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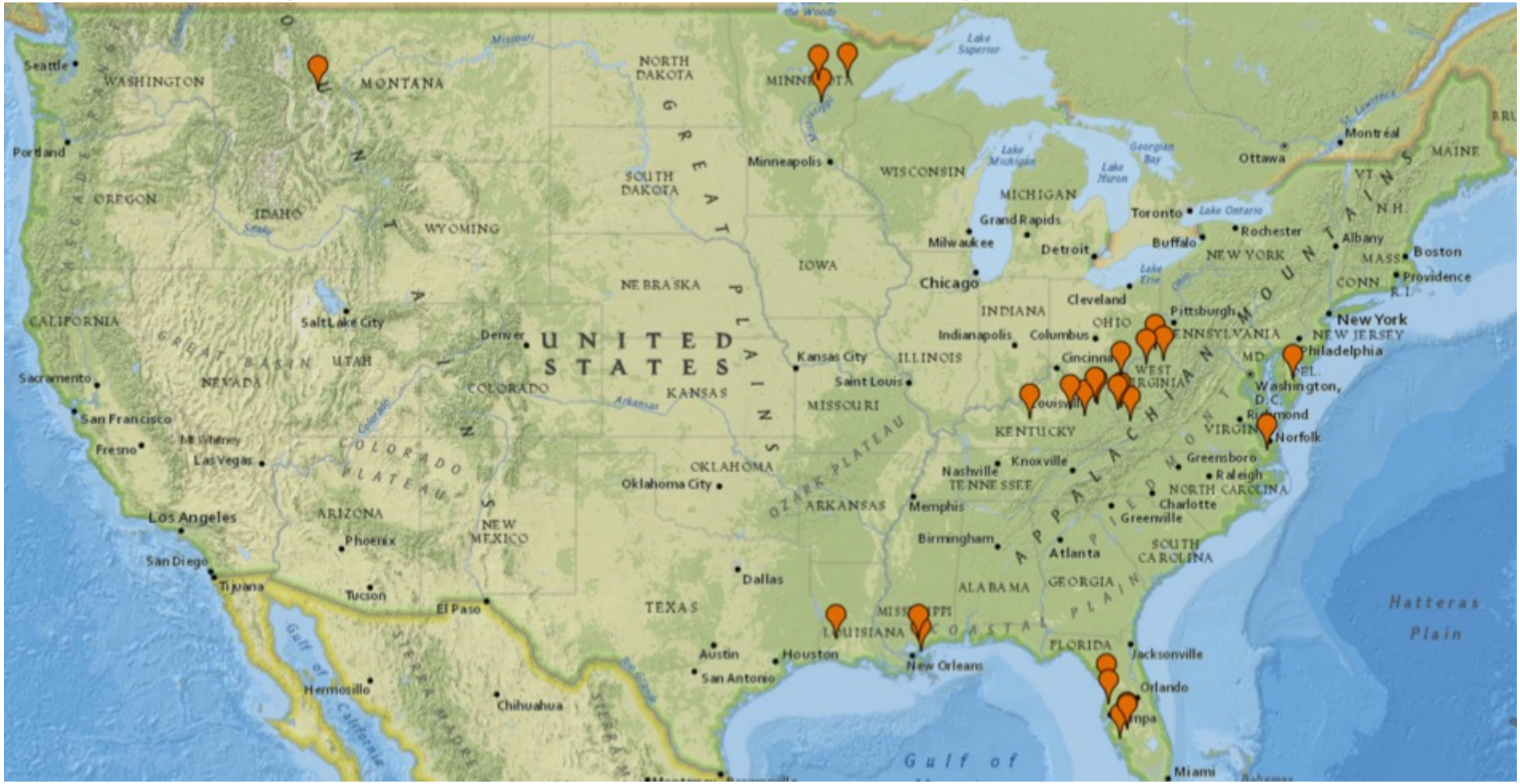
USING COMPENSATORY MITIGATION TO OFFSET COSTAL WETLAND IMPACTS

IRT- Jan 25, 2017

Stetson Law November, 2017

Ecosystem Investment Partners mitigation banks currently under construction or management.




Legislative Context
Compensatory Drivers
Chef Menteur Pass
Mitigation Bank Example
Other Regulatory Drivers

Constitution of the United States Article 1, Section 8, Clause 3

" The Congress shall have power to….. To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;"

Federal Legislative Context

Rivers and Harbors Act of 1899 (Section 10,13)

Federal Water Pollution Control Act 1948,1956, 1972, 1977

Section 314 of the National Defense Authorization Act of 2004

WRDA 07

WRRDA 16

Rivers and Harbors Act of 1899 (40 USC 403) Section 10

"That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited…and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States…"

Rivers and Harbors Act of 1899 (40 USC 403) Section 13

Prohibits the discharge of refuse into any navigable water or tributary thereof, as well as the deposit of material on the bank of a navigable waterway, "whereby navigation shall or may be impeded or obstructed ...."

However, the Secretary of the Army may permit any such deposit of material "whenever in the judgment of the Chief of Engineers anchorage and navigation will not be injured ...."

Jurisdictional Issues

United States v. Republic Steel Corp. (1960) (industrial waste affect navigation?)

United States v. Standard Oil Co. (1966) (valuable products waste?)

Zabel v. Tabb, 430 F.2d 199,201 (1971) (filling costal wetlands affect navigation?)

CHEF PHASE I

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Other Legislative Actions

The National Environmental Policy Act (42 U.S.C. 4321) et seq. (1969)

The Fish and Wildlife Coordination Act (16 U.S.C. 661-667e; 48 Stat. 401), as amended

Federal Water Pollution Control Act (33 USC 1344)

"The Secretary may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites."

S. CONF. REP. No. 1236, 92d Cong., 2d Sess. 143 (1972

It is intended that the term "navigable waters" include all water bodies, such as lakes, streams, and rivers, regarded as public navigable waters in law which are navigable in fact. It is further intended that such waters shall be considered to be navigable in fact when they form, in their ordinary condition by themselves or by uniting with other waters or other systems of transportation, such as highways or railroads, a continuing highway over which commerce is or may be carried on with other states or with foreign countries in the customary means of trade and travel in which commerce is conducted today. In such cases the commerce on such waters would have a substantial economic effect on interstate commerce.

Jurisdictional Issues

Kalur v. Resor, 335 F. Supp. 1 (D.D.C. 1971) (Non- navigable tributaries)

United States v. Holland (1974) (intertidal wetlands, non-navigable tributaries)

Natural Resources Defense Council, Inc. v. Callaway (1975) (navigable waters interpreted broadly)

United States v. Riverside Bayview Homes, Inc. (1985) (adjacent wetlands)

Solid Waste Agency of Northern Cook County v. Corps of Engineers et al. (2001) (isolated wetlands)

Rapanos et ux v. United States (2005) (significant nexus)

16-299 National Assoc. of Manufacturers v. Dept of Defense (2017?)

Section 314 of the National Defense Authorization Act for Fiscal Year 2004 (PL 108-136)

"The Secretary of a military department, and the Secretary of Defense with respect to matters concerning a Defense Agency, when engaged in an authorized activity that may or will result in the destruction of, or an adverse impact to, a wetland, may make payments to a wetland mitigation banking program or 'in-lieu-fee' mitigation sponsor…"

Section 2036 of the Water Resources Development Act (2007) PL 110-114

"To mitigate losses to flood damage reduction capabilities and fish and wildlife resulting from a water resources project, the Secretary shall ensure that the mitigation plan for each water resources project complies with the mitigation standards and policies established pursuant to the regulatory programs administered by the Secretary"

"Not later than 180 days after the date of enactment of the Water Resources Development Act of 2016, the Secretary shall issue implementation guidance that provides for the consideration in water resources development feasibility studies of the entire amount of potential in-kind credits available at mitigation banks approved by the Secretary and in-lieu fee programs with an approved service area that includes the location of the projected impacts of the water resources development project."

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Payment for Ecosystem Services

"[C]onservation will ultimately boil down to rewarding the private landowner who conserves the public interest. It asserts the new premise that if he fails to do so, his neighbors must ultimately pay the bill. It pleads that our jurists and economists anticipate the need for workable vehicles to carry that reward."

