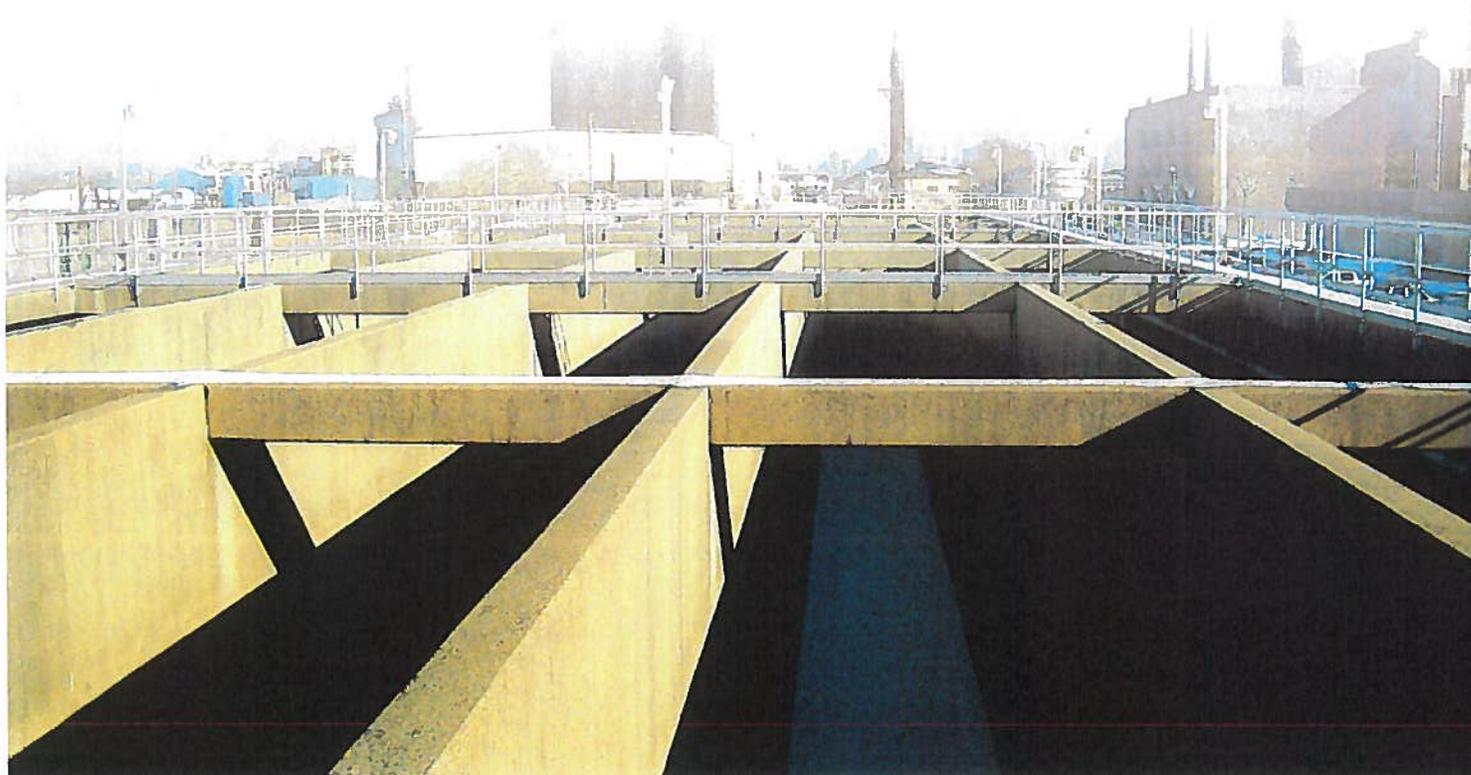


David A. Blair

**David A. Blair, PE
Vice President, Water**

SECTION 4

Attachment B Acknowledgement of Receipt of Clarifications



ATTACHMENT B

ACKNOWLEDGEMENT OF RECEIPT OF CLARIFICATIONS

The undersigned Respondent hereby acknowledges receipt of the following clarifications to the RFP. By indicating date of receipt, Respondent acknowledges the submitted proposal takes into account the provisions of the issued clarification. Note that PVSC's record of clarification issued shall take precedence and that failure to include provisions of changes in proposal may be submit for rejection of the proposal.

**PROFESSIONAL SERVICES FOR
PROGRAM MANAGEMENT SERVICES**

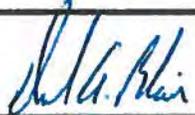
Directions: Complete Part I or Part II, whichever is applicable

PART I: LISTED BELOW ARE THE DATES OF ISSUE FOR EACH CLARIFICATION RECEIVED IN CONNECTION WITH THIS REQUEST FOR PROPOSAL:

CLARIFICATION #1, DATED	December 24	,	2014
CLARIFICATION #2, DATED	December 30	,	2014
CLARIFICATION #3, DATED	January 5	,	2015
CLARIFICATION #4, DATED		,	

PART II: NO CLARIFICATION WAS RECEIVED IN CONNECTION WITH THIS REQUEST FOR PROPOSAL.

