



DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
CORPUS CHRISTI REGULATORY FIELD OFFICE
5151 FLYNN PARKWAY, SUITE 306
CORPUS CHRISTI, TEXAS 78411-4318

(COPY)

January 26, 2016

REPLY TO
ATTENTION OF:

Corpus Christi Regulatory Field Office

SUBJECT: Permit Application – SWG-2003-01954

Brownsville Navigation District
Attn: Eduardo Campriano
1000 Foust Road
Brownsville, Texas 78521-1000

Dear Mr. Campriano:

The above numbered permit has been approved and a signed copy is enclosed for your retention. In addition, also enclosed are ENG Form 4336 and a copy of "Notice to Permittee" which provides important information for permit administration. You should notify the Corpus Christi Regulatory Field Office, in writing, upon completion of the authorized work.

This permit does not authorize any injury or interference with any Federal property; nor does it grant property rights, access privileges, or rights-of-way entrance authorizations to any property including those owned by State or Federal agencies. There are Federal properties (owned OR CONTROLLED by Corps of Engineers) identified within the project area. All appropriate accesses, authorizations, rights-of-way on the Corps Federal project area must be procured from the Corps Real Estate Division prior to impacting any of these Federally-owned/operated lands. This Permit authorization is limited to those impacts exactly as depicted. If property access and/or use is denied and/or requires modification to the project as permitted, this authorization becomes null and void and would require a new authorization to adequately address these new impacts. Please visit the USACE Galveston District's website for the most current information regarding the District's outgrant policy at <http://www.swg.usace.army.mil/BusinessWithUs/RealEstateDivision/Outgrants.aspx>.

To assist us in improving our service to you, please complete the survey found at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Matthew Kimmel, Supervisor
Corpus Christi Regulatory Field Office

(COPY)

Enclosures

Copies Furnished:

Blanton & Associates, Inc., Attn: Don Blanton, 5 Lakeway Centre Court, Ste. 200,
Austin, Texas 78734-1095

EPA, Region 6

USFWS

NOAA-NMFS

TPWD

Commander (oan), Eighth Coast Guard District, Hale Boggs Federal Building, 501
Magazine Street, New Orleans, Louisiana 70130-3396 (w/encl)

Director, National Ocean Service, Coast & Geo. Sur., Mapping & Charting Branch,
Source Data Unit, Attn: N/CG2211, Station 7317, SSMC3, 1315 East-West Highway,
Silver Spring, Maryland 20910-3233

DEPARTMENT OF THE ARMY PERMIT

Permittee BROWNSVILLE NAVIGATION DISTRICT

Permit No. SWG-2003-01954

Issuing Office Galveston District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To widen and deepen the existing pilot channel between Bahia Grande and the Brownsville Ship Channel (BSC), deposit dredged material into an existing dredged material placement area (DMPA) in the vicinity of the proposed channel widening project, and install rip rap scour protection along portions of the main channel and the Bahia Grande shoreline. Both mechanical and hydraulic dredging methods will be used. The channel will be 2,200 feet long and increase from 34 feet wide to 250 feet wide at the top, 15 feet to 150 feet wide at the bottom, -3.25 feet mean sea level (MSL) to -9 feet MSL. A temporary access route area will be utilized during construction and will require temporary dredging and/or fill of approximately 1 acre within Bahia Grande. Upon construction completion, the access route will be returned to pre-construction contours. The rip rap scour protection will be permanently installed along approximately 400 feet in both directions from the SH 48 bridge, covering approximately 4.3 acres. Dredging will temporarily impact 13.24 acres within the existing pilot channel, portions of the Brownsville Ship Channel, the Bahia Grande (includes 10.48 acres of unvegetated open water, 2.31 acres of seagrasses and 0.45 acre of oysters), and permanently impact 8.06 acres of special aquatic sites (including 7.46 acres of unvegetated tidal mud flats, 0.46 acre of emergent wetlands, and 0.14 acre of mangrove marsh). Approximately 220,000 cubic yards of material will be excavated from the existing pilot channel and adjacent land and transported via pipeline across the BSC into existing leveed DMPA 5A. The project will be conducted in accordance with the attached plans in 9 sheets, titled Bahia Grande Main Channel Project, and Attachment A.

Project Location: In the Bahia Grande and Brownsville Ship Channel, approximately 6.7 miles southwest of Port Isabel, Cameron County, Texas.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 31 December 2021. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee understands and agrees that if future operations by the United States require the removal, relocation or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate or alter the structural work or obstructions caused thereby without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. When structures or work authorized by this permit are determined by the District Engineer to have become abandoned, obstructive to navigation or cease to be used for the purpose for which they were permitted, such structures or other work must be removed, the area cleared of all obstructions, and written notice given to the Corps of Engineers, Galveston District, Regulatory Division, Corpus Christi Field Office (Corps), within 30 days of completion.
3. The permittee must install and maintain, at the permittee's expense, any safety lights, signs and signals required by the U.S. Coast Guard, through regulations or otherwise, on the permittee's fixed structures. To receive a U.S. Coast Guard Private Aids to Navigation marking determination, no later than 30 days prior to installation of any fixed structures in navigable waters and/or prior to installation of any floating private aids to navigation, you are required to contact the Eighth Coast Guard District (dpw), 500 Poydras St. Suite 1230, New Orleans, LA 70130, (504) 671-2328 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation please visit the Eighth Coast Guard District web site at: <http://www.uscg.mil/d8/waterways/PATON.Home.asp>.
4. The permittee must coordinate the use of Dredged Material Placement Area 5A with the Corps of Engineers Galveston District's Southern Area Office, the Navigation Branch and the Operations Division, at least 60 days prior to conducting any and all work in or affecting the disposal area to assure that the work will not conflict with U. S. Government dredging or disposal area management activities.
5. Within 90 days of cessation of activities, the permittee will: clear the permit area of all production equipment; remove all associated fill material; restore the project area to pre-construction contours and elevations; and notify the Corps in writing, within 30 calendar days of completion of permit area restoration.
6. Written post-construction monitoring reports, including photo-documentation, detailing the ecosystem response to the Bahia Grande channel widening project as noted in the mitigation plan must be submitted to the Corps, beginning with an initial report submitted within 6 months of cessation of the Bahia Grande channel widening activities, and then annual reports from that date for 5 years thereafter.
7. The mitigation success criteria, as indicated in the mitigation plan included in Attachment A, must be achieved for the mitigation requirement to be considered complete.
8. Should mitigation be determined to be unsuccessful by Corps personnel at the end of the monitoring period, the permittee will be required to take necessary corrective measures, as approved by the Corps. Once the corrective measures are completed, the permittee will notify the Corps and a determination will be made regarding success of the mitigation.
9. Prior to the performance of hydraulic dredging, the permittee will obtain a Section 401 -water quality certification from the TCEQ for the effluent or return water associated with the upland dredged material placement area to be utilized. The permittee will submit a copy of the Section 401 -certification to the Corps of Engineers (CE), Galveston District, Corpus Christi Regulatory Field Office, prior to performing hydraulic dredging.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

