



Final

**Addendum 1
Sampling and Analysis Plan
(Field Sampling Plan and Quality Assurance
Project Plan)**

to

**Final Performance Monitoring and Sampling and
Analysis Plan**

OU1 and OU2A Groundwater Remedy

Former Marine Corps Air Station
El Toro, California

October 2008

Prepared for

Department of the Navy
Base Realignment and Closure
Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92108-4310

Prepared under

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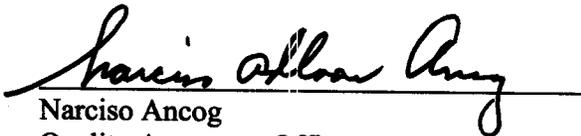


Emma P. Popek, Ph.D.
Program Quality Control Manager
Weston Solutions, Inc.

October 21, 2008

Date

Approved by:



Narciso Ancog
Quality Assurance Officer
Naval Facilities Engineering Command, Southwest

10/23/2008

Date

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WDCN 5004

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FINAL
PERFORMANCE MONITORING AND
SAMPLING AND ANALYSIS PLAN
OU1 AND OU2 GROUNDWATER REMEDY

DATED 01 AUGUST 2007

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ABBREVIATIONS AND ACRONYMS

DON	U.S. Department of the Navy
MCAS	Marine Corps Air Station
OU Operable	Unit
PMP	Performance Monitoring and Sampling and Analysis Plan
SAP	Sampling and Analysis Plan
WESTON	Weston Solutions, Inc.

1. INTRODUCTION

This Addendum 1 Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) to the *Final Performance Monitoring and Sampling and Analysis Plan (PMP), OU1 and OU2A Groundwater Remedy, Former Marine Corps Air Station, El Toro, California* (Earth Tech, Inc., 2007) has been prepared to support additional evaluation of the Operable Unit (OU) 1 and OU2A remedy for the shallow groundwater unit and principal aquifer at the former Marine Corps Air Station (MCAS), El Toro, California. Weston Solutions, Inc. (WESTON) has been tasked by the U.S. Department of the Navy (DON) Base Realignment and Closure Program Management Office West under Naval Facilities Engineering Command Southwest Environmental Multiple Award Contract Number N62473-08-D-8825 Contract Task Order 0003 to implement the technical aspects of the PMP.

In addition to fulfilling the technical aspects of a Sampling and Analysis Plan (SAP), the PMP (Earth Tech, Inc., 2007) includes the technical specifications essential for meeting the requirements of the OU1 and OU2A Record of Decision (DON, 2002). WESTON will perform system monitoring at Installation Restoration Sites 18 (OU1) and 24 (OU2A) as detailed in the PMP. To address changes in the organizational staff, roles, and responsibilities for implementing the technical tasks as well as the anticipated schedule of activities, this Work Plan Addendum 1 includes the following Uniform Federal Policy for Quality Assurance Project Plan (Intergovernmental Data Task Force, 2005) Worksheets:

- Worksheet 3—Distribution List (Table 1-1)
- Worksheet 4—Project Personnel Sign-off Sheet (Table 1-2)
- Worksheet 5—Project Organization Chart (Figure 1-1)
- Worksheet 6—Communication Pathways (Table 1-3)
- Worksheet 7—Personnel Responsibilities and Qualifications (Table 1-4)
- Worksheet 16—Project Schedule (Figure 1-2)

Only the organization tasked to complete the PMP technical requirements and the schedule have changed. Technical portions of the PMP remain unchanged and therefore are not addressed in this Work Plan Addendum 1. The following sections present the project organization and schedule.

All policies and procedures set forth in the original *Final Performance Monitoring and Sampling and Analysis Plan .OU1 and OU2A Groundwater Remediation, Former Marine Corps Air Station, El Toro, California* (Earth Tech, 2007) that have not been modified in this addendum shall remain in effect for the duration of this project where applicable.