DATE: January 16, 2015

NAME David A. Blair, PE **SIGNATURE** 

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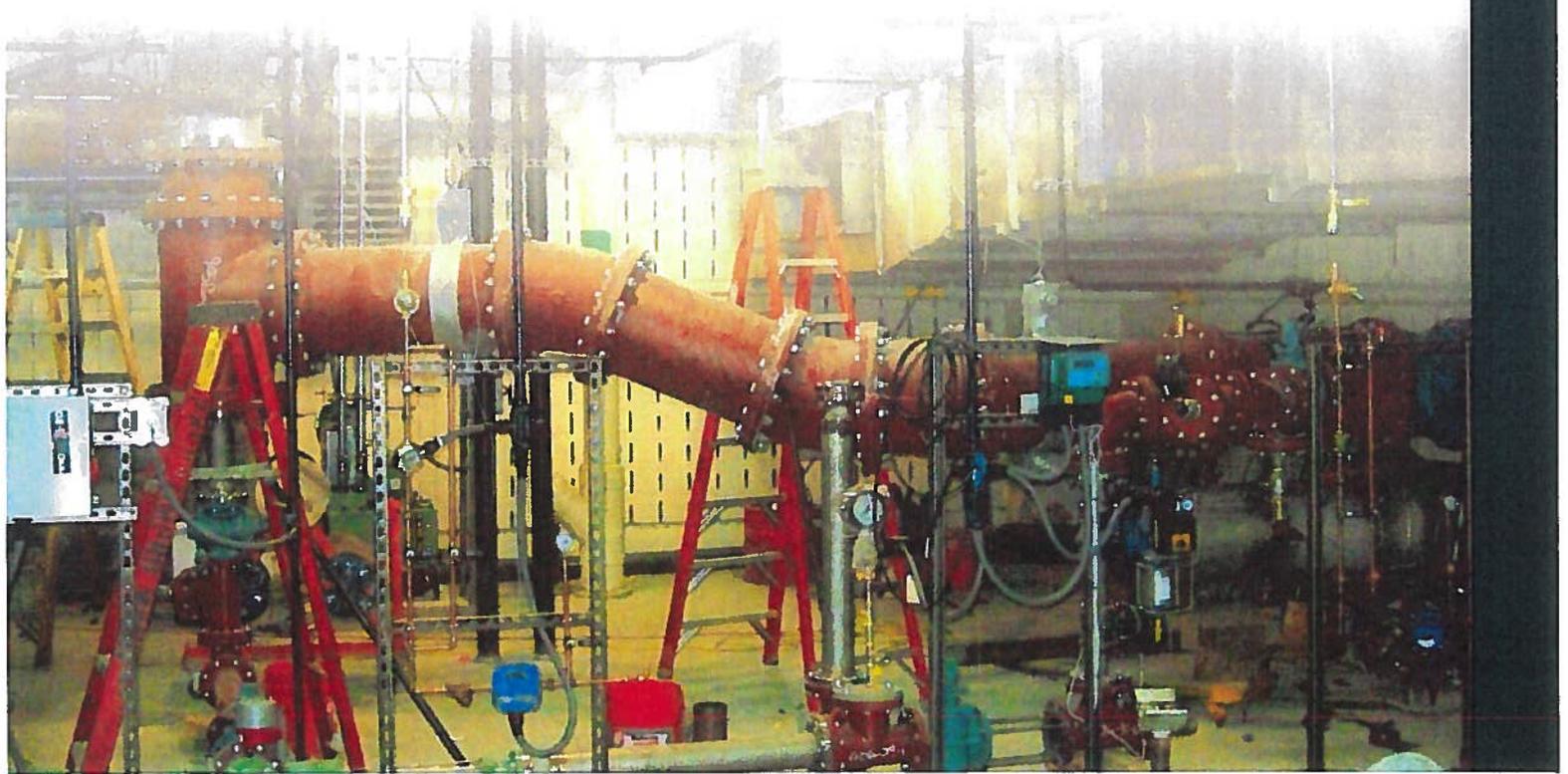
PART II: NO CLARIFICATION WAS RECEIVED IN CONNECTION WITH THIS REQUEST FOR PROPOSAL.

