CWPPRA
Priority Project List 21
Candidate Project Evaluation Results

Public Meetings

November 16 & 17, 2011

Abbeville and New Orleans

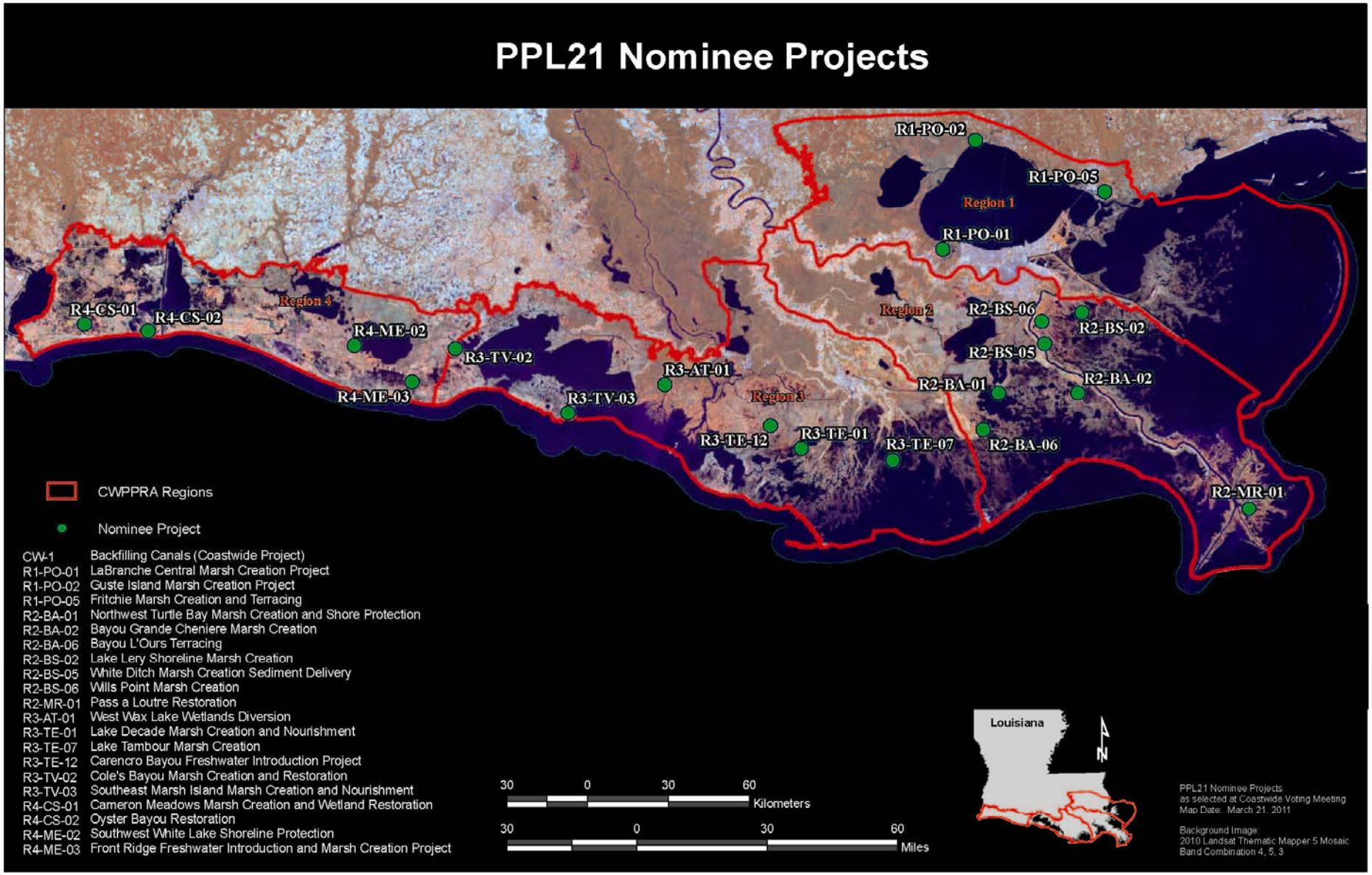
Overview of Project Nomination and Selection Process

- Regional Planning Team meetings were held January 25-27, 2011 (Abbeville, Morgan City, and New Orleans) for each Coast 2050 region to accept project ideas from the public and government participants.

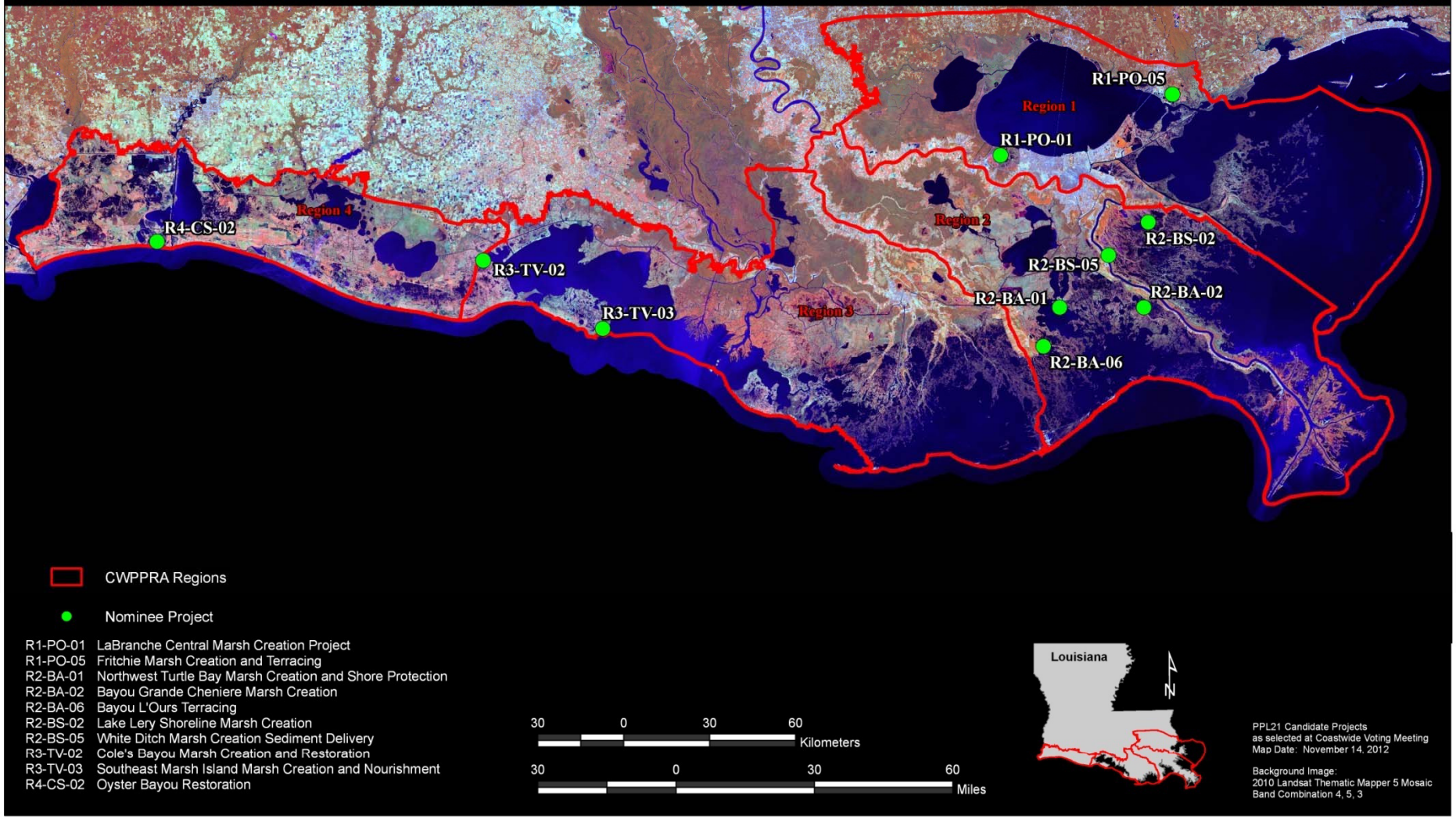
- Regional Planning Teams voted on February 22, 2011 at a Coastwide Voting Meeting to select 21 nominee projects and six demonstration projects.

- The Technical Committee selected 10 candidate projects and 3 demo candidates for detailed evaluation on April 8, 2011.

PPL21 Nominee Projects



PPL21 Candidate Projects



Project Evaluation Procedures

- Interagency site visits were conducted with landowners and local governments.
- The Environmental Workgroup conducted Wetland Value Assessments (WVA) to estimate wetland benefits.
- The Engineering Workgroup reviewed project designs and cost estimates for each candidate and demonstration project.
- The demonstration projects were also evaluated by the Environmental and Engineering Workgroups.
- The Economics Workgroup developed fully-funded costs for engineering and design, construction, and 20 years of operations, maintenance, and monitoring for each project.