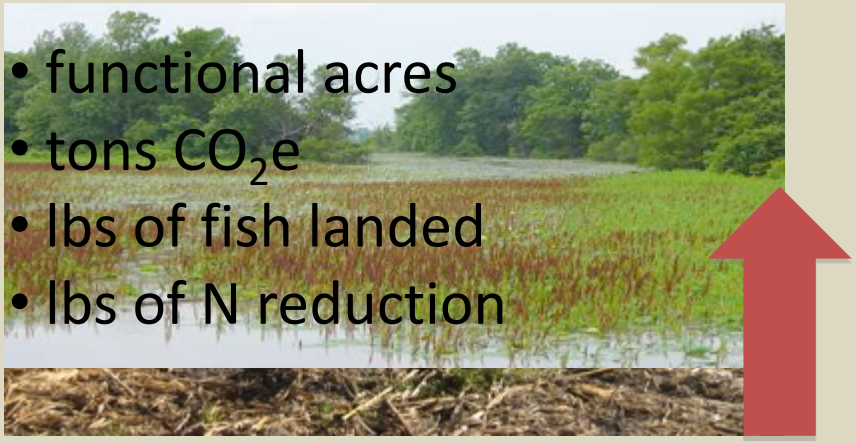
Aldo Leopold, "Conservation Economics", Journal of Forestry, 1934

Payment for Ecosystem Services

LIMIT

- "no net loss"
- "cap and trade"
- "individual tradable quota"
- "total maximum daily load"

UNIT



- functional acres
- tons CO_2e
- lbs of fish landed
- lbs of N reduction

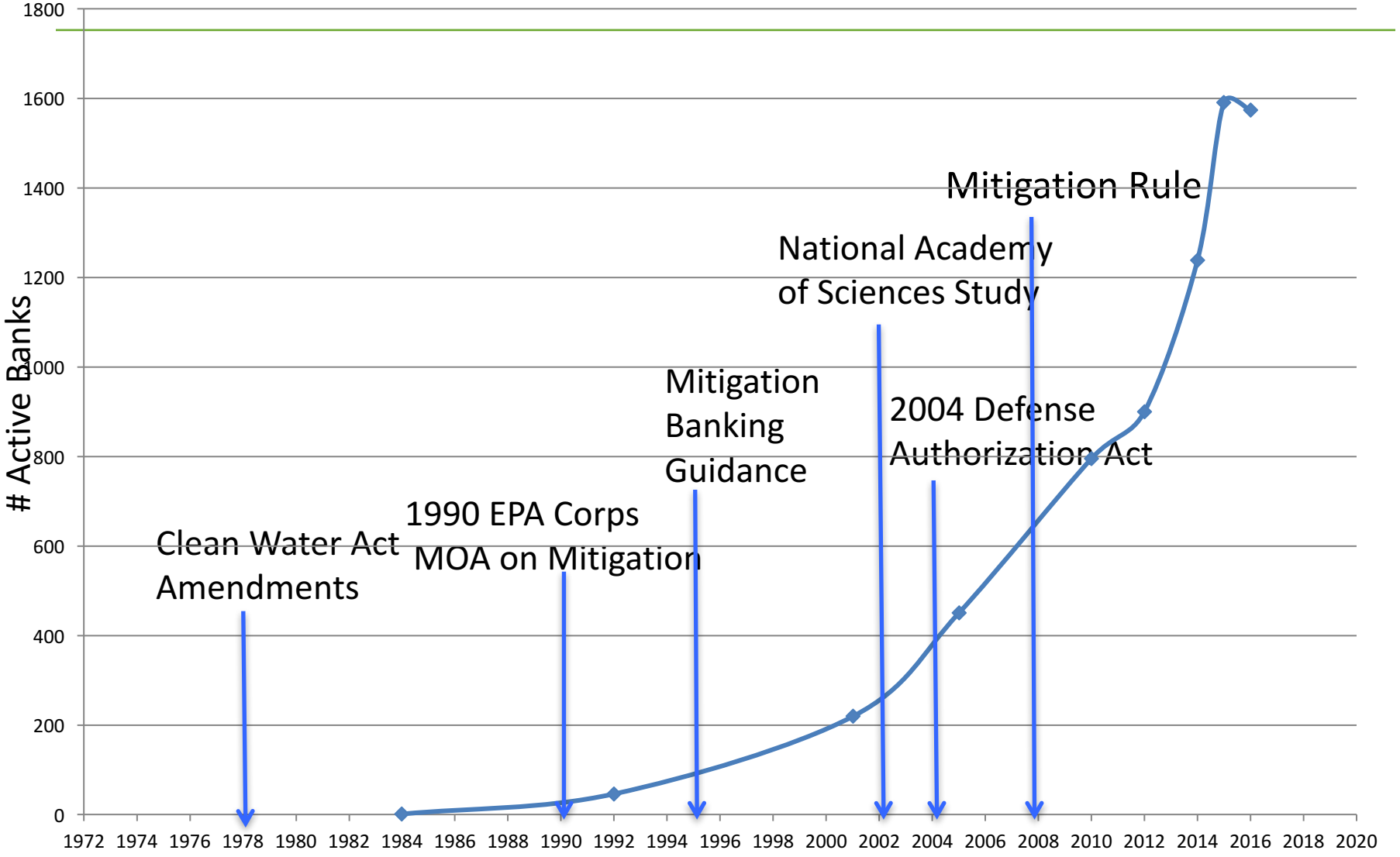
GEOGRAPHY

- service area
- historical range of species
- fishery
- watershed

TRANSFER

- mitigation bank
- conservation bank
- catch shares
- water quality trading

Mitigation Banking



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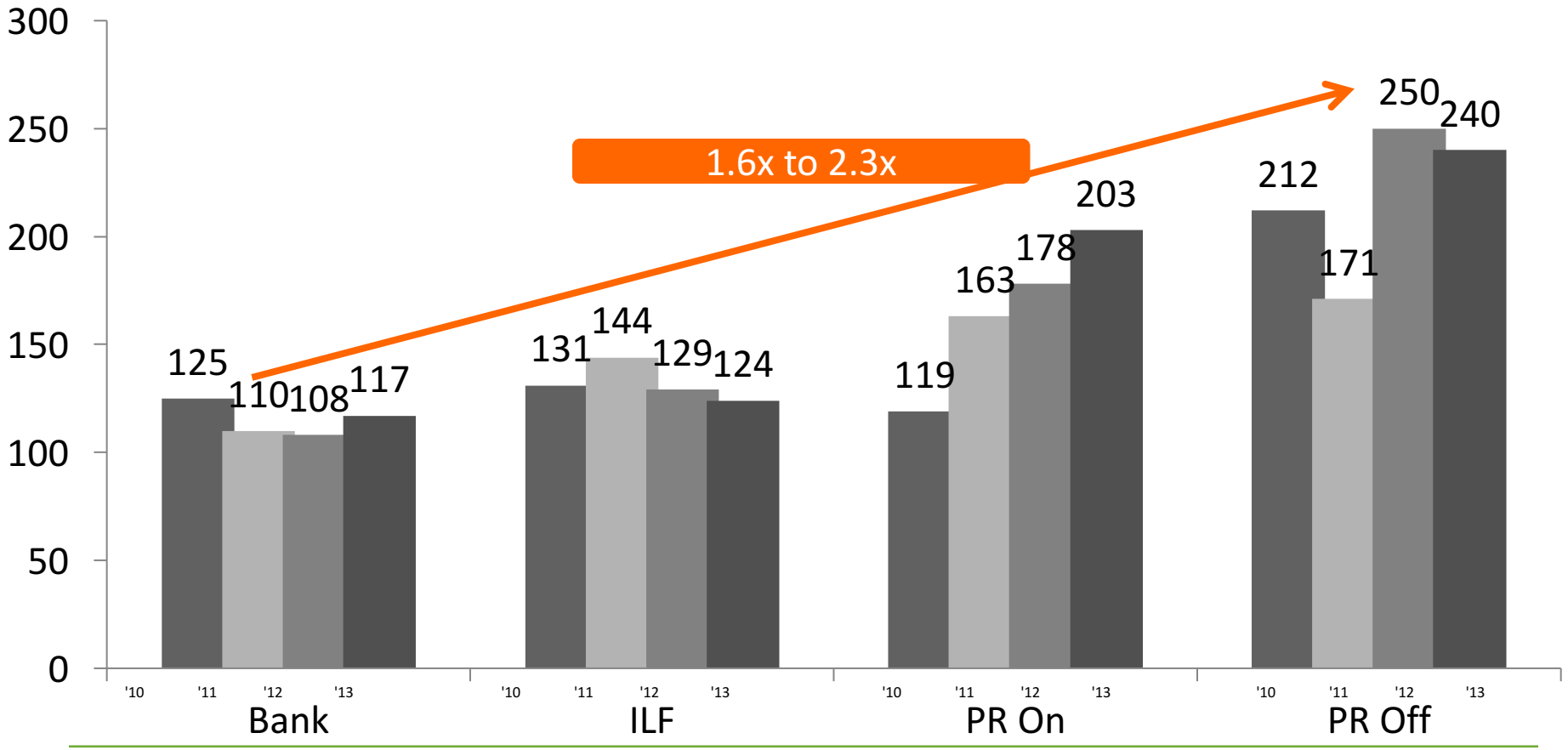
Permit Time (days) for various forms of mitigation