DATE: January 16, 2015

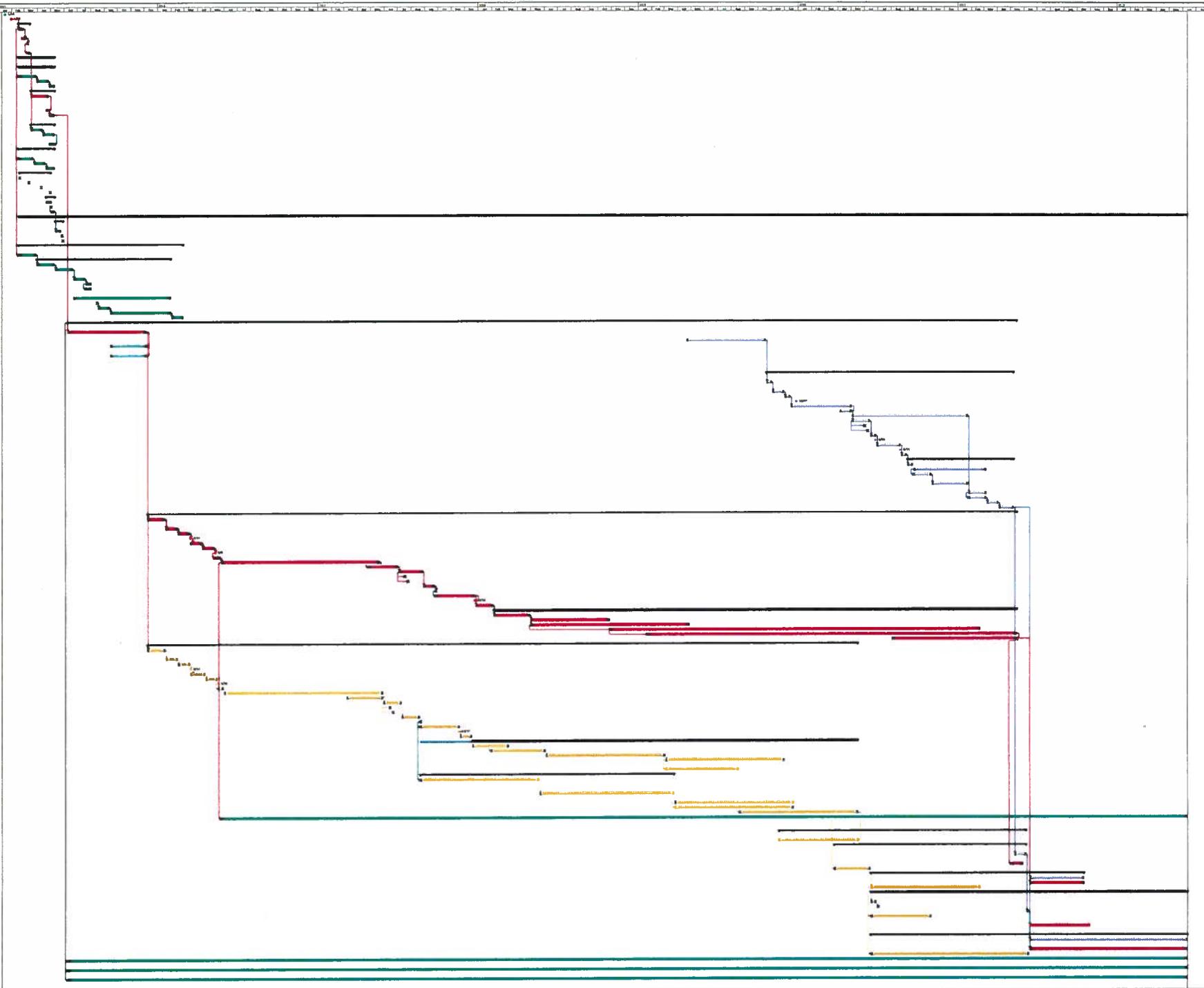
NAME Thomas McLaughlin, PE SIGNATURE 

SECTION 5

Schedule



Task	Start	End	Duration	Task	Start	End	Duration
Project Initiation	1/1/2010	1/1/2010	1	Project Initiation	1/1/2010	1/1/2010	1
Project Charter	1/1/2010	1/1/2010	1	Project Charter	1/1/2010	1/1/2010	1
Project Management Plan	1/1/2010	1/1/2010	1	Project Management Plan	1/1/2010	1/1/2010	1
Scope Management	1/1/2010	1/1/2010	1	Scope Management	1/1/2010	1/1/2010	1
Requirements Management	1/1/2010	1/1/2010	1	Requirements Management	1/1/2010	1/1/2010	1
Work Breakdown Structure	1/1/2010	1/1/2010	1	Work Breakdown Structure	1/1/2010	1/1/2010	1
Resource Management	1/1/2010	1/1/2010	1	Resource Management	1/1/2010	1/1/2010	1
Risk Management	1/1/2010	1/1/2010	1	Risk Management	1/1/2010	1/1/2010	1
Procurement Management	1/1/2010	1/1/2010	1	Procurement Management	1/1/2010	1/1/2010	1
Quality Management	1/1/2010	1/1/2010	1	Quality Management	1/1/2010	1/1/2010	1
Communication Management	1/1/2010	1/1/2010	1	Communication Management	1/1/2010	1/1/2010	1
Stakeholder Management	1/1/2010	1/1/2010	1	Stakeholder Management	1/1/2010	1/1/2010	1
Team Management	1/1/2010	1/1/2010	1	Team Management	1/1/2010	1/1/2010	1
Contract Management	1/1/2010	1/1/2010	1	Contract Management	1/1/2010	1/1/2010	1
Integration Management	1/1/2010	1/1/2010	1	Integration Management	1/1/2010	1/1/2010	1
Change Management	1/1/2010	1/1/2010	1	Change Management	1/1/2010	1/1/2010	1
Configuration Management	1/1/2010	1/1/2010	1	Configuration Management	1/1/2010	1/1/2010	1
Performance Management	1/1/2010	1/1/2010	1	Performance Management	1/1/2010	1/1/2010	1
Financial Management	1/1/2010	1/1/2010	1	Financial Management	1/1/2010	1/1/2010	1
Human Resource Management	1/1/2010	1/1/2010	1	Human Resource Management	1/1/2010	1/1/2010	1
Information Management	1/1/2010	1/1/2010	1	Information Management	1/1/2010	1/1/2010	1
Project Closeout	1/1/2010	1/1/2010	1	Project Closeout	1/1/2010	1/1/2010	1