Region 1

Fritchie Marsh Creation and Terracing

Labranche Central Marsh Creation

600 ac of marsh creation

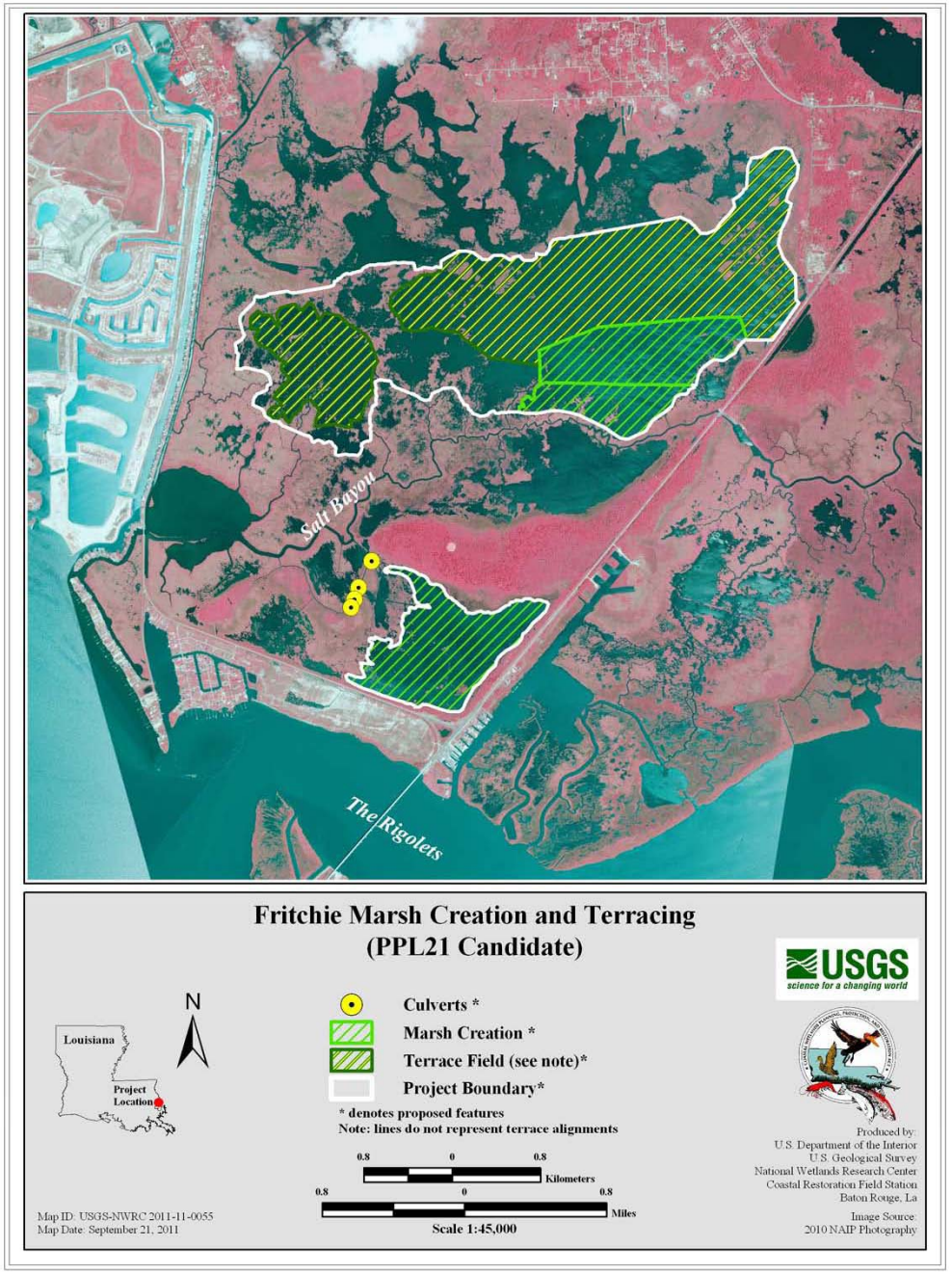
Lake Pontchartrain borrow site

50,000 ft of terraces

Culverts/tidal creeks

575 net acres

$46,080,753

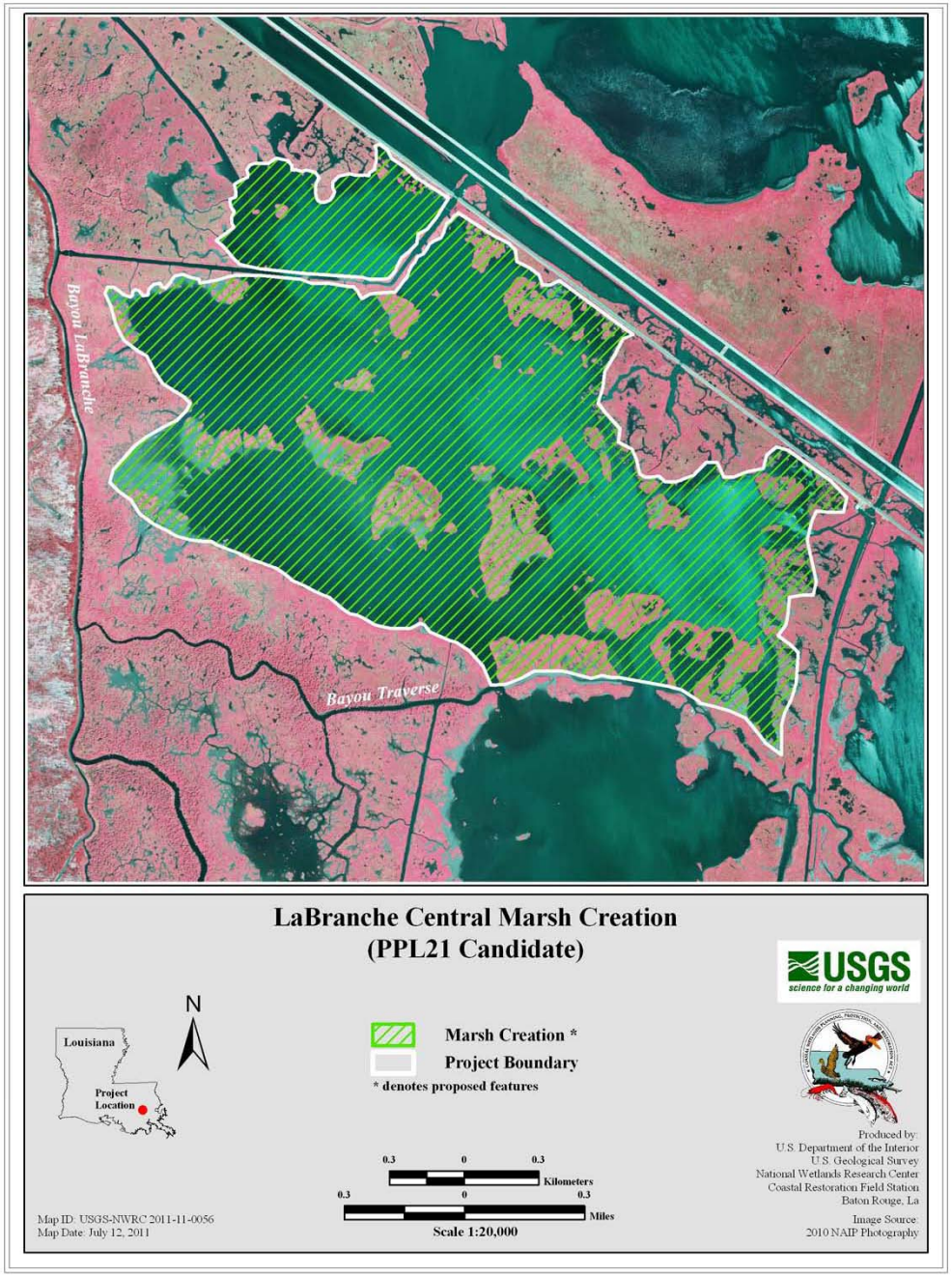


902 ac of marsh creation

Lake Pontchartrain borrow site

731 net acres

$42,159,208



Region 2

Lake Lery Shoreline Marsh Creation

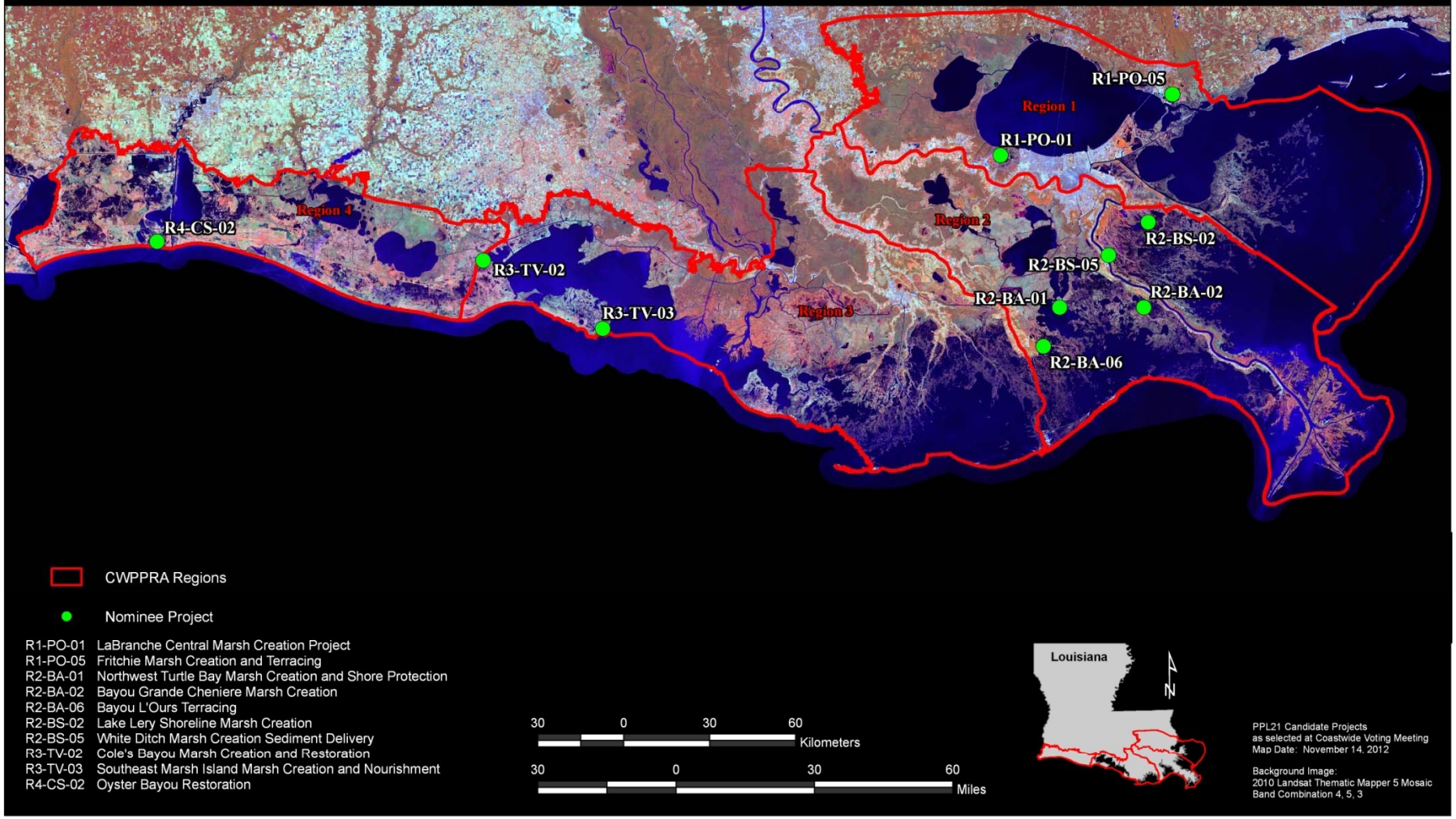
White Ditch Marsh Creation

Bayou Grande Cheniere Marsh Creation and Terracing

Northwest Turtle Bay Marsh Creation

Bayou L'Ours Terracing

PPL21 Candidate Projects



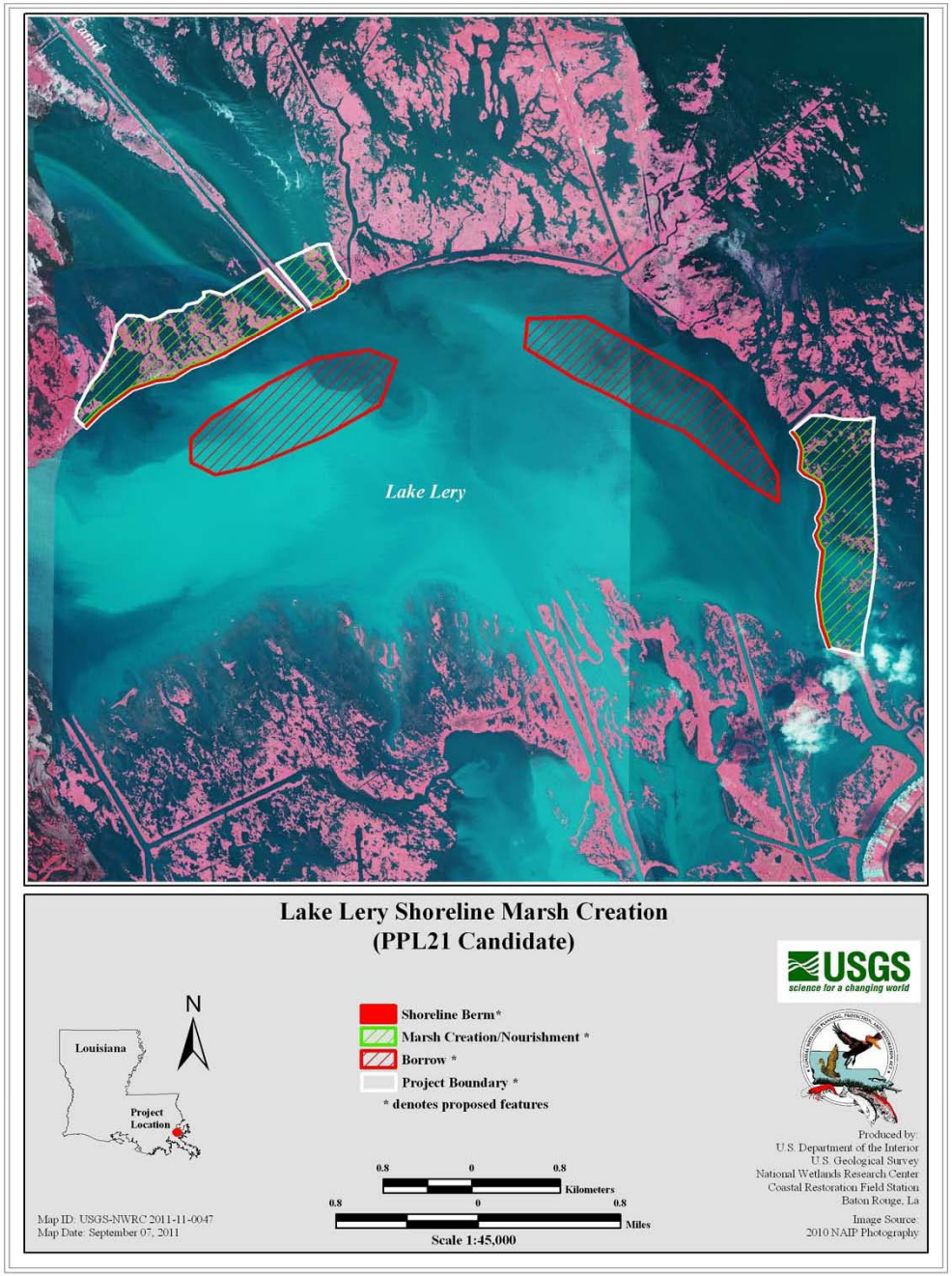