1.1 ORGANIZATION

The monitoring activities at OU1 and OU2A will be completed at the direction of the Navy. The project organization is provided in Figure 1-1 to illustrate the key personnel assignments. Table 1-1 provides the key personnel to receive the Work Plan Addendum 1. Table 1-2 provides the key personnel that will perform tasks as described in the original PMP (Earth Tech, Inc., 2007). Communication pathways and modes of communication for the project are provided in Table 1-3. Project personnel responsibilities and qualifications are provided in Table 1-4.

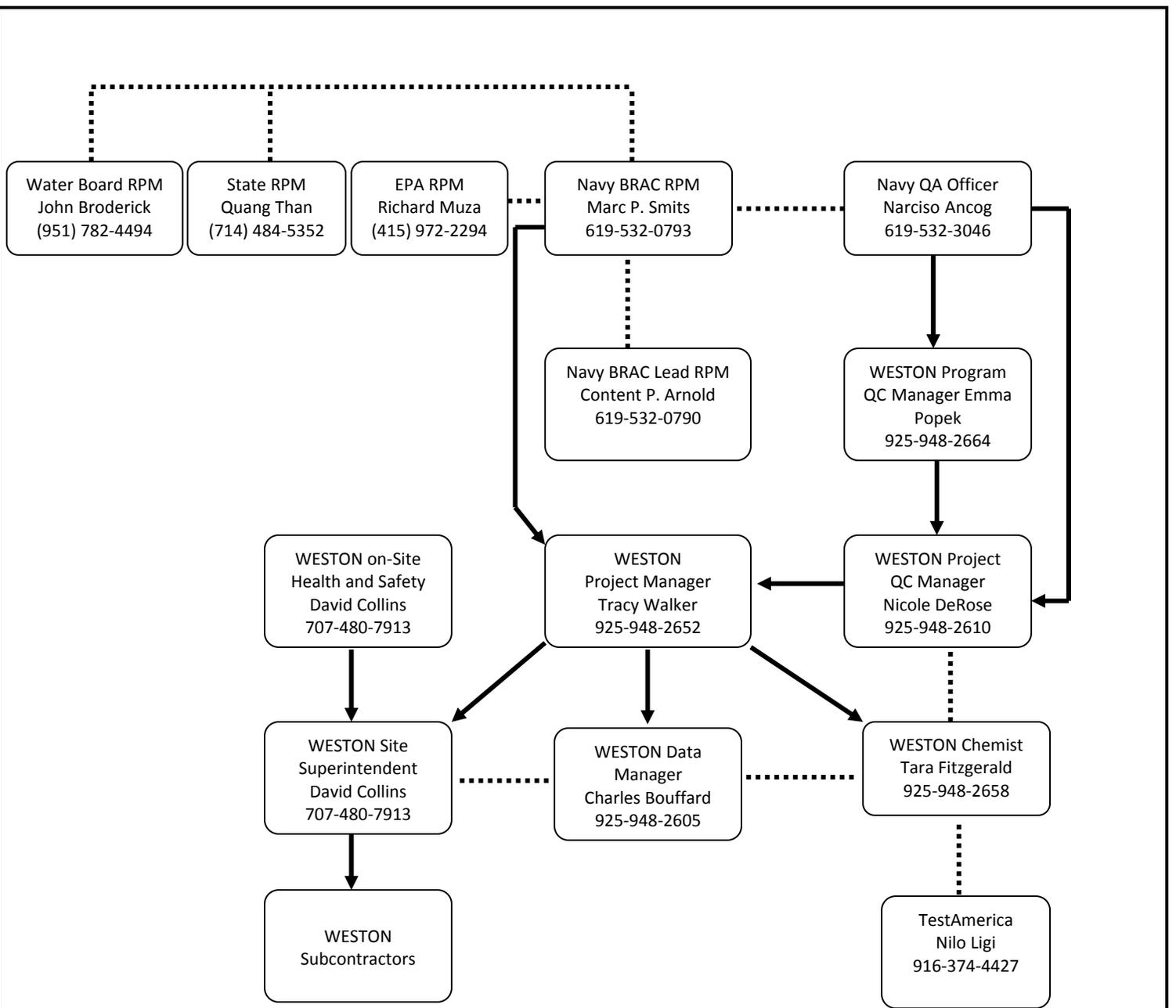
1.2 SCHEDULE

The anticipated project schedule for performing project activities is presented in Figure 1-2.