SECTION 6

Attachment C Summary of Total Man Days Estimate



ATTACHMENT C

SUMMARY OF TOTAL MAN DAYS ESTIMATE

Description of Work	Estimate of Mandays														
	TITLE	Principal	Program Manager	Program Controls Manager	Project Controls - Field	Clerical - Field	FEMA Specialist	Planning & Engineering	Project Managers	Construction Support	Technical Leader II	Project Engineer II	Project Engineer I	Clerical - Office	CADD
	STAFF NAME	John Kinnean	Steve Roberts	VT Madhavan	Note 3	Note 3	James Dedes	Steve Bluso / Scott Davis	Note 2	Steve Scaglione / Robert Pape	Note 3	Note 3	Note 3	Note 3	Note 3
HOURLY RATE	\$250.00	\$215.00	\$215.00	\$120.00	\$50.00	\$195.00	\$190.00	\$150.00	\$195.00	\$175.00	\$150.00	\$125.00	\$70.00	\$90.00	
Task 1 - Document Review															
1.1 Review Studies and Reports	2	6	0	2	0	0	8	9	0	0	13	0	0	0	
SUBTOTALS	2	6	0	2	0	0	8	9	0	0	13	0	0	0	
Task 2 - Program Development															
2.1 Program Management Plan (PMP)	17	24	4	4	0	0	0	16	14	0	0	0	0	0	
2.2 Program Scope	1	14	0	0	0	15	30	18	8	25	19	0	0	2	
2.3 Schedule and Budget	3	6	16	2	0	0	20	12	0	0	0	0	0	0	
2.4 Information Management and Document Control System	3	3	28	40	0	1	2	1	3	1	0	0	0	0	
2.5 Meetings	4	4	4	0	0	0	4	0	0	0	0	0	0	0	
2.6 Deliverables	2	33	8	0	0	0	18	8	10	0	6	0	0	0	
SUBTOTALS	30	84	60	46	0	16	74	55	35	26	25	0	0	2	
Task 3 - Implementation															
3.1 Program Management Training/Workshops	3	5	12	10	6	0	0	0	0	0	0	0	0	0	
3.2 Staging Plan and Program Field Office	6	37	0	13	60	0	0	55	1	8	0	7	0	15	
3.3 Developmental Services	0	216	0	280	286	0	410	345	40	288	336	588	120	161	
3.4 Project Management of Design Professionals and Contractors	5	763	0	600	150	0	310	80	120	0	0	0	0	0	
3.5 Commissioning, Startup, Testing and Training	1	45	0	13	0	0	20	16	45	12	17	0	0	0	
3.6 Project Closeout	3	90	0	30	0	0	36	13	15	8	10	0	0	0	
3.7 Post Construction Assistance	0	69	0	15	0	0	50	13	13	6	12	0	0	0	
3.8 Meetings and General Project Team Coordination	110	280	48	200	120	0	90	0	0	0	0	0	350	0	
3.9 Funding and FEMA Reimbursement	0	0	0	0	60	240	18	6	0	0	0	0	0	0	
3.10 Local and State Stakeholder Coordination and Public Outreach	28	28	0	0	14	0	0	0	0	0	80	0	42	0	
SUBTOTALS	156	1533	60	1161	696	240	934	528	234	302	455	595	512	176	
														TOTAL MANDAY ESTIMATE	8075

Note: Insert additional proposed staff to meet Scope of Services as outlined in RFP.

- Notes:
- Rates shown above for multiple staff are blended rates
 - Project Managers include: Gabriel Moore, Mark Wiltanen, Lina Posso, Sri Gorugantula, John Bianco
 - Staff positions not identified in SOQ required to complete Scope of Services. Position to be filled by qualified staff from either AECOM or HDR subject to approval by PVSC.