557 ac of marsh creation

Restore lakeshore rim

Lake Lery borrow site

412 net acres

$31,278,012

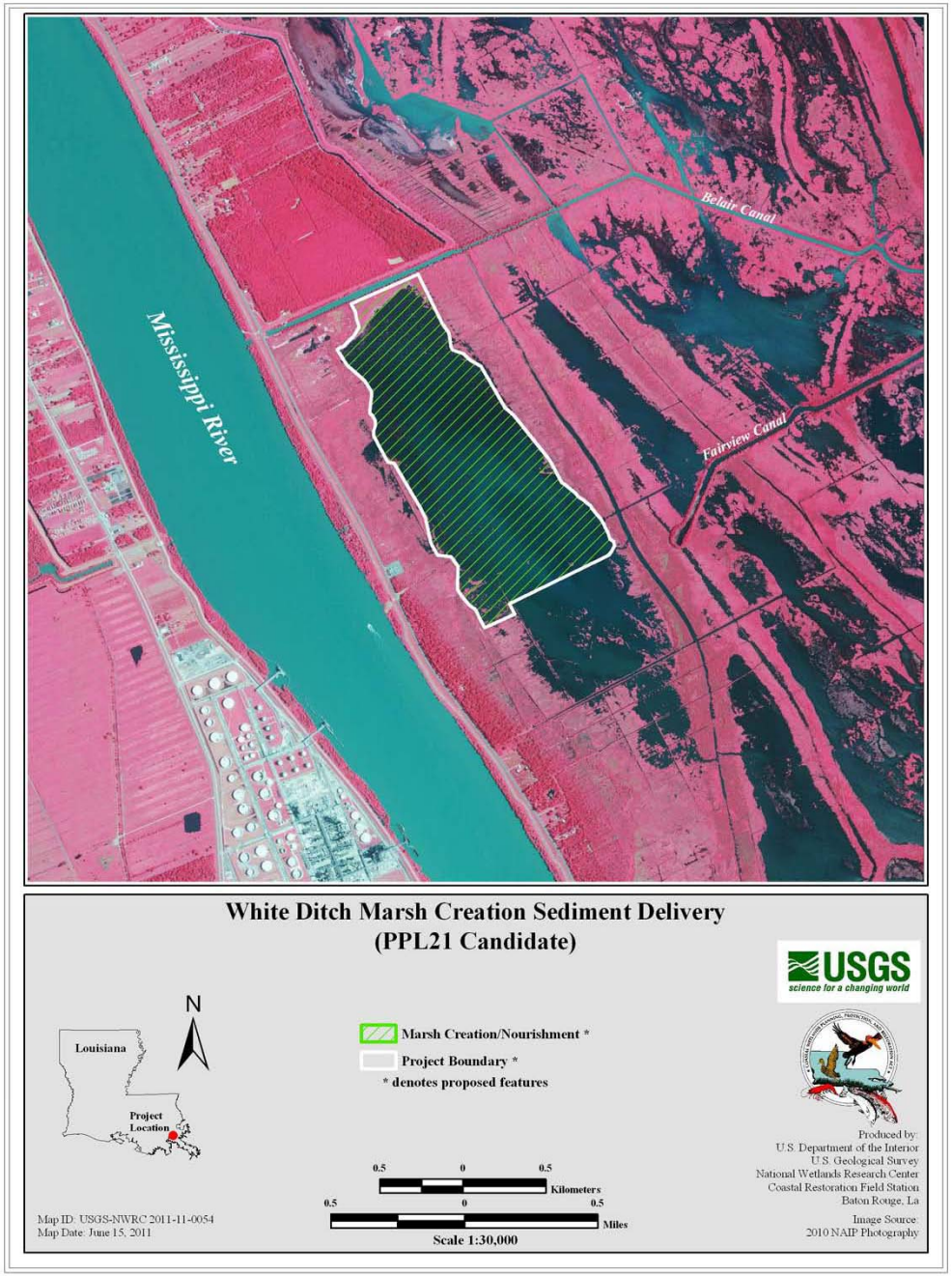


380 ac of marsh creation

Mississippi River borrow site

331 net acres

$30,520,482



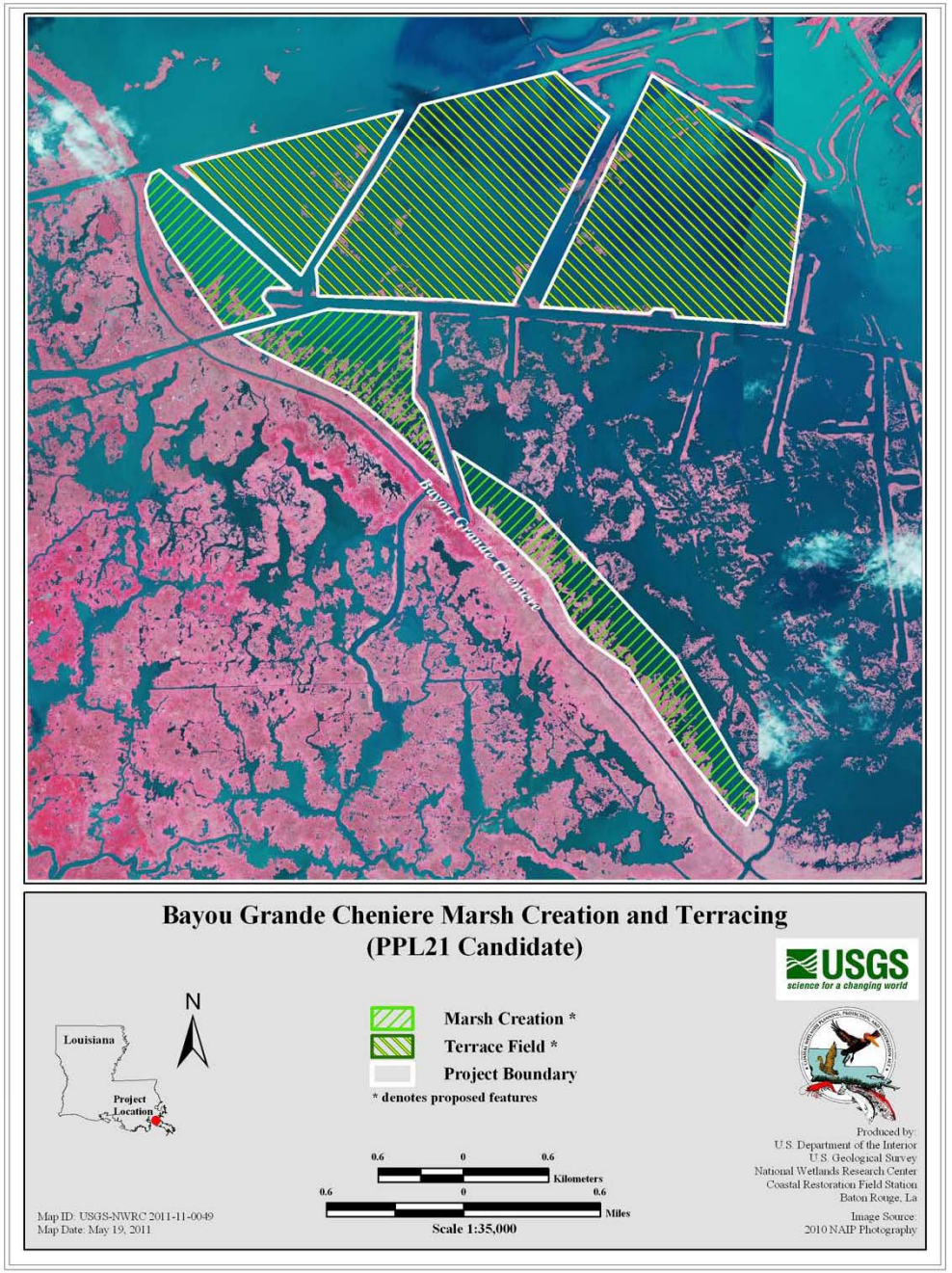
509 ac of marsh creation

Mississippi River borrow site

85,600 ft of terraces

419 net acres

$48,646,882

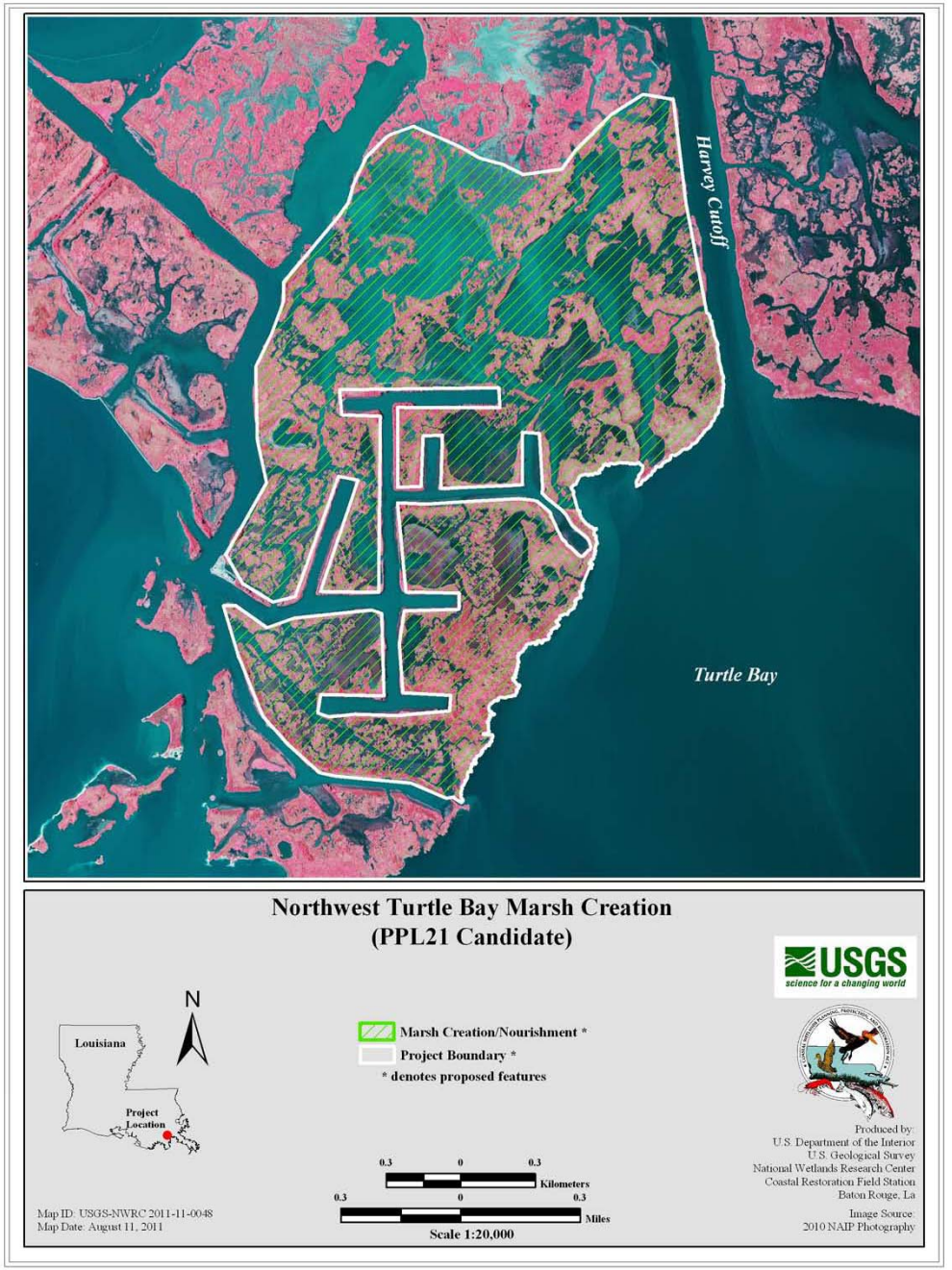


760 ac of marsh creation

Little Lake borrow site

407 net acres

$23,198,757

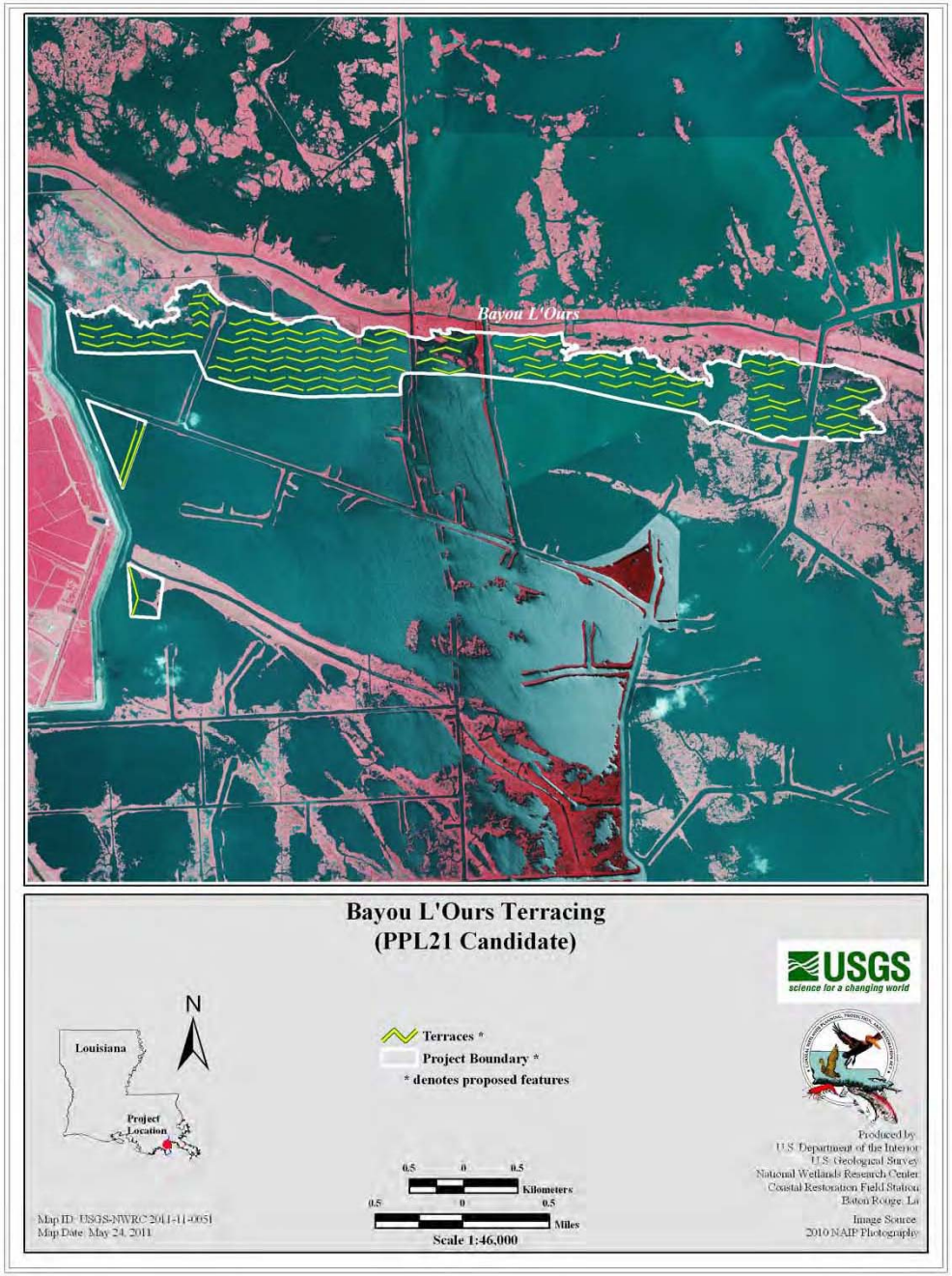


93,250 ft of terraces

Protection of Bayou L'Ours ridge

58 net acres

$5,447,519

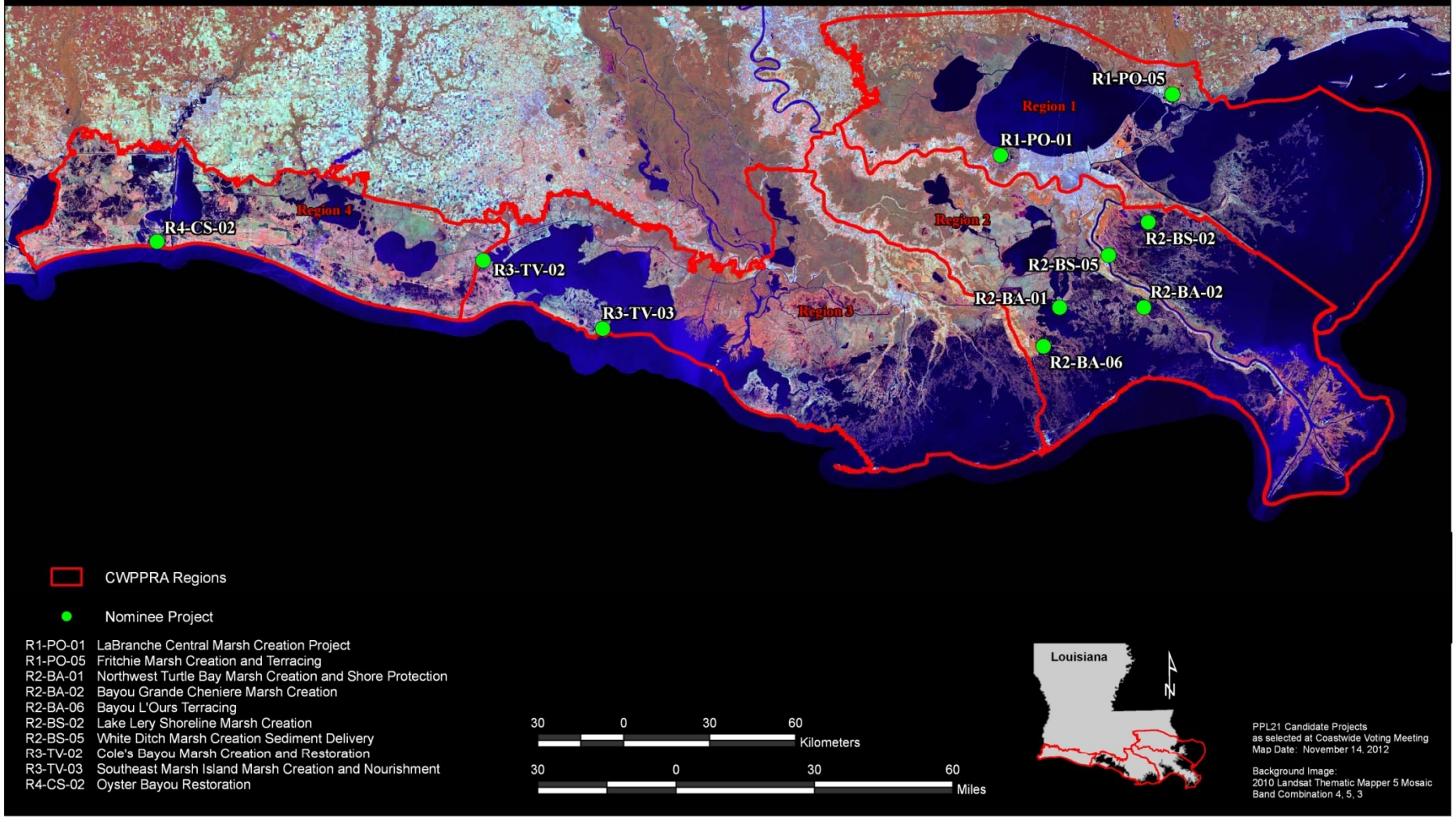


Region 3

