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NAS WHITING FIELD  
5090.3a

MEMORANDUM OF AGREEMENT AND LUCIP BETWEEN U S EPA REGION IV, FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND US DEPARTMENT OF THE NAVY  
NAS WHITING FIELD FL  
11/4/1999  
U S NAVY

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**MOA**

**&**

**LUCIP**

MEMORANDUM OF AGREEMENT  
BETWEEN  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
THE  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AND THE  
U.S. DEPARTMENT OF THE NAVY  
NAVAL AIR STATION WHITING FIELD, MILTON, FLORIDA

THIS AGREEMENT is entered into this 4th day of November 1999, by and between the U.S. Environmental Protection Agency ("U.S. EPA"), the Florida Department of Environmental Protection ("FDEP") and the U.S. Department of the Navy, Naval Air Station Whiting Field, Milton, Florida ("NAS Whiting Field" or "Station") also referred to herein as "the Parties," for the specific purposes hereinafter set forth.

I. BACKGROUND

Environmental investigative activities being undertaken on NAS Whiting Field have revealed and may in the future reveal certain areas of environmental contamination ("sites") on the Station. These sites include those where CERCLA hazardous substances, RCRA hazardous wastes or hazardous constituents, and/or petroleum products or their derivatives were or may have been released into the environment as a result of activities conducted over the history of the installation.

Such sites may generally be categorized as follows:

- (i) Those having been fully investigated and site specific remedy(ies) previously implemented;
- (ii) Those having been fully investigated and site remedy(ies) having been selected but have not yet been implemented;
- (iii) Those having been fully investigated but final remedy selection decisions have not yet been made;
- (iv) Those in need of initial or further site investigative activities before the appropriate final remedy(ies) can be selected and implemented.

Because NAS Whiting Field is currently and will likely remain a multi-use facility with industrial, recreational and residential land uses, the Station desires future site remedy determinations take land use into account in order to facilitate the use of risk-based cleanup criteria. The Parties agree, when land use controls (LUCs) are necessary to assure the reliability of land use assumptions, it is essential appropriate procedures be put in place to ensure such controls will be maintained for as long as necessary to keep the chosen remedy fully protective of human health and the environment.

II. DEFINITION

As used herein, the term "land use control" or "LUC" means any restriction or control arising from the need to protect human health and the environment, limits the use of and/or exposure to, environmentally contaminated media (e.g. soils, surface water, ground water ) at any site on NAS Whiting Field. The term includes controls on access (e.g., engineered and non-engineered mechanisms such as fences, caps, security guards.) Additionally, the term encompasses both affirmative measures to achieve the desired control (e.g., night lighting of an area) and prohibitive directives (e.g., no drilling of drinking water wells). The term also includes "institutional controls," which are non-engineered mechanisms for ensuring compliance with necessary land use limitations (e.g., public advisories, Base Master Plan notations, applicable legal restrictions on land or water usage).

### III. PURPOSE

The Parties intend to accomplish the following specific objectives through execution of this Agreement:

a). To implement a process to ensure appropriate long term maintenance of those LUCs having already or may hereafter be selected for implementation as part of remedy selection for any site on the Station. It is intended such a process will in turn:

1. Facilitate the application of Federal and/or State risk-based cleanup criteria to site cleanups through consideration of assumed future land usage at those sites where LUCs will be necessary to make such assumptions reliable;
2. Elevate the general level of awareness amongst NAS Whiting Field personnel as to the need to maintain such controls in order to ensure long term protection of human health and the environment.

b). To implement a process for NAS Whiting Field to periodically advise U.S. EPA and FDEP representatives of the continued maintenance of any LUCs implemented on board the Station and of any planned changes in land use which might impact any site remediated in accordance with risk-based criteria based on the assumption land usage would be controlled, (e.g., restricted to industrial use);

c). To implement procedures for integrating all site remedies including LUCs into the Base Master Planning Process;

d). To provide, in part, through NAS Whiting Field's good faith compliance with this Agreement, reasonable assurances to U.S. EPA and FDEP, those specific pathway and exposure assumptions relied upon in applying a risk-based cleanup standard to a given site will remain valid until such time as the Parties agree either different site controls or unrestricted site usage would be appropriate.