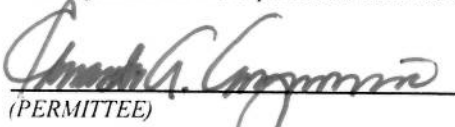
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

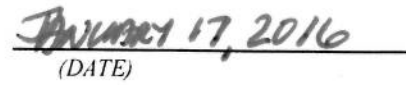
6. Extensions. General condition I establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



(PERMITEE)

EDUARDO CAMPRIANO
PORT DIRECTOR and CEO
BROWNSVILLE NAVIGATION DISTRICT



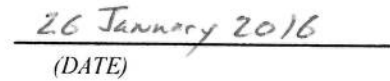
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



(DISTRICT ENGINEER)

MATTHEW KIMMEL, SUPERVISOR
CORPUS CHRISTI REGULATORY FIELD OFFICE
FOR COLONEL RICHARD P. PANNELL



(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEEE - Typed/Printed Name)

(DATE)

(TRANSFEEE - Signature)

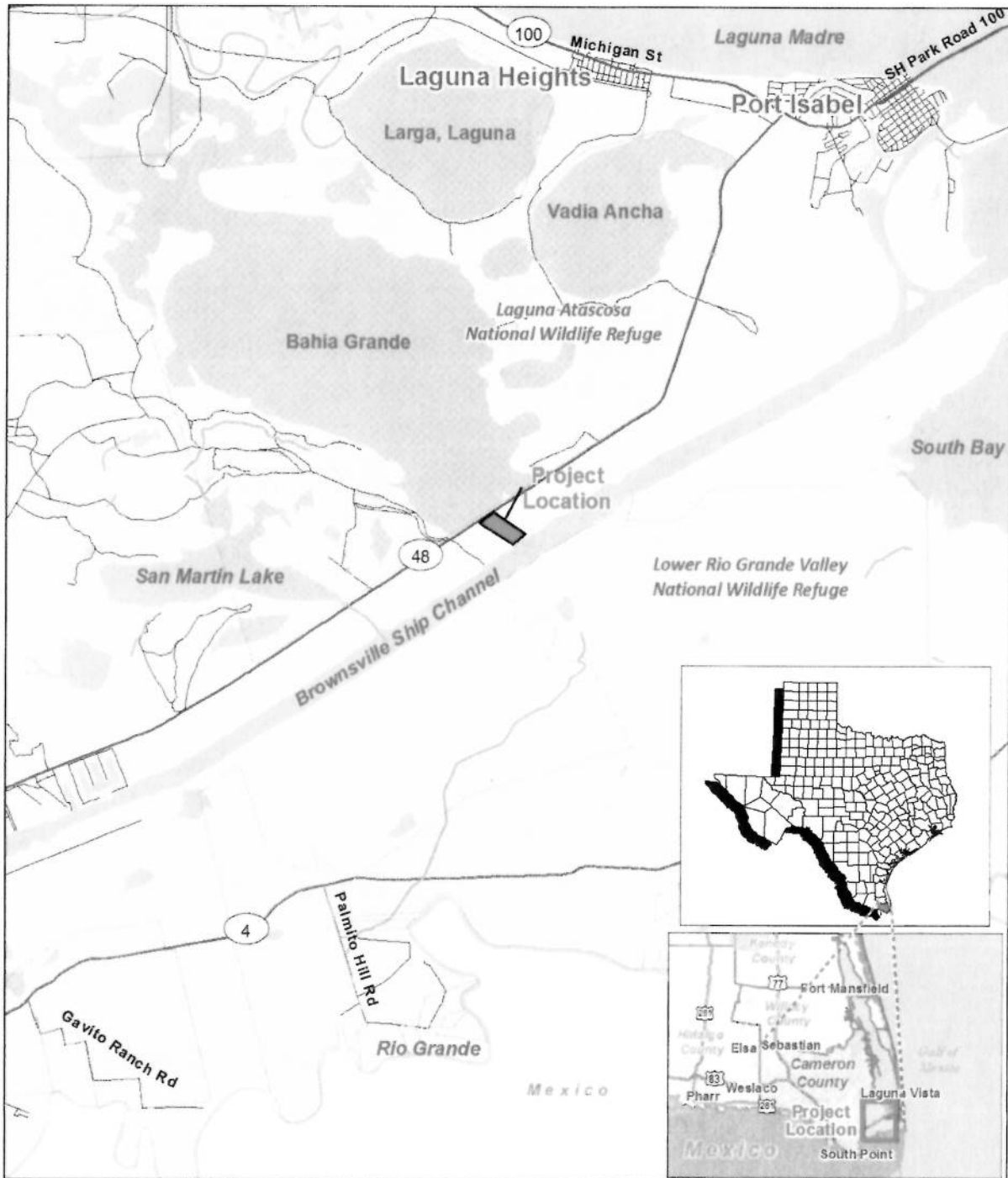
(Mailing Address)