Southeast Marsh Island Marsh Creation

Cole’s Bayou Marsh Restoration

PPL21 Candidate Projects

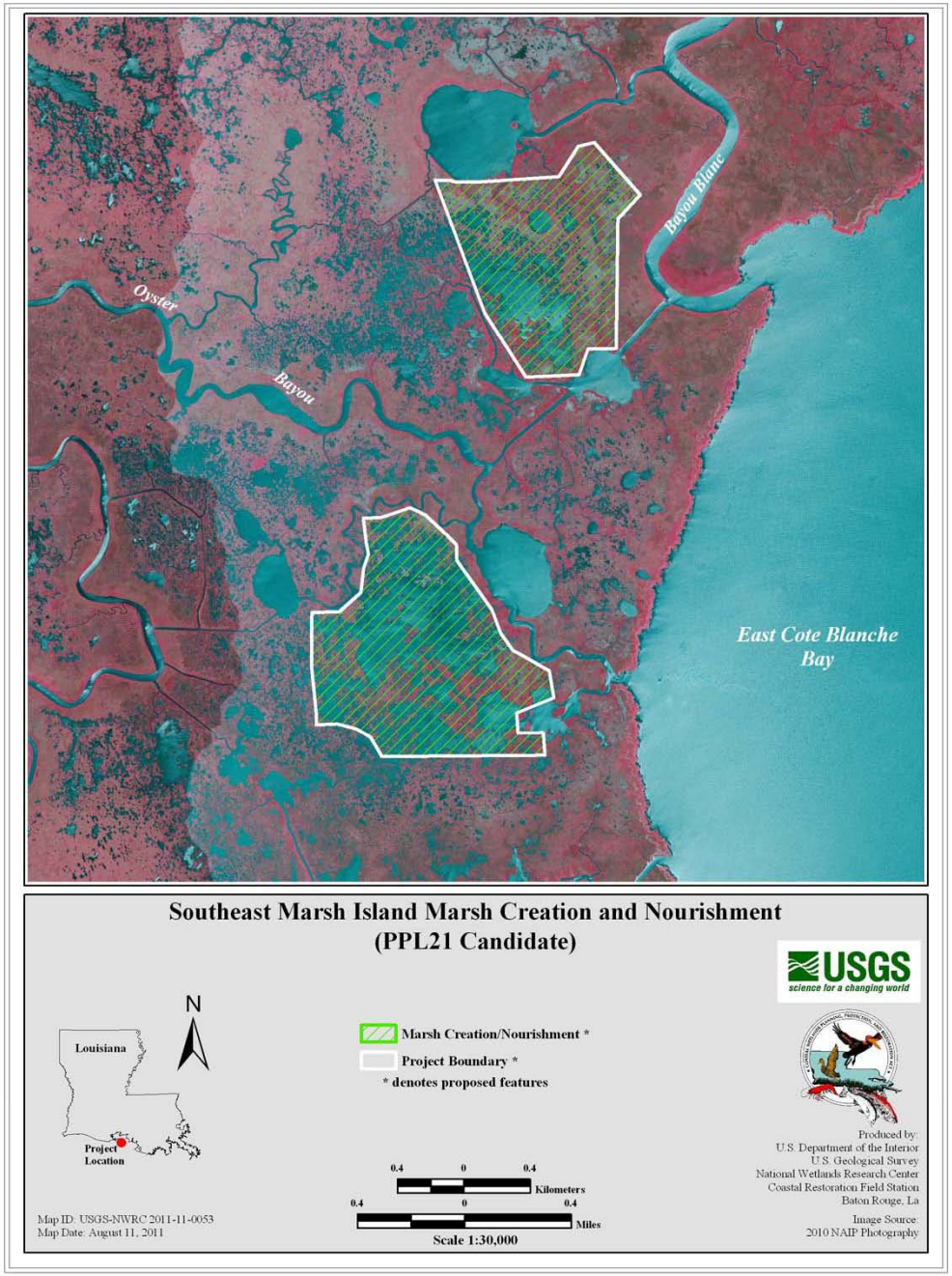


610 ac of marsh creation

Gulf of Mexico borrow site

338 net acres

$22,532,305



418 ac of marsh creation

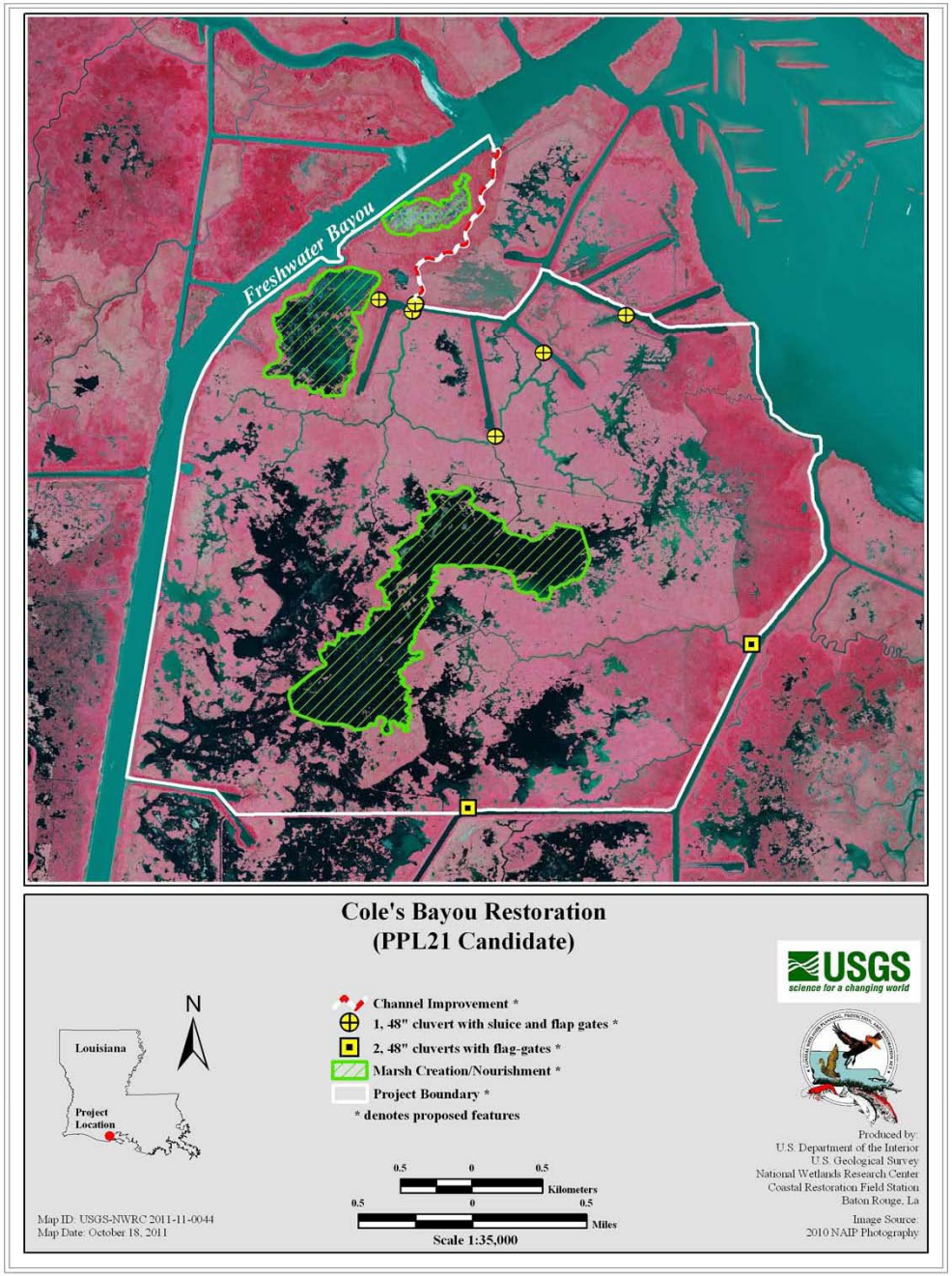
Vermilion Bay borrow site

Improve Cole's Bayou

Structures to allow freshwater input

398 net acres

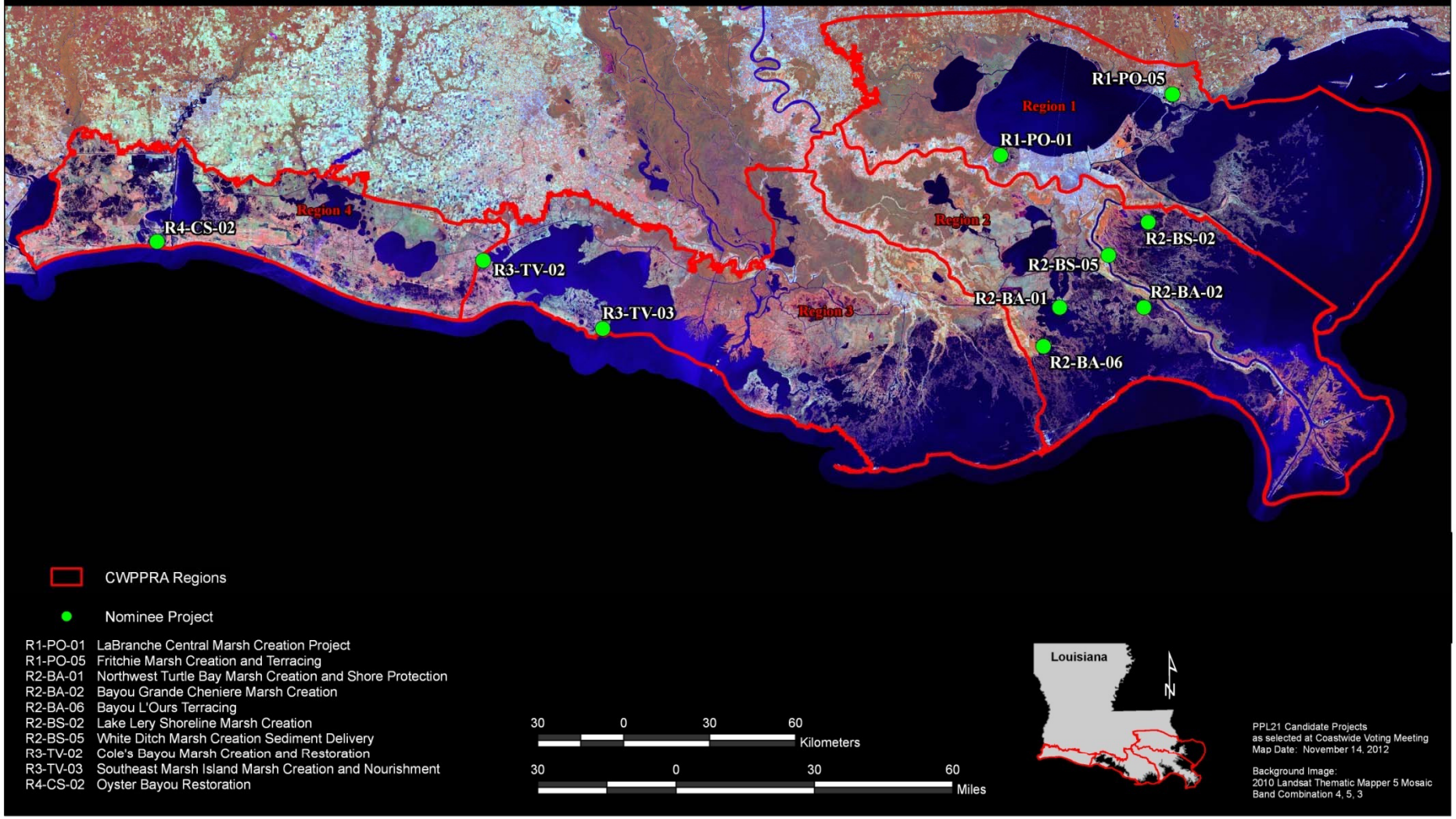
$26,631,224



Region 4

Oyster Bayou Marsh Restoration

PPL21 Candidate Projects



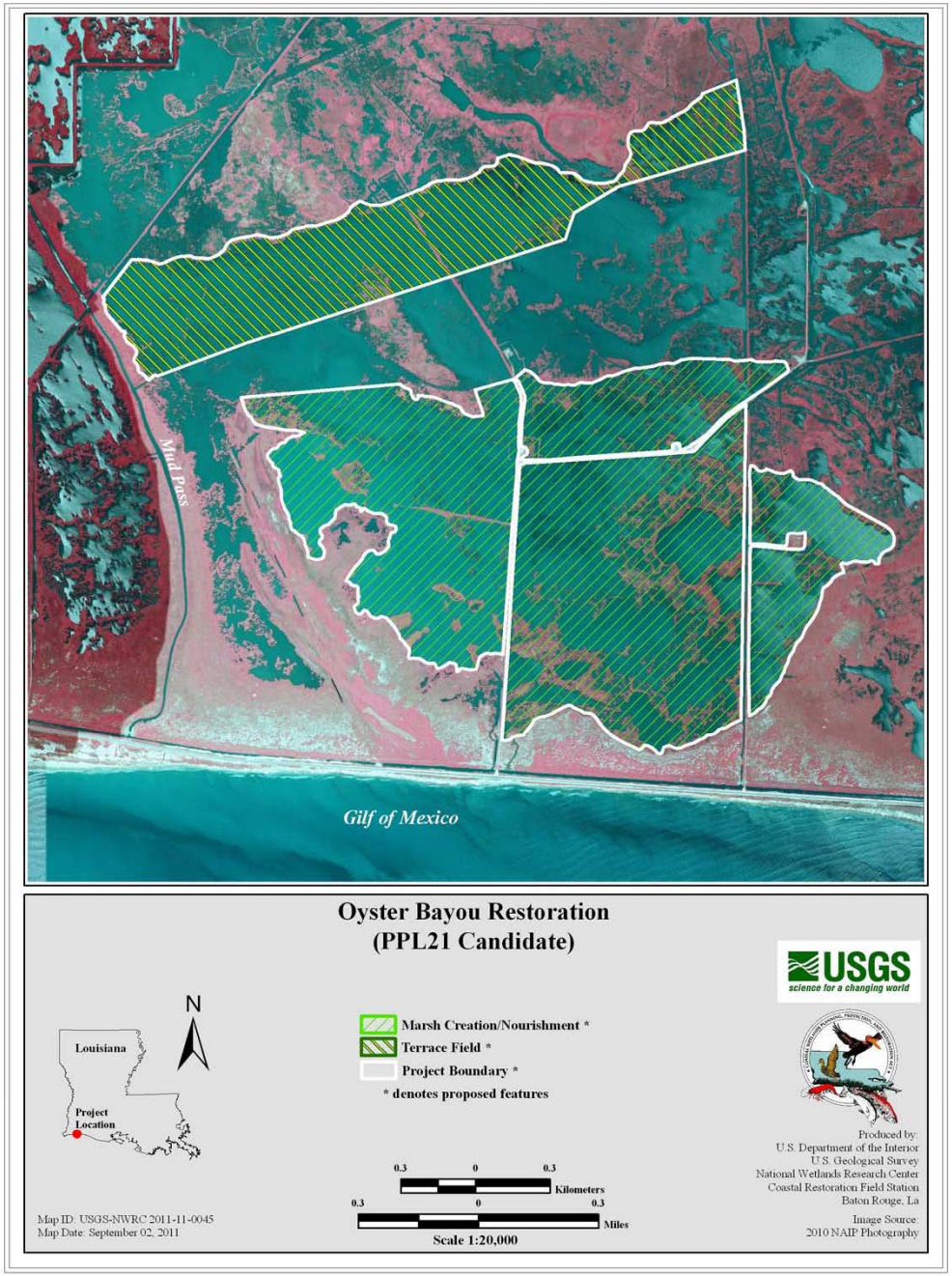
600 ac of marsh creation

Gulf of Mexico borrow site

14,140 ft of terraces

489 net acres

$29,781,355