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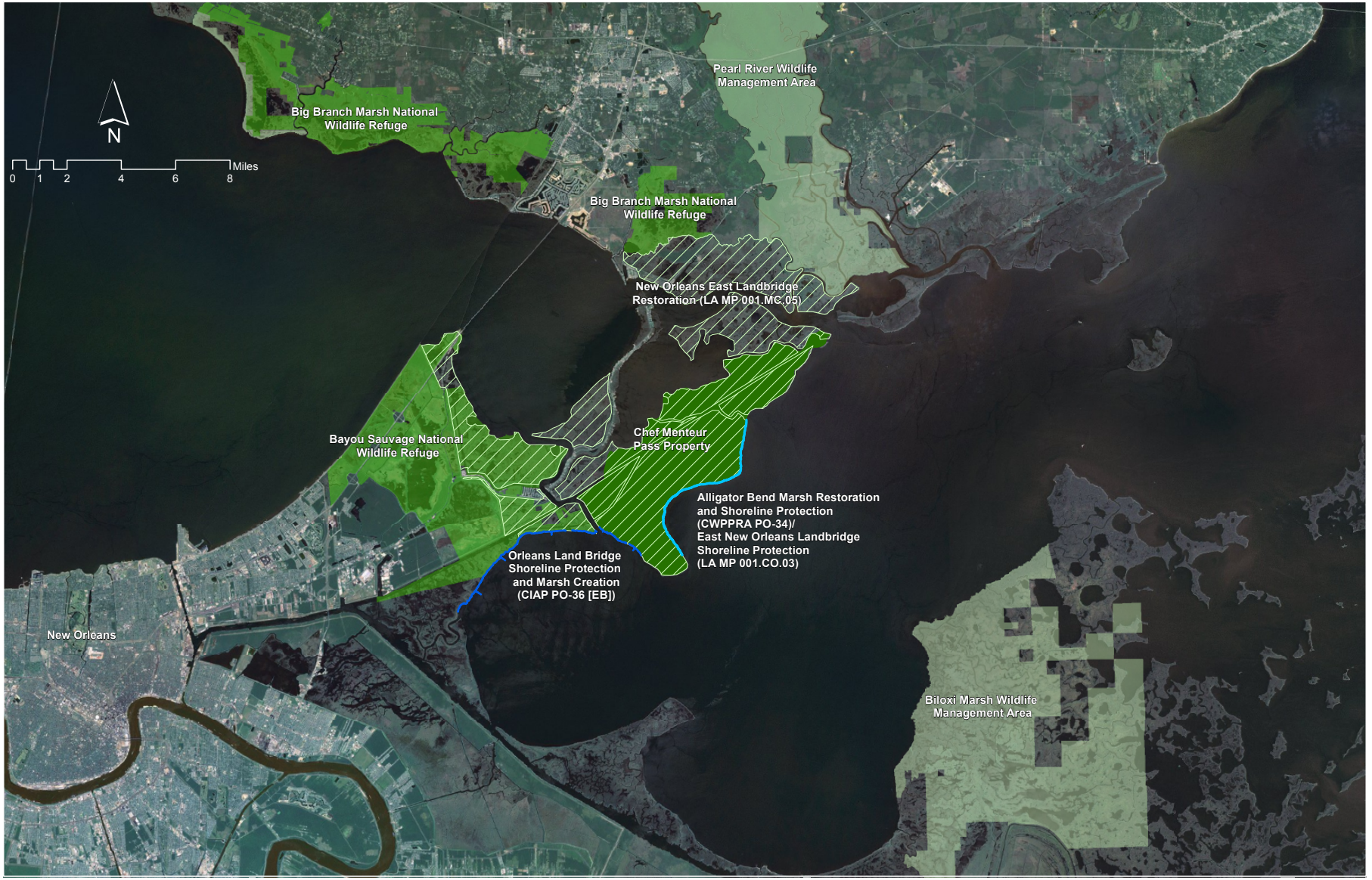
Source: ORMs Data 2010-2013

Chef Menteur Pass Mitigation Bank



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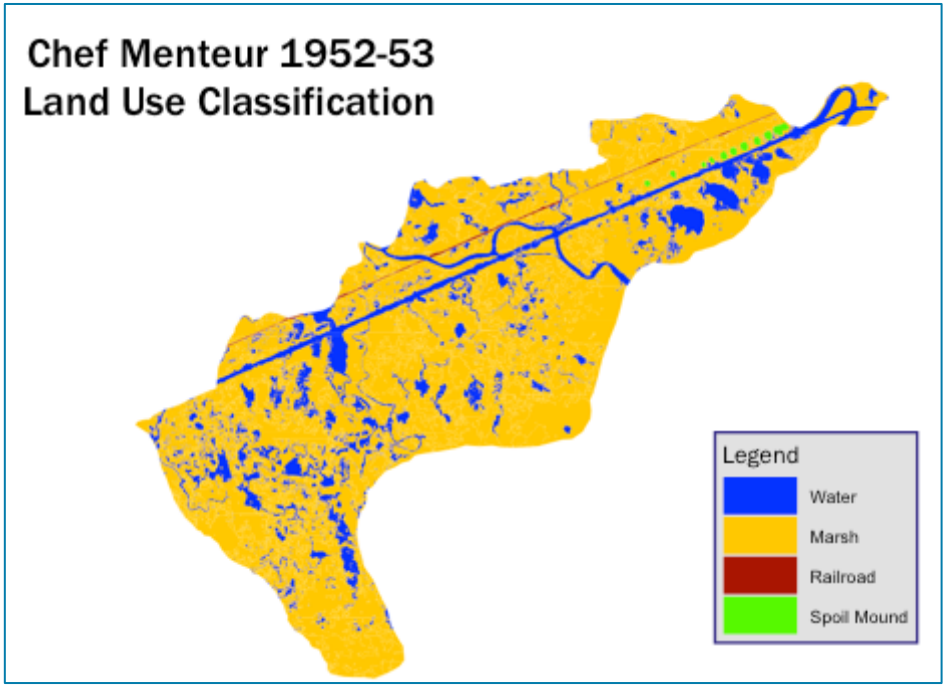
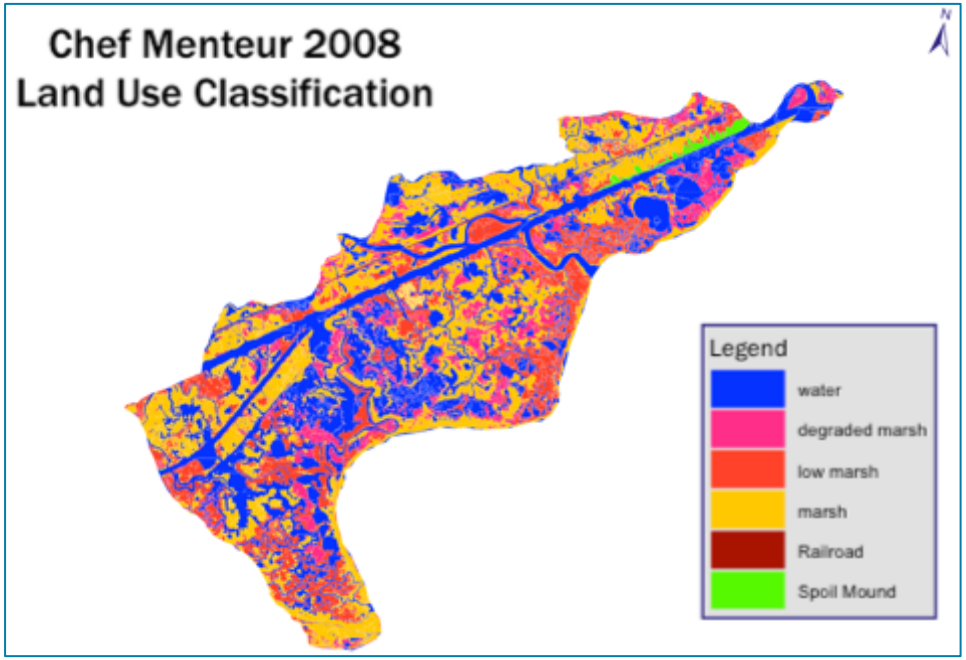


1n 1952 the Chef Menteur Property consisted primarily of healthy marsh. This is similar to the 1898 USGS map of the area, which shows a similar distribution of marsh to water.