PERMITTED PLANS *SWG-2003-01954*

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 2



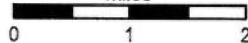
Base Map: ESRI-USA Base Map,
ESRI-U.S. and Canada Detailed Streets

National Wildlife Refuge



1:100,000

Miles



Sheet 1 of 9
Project Location on
County Map Base
Bahia Grande Main Channel Project
Cameron County, Texas

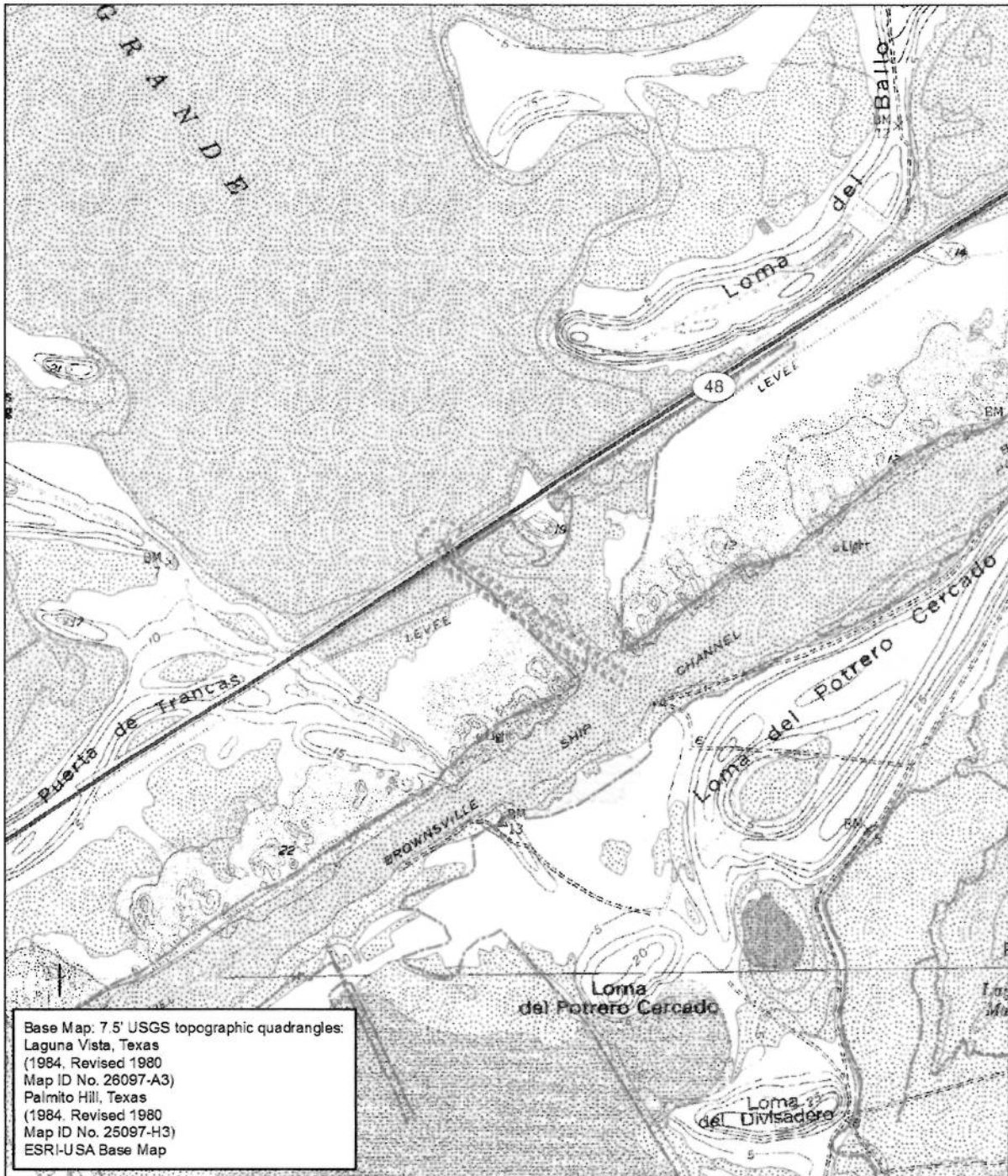
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

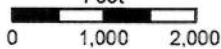
Attachment 2 Page 3



- Proposed Dredge Area
- ~ Streams/Rivers
- ☼ National Wetland Inventory Feature



1:24,000
Feet



Sheet 2 of 9
Project Location on USGS
Topographic Map Base
Bahia Grande Main Channel Project
Cameron County, Texas

Note: The entire project area is within a 100-year floodplain

pg 2 of 9

PERMITTED PLANS

SWG-2003-01954

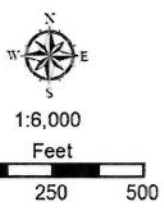
Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 4



- ⊙ Observation Point (#)
- Proposed Dredge Area
- █ Temporary Access Route Area
- ▨ Proposed Rip Rap Scour Protection
- ▧ Tidal Flat
- ▩ Emergent Wetland
- Scrub-shrub Wetland
- ▬ Open Water