### IV. APPENDICES

Within thirty (30) days after execution of this Agreement, NAS Whiting Field agrees to develop the following Agreement Appendices:

a). A draft site listing (Appendix A) for those presently known sites on NAS Whiting Field appropriately being covered under the terms of this Agreement. This draft will be sent to U.S. EPA and FDEP for review and concurrence prior to finalization and should include a site location reference tied to the Base Master Plan. Once finalized, initial Appendix will be updated on at least a quarterly basis by NAS Whiting Field to reflect any additions or deletions of sites as may hereafter be agreed to by the Parties. Copies of all agreed upon updates shall be promptly distributed to U.S. EPA and FDEP. If no site additions or deletions have been made during a previous quarter, then no Appendix update need be prepared or distributed for this period.

b). Individual Land Use Control Implementation Plans ("LUCIPs") (Appendix B) for all known sites to be covered under the terms of this Agreement. Each LUCIP shall identify both the LUC objective for the site being addressed as well as those particular LUCs relied upon to achieve objective. Each LUCIP will also specify what must be done in order to implement and maintain the specific LUC's required for the site and should contain a cross reference to whatever decision document(s) apply to the site. As future decisions involving LUCs are made at sites on NAS Whiting Field, these sites will become covered under this Agreement and listed in Appendix A, and a new LUCIP appropriate to each such newly covered site will be added to Appendix B. In conjunction with NAS Whiting Field's Base Master Plan, these plans should serve as a central LUC reference source to assist Station personnel with completing those periodic site inspections, reviews, and certifications required under Paragraph V of this Agreement.

#### V. SITE INSPECTION / REVIEW / CERTIFICATION

Within thirty (30) days of finalizing the Appendices to be developed in accordance with the requirements of Paragraph IV above, NAS Whiting Field agrees to initiate the following specific actions:

a). Conduct quarterly visual inspections of all sites where LUCs have previously or may hereafter be implemented as such sites shall be identified in Appendix A to this Agreement. These inspections shall be for the purposes of verifying all necessary LUCs have been implemented and are being properly maintained. The Station's Environmental Program Manager will be responsible for ensuring all required inspections are performed; U.S. EPA and FDEP are provided with thirty days advance notice of, and opportunity to observe Station personnel as they conduct at least one of the quarterly inspections each year; U.S. EPA and FDEP are notified of any deficiencies noted; and all appropriate measures are undertaken in a timely fashion to correct any deficiencies with timely notification to U.S. EPA and FDEP detailing corrective actions taken.

b). Conduct quarterly reviews by the Station's Environmental Compliance Board (ECB) (as established IAW Paragraph 1-2.14 of OPNAVINST 5090.1B) of the Station's status in complying with all previously implemented LUCs. Any non-compliance issues will be appropriately resolved with U.S. EPA and FDEP.

c). Prepare and forward an annual report to U.S. EPA and FDEP signed by the Station Commanding Officer (with copy to SOUTHNAVFACENGCOM), certifying

the continued retention of all implemented LUCs associated with those sites identified in Appendix A to this Agreement (as last updated).

## VI. AGENCY COORDINATION

Effective upon execution of this Agreement, NAS Whiting Field agrees to implement the following agency notification and concurrence procedures:

a). At least sixty days (except in emergency situations) prior to implementation of any major change in land usage (as hereinafter defined) at any site subject to LUCs, the Station shall provide notification of any such change to U.S. EPA and FDEP. Such notifications shall be provided for the purpose of obtaining U.S. EPA and/or FDEP concurrence with the Station's determination as to whether the contemplated change will or will not necessitate the need for re-evaluation of the selected remedy or implementation of specific measures to ensure continued protection of human health and the environment. No major land use change should be implemented until such concurrence is obtained, consistent with the timeliness requirements set forth in subparagraph (b) below. For major land use changes affecting petroleum contaminated sites, although such notifications will be sent to both U.S. EPA and FDEP, the Station need only obtain FDEP's concurrence with the proposed change. Each notification / request for concurrence shall include:

1. an evaluation of whether the anticipated land use change will pose unacceptable risks to human health and the environment or negatively impact the effectiveness of the selected site remedy;

2. an evaluation of the need for any additional remedial action or LUCs resulting from implementation of the anticipated major land use change; and,