SECTION 7

Attachment D Summary of Total Project Cost



SUMMARY OF TOTAL PROJECT COST

Description of Work	Estimate of Labor Costs														
	TITLE	Principal	Program Manager	Program Controls Manager	Project Controls - Field	Clerical - Field	FEMA Specialist	Planning & Engineering	Project Managers	Construction Support	Technical Leader II	Project Engineer II	Project Engineer I	Clerical - Office	CADD
	STAFF NAME	John Kinneen	Steve Roberts	VT Madhavan	Note 4	Note 4	James Dedes	Steve Bluso / Scott Davis	Note 3	Steve Scaglione / Robert Pape	Note 4	Note 4	Note 4	Note 4	Note 4
HOURLY RATE	\$250.00	\$215.00	\$215.00	\$120.00	\$50.00	\$195.00	\$190.00	\$150.00	\$195.00	\$175.00	\$150.00	\$125.00	\$70.00	\$90.00	
Task 1 - Document Review															
1.1 Review Studies and Reports	\$ 4,000	\$ 10,320	\$ -	\$ 1,920	\$ -	\$ -	\$ 12,160	\$ 10,800	\$ -	\$ -	\$ 15,600	\$ -	\$ -	\$ -	
SUBTOTALS	\$ 4,000	\$ 10,320	\$ -	\$ 1,920	\$ -	\$ -	\$ 12,160	\$ 10,800	\$ -	\$ -	\$ 15,600	\$ -	\$ -	\$ -	
Task 2 - Program Development															
2.1 Program Management Plan (PMP)	\$ 34,000	\$ 41,280	\$ 6,880	\$ 3,840	\$ -	\$ -	\$ -	\$ 19,200	\$ 21,840	\$ -	\$ -	\$ -	\$ -	\$ -	
2.2 Program Scope	\$ 2,000	\$ 24,080	\$ -	\$ -	\$ -	\$ 23,400	\$ 45,600	\$ 21,600	\$ 12,480	\$ 35,000	\$ 22,800	\$ -	\$ -	\$ 1,440	
2.3 Schedule and Budget	\$ 6,000	\$ 10,320	\$ 27,520	\$ 1,920	\$ -	\$ -	\$ 30,400	\$ 14,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2.4 Information Management and Document Control System	\$ 6,000	\$ 5,160	\$ 48,160	\$ 38,400	\$ -	\$ 1,560	\$ 3,040	\$ 1,200	\$ 4,680	\$ 1,400	\$ -	\$ -	\$ -	\$ -	
2.5 Meetings	\$ 8,000	\$ 6,880	\$ 6,880	\$ -	\$ -	\$ -	\$ 6,080	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2.6 Deliverables	\$ 4,000	\$ 56,760	\$ 13,760	\$ -	\$ -	\$ -	\$ 27,360	\$ 9,600	\$ 15,600	\$ -	\$ 7,200	\$ -	\$ -	\$ -	
SUBTOTALS	\$ 60,000	\$ 144,480	\$ 103,200	\$ 44,160	\$ -	\$ 24,960	\$ 112,480	\$ 66,000	\$ 54,600	\$ 36,400	\$ 30,000	\$ -	\$ -	\$ 1,440	
Task 3 - Implementation															
3.1 Program Management Training/Workshops	\$ 6,000	\$ 8,600	\$ 20,640	\$ 9,600	\$ 2,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.2 Staging Plan and Program Field Office	\$ 12,000	\$ 63,640	\$ -	\$ 12,480	\$ 24,000	\$ -	\$ -	\$ 66,000	\$ 1,560	\$ 11,200	\$ -	\$ 7,000	\$ -	\$ 10,800	
3.3 Developmental Services	\$ -	\$ 376,745	\$ -	\$ 272,688	\$ 116,385	\$ -	\$ 632,819	\$ 422,748	\$ 63,190	\$ 382,996	\$ 411,098	\$ 600,302	\$ 68,334	\$ 117,378	
3.4 Project Management of Design Professionals and Contractors	\$ 10,506	\$ 1,378,798	\$ -	\$ 605,160	\$ 63,038	\$ -	\$ 495,055	\$ 100,860	\$ 196,677	\$ -	\$ -	\$ -	\$ -	\$ -	
3.5 Commissioning, Startup, Testing and Training	\$ 2,101	\$ 81,318	\$ -	\$ 13,112	\$ -	\$ -	\$ 31,939	\$ 20,172	\$ 73,754	\$ 17,651	\$ 21,433	\$ -	\$ -	\$ -	
3.6 Project Closeout	\$ 6,304	\$ 162,637	\$ -	\$ 30,258	\$ -	\$ -	\$ 57,490	\$ 16,390	\$ 24,585	\$ 11,767	\$ 12,608	\$ -	\$ -	\$ -	
3.7 Post Construction Assistance	\$ -	\$ 124,688	\$ -	\$ 15,129	\$ -	\$ -	\$ 79,848	\$ 16,390	\$ 21,307	\$ 8,825	\$ 15,129	\$ -	\$ -	\$ -	
3.8 Meetings and General Project Team Coordination	\$ 231,138	\$ 505,981	\$ 86,740	\$ 201,720	\$ 50,430	\$ -	\$ 143,726	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 205,923	\$ -	
3.9 Funding and FEMA Reimbursement	\$ -	\$ -	\$ -	\$ -	\$ 25,215	\$ 393,354	\$ 28,745	\$ 7,565	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.10 Local and State Stakeholder Coordination and Public Outreach	\$ 58,835	\$ 50,598	\$ -	\$ -	\$ 5,884	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,860	\$ -	\$ 24,711	\$ -	
SUBTOTALS	\$ 326,884	\$ 2,753,005	\$ 107,380	\$ 1,160,147	\$ 287,351	\$ 393,354	\$ 1,469,621	\$ 650,124	\$ 381,072	\$ 432,439	\$ 561,127	\$ 607,302	\$ 298,967	\$ 128,178	
TOTAL LABOR COST														\$ 10,289,469	

Note: Insert additional proposed staff to meet Scope of Services as outlined in RFP.

PRICING NOTES:

- Rates shown above for multiple staff are blended rates
- Escalation factors have been included for all tasks that extend beyond 2016
- Project Managers Include: Gabriel Moore, Mark Wiltanen, Lina Posso, Sri Gorugantula, John Bianco
- Staff positions not identified in SOQ required to complete Scope of Services. Position to be filled by qualified staff from either AECOM or HDR subject to approval by PVSC.

Summary of Costs	
Description	Cost
Task 1 - Document Review	\$54,800
Task 2 - Program Development	\$677,720
Task 3 - Implementation	\$9,556,949
Task 4 - Other Direct Costs and Out-of-Pocket Expenses	\$50,000
Task 5 - Information Document Management System	\$500,000
Task 6 - Administration of PVSC Funding Requirements	\$40,000
Task 7 - Speciality Consultant Allowance	\$100,000
TOTAL PROJECT COST	\$10,979,469

SECTION 8

Rate Sheets



AECOM+HDR JOINT VENTURE RATE SHEET

CORE PROJECT TEAM ⁽¹⁾		
ROLE	NAME	Proposed Billing Rate
Principal-In-Charge	Kinneen	\$ 250.00
Program Manager	Roberts	\$ 215.00
Program Controls - Fast Start	Madhavan ⁽²⁾	\$ 215.00
FEMA	Dedes	\$ 195.00
Planning and Engineering Lead	Biuso	\$ 195.00
Planning and Engineering Deputy	Davis	\$ 180.00
Project Managers	Bianco	\$ 250.00
	Gorugantula	\$ 190.00
	Witatanen	\$ 230.00
	Moore	\$ 160.00
	Posso	\$ 140.00
Construction Manager Lead	Scaglione	\$ 250.00
Commissioning/Startup	Pape	\$ 165.00

NOTES:

⁽¹⁾ Rates are 2015 rates and good through 2016. As per Clarification No. 1, Annual rate adjustments should not be greater than the "Engineer's Pay Index of the U.S. Bureau of Labor Statistics - Employment Cost Index ("ECI") for Professional Specialty and Technical Workers Wages and Salaries" or 3% per year whichever is less.