2. REFERENCES

- Department of the Navy. 2002. *Record of Decision for Operable Unit 1, Site 18-Regional Volatile Organic Compound Groundwater Plume, Operable Unit 2A, Site 24-VOC Source Area, Former Marine Corps Air Station, El Toro, California.* June.
- Earth Tech, Inc. 2007. *Final Performance Monitoring and Sampling and Analysis Plan, OU1 and OU2A Groundwater Remedy, Former Marine Corps Air Station, El Toro, California.* August.
- Intergovernmental Data Task Force. 2005. *Uniform Federal Policy for Quality Assurance Project Plan.* March.

FIGURES

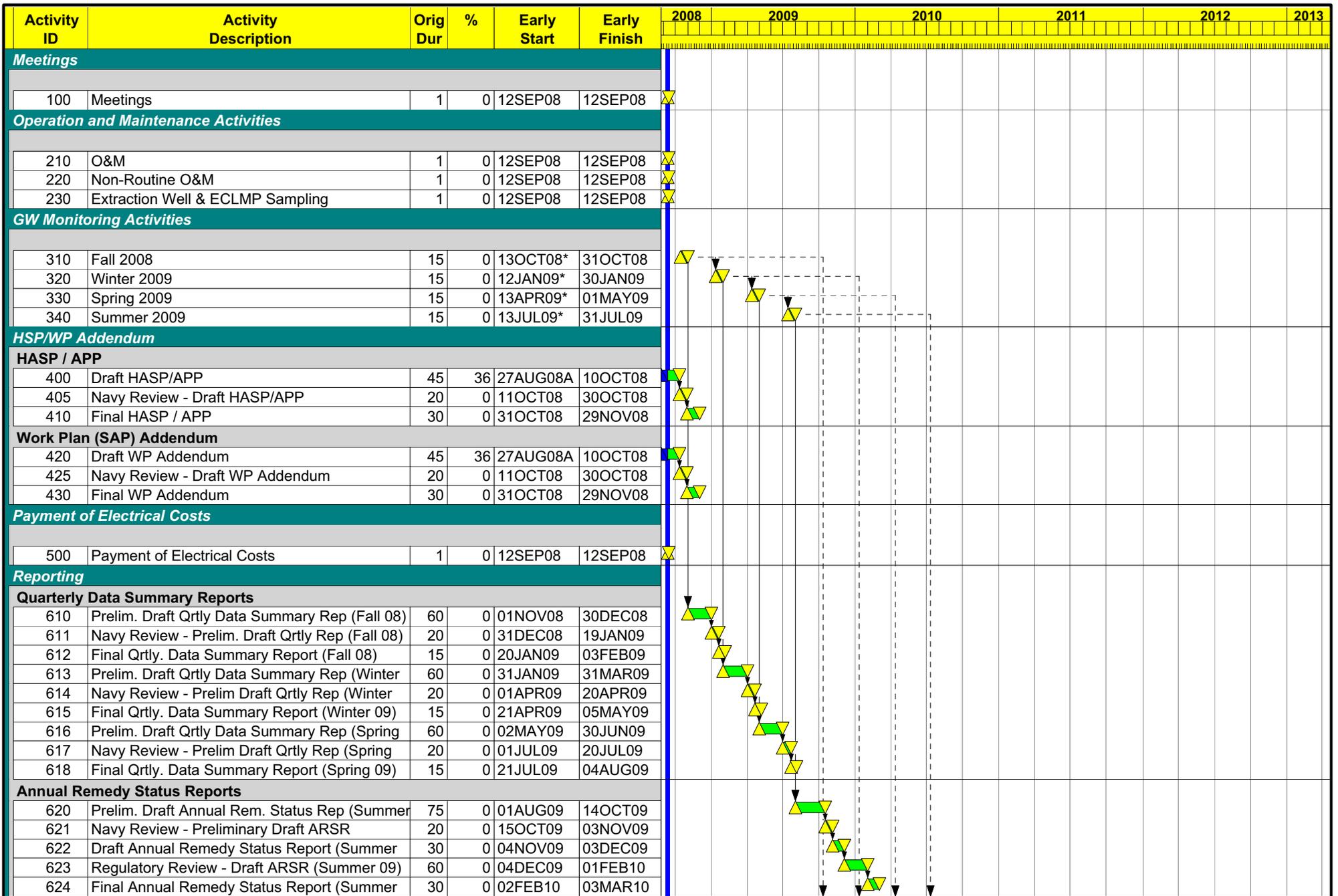


Lines of Authority:

Lines of Communication:

BRAC Program Management Office West
San Diego, California

FIGURE 1-1
PROJECT ORGANIZATION CHART
Addendum 1 Sampling and Analysis Plan to
Performance Monitoring and Sampling and Analysis Plan
Former Marine Corps Air Station, El Toro, California



Start Date 26AUG08
 Finish Date 06MAR13
 Data Date 12SEP08
 Run Date 11SEP08 08:55
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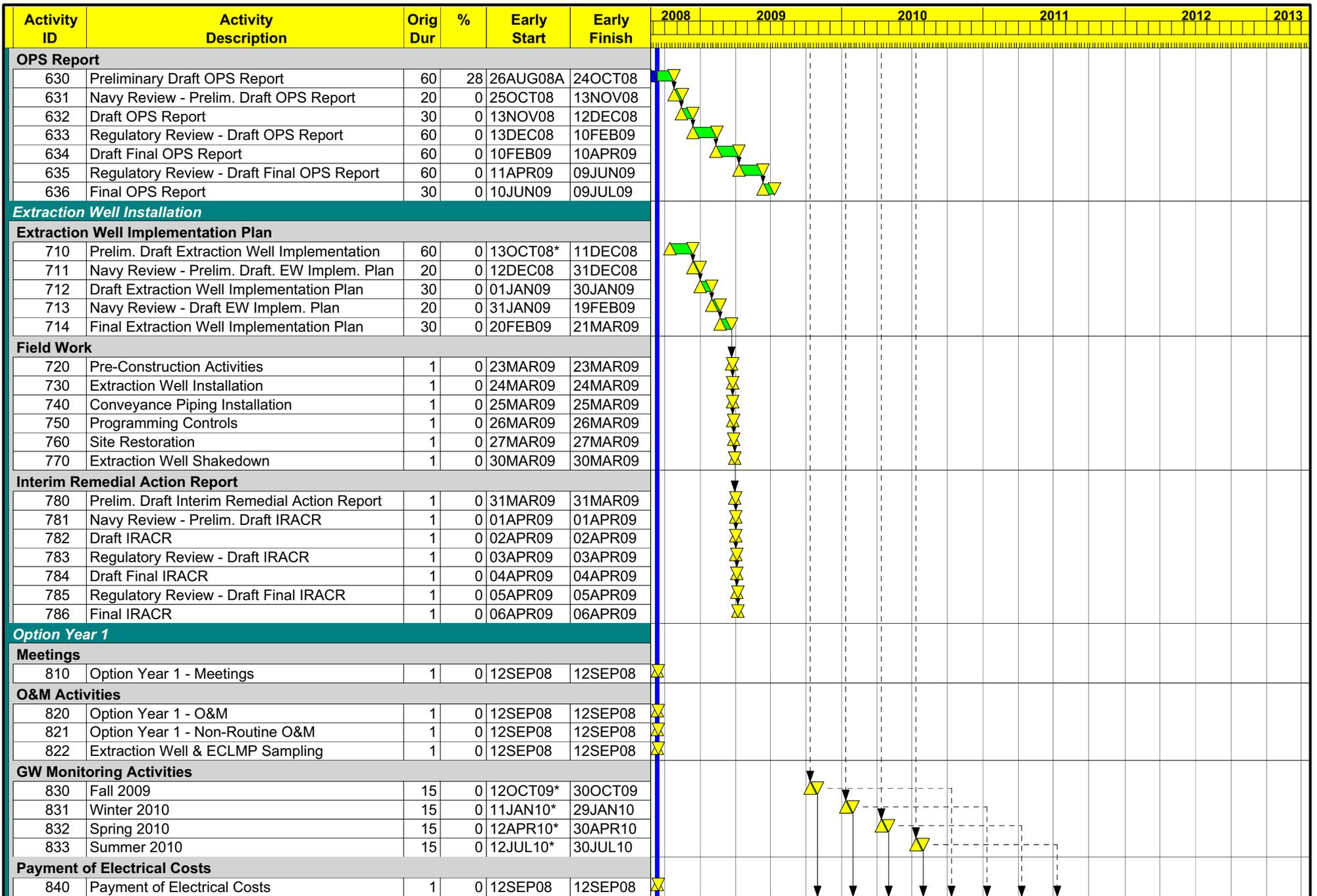