3. a proposal for any necessary changes in the selected site remedy.

b). Upon being notified by the Station of an anticipated major land use change at a site U.S. EPA and/or FDEP shall evaluate the information provided pursuant to paragraph (a) above, and shall respond in a timely fashion prior to such land use change.

c). The Parties agree, the following shall constitute a major change in land usage:

1. Any change in land use (e.g., from industrial or recreational to residential) inconsistent with those specific exposure assumptions in the human health and/or ecological risk assessments that served as the basis for the LUCs that were implemented at the site;

2. Any site activity disrupting the effectiveness of the implemented LUC. For example, excavation at a landfill; groundwater pumping impacting a groundwater pump and treat system; a construction project impacting ecological habitat protected by the remedy; removal of a fence; unlocking of a gate, or removal of warning signs.

3. Any site activity intended to alter or negate the need for the specific LUC(s) implemented at the site.

d). The Station also agrees to immediately notify U.S. EPA and FDEP if, despite its best efforts to ensure compliance with Paragraph (a) above, any major change in land use at any site with an implemented LUC is discovered not having been previously reviewed and concurred in by U.S. EPA and/or FDEP in accordance with that Paragraph. Such notifications will provide all pertinent information as to the nature and extent of the change and describe any measures implemented or to be implemented (to include a timetable for future completion) to reduce or prevent human health or ecological impacts.

#### VII. MOA INTEGRATION

The Parties agree, when site-specific LUCS are to be implemented, an adequate description of the same along with conditions for their use should be included in whatever Decision Document reflects the selected remedy for a site as well as in the associated LUCIP. Additionally, Appendix C contains standard language for inclusion in such documents which may consist of CERCLA Records of Decision (RODs) or Decision Documents (DDs), Remedial Action Plans (RAPs), closure or post closure plans for RCRA regulated units or formal modifications to a facility's RCRA / HSWA permit, or in separate approval or No-Further-Action (NFA) letters issued by U.S. EPA or FDEP whichever has oversight authority over the site in question.

#### VIII. FUNDING COMMITMENT

The Station agrees to use its best efforts to obtain all necessary funding through the appropriate authorities or source(s) to ensure the continued maintenance of all LUCs covered under this Agreement and, where necessary, the timely re-implementation of any LUCs and/or completion of site restoration activities necessitated by any inappropriate change to an implemented LUC. It is not intended by the Parties, this Paragraph be construed in any way to limit the rights otherwise reserved by U.S. EPA and FDEP under Paragraph XIV of this Agreement.

#### IX. FUTURE PROPERTY CONVEYANCE

Should the decision later be made to transfer to any other agency, private person or entity, either title to, or some lesser form of property interest (e.g., an easement, or right of way) in any site on NAS Whiting Field with an existing LUC(s), then the Station shall ensure:

a). U.S. EPA and FDEP are provided with notice at least sixty days prior to any such intended conveyance. Such notice shall indicate the mechanism(s) intended to be used to reasonably ensure any LUC(s) which may need to remain in place after interest conveyance will be maintained, and

b). each LUC is reviewed and incorporated into those property disposal procedures (e.g., preparation of the Environmental Baseline Survey for Transfer (EBST) and Finding of Suitability for Transfer (FOST) ) to be utilized to meet CERCLA and 40 CFR 373 notice requirements, so the transferee(s) is given adequate notice of existing site condition(s).

It is understood that the planned conveyance of any site with LUCs may prompt U.S. EPA or FDEP to re-evaluate the continued appropriateness of any previously agreed upon LUC(s) based upon the level of assurance provided that necessary LUCs will be maintained.

#### X. CHANGE IN APPLICABLE STANDARDS

Nothing herein should be construed to preclude NAS Whiting Field from proposing at any time or from the Parties otherwise agreeing to effect the deletion of any site from coverage under the terms of this Agreement on account of either: (i) a post-remedy implementation change to applicable Federal or State risk-based cleanup standards, or (ii) a change in previously documented contaminant concentration levels allowing for unrestricted use solely as a result of the effects of man induced or naturally occurring bioremediation / attenuation.

