

Supplemental Information

Okaloosa County – Inshore Submerged Foreign Material

Assessment and Abatement

Project Name:

Okaloosa County - Inshore Submerged Foreign Material Assessment and Abatement

Contact Information:

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Project Location:

Okaloosa County Choctawhatchee Bay (approximately 168 miles) - see attached Map. The project area includes submerged lands from the shoreline to several yards beyond docks or structures constructed for water access from the shoreline.

Project Description:

Validated anecdotal evidence suggests that significant quantities of foreign materials including marine batteries have been discarded into Okaloosa County waters seaward from both residential, commercial and government owned properties. Okaloosa County proposes a three phase project to address the contamination assessment and remediation:

Phase I: Employ qualified diving contractor to assess the nature and extent of contamination in County waters due to the presence of marine batteries and other submerged foreign materials.

Phase II: Based on assessment results, a remediation plan will be developed with a project design and specifications to remove foreign material.

Phase III: Removal and dispose of foreign material and/or neutralization of risk and abandon in place.

The project will focus on areas within 20 feet of structures erected from the shore into County waters (approximately 168 miles of shoreline). The area of investigation will include the entire shoreline containing structures over or in waters within the County. Waterfront property owners will be notified about the project prior to the assessment and divers will carry identification that can be presented to individuals that will associate them with the project. It is assumed that the majority of the assessment will be conducted in water depths less than 12 feet.

Estimated Project Costs:

Phase I - Foreign Material Assessment Planning and Field Work: \$305,000

Phase II - Foreign Material Remediation Planning and Remedial Action Plan Preparation: \$ 34,000

Phase III - Foreign Material Abatement: \$500,000

Monitoring - \$46,000

Project Oversight - \$45,000

Phase 1 Planning and contracting will be performed by the County. Phase 1 assessment field work and database design and processing will be out-sourced. The bulk of field work will require SCUBA. The survey area will be a meandering path, exploring the submerged land at and around all docks, pilings or any other man made structure or activity. As foreign material is discovered, divers will identify the material and rank the potential threat to the environment. The divers will also collect GPS location data for suspect material.

Once the assessment is complete, the data collected in the field will be categorized and a database will be designed for analysis of the data. Phase 2 - Remediation includes the analysis of the assessment data that will be memorialized in a Remedial Action Plan (RAP). The RAP will be prepared to describe how the material will be removed and the processes required for handling the waste based on its disposition, hazardous nature and regulatory requirements.

The proposed project will be managed by the County with the majority of the field work to be performed by subcontractors. The County will also serve to create and enforce project controls (planning, scheduling and budgeting) as well as perform quality control throughout the duration of the project. The County Project Manager will assure that the project funds are being utilized in an efficient and effective manner. The technologies utilized to perform the Statement of Work are well established and there are no other reliable technologies available to achieve the success more effectively than the methodologies conceived to execute the conceptual plan.

Other Funding:

This project has no other potential funding source. Economic conditions are such that it is difficult for local governments to perform Phased projects where the scope of each phase is dependent on the previous phase.

Technical Feasibility:

The majority of the Phase I assessment work will be performed underwater to locate, identify and document foreign material. No handling of the foreign material will be performed. It is the intent that observational data will be collected and recorded and subsequently transformed into manageable format. This data will include but not be limited to:

- Description of material
- Description of material disposition
- Assessment of material volatility
- Signs and quantification of impact on surrounding area
- Photography and Videography
- Precision location identification using Global Positioning System

Phase II will primarily consist of office work. The data generated from the assessment will be processed utilizing the Microsoft Office suite of programs. These programs are widely used and can be manipulated easily for integration into other software program formats. The Remedial Action Plan will

be developed in Microsoft Word and will be organized in a manner that the plan can be readily accessible to all users. The Plan will be used as a Scope of Services when proposals for Phase III work are solicited.

The technologies used for the Phase III portion of the remediation will most likely consist of excavation using an excavator positioned on a barge. The barge would have staged roll-off type containers to place excavated material. The containers will be properly marked immediately after packaging. Analytical laboratory testing may be required to properly classify the wastes for proper disposal.

The Scope of Work for the proposed project relies on well established technologies to perform field data acquisition activities. The evaluation of the data and subsequent development of a remediation plan will use traditional over-the -counter software to process, store and analyze the data. The methodology of hazardous material removal and disposal has been utilized since the beginning of the environmental movement in the late 1980's. Use of these time tested processes will make the project defensible to scrutiny and possess the capability of reflecting the successes achieved by the implementation of the project.

Environmental Benefits:

It is expected that a wide variety of foreign material, both hazardous and non-hazardous will be identified in the assessment. Anecdotal evidence from local divers has indicated that large quantities of marine batteries are located in the proposed assessment area. Hazardous material containers such as marine batteries submerged in salt and brackish water is in a very chemically corrosive environment. Release of the hazardous material will detrimentally affect marine plant and animal life and the affects are potentially lethal. The chemicals could eventually enter the food chain and be concentrated in marine species harvested for human consumption. The extent of the impacts is currently unknown at this time and it will require a project like this to be defined. A challenge to anecdotal evidence was verified by county employees so the suspicion that the presence of hazardous materials in the form of discarded marine batteries is relatively commonplace. Anecdotal evidence also indicates that several clusters (more than a dozen) exist in County waters near existing and historical commercial businesses. While marine batteries are built to resist saltwater corrosion, breaching of the chemical container is imminent. Once released into the environment, the effect near the source will be the most prolific. As the chemical is transported by external forces, the chemical will disperse and the concentrations will fall below hazardous levels. However, the overall loading of the contaminant will be the same.

