

## MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 1, New Orleans, LA, 31 Jan 13, 8:30 am

1. Agenda Item #1, Welcome and Introductions. Mr. Chris Allen, Louisiana Coastal Restoration and Protection Authority (CPRA) and RPT Region 1 Leader, opened the meeting and welcomed the attendees. He welcomed Ms. Albertine Kimble of Plaquemines Parish Government. He asked all attendees to introduce themselves.

2. Agenda Item #2, Project Priority List (PPL) 23 Selection Process Brief Overview and Ground Rules for PPL 23 Nomination Meeting. Mr. Allen delivered a PowerPoint presentation, which is available online at the CWPPRA website. He stated that the purpose of the meeting was to accept project nominations and hear public comments for developing the 23<sup>rd</sup> PPL. He asked parish representatives to give their voting member information to Mr. Scott Wandell, U.S. Army Corps of Engineers (USACE).

The Louisiana coast is divided into eight hydrologic basins. Region 1 consists of the Pontchartrain Basin. The parishes eligible to vote for Region 1 are: Plaquemines, Jefferson, Orleans, St. Bernard, Ascension, Livingston, St. James, St. Charles, St. John the Baptist, St. Tammany, and Tangipahoa. Anyone can propose a project for the region. Proposals should be consistent with the 2012 State Master Plan. A project can be nominated from only one basin (except for coast-wide projects). If a project crosses multiple basins, excluding coast-wide projects, it should be nominated in one basin only, based on the majority area of project influence. Coast-wide projects apply across basin boundaries; their benefits are not tied to one basin. Coast-wide projects can be nominated from any basin and can be presented in any or all of the RPT meetings. Multi-basin or coast-wide projects can be split into multiple individual projects. Alternatively, projects that are similar can be combined at the request of the project proposers. Splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Presenters were asked to complete a PPL 23 project information sheet with the name of the project and the contact information of the presenter. Public comments on project proposals will be accepted orally during the meeting and in writing to Mr. Brad Inman, USACE, until February 8, 2013. Presenters were asked to limit their presentations to five PowerPoint slides and five minutes. Comments should be pertinent to the project being presented.

A coast-wide electronic vote will be held on February 19, 2013. Information will be sent to the parish voters (identified by the parish representative at the RPT meeting) with voting instructions. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain Basin and Breton Sound, two projects per basin in Teche-Vermilion, Mermentau, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. The Mississippi River Basin was eliminated from consideration this year out of deference to the State Master Plan. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select up to six demonstration projects for further evaluation. Votes must be submitted by February 19, 2013 at 10:30 am.

After the coast-wide vote, an agency will be assigned to each project to prepare a fact sheet and a map. The CWPPRA Environmental and Engineering Work Groups will evaluate projects

and assign preliminary costs and benefits. Ten candidate projects and up to three demonstration projects will be chosen at the Technical Committee meeting on April 16, 2013. Written comments can be submitted until April 2, 2013.

3. Agenda Item # 3, Brief Overview of the State Master Plan Consistency Requirement. Mr. Bren Haase, CPRA, indicated that all proposals should be consistent with the 2012 State Master Plan. Consistency with the Master Plan means that a project must be in the same polygon, of the same type, and use the same borrow source as a project identified in the Master Plan. There is some limited flexibility in determining what is or is not consistent with the Master Plan. Copies of the Master Plan were available at the meeting.

4. Agenda Item #4, Announcement of Coast-Wide Voting Process. Mr. Allen reiterated that the coast-wide electronic vote would be held on February 19, 2013. He indicated that each parish should identify their voting member to Mr. Scott Wandell before the end of the meeting. No project nominations will be accepted after the RPT meetings. Each agency and parish will receive one vote. The projects with the highest vote totals in each basin will proceed forward to the Technical Committee for their consideration as candidate projects. Votes must be submitted to Ms. Allison Murry, USACE, by email or fax by 10:30 a.m. on February 19, 2013.

5. Agenda Item #5, PPL 22 Project Nominations.

a. Mr. Allen opened the floor for nominations in the Lake Pontchartrain Basin.

*#1 – Shell Beach Marsh Creation.* This project was presented by Mr. Scott Wandell with the USACE. This project is located in St. Bernard Parish on the southern shore of Lake Borgne along Shell Beach. It is in the vicinity of Ycloskey, Shell Beach, and Hopedale, north of the Mississippi River Gulf Outlet (MRGO). This area suffers from saltwater intrusion, shoreline erosion, and wave fetch from Lake Borgne, and Hurricane Katrina caused significant deterioration and scour. This loss of marsh could cause the coalescence of Lake Borgne with the MRGO and threaten local communities and infrastructure. There are several existing projects in the project area, including EPA project PO-30 directly in front of the proposed project and Coastal Impact Assistance Program (CIAP) rock projects east and west of the project area. Rocks have also been placed along the MRGO as part of the USACE's operations and maintenance (O&M) program. This project would create 362 acres of emergent brackish marsh in five open water marsh creation cells and nourish another 200 acres. The project would use 2.3 million cubic yards of material from Lake Borgne borrow sites that have already been cleared through the National Environmental Protection Act (NEPA) process. The natural ridge of Lake Borgne will be utilized, although some containment features would be built with earthen overflow weirs. This project would stabilize the Shell Beach Landbridge between Lake Borgne and the MRGO. The estimated project construction cost, including a 25% contingency, is \$19 million. This project is consistent with the Master Plan.

*#2 –Oyster Bay Reef Restoration and Marsh Creation.* This project was presented by Mr. Ken Teague with the U.S. Environmental Protection Agency (EPA) for Mr. Chris Llewellyn. This project is located in the Biloxi Marshes in St. Bernard Parish. The shoreline along Chandeleur Sound is exposed to a high energy wave environment and suffers from shoreline erosion. Without an active deltaic source of sediment, this area suffers from a net loss of land from erosion, subsidence, and sea level rise. The goal of this project is to create an oyster reef network

along the shoreline to prevent shoreline erosion and to create marsh in targeted open water areas behind the shoreline protection. The project would place approximately 10 miles of oyster reef substrate and would create about 242 acres of emergent marsh with hydraulically pumped dredged material from a borrow area in Chandeleur Sound. The oyster reef substrate will extend above the water line to reduce wave energy. The project will maintain the shoreline between Drum Bay and Chino Bay. This would build upon the successes of The Nature Conservancy's oyster reef restorations and complete the first half of the Oyster Reef Restoration component of the Master Plan. The preliminary project cost estimate with a 25% contingency is \$30 to \$35 million. This project is consistent with the Master Plan.

*#3 – New Orleans Landbridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area).* This project was presented by Ms. Angela Trahan with the U.S. Fish and Wildlife Service (USFWS). The project area is in Orleans Parish between the Rigolets, Lake St. Catherine, and Lake Pontchartrain. It is along both sides of Highway 90, which is a major evacuation route for the New Orleans area. This area has been negatively impacted by the flood protection levees, Gulf Intracoastal Waterway (GIWW), and the MRGO. The average land loss is approximately 5 feet per year. Hurricane Katrina caused 70 acres of loss. The shoreline in the Hospital Wall Area has retreated 450 feet since 1956, and some areas of the western side are being incorporated into Lake Pontchartrain. This area is also one of the last lines of defense against storm surge coming into the Lake Pontchartrain system. The goals of this project are to stop shoreline erosion, restore and re-nourish brackish marsh, and protect the Eastern Orleans Landbridge. The project includes 6,628 linear feet of rock shoreline protection along the Lake Pontchartrain side of the landbridge and two marsh creation cells behind the shoreline protection. Another two marsh creation cells are proposed for the eastern side of the landbridge to help protect Highway 90. Since most of the land loss on the eastern side is interior marsh, no shoreline protection is proposed. Overall, this project would create or nourish 188 acres of marsh. Concerns include O&M of the hard shoreline protection structures and the as-yet unidentified borrow source. A potential borrow source would be the Rigolets, because it has the potential to fill in quickly, but experts in Gulf sturgeon habitat would be consulted. An estimated one million cubic yards of material would be needed. The preliminary project cost estimate with a 25% contingency is \$14.6 million. This project is consistent with the Master Plan.

*#4 – North Goose Point Marsh Restoration.* This project was presented by Ms. Angela Trahan with USFWS. This project is in St. Tammany Parish on the Big Branch National Wildlife Refuge south of Lacombe. This is a continuation of the Goose Point/Point Platte Project constructed in 2008, which was very successful. The Bayou Bonfouca Project is also nearby and was approved for construction in January 2013. The combination of these projects allows for comprehensive restoration of the Northshore marshes. This area has experienced ponding, and as the shoreline erodes, land loss increases. Interior ponding and shoreline erosion are the major causes of wetland loss in the project area. The project includes 466 acres of marsh creation and 200 acres of marsh nourishment in four cells. The proposal includes hydraulic dredging in Lake Pontchartrain and pumping the material to contained marsh creation areas, while also allowing effluent to flow into adjacent marshes for nourishment. The project would protect interior marsh habitat, enhance flood protection for communities on the Northshore of Lake Pontchartrain, and could improve the water quality of the Lake. Concerns include disruption of the Gulf sturgeon critical habitat. The preliminary project cost estimate with a 25% contingency is \$25 to \$30 million. The project is not consistent with the Master Plan. It was not evaluated in the Master Plan and could be considered for inclusion in the 2017 Update.