⁽²⁾ Rate shown is a field rate for first 90 days and assumed to be in field.

SUPPORT TEAM ⁽¹⁾	
ROLE	Proposed Billing Rate
Program Advisors	\$ 250.00
Project Controls - Field	\$ 120.00
Senior Project Controls - Field	\$ 160.00
Senior Project Manager	\$ 185.00
Project Manager II	\$ 160.00
Project Manager I	\$ 140.00
Principal Engineer III	\$ 250.00
Principal Engineer II	\$ 230.00
Principal Engineer I	\$ 210.00
Project Engineer III	\$ 185.00
Project Engineer II	\$ 150.00
Project Engineer I	\$ 125.00
Technical Leader III	\$ 195.00
Technical Leader II	\$ 175.00
Technical Leader I	\$ 160.00
Engineer IV	\$ 130.00
Engineer III	\$ 115.00
Engineer II	\$ 100.00
Engineer I	\$ 90.00
Senior Scientist/Environmental	\$ 175.00
Scientist/Environmental II	\$ 120.00
Scientist/Environmental I	\$ 95.00
Senior Construction Manager	\$ 170.00
Construction Manager II	\$ 140.00
Construction Manager I	\$ 120.00
Resident Engineer III	\$ 140.00
Resident Engineer II	\$ 125.00
Resident Engineer I	\$ 95.00
Senior Inspector	\$ 85.00
Inspector II	\$ 75.00
Inspector I	\$ 65.00
Senior CADD Technician	\$ 150.00
CADD Technician II	\$ 120.00
CADD Technician I	\$ 90.00
CADD Drafter	\$ 70.00
IT Analyst	\$ 125.00
Senior Accountant	\$ 100.00
Accountant II	\$ 90.00
Accountant I	\$ 80.00
Senior Admin	\$ 90.00
Admin/Clerical	\$ 70.00
Admin/Clerical - Field	\$ 50.00

APPENDIX A

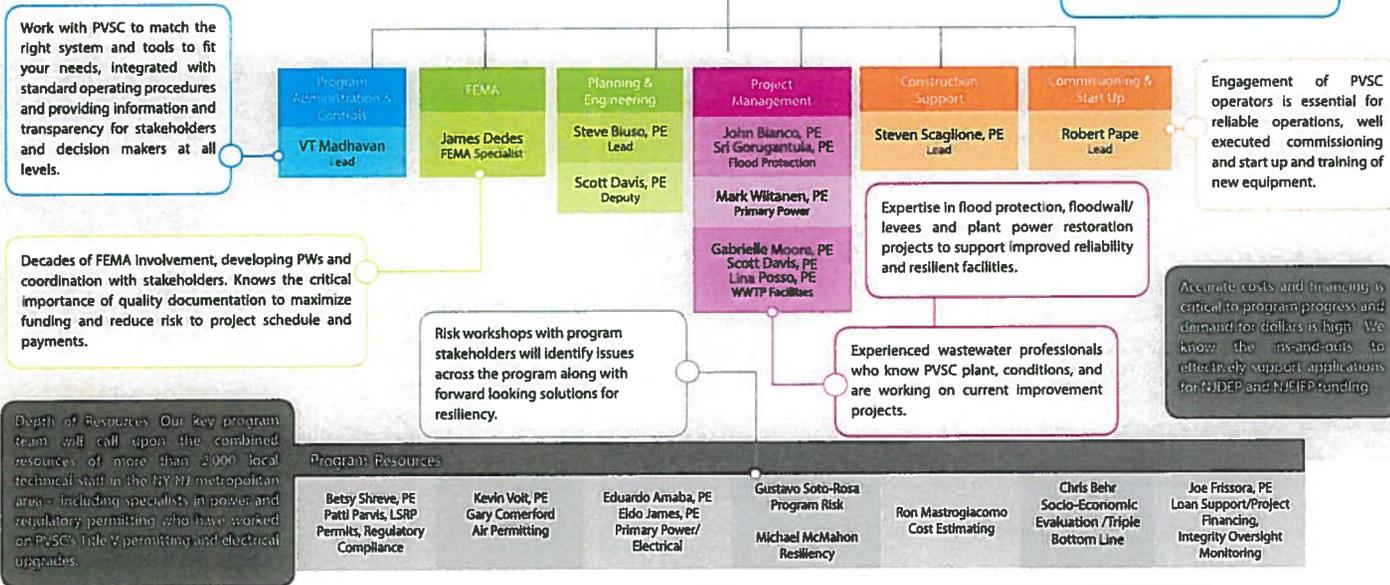
Organizational Chart Draft PMP Table of Contents



Key Lead Team Members

AECOM+HDR JV Team: Global program management expertise, technical knowledge and a local presence to respond quickly.

Organized to efficiently oversee design and delivery of reliable and resilient operations, working side-by-side with PVSC on solutions that protect water quality and service for years to come.



Backed by program experts...

Selected for their large plant, large capital program knowledge and innovative thinking and solutions in treatment, power, flood control, and economics, this panel of advisors will bring value to critical planning activities and throughout the program.