#### XI. FUTURE COMMUNICATIONS

Within ten days of execution of this Agreement each Party shall notify the other Parties as to the name(s), address(es), telephone number(s), electronic mail address(es) and facsimile number(s) of their respective representative(s) who shall receive all correspondence and communications on behalf of the Party pertaining to all matters falling under the terms of this Agreement. A listing of agency POCs shall be attached hereto as Appendix D and updated by the Parties as appropriate.

#### XII. SITE ACCESS

NAS Whiting Field herein agrees to provide U.S. EPA and FDEP representatives, their contractors or consultants access to all sites to be covered by this Agreement at all reasonable times consistent with military mission, national security and health/safety requirements upon presentation of proper credentials. The Station's Environmental Program Manager or his/her designee will coordinate access and escort to restricted or controlled-access areas, arrange for base passes and coordinate any other access requests arising. U.S. EPA and FDEP representatives shall have the authority to enter and move freely around any site at all reasonable times for purposes including, but not limited to, reviewing the efforts performed by NAS Whiting Field in complying with the terms of this Agreement; conducting such tests as these agencies may deem necessary and verifying all information / data submitted by NAS Whiting Field personnel pursuant to this Agreement. Nothing in this Agreement is intended or shall be construed to limit in any way the right of entry or inspection either U.S. EPA or FDEP may otherwise have by operation of law.

#### XIII. DISPUTES

All Parties agree to use Partnering principles in a good-faith effort to resolve any and all disputes which may hereafter arise with regards to the Station's substantial good-faith compliance with the terms of this Agreement or other matters relating to the Sites addressed hereunder

#### XIV. RESERVATION OF RIGHTS

It is agreed and understood U.S. EPA and FDEP reserve all rights and authorities each agency may currently have or hereafter acquire by law to require NAS Whiting Field comply with those federal and state laws and regulations applicable to the investigation, cleanup and long term maintenance of those sites to be covered by this Agreement. It is also understood, the Commanding Officer, NAS Whiting Field herein reserves those rights and authorities granted to the Department of Defense (DoD) by federal or state law, regulation, or executive order. On behalf of the Department of the Navy, the Commanding Officer NAS Whiting Field further reserves the right to put all property under his cognizance to those uses deemed necessary in his discretion for mission accomplishment or otherwise deemed necessary by appropriate military authority to meet the needs of the DoD.

XV. ANTI-DEFICIENCY ACT

Nothing in this Agreement shall be construed as obligating the Navy or U.S. EPA, their officers, employees, or agents to expend any funds in excess of appropriations authorized for such purposes in violation of the federal Anti-Deficiency Act (31 U.S.C. Section 1341).

XVI. AMENDMENT

Any amendments to this Agreement shall be in writing and will be executed by the undersigned signatories or their duly authorized designees or successors and shall be attached to this original Agreement.

XVII. TERMINATION

This Agreement shall terminate at such time as the undersigned representatives of the Parties or their successors, mutually concur the aforesaid objectives of the Parties have been fulfilled and the need for such an Agreement no longer exists. Alternatively, any Party may unilaterally withdraw from this Agreement upon sixty (60) days written notice to the other Parties but only after reasonable efforts have first been made by all Parties to resolve the dispute(s) leading to the taking of such action. If any Party decides to unilaterally withdraw, the Parties shall nonetheless work towards resolving any outstanding issues as may exist between them. It is understood, should the Navy choose to unilaterally withdraw from this Agreement, U.S. EPA and FDEP may choose to reconsider any remedy(ies) associated with any site with a LUC still in place at the time of such withdrawal.

XVIII. REPRESENTATIVE AUTHORITY

Each undersigned representative of the Parties to this Agreement certifies she or he is fully authorized to enter into the terms and conditions of this Agreement and to execute the same so as to effectively bind each Party to its terms.