*#5 – Fritchie Marsh Creation and Terracing.* This project was presented by Mr. Patrick Williams with the National Marine Fisheries Service (NMFS). This project is located in St. Tammany Parish, approximately three miles southeast of Slidell, Louisiana. A significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. Post storm shallow open water areas dominate the landscape which reduces the effectiveness of the nearby PO-06 CWPPRA project. Wetlands in the project vicinity are being lost at a rate of -0.92% per year based on the extended boundary during 1984 to 2011. These marshes cannot recover without replacement of lost sediment, which is critical if the Northshore marshes are to be sustained. Marshes near the intersection of Highways 433 and 90 are semi-impounded with substantially limited tidal exchange. Project goals include restoring and nourishing marsh, maintaining the structural integrity of Salt Bayou, creating edge and reducing wave erosion, and improving tidal exchange to created and existing marshes south of Prevost Island. Approximately 3.6 million cubic yards of material would be placed into three marsh creation areas to restore 498 acres and nourish approximately 20 acres of brackish marsh. Two cells are on private property and one is on the Big Branch National Wildlife Refuge. Material would be dredged from a borrow site in Lake Pontchartrain, which would be designed to avoid and minimize impacts to sensitive aquatic habitat and existing banklines. 15,000 feet of tidal creeks and ponds (50 acres distributed between areas) would be constructed and retention levees would be gapped to support estuarine fisheries access to achieve a functional marsh. Four culverts would be replaced to improve tidal exchange to marsh located south of Prevost Island. The project will help maintain the natural ridge along and extending from Prevost Island. The project will have a net positive effect on the highways and adjacent development. The project will have a direct synergy with the PO-06 CWPPRA project. The two southern marsh creation cells on private property are within a polygon identified in the Master Plan. The marsh creation on the north side of Salt Bayou, representing 13% of the total cost, is not included in the Master Plan. However, the State determined that since it is immediately adjacent to a Master Plan polygon, all of the marsh creation would be considered consistent with the Master Plan and could move forward. The estimated construction cost, including 25% contingency, is \$33 million with a fully funded cost estimated in the \$40 to \$45M range. Approximately 50,000 linear feet of earthen terraces were included in the original project proposal, representing 5% of the total project cost. However, these are not consistent with the Master Plan and therefore the terraces were removed from the project, reducing the construction cost by approximately \$1.5 million. He also indicated that the exact marsh creation cells needed to be refined, particularly the cell directly south of Salt Bayou.

*#6 – Golden Triangle Marsh Creation.* This project was introduced by Mr. Patrick Williams with NMFS. This project is located in St. Bernard and Orleans Parishes, near the Hurricane Storm Damage Risk Reduction System surge barrier southeast of New Orleans. Based on the USGS 1985 to 2009 loss rate, the wetlands in the South Lake Borgne subunit, in which the Golden Triangle is located, are being lost at a rate of -0.49% per year. Evaluation of 1998 to 2008 photography indicates interior breakup and coalescence of newly formed open water with historic ponds, as well as increased connection with Bayou Bienvenue and the GIWW. The proposed project technique is marsh creation via dedicated dredging from Lake Borgne. The primary target fill area is 186 of the 204 acres, which is very shallow as result of two disposal events by the Corps of Engineers for the construction of the surge barrier component of the Hurricane Surge Damage Risk Reduction System. No mitigation would be required because the site has already gone through the NEPA process. Additional areas for marsh creation were selected based on water depth data and a strategy to restore areas closest to the surge barrier and

the lake edge. The borrow site in Lake Borgne would be located far enough away from the existing marsh shoreline to prevent slope failure and induced wave refraction/diffraction erosion and avoid sandy substrate preferred by the threatened Gulf sturgeon. Furthermore, the borrow site would not be dredged deeper than 15 feet below mean water level to minimize potential impacts on dissolved oxygen and would be monitored to verify the rate of infilling and water quality. Based on discussions with the USACE, 18 acres would be excluded from the disposal areas immediately adjacent to the GIWW, thus allowing for potential future disposal of material dredged to conduct maintenance on the surge barrier and avoidance of remaining deep water in that disposal area. The project goal is to create approximately 440 acres of brackish marsh using sediment dredging from Lake Borgne in a manner to compliment and not conflict with the Corps' surge barrier. Historic open water areas will be maintained. The project will have a synergistic effect with the tentatively selected plan of the MRGO Ecosystem Restoration Study, if funded for construction. The proposed project may have potential land rights issues yet to be determined. The estimated construction cost, including 25% contingency, is estimated to be approximately \$22.1 million with a fully funded cost in the range of \$20 to \$25 million. This project is consistent with the Master Plan.

*#7 – Shell Beach Marsh Creation.* This project was introduced by Ms. Rachel Sweeney with NMFS. This project is located in St. Bernard Parish along the north shore of the MRGO and the south shore of Lake Borgne. The marsh boundary separating Lake Borgne and the MRGO has experienced interior and shoreline wetland losses due to subsidence, the construction of the MRGO, and wind driven waves. The project includes two marsh creation cells that would create 251 acres of marsh and nourish 243 acres of marsh and build an earthen closure at the intersection of a pipeline canal with Lake Borgne and the MRGO. The proposed borrow area is an area in Lake Borgne without oyster leases approximately one mile offshore. The target fill elevation is +2.5 feet. There are many opportunities to use the existing lake and bayou shorelines to minimize the construction of significant containment dikes, although dikes will be necessary on the MRGO side of the project. This project would be substantially protected from wave and wind erosion by other CWPPRA projects and by rocks placed along the shoreline of the MRGO by the USACE. The estimated construction cost, including 25% contingency, is \$27.2 million. This project is consistent with the Master Plan. Mr. William McCartney, with the St. Bernard Parish Government, stated that this is St. Bernard Parish's official recommendation for PPL 23. This project will help the commercial fishing fleet and protect the nearby communities. Mr. Ken Teague, EPA, indicated that the benefit calculation for this project could not use benefits that were included in other projects.

Nominations were closed for the Lake Pontchartrain Basin.

b. Mr. Allen opened the floor for nominations for coast-wide projects.

No coast-wide projects were nominated.

Nominations were closed for coast-wide projects.

c. Mr. Allen opened the floor for nominations for demonstration projects.

*#2 – Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines and Banks.* This project was introduced by Ms. Jane Rowan with Normandeau Associates. The

project is supported by the EPA. This project was nominated last year with slight differences. The revisions are based on discussions with the Natural Resources Conservation Service (NRCS) and researchers at the University of Louisiana. This demonstration project would study the use of unrooted woody material to stabilize soils. The proposal is to put cuttings into soil along a rock-stabilized bank or shoreline to root to increase the tensile strength and cohesiveness of soils. Suggested species include the black willow, *salix nigra*; wax myrtle, *myrica cerifera*; and buttonbush, *cephalanthus occidentalis*, although one goal of the project would be to develop a list of native tree and shrub species that could be used in future applications. Species used for this demonstration would need to be native, have adventitious root systems, root from cuttings, provide nursery conditions to other native species, and be able to withstand small amounts of salinity. This methodology is routine in other parts of the country, and several Federal agencies have implementation guidance, but it has not been used much in the Southeast. Benefits of using live materials include self-regeneration, adaptability, the ability to absorb wave energy, increased tensile strength and cohesiveness of the soil, and providing habitat for other species. This methodology could increase the longevity of rock stabilized shorelines and banks. This is an easy methodology to implement and does not need to be constructed by a contractor. There is no proposed location, although it was noted that the shorelines in the Jean Lafitte and Lake Salvador area were recently stabilized with rock and would be a good setting for this demonstration. Suitable locations are estuarine to freshwater habitats with organic or silty soils. The suggested segment length is 1,000 feet. Monitoring should include mortality, size, percent cover, volunteering species, sediment depth, root biomass/extent, and maintenance of the rock structure.

*#3 – Stabilized Red Mud (SRM) Diversions and Riverine Discharge.* This project was presented by Karl Peckhaus with Remedial Construction Services on behalf of Noranda Alumina. This proposal would test the use of stabilized red mud (SRM) in the construction of river diversions. Dredged red mud stabilized with green reagents forms an irreversible chemical reaction to bind the red mud particles together. The resulting material is a calcium aluminum sulfate hydroxide material. This increases the compressive strength of the soil so that the structures can withstand storm surge and maintain structural integrity even when submerged. There are no leachability issues with this material, and it has a lower erodibility and lower permeability than clay. It allows for steeper slopes to narrow the footprint of diversion channels. The SRM can be covered by natural vegetation. SRM compares favorably to clay in terms of cost-benefit. It also meets EPA green initiatives. This material was used to protect a liquid natural gas facility in Cameron Parish, and the dikes withstood the storm surges of Hurricanes Rita and Ike. The estimated construction cost for a segment of SRM diversion berms is less than \$2 million.

*#4 – Stabilized Soil Shorelines.* This project was presented by Karl Peckhaus with Remedial Construction Services on behalf of Noranda Alumina. Excessive erosion along the Louisiana shoreline exposes thousands of acres of interior marshes to increased erosion rates and severe ecological change. In addition, the loss of wetlands resulting from the direct effects of wave action is magnified over open bodies of water where distances are great. Highly organic interior marshes have limited options for restoration because of poor soil conditions. This demonstration project consists of using lightweight, stabilized dredged materials on shorelines. This stabilized material does not rehydrate, and is similar to a soft rock without the weight. The stabilization process is a beneficial use of green reagents to produce a calcium silicate hydrate material or derivative thereof. Stabilization may take place in situ by blending reagents or by importing pre-stabilized materials. The stabilized material could be used along the Gulf of

Mexico where wave energy is high, including barrier islands. The stabilized material is irreversible and gets stronger over time. This material is more cost effective than alternatives such as rip rap. Benefits include absorbing and deflecting wave energy, protecting and enhancing existing or planted shoreline vegetation, allowing ingress and egress of native species, trapping sediment while reducing wave energy, and reducing interior marsh loss. This material has been used on shorelines for commercial facilities along ship channels, but has not been used for coastal protection. The proposed demonstration project would greatly minimize or prevent continued erosion, enhance interior marsh shorelines, and maintain exchange and interface with estuarine systems. Additionally, some accretion would likely occur and build emergent marsh. The estimated cost to perform four reaches of this demonstration is \$2 million.

Nominations were closed for demonstration projects.

6. Agenda Item #6, Announcement of Upcoming PPL 23, Task Force, Technical Committee and Other Meetings. Mr. Allen reviewed upcoming CWPPRA meetings. He reminded parish representatives to see Mr. Scott Wandell to provide contact information for the designated parish voters. Written comments on the proposed PPL 23 projects can be submitted to Mr. Brad Inman by February 8, 2013.

7. Agenda Item #7, Adjourn. The meeting was adjourned at 10:00 am.

## MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 2, New Orleans, LA, 31 Jan 13, 11:30 am

1. Agenda Item #1, Welcome and Introductions. Mr. Brad Inman, U.S. Army Corps of Engineers (USACE) and RPT Region 2 Leader, opened the meeting, welcomed the attendees, and asked the attendees to introduce themselves. He welcomed Dr. Charles Sasser of Louisiana State University (LSU), Chairman of the Academic Work Group.