Sheet 3 of 9
Waters of the U.S. in Project Area
Bahia Grande Main Channel Project
Cameron County, Texas

Base Map: High Priority Imagery Dataset (HPIDS, 2013)

pg 3 of 9

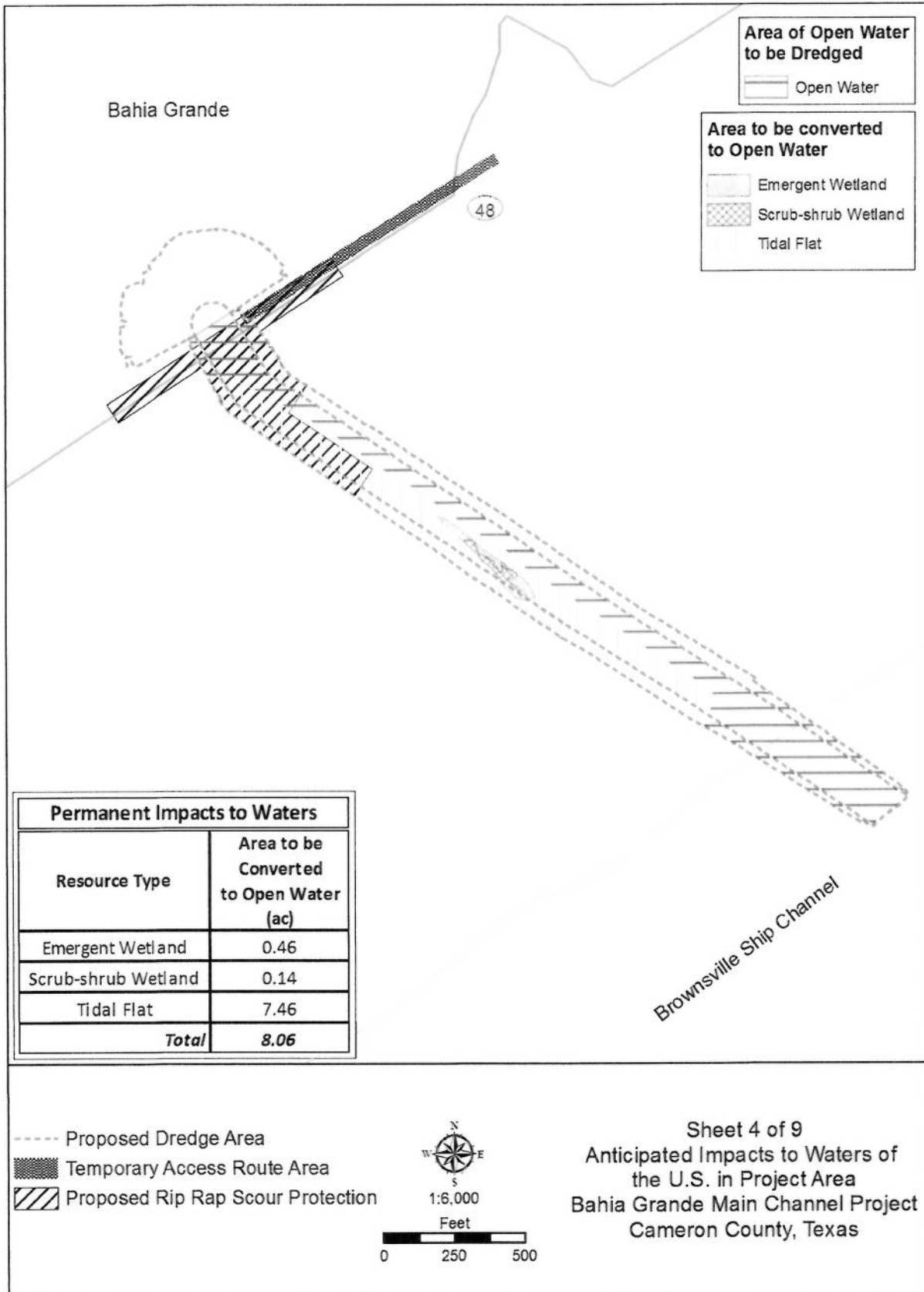
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 5