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**FIGURE 1-2
PROJECT SCHEDULE**

Sheet 1 of 4

Date	Revision	Checked	Approved



Start Date 26AUG08
 Finish Date 06MAR13
 Data Date 12SEP08
 Run Date 11SEP08 08:55

Early Bar
 Progress Bar
 Critical Activity

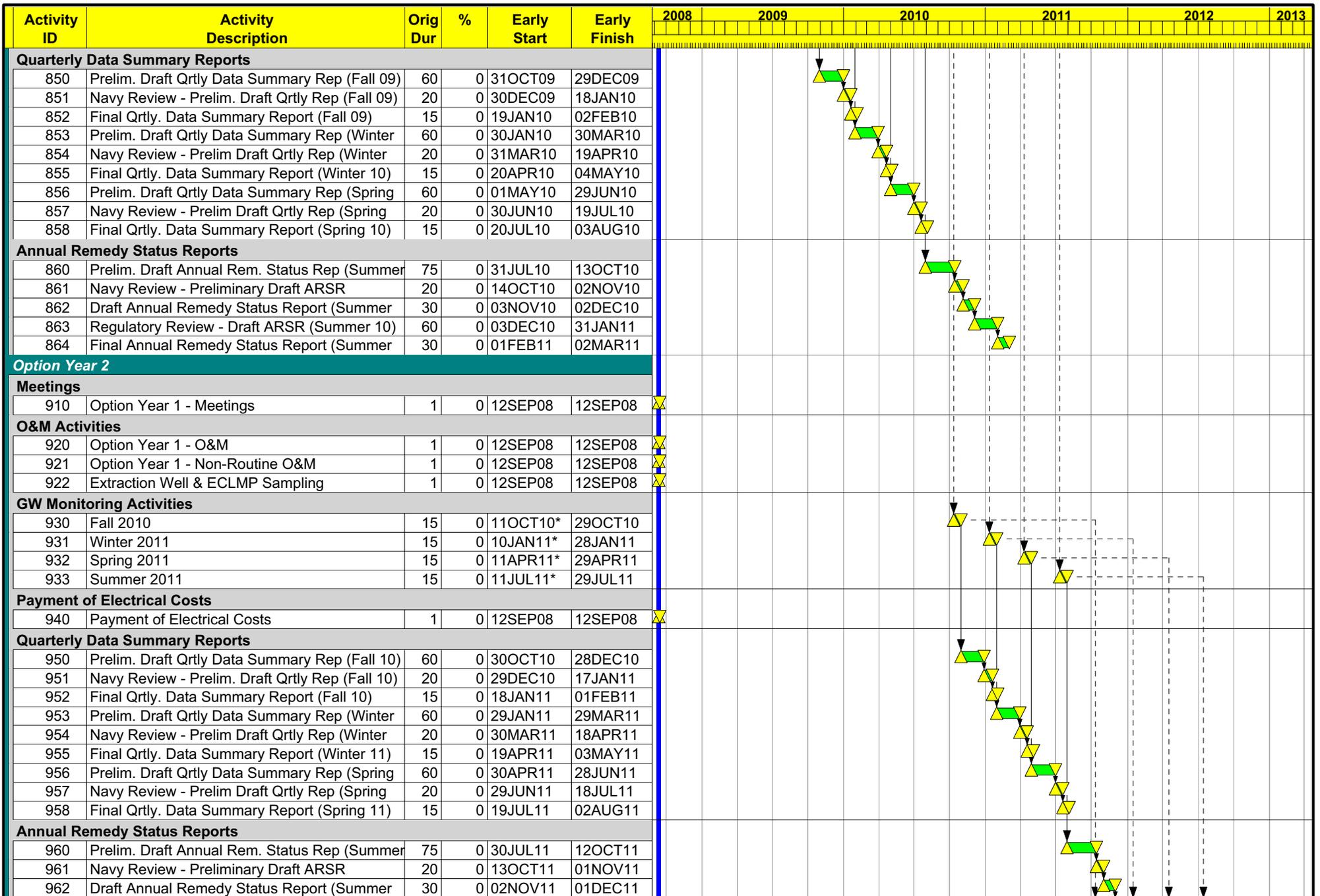
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FIGURE 1-2 PROJECT SCHEDULE