2. Agenda Item #2, Project Priority List (PPL) 23 Selection Process Brief Overview and Ground Rules for PPL 23 Nomination Meeting. Mr. Inman delivered a PowerPoint presentation, which is available online at the CWPPRA website. He stated that the purpose of the meeting was to accept project nominations and hear public comments for developing the 23<sup>rd</sup> PPL. Copies of the PPL 23 process were available at the meeting. He asked parish representatives to see Mr. Scott Wandell, USACE, to complete a voting registration form.

The Louisiana coast is separated into eight hydrologic basins. Region 2 consists of the Barataria Basin and Breton Sound. Parishes eligible to vote for projects in Region 2 include: Plaquemines, Jefferson, Orleans, Ascension, Assumption, St. James, St. Charles, Lafourche, and St. John the Baptist. Anyone can propose a project for the region. Proposals should be consistent with the 2012 State Master Plan. A project can be nominated from only one basin (except for coast-wide projects). If a project crosses multiple basins (excluding coast-wide projects), it should be nominated in one basin only, based on the majority area of project influence. Coast-wide projects apply across basin boundaries; their benefits are not tied to one basin. Coast-wide projects can be nominated from any basin and can be presented at any or all of the RPT meetings. Multi-basin or coast-wide projects can be split into multiple individual projects. Projects that are similar can also be combined at the request of the project proposers. Splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. If a basin is not selected, the Planning and Evaluation (P&E) Subcommittee will select one. Presenters should complete a project information sheet for each project proposal. Public comments on project proposals will be accepted orally during the meeting and in writing until February 8, 2013. Contact information for written comments was printed on the back of the agenda.

Project proposals should be limited to five PowerPoint slides and five minutes. Comments should be limited to the subject project.

A coast-wide electronic vote will be held on February 19, 2013. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain Basin and Breton Sound, two projects per basin in the Teche-Vermilion, Mermentau, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select up to six demonstration projects for further evaluation. Parishes only vote in the basins they occupy.

After the coast-wide vote, an agency will be assigned to each project to develop a fact sheet and project map. The Engineering and Environmental Work Groups will prepare preliminary

costs and benefits. Ten candidate projects and up to three demonstration projects will be selected by the Technical Committee at the April 16, 2013 meeting. Written public comments can be submitted through April 2, 2013. Mr. Inman described the remaining steps in the PPL 23 process.

3. Agenda Item # 3, Brief Overview of the State Master Plan Consistency Requirement. Mr. Inman indicated that project proposals should be consistent with the 2012 State Master Plan. Mr. Bren Haase, Louisiana Coastal Protection and Restoration Authority (CPRA), indicated that to be consistent with the State Master Plan a project must be in an identified polygon, of the same type, and use the same borrow source as a project in the Master Plan. This assessment can be flexible and is to some extent a subjective determination. Projects that are not in the 2012 Master Plan can be considered for the 2017 Master Plan Update. Copies of the Master Plan were available at the meeting.

4. Agenda Item #4, Announcement of Coast-Wide Voting Process. Mr. Inman reiterated that the coast-wide electronic vote will be held on February 19, 2013. Parishes were asked to identify their designated voter. Each parish, Federal agency, and the State has one vote. Each voting entity will receive an electronic ballot. Votes can be submitted via email or fax by 10:30 am on February 19, 2013.

5. Agenda Item #5, PPL 23 Project Nominations.

a. Mr. Inman opened the floor for nominations in the Barataria Basin.

*#1 – Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection.* This project was presented by Mr. Quin Kinler with the Natural Resources Conservation Service (NRCS). This project is in Jefferson Parish, south of Bayou Rigolets and Bayou Perot and north of Little Lake. This area contains several other projects that have been constructed or will be constructed soon. There are potential shoreline breaches along the Harvey Cutoff and Turtle Bay, with widespread loss of emergent marsh throughout the project area. Many areas along the shoreline have already breached into open ponds, and many other areas are likely to breach soon. Water exchange has increased between Turtle Bay and interior marshes due to the dredging of pipeline canals and the widening of existing channels through shoreline erosion. The proposed project would create 505 acres of marsh and nourish 254 acres of marsh. The project would use channel liners to armor the two major exchange points to halt channel growth. Approximately 2,335 feet of critical shoreline along Turtle Bay would be protected. The larger marsh creation cells would be fully contained. The smaller marsh creation cells would use a small dredge with very little earthen containment to spot-patch areas along the shoreline of Turtle Bay and the Harvey Cutoff to prevent further breaches. The project also includes filling the pipeline canal to eliminate hydrologic exchange between Turtle Bay and interior marshes. The estimated construction cost, with a 25% contingency, is \$30.2 million if the borrow site is in Turtle Bay and \$76.5 million if the borrow site is in the Mississippi River. Mr. Phil Phrect, representing the landowner ConocoPhillips and Louisiana Land & Exploration Company, indicated that they are in full support of this project. Mr. Phrect suggested that CWPPRA give strong consideration to using basin material instead of borrowing from the Mississippi River. Ms. Marnie Winter, Jefferson Parish Government, supports this project and also supports using Turtle Bay as the borrow site. This is an area of critical need. Mr. Haase indicated that this project has been

discussed extensively to determine whether or not it is consistent with the Master Plan. The intent of projects in the Master Plan in this area is to prevent loss and help stabilize the Barataria Basin landbridge, and this project fulfills those goals and therefore is consistent with the Master Plan. However, to maintain consistency, the project must use sediment from the Mississippi River. The State would like for this project to capitalize on the upcoming construction of the Long Distance Sediment Pipeline. Mr. Kinler explained that in his cost estimate for the project, the \$76.5 million figure for the Mississippi River borrow site assumed that this would be a stand-alone project, but the Long Distance Sediment Pipeline could reduce this cost. There was some discussion about whether the cost estimate should assume that the Long Distance Sediment Pipeline is in place, and Mr. Haase indicated that that methodology would be acceptable to the State. Although the Pipeline has not yet been constructed, the contract is expected to be bid in April. Mr. Kevin Roy, U.S. Fish and Wildlife Service (USFWS), asserted that assuming the existence of the Pipeline could give this project an advantage over other projects by reducing the costs. Ms. Winter expressed the opinion that this project should use borrow from Turtle Bay because the Long Distance Sediment Pipeline has a lot of land to fill between the River and this project site. Mr. Phillip Parker, National Marine Fisheries Service (NMFS), stated that the current plan is to begin construction on the pipeline in the summer of 2013, but the pipe will be removed after construction. The corridor will be in place, which could reduce costs, but the actual pipe will not remain. Mr. Haase indicated that, although this project is outside of a polygon identified in the Master Plan, the State is willing to be flexible because most of the marsh creation considered in this area performed well in the modeling done for the Master Plan. Also, this is a continuation of investments that the State anticipates making with the Long Distance Sediment Pipeline. However, he reminded the RPT that every dollar spent on a project outside of the Master Plan is a dollar that is not spent on a project that is in the Master Plan. Ms. Winter asserted that a \$76.5 million project would be unlikely to move forward in the CWPPRA Program. Mr. Kinler decided to nominate the project with the Mississippi River borrow source because otherwise it would not be consistent with the Master Plan.

*#2 – Bay Dogris Marsh Creation.* This project was presented by Mr. Quin Kinler with NRCS. This project is located in Jefferson Parish between Little Lake and Bay Dogris. This area has experienced widespread loss of emergent marsh and shoreline erosion. This project is directly north of a project identified in the Master Plan because, at this time, it is more feasible to engineer and design than the project identified in the Master Plan. The project includes 213 acres of marsh creation in two cells and 441 acres of marsh nourishment. The estimated construction cost, with a 25% contingency, is \$18.3 million using Little Lake as the borrow site and \$54.1 million using the Mississippi River as the borrow site. Mr. Phrect indicated that ConocoPhillips, as the landowner in this area, is in full support of this project and supports using basin material. Ms. Winter provided Jefferson Parish's support to this project, and opined that it should be considered consistent with the Master Plan because it serves the same function as the wave break project identified in the Master Plan. Mr. Karim Belhadjali, CPRA, declared that this project is consistent with the Master Plan because the overall intent is to augment and sustain the Barataria Basin rim. Although the State would prefer external borrow, this project will still be considered consistent with the Master Plan if it uses interior borrow. Ms. Leslie Suazo, with Ducks Unlimited, stated that they are looking at the possibility of using the Long Distance Sediment Pipeline for other projects in the area. She asked the State if it were possible to consider using the pipeline for additional

projects before the pipe is removed. Otherwise, the requirement that the Mississippi River or Gulf of Mexico be used as a borrow source will be particularly difficult for projects within Turtle Bay. Mr. Haase recommended that Ms. Suazo speak to the State's project engineers about the Long Distance Sediment Pipeline. Mr. James Harris, USFWS, expressed his confusion about whether or not a project must be inside a Master Plan polygon to be considered consistent. Mr. Chris Allen, CPRA, replied that CPRA made a concerted effort to engage with stakeholders before the RPT meetings. In some cases, after the State had the opportunity to analyze a potential project in detail, it was determined to be consistent with the goals of the Master Plan even though it was not within a specific polygon. Without those prior discussions, a project was more likely to be deemed inconsistent.