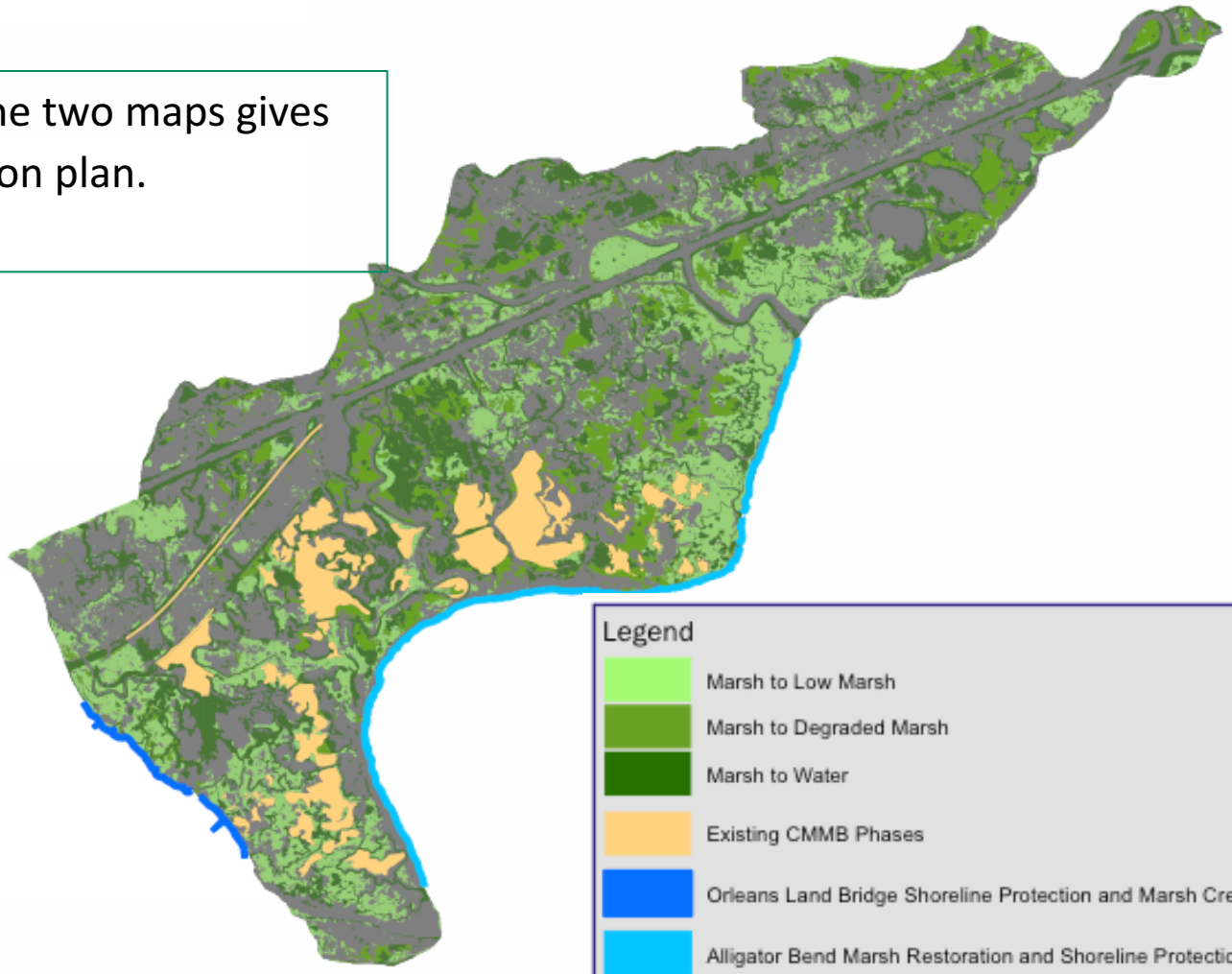


By 2008 the Chef Menteur Property over 64% of the healthy marsh in 1952 had degraded either into open water, low marsh or “degraded marsh”

Causes: Salinity changes, lack of sediment re-nourishment, hurricanes, sea level rise

Chef Menteur 1952 - 2008
Land Use Classification Changes

An overlay of the two maps gives us the restoration plan.



Chef Menteur Pass Mitigation Bank

LOCATION MAP

REPRODUCED FROM DOQQ AERIAL PHOTOGRAPH
LOCATED APPROXIMATELY 17 MILES NORTHEAST OF MERAUX, LA

NOTES:

All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.

SEG has made all reasonable efforts to accurately depict or represent the boundaries, surface features and on-the-ground improvements shown within the Submitted Data; however, the accuracy of the Submitted Data is limited to the accuracy of the publicly available resources and the accuracy of the data you have submitted to us.

Geodetic Datum: NAD27
Projection: Louisiana South
Grid Units: US Survey Feet

Date: February 22, 2016

SEG ENVIRONMENTAL

Ecosystem Investment Partners
REALIZING ENVIRONMENTAL VALUES & CONSERVATION RESULTS

Chef Menteur Credit Co, LLC

CHEF MENTEUR PASS MITIGATION AREA
LAKE BORGNE AREA, T11S-R15E
ORLEANS PARISH, LOUISIANA

224 Rue De Jean • Lafayette, LA 70508
337-232-1122 office • 337-232-1372 fax

0 1,000 2,000 4,000 6,000 Feet

Path: S:\GIS-Mapping\SEG-Enviro\Chef Menteur Pass Mitigation Area\Composite - Phase 1,2,3\Chef Menteur Phase 1,2,3 11x17.mxd

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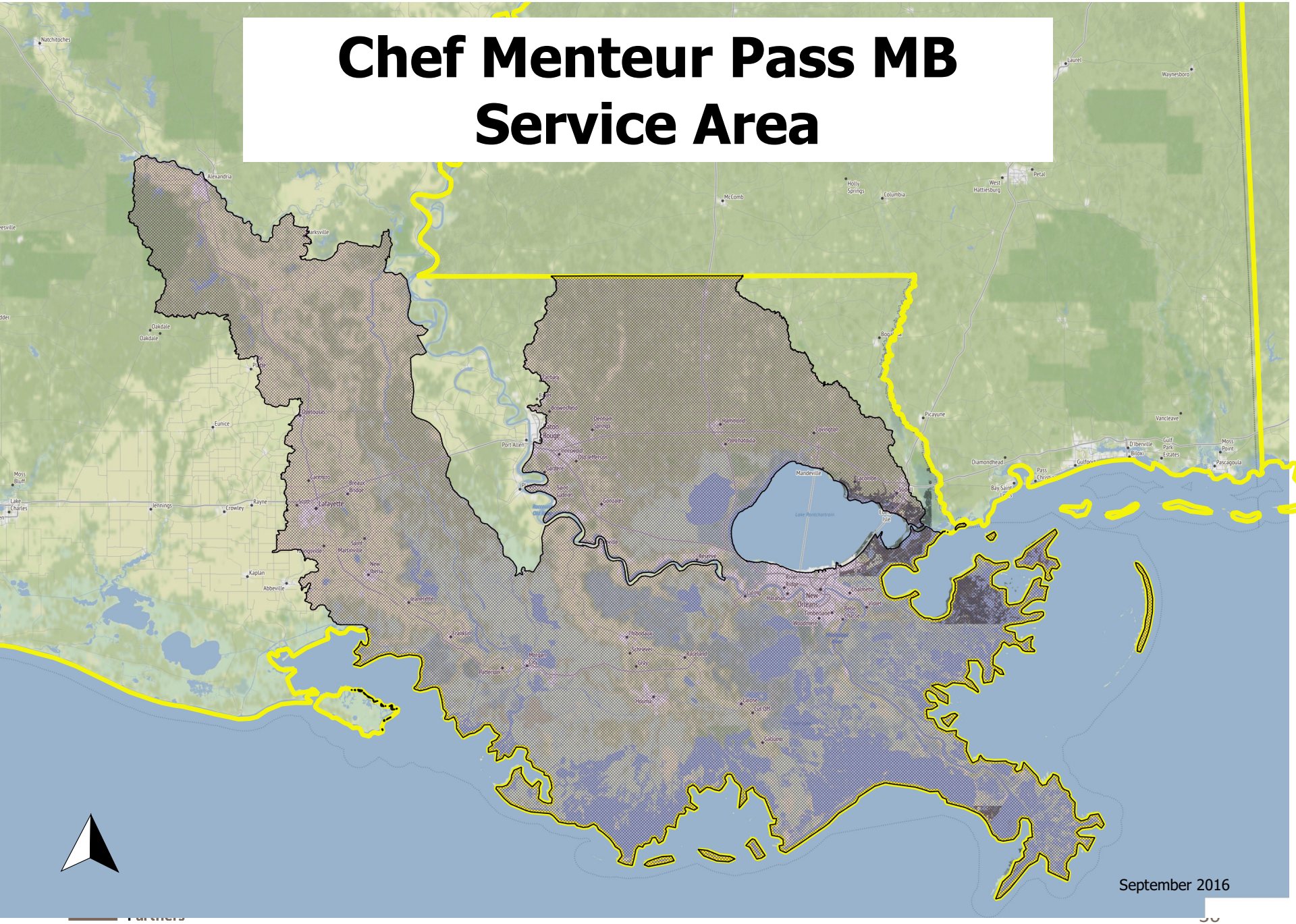
Chef Menteur Pass MB Service Area