Anecdotal evidence from rock crab harvesters indicates that seagrass in the immediate vicinity of submerged batteries has been noticeably affected and appears to be either severely distressed or dead in comparison with seagrass a few feet away from the battery. This observation was confirmed by County employees at a location provided by the crab harvesters. In that particular situation, the battery housing did not appear to be compromised.

This sort of contamination is exacerbated in that it is hidden from view and has little public awareness. Until the assessment is completed, a profile of the existing damage caused by the presence of foreign materials cannot be measured. However, one can speculate that the environment in the vicinity of the marine batteries or other hazardous materials is subject to stress from the presence of an electrical charge, material leakage and the resulting effects from degradation. Degradation of the battery containment is the most concerning scenario. Regardless of the condition of the material, the presence of the material in the marine environment would make the material the primary source of contamination. Removal of the source of contamination in a manner that does not exacerbate the situation will provide immediate relief of the potential threat of release.

Economic and Social Benefits:

The coastline defining the extent of Choctawhatchee Bay and Santa Rosa Sound is enjoyed by residents and visitors alike. Approximately 168 miles of bay and sound waterfront are within Okaloosa County. One-third of the water front property is owned by the USAF and is sparsely developed. The remaining two-thirds is heavily developed primarily by residential properties with some commercial properties. Most of the commercial properties cater to the boating industry. Waterfront real estate prices are high compared to similar landlocked properties and were only slightly affected by the recent national recession. Many commercial businesses exploit the sound and bay resource; parasailing, dive charters, inshore fishing charters, vending, water sports rentals, etc.. During the summer, Crab Island is populated with scores of boaters and their passengers, anchored up on a shallow 5-7 acre sandbar. The Billy Bowlegs festival draws thousands of people who anchor hundreds of boats in the Sound to enjoy the festivities. The inter-coastal waterway transects the bay and sound and serves as a major shipping route for bulk commodities.

The bay and sound have shallow waters that support a variety of seagrasses that serve as refuge and breeding grounds for a wide variety of fish and other marine species. This fragile environment is constantly challenged by anthropogenic activities. This project will serve to document the stresses to the environment caused by the presence of materials that have or could have devastating impact to the marine ecosystem.

The extent of impact from the Deepwater Horizon oil spill has not been evaluated in the project location. Areas of the shoreline receiving frequent use may have been identified but this project is focused on submerged land seaward of the coastline. It is physically possible for the proposed assessment area to have been impacted by the oil spill; however, baseline data collected prior to the oil spill and after the oil spill does not exist. The data collection specification in Phase I will include a means of documenting suspected impacts. The focus of this proposal is to assess and abate the discarded marine batteries but documentation of oil spill effects will also be accommodated.

Community Resilience:

The intent of this project is to identify, assess and potentially remove material foreign from the sensitive marine habitats defining Okaloosa County's inshore marine environment. It is anticipated that a wide variety of foreign material will be identified. However, it is not anticipated that all of the foreign material will be detrimentally affecting the marine environment. The project certainly assists in the ability to recover from historical events by providing a comprehensive analysis of submerged land beneath inshore waters. The assessment and restoration (if needed) will serve as the baseline for future activities in the Bay and Sound. It should be noted that this effort will focus on the structures and appurtenances that are near the shoreline that have the highest probability of being impacted by human activity. This project does not address the open waters of the bay and sound.

Conflicts or Complements to Existing Efforts:

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appurtenances that are near the shoreline that have the highest probability of being impacted by human activity. This project does not address the open waters of the bay and sound.

Complies with Federal, State, Local, and Tribal Laws/Regulations:

Implementation of Phase I and II of the project will require no special permitting. However, Phase III will require a permit application and it is believed that the work will be exempt citing “*de minimus*” or “minimal” regulatory stipulations and require no environmental permit for recovery of hazardous material. Material disposal will be subject to environmental regulation but not subject to any permitted activity. Regardless, the majority of the field work will be performed by subcontract through a bidding process. Contract language will specify that the work scope will be in compliance with applicable environmental regulation and that the subcontractor will be responsible for securing any related work permits.

Phase I is “shovel ready”. The Scope of Work will be developed after the award and the Assessment should be initiated within 60 days of award. At Phase II and Phase III are dependent of the results from Phase I.

Readiness for Implementation:

Phase I and Phase II of this project will not require permitting. The nature of this work is non-intrusive. Phase III, Restoration, will require permitting since it will be active removal of material that has a detrimental impact to the ecosystem. This proposal provides an estimated cost of a restoration effort. However, this estimate is speculative since there is insufficient data to properly develop a project cost. As data is collected, the true magnitude of the restoration effort will be defined. Other than this, there is no hindrance to the implementation of the project.

Public Acceptance:

Almost all residents of the County utilize water resources for recreation and/or commercial business. Efforts to maintain a high quality resource for the enjoyment of all of the County citizens would be difficult to challenge. Utilizing the local labor pool to perform this assessment and abatement project will also bolster support for the project.

Additional Information:

The Estimated Project Costs provided for this project includes Phase 3 - Foreign Material Removal and Disposal. This estimate is an educated guess. The quantity, quality and disposition of foreign material identified in Phase 1 will determine the cost of Phase 3. If the cost of the remediation effort is less than estimated amount, the County will return the balance of funds to the originator. If the cost is greater than the estimate, the remediation work will continue until the funds are depleted and the County will solicit additional funding from the originator.

OKALOOSA COUNTY

SANTA ROSA SOUND

CHOCTAWHATCHEE BAY

GULF OF MEXICO

- COUNTY LINE
- FEDERAL PROPERTY
- ASSESSMENT PERIMETER

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