*#3 – Spanish Pass Marsh and Ridge Restoration.* This project was presented by Ms. Rachel Sweeney with NMFS. The project is located in Plaquemines Parish along the southern boundary of Barataria Basin, near Venice and Fort Jackson. This area experienced a large amount of land loss between 1956 and 2008. Almost the whole subunit is now open water with the exception of the developed corridor directly adjacent to the Mississippi River. This project proposes 10,700 feet of ridge restoration and 300 acres of marsh creation in the historic Spanish Pass area. The ridge would have a 20-foot crown width and a top elevation of +6 feet, for a total of 16 acres of habitat above mean high water. The estimated construction cost, with a 25% contingency, is \$22.2 million, using internal borrow from an area of Yellow Cotton Bay with no pipelines or oyster leases. The goal of this project is to fortify the demarcation between the Gulf of Mexico and interior marshes and help partition the large bay into distinct subunits. This project starts with the existing landmass to build the first increment of an east/west structure that could ultimately join the north/south structure of the Grand Liard Project. Other potential borrow areas include Grand Pass and the Pilottown Anchorage Area. Grand Pass may or may not have sufficient material, depending on whether or not the Venice Ponds Marsh Creation Project is constructed. The pump distance for the Pilottown Anchorage Area is probably too far at 54,000 feet. Ms. Sweeney estimated an increase in cost of approximately 25% for the Grand Pass borrow site. Mr. Roy asked about the very high net acres (294) that Ms. Sweeney estimates for this project. Ms. Sweeney responded that she did not include shoreline erosion because there is no existing land to use as a comparison. She did use the appropriate mapping unit and assumed a 50% reduction in the background loss rate. This area is somewhat protected from north winds and the Grand Liard Project should reduce fetch. Ms. Michelle Fischer, U.S. Geological Survey (USGS), stated that most of the land loss in this area occurred between 1956 and 1973. Ms. Albertine Kimble, Plaquemines Parish Government, expressed the Parish's support for this project. The Coastal Impact Assistance Program (CIAP) has just constructed an \$800,000 project at Jump Basin. Plaquemines Parish is also constructing several other projects in this area. Mr. Sam Bently, LSU Geology, asked if Ms. Sweeney's land loss rates account for subsidence. Ms. Sweeney responded that the land loss rates reflect all factors that contribute to land loss, including subsidence. This project is consistent with the Master Plan, although the State would prefer more outside borrow.

*#4 – Bayou Dupont Marsh Creation #4.* This project was presented by Mr. Ken Teague with U.S. Environmental Protection Agency (EPA) for Mr. Paul Kaspar and Mr. Chris Llewellyn. This project is located in Plaquemines and Jefferson Parishes in the Bayou Dupont area. This

project builds upon previous successful projects in the area. Marshes in the project area are disconnected from the Mississippi River and no longer receive the sediment, nutrients, or freshwater they need to survive. Historic oil and gas activity in the area contributed to this problem. The proposed project would create 300 acres of emergent intermediate marsh using sediment from the Mississippi River. Four different alternatives were nominated, with the final layout to be decided during the engineering and design (E&D) process. The estimated construction cost, with a 25% contingency, is \$20 to \$25 million. Mr. Jason Kroll, NRCS, asked about the borrow source and whether it was the same borrow source used for the previous Bayou Dupont projects. Mr. Teague responded that, although he was unsure, he assumed it would use the same borrow area if there is enough material. Ms. Winter noted that some of the cost variability is likely due to the difference between the four options being considered. Jefferson Parish supports this project and prefers Option #2 because it would maintain the shoreline of Bayou Traverse. Ms. Kimble stated that Plaquemines Parish also supports this project and agreed with Ms. Winter about Option #2. She stated that ridge and marsh creation have been very successful in this area. Mr. Allen confirmed that this project is consistent with the State Master Plan.

*#5 – Wilkinson Canal Marsh Creation and Nourishment.* This project was presented by Mr. Phillip Parker with NMFS. This project is located in Plaquemines Parish. The project area has experienced widespread rapid land loss resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for the Lake Laurier subunit is -0.43% per year based on USGS data from 1995 to 2009. The natural limits of Bayou Dupont have become difficult to distinguish in some areas due to the coalescence of the Bayou with adjacent water bodies. Natural tidal flow and drainage patterns that once existed through Bayou Dupont are currently circumvented by the increasing area of open water. This project proposes to create and/or nourish 480 acres of marsh in two cells using a hydraulic dredge in the Myrtle Grove area of the Mississippi River. The marsh creation cells would use containment dikes, which would be degraded and/or gapped no later than three years after construction. The marsh creation would reestablish the banks of Bayou Dupont and provide support to the flood protection levee. Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage. The estimated construction cost, including 25% contingency, is \$28.9 million. The current borrow site is Myrtle Grove, but there are concerns related to this borrow site. It may be possible to borrow from the opposite bank of the Mississippi River, although the navigation industry has concerns about this alternative. Another option may be the Long Distance Sediment Pipeline. Ms. Kimble stated that part of this project is included in another project. Mr. Parker responded that this project can be adjusted as necessary based on what other projects move forward. This project is consistent with the Master Plan.

*#6 – Bayou Lafourche near Leeville Marsh Creation and Nourishment.* This project was presented by Mr. Phillip Parker with NMFS. This project is located in Lafourche Parish on the edge of the Barataria and Terrebonne Basins adjacent to Southwestern Louisiana Canal. The natural limits of Southwestern Louisiana Canal are difficult to determine in some areas due to the coalescence of the Canal with adjacent water bodies, and losses accelerate as the area becomes more fragmented. Oil and gas exploration and subsidence contribute to wetland loss rates of -0.4% per year and -0.9% per year in the Timbalier Bay and Lake Palourde subunits, respectively, based on USGS data from 1995 to 2009. NMFS has identified eight polygons for a total of 440 acres of marsh creation and nourishment. 70-100 acres are in the Terrebonne Basin, with the remainder in the Barataria Basin. Not all polygons are included in the Master

Plan. The goal of the project is to reestablish a portion of the Southwest Louisiana Canal. The proposed borrow source is Little Lake, in the Terrebonne Basin. The estimated construction cost, including 25% contingency, is \$28 million. This project is consistent with the Master Plan.

*#7 – Caminada Headland Back-Barrier Marsh Creation and Nourishment.* This project was presented by Mr. Stuart Brown with CPRA. The project is located directly behind the Caminada headland beach, to the east of West Belle Pass in Lafourche Parish. Caminada headland has experienced some of the highest shoreline retreat rates in Louisiana, measuring between 55 and 65 feet per year from 1998 to 2010 (historically, up to 100 feet per year). At the same time, the area is also experiencing extremely high loss rates of interior marshes. Back barrier features are an important component of barrier island restoration projects by acting as a platform to capture sediment during over-wash events, reducing the likelihood of breaches, and increasing the longevity of the island. The beach and dune restoration of this island is being constructed by CIAP. The proposed CWPPRA project includes creating 351 acres and nourishing 259 acres of back barrier emergent marsh. Sediment would be pumped from an offshore borrow site. The estimated construction cost, including 25% contingency, is \$27.2 million. This project is consistent with the Master Plan.

*#8 – Bayou Grande Chenier Marsh and Ridge Restoration.* This project was presented by Mr. Kevin Roy with USFWS. The project is located in Plaquemines Parish, along Bayou Grande Cheniere. From 1932 to 1990, the West Point a la Hache Mapping Unit lost 38% of its marsh. Through 2050, 28% of the 1990 marsh acreage is expected to be lost. That loss is expected to occur even with operation of the West Point a la Hache Siphons. Significant marsh loss has occurred south of Lake Hermitage with the construction of numerous oil and gas canals. Riverine sediments will be hydraulically dredged and pumped via pipeline to create and nourish approximately 395 acres of marsh in two cells. Approximately 11,200 feet of ridge (14 acres) will be constructed along the eastern side of Bayou Grande Cheniere. This ridge is not in the Master Plan, but it should be considered because it is parallel to flood protection levees. The intent is to use construction equipment, such as dozers, to push and shape River material to create the ridge, which would have a 25-foot top width and an elevation of +6 feet. This project is directly south of the Lake Hermitage Project. The Lake Hermitage Project has demonstrated that the material stacks quickly, which is why this ridge construction technique is expected to be successful. Approximately 1,615 acres would be benefited directly and indirectly by the project. This project is not within a Master Plan polygon, but it uses a Mississippi River borrow source, expands a current project, has an existing path from the borrow source to the project area, and is located on mostly parish-owned land. Approximately 85,600 feet of terraces were originally proposed for this project to reduce fetch and turbidity and capture suspended sediment. Mr. Chris Allen, CPRA, stated that the project would be consistent with the Master Plan if the terraces were removed. The preliminary construction cost for the project, with 25% contingency, is \$27.7 million. Ms. Kimble noted that the project is west of the West Pointe a la Hache Siphon, which will be a source of freshwater to sustain this project. Ms. Suazo asked the State to allow the terraces to be funded by another source. Ducks Unlimited constructs many small terracing projects throughout the State. Mr. Allen responded that the terraces can be built by another program, but the benefits cannot be included in the CWPPRA project. Mr. Roy noted that the terraces are only 13% of the construction cost and no other methodology is as cost effective as terraces to protect the marsh. Terraces will

reduce fetch. However, since the terraces cause the project to be inconsistent, Mr. Roy removed them from the project. Mr. Allen responded that terraces may be considered in the 2017 Update, but they are not currently consistent with the Master Plan. There was extensive discussion regarding consistency with the Master Plan. The State indicated that there is some flexibility in the exact location of the 8,000 acres of marsh creation that the Master Plan shows in the Barataria Basin.

*#9 – Elmer’s Island Restoration.* This project was nominated by Ms. Marnie Winter with Jefferson Parish, who asked Mr. Patrick Williams, NMFS, to present the project. This project is located in Jefferson Parish. Elmer's Island has narrowed and decreased in elevation, escalating the rate of over-wash and breaching near the confluence with the headland as well as along Caminada Pass. As the island has become more vulnerable from over-wash and breaching, island habitat has been lost and protection of mainland marsh and infrastructure has diminished. The spit along the pass is breached, and the breach is likely to persist and worsen without corrective actions. The project includes 304 acres of marsh creation using a Gulf of Mexico borrow source other than the Caminada Shoal. Also included are 5,000 feet of interim dune repairs, although other programs may have to perform substantial dune repairs in the future. A breach along Caminada Pass would be repaired to decrease water exchange between Caminada Pass and the backside of Elmer’s Island. Culverts under Elmer’s Road would increase water exchange into the back lagoon. Otherwise, once the breach in the eastern spit is repaired, there would be no exchange between the back lagoon and the Gulf of Mexico. Hydrodynamic studies would be required before this feature is constructed. A rigorous Phase 0 study has been conducted to ensure there are no induced impacts on Grand Isle. The estimated construction cost, with a 25% contingency, is \$26.4 million. Mr. Williams emphasized that this project is distinct from the State’s Caminada II Project and the Louisiana Coastal Area Barataria Basin Barrier Shoreline Restoration Project, neither of which is funded. Ms. Winter thanked Mr. Williams for presenting the project on behalf of Jefferson Parish. She noted that in the last six to seven years, this island has breached several times and a back barrier marsh would help prevent future breaches. This island protects the community of Caminada, and Jefferson Parish supports this project.