Bo Bodniewicz - Facilities
Program manager for the \$1 billion CIP at DC Water Blue Plains AWTP with a broad background in capital wastewater treatment projects, nitrogen removal processes and technologies. Bo has been instrumental in supporting the development of AECOM+HDR's PVSC program approach.

Duane Gapinski - Flood Control
Understands FEMA flood control accreditation process and brings extensive risk management experience.

David Clark - Wastewater Programs
Extensive wastewater collection and treatment expertise, background in water quality planning and nutrient management.

Alexander Quinn & Chris Behr - Socio-Economic Evaluation/Triple Bottom Line
Expertise in industry-leading triple bottom line assessment, life cycle analysis, public finance strategies, and economic impact analyses.

William Tuccillo - Electrical
Expertise in design and review of New York/New Jersey metropolitan electrical substations, in-plant generation systems, and power distribution systems for industrial and municipal clients.

PROPOSED PM TEAM

Our Team brings together the qualifications, experience and strengths of two of the nation's leading water industry engineering and wastewater program management companies. Our proposed key lead team members have been hand-picked to meet your criteria. Your program will benefit from their wealth of relevant prior experience on world-class programs, and a proven ability to work successfully with owners and public agencies on the delivery of comparable projects and programs under all conditions.

All of our proposed staff are available immediately to perform the key tasks required to successfully deliver the planned repairs.

The Top Program Management Team
The PVSC program team will be led by Principal-in-Charge John Kinneen. John has successfully managed the delivery of more than \$10 billion in projects (domestic and overseas) at a senior management/executive level. In partnership with him is Steve Roberts, Program Manager. Steve will lead the program start up and mobilization to establish processes tailored to the execution and delivery of such a complex program. In collaboration with PVSC and consultants and stakeholders, Steve will provide leadership across critical program-building activities setting in place the goals, governance, program procedures, and creating standards for streamlined task delivery at the highest quality.

We are confident that our Team has the collective knowledge and experience needed to:

- Maximize FEMA recovery and design for additional revenue opportunities.
- Administer the restoration so that PVSC staff can focus on operations and regulatory obligations as well as other capital projects.
- Restore the plant to a reliable state of operation.
- Do it right the first time and plan for future technology.
- Minimize rate payers and environmental impacts.
- Bring state-of-the-art legacy systems that will remain in place for future programs, long after this resiliency program is completed.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

1.0 INTRODUCTION

- 1.1 Overview
- 1.2 Purpose
- 1.3 Program Description, Structure and Philosophy
- 1.3 Using the Program Management Plan (PMP)
 - 1.3.1 Program Management Plan
 - 1.3.2 Project Management Plans
- 1.4 Future Development of the PMP

2.0 PROGRAM MANAGEMENT SERVICES

- 2.1 Overview
- 2.2 Purpose
- 2.3 Roles and Responsibilities
- 2.4 Integrated Working, Team Charter and Vision
- 2.5 PVSC Program Challenges and Guiding Principles
 - 2.5.1 Challenges
 - 2.5.2 Guiding Principles
- 2.6 Program Goals
- 2.7 Master Program Schedule
 - 2.7.1 Program Phasing and Key Milestones
 - 2.7.2 Program Constraints

3.0 PROGRAM RESOURCING, STAFFING AND ORGANIZATIONAL STRUCTURE

- 3.1 PVSC Management, Support, Roles and Responsibilities
 - 3.1.1 Executive Level Organization
 - 3.1.2 Program Level
 - 3.1.3 Project Level
 - 3.1.4 Regulatory Compliance
- 3.2 AECOM+HDR JV Management, Support, Roles and Responsibilities
 - 3.2.1 JV Board Level Organization
 - 3.2.2 Program Level
 - 3.2.3 Project Level
- 3.3 Integrated Team Structure
 - 3.3.1 Integrated Team Roles and Responsibilities
 - 3.3.1.1 Program Leadership Team (PLT)
 - 3.3.1.2 Program Management Team (PMT)
 - 3.3.1.3 Wider Program and Project Teams
 - 3.3.1.4 Key Stakeholders
 - 3.3.2 Measuring Success

4.0 PROGRAM DEVELOPMENT AND APPROVAL

- 4.1 Overview
- 4.2 Purpose
- 4.3 Roles and Responsibilities
- 4.4 Program Validation and Assessment
- 4.5 Programmatic Support Tasks

5.0 PROGRAM BUDGET AND FINANCIAL MANAGEMENT PLAN

- 5.1 Overview
- 5.2 Purpose
- 5.3 Roles and Responsibilities
- 5.4 Program Financial Policies and Controls
- 5.5 Program Budget and Costs
- 5.6 Definitions and Glossary of Financial Terms
- 5.7 FEMA Reimbursement Plan and Appropriation Process
- 5.8 FEMA Audit Protocols and Controls
- 5.9 State Audit Protocols and Controls

6.0 PROGRAM CONTROLS

- 6.1 Overview
- 6.2 Purpose
- 6.3 Project Controls Activities
- 6.4 Roles and Responsibilities
- 6.5 Work Breakdown Structure
- 6.6 Scope Management
- 6.6 Schedule Management
- 6.7 Cost Management
- 6.8 Change Management
 - 6.8.1 Change Management Policy
 - 6.8.2 Change Management Strategy and Objectives
- 6.9 Program Reports and Reviews
 - 6.9.1 Monthly Program/Project Management and Schedule Updates/Reviews/Forecasts
 - 6.9.2 Weekly Executive Coordination Meetings
 - 6.9.3 Stakeholder Coordination Meetings
 - 6.9.4 Reports
 - 6.9.5 Reports Log
 - 6.9.6 Reporting and Meeting Procedures
- 6.10 Systems and Tools
 - 6.10.1 Electronic Program Management Information System
 - 6.10.2 Primavera P6 Software
 - 6.10.3 Program Financial and Performance Audit
 - 6.10.4 SharePoint

