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NAB LITTLE CREEK
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# DRAFT WORK PLAN INTERIM REMEDIAL ACTION AT SOLID WASTE MANAGEMENT UNIT 7 AND 8 NAB LITTLE CREEK VA

3/1/2004

CH2MHILL

# DRAFT WORK PLAN

## Interim Remedial Action
## SWMU 7, and SWMU 8
## Naval Amphibious Base Little Creek
## Norfolk, Virginia

## Task Order 023

March 2004

Prepared for

Department of the Navy
Atlantic Division
Naval Facilities Engineering Command

Under the

AGVIQ/CH2M HILL JV 1 Program

Contract N62470-03-D-4401

Prepared by:

AGVIQ-CH2M HILL JOINT VENTURE I

## 1.0 INTRODUCTION

AGVIQ-CH2M HILL Joint Venture I (JV I) has been contracted by the United States Navy, Atlantic Division, Naval facilities Engineering Command (LANTDIV NAVFACENGCOM) to provide Interim Remedial Actions at various sites located at Naval Amphibious Base, Little Creek, Norfolk, Virginia.
This work is performed under our existing fixed price contract, number N62470-03-D-4401, Task Order 023.

This Task Order has been issued to implement an Interim Remedial Action at two sites ( SWMU 7, and SWMU 8). SWMU 7 is a small parcel of land along piers 44 through 55. This area contains approximately 35 cubic yards of lead contaminated soils. SWMU 8 is located in the northwest portion of the Base, and contains approximately 45 cubic yards of sediment to be removed from the discharge point of the storm water outfall..
The objectives of this scope of work for task order 023 are to:

- Pre-characterize all waste for disposal acceptance
- Generate preconstruction submittals
- Dewater ,excavate and dispose of a total of 75 cubic yards from all 2 areas combined..
- Dispose of all materials at a subtitle D landfill.
- Perform site restoration
- Generate Construction close out report

# 1.0 Technical Approach

## TASK 1 - Project Planning

### Subtask 1.1 - Pre Construction Submittals

Upon receipt of award for task order 023 and subsequent notice to proceed, AGVIQ/CH2M HILL Joint Venture 1 (JV 1) will proceed generating the required pre construction submittals. The approved submittals will be the guidance documents that all field personnel reference and comply with during the administration and execution of the scope of work. Information contained and presented in the pre construction documents will include detailed shop drawings, execution strategy, and task specific procedures in sufficient detail to identify the operational, technical, testing, safety, and quality requirements for the Interim Remedial Actions.. In addition to the description of how the work will be performed, other supporting elements of the Pre Construction Documents will include the following:

- Work Plan
- Sampling and Analytical Plan
- Erosion and Sediment Control Plan
- Health and Safety Plan
- Quality Control Plan
- Hurricane Preparedness Plan
- Project Schedule
- Relevant maps, drawings, and forms

These documents will be submitted 4 weeks from the date of award.

### Subtask 1.2 - Pre Construction ROICC Conference

Prior to the proposed mobilization date for field activities, coordination with the NAB Little Creek ROICC office will identify the date, time, and location for the pre construction (Precon) conference. JV 1 representatives will attend the Precon along with Base fire, security, safety and environmental, Lantdiv personnel, AROICC and Construction representatives, and any other invited project "stakeholders". JV 1 attendees will be prepared to respond to any and all questions as well as to present an over view of the project scope, schedule, planned invoicing, Health and Safety concerns, Quality Control procedures, and any site logistical issues.

**Subtask 1.3 - Site Survey and Pre Characterization**

JV 1 Site Superintendent will request a utility mark out prior to commencing any site activities. A field inspection to verify the locations of marked utilities, document existing conditions, and to prepare the site for future construction operations will be performed in conjunction with the pre characterization of each of the 2 Site's soils for disposal acceptance.

Field sampling technicians will representatively obtain samples from the proposed soil profile in situ, composite them homogeniously, and submit to a qualified laboratory for analysis (TCLP). Analytical results will be forwarded to the respective disposal firm(s) on waste profile's in support of finalizing waste acceptance and delivery schedules.

Can we not use TCLP? ~~totals~~?

## TASK 2 - Fieldwork

**Subtask 2.1 - Mobilization and Site set Up**

Construction personnel, equipment, and materials will be mobilized to the site to complete the project as defined in the statement of work. Initially, key individuals and equipment will be mobilized to the site to receive support equipment essential to complete the project activities. Initial site set up activities will include preparing an area where materials and deliveries will be positioned .Additional personnel and equipment will be mobilized to the site as dictated by task resource demands, and subsequently released from the project when their work assignments are completed.

**Subtask 2.2 - Site Preparation**

Once initial mobilization and site set up are completed, site preparation activities will begin.. The installation of support facilities will include the delivery of the sanitation facilities, portable dam materials, and erosion and sediment control materials.