Sheet 2 of 4

Date	Revision	Checked	Approved



Start Date 26AUG08
 Finish Date 06MAR13
 Data Date 12SEP08
 Run Date 11SEP08 08:55

Early Bar
 Progress Bar
 Critical Activity

X003

FIGURE 1-2 PROJECT SCHEDULE

Sheet 3 of 4

Date	Revision	Checked	Approved

TABLES

**Table 1-1
Distribution List (Worksheet #3)**

Name of SAP Recipients	Title/Role	Organization	Telephone Number (Optional)	E-mail Address or Mailing Address	Document Control Number (Optional)
Marc Smits	BRAC Remedial Project Manager	Navy BRAC Program Management Office	(619) 532-0793	1455 Frazee Road, Suite 900 San Diego, CA 92108 marc.smits@navy.mil	
Content Arnold	BRAC Lead Remedial Project Manager	Navy BRAC Program Management Office	(619) 532-0790	1455 Frazee Road, Suite 900 San Diego, CA 92108 content.arnold@navy.mil	
Narciso Ancog	NFECSW Quality Assurance Officer	Naval Facilities Engineering Command - Southwest	(619) 532-3046	1220 Pacific Hwy, Bldg 129 San Diego, CA 92132 narciso.ancog@navy.mil	
Scott Kehe	Resident Officer in Charge of Construction	Navy BRAC Program Management Office	(949) 726-2506	7040 Trabuco Road Irvine, CA 92618 scott.kehe@navy.mil	
John Broderick	Remedial Project Manager	Regional Water Quality Control Board	(951) 782-4494	3737 Main Street, Suite 500 Riverside, CA 92501-3339 jbroderick@waterboards.ca.gov	
Richard Muza	Remedial Project Manager	EPA Region 9	(415) 972-2249	75 Hawthorne Street San Francisco, CA 94105-3901 muza.richard@epa.gov	
Quang Than	Remedial Project Manager	California EPA DTSC	(916) 255-6449	5796 Corporate Avenue Cypress, CA 90630 qthan@dtsc.ca.gov	
Steve Malloy	Project Manager	Irvine Ranch Water District	(949) 453-5570	15600 Sand Canyon Avenue, PO Box 57000 Irvine, CA 92619-7000 malloy@irwd.com	