7.0 QUALITY MANAGEMENT

- 7.1 Overview
- 7.2 Purpose
- 7.3 Roles and Responsibilities
- 7.4 PVSC Quality Assurance
- 7.5 Program/Project Quality Assurance and Control
 - 7.5.1 Quality Control Guidelines
 - 7.5.2 Quality Audits
- 7.6 Program Quality Management Plan (see separate Quality Management Plan document)
- 7.7 Design Reviews and Workshops
- 7.8 Constructability Reviews and Workshops
- 7.9 Value Engineering
- 7.10 Contract Conditions, General Specifications and Technical Standards
- 7.11 SOQ's and RFP's – Bidability Reviews
- 7.12 Drawing Control
- 7.13 Construction Managers Quality Management Plan

8.0 ENGINEERING AND DESIGN

- 8.1 Overview

- 8.2 Purpose
- 8.3 Roles and Responsibilities
- 8.4 Program Wide Requirements
- 8.5 Project Specific Engineering and Design
 - 8.5.1 Alternatives Analysis
 - 8.5.2 Design Report
 - 8.5.3 Detail Design
 - 8.5.4 Specialist Equipment and Long Lead Items
- 8.6 Quality Assurance Program
 - 8.6.1 Project Management Plan
 - 8.6.2 Project Quality Assurance (QA) Plan
- 9.0 DOCUMENT MANAGEMENT AND CONTROL**
 - 9.1 Overview
 - 9.2 Purpose
 - 9.3 Roles and Responsibilities
 - 9.4 Document Control Process Procedures
 - 9.5 Records Management
 - 9.6 PMIS System Interface and Electronic Document Management
 - 9.7 Records Retention and Archives
 - 9.8 Photographic and Digital Images
 - 9.9 Systems, Software and Tools
- 10.0 ENVIRONMENTAL MANAGEMENT, COMPLIANCE, AND PERMITTING**
 - 10.1 Overview
 - 10.2 Purpose
 - 10.3 Roles and Responsibilities
 - 10.4 Existing Permits Log
 - 10.5 Regulatory Agency Permits and Approvals
 - 10.6 Regulatory Compliance Schedule
 - 10.7 Approach to Permitting - Federal, NJ State and Local
 - 10.8 Approach to Stakeholder Participation
 - 10.9 Permit Management Strategy
- 11.0 HEALTH AND SAFETY**
 - 11.1 Overview
 - 11.2 Purpose
 - 11.3 Roles and Responsibilities - Safety Organization Chart
 - 11.4 Safety in Design
 - 11.5 Safety in Facility / Site Assessments
 - 11.5.1 New to Job Training
 - 11.5.2 Specialized Training
 - 11.6 Health and Safety in Construction
 - 11.7 Emergency Action Plan
 - 11.8 H&S Audits
- 12.0 RISK MANAGEMENT**
 - 12.1 Overview
 - 12.2 Purpose
 - 12.3 Roles and Responsibilities
 - 12.4 Program Risks - identification, analysis, planning and monitoring
 - 12.5 Project Risks - identification, analysis, planning and monitoring
 - 12.6 Insurance Requirements
 - 12.7 Systems and Tools
 - 12.8 Risk Registers
 - 12.9 Dispute Review Board

13.0 CONTRACTS AND PROCUREMENT

- 13.1 Overview
- 13.2 Purpose
- 13.3 Roles and Responsibilities
- 13.4 Program Management Services
- 13.5 Professional Services Contracting
- 13.6 As-Needed Contracts
- 13.7 Construction Contracts

14.0 COMMUNICATIONS MANAGEMENT

- 14.1 Overview
- 14.2 Purpose
- 14.3 Roles and Responsibilities
- 14.4 Internal and External PVSC Communications
- 14.5 Internal and External Program Team Communications
- 14.6 Integrated Team Communications
- 14.7 Document Management
- 14.8 Small Business Outreach Strategy
- 14.9 Key Stakeholder Groups and Communications
- 14.10 Technical Agencies Coordination
- 14.11 Program Messages
- 14.12 Public Outreach Communication Program

15.0 Public Information and Stakeholder Management

- 15.1 Overview
- 15.2 Purpose
- 15.3 Roles and Responsibilities
- 15.4 Key Public and Stakeholder Groups (see also Section 14.0)
- 15.5 Public Information Website
- 15.6 Public Outreach Program

16.0 SECURITY

- 16.1 Overview
- 16.2 Purpose
- 16.3 Roles and Responsibilities
- 16.4 Program Wide Plant Security Requirements
 - 16.4.1 Program Wide
 - 16.4.2 Project Specific
- 16.5 References

17.0 CONSTRUCTION MANAGEMENT

- 17.1 Overview
- 17.2 Purpose
- 17.3 Roles and Responsibilities
- 17.4 Program Wide Requirements

18.0 INTEGRITY OVERSIGHT MONITORING PLAN**19.0 GLOSSARY OF TERMS AND DEFINITIONS**