*#10 – Grand Pierre Island Restoration.* This project was presented by Mr. Patrick Williams with NMFS. This project is located in Plaquemines Parish. Several other barrier island projects have been constructed by CWPPRA and Louisiana Coastal Area in this island chain. He thanked CPE Shaw for their support in the design of this project. The proposal includes 127 acres of beach and dune construction and 229 acres of back barrier marsh creation and nourishment. The fill quantity for the beach is 1.6 million cubic yards and the source is an existing near-shore borrow site. In comparison, the Chenier Ronquille Project requires 2.4 million cubic yards of sediment. Even if the Chenier Ronquille Project is constructed, the borrow source would be sufficient for this project as well. The estimated construction cost, with a 25% contingency, is \$18.6 million. Ms. Winter reported that Jefferson Parish supports this project even though it is in Plaquemines Parish, because it provides protection to Jefferson Parish. This project was included in the 1993 Jefferson Parish Coastal Restoration Plan. This project is consistent with the Master Plan.

Nominations were closed for the Barataria Basin.

b. Mr. Inman opened the floor for nominations in the Breton Sound Basin.

*#1 – Long Distance Sediment Transport East – Breton Sound Marsh Creation.* This project was presented by Ms. Rachel Sweeney with NMFS. This project is in St. Bernard and Plaquemines Parishes in the vicinity of Delacroix and Lake Lery. Breton Sound has experienced extreme land loss over the past 50 years. Historically, the basin had cross-basin land masses that provided resiliency, but now the area is mostly open water. The goal of this project is to engage in long-distance sediment transport on the eastern side of the Mississippi River, similar to what is being proposed and constructed on the western side. Ultimately, Ms. Sweeney would like to restore a continuous landmass in this area. She studied two sites for marsh creation. She chose to nominate the northern site because of the shorter distance that would be required. This site also has minimum revetment and levee issues. The goal of the project is to fill open water areas south of Lake Lery and west of Delacroix Bayou to reduce wind generated waves and tidal surge between the low salinity marshes north of Lake Lery and the higher salinity marshes south of Lost Lake. This project would create 400 acres of marsh using hydraulic dredging with a pump distance of approximately six miles. The proposed work will use material mined from Lake Lery in an area that is not currently planned for use. The estimated construction cost, with 25% contingency, is \$48 million; however, this may be a high estimate based on bids being received for the Scofield Island Project. Benefits include using Mississippi River resources that are sustainable and the ability to construct multiple adjacent projects to complete a cross-basin alignment to tie the two landbridges together. Ms. Kimble reported that this area is a critical need area. Hurricane Isaac destroyed every residence from Carlisle to Braithwaite Park, a distance of 19 miles. It is just a matter of time before the water is in New Orleans. Plaquemines Parish supports this project. Mr. Haase agreed that clearly land loss in this area is an issue, but the Master Plan methodology to address this is through diversions. Marsh creation projects in this area are not consistent with the Master Plan. Mr. Robert Dubois, USFWS, asked the State if the modeling performed for the Master Plan used open water areas for diversion outfalls, and if so, how much land was lost before the benefits of the diversion began to accrue. He stated that a major sediment diversion likely will not be built for at least 20 years. Mr. Belhadjali responded that the model considered the landscape and assumed the projects would be complete in Year 10. The State is working with the Natural Resource Damage Assessment and other funding sources very aggressively to implement these diversions. Mr. Dubois opined that 10 years is not a realistic timeframe. Ms. Kimble stated that if marsh creation works on the west bank of Plaquemines Parish, then it should work on the east bank as well.

*#2 – Marsh Creation South of Lake Lery.* This project was presented by Mr. Robert Dubois with USFWS. This project is located in St. Bernard and Plaquemines Parishes in the marshes south of Lake Lery. It is in the Caernarvon Mapping Unit, south of BS-16. Much of the wetlands surrounding Lake Lery and along the Lake Lery shoreline were heavily damaged during Hurricane Katrina. Since 2005, this area has suffered damages from four hurricanes (Gustav, Ike, Ida, and Isaac) and one tropical storm (Lee). Wind induced waves are now damaging the interior marshes between Lake Lery and Lost Lake causing accelerated interior marsh loss. At this point, the marshes between these two lakes have deteriorated to the point where a boat with an outboard motor can be driven from one lake to the other. It is highly unlikely that this area will recover without immediate restoration efforts. This project would create 800 acres and nourish approximately 230 acres of intermediate to low salinity brackish marsh in four cells south of Lake Lery. The borrow material would be hydraulically dredged

from Lake Lery and placed in marsh creation cells contained by earthen containment dikes. The borrow site is refilling rapidly from the Caernarvon diversion; 70% of the water from the diversion travels through Lake Lery. Some containment dikes would be constructed more robustly along the smaller lake shorelines to reduce shoreline erosion. These would not be gapped, but historic water exchange points would be opened after construction. All other containment dikes would be gapped within three years of construction. The estimated construction cost, plus a 25% contingency, is \$24 million. Mr. Ken Teague, EPA, expressed concern about the potential impacts to the borrow area, particularly in this area because it is in an interior marsh lake and the area contains many other projects. He requested a map with existing and proposed borrow areas because some of the borrow depths are very deep and he estimated that they cover almost 50% of the Lake. Mr. Dubois challenged this assessment because zero Lake Lery borrow areas have actually been used. He also asserted that no projects have been constructed in this area since Hurricane Katrina. Two projects are in the E&D phase, but nothing has been constructed. Ms. Kimble provided support for this project. This project is consistent with the Master Plan.

*#3 – Lake Lery Northshore.* This project was presented by Mr. Phillip Parker with NMFS. This project would continue to address the eastern and northern shorelines of Lake Lery with marsh creation. It is adjacent to a polygon in the Master Plan. However, Mr. Haase stated that this project is not consistent with the Master Plan because it is on the north side of Lake Lery. Ms. Kimble expressed support for this project.

Nominations were closed for the Breton Sound Basin.

c. Mr. Inman opened the floor for nominations for coast-wide projects.

There were no coast-wide projects nominated.

Nominations were closed for coast-wide projects.

d. Mr. Inman opened the floor for nominations for demonstration projects.

No demonstration projects were nominated.

Nominations were closed for demonstration projects.

6. Agenda Item #6, Announcement of Upcoming PPL 23, Task Force, Technical Committee and Other Meetings. Mr. Inman reviewed upcoming CWPPRA meetings, including the April 16 Technical Committee Meeting.

7. Agenda Item #7, Adjourn. The meeting was adjourned at 2:25 pm.

## MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 3, Morgan City, LA, 30 Jan 13, 9:10 am

1. Agenda Item #1, Welcome and Introductions. Mr. Ron Boustany, Natural Resource Conservation Service (NRCS) and RPT Region 3 Leader, opened the meeting and welcomed the attendees. Region 3 includes the Teche-Vermilion, Atchafalaya, and Terrebonne Basins, from Freshwater Bayou to Bayou Lafourche. Mr. Boustany welcomed St. Mary Parish President Mr. Paul Naquin, Vermilion Parish Police Jurist Mr. Kevin Segrera, Mr. Sterling Freyou with St. Mary Parish Government, Mr. Archie Chaisson with Lafourche Parish Government, and Mr. Nic Matherne with Terrebonne Parish Government. Mr. Boustany asked the parishes to provide contact information for their designated voters to Mr. Scott Wandell, U.S. Army Corps of Engineers (USACE), before the end of the meeting.

2. Agenda Item #2, Project Priority List (PPL) 23 Selection Process Brief Overview and Ground Rules for PPL 23 Nomination Meeting. Mr. Boustany delivered a PowerPoint presentation, which is available online at the CWPPRA website. The purpose of the meeting was to accept project nominations and hear public comments for developing the 23<sup>rd</sup> PPL.

Parishes eligible to vote for projects in Region 3 are: Vermilion, Iberia, St. Mary, St. Martin, Terrebonne, Assumption, and Lafourche. Anyone can propose a project for the region. Proposals should be consistent with the 2012 State Master Plan. A project can be nominated from only one basin (except for coast-wide or demonstration projects). If a project crosses multiple basins, excluding coast-wide projects, it should be nominated in one basin only, based on the majority area of project influence. Coast-wide projects apply across basin boundaries; their benefits are not tied to one basin. Coast-wide projects can be nominated from any basin and can be presented in any or all of the RPT meetings. Multi-basin or coast-wide projects can be split into multiple individual projects. Alternatively, projects that are similar can be combined at the request of the project proposers. Splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Presenters must complete a PPL 23 project information sheet for each project nominee, including demonstration projects, with the project name and presenter contact information. Public comments on project proposals will be accepted orally during the meeting and in writing to Mr. Brad Inman until February 8, 2013.

Mr. Boustany asked commenters to use the microphone so that their comments could be recorded. Project proposals should be limited to five minutes and PowerPoint presentations should be limited to five slides. Comments should be limited to PPL 23 project proposals.

A coast-wide electronic vote will be held on February 19, 2013. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain and Breton Sound Basins, two projects per basin in Teche-Vermilion, Mermentau, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select up to six demonstration projects for further evaluation. CWPPRA agencies and parishes will submit their ranked votes by basin. Parishes can vote for projects in basins they occupy, as well as all demonstration and coast-wide projects.

After the coast-wide voting, an agency will be assigned to each project and will create a fact sheet with a map for the project. CWPPRA Engineering and Environmental Work Groups will review the features, assign preliminary costs and benefits, and ensure that demonstration and coast-wide projects meet PPL 23 criteria. The Planning and Evaluation (P&E) Subcommittee will prepare a cost/benefit matrix for the Technical Committee. The Technical Committee meeting is on April 16, 2013, and they will select ten candidate projects and up to three demonstrations for further review. Written public comments should be submitted to the USACE by April 2, 2013.

3. Agenda Item # 3, Brief Overview of the State Master Plan Consistency Requirement. Mr. Boustany indicated that the proposals should be consistent with the 2012 State Master Plan. Mr. Bren Haase, Louisiana Coastal Protection and Restoration Authority (CPRA), explained the meaning of consistency with the State Master Plan. Proposed projects should be in the same footprint, of the same type, use a similar borrow site, and accomplish the same goals as projects identified in the Master Plan. The State is required to update the Master Plan every five years, so if a project is not currently consistent with the Master Plan, it could be included in the future.