**Table 1-1
Distribution List (Worksheet 3)**

Name of SAP Recipients	Title/Role Organization	Telephone Number (Optional)	E-mail Address or Mailing Address	Document Control Number (Optional)
Roy Herndon	Project Manager Orange County Water District	(714) 378-3260	10500 Ellis Avenue, PO Box 8300 Fountain Valley, CA 92708-8300 rherndon@ocwd.com	
Emma Popek, PhD	Quality Control Program Manager WESTON	(925) 948-2664	1340 Treat Boulevard, Suite 210 Walnut Creek, CA 94598-1025 emma.popek@westonsolutions.com	
Tracy Walker, PG	Project Manager WESTON	(925) 948-2652	1340 Treat Boulevard, Suite 210 Walnut Creek, CA 94598-1025 tracy.walker@westonsolutions.com	
David Collins	Site Superintendent Site Safety and Health Officer WESTON	(925) 948-2608	1340 Treat Boulevard, Suite 210 Walnut Creek, CA 94598-1025 david.collins@westonsolutions.com	
Tara Fitzgerald	Project Chemist WESTON	(925) 948-2658	1340 Treat Boulevard, Suite 210 Walnut Creek, CA 94598-1025 tara.fitzgerald@westonsolutions.com	
Nicole DeRose	Project Quality Control Manager WESTON	(925) 948-2610	1340 Treat Boulevard, Suite 210 Walnut Creek, CA 94598-1025 nicole.derosé@westonsolutions.com	
Nilo Ligi	Project Manager TestAmerica	(916) 374-4427	880 Riverside Parkway West Sacramento, CA 95605 nilo.ligi@testamericainc.com	
Linda Rauto	Project Manager Laboratory Data Consultants	(760) 634-0437	7750 El Camino Real Suite 2L Carlsbad, CA 92009 lrauto@lab-data.com	

**Table 1-2
Project Personnel Sign-Off Sheet (Worksheet #4)**

Name	Organization/Title/Role	Telephone Number (optional)	Signature/email receipt	SAP Section Reviewed	Date SAP Read
Emma Popek, PhD	WESTON Quality Control Program Manager	(925) 948-2664			
Tracy Walker, PG	WESTON Project Manager	(925) 948-2652			
David Collins	WESTON Site Superintendent/SSHO	(925) 948-2608			
Nicole DeRose	WESTON Project Quality Control Manager	(925) 948-2610			
Tara Fitzgerald	WESTON Project Chemist	(925) 948-2658			
Nilo Ligi	TestAmerica	(916) 374-4427			
Linda Rauto	Laboratory Data Consultants	(760) 634-0437			

**Table 1-3
Communication Pathways (Worksheet #6)**

Communication Drivers	Responsible Affiliation	Name	Phone Number and/or e-mail	Procedure
Approval of SAP modifications	WESTON	Emma Popek	(925) 948-2664	Verbal followed by written from E. Popek (WESTON) prior to implementing proposed modification(s)
Changes or delays in field work	WESTON	Tracy Walker	(925) 948-2652	Verbal followed by written/electronic from T. Walker (WESTON) as soon as changes are anticipated
Approval of SAPs; SAP modifications, Stop-Work Order (quality issues)	Naval Facilities Engineering Command	Nars Ancog	(619) 532-3046	Verbal followed by written/electronic from N. Ancog (NFECWS) to WESTON Quality Lead; immediate notification; subsequent corrective action required
Stop-Work Order (quality issues)	WESTON	Emma Popek	(925) 948-2664	Verbal followed by written/electronic from E. Popek (WESTON) to T. Walker (WESTON); immediate notification; subsequent corrective action required
Stop-Work Order (health & safety issues)	WESTON	David Collins	(925) 948-2608	Verbal followed by written from D. Collins (WESTON) to T. Walker (WESTON) and subcontractor(s); immediate notification, subsequent corrective action required
Analytical data quality issues (critical)	WESTON	Emma Popek	(925) 948-2664	Verbal followed by electronic from subcontract laboratory QAO to E. Popek (WESTON) who will verbally/electronically advise N. Ancog (NFECWS)
Unanticipated security events or community relations contact	Marc Smits	Marc Smits	(619) 532-0793	Immediate verbal notification from D. Collins (WESTON) to T. Walker (WESTON) and M. Smits (BRAC PMO)