PPL21 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Fritchie Marsh Creation and Terracing	1	St. Tammany	2,021	209	575	$46,080,753	$4,080,095	$42,000,658	$3,344,557	$16,003	$80,140
Labranche Central Marsh Creation	1	St. Charles	902	309	731	$42,159,208	$3,885,298	$38,273,910	$3,065,695	$9,921	$57,673
Lake Lery Shoreline Marsh Creation	2	St. Bernard	589	172	412	$31,278,012	$3,277,356	$28,000,656	$2,271,516	$13,206	$75,918
White Ditch Marsh Creation	2	Plaquemines	380	119	331	$30,520,482	$2,807,119	$27,713,363	$2,211,330	$18,583	$92,207
Bayou Grande Cheniere Marsh Creation and Terracing	2	Plaquemines	1,729	190	419	$48,646,882	$3,669,775	$44,977,107	$3,532,709	$18,593	$116,102
Northwest Turtle Bay Marsh Creation	2	Jefferson	807	187	407	$23,198,757	$2,354,788	$20,843,969	$1,683,220	$9,001	$56,999
Bayou L'Ours Terracing	2	Lafourche	1,047	32	58	$5,447,519	$903,617	$4,543,902	$385,639	$12,051	$93,923
Southeast Marsh Island Marsh Creation	3	Iberia	610	216	338	$22,532,305	$2,273,834	$20,258,471	$1,632,615	$7,558	$66,664
Cole's Bayou Marsh Restoration	3	Vermilion	3,840	234	398	$26,631,224	$3,136,805	$23,494,419	$1,922,965	$8,218	$66,913
Oyster Bayou Marsh Restoration	4	Cameron	809	231	489	$29,781,355	$3,165,322	$26,616,033	$2,162,912	$9,363	$60,903

Demonstration Projects

- Contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone.
- Contain new technology which can be transferred to other areas of the coastal zone.