4. Agenda Item #4, Explanation of Coast-wide Voting Process. Mr. Boustany reiterated that the coast-wide electronic vote would be held on February 19, 2013. Parishes must identify their voting representative for the coast-wide electronic vote and complete a voting registration form. Mr. Nic Matherne, Terrebonne Parish, asked that CWPPRA consider a mechanism to distribute the Phase 0 results to the parishes and the public before the Public Comment meeting in November so that their comments can be more constructive. Mr. Inman responded that CWPPRA will take this suggestion under consideration for the PPL 24 process, and also reminded the public that the information is available online after the Public Comment meetings and written comments can be submitted before the Technical Committee meeting.

5. Agenda Item #5, PPL 23 Project Nominations

a. Mr. Boustany opened the floor for nominations in the Teche-Vermilion Basin.

*#1 – State Wildlife Chenier and Lake Restoration.* This project was presented by Mr. Randy Moertle with E.A. McIlhenny Enterprises and the Rainey Conservation Alliance. This project is located in Vermilion Parish, southeast of the Little Vermilion Bay Terraces. Tom’s Bayou has widened over time, increasing water exchange and causing saltwater intrusion and marsh deterioration south and east of Belle Isle. Erosion of the peninsula has increased fetch around Lake Fearman, increasing shoreline erosion and turbidity and decreasing emergent and submerged vegetation. The project includes installing a weir with boat access across Tom’s Bayou to reduce the cross section. The project would create a 13-acre chenier at North Lake and reestablish approximately 6,000 linear feet of vegetated lake rim along the north and east sides of North Lake. The lake rim would have a 15-foot crown and elevation of +5 feet. Finally, the project would reestablish approximately 25 acres of the Fearman Lake peninsula and recreate approximately 8,400 linear feet of vegetated lake rim on the southeast and southwest portions of Fearman Lake. Approximately 4,000 linear feet of earthen dike would be constructed with a 5-foot crown and an elevation of +2 feet to contain pumped sediment. All material would be borrowed

from Vermilion Bay. The preliminary construction cost estimate is \$2 to \$3 million. There is currently no Federal sponsor, but Mr. Moertle has discussed the project with Mr. John Jurgensen of NRCS. The project is consistent with the State Master Plan and has been studied by the Southwest Coastal Model. Mr. Harold Schoeffler with the Sierra Club expressed concern about reducing the size of Bayou Tom. He asserted that any kind of dam will create a high salinity affect which will decrease vegetation diversity. He was also concerned about the borrow site. This is a sport fishing site and dredge holes would damage the area and create hazards for shrimpers.

*#2 – Belle Isle Marsh Creation and Nourishment.* This project was presented by Dr. John Foret with the National Marine Fisheries Service (NMFS). This project is located in Vermilion Parish east of Freshwater Bayou. Through natural processes and man-made adjustments, the marshes have shifted to a floatant marsh type and therefore are more susceptible to tidal energy and storm damages. Significant interior marsh loss has occurred due to saltwater intrusion and hydrologic changes associated with increasing tidal influence. This project area is part of a historic loss area with widespread wetland degradation and a loss rate of -0.3% per year. The Belle Isle area has been isolated due to four breaches in this part of the marsh. This project proposes to identify the areas furthest from hydrological interaction to create 300 acres and nourish 123 acres of marsh between Freshwater Bayou and the Belle Isle Canal using hydraulically pumped sediment from the Gulf of Mexico. Minimal containment dikes would be constructed, and they would be breached once the sediment consolidates. The project includes 12,000 linear feet of tidal channels and 220 acres of vegetative plantings. The goal of the project is to reestablish the landbridge between the two man-made channels. The estimated construction cost, including 25% contingency, is \$25.9 million. Mr. Schoeffler with the Sierra Club expressed concern about the borrow area. He maintained that at a minimum these borrow sites should be identified with warning signs. These borrow sites also need to be reviewed in relation to wave impacts to the shoreline. Dr. Foret responded that the cost estimate assumes that the borrow site would be at least 1.5 miles offshore, and project planning would include modeling the effects of borrow sites on the shoreline. This project is consistent with the Master Plan. *NOTE: This project was combined with the #3 West Rainey Marsh Creation Project below and renamed the South Humble Marsh Creation and Nourishment Project.*

*#3 – West Rainey Marsh Creation.* This project was presented by Mr. W.P. Edwards, III with the Vermilion Corporation. This project is very similar to the Belle Isle Marsh Creation and Nourishment Project, but with a larger footprint. The landowner is supportive, but wants to ensure that there are no oil and gas prospects under the project, so the exact footprint of the project has not been determined. This project would restore 352 acres and nourish 175 acres of brackish to intermediate marsh. Two 50-100 acre ponds would remain open water. The estimated cost is \$16 - \$19 million based on other projects in the area. Mr. Schoeffler with the Sierra Club expressed concern about the ability of marine organisms to enter and leave the marsh. Mr. Edwards countered that prior to the artificial construction of Freshwater Bayou Navigation Channel, fish, crabs, and shrimp had to travel two miles to get to this marsh. Louisiana is losing the battle of the land/water ratio. In 30-50 years, this marsh creation site will likely be an island. The combination of subsidence and sea level rise means that CWPPRA cannot build the land high enough for shrimp and crabs not to be able to access it. Mr. Edwards stated that they are placing too much emphasis on trying to get marine organisms where they did not exist prior to man-made channels. An audience member

asked about impoundment in the area and the sustainability of the marsh. Mr. Edwards responded that impoundment is not a factor in the marsh loss in this area. This area did not start losing land until ten years after the Freshwater Bayou levees breached. This is the Chenier Plain and is supposed to occasionally dry. Once the marsh started flooding every day, it became floatant marsh and hurricanes washed it away. Dr. Foret noted that this system did not historically get much sediment, but it had an organic base that has eroded. With a minimal addition of firmer material, they can reestablish the base for the vegetation to root. *NOTE: This project was combined with the #2 Belle Isle Marsh Creation and Nourishment Project above and renamed the South Humble Marsh Creation and Nourishment Project.*

*#4 – Cote Blanche Freshwater/Sediment Introduction and Shoreline Protection.* This project was presented by Mr. Paul Naquin, St. Mary Parish President. This project is located in St. Mary Parish. Hurricanes Katrina, Rita, Ike, and Gustav damaged the marshes in this area. This project includes introducing freshwater into these marshes from the Gulf Intracoastal Waterway (GIWW) between Baldwin and Centerville. The project also includes shoreline protection along East Cote Blanche Bay in the Point Marone area. This project is not consistent with the Master Plan. The hydrologic component was not evaluated for the Master Plan, and it will be evaluated for future updates.

*#5 – North Marsh Island Shoreline Protection.* This project was presented by Mr. Cassidy Lejeune with the Louisiana Department of Wildlife and Fisheries (LDWF). This project is located between Michelle Point and Joe Aucoin Point. Areas of emergent marsh in the Marsh Island interior have been converted to open water, primarily due to hurricane activity and subsidence. Vermilion Bay historically contained numerous shell reefs that provided stability and protection to marsh shorelines along the periphery of the bay. Once these reefs were mined, the shorelines began experiencing moderate to severe erosion. The north shore of Marsh Island has experienced an average shoreline erosion of 12 feet per year from 1998 to 2005. However, the Diamond Reef area on the south side of Marsh Island has one of the most stable shorelines along the coast. The goal of this project is to mimic natural shell reef shoreline protection on the north side of Marsh Island. The proposal includes 29,000 linear feet of a low reef segmented shoreline protection structure with a design based on the configuration of natural shell reefs in nearby Southwest Pass. The rock shoreline will have a height of +1.5-2.0 feet and a crown width of 10-12 feet and would be placed about 50 feet from the shoreline. The bank side of the shoreline will be planted with smooth cordgrass. The rock feature would reduce wave energy. The structure may provide for oyster recruitment and could benefit the fishery habitat. The estimated construction cost, with 25% contingency, is \$17 million. This project is consistent with the Master Plan. Mr. Lejeune suggested NRCS as the Federal sponsor. Mr. Schoeffler with the Sierra Club asked about the spacing of the opening intervals. Mr. Lejeune responded that the type of rock and degree of segmentation would be decided by the project engineers.

*#6 – Bird Island/Southwest Pass Shoreline Protection and Marsh Creation.* This project was presented by Mr. Ron Boustany with NRCS. This project is located between the Marsh Island Wildlife Refuge in Iberia Parish and the Paul J. Rainey Wildlife Sanctuary in Vermilion Parish. Erosion of peninsulas in the project area has reduced the effectiveness of the landmass as a mainland barrier to storm surge, wave energy, and tidal flux. Interior marsh loss at Tojan Island, combined with the shoreline erosion, increase the vulnerability of the both Tojan

Island and Bird Island and reduce the effectiveness of Bird Island as a nesting habitat for wading birds. This project will protect the shoreline in Southwest Pass. The project proposal includes 8,759 linear feet of shoreline protection along Southwest Point, which is potentially one storm away from a breach. The project also includes several marsh creation sites: 14 acres of avian marsh creation at Bird Island and 68 acres of marsh creation along the north side of Tojan Island. This project could use an offshore borrow site to be determined in Phase I. The estimated construction cost, with 25% contingency, is \$9.7 million. Mr. Haase asked about the relative contribution of shoreline protection and marsh creation features. The State indicated that the shoreline protection on the north side of Tojan Island is consistent with the Master Plan, but no determination was made about the consistency of other project features.

Nominations were closed for the Teche-Vermilion Basin.

b. Mr. Boustany opened the floor for nominations for the Atchafalaya Basin.

*#1 – Bayou Chene Terracing Containment Area.* This project was presented by Mr. Randy Moertle with E.A. McIhlenny Enterprises and Avoca Island Incorporated. The USACE performs maintenance dredging of Bayou Chene. In past dredging cycles, the USACE has used this dredged material to create marsh cells. In the next dredging cycle for Bayou Chene, funding does not allow for containment levees and therefore the USACE plans to pump into open water. Mr. Moertle proposed that CWPPRA fund the construction of containment cells to create marsh. This is not consistent with the State Master Plan. Mr. Haase stated that the CWPPRA Program is not the appropriate venue for this project.