XIX. EXECUTION

This Agreement shall become effective on the date the last of the authorized representatives of the Parties signs.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV

By:

  
\_\_\_\_\_

For: JOHN H. HANKINSON JR., Regional Administrator

FOR THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By:

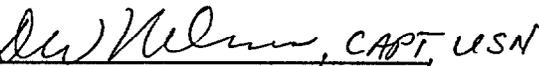
  
\_\_\_\_\_

Title:

Secretary, D.E.P.  
David B. Struhs, Secretary

FOR THE DEPARTMENT OF THE NAVY, NAS Whiting Field

By:

  
\_\_\_\_\_

Title:

COMMANDING OFFICER NASWF  
D. W. Nelms, Commanding Officer

APPENDIX A  
LAND USE CONTROL  
SITE LISTING

Date last updated : \_\_\_\_\_

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

APPENDIX B  
LAND USE CONTROL  
IMPLEMENTATION PLAN  
FOR SITE \_\_\_\_\_

1. Site Description: (e.g., former fire fighting training area, approximate size 150' x200' and contaminant(s) of concern )
  
2. Site Location: (e.g., northeast corner of the Station between buildings 250 and 260 as reflected on BMP page \_\_\_\_ / GIS index under IR Site \_\_\_\_ ).
  
3. LUC Objective(s): (e.g., to restrict public access to an area for recreational use).
  
4. LUC(s) Implemented to Achieve Objective(s): (e.g., installation of a fence, warning signs, etc..., or BMP notations restricting residential or recreational usage).
  
5. Decision Document: (e.g., RoD / DD dated \_\_\_\_\_ or No Further Action (NFA) letter dated \_\_\_\_\_).
  
6. Other Pertinent Information:

APPENDIX C

SAMPLE ROD / DD  
MOA INCORPORATION LANGUAGE

Insert the following language in those RODs / DDs providing for the use of LUCs).

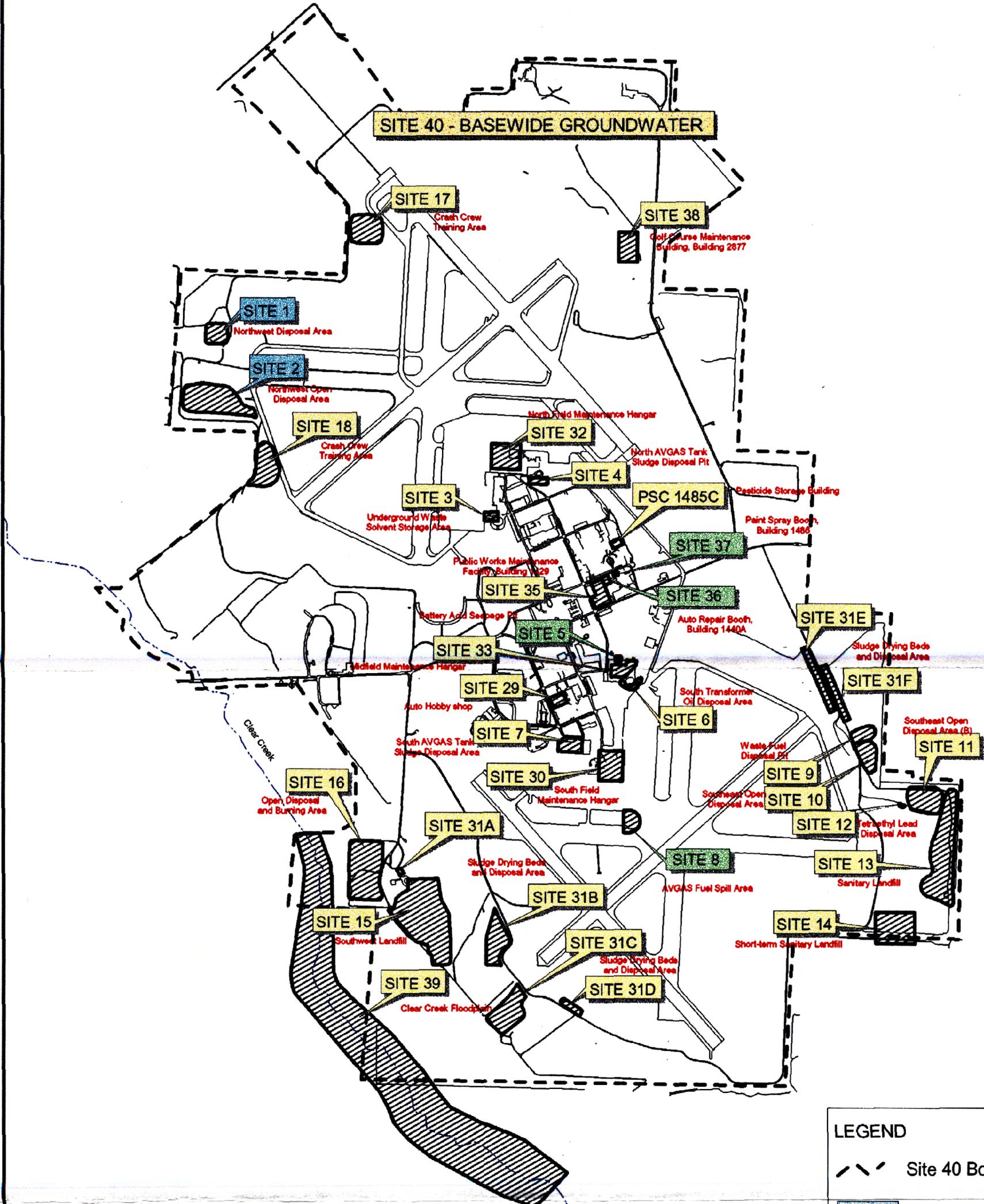
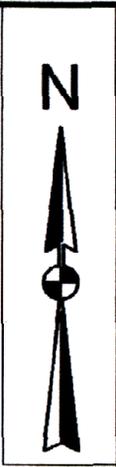
By separate Memorandum of Agreement (MOA) dated, \_\_\_\_\_ with U.S. Environmental Protection Agency (U.S. EPA) and the Florida Department of Environmental Protection (FDEP), NAS Whiting Field, on behalf of the Department of the Navy, agreed to implement base-wide, certain periodic site inspection, condition certification and agency notification procedures designed to ensure the maintenance by Station personnel of any site-specific Land Use Controls (LUCs) deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of agreement was, through the Navy's substantial good-faith compliance with the procedures called for therein, reasonable assurances would be provided to U.S. EPA and FDEP as to the permanency of those remedies including the use of specific LUCs.