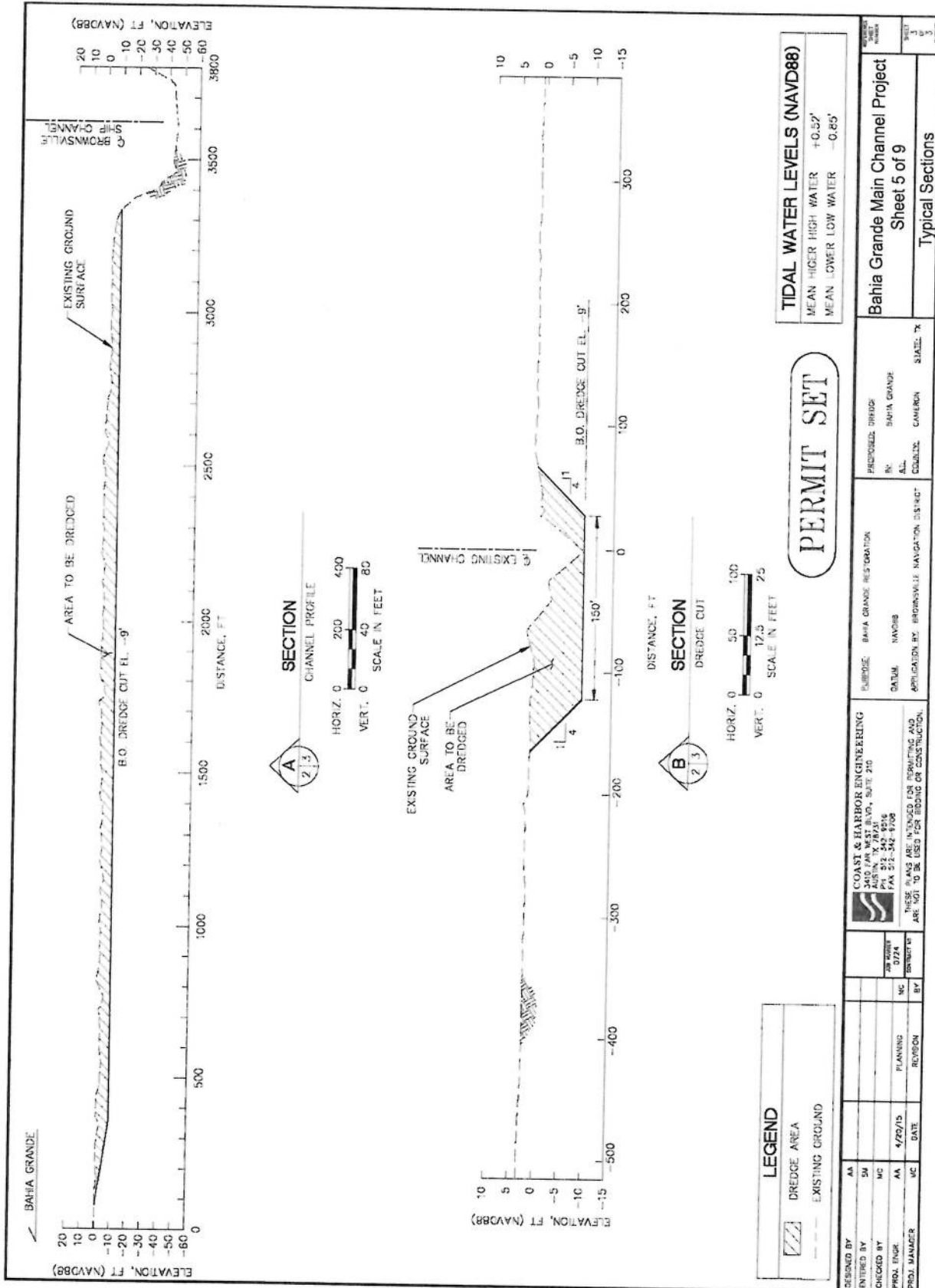
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 6



pg 5 of 9

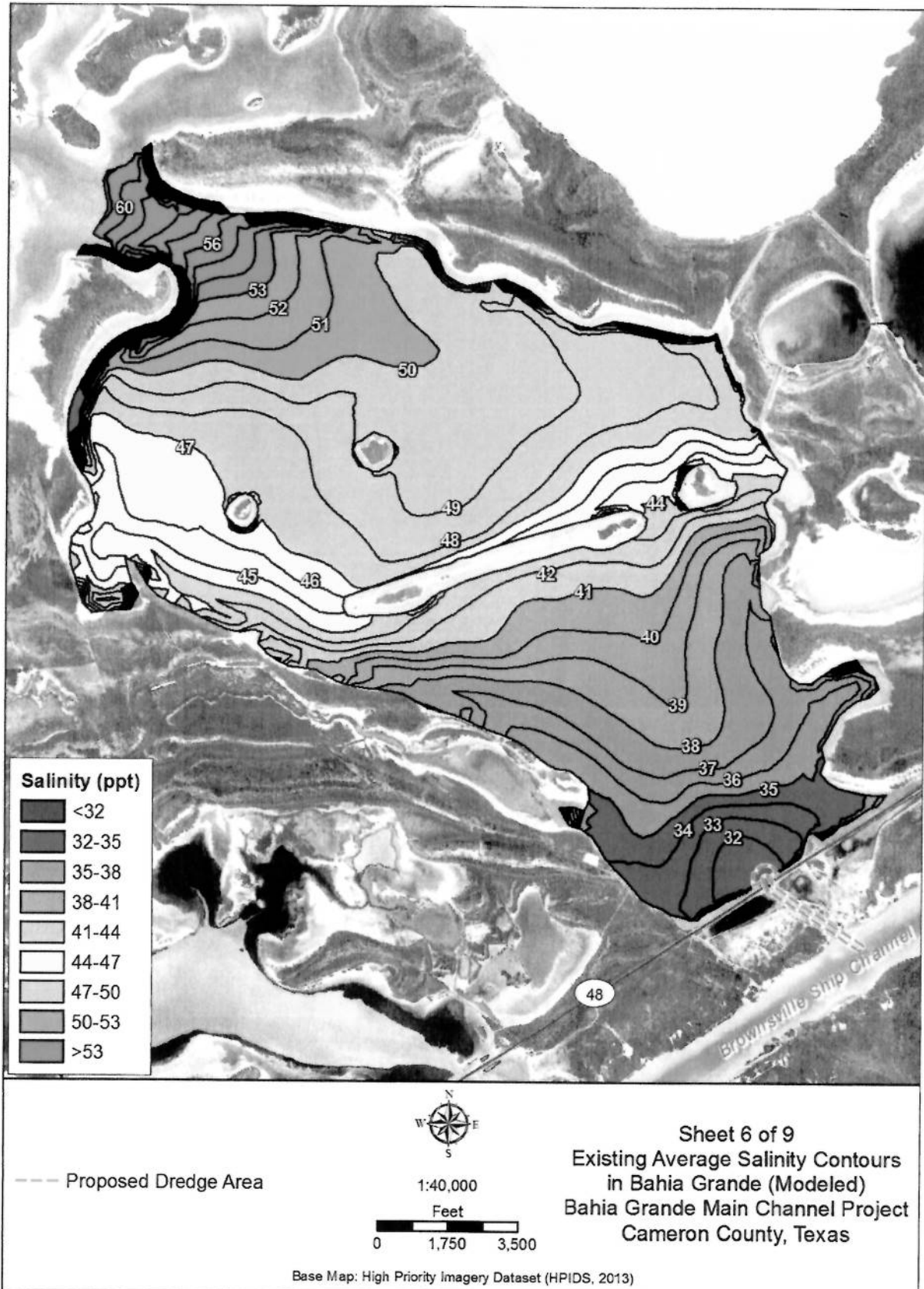
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 7