Nominations were closed for the Atchafalaya Basin.

c. Mr. Boustany opened the floor for nominations for the Terrebonne Basin.

*#1 – Carencro Bayou Freshwater Introduction.* This project was presented by Mr. Ronny Paille with U.S. Fish and Wildlife Service (USFWS). This project is located in Terrebonne Parish two miles northeast of Carencro Lake. Hurricane Andrew formed Blow Out Bayou, which allows water to flow and has formed ponds and mudflats. The canal itself is shoaling, which shows that there is material in the system. The goal of this project is to mimic the effects of Blow Out Bayou and increase the tidal flow below Bayou Penchant using freshwater from the Atchafalaya River. Two existing oilfield canal plugs would be removed to allow inputs of Atchafalaya River freshwater in Bayou Penchant into the reach of the Tennessee Gas Pipeline Canal immediately northwest of Carencro Bayou. Four to six gated outlet structures would be established along the north bank of Carencro Bayou to discharge water into the bayou and establish a flow-through system to encourage the flow of freshwater into interior marshes. The existing Biscuit Bayou weir may also be modified to facilitate greater freshwater flow into Lake Carencro. Spoil banks would be removed along the intersection of two pipeline canals. This project has the potential to benefit approximately 4,000 acres of interior marsh, as well as undetermined acres of downstream marshes north of Lost Lake and Lake Mechant. The structures are very simple and would be seasonally operated during high water. The estimated construction cost, including 25% contingency, is \$4.1 million. Mr. Baird McElroy, ConocoPhillips, stated that ConocoPhillips is the affected landowner and they support this project. An audience member confirmed the west to east

flow in the GIWW when the Atchafalaya River is above the three-foot gage. This project is consistent with the Master Plan.

*#2 – East Catfish Lake Marsh Creation.* This project was presented by Mr. Kevin Roy with USFWS. This project is in Lafourche Parish, west of Golden Meadow and Bayou Lafourche. Subsidence, canal dredging, a lack of freshwater input, saltwater intrusion, and altered hydrology all contribute to significant marsh loss around Catfish Lake. The project includes 380 acres of marsh creation to help protect the Golden Meadow levee. The net acres are 232. Containment dikes would be constructed as necessary and gapped upon project completion. There are several borrow possibilities, including internal and external borrow. The Gulf of Mexico is 29 miles away based on the water route, so it may be infeasible. Bay Courant is 9.5 miles away, Lake Raccourci is 14 miles away, and Little Lake is 17 miles away. Catfish Lake contains numerous pipelines, but the North Catfish Lake Project, approved last year, uses Catfish Lake as a borrow site so it may be a possibility. A Catfish Lake borrow site was used to estimate the cost of the project. Potential issues include oil and gas infrastructure and oyster leases in Catfish Lake. The construction estimate, plus a 25% contingency, is \$14.2 million. Mr. Archie Chaisson, Lafourche Parish Government, stated that this is one of Lafourche Parish's priorities this year. The area is deteriorating rapidly. A nearby Coastal Impact Assistance Program project has been successful. This project is consistent with the Master Plan. There was some discussion about the use of interior borrow for small marsh creation projects in relation to Master Plan consistency. The State indicated that project planners need to ensure that the interior borrow will not cause harm to the borrow site.

*#3 – Bayou Pointe aux Chenes Marsh Creation.* This project was presented by Mr. Kevin Roy with USFWS. This project is located in Terrebonne Parish, south of the Bayou Pointe aux Chenes Ridge and east of the Twin Pipelines. Subsidence, canal dredging, a lack of freshwater input, saltwater intrusion, and altered hydrology all contribute to significant marsh loss in the area between Bayou Pointe aux Chenes and Isle de Jean Charles. The primary goal of the project is to restore saline marsh habitat along the western side of the Bayou Pointe aux Chenes Ridge. Sediments will be hydraulically dredged in Lake Chien and/or the northern end of Lake Felicity and pumped via pipeline to create/nourish 490 acres of marsh. The two marsh creation cells are south of Twin Pipelines and west of Bayou Pointe aux Chenes Ridge. Containment dikes will be constructed as necessary and gapped upon project completion. The maximum pump distance for a Lake Chien borrow site is approximately 25,600 feet. Net acres are 376. The construction estimate, plus a 25% contingency, is \$19.2 million. ConocoPhillips is one affected landowner, and they support this project. This project is consistent with the Master Plan.

*#4 – Small Bayou LaPointe Marsh and Ridge Restoration.* This project was presented by Mr. Kevin Roy with USFWS. This project is located in Terrebonne Parish east of Raccouci Bay. The area has suffered significant marsh loss and the forested ridge along Small Bayou LaPointe no longer exists. The project includes marsh and ridge restoration along Small Bayou LaPointe between Bayou Decade and Grand Bayou. The project would create/nourish 240 acres of intermediate/brackish marsh along the north side of Small Bayou LaPointe using a Lake Mechant borrow site, with net acres of 194. The proposed 15,500 feet of ridge would use a combination of Lake Mechant and bayou channel material and have a 25-foot top width and settled elevation of +6 feet. The proposal includes Chinese tallow tree control and hard wood plantings. Plugs along the south side of Small Bayou LaPointe would need to be

replaced after the project is constructed. There was some discussion about the exact location of the plugs and the impacts of the access channel. The current proposal is for the ridge to be along the north side of the Bayou, but this could be reviewed by the engineers in Phase I. A southern ridge could possibly reduce salinity and have fewer impacts from dredging. The construction estimate plus a 25% contingency is \$14.7 million. ConocoPhillips is the affected landowner, and they support this project. This project is consistent with the Master Plan.

*#5 – Island Road Marsh Creation and Nourishment.* This project was presented by Mr. Philip Parker with NMFS. This project is in Terrebonne Parish in the vicinity of Isle de Jean Charles, west of Pointe aux Chenes. There has been a significant reduction in the marsh platform in the vicinity of Island Road. Island Road is the only land access to Isle de Jean Charles. This is a unique community comprised of 46% Native American Indian and 90% minority, and Terrebonne Parish has made a commitment to maintain this road access. The proposed project's primary feature is to create and/or nourish 390 acres of marsh in two marsh creation cells. Sediment will be hydraulically pumped from a borrow source near Lake Felicity and/or Lake Chien. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping, but will be degraded and/or gapped no later than three years post construction. Additionally, the newly constructed marsh will be planted following construction to stabilize the platform and reduce time for full vegetation. This project will form a land bridge along the perimeter of Cutoff Canal and the Twin Pipelines. This concept allows for future restoration projects between Island Road and the newly constructed marsh platform providing further benefit to the area. Ducks Unlimited has expressed interested in complementary restoration projects within the area. The construction estimate, plus a 25% contingency, is \$28.1 million. ConocoPhillips and Apache are two of the affected landowners, and they both support this project. This project is consistent with the Master Plan. Mr. Nic Matherne, Terrebonne Parish Government, stated that this is Terrebonne Parish's number one project this year. This is an emergency project that is desperately needed. The Parish recently spent \$8 million to reconstruct Island Road. Ms. Leslie Suazo with Ducks Unlimited stated that the Pointe aux Chenes area is one of their priority areas this year. Ducks Unlimited will be constructing terraces south of Island Road later this year, and marsh creation would complement and enhance their project. This project provides both human and habitat benefits.

*#6 – West Belle Pass Marsh Creation.* This project was presented by Mr. Philip Parker with NMFS. This project is located in Lafourche Parish just south of Port Fourchon. Every year approximately 300,000 cubic yards of material is dredged from West Belle Pass and placed along the Gulf shoreline adjacent to the jetties. While this method beneficially uses the dredge material, there is some debate as to its quality for beach construction due to high silt content. It is generally accepted that over time the silt fraction is released from the placed fill and lost offshore due to wave action. The material could provide longer term benefits if it were placed in an area with a lower wave climate. The concept of this project is to develop a way to place this dredged material so that it does not wash away every year. This project would use this material to create 244 acres of marsh using containment dikes to retain sediment during pumping. The containment dikes will be degraded and/or gapped no later than three years post construction. Additionally, the newly constructed marsh will be planted following construction to stabilize the platform and reduce time for full vegetation. This project would enhance the marsh behind the West Belle Pass barrier headland creating a synergistic effect with the TE-52 project. This project would use two million cubic yards over seven years. The construction estimate, plus a 25% contingency, is \$10.4 million. This project

is consistent with the Master Plan. It is outside of the Master Plan polygon, but it complements existing projects and the material would be lost to the system otherwise. There was some discussion about the difference between this project and the Sabine Refuge Marsh Creation Cycles 6 and 7. The Master Plan does not have any marsh creation cells in the general vicinity of the Sabine Refuge Marsh Creation Cycles 6 and 7 Project, which is why it was deemed inconsistent with the Master Plan.

*#7 – West Bayou Lafourche Marsh Creation and Nourishment.* This project was presented by Mr. Philip Parker with NMFS. This project is located in Lafourche Parish south of Golden Meadow and west of Louisiana Highway 1 and Bayou Lafourche. This area is experiencing high land loss and the area around Louisiana Highway 1 is losing much of its protection. The proposed project's primary feature is to create and/or nourish approximately 374 acres of existing marsh. Sediment will be hydraulically pumped from a borrow source near Little Lake or Lake Raccourci. Bayou Lafourche was considered as a sediment source, but was eliminated from consideration due to the amount of material needed and other concerns. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. The containment dikes will be degraded and/or gapped no later than three years post construction. Additionally, the newly constructed marsh will be planted following construction to stabilize the platform and reduce time for full vegetation. The construction estimate, plus a 25% contingency, is \$19.6 million. This project is consistent with the Master Plan.