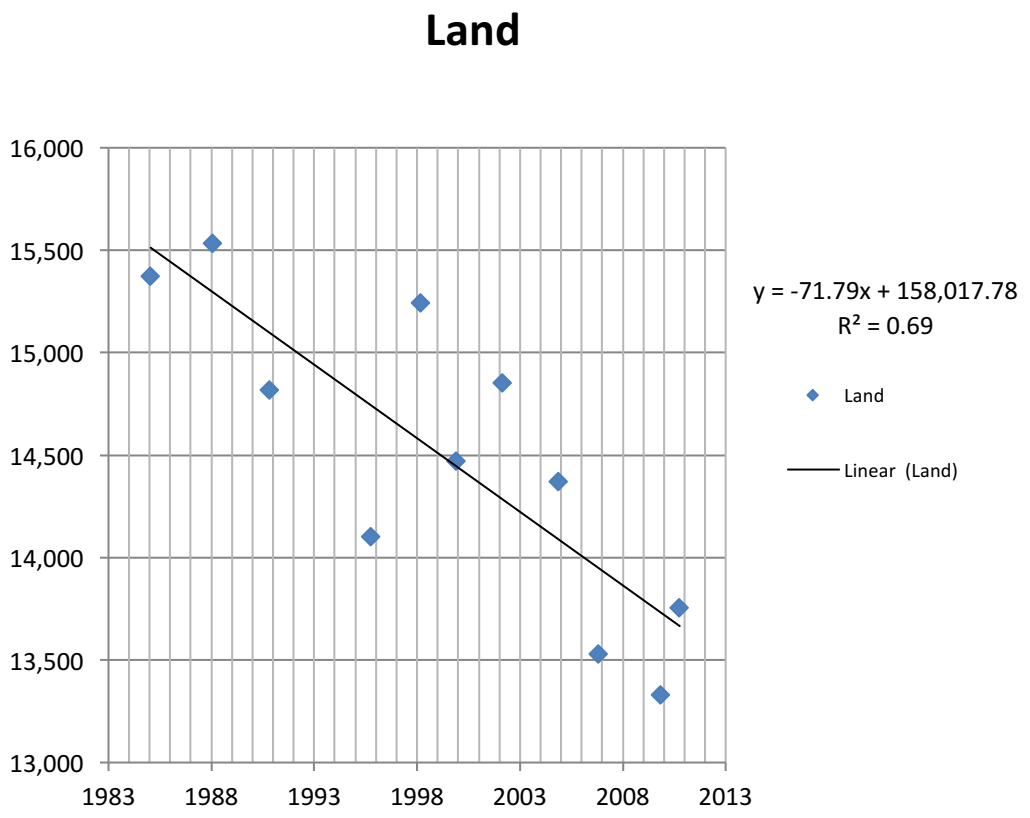


WVA MARSH COMMUNITY MODEL

USGS Land Loss Equation

Based on aerial land loss for 18,000 acre area utilizing 1956, 1978, 1988, 2000 aerials and a linear regression equation

Linear Equation = -0.34% Land loss per year



GEOTECHNICAL ANALYSIS

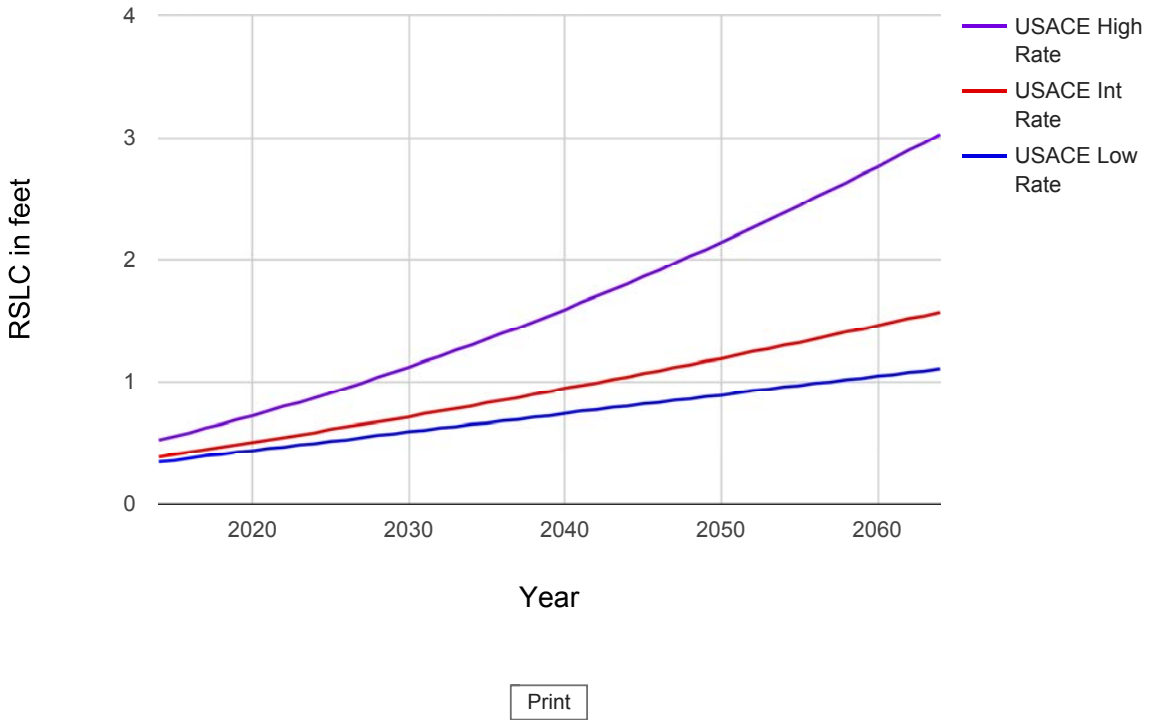
Corps of Engineers Sea Level Rise Calculator

Replaces ECB-2013-27

Medium Sea Level Rise Scenario

The authors of the bulletin and website include William Veatch (USACE New Orleans District)

Utilized Corps Gage 85700: Rigolets near Lake Pontchartrain: Jan 1950 to Aug 2001



GEOTECHNICAL ANALYSIS

Chef Menteur Geotechnical Analysis by Fugro Consulting, 2014

US Corps of Engineers Sea Level Rise Calculator

Phase I
Based on As constructed (3 lifts) settlement data
Boring information at Barrow and Deposition locations
As Built Surveys and Construction
Sea Level Rise Calculator

Phase II
Boring information at Barrow and Deposition locations
Settlement studies of sample material
US Corps of Engineers Sea Level Rise Calculation

Chef Menteur Pass Mitigation Bank

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF

1/21/2014

Operations Division
Regulatory Branch

Chef Menteur Credit Co., LLC
2002 Clipper Park Road, Suite 201
Baltimore, Maryland 21211

Re: Chef Menteur Pass Mitigation Bank, MVN-2004-03080

Gentlemen:

Please find enclosed an executed copy of the final modified Mitigation Banking Instrument for the Chef Menteur Pass Mitigation Bank (MBI) signed by the US Army Corps of Engineers on January 15, 2014. In accordance with Section X.F.1, CEMVN has released 25% of the total available brackish marsh credits for Phase II (112 acres). Please be aware of the provision within Section X.E.7 of the MBI that must be completed by May 15, 2014, including the revised Attachment C. Should you have any questions, please call Stephen Pfeffer at 504-862-2227.

Sincerely,

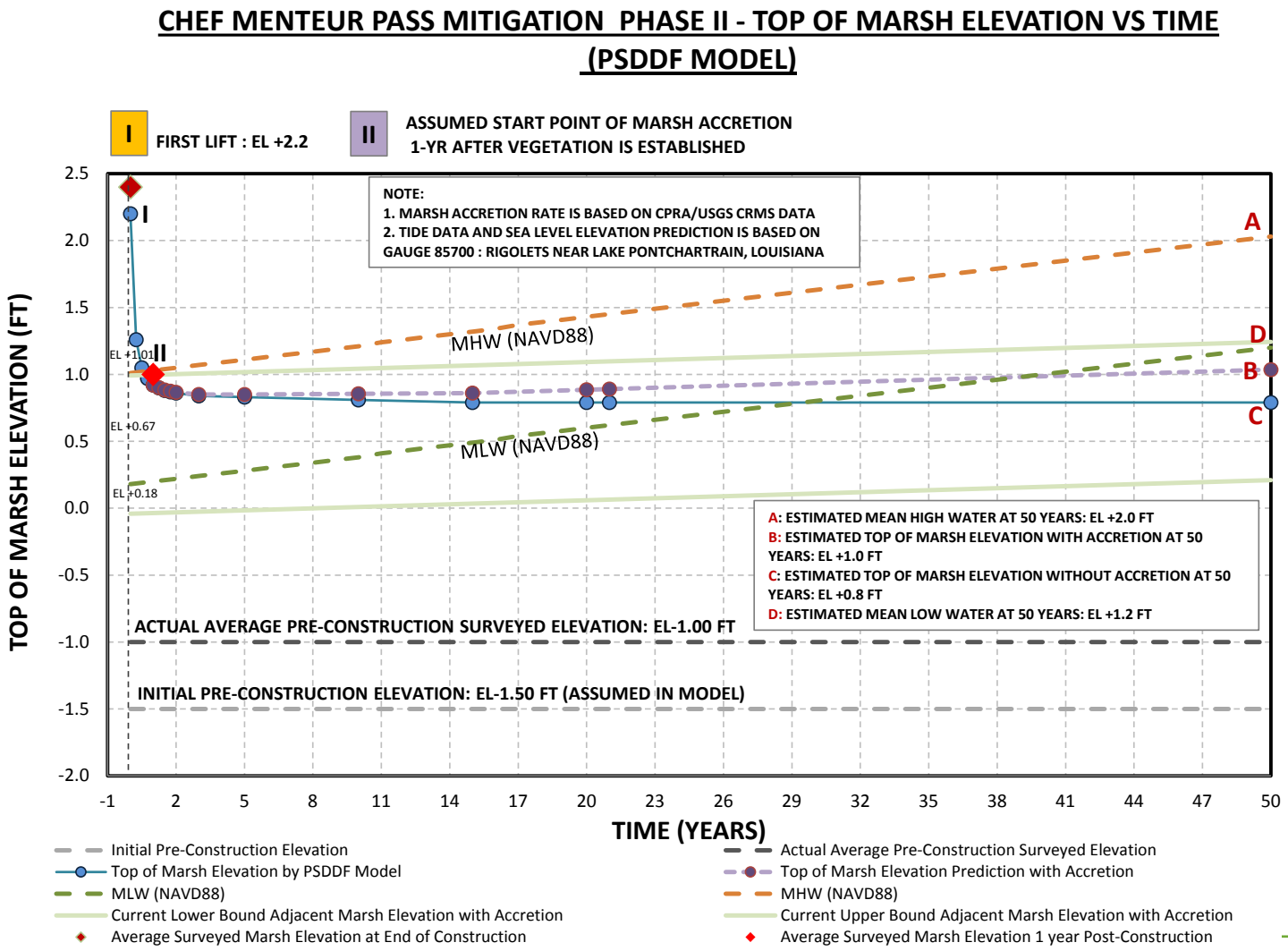
Stephen Pfeffer
Environmental Resource Specialist

cc via electronic mail:

US Fish and Wildlife Service (Ms. Patti Holland)
US Environmental Protection Agency (Mr. Raul Gutierrez)
National Marine Fisheries Service (Mr. Rick Hartman)
Louisiana Department of Wildlife and Fisheries (Mr. Kyle Balkum)
Louisiana Department of Natural Resources (Ms. Kelley Templet)

GEOTECHNICAL ANALYSIS

Phase II



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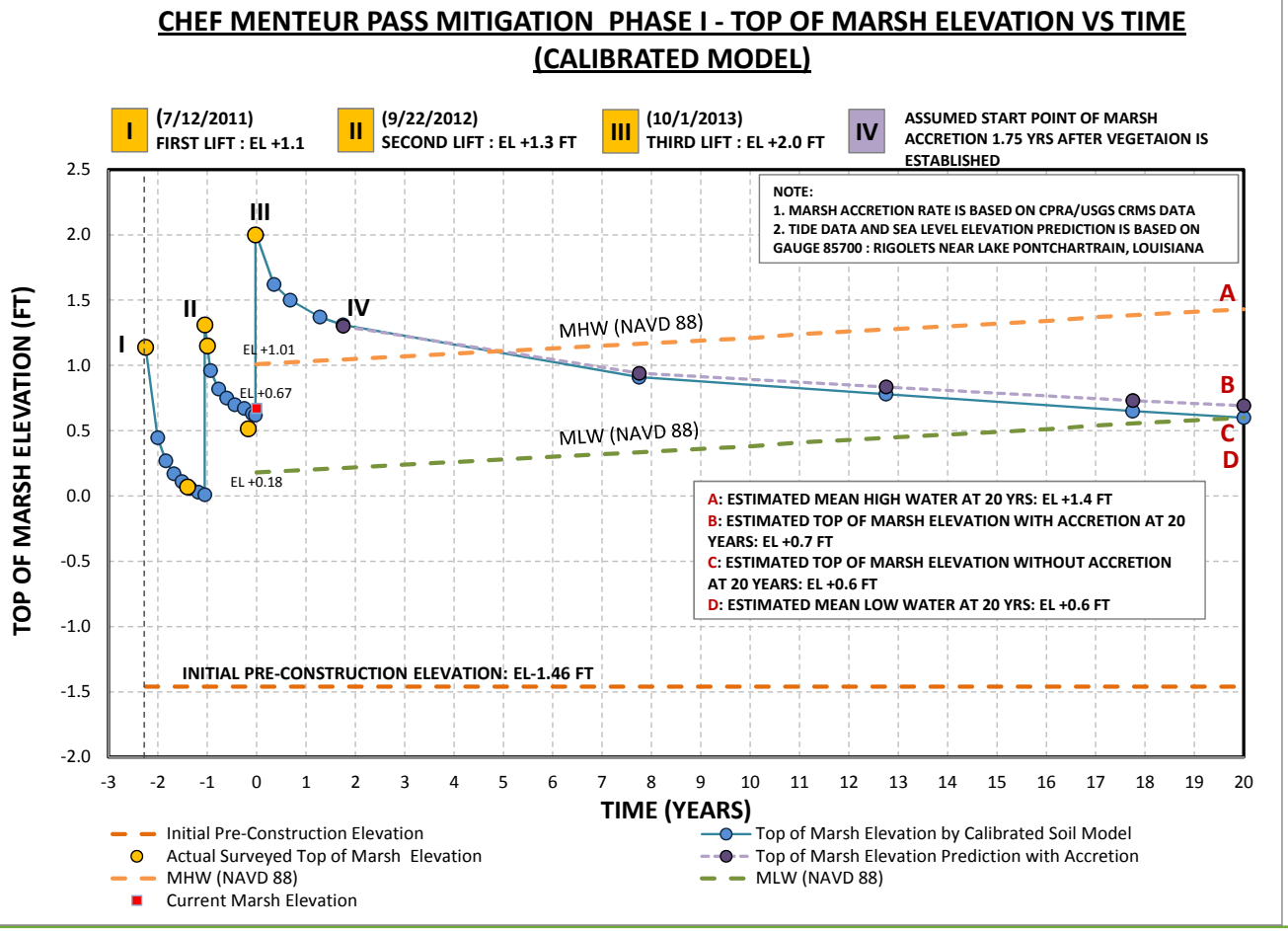
GEOTECHNICAL ANALYSIS

Phase I



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Google earth

PINE BLUFF SAND AND GRAVEL CO.

Marshland

Image #110706 6110
Date :07.06.11
Aerial Photo 888.542.0231


Google earth


Google earth

CHEF PHASE I

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PINE BLUFF SAND AND GRAVEL CO.

Marshland

Image #110706 6115
Date :07.06.11
Aerial Photo 888.542.0231

CHEF PHASE II

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SERVICES

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The purpose of these regulations is to establish a Natural Resource Damage (NRD) Restoration Banking Program to fully or partially resolve a responsible party's NRD liability under the Oil Pollution Act of 1990 (OPA), 33 U.S.C. §2701 et seq., and the Oil Spill Prevention and Response Act (OSPRA), R.S. 30:2451 et seq. This Chapter is intended to support and complement OPA and OSPRA. These regulations establish procedures for the certification and operation of NRD restoration banks. "

NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA) BANKING

	Mitigation Banking	NRDA Banking
Legal Requirement	"No net loss" language in S.404 of the CWA	Provisions of CERCLA and Oil Pollution Act
Governance	Interagency Review Team – led by USACE	Trustee Council – led by DOI or NOAA
Measurement unit – 'credit'	Functional acre (UMAM, Modified Charleston, etc.)	Discounted Service-Acre Year (DSAY)
Bank requirements	MBI describing protection, uplift and financial assurance	Natural Resource Restoration and Enhancement Protocol or similar
Service area	Watershed (HUC)	Geographic area of spill influence

As described in the chart above, NRDA banking follows the same structure as Mitigation Banking under the Clean Water Act – just under different legal requirements.