Although the terms and conditions of the MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed by the Navy, U.S. EPA and FDEP, the contemplated permanence of the remedy reflected herein shall be dependent upon the Station's substantial good-faith compliance with the specific LUC maintenance commitments reflected therein. Should such compliance not occur or should the MOA be terminated, it is understood, the protectiveness of the remedy concurred in may be reconsidered and additional measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

**APPENDIX A**  
**LAND USE CONTROL SITE LISTING**  
**AND**  
**BASE MAP**

**Land Use Control Site Listing  
Naval Air Station Whiting Field Florida**

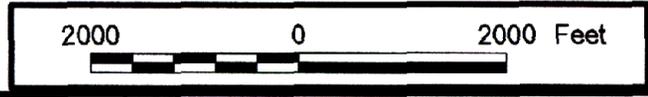
<b>Page Number In Appendix B</b>	<b>Site Number</b>	<b>Date Added (A) Or Deleted (D)</b>
B-1	Site 1, Northwest Disposal Area	A 30 SEP 1999
B-3	Site 2, Northwest Open Disposal Area	A 30 SEP 1999



**LEGEND**

- Site 40 Boundary
- Site 1 LUC Sites
- Site 5 Closed Sites
- Site 40 Active Sites

REVISED 17 JANUARY 2000



DRAWN BY J. BELLONE	DATE 1/17/00
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	



**SITES STATUS MAP**  
WHITING FIELD, MILTON, FLORIDA

CONTRACT NUMBER 0052	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV 0

**APPENDIX B**

**LAND USE CONTROL IMPLEMENTATION PLAN**

**Site 1, Northwest Disposal Area  
Naval Air Station Whiting Field  
Milton, Florida**

**Site Description** Site 1, the Northwest Disposal Area, is a 5 acre surface depression gently sloping toward a drainage outlet (Drainage ditch "E"), located along the southwestern site boundary. Drainage ditch "E" flows toward the west, and ultimately discharges into a tributary of Clear Creek. There is no surface water present at the site.

Currently, Site 1 is forested with pine trees, approximately 20 feet in height. The site was first utilized as borrow area, and then subsequently utilized as a landfill. Site 1 received wastes from a variety of sources including military household waste and aircraft maintenance activities at NAS Whiting Field.

Large concrete pipes and culverts and some concrete rubble are present on the ground surface. Buried wastes are not exposed at the land surface in erosional areas, nor are there indications (e.g. stained soil, or stressed vegetation) of other past waste disposal practices.