*#8 – Raccoon Island Barrier Island Restoration.* This project was presented by Mr. Cassidy Lejeune with LDWF. This project is located in Terrebonne Parish in the Isle Denieres Barrier Island Refuge. This area is experiencing some of the highest rates of erosion of any coastal region in the world. It has changed drastically over the last hundred years. Raccoon Island serves as a breeding bird habitat for a variety of avian species including brown pelicans, terns, gulls, and wading birds. During peak years of nest success, well over 30,000 nests have been documented at Raccoon Island, although this has decreased as the island has eroded. The western end of the island has degraded to roughly 20 acres and is at risk of becoming a subaqueous sand shoal in the near future. This portion of the island can no longer serve as a breeding bird habitat due to lack of elevation and rapid shoreline loss. The erosion rate in this area is 110 feet per year. The goal of this project is to restore the western portion of Raccoon Island to roughly pre-Hurricane Andrew conditions. This island was continuous as recently as 2007, and this project would reconnect the island to the spit. The project includes the restoration of approximately 230 acres of barrier island habitat, including beach, dune, swale, salt marsh, and tidal flats. 20 acres will be dune habitat, 120 acres will be supratidal habitat, and 90 acres will be tidal/subtidal habitat. The borrow site would be an offshore site, probably Ship Shoal. This project will have synergistic effects with the existing Raccoon Island CWPPRA projects, TE-48 and TE-29. The construction estimate, plus a 25% contingency, is \$27 million. This project is consistent with the Master Plan. An audience member suggested that adding sacrificial sand behind the breakwaters would have a small incremental cost.

*#9 – Bayou Terrebonne Ridge and Marsh Creation.* This project was presented by Mr. Stuart Brown with CPRA. The project is located in Terrebonne Parish, northwest of Cocodrie directly adjacent to Bayou Terrebonne. Terrebonne Bay was historically structured by a series of north-south ridges. Much of the habitat function of these ridges has been lost over the last

50 years due to erosion, subsidence, and development. This project would create a 21,000-foot (40 acre) ridge along the east bank of Bayou Terrebonne with a +5.2 settled height, 7:1 side slopes, and a 15-foot top width. Material for the ridge would be dredged from Bayou Terrebonne from noncontiguous borrow sites so as not to facilitate the northward flow of saltwater. The estimated cost includes the cost of a sill, if needed. The project would also include 200 acres of marsh creation adjacent to the ridge using material from either lower reaches of Bayou Terrebonne or Terrebonne Bay. Anecdotally, lower reaches of Bayou Terrebonne have shoaled and commercial fishermen have complained about the lack of depth. The project would restore 26 acres of resting and foraging habitat necessary to support transient migratory land birds in the spring and fall. The ridge restoration would also help reduce storm surge and restore natural hydrologic patterns in the area. The estimated cost, with 25% contingency, is \$22.1 million. ConocoPhillips is the affected landowner, and they support this project. This project is consistent with the Master Plan. Mr. Matherne noted that this is Terrebonne Parish's number two project this year.

*#10 – West Fourchon Marsh Creation and Marsh Nourishment.* This project was presented by Mr. Stuart Brown with CPRA. This project is located in Lafourche Parish west of Port Fourchon and north of West Belle Pass. This area has suffered from interior land loss due to subsidence, sediment deprivation, and construction of pipeline canals. Over the last twenty years, the interior marsh in the project area has deteriorated dramatically. The goal of this project is to create 314 acres and nourish 300 acres of emergent marsh by pumping sediment from an offshore borrow site. The project would include tidal connection. The estimated cost, with 25% contingency, is \$27 million. ConocoPhillips is the affected landowner, and they support this project and would allow CWPPRA to build marsh over their pipelines. This project is consistent with the Master Plan.

*#11 – Timbalier Island Shoreline Sediment Nourishment.* This project was presented by Mr. Ken Teague with the U.S. Environmental Protection Agency (EPA). This project is located in Terrebonne Parish approximately 38 miles south of Houma. EPA has sponsored a number of barrier island restoration projects in Terrebonne Parish in the Isle Denieres Island Chain and on Timbalier Island. This island experienced a breach several years ago. The proposed project will repair the breach and fortify it by adding beach in the front and marsh creation in the back. Overall, this project would create 100 acres of intertidal marsh, 104 acres of beach, and 16 acres of dune. The goal is to extend the life of this island, and the back barrier marsh is vital to achieving this goal. The academic community has recommended that barrier island restoration be one of the highest priorities in coastal restoration. The project would use an existing offshore borrow area. The estimated cost, with 25% contingency, is \$20.5 million. This project is consistent with the Master Plan. Mr. Baird McElroy with ConocoPhillips stated that one canal in the project area is still actively in use and 29 acres should be removed from the project.

*#12 – East Island Beach and Backbarrier Marsh Restoration.* This project was presented by Mr. Ken Teague with EPA. The East Island is part of the Isle Denieres Barrier Island Chain in Terrebonne Parish. This project proposes to add 130 acres of backbarrier marsh on the eastern side of the island and strengthen the entire eastern side with 180 acres of beach and 60 acres of dune. Sand fences will be installed to retain sand and create and maintain supratidal and dune habitat. The marsh creation does not extend to the far eastern tip of the spit of the island because it is too deteriorated. The project would use an offshore borrow area. The

estimated cost, with 25% contingency, is \$23.5 million. This project is consistent with the Master Plan

*#13 – Lake Tambour Marsh Creation.* This project was presented by Mr. Robert Dubois with USFWS. This project is in Terrebonne Parish south of Madison Bay and east of Highways 55 and 56. A lack of sedimentation and freshwater in this area combined with numerous oil and gas pipelines and a high subsidence rate have caused significant marsh loss in this area. This project area is south of Montegut, which now floods after two to three days of a sustained north wind. This project proposes to create 350 acres and nourish 375 acres of emergent marsh in four cells north of Terrebonne Bay and west of Lake Tambour. The project would protect and restore the historical landbridge between Bayou Terrebonne and Isle de Jean Charles. The material would be hydraulically dredged from Terrebonne Bay and contained by earthen dikes. Containment dikes would be sufficiently gapped or degraded no more than three years post construction. Mr. Dubois would like to construct several projects in this area to connect the ridge east of Bayou Terrebonne with the ridge along Isle de Jean Charles. There may be some difficulties with construction related to two pipelines, two wells, and numerous oyster leases in the area. The estimated cost, with 25% contingency, is \$27 million. This project is consistent with the Master Plan. Mr. Matherne noted that this is Terrebonne Parish's number four priority this year.

*#14 – Terrebonne Bay Shoreline Protection via Oyster Reef.* This project was presented by Mr. Robert Dubois with USFWS. This project is in Terrebonne Parish south of Madison Bay and east of Highways 55 and 56. A lack of sedimentation and freshwater in this area combined with numerous oil and gas pipelines, substantial fetch, and a high subsidence rate have caused significant erosion in this area. This project includes the construction of oyster reefs along the shoreline of Terrebonne Bay using 5-foot by 20-foot gabion mats. The TE-45 demonstration project showed that both A-Jax and gabion mats could reduce erosion. The goal of this project is to place 25,000 linear feet of rock-filled gabion mats and "A-Jax"-like structures along a Terrebonne Bay shoreline that is experiencing high erosion rates (25 to 30 feet per year), with the exact location to be determined. Mr. Dubois estimated that this project could protect 43,000 acres of emergent brackish marsh. The construction estimate, with 25% contingency, is \$24.8 million. This project is consistent with the Master Plan. Mr. Matherne noted that Terrebonne Parish has not reviewed this project, but that he is supportive of it.

*#15 – Grand Bayou Freshwater Enhancement and Terracing.* This project was presented by Mr. Robert Dubois with USFWS. This project is located on the border of Lafourche and Terrebonne Parishes north of Terrebonne Bay. Most of the project area is in the State-managed Pointe aux Chenes Wildlife Management Area. As the marsh degrades, there is less resistance to saltwater entering the area through Terrebonne Bay. Freshwater flow into this area from the GIWW is restricted by small channel cross-sections along the northern section of the Grand Bayou Canal and a plug in Margaret's Bayou. The overall goal of this project is to increase the flow of freshwater in the Grand Bayou Canal and create and nourish marsh using material dredged from Grand Bayou Canal. Specifically, the project would increase the flow of fresh water from the GIWW from 600 cubic feet per second (cfs) to 1,600 cfs, redirect fresh water from the Grand Bayou Canal into the surrounding marshes, and create 135 and nourish 41 acres of intermediate marsh. The project would require replacing a state highway bridge. A rock plug would be replaced by a culvert. The earthen plug separating Grand Bayou Canal from Margaret's Bayou would be removed. Sheet piles with a barge bay would

be placed in Grand Bayou to increase the head differential. The project also includes three cells of terracing, totaling 183,000 linear feet, to reduce fetch; however, the State indicated that the terraces are not consistent with the Master Plan. The State is very supportive of moving fresh water into this area. Mr. Allen suggested that a landowner could construct the terraces. The estimated construction cost, with 25% contingency, is \$20.7 million. Mr. Dubois noted that the terraces constitute a small portion of the cost of this project. Mr. Dubois agreed to create a new factsheet without the terraces, but indicated that he would like to continue to discuss this issue. Mr. Matherne voiced approval for this project. Even though it is in Lafourche Parish, this is Terrebonne Parish's number three project this year. This project will work with other projects in the area. Terrebonne Parish would support using the funds that were apportioned to the terraces to further increase the freshwater flow. It was noted that this project is similar to TE-10, which was de-authorized. However, TE-10 had too many features, including a structure in Cutoff Canal which, by decreasing water exchange, actually increased salinity in part of the project area. This project features a large increase in freshwater flow and no structures that would increase salinity. Ducks Unlimited is working on a project in nearby St. Louis Canal to increase freshwater flow into these marshes, and these projects will work together.

*#16 – Bayou Blue Dredge and Marsh Creation.* This project was presented by Mr. Ron Boustany with NRCS. This project is west of the Golden Meadow levee in Lafourche Parish. Bayou Blue has largely silted in and therefore conveys very little freshwater from Grand Bayou through its 12 to 15 mile historic track. The project proposes to dredge the almost vestigial Bayou Blue to reconstitute its original course and flow and to use the dredged material to create 353 acres and nourish 39 acres of marsh. Over 15 miles of channel would be dredged to a width of 70 feet and a depth of 8 feet. It is estimated that this dredging would yield almost two million cubic yard of materials. The estimated construction cost, with 25% contingency, is \$27.4 million. An audience member agreed with this methodology of using material from bayous to nourish fragmented marsh. Mr. Allen stated that this project is generally consistent with the Master Plan goal of moving fresh water into these marshes, but the Grand Bayou Freshwater Enhancement Project should occur first. He noted that the marsh creation is outside of Master Plan polygons, but conceded that this material would be difficult to use elsewhere. He questioned the constructability of this project. Mr. Matherne noted that the marