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NAS CORPUS CHRISTI  
5090.3a

LETTER REGARDING RESPONSE TO TECHNICAL NOTICE OF DEFICIENCY FOR  
GROUNDWATER COMPLIANCE PLAN APPLICATION AND CLASS 3 MODIFICATION AT  
SWMU 1, 183, 3, 4, AND BUILDING 8 NAS CORPUS CHRISTI TX  
06/10/2008  
TETRA TECHNUS, INC.



June 10, 2008

Edward J. (E.J.) Biskup, P.E., Project Manager  
Texas Commission on Environmental Quality  
Industrial & Hazardous Waste Permits Section.  
Waste Permit Division (MC 130)  
12100 Park 35 Circle  
Austin, Texas 78753

**Reference: CLEAN Contract N62467-94-D-0888  
Contract Task Order No. 0382**

**Subject: Response to Technical Notice of Deficiency  
Naval Air Station Corpus Christi, Corpus Christi, Texas  
Hazardous Waste Permit No. HW-50038  
Industrial Solid Waste Reg. No. 30479  
EPA Identification No. TX7170022787  
WWC No. 12147583; RN 101131332/CN 600621155**

Dear Mr. Biskup:

Enclosed, please find an original and three copies of the Navy's response to the regulator's comments on the Groundwater Compliance Plan Application and Navy Class 3 Modification for NAS Corpus Christi, Corpus Christi, Texas. As part of the response to these comments, corrected replacement pages are also enclosed for insertion into the Groundwater Compliance Plan and Part B Application as submitted in November 2007. The enclosed CDs should replace the CDs that were included in the report and contains a complete version of the corrected Groundwater Compliance Plan and Part B Application.

Should you have any questions or require additional information, please feel free to contact Ms. Helen Lockard at (904) 542-3991 ext. 4522 or me at (832) 251-6023.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Kenneth Grim'.

G. Kenneth Grim, Jr., P.G.

Enclosures

c: Ms. H. Lockard, NAVFAV SE (electronic copy)  
Mr. M. Hilger, NAS Corpus Christi (electronic copy)  
Mr. G. LeFlore, NAS Corpus Christi (electronic copy)  
Mr. A. Andrews, Sr., P.E., NAS Corpus Christi (hard copy and electronic copy)  
Mr. L. Basilio, TtNUS (electronic copy)  
File 112G00069 (electronic copy)

Tetra Tech NUS, Inc.

2901 Wilcrest Drive, Suite 405, Houston, TX 77042-3399

Tel 832.251.5160 Fax 832.251.5190

www.tetrattech.com

## ENCLOSURE A

### Response to May 20, 2008 TCEQ Review of the Navy Class 3 Modification, Dated November 2007 for Naval Air Station Corpus Christi (NASCC).

#### Part A Application:

**TCEQ Comment No. 1:** Please acknowledge that there are no updates required to the Part A Application dated October 21, 2005, which was part of the permit renewal submittal. If updates are required, please submit them along with a Part A Application signature page.

**Navy Response:** No response required.

#### Part B Application:

**TCEQ Comment No. 1:** Section I.D.7. – The total acreage of the facility being permitted shown in this section [2,553.38 acres] does not match the total acreage shown in Section I.4. of the Compliance Plan Application [2,049.85 acres]. The value shown in the Part B Application is the total acreage of the facility which was submitted in the permit renewal application. Please explain the difference between the figures.

**Navy Response:** Text within the Part B Application has been corrected to reflect 2,049.85 acres, as indicated in original permit. A revised Page 2 has been enclosed for replacement in the Part B Application.

**TCEQ Comment No. 2:** Section I.E.1. – Information which was provided with the permit renewal application showed that a considerable portion of the facility is located within the 100-year floodplain although the permitted unit is situated above the 100-year floodplain elevation. Since the question is related to the entire facility, please check the “YES” block and include an explanatory note or a map to show the 100-year floodplain location.

**Navy Response:** Text within the Part B Application has been corrected to reflect status change of 100-year floodplain. A revised Page 3 has been enclosed for replacement in the Part B Application.

**TCEQ Comment No. 3:** Section I.H. - Please revise the reference from Class 2 to Class 3 Permit Modification in this section.

**Navy Response:** Text within the Part B Application has been corrected to reflect Class 3 Permit Modification. A revised Page 6 has been enclosed for replacement in the Part B Application.

**TCEQ Comment No. 4:** Section XII. – Please remit additional fees in the amount of \$1,050 to cover the notice fee of \$50 as required by Section XII.B.2. and the process analysis fee of \$1,000 to cover review of the technical documents included in the compliance plan application as required by Section XII.B.4.i. Please make your check payable to “Texas Commission on Environmental Quality – **Fund 549**” and send the payment directly to:

Texas Commission on Environmental Quality  
Financial Administration Division – MC 214  
P. O. Box 13087  
Austin, TX 78711-3087

**Navy Response:** Per telephone and email conversations with Mr. Biskup on June 5, 2008, the receipt of check number 1132720 (\$2,065.00) and check number 202 (\$500.00) equaling a total of \$2,565.00, no further payment is required.

**Compliance Plan Application:**

**TCEQ Comment No. 1:** Please revise the applicant information in this section to match that shown in Section I.A. of the Part B Application.

**Navy Response:** Text within the Compliance Plan Application has been corrected to reflect updated applicant information. A revised Page 1 has been enclosed for replacement in the Compliance Plan Application.

**TCEQ Comment No. 2:** Please revise the name and address of the person listed in this section to match that shown in Section I.B.3. of the Part B Application.

**Navy Response:** Text within the Compliance Plan Application has been corrected to reflect updated information. A revised Page 2 has been enclosed for replacement in the Compliance Plan Application..

**TCEQ Comment No. 3:** Part II, Section 1.B. – The topographic map required by this section and included as Figure 3 is of poor quality and does not show sufficient detail since it is of such a large scale [1"=3000']. Please provide a map of better quality at a smaller scale that shows greater topographic details of the facility.

**Navy Response:** A revised topographic map has been enclosed to replace the existing Figure 3 in the Compliance Plan Application.

**TCEQ Comment No. 4.** Part V, Section 1. - This section discusses the types of corrective action proposed at the site. The Solid Waste Management Units located within the Building 8 are addressed through the use of monitored natural attenuation and the use of the building foundation as an engineering control. Please submit revised page(s) to incorporate language into this section of the application to include the building foundation as an engineering control.

**Navy Response:** Text within the Compliance Plan Application has been corrected to reflect updated information. A revised Page 12 has been enclosed for replacement in the Compliance Plan Application.

**TCEQ Comment No. 5:** Part V, Section 3.A.(2), Table V.1 – Point of Compliance (POC) wells serve to determine compliance with the groundwater protection standard at the unit and not to monitor the effectiveness of corrective action or plume migration, as these objectives are completed with corrective action observation (CAO) wells. Please submit revised pages for Table V.1 to reflect the following changes:

SWMU	Background Wells	POC Wells	CAO Wells
1 and 183	MCC-12	REI-26, ES-36	R-1, ES-33, R-2, R-9, R-27
3	MCC-12	ES-37, R-7	R-8
4	MCC-12	ES-46, ES-47, ES-36	R-3, R-4, R-5, R-6
Building 8	ES-2	ES-18, ES-28, ES-29, ES-7	R-13, ES-26

**Navy Response:** Table V.1 within the Compliance Plan Application has been corrected to reflect updated information. A revised Table V.1 has been enclosed for replacement in the Compliance Plan Application.

**TCEQ Comment No. 6:** Please submit a solid waste management unit location map for inclusion in Attachment A of the draft compliance plan. If available, an electronic version of the map would be very helpful.

**Navy Response:** Figures 4 (entire site), Figure 5 (SWMU's 1, 2, 4 and 183), and Figure 6 (Bldg 8 ) within the Compliance Plan Application has been corrected to reflect updated information. A revised copy of all figures has been enclosed for replacement in the Compliance Plan Application.

**Tetra Tech NUS, Inc.**  
**G. Kenneth Grim, Jr., P.G**  
**2901 Wilcrest Drive**  
**Suite 405**  
**Houston, TX 77042**  
**Phone: (832) 251-6023**  
**e-mail: [kenneth.grim@tetrattech.com](mailto:kenneth.grim@tetrattech.com)**

4. For applications for new permits, renewals, major amendments and Class 3 modifications a copy of the administratively complete application must be made available at a public place in the county where the facility is, or will be, located for review and copying by the public. Identify the public place in the county (e.g., public library, county court house, city hall), including the address, where the application will be made available for review and copying by the public.

**Corpus Christi Public Library**  
**805 Comanche St.**  
**Corpus Christi, TX 78401-2715**  
**Phone: (861) 880-7000**

5. If an applicant proposes a new industrial or hazardous waste facility that would accept municipal solid waste, the applicant shall hold a public meeting in the county in which the facility is proposed to be located. This meeting must be held before the 45<sup>th</sup> day after the date the application is filed. In addition, the applicant shall publish notice of the public meeting in accordance with 30 TAC 39.503(e)(5).

**This is a Class 3 Permit Modification to add a Compliance Plan.**

- C. Operator<sup>1</sup>: Identify the entity who will conduct facility operations.

**Timothy E. Coolidge, Captain, U.S. Navy**  
**Commanding Officer, Corpus Christi Naval Air Station**

Address: 11001 D Street – Suite 143

City: Corpus Christi, Texas Zip Code: 78419-5021

Telephone Number: (361) 961-2332

- D. Application Type and Facility Status

1.  permit  amendment  modification  
 new  major  Class 3  
 interim status  minor  Class 2  
 renewal  Class 1<sup>1</sup>  
 RD&D  Class 1  
 Compliance Plan

2. Is this submittal part of a Consolidated Permit Processing request, in accordance with 30 TAC Chapter 33?

Yes  No

**If yes, state the other TCEQ program authorizations requested.**

3. Does the application contain confidential material?  Yes  No

<sup>1</sup>The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on Part A of this application [Section 361.087, Texas Health and Safety Code].

**If yes**, cross-reference the confidential material *throughout the application* to Section XIII: Confidential Material, and submit as a separate Section XIII document or binder conspicuously marked ACONFIDENTIAL=.

4. In either column, check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> proposed hazardous waste management facility | <input checked="" type="checkbox"/> existing hazardous waste management facility |
| <input type="checkbox"/> on-site                                      | <input checked="" type="checkbox"/> on-site                                      |
| <input type="checkbox"/> off-site                                     | <input type="checkbox"/> off-site  |
| <input type="checkbox"/> commercial                                   | <input type="checkbox"/> commercial  |
| <input type="checkbox"/> recycle                                      | <input type="checkbox"/> recycle   |
| <input type="checkbox"/> land disposal                                | <input type="checkbox"/> land disposal   |
| <input type="checkbox"/> areal or capacity expansion                  | <input checked="" type="checkbox"/> compliance plan                              |

5. Is the facility within the Coastal Management Program boundary?  Yes.  No.

6. Provide a brief description of the portion of the facility covered by this application, including the changes for which an amendment or modification is requested.

<i>Permit/Compliance Plan Section</i>	<i>Brief Description of Proposed Change</i>	<i>Modification or Amendment Type</i>	<i>Supporting Regulatory Citation</i>
Compliance Plan	Add new Compliance Plan	Class 3 Modification	30 TAC 305 and 30 TAC 335

7. Total acreage of the facility being permitted: 2,049.85

8. Identify the name of the drainage basin and segment where the facility is located: Bays and estuaries between Oso Bay, Laguna Madre and Corpus Christi Bay

E. Facility Siting Summary

Is the facility located or proposed to be located:

1. within a 100-year floodplain?

YES  NO

A considerable portion of the Naval Air Station Corpus Christ facility is located within the 100-year floodplain, however, the permitted unit discussed is located above the 100-year floodplain elevation and thus not subject to associated restrictions.

2. in wetlands?

YES  NO

3. in the critical habitat of an endangered species of plant or animal?

YES  NO

4. on the recharge zone of a sole-source aquifer?

YES  NO

5. in an area overlying a regional aquifer?

YES  NO

6. Within 2 of a mile (2,640 feet) of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park? (Use only for a new commercial hazardous waste management facility or areal expansion of an existing commercial hazardous waste management facility or unit of that facility as defined in 30 TAC 335.202)

The TCEQ requires that a Core Data Form (Form 10400) be submitted on all incoming applications unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-1575 or go to the TCEQ Web site at [www.TCEQ.state.tx.us/permitting/projects/cr](http://www.TCEQ.state.tx.us/permitting/projects/cr)

**Core data has not changed for this Class 3 Permit Modification.**

I. Signature on Application

It is the duty of the operator to submit an application for a permit. The person who signs the application form will often be the operator himself; when another person signs on behalf of the applicant, his title or relationship to the applicant will be shown. In all cases, the person signing the form must be authorized to do so by the applicant. An application submitted by a corporation must be signed by a responsible corporate officer such as a president, secretary, treasurer, vice president, or by his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the activity described in the form originates. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor, respectively. In the case of a municipal, state, federal, or other public facility, the application must be signed by a principal executive officer, a ranking elected official, or another duly authorized employee. A person signing an application on behalf of an applicant must provide notarized proof of authorization.

**Twigg, Bridget**

---

**From:** Edward Biskup [EBISKUP@tceq.state.tx.us]  
**Sent:** Thursday, June 05, 2008 5:04 PM  
**To:** Twigg, Bridget  
**Subject:** Re: Scan of check

Bridget:

I received a faxed copy of a receipt dated December 18, 2007, from the TCEQ Cashier's Office verifying that fees in the amount of \$2,065 had been submitted for the Class 3 Modification to incorporate a compliance plan into Permit No. 50038.

The copy of the Class 3 Modification application that I had been given to review did not contain this information in it.

Based on receipt of the \$2,065 [plus the \$500 in January 2008], there are no additional fees required for the Class 3 Modification application as had been requested in the TCEQ letter dated May 20, 2008, under Item No. 4, Part B Application.

Thanks for providing the copy of check so that I could verify receipt with the Cashier's Office.

Please let me know if you have additional questions or comments.

Edward J. (E.J.) Biskup, P.E., Project Manager  
IHW Permits Section, Waste Permits Division  
Texas Commission on Environmental Quality  
P.O. Box 13087, Mail Code MC 130  
Austin, TX 78711-3087  
Telephone: 512/239-6620  
Telefax: 512/239-6383  
<ebiskup@tceq.state.tx.us>

>>> "Twigg, Bridget" [Bridget.Twigg@tetrattech.com](mailto:Bridget.Twigg@tetrattech.com) 6/5/08 3:43 PM >>

<<TCEQ Check.PDF>>

Here is a scan of the check sent for the compliance plan application.

**Bridget Twigg** | Staff Geologist

Direct: 832.251.5195 | Main: 832.251.5160 | Personal Fax: 832.251.5190  
[bridget.twigg@ttnus.com](mailto:bridget.twigg@ttnus.com)

Tetra Tech NUS  
2901 Wilcrest Drive, Suite 405 | Houston, TX 77042 | [www.ttnus.com](http://www.ttnus.com)

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6/9/2008

FOR DEPARTMENT USE ONLY

Texas Natural Resource  
Conservation Commission  
Executive Director  
Permits Division  
Industrial & Hazardous Waste Permits Section

Application No.: \_\_\_\_\_  
Compliance Plan No.: CP- \_\_\_\_\_  
Administrative Review by: \_\_\_\_\_  
Administratively Complete: \_\_\_\_\_  
Number of Copies Received: \_\_\_\_\_

\*\*\*\*\*

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION  
COMPLIANCE PLAN APPLICATION

PART I  
GENERAL INFORMATION

1. Applicant Information

US Department of the Navy, Naval Air Station Corpus Christi,

(Name of individual, corporation or other legal entity name)

Not Applicable

(Previous or former names of the facility, if applicable)

11001 D Street (Code 186) – Suite 143

(Mailing address)

Corpus Christi, Texas, 78419-5021

(City, state, zip code)

(361)961-3776

(Area code and telephone number)

If the application is submitted on behalf of a corporation, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas. N/A – Federal facility

(Charter Number)

2. Same as applicant

Current owner(s) of the facility’s property (if different than the applicant)

3. Agents and Responsible Parties

If, for any reason, the applicant designates an agent authorized to act for the applicant during the processing of the application, designated persons or firms along with complete mailing address and telephone number must be listed below. If the application is submitted by a corporation or individual residing out of state, the applicant is required to designate an Agent in Service or Agent of Service who is a Texas resident.

List the individual and his/her mailing address who will be responsible for causing notice to be published in the newspaper.

Tetra Tech NUS, Inc.; ATTN: G. Kenneth Grim, Jr., P.G.

2901 Wilcrest Drive, Suite 405  
Houston, Texas 77042  
Phone: 832-251-6023  
Fax: 832-251-5190  
e-mail: [kenneth.grim@tetrattech.com](mailto:kenneth.grim@tetrattech.com)

4. Facility Information

Facility Name: Naval Air Station Corpus Christi

Physical address: Naval Air Station Corpus Christi, 1101 D Street, Suite 143, Corpus Christi, Texas  
78419

City: Corpus Christi

County: Nueces

Provide a brief written description of the portion of the facility covered by this application: ***This application covers those portions of the Naval Air Station identified as having chemical releases impacting the shallow surficial aquifer as identified in the various RCRA Facility Investigation Reports, an Affected Assessment Property Report (E/A&H, 2001) and/or other environmental investigations. This application includes the following areas:***

- SWMU 1 - Defense Property Disposal Office (DPDO) Landfill***
- SWMU 3 - Corpus Christi Army Depot (CCAD) Liquid Waste Disposal Area***
- SWMU 4 - Aircraft Fire Training Area***
- SWMU 183 - Defense Reutilization & Marketing Office (DRMO) Storage Area***
- SWMU 244 to 247, 257 to 259, 264, 265, 274 - Building 8 (CCAD)***
- SWMU 316 to 333 - Industrial Waste Pretreatment Plant Units - Building 8***

Identify the city and a major highway intersection closest to the facility: ***Located in Corpus Christi near State Highway 358 and Waldron Drive***

Provide a brief description of the type of business (e.g., chemical, manufacturing, petroleum) and the product(s) manufactured or produced by the facility. ***Active Naval Air Station, military pilot training, aviation activities, aircraft maintenance***

The total acreage of the facility being permitted: ***2049.85 Acres***

Geographical Latitude: ***27.6841 N*** Longitude: ***97.2761 W***

Identify the name of the drainage basin and segment where the facility is located: ***Bays and Estuaries: between Oso Bay, Laguna Madre and Corpus Christi Bay***

List Industrial Solid Waste (ISW) Registration Number(s) for the facility: ***SWR No. 30479***

EPA I.D.No.: ***TX7170022787***

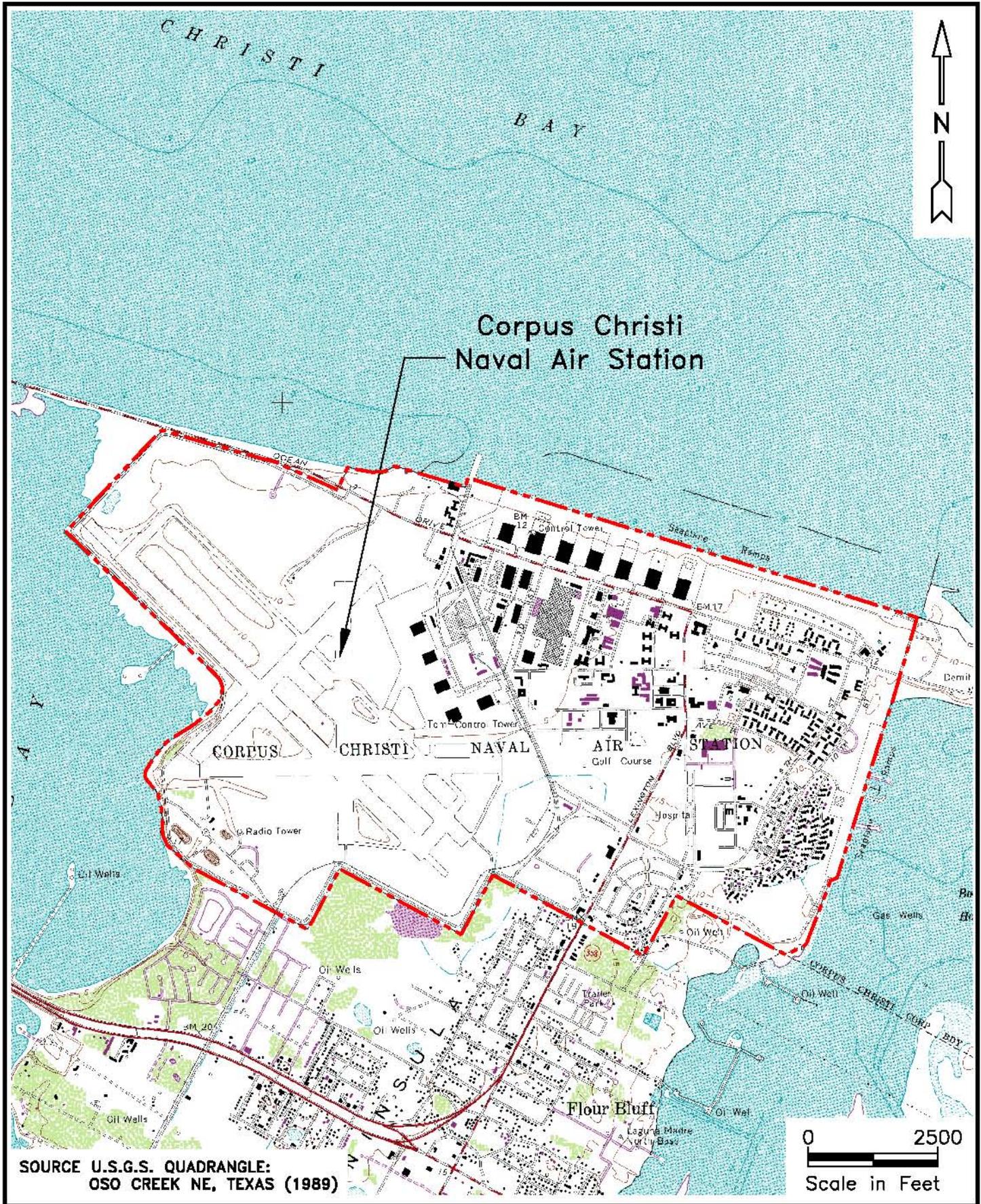
Industrial and Hazardous Waste Permit No. (if not a new application): ***HW-50038***

Municipal Solid Waste Permit No. (if applicable): ***Not applicable***

Air Permit No(s). (if applicable): ***Not applicable***

Wastewater Permit No(s). (if applicable): ***TX0007889***

5. Is the facility located within the Coastal Management Program boundary? ***X*** Yes.      No.



SITE MANAGER: K. GRIM	
CHECKED BY: B. TWIGG	
DRAWN BY: G. SOSA	
DATE: 05-29-08	SCALE: 1"=2500'
DWG. NO.: 73015V	PROJ. NO.: 112G00089



**FIGURE 3**  
**U.S.G.S. TOPOGRAPHIC MAP**  
**GROUNDWATER COMPLIANCE PLAN APPLICATION**  
**NAS CORPUS CHRISTI, TEXAS**

**PART V  
CORRECTIVE ACTION PROGRAM**

1. Type of Corrective Action Proposed

*SWMU 1 – Defense Property Disposal Office (DPDO) Landfill*

*Other: MNA, French Drain*

*SWMU 3 - Corpus Christi Army Depot (CCAD) Liquid Waste Disposal Area*

*Other: MNA, French Drain*

*SWMU 4 – Aircraft Fire Training Area*

*Other: MNA, French Drain*

*SWMU 183 – Defense Reutilization & Marketing Office (DRMO) Storage Area*

*Other: MNA, French Drain*

*SWMU 244 to 247, 257 to 259, 264, 265, 274 – Building 8*

*Other: MNA, Engineering control (building foundation) precluding access to contaminated soil*

*SWMU 316 to 333 – Industrial Waste Pretreatment Plant Units – Building 8*

*Other: MNA, Engineering control (building foundation) precluding access to contaminated soil*

*The response actions for SWMUs 1, 3 and 4 and SWMU 183, DRMO area, and SWMUs 244 to 247, 257 to 259, 264, 265, 274, 316 to 333 (Building 8) are detailed in Response Action Plan, Installation Restoration Sites 1, 3, and 4, NAS Corpus Christi, Texas (E/A&H, 2003a) and Response Action Plan, Building 8, NAS Corpus Christi, Texas (E/A&H, 2003b) submitted to TCEQ in April 2005.*

2. Program Description

A. Recovery Wells - *Not applicable.*

B. Vapor Extraction System - *Not applicable.*

C. Interceptor Trenches

*SWMUs 1, 3 and 4 - See RAP for IR Sites 1, 3, and 4, NAS Corpus Christi, Texas (E/A&H 2003a) submitted to TCEQ in April 2005 for details of the French drain (interceptor trench).*

D. In-Situ Treatment - Chemical Reaction – *Not applicable.*

E. In-Situ Treatment – Bioreclamation – *Not applicable.*

F. Barrier Walls – *Not applicable.*

G. Permeable Treatment Beds – *Not applicable.*

H. Other - *MNA*

*See RAPs for SWMUs 1, 3 and 4, SWMU 183 (E/A&H, 2003a) and Building 8 (SWMUs 244 to 247, 257 to 259, 264, 265, 274, 316 to 333) (E/A&H, 2003b) submitted to TCEQ in April 2005.*

3. Ground-Water Monitoring and Corrective Action Program Description

A. Describe the proposed ground-water monitoring system to be used to monitor corrective action and compliance with the GWPS which includes the following information.

(1) Changes – *Not applicable. Although there is a groundwater monitoring program currently in place at the sites, it is not part of a formal compliance plan.*

(2) The number, depth and location of all monitor wells – *See Table V.1. Additional monitoring wells may be proposed and installed to support corrective action at the sites, as needed.*

(3) The proposed hazardous constituent monitoring list – *Samples from wells will be analyzed for the constituents listed below.*

*SWMUs 1, 3, 4, 183 – Volatile organic compounds using EPA Method 8260B per the Work Plan (Terraine, 2004).*

**TABLE V.1**

**PROPOSED CORRECTIVE ACTION AND GROUNDWATER MONITORING SYSTEM<sup>(1)</sup>**

**SWMU 1 and 183 (Page 1 of 1)**

CONTAMINATED HYDROGEOLOGIC UNITS (First column in Table III.1)	MONITOR WELL DESIGNATIONS AND RECOVERY SYSTEM IDENTIFICATIONS	SURFACE ELEVATION <sup>(6)</sup> (Feet/MSL <sup>(2)</sup> )	TOTAL WELL DEPTH		SCREEN LENGTH (IN FEET)	SCREENED INTERVAL (Feet/MSL)	SCREENED INTERVAL (Feet/BGS)
			Feet/MSL	Feet/BGS <sup>(3)</sup>			
<b>PROPOSED BACKGROUND WELL(S) [UPGRADIENT]</b>							
Unit 1	MCC-12	21.82	6.61	15.21	10	16.61 to 6.61	5.21 to 15.21
<b>PROPOSED POINT OF COMPLIANCE WELLS</b>							
Unit 1	REI-26	17.57	-3.43	21	15	11.57 to -3.43	6 to 21
<b>PROPOSED CORRECTIVE ACTION OBSERVATION WELL(S) <sup>(5)</sup></b>							
Unit 1	R-1	16.17	4.17	12	10	14.17 to 4.17	2 to 12
	R-2	15.13	3.13	12	10	13.13 to 3.13	2 to 12
	R-9	14.9	2.9	12	10	12.9 to 2.9	2 to 12
	REI-27	17.26	-2.38	20	15	12.62 to -2.38	5 to 20
	ES-33	16.42	4.92	11.5	10	14.92 to 4.92	1.5 to 11.5

- (1) The applicant shall submit a table for each contaminated hydrogeologic unit listed in Table III.1 when the concentration of each hazardous constituent detected in that hydrogeologic unit does not exceed the proposed GWPS. A hydrogeologic unit is defined in Table II.3 of this application.
- (2) MSL = Mean Sea Level
- (3) BGS = Below Ground Surface
- (4) If the proposed corrective action does not include Recovery Wells, describe the alternate corrective action system.
- (5) Corrective Action Observation Wells monitor the effectiveness of the corrective action program and the contaminants in the hydrogeologic unit.
- (6) Elevations are based on Top of Casing. Elevations are from Table 2-1, Draft RAP Well Installation Report, IR Sites 1, 3, and 4 and Building 8, E/A&H, June 2003.

**TABLE V.1**

**PROPOSED CORRECTIVE ACTION AND GROUNDWATER MONITORING SYSTEM<sup>(1)</sup>**

**SWMU 3 (Page 1 of 1)**

CONTAMINATED HYDROGEOLOGIC UNITS (First column in Table III.1)	MONITOR WELL DESIGNATIONS AND RECOVERY SYSTEM IDENTIFICATIONS	SURFACE ELEVATION <sup>(6)</sup> (Feet/MSL <sup>(2)</sup> )	TOTAL WELL DEPTH		SCREEN LENGTH (IN FEET)	SCREENED INTERVAL (Feet/MSL)	SCREENED INTERVAL (Feet/BGS)
			Feet/MSL	Feet/BGS <sup>(3)</sup>			
<b>PROPOSED BACKGROUND WELL(S) [UPGRADIENT]</b>							
Unit 1	MCC-12	21.82	6.61	15.21	10	16.61 to 6.61	5.21 to 15.21
<b>PROPOSED POINT OF COMPLIANCE WELLS</b>							
Unit 1	ES-37	15.78	4.78	11	10	12.75 to 2.75	1 to 11
	R-7	14.57	2.57	12	10	12.52 to 2.52	2 to 12
<b>PROPOSED CORRECTIVE ACTION OBSERVATION WELL(S) <sup>(5)</sup></b>							
Unit 1	R-8	14.9	2.9	12	10	13.3 to 3.3	2 to 12

(1) The applicant shall submit a table for each contaminated hydrogeologic unit listed in Table III.1 when the concentration of each hazardous constituent detected in that hydrogeologic unit does not exceed the proposed GWPS. A hydrogeologic unit is defined in Table II.3 of this application.

(2) MSL = Mean Sea Level

(3) BGS = Below Ground Surface

(4) If the proposed corrective action does not include Recovery Wells, describe the alternate corrective action system.

(5) Corrective Action Observation Wells monitor the effectiveness of the corrective action program and the contaminants in the hydrogeologic unit.

(6) Elevations are based on Top of Casing. Elevations are from Table 2-1, Draft RAP Well Installation Report, IR Sites 1, 3, and 4 and Building 8, E/A&H, June 2003.