One sample will be collected from the proposed backfill material to establish the chemical concentrations and certify the material appropriate, as per the requirements identified in the Navy's Statement of Work, for use as clean backfill material.

Work zones will be established at each site to control the operations of planned material handling efforts.
High density polyethylene sheeting will be placed over adjacent ground surfaces for use as a material staging and dewatering area for SWMU 8 materials.

JV 1 will strategically locate high visibility fence and traffic cones to identify traffic routes and lanes for the hauling vehicles for each site

**Subtask 2.3 - Temporary Erosion and Sediment Controls**

Erosion and sediment protection will be installed at each site to control the release of sediments.. The proposed temporary controls for containing and filtering site waters will be 36" fabric silt fence and bound hay/straw bales both of which will be secured to ground surfaces with wooden grade stakes. SWMU 8 will require the installation of a "portable-dam" system to isolate the area identified for sediment removal to facilitate dewatering operations. This "portable-dam" will prevent the infiltration of creek waters into the area identified for removal. Once installed, a heavy duty diesel powered pump will transfer the contained waters to the exterior of the isolated area's. Dishcharge points will have haybales installed to slow the velocity of discharged waters. The suction hose of the diesel pumps will be gradually lowered down into the depth of contained water for transfer to minimize the disturbance of existing sediments.

SWMU 7 shouldn't need BTS

**Subtask 2.4 - Excavation**

Excavation and loading equipment will be utilized for all of the Site's soil materials. A track hoe excavator will mechanically remove the targeted soil and sediment materials a bucket full at a time. To deliver the soils for disposal, exhumed materials from SWMU 7 will be placed directly into the bed of the designated disposal hauling vehicle. SWMU 8 materials will be placed directly into the staging area for drying.. Each filled hauling vehicle will be filled to something less than the maximum hauling capacity to avoid spillage. Flagmen will direct and receive the hauling vehicles via predetermined travel routes across the site to the material staging areas. SWMU 8 material will be placed within the lined and bermed containment area's where the material will be allowed to gravity dewater. Accumulated waters will be allowed to naturally drain back into the canal or storm water outfall discharge areas. Haybales will be positioned to allow draining waters to flow through them before entering canal or outfall areas..

LOW CORNER W/SUMP TO

? test! no

Any stockpiled material not removed (loaded out for off site disposal) during the day will be covered and anchored to prevent the infiltration of precipitation. Field survey crews will confirm material removal estimates periodically. Predetermined truck sequencing, for the soil materials will allow for placement of empty off site hauling vehicles adjacent to the load out area. Spotters will support the loading operations to ensure level loading. JV I has included provisions for a drying agent as this material will be extremely wet. We assumed a volume for the drying agent at 10 tons of the generated volume of materials for disposal. Proper shipping papers will be completed for each load and the appropriate copies will accompany each load. A D.O.T. certified off site scale will be located for weighing a select number of initial loads to confirm hauling weight limits are not exceeded. All vehicles departing from the Site's will exit via predetermined routes.
In the event extremely dry conditions are evident, JV 1 technicians will implement dust control measures to minimize visible dust emissions from wind blown sediments.

signed by CNRNA

**Subtask 2.5 - Confirmation Sampling**

JV I has included no provisions for confirmatory sampling. It is our understanding that the NAB Tier I Partnering Team has established an agreement for the limits of excavation at each site, which includes using existing analytical data from previous investigations for post excavation confirmation.

**Subtask 2.6 - Backfill and Restoration**

After confirming excavation limits have been achieved, JV 1 will confer with the Navy representative(s) as to the start of backfilling operations.
JV I has included costs for a maximum of 75 cubic yards of general imported backfill.. The placement of backfill for SWMU 8 will be performed using the bucket of the tracked excavator, as existing wet and soft conditions will not allow the direct placement of backfill using a bulldozer.
Backfill material will be delivered to the site from an off site source that was previously sampled to determine the quality of physical and chemical properties.

1/2 foot how many lifts ?

Compaction will be achieved in lifts @ SWMU 7 with the weight of the excavation equipment and or bucket passing or flattening the placed materials. A field survey crew will confirm in place material volumes. SWMU 8 placed backfill will not be compacted as subsurface conditions are expected to be saturated. what will anchor material? stone?
JV I will utilize the tracked excavator to mechanically place a layer of delivered "rip-rap" size stone along each bank around the out fall of SWMU 8. A total of 100 tons will be delivered and placed.

geotex under riprap? No

All backfilled areas will be seeded with an approved mix of seed, nutrients, fertilizer, and mulch. Temporary erosion control measures will remain until vegetation is established. Prior to the site tear down and demobilization, JV 1 and Navy personnel will conduct a site inspection. This inspection will focus on items that have been performed or will be performed prior to project completion. Items that are incomplete or require further work to meet the project specification will be documented by the designated QC Manager and corrected by the project team within a reasonable time. Once completed, the Navy will be advised in writing and a final inspection will be conducted involving the same personnel to verify the items in question have been completed.
After inspections at SWMU 8, the portable-dam will be removed and damned waters will flow naturally back over the restored canal and outfall areas.

ok

**Subtask 2.7 - Cleanup and Demobilization**

Once the final inspection is complete and the work is accepted, JV 1 will commence demobilizing personnel and equipment as they are no longer needed. Materials used during the performance of site activities will be removed and or disposed.

## TASK 3 - Closeout Documentation

At the conclusion of field activities, JV 1 will commence preparation of the construction close out report. This report will summarize all of the project activities. This report will include the following:

- Description of activities completed
- Transportation and Disposal records
- Daily operations and QC reports
- Health and Safety Summaries
- Analytical results and sample locations
- As built drawings
- Tables and figures depicted relevant data

Electronic versions of each deliverable will be submitted to LANTDIV in hard copy form and on CD-ROM containing native files for each draft submittal and native and .pdf files of each final submittal. Final versions will include the draft document, comments, response to comments, final document, final regulatory concurrence, and other relative information that should be included in the administrative record file.

# 2.0 BASIS OF ESTIMATE & ASSUMPTIONS

JV 1 has generated a detailed cost proposal for the scope of work associated with Task Order 023. A listing of significant factors that influence the basis of our estimate and key assumptions that provide clarification are presented below.

- If the project schedule for field work progresses beyond the time for which vegetative cover can be established (November 15th), it will be necessary to mobilize in the Spring (March 15th) for seeding of the SWMU 7 site. This will extend the length of the overall project schedule. JV I's field schedule and mobilization costs are contingent upon access to all 2 sites at the same time. Seeding for SWMU 8 will occur immediately after backfilling is completed as the portable-dam's must be removed.As the areas will become immediately flooded and wash the applied seed away, JV I will discuss the relevance of seeding these areas during negotiations. disturbed areas only
- JV 1 has calculated a conversion from cubic yards to tons for the sediments and soils at 1.65. This conversion yields 134 tons from 75 exhumed cubic yards including 10 tons of cement kiln dust. The transportation and disposal pricing is contingent upon non hazardous materials at a Subtitle D landfill. not in GE
- Additional excavation after post excavation sampling is not included. ? N/A
- JV 1 has proposed an initial waste characterization sampling event to obtain analytical data for waste acceptance. We are proposing to obtain samples representatively, in situ, from the 2 Site's at the same time.
- No provisions for treating, filtering, and or sampling the canal or outfall transferred waters are included. ADD
- A maximum of 90 cubic yards of backfill material will be delivered and placed.JV I has included 100 tons of rip-rap sized stone for placement along both sides of the SWMU 8 outfall area.
- Based upon the Statement of Work, no UXO screening provisions will be required.
- As stated in the statement of work, JV 1 will not be responsible for confirmation sampling or analysis following excavation within the areas defined in the Statement of Work.
- Although JV 1 will follow proper procedures for marking known underground utilities, no provisions for underground utility interference and or re-routing are included.
- JV I has not included any costs or management time for any permitting requirements associated with the SWMU 8 sediment removal and water management efforts. We expect to coordinate the excavation permits via the ROICC office.

No permits

# 3.0 PROPOSED INVOICING SCHEDULE

The billing cycle will be every 30 calendar days (once per calendar month). Each monthly invoice will present work completed for that invoice period. JV I is proposing the following schedule of values for significant work activities and submittals with corresponding units and unit costs. Prior to the actual invoice submittal, JV I will discuss the proposed percent complete and units completed for each invoiced activity.

| TASK | # OF UNITS | $ PER UNIT | TOTAL VALUE |
|---|---|---|---|
| Cost of Bonding | 1 | $2460.00 | $ 2460.00 |
| Submittal of "Draft" Pre construction submittals | 1 | $ 6180.75 | $ 6180.75 |
| Submittal of "Final" Pre construction submittals | 1 | $ 2060.25 | $ 2060.25 |
| Preconstruction Conference | 1 | $ 1847.00 | $ 1847.00 |
| Survey-PreCharacterization | 1 | $ 4840.00 | $ 4840.00 |
| Mobilization-Site Set up Site preparation | 1 | $ 23,071.00 | $ 23,071.00 |
| Excavation Transportation & Disposal | 75 cubic yards | $306.92 | $ 23,019.00 |
| Backfill & Restoration | 90 cuyds | $ 119.94 | $ 10,795.00 |
| Cleanup & Demobilization | 1 | $ 3922.00 | $ 3922.00 |
| Closeout Report "Draft" | 1 | $ 4191.75 | $ 4009.50 |
| Closeout Report "Final" | 1 | $ 1397.25 | $ 1336.50 |
| **TOTAL** | | | **$ 83,541.00** |