- Are unique and are not duplicative in nature.

Demonstration Projects

- Demonstration Projects were nominated at the 4 Regional Planning Team meetings.
- Six demonstration nominees were selected at the February 22, 2011 Coastwide Voting Meeting.
- The Technical Committee selected 3 candidate demos on April 8, 2011.

Proposed Demonstration Projects

Automated Marsh Planting

Deltalok Coastline Stabilization

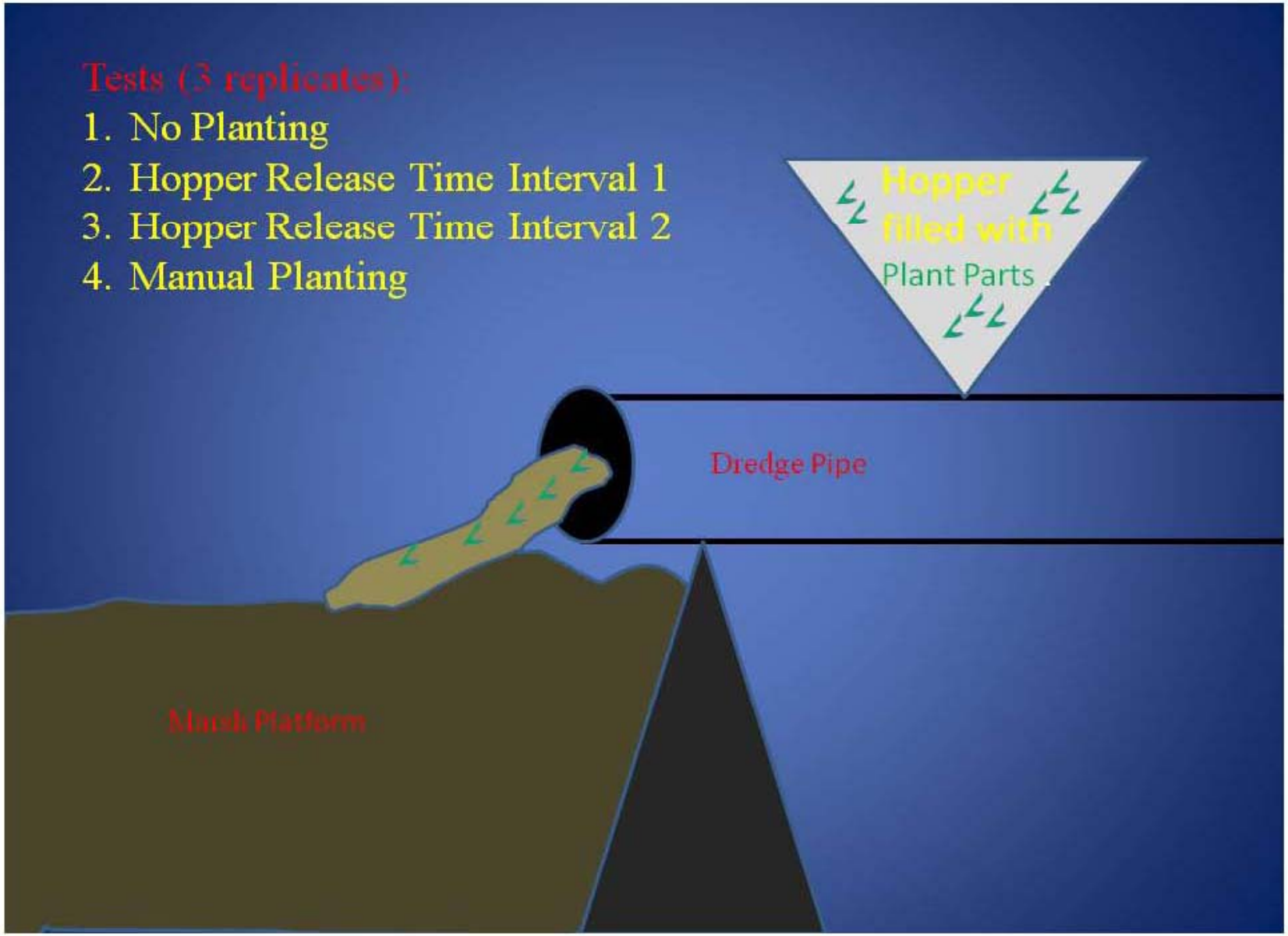
Gulf Saver Bags

Automated Marsh Planting

- Goal: Determine the effectiveness of delivering "plant parts" via the dredge pipeline as an alternative to manual planting of marsh creation sites.

- Features: Rhizomes, seeds, stem cuttings, etc. will be delivered to the marsh creation site through the dredge pipeline. A hopper will be installed on the dredge pipe so that plant parts can be placed directly into the dredged slurry. Four treatments will be monitored: 1) natural recruitment; 2) manual plantings; 3) delivery of plant parts via pipeline at time/quantity interval 1; 4) delivery of plant parts at time/quantity interval 2.

- Cost: The total fully funded cost is $2,300,608.


Tests (3 replicates):
1. No Planting
2. Hopper Release Time Interval 1
3. Hopper Release Time Interval 2
4. Manual Planting
Hopper filled with Plant Parts
Dredge Pipe
Marsh Platform

Deltalok Coastline Stabilization

- Goal: Determine the effectiveness of the Deltalok Terra-Soft Block System to armor/repair shorelines and serve as a suitable substrate for vegetative plantings.

- Features: The Deltalok Terra-Soft Block System will be used in shoreline protection and shoreline repair treatments. Protection treatments total 4,200 feet and are constructed to 4 feet in height. Repair treatments will be designed to close washouts/breaches along marsh shorelines. All treatments will be planted with the appropriate vegetation.

- Cost: The total fully funded cost is $1,750,312.

System Components

TSBs ready to install

Empty TSB ready for fill material

Deltalok Interlocking Plate

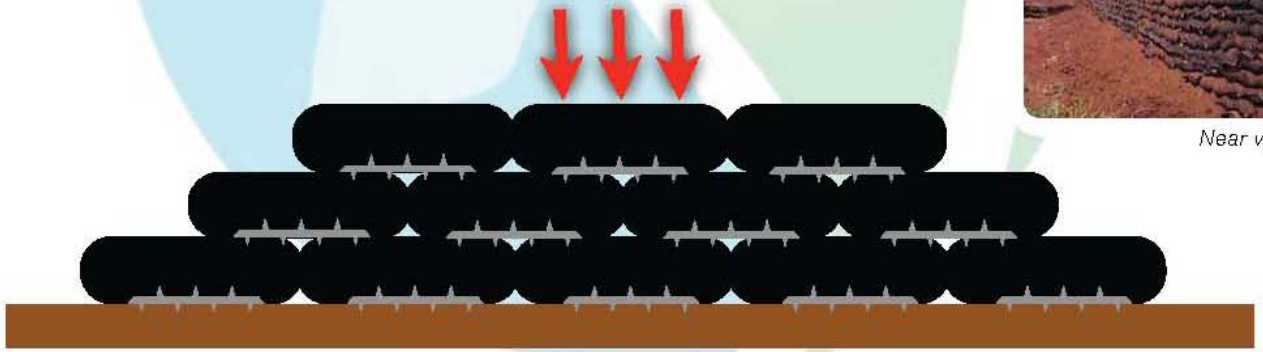
- Deltalok® Terra-Soft Block™ (TSB)
  - Soft, earthen building block, Terra-Soft Block™
  - Made from geotextile material (5 micron mesh)
  - Material filters soil particles
  - Water permeable and root friendly
- Deltalok® Interlocking Plate
  - 100% recycled plastic, made in USA
  - Interlocks Deltalok® TSB's
  - Provides mechanical connection to geogrid for backfill reinforcement

Construction

- Surface is leveled
- A Deltalok® Interlocking Plate secures first layer of Terra-Soft Blocks to the ground
- Build wall like a block & mortar wall
- Tamp TSB's down to engage with interlocking plate

Deltalok® reinforced slope

Near vertical Deltalok® wall



Building a Deltalok® TSB Wall

Riverbank protection - UK

Gulf Saver Bags

- Goal: Determine the effectiveness of Gulf Saver Bags as a cost effective vegetative planting technique for shoreline stabilization.

- Features: Gulf Saver Bags are biodegradable burlap bags filled with an organic mix to support plant growth and maximize survivability. Plants are plugged into the bags. Three potential shoreline stabilization treatments to be evaluated include: 1) on-shore treatment; 2) foreshore treatment; and 3) staggered rows. Each treatment will address 750 ft of shoreline and consist of 3 replicates.

- Cost: The total fully funded cost is $1,053,181.

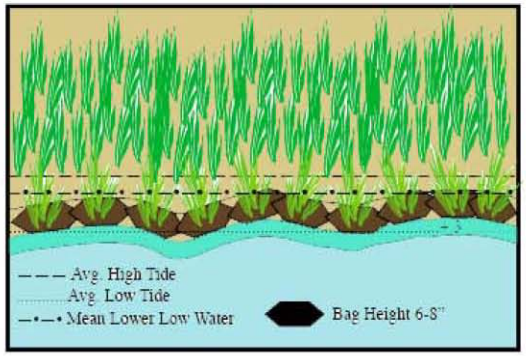

Gulf Saver Bags
Demonstration Project

Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags
Conceptual Treatments

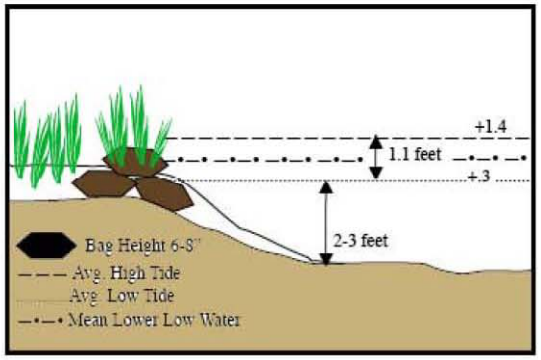
Each treatment will be 750 ft long with 3 replicates

Marsh Shoreline

Shallow water-shoreline treatment
Single row of Gulf Saver Bags
Along vegetated edge of shoreline



Foreshore treatment
Distance from shoreline-TBD
3 bags stacked to increase height



Staggered row treatment
Spacing and distance from shoreline-TBD
3 bags stacked in outer row

Final dimensions and spacing for treatments to be determined during engineering and design

PPL 21 Demonstration Project Evaluation Matrix

(Parameter grading as to effect: 1 = low; 2 = medium; 3 = high)

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P_n)						**Total Score**	Averaging of Agency Scores
			P_1 Innovativeness	**P_2** Applicability or Transferability	**P_3** Potential Cost Effectiveness	**P_4** Potential Env Benefits	**P_5** Recognized Need for Info	**P_6** Potential for Technological Advancement		
Automated Marsh Planting (aka "Alternative to Manual Planting")	COE	$2,300,608	3	3	2	2	2	2	**14**	13.7
Deltalok	COE	$1,750,312	2	3	3	2	2	2	**14**	13.9
Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags	FWS	$1,053,181	2	3	1	2	2	2	**12**	11.3

"Total Score" calculation: Individual parameter scores were determined from the score having the majority of the vote.
Example - if 4 agencies cast a vote of "3" and 3 agencies cast a vote of "2", then a score of "3" was given.

"Averaging of Agency Scores" calculation: Calculated by averaging the Total Scores from each Agency.

Demonstration Project Parameters

(P_1) *Innovativeness* - The demonstration project should contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone. The technology demonstrated should be unique and not duplicative in nature to traditional methods or other previously tested techniques for which the results are known. Techniques which are similar to traditional methods or other previously tested techniques should receive lower scores than those which are truly unique and innovative.

(P_2) *Applicability or Transferability* - Demonstration projects should contain technology which can be transferred to other areas of the coastal zone. However, this does not imply that the technology must be applicable to all areas of the coastal zone. Techniques, which can only be applied in certain wetland types or in certain coastal regions, are acceptable but may receive lower scores than techniques with broad applicability.

(P_3) *Potential Cost Effectiveness* - The potential cost-effectiveness of the demonstration project's method of achieving project objectives should be compared to the cost-effectiveness of traditional methods. In other words, techniques which provide substantial cost savings over traditional methods should receive higher scores than those with less substantial cost savings. Those techniques which would be more costly than traditional methods, to provide the same level of benefits, should receive the lowest scores. Information supporting any claims of potential cost savings should be provided.

(P_4) *Potential Environmental Benefits* - Does the demonstration project have the potential to provide environmental benefits equal to traditional methods? somewhat less than traditional methods? above and beyond traditional methods? Techniques with the potential to provide benefits above and beyond those provided by traditional techniques should receive the highest scores.

(P_5) *Recognized Need for the Information to be Acquired* - Within the restoration community, is there a recognized need for information on the technique being investigated? Demonstration projects which provide information on techniques for which there is a great need should receive the highest scores.

(P_6) *Potential for Technological Advancement* - Would the demonstration project significantly advance the traditional technology currently being used to achieve project objectives? Those techniques which have a high potential for completely replacing an existing technique at a lower cost and without reducing wetland benefits should receive the highest scores.

Project Selection

- CWPPRA Technical Committee meets on December 13 in Baton Rouge at the LA Department of Wildlife and Fisheries
  - 4 projects will be selected, by agency vote, for Phase 1 (E&D) funding
  - 1 demonstration project may be selected for funding
- CWPPRA Task Force meets on January 19 in New Orleans at the Corps of Engineers
  - Project selection by the Technical Committee is usually accepted

Written Comments Should be Mailed to the CWPPRA Task Force (Deadline: November 28, 2011)

Colonel Edward R. Fleming
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160
Or Fax to 504-862-2572
Attn: Brad Inman
Email: Brad.L.Inman@usace.army.mil