TABLE V.1

PROPOSED CORRECTIVE ACTION AND GROUNDWATER MONITORING SYSTEM<sup>(1)</sup>

SWMU 4 (Page 1 of 1)

CONTAMINATED HYDROGEOLOGIC UNITS (First column in Table III.1)	MONITOR WELL DESIGNATIONS AND RECOVERY SYSTEM IDENTIFICATIONS	SURFACE ELEVATION <sup>(6)</sup> (Feet/MSL <sup>(2)</sup> )	TOTAL WELL DEPTH		SCREEN LENGTH (IN FEET)	SCREENED INTERVAL (Feet/MSL)	SCREENED INTERVAL (Feet/BGS)
			Feet/MSL	Feet/BGS <sup>(3)</sup>			
<b>PROPOSED BACKGROUND WELL(S) [UPGRADIENT]</b>							
Unit 1	MCC-12	21.82	6.61	15.21	10	16.61 to 6.61	5.21 to 15.21
<b>PROPOSED POINT OF COMPLIANCE WELLS</b>							
Unit 1	ES-36	19.43	7.43	12	10	17.43 to 7.43	2 to 12
	ES-46	18.76	6.26	12.5	10	16.26 to 6.26	2.5 to 12.5
	ES-47	19.49	6.99	12.5	10	16.99 to 6.99	2.5 to 12.5
<b>PROPOSED CORRECTIVE ACTION OBSERVATION WELL(S) <sup>(5)</sup></b>							
Unit 1	R-3	14.62	2.62	12	10	12.62 to 2.62	2 to 12
	R-4	16.88	4.88	12	10	14.88 to 4.88	2 to 12
	R-5	16.09	4.09	12	10	14.09 to 4.09	2 to 12
	R-6	16.31	4.31	12	10	14.31 to 4.31	2 to 12

(1) The applicant shall submit a table for each contaminated hydrogeologic unit listed in Table III.1 when the concentration of each hazardous constituent detected in that hydrogeologic unit does not exceed the proposed GWPS. A hydrogeologic unit is defined in Table II.3 of this application.

(2) MSL = Mean Sea Level

(3) BGS = Below Ground Surface

(4) If the proposed corrective action does not include Recovery Wells, describe the alternate corrective action system.

(5) Corrective Action Observation Wells monitor the effectiveness of the corrective action program and the contaminants in the hydrogeologic unit.

(6) Elevations are based on Top of Casing. Elevations are from Table 2-1, Draft RAP Well Installation Report, IR Sites 1, 3, and 4 and Building 8, E/A&H, June 2003.

**TABLE V.1**

**PROPOSED CORRECTIVE ACTION AND GROUNDWATER MONITORING SYSTEM<sup>(1)</sup>**

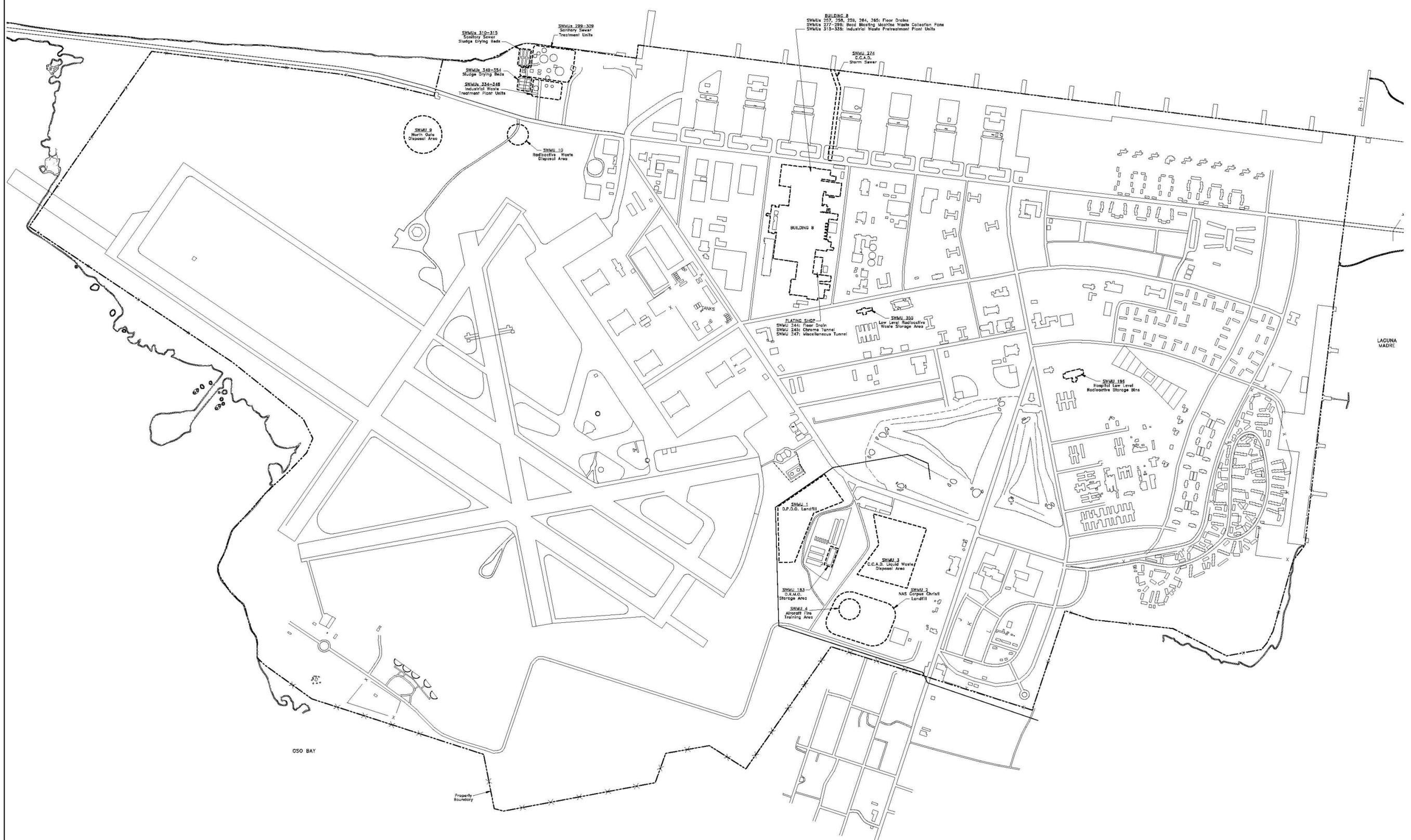
**SWMUs 244 to 247, 257 to 259, 264, 265, 274, 316 to 333 - Building 8 (Page 1 of 1)**