29 6 09 9

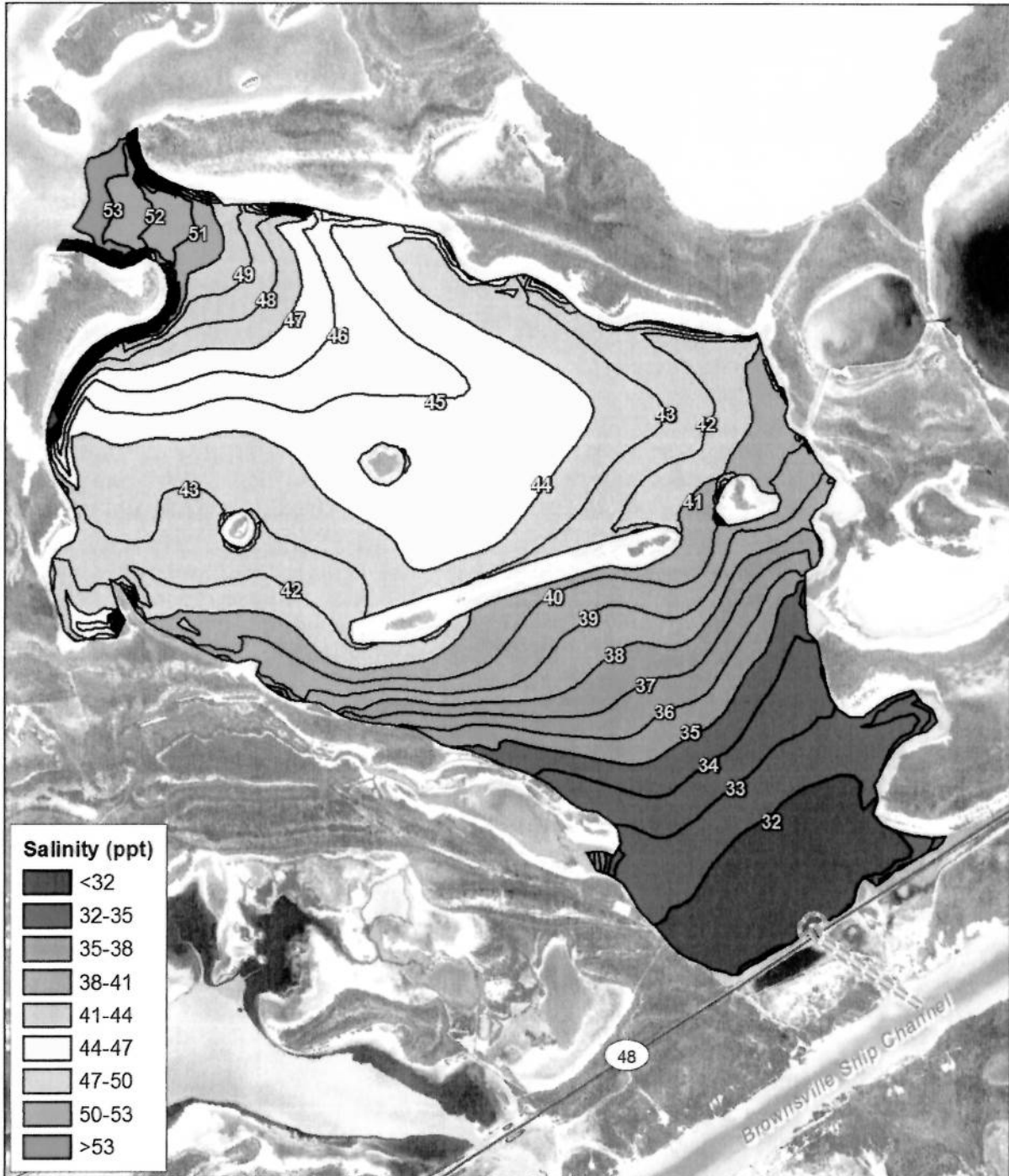
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 8

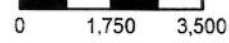


--- Proposed Dredge Area



1:42,000

Feet



Sheet 7 of 9
Predicted Average Salinity Contours
in Bahia Grande (Modeled)
Bahia Grande Main Channel Project
Cameron County, Texas

Base Map: High Priority Imagery Dataset (HPIDS, 2013)