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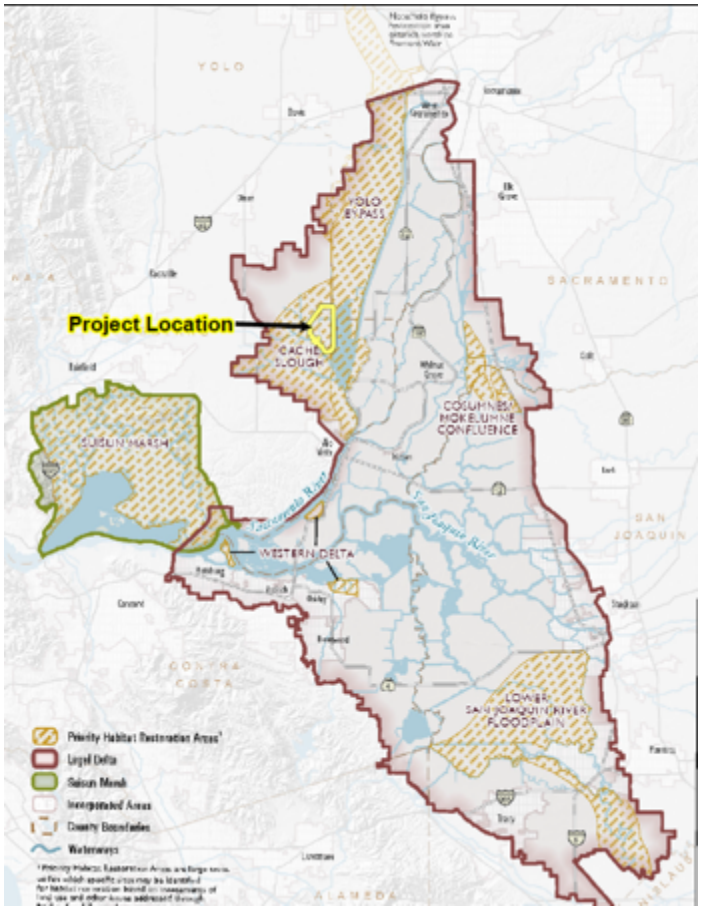
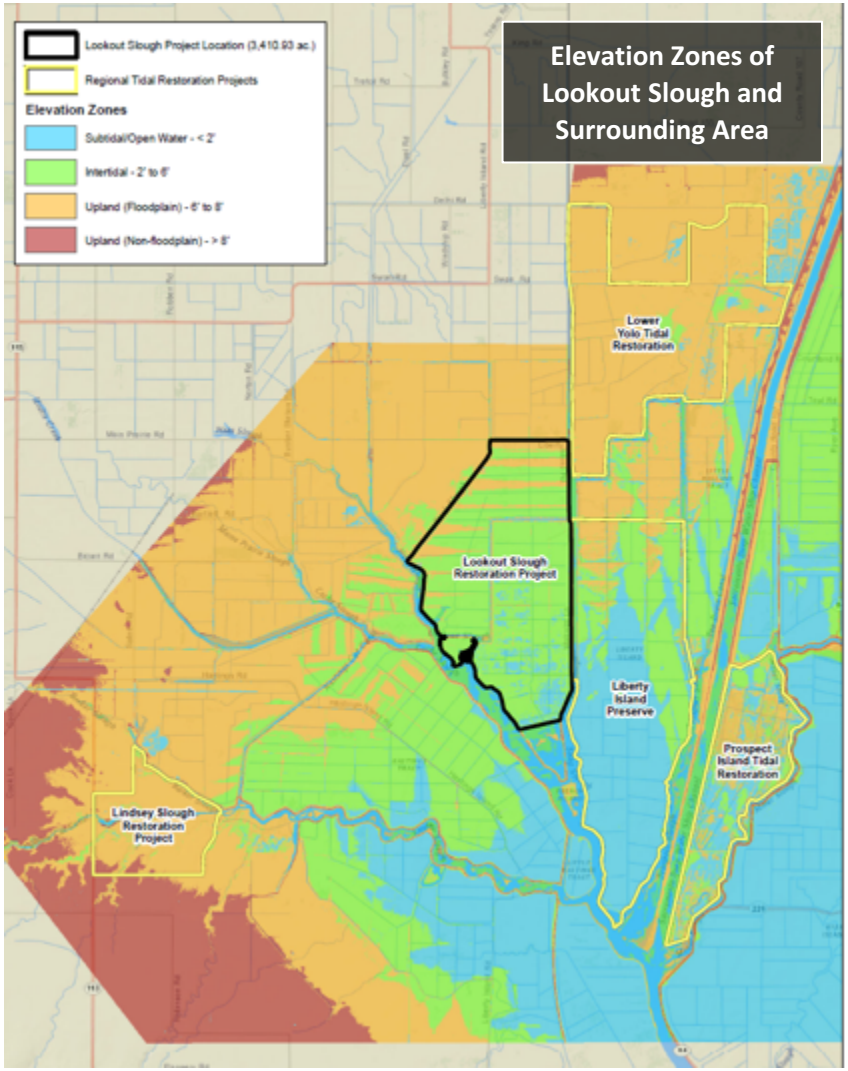
California- Delta Smelt





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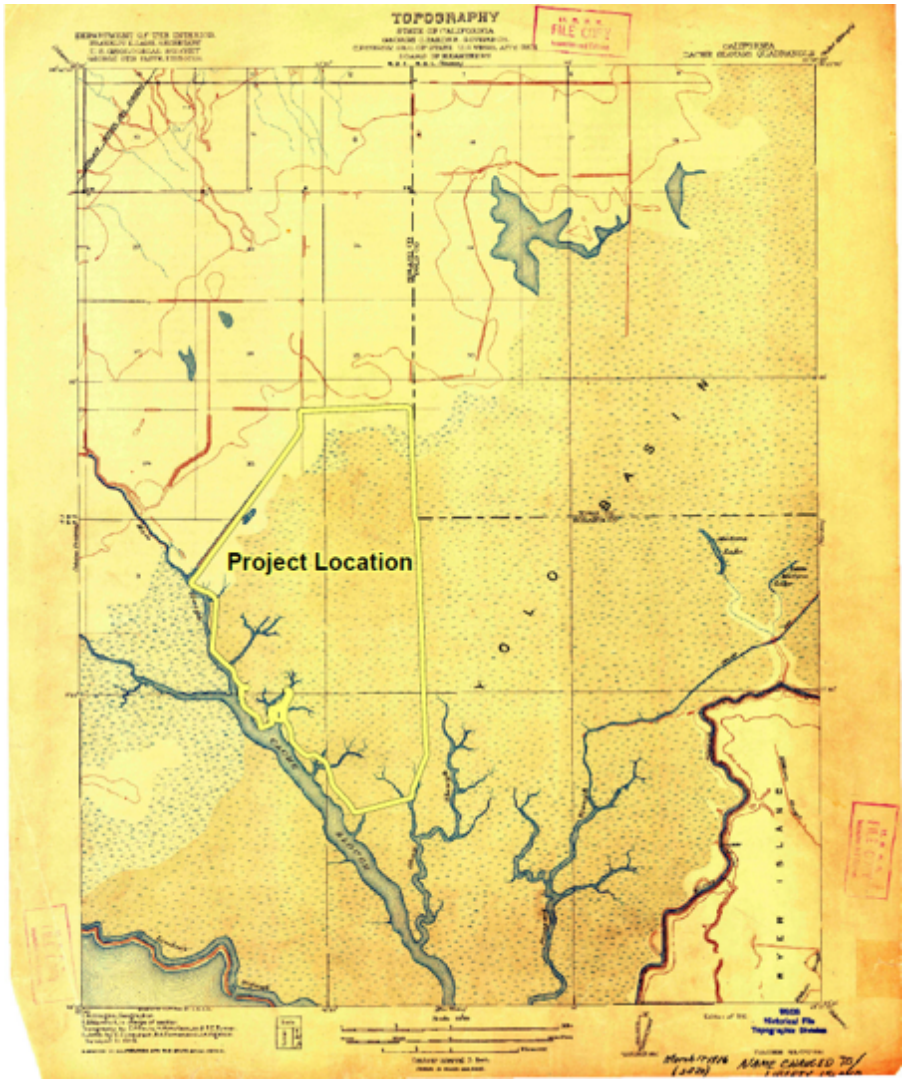
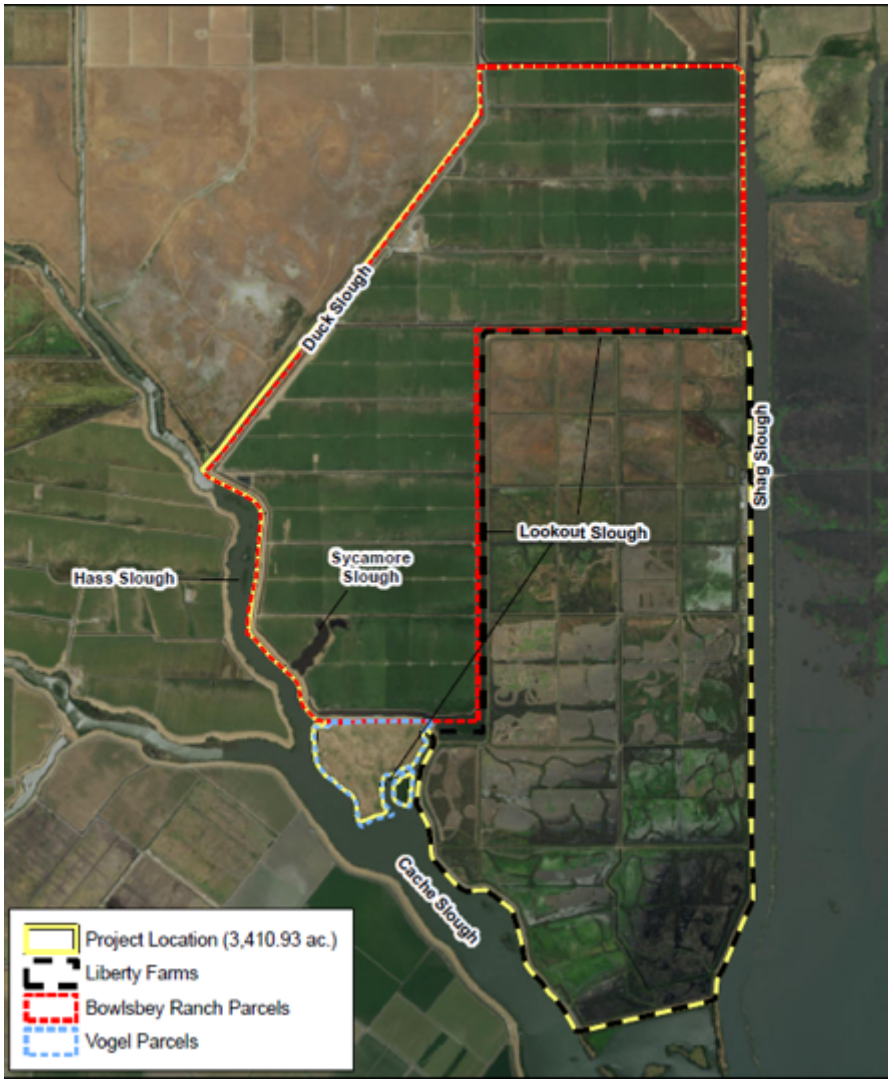
Lookout Slough Restoration