**Site Location** Site 1 is located west of the North Air Field at NAS Whiting Field, along the northwestern facility boundary. The installation and site locations are shown on Figures 1-1 and 1-2 in the Remedial Investigation Report for Site 1, Northwest Disposal Area, Naval Air Station Whiting Field, Milton, Florida (ABB-ES, 1998).

**Land Use Control (LUC) Objective** Land use at Site 1 is to remain non-residential. The FDEP has agreed and USEPA has concurred with a *Site-Specific Arsenic Soil Cleanup Goal* of 4.62 mg/kg to be utilized at the site given the following conditions:

1. *The sites may be utilized for activities involving less than full-time contact with the site. This may include, but is not limited to, a) parks, b) recreation areas receiving heavy use (such as soccer or baseball fields), or c) agricultural sites where farming practices result in moderate site contact (approximately 100 days per year or less).*
2. *The Navy has adhered to the land use by incorporating the site and restricted use conditions in a Memorandum of Agreement (MOA).*
3. *The above soil cleanup goal shall not be utilized at any other site without specific FDEP approval.*

No further investigation of the soil under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA) is warranted under non-residential site usage.

The LUC is based on the detection of arsenic in surface soil samples at concentrations exceeding residential and industrial soil cleanup target levels established as guidance criteria by Chapter 62-777, F.A.C. (FDEP, 1999). Arsenic at these concentrations could result in a total excess lifetime cancer risk of  $1 \times 10^{-5}$  by a hypothetical future resident and  $1 \times 10^{-6}$  by an occupational worker through the ingestion of surface soil. These risk levels exceed or meet the FDEP target risk level of  $1 \times 10^{-6}$ .

**LUC Implemented to Achieve Objective(s)** Notation in the NAS Whiting Field's geographic information system includes a designation of non-residential use only, at Site 1. Quarterly inspections are conducted to confirm conformance with the land use.

Under CERCLA, the Site 1 Record of Decision mandate initial implementation and continued application of appropriate controls on future usage of the property encompassing Site 1 while owned by the Federal government. The LUC will apply until or unless site remediation is conducted to restore the site for use without any restrictions or controls.

**Decision Documents** Below are the Site 1 decision documents.

Envirodyne Engineers, Inc. 1985. Initial Assessment Study, Naval Air Station Whiting Field, Milton, Florida. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina.

ABB Environmental Services, Inc. (ABB-ES), 1998. *Remedial Investigation for Site 1, Northwest Disposal Area, Naval Air Station Whiting Field, Milton, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

ABB-ES. 1998. *Remedial Investigation and Feasibility Study, General Information Report, Naval Air Station Whiting Field, Milton, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

Florida Department of Environmental Protection, 1998. Letter from James H. Cason, Remedial Project Manager to Linda Martin, Department of Navy, Southern Division. Subject: Request for Site-Specific Arsenic Soil Cleanup Level: Covered Landfill Sites, NAS Whiting Field.

Florida Department of Environmental Protection, August, 1999. Chapter 62-777, F.A.C.

Harding Lawson Associates (HLA), 1998. *Feasibility Study for Site 1, Northwest Disposal Area, Naval Air Station Whiting Field, Milton, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

HLA. 1998a. *Proposed Plan for Site 1, Northwest Disposal Area, Naval Air Station Whiting Field, Milton, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

**Other Pertinent Information** Groundwater contamination, if any, beneath Site 1 will be addressed by the Site 40 Basewide Groundwater investigation.

Under the MOA for land use controls there are no stipulations precluding the use of the aquifer. However, because of the proximity to other industrial sites, and the detection of aluminum and iron at concentrations exceeding Federal and State maximum contaminant levels, it would not be advisable or prudent to use the resource as a potable or non-potable water supply. The Site 40 Basewide Groundwater investigation, in progress, should be reviewed prior to considering use, if any of groundwater beneath Site 1.

**Site 2, Northwest Open Disposal Area  
Naval Air Station Whiting Field  
Milton, Florida**

**Site Description:** Site 2, the Northwest Open Disposal Area, currently a surface depression, is old borrow pit. The relief at the site is approximately 25 feet. The site is currently covered with dense, low-lying vegetation has some wood debris located in the center portion. There is no surface water present at the site.