75 7 049

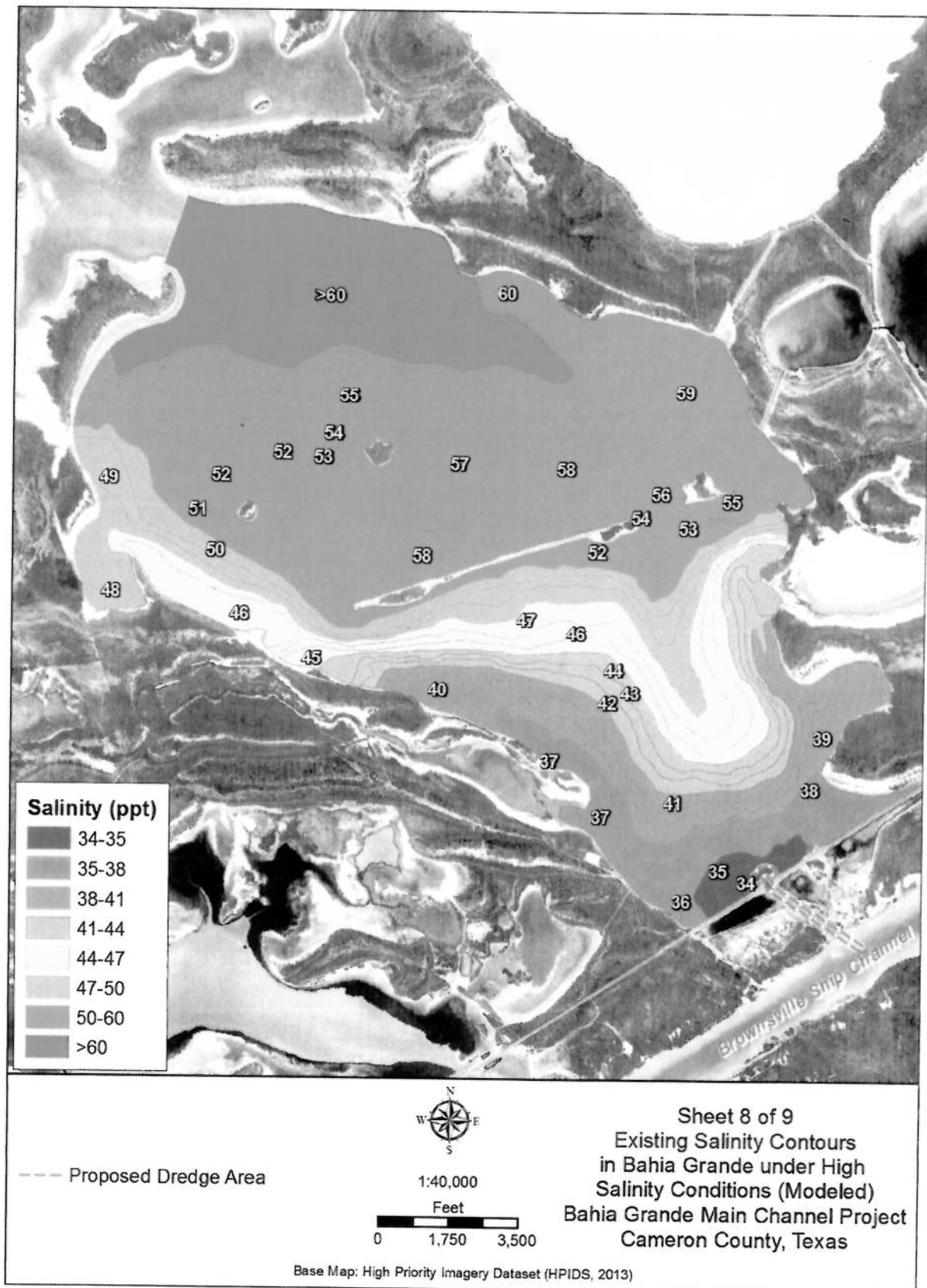
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 9