CONTAMINATED HYDROGEOLOGIC UNITS (First column in Table III.1)	MONITOR WELL DESIGNATIONS AND RECOVERY SYSTEM IDENTIFICATIONS	SURFACE ELEVATION <sup>(6)</sup> (Feet/MSL <sup>(2)</sup> )	TOTAL WELL DEPTH		SCREEN LENGTH (IN FEET)	SCREENED INTERVAL (Feet/MSL)	SCREENED INTERVAL (Feet/BGS)
			Feet/MSL	Feet/BGS <sup>(3)</sup>			
<b>PROPOSED BACKGROUND WELL(S) [UPGRADIENT]</b>							
Unit 1	ES-2 <sup>(7)</sup>	13.02	0.41	12.61	10	10.41 to 0.41	2.61 to 12.61
<b>PROPOSED POINT OF COMPLIANCE WELLS</b>							
Unit 1	ES-7 <sup>(7)</sup>	13.18	-4.45	17.63	10	5.55 to -4.55	7.63 to 17.63
	ES-18	12.68	-3.32	16	10	6.68 to -3.32	6 to 16
	ES-28	12.33	-16.17	28.5	5	-11.17 to -16.17	23.5 to 28.5
	ES-29	12.33	0.83	11.5	5	5.83 to 0.83	6.5 to 11.5
<b>PROPOSED CORRECTIVE ACTION OBSERVATION WELL(S) <sup>(5)</sup></b>							
Unit 1	R-13	10.63	-19.37	30	10	-9.37 to -19.37	20 to 30
	ES-26	8.40	-18.6	27	5	-13.6 to -18.6	22 to 27

- (1) The applicant shall submit a table for each contaminated hydrogeologic unit listed in Table III.1 when the concentration of each hazardous constituent detected in that hydrogeologic unit does not exceed the proposed GWPS. A hydrogeologic unit is defined in Table II.3 of this application.
- (2) MSL = Mean Sea Level
- (3) BGS = Below Ground Surface
- (4) If the proposed corrective action does not include Recovery Wells, describe the alternate corrective action system.
- (5) Corrective Action Observation Wells monitor the effectiveness of the corrective action program and the contaminants in the hydrogeologic unit.
- (6) Elevations are based on Top of Casing. Elevations are from Table 2-1, Draft RAP Well Installation Report, IR Sites 1, 3, and 4 and Building 8, E/A&H, June 2003.
- (7) Well logs are not available for these monitor wells.



CORPUS CHRISTI BAY



OSO BAY

LAGUNA MADRE

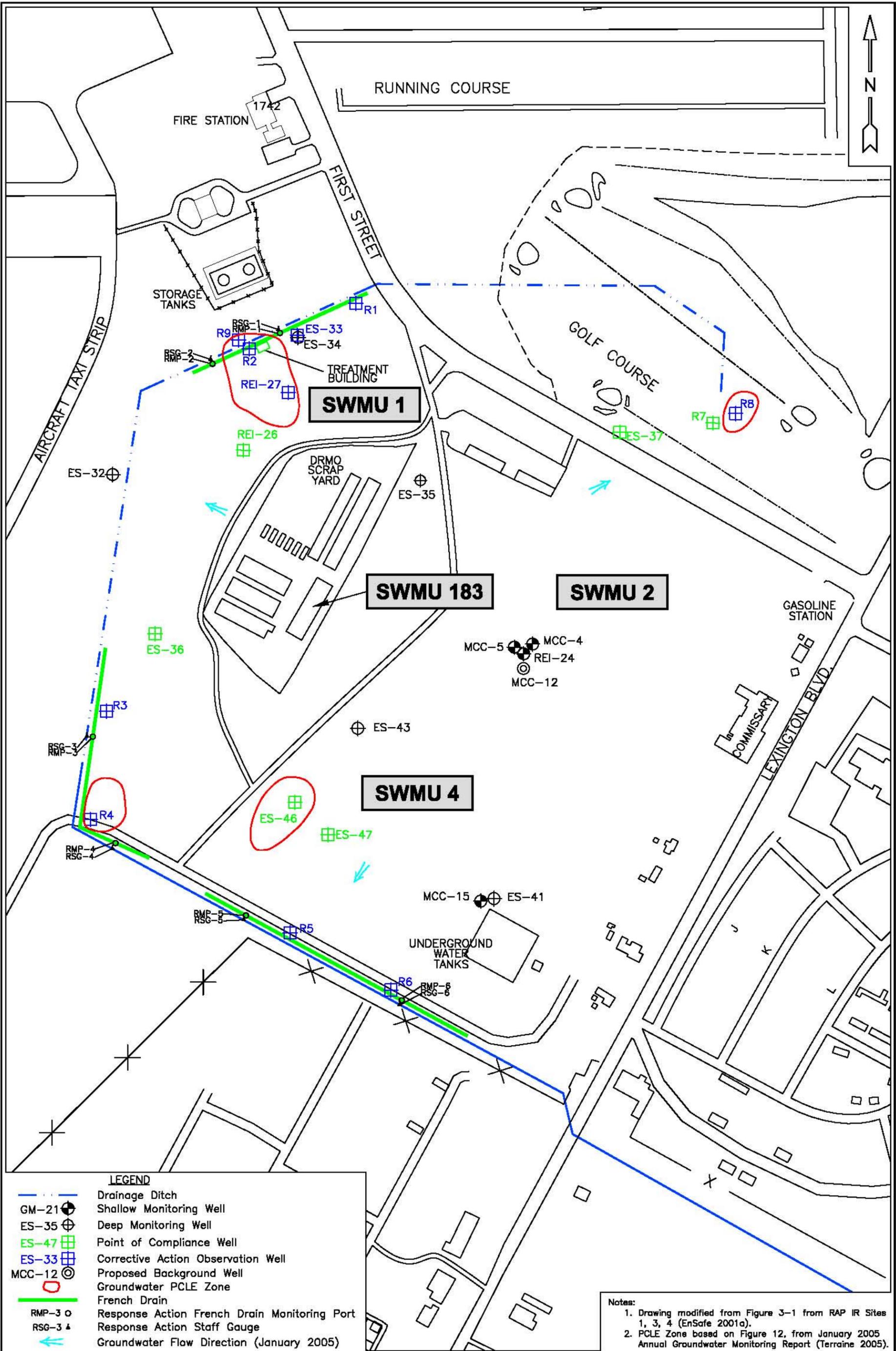
Property Boundary

0 400  
Scale in Feet

SITE MANAGER: D. LINDSAY	SCALE: 1"=400'
CHECKED BY: L. BASKIO	DATE: 08-19-05
DRAWN BY: J. FLESH	PROJ. NO.: 11200069
DWG. NO.: 00069_SWMU2	



FIGURE 4  
SOLID WASTE MANAGEMENT UNITS  
GROUNDWATER COMPLIANCE PLAN APPLICATION  
NAS CORPUS CHRISTI, TEXAS



**LEGEND**

- Drainage Ditch
- GM-21 Shallow Monitoring Well
- ES-35 Deep Monitoring Well
- ES-47 Point of Compliance Well
- ES-33 Corrective Action Observation Well
- MCC-12 Proposed Background Well
- Groundwater PCLE Zone
- French Drain
- RMP-3 Response Action French Drain Monitoring Port
- RSG-3 Response Action Staff Gauge
- Groundwater Flow Direction (January 2005)

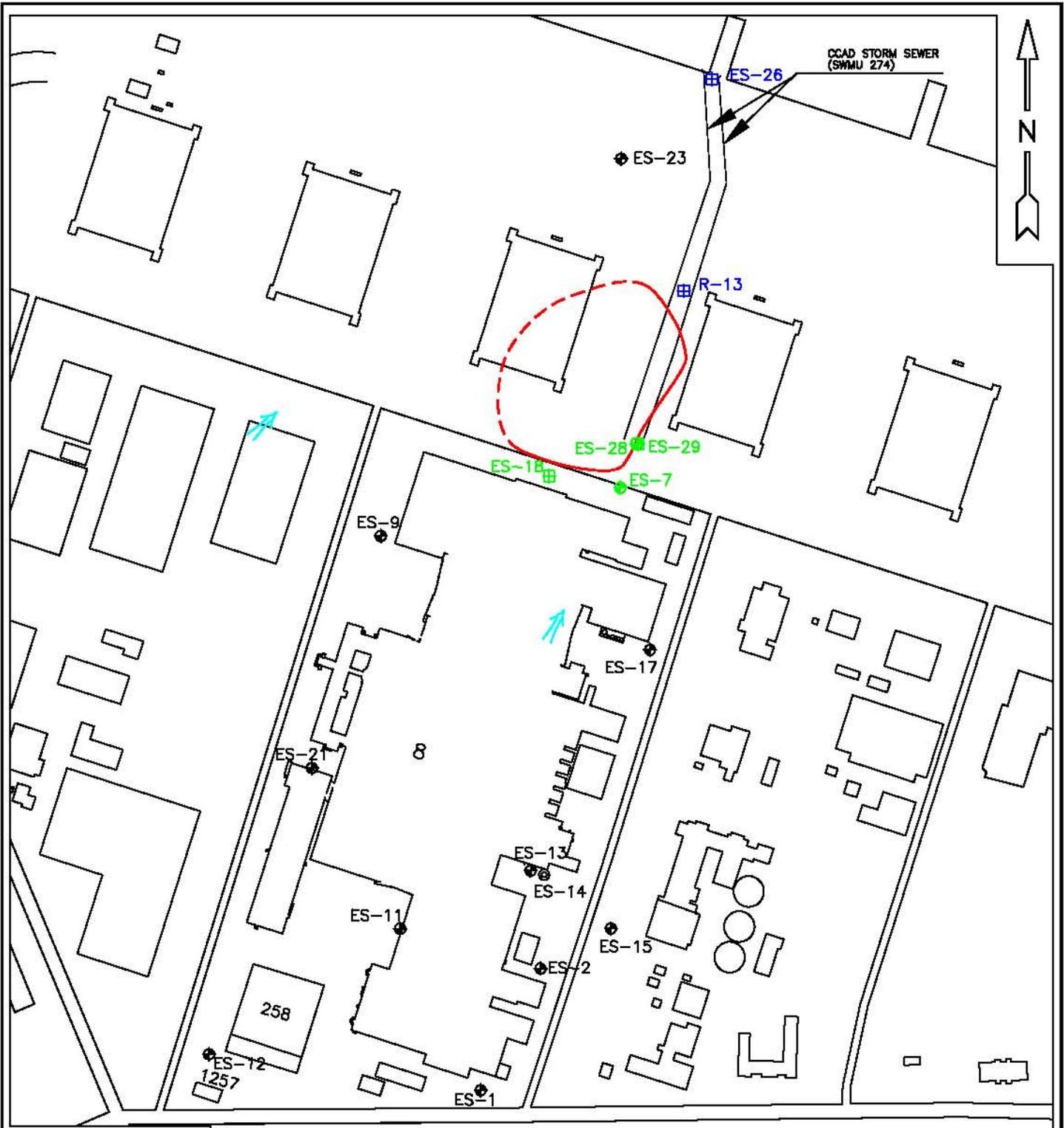
Notes:  
 1. Drawing modified from Figure 3-1 from RAP IR Sites 1, 3, 4 (EnSafe 2001a).  
 2. PCLE Zone based on Figure 12, from January 2005 Annual Groundwater Monitoring Report (Terrain 2005).



SITE MANAGER: K. GRIM	
CHECKED BY: MARY	
DRAWN BY: G. SOSA	
DATE: 06-04-08	SCALE: 1"=300'
DWG. NO.: 00069MWP3	PROJ. NO.: 112000069



**FIGURE 5**  
**MONITORING WELL SYSTEM**  
**SWMUs 1, 2, 4 AND 183**  
**GROUNDWATER COMPLIANCE PLAN APPLICATION**  
**NAS CORPUS CHRISTI, TEXAS**



**Notes:**

1. Drawing modified from Figure 3-1 from RAP Building 8 (EnSafe 2001b).
2. PCLE Zone based on Figure 14, from July 2007 Annual Groundwater Monitoring Report (Terraine 2007).

LEGEND	
ES-23	Shallow Monitoring Well
ES-7	Point of Compliance Well
ES-7	Proposed Corrective Action Observation Well
ES-2	Proposed Background Well
(Red dashed circle)	Groundwater PCLE Zone
(Cyan arrow)	Groundwater Flow Direction (January 2005)

SITE MANAGER: K. GRIM	
CHECKED BY: B. TWIGG	
DRAWN BY: G. SOSA	
DATE: 08-10-08	SCALE: 1"=400'
DWG. NO.: 00069MWP1	PROJ. NO.: 112G00069



**FIGURE 6**  
**MONITORING WELL SYSTEM - BUILDING 8**  
**GROUNDWATER COMPLIANCE PLAN APPLICATION**  
**NAS CORPUS CHRISTI, TEXAS**