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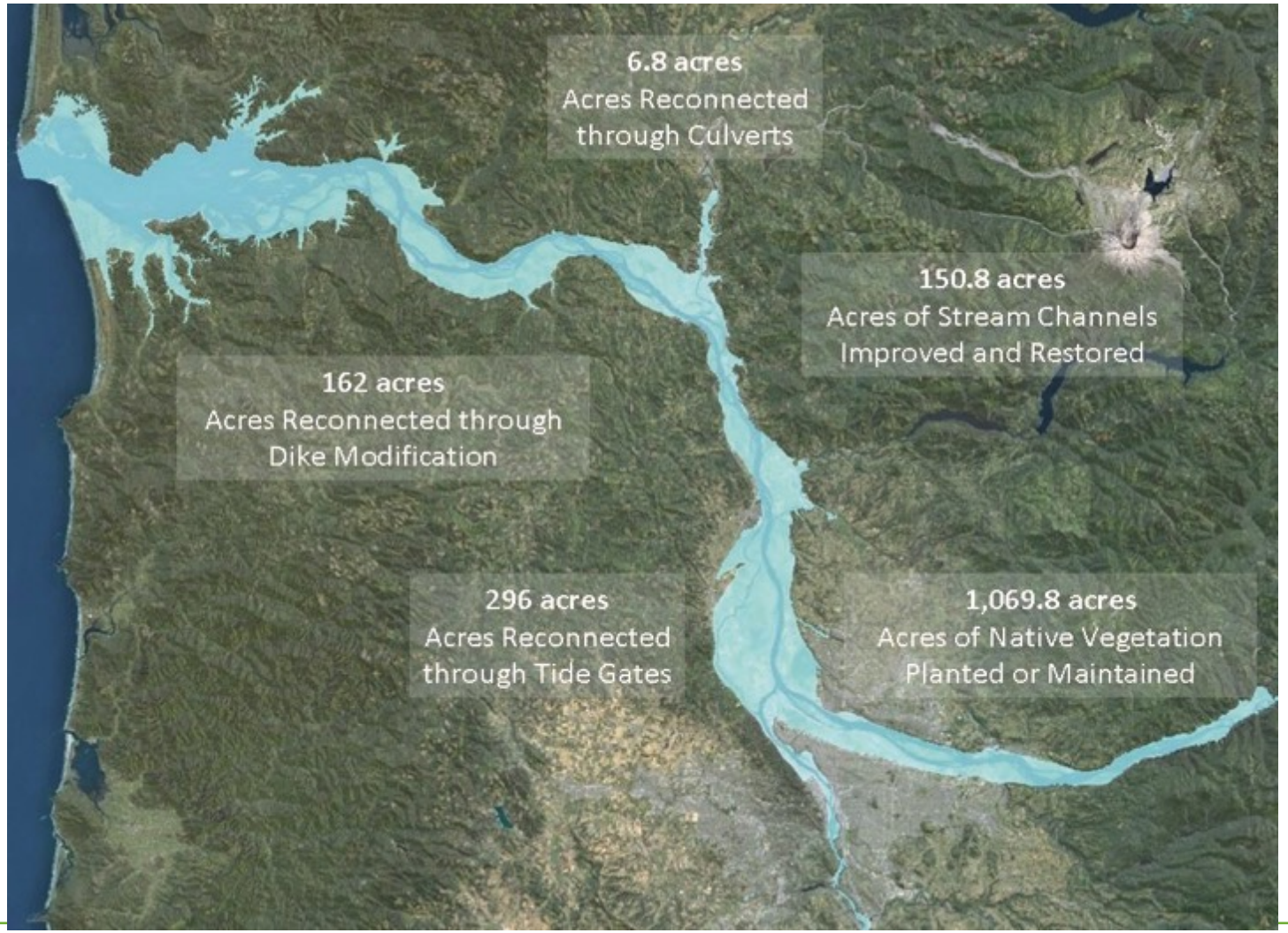
Columbia River- SBU Crediting



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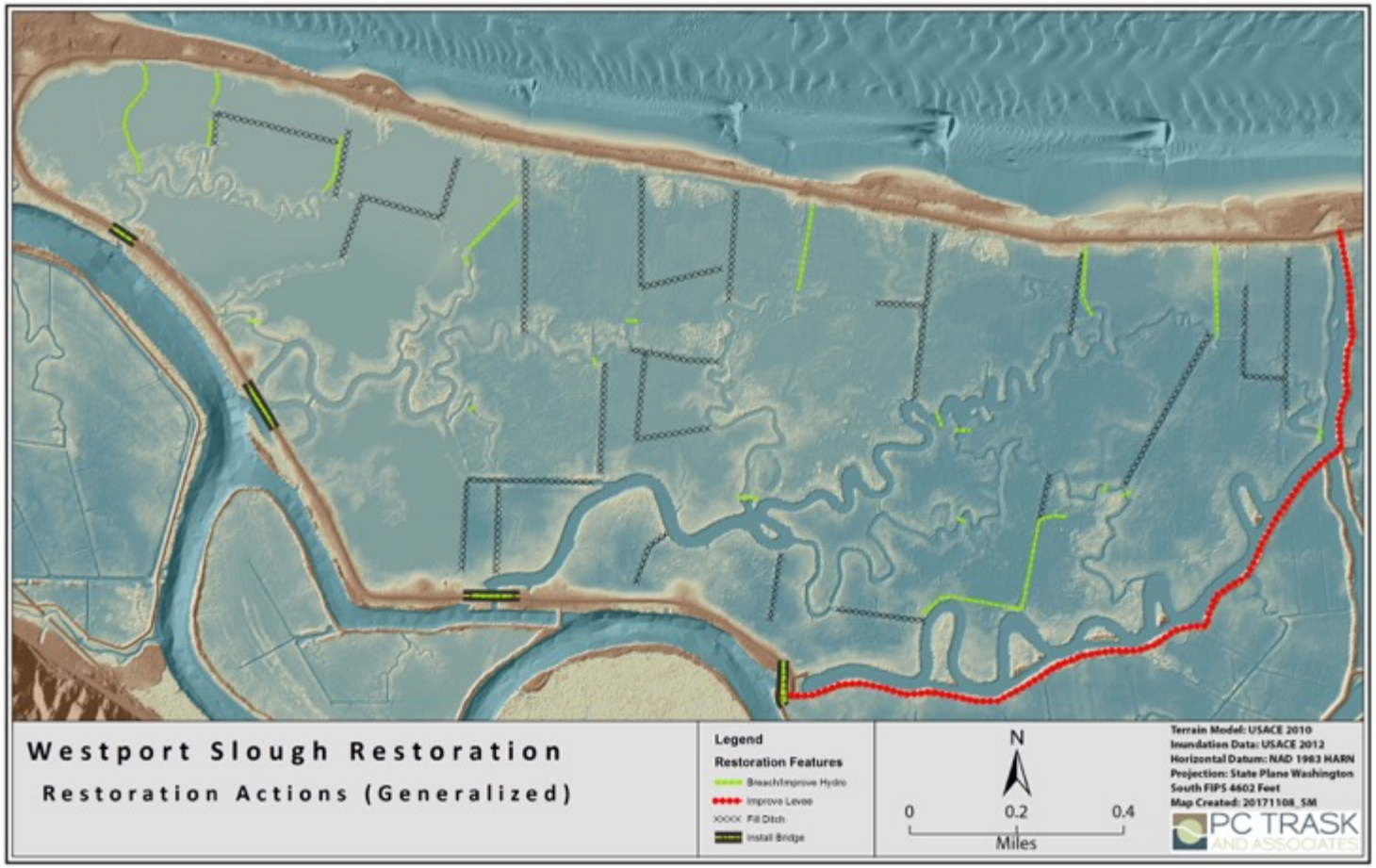
Westport Slough Restoration



Section A

"Not later than 1 year after the date of enactment of the Water Resources Development Act of 2016, the Task Force shall, after public notice and opportunity for comment, issue guidelines for the use, maintenance, and oversight of environmental banks in Louisiana."

Section B.1

"…establish criteria for siting of environmental banks that enhance the resilience of coastal resources to inundation and coastal erosion in high priority areas, as identified within Federal or State restoration plans, including the restoration of resources within the scope of a project authorized for construction"

Thank you

Questions?