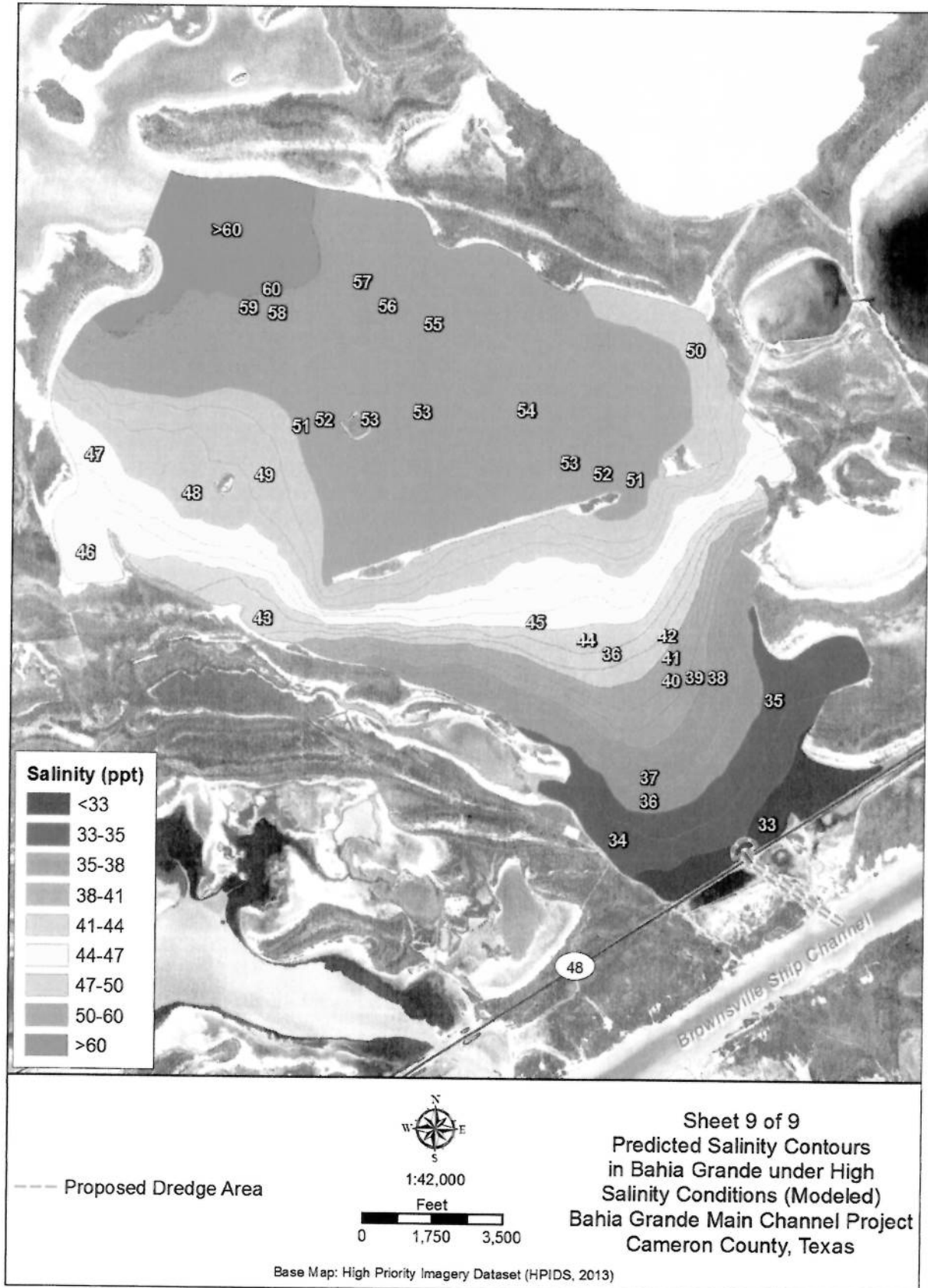
PERMITTED PLANS

SWG-2003-01954

Project File Number SWG-2003-01954; Responses to Interagency Coordination Comments

May 27, 2015

Attachment 2 Page 10





UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

Laguna Atascosa National Wildlife Refuge

22817 Ocelot Road

Los Fresnos, Texas 78566

(956) 748-3607

(956) 748-3609 fax



Bahia Grande Monitoring Protocol

This protocol described below was developed to gauge the ecosystem response to the Bahia Grande channel widening and to meet requirements for monitoring that are defined by the USACE Permit. The sampling design set out will provide scientifically sound, statistical data for evaluating current physical, chemical and biological conditions in support of short- and long-term monitoring of restoration and enhancement actions in the Bahia Grande. The fisheries assessment will complement Texas Parks and Wildlife Department Coastal Fisheries Division sampling protocol to allow for comparisons between TPWD data and other prior studies conducted at the Bahia Grande. Benthic biological assessments will follow a sampling design based on the EPA's Environmental Monitoring and Assessment Program for estuarine systems. Monitoring the Bahia Grande is expected to last for three years.

1. Hydrologic data will be collected and recorded in association with all field activities (nekton and benthic surveys). The use of a water quality meter (Hydrolab, Hach, or YSI) will be used during each survey to determine the following:
 - a. Dissolved Oxygen
 - b. Conductivity
 - c. pH
 - d. Temperature
 - e. Salinity
 - f. Nitrates
2. Additional hydrologic data will be collected from three permanent water quality monitoring stations (dissolved oxygen, pH, salinity, conductivity, water depth, water temperature, turbidity, and chlorophyll).
 - a. Datasonde deployment at 10 day intervals bimonthly
 - i. Previous studies found heavy biofouling in the area, 10 days is the maximum amount of days to deploy datasonde without data degradation.
 - b. Pre and post sever weather events
 - i. Tropical storm events
 - ii. Post significant rain events
3. Nekton surveys
 - a. Conducted at bi-monthly intervals.
 - b. Beginning post construction.
 - c. Stratified cluster sampling design where sites are to be randomly selected based off sample grids and gridlets as per TPWD CF protocol
 - i. Bag seine sampling

SW 9-2003-01954
 Attachment A
 Brownsville Nav. Dist
 Cameron Co.
 pg 1 of 2

Bahia Grande Monitoring Protocol

1. 6 to 10 per month sampled, allotment distributed evenly between the first and second half of the month
 2. Bag seine dimensions and sampling procedure will replicate TPWD CF protocols
 - a. 60 feet long x 6 feet deep
 - b. $\frac{3}{4}$ wing mesh; $\frac{1}{2}$ bag mesh
 - c. Pulled for 50 feet along shore
 3. Identify species, measure (19), and count
 4. Record hydrological data and other relevant data (GPS, date, time, weather)
- ii. Gill net sampling
1. 2 per month sampled, distributed between the first and second half of the month
 2. Experimental gill net dimensions will resemble TPWD CF gill nets
 - a. Total length 600 feet
 - i. Four continuous 150 foot long panels with stretched mesh monofilament webbing sizes of 6 inch, 5 inch, 4 inch, 3 inch mesh
 3. Identify species, measure (19), and count
 4. Record hydrological data and other relevant data (GPS, date, time, weather)
4. Benthic surveys
- a. Initial sampling one month prior to construction activities
 - b. Subsequent sampling will start three months post construction then every six months
 - i. Bahia Grande will be divided into three sectors (northwest, northeast, and south)
 - ii. Eight sampling locations from each of the three sectors (24 samples per visit)
 1. Cylindrical push corer – 10.16 cm diameter – 10 cm deep
 - a. All samples will be preserved
 - b. Benthic invertebrates, seagrass, and drift macroalgae will be quantified and identified to the lowest possible taxon
5. Identify, map, and monitor current and newly forming areas of seagrass beds and oyster reefs
- a. Utilize Tremble units to map areas of beds and reefs
 - b. Monitoring for newly formed sites will require assistance from NWR staff and exploratory ventures throughout the area
6. Annual colonial bird nesting surveys and annual Christmas Bird Count
- a. Already in place monitoring programs
 - i. Continuation of these monitoring programs will be conducted by refuge staff and partners
 1. Coastal Bends and Bays Estuary Program
 2. Friends of Laguna Atascosa NWR

Attachment A
SW-2003-01954
Brownsville Hav. Dist
Bahia Grande
Cameron Co
pg 7 of 2