**Table 1-3
Communication Pathways (Worksheet #6)**

Communication Drivers	Responsible Affiliation	Name	Phone Number and/or e-mail	Procedure
Delays in submitting final project deliverables or other reporting	WESTON	Tracy Walker	(925) 948-2652	Verbal followed by written/electronic from T. Walker (WESTON) to M. Smits (BRAC PMO) as soon as delays are anticipated

**Table 1-4
Personnel Responsibilities and Qualifications (Worksheet #7)**

Name	Title/Role	Organizational Affiliation	Responsibilities	Education and/or Experience Qualifications (Optional)
Marc Smits	BRAC Remedial Program Manager	Navy BRAC Program Management Office West	Receive and review project deliverables, including meeting minutes, Action Memorandum, Removal Action Work Plan, Response to Comments, and other inspection reports and/or logs as specified in the Statement of Work.	
Narciso Ancog	NFECSW Quality Assurance Officer	Naval Facilities Engineering Command - Southwest	Provides government oversight of the WESTON QA Program: provides quality-related directives, provides technical and administrative oversight of WESTON surveillance audit activities Acts as a point of contact for all matters concerning QA and the Navy Laboratory QA Program; coordinates training on matters pertaining to data generation and maintenance of quality of data.	
Scott Kehe	Resident Officer in Charge of Construction	BRAC Program Management Office West	Provide and maintain site access for field activities; coordinate ingress/egress to secure locations as required.	
Emma Popek, PhD	Quality Control Program Manager	WESTON	Oversee the technical aspects of the project activities, including the filing system development and maintenance, document preparation, laboratory analysis and chemical data management; review the draft Action Memorandum before it is submitted to the DON and verify that all comments from the DON and later from the regulatory agencies are incorporated and any issues resolved; review and approve the Work Plan and ensure that it is clear, concise, and meets the TCRA objectives and ARARs.	

**Table 1-4
Personnel Responsibilities and Qualifications (Worksheet #7)**

Name Title	/Role	Organizational Affiliation	Responsibilities	Education and/or Experience Qualifications (Optional)
Tracy Walker, PG	Project Manager	WESTON	Point of contact (POC) with DON; manage all technical and financial aspects of the project, including review, approval and tracking of project costs; schedule control; prepare monthly progress reports and weekly updates to the RPM; prepare daily production and QC reports; and oversee project documentation and report closeout activities.	
David Collins	Site Superintendent / Site Health & Safety Officer	WESTON	Provide daily oversight for a field crew comprising craft labor and specialty subcontractors; manage these activities in accordance with the approved plans and design documents; as site HSO, conduct a daily tailgate safety briefing for all personnel on the site and oversee the activities of both Weston and subcontractor personnel, perform safety inspections of all tools and equipment delivered to the site.	
Nicole DeRose	Project Quality Control Manager	WESTON	Coordinate, schedule, and document the three-phases of control (preliminary, initial and follow-up); review subcontractor submittals for compliance with specifications; maintain submittal register and processes submittals with NFECSSW; prepare and submit inspection documentation, Daily QC and Production Reports, and analytical test results; develop and enforce corrective actions for work that does not meet specifications; maintain a rework items list and track deficiencies.	
Charles Bouffard	Database Manager	WESTON	Receive reviewed analytical data from data validation subcontractor; confirm compliance with contractual specifications; load analytical datasets; generate summary reports and loadable Naval electronic data deliverables.	

**Table 1-4
Personnel Responsibilities and Qualifications (Worksheet #7)**

Name Title	/Role	Organizational Affiliation	Responsibilities	Education and/or Experience Qualifications (Optional)
Tara Fitzgerald	Project Chemist	WESTON	Perform sample collection and logging as directed by the WESTON PM; interface with analytical laboratory and data validation company; prepare analytical tables for in-field review.	