Site 2 was used as an open disposal area primarily for construction and demolition debris from 1976 until 1984. Wastes disposed of at the site include asphalt, wood, tires, furniture, and similar materials that were not suitable for landfill disposal. Crushed paint cans and scrap metal parts have been scattered throughout the site.

**Site Location:** Site 2 is located west of the North Air Field at NAS Whiting Field, along the northwestern boundary of NAS Whiting Field. The installation and site locations are shown on Figures 1-1 and 1-2 in the Remedial Investigation Report for Site 2, Northwest Open Disposal Area, Naval Air Station Whiting Field, Milton, Florida (HLA, 1998).

**Land Use Control (LUC) Objective:** Land use at Site 2 is to remain non-residential. The FDEP has agreed and USEPA has concurred with a *Site-Specific Arsenic Soil Cleanup Goal* of 4.62 mg/kg to be utilized at the site given the following conditions:

1. *The sites may be utilized for activities involving less than full-time contact with the site. This may include, but is not limited to, a) parks, b) recreation areas receiving heavy use (such as soccer or baseball fields), or c) agricultural sites where farming practices result in moderate site contact (approximately 100 days per year or less).*
2. *The Navy has adhered to the land use by incorporating the site and restricted use conditions in a Memorandum of Agreement (MOA).*
3. *The above soil cleanup goal shall not be utilized at any other site without specific FDEP approval.*

No further investigation of the soil under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA) is warranted under non-residential site usage.

The LUC is based on the detection of arsenic in surface soil samples at concentrations exceeding residential and industrial soil cleanup target levels established as guidance criteria by Chapter 62-777, F.A.C. (FDEP, 1999). Arsenic present at these concentrations could result in a total excess lifetime cancer risk of  $2 \times 10^{-5}$  by a hypothetical future resident,  $2 \times 10^{-6}$  for current and future site trespassers, and  $3 \times 10^{-6}$  by an occupational worker through the ingestion of surface soil. These risk levels exceed the FDEP target risk level of  $1 \times 10^{-6}$ .

**LUC Implemented to Achieve Objective(s):** Notation in the NAS Whiting Field geographic information system includes a designation of non-residential use only, at Site 2. Quarterly inspections are conducted to confirm conformance with the land use.

Under CERCLA, the Site 2 Record of Decision mandate initial implementation and continued application of appropriate controls on future usage of the property encompassing Site 2 while owned by the Federal government. The LUC will apply until or unless site remediation is conducted to restore the site for unrestricted use.

**Decision Documents:** Below are the Site 2 decision documents.

Envirodyne Engineers, Inc. 1985. Initial Assessment Study, Naval Air Station Whiting Field, Milton, Florida. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina.

Harding Lawson Associates (HLA), 1998. Remedial Investigation for Site 2, Northwest Open Disposal Area, Naval Air Station Whiting Field, Milton, Florida. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

ABB Environmental Services, 1998 Remedial Investigation and Feasibility Study, General Information Report, Naval Air Station Whiting Field, Milton, Florida. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

Florida Department of Environmental Protection, 1998. Letter from James H. Cason, Remedial Project Manager to Linda Martin, Department of Navy, Southern Division. Subject: Request for Site-Specific Arsenic Soil Cleanup Level: Covered Landfill Sites, NAS Whiting Field.

Florida Department of Environmental Protection, August 1999. Chapter 62-777, F.A.C.

HLA, 1998. Feasibility Study for Site 2, Northwest Open Disposal Area, Naval Air Station Whiting Field, Milton, Florida. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

HLA, 1998. Proposed Plan for Site 2, Northwest Open Disposal Area, Naval Air Station Whiting Field, Milton, Florida. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

**Other Pertinent Information:** Groundwater contamination, if any, beneath Site 2 will be addressed by the Site 40 Basewide Groundwater investigation.

Under the MOA for land use controls there are no stipulations precluding the use of the aquifer. However, because of the proximity to other industrial sites, and the detection of aluminum and iron at concentrations exceeding Federal and State maximum contaminant levels, it would not be advisable or prudent to use the resource as a potable or non-potable water supply. The Site 40 Basewide Groundwater investigation, in progress, should be reviewed prior to considering use, if any of groundwater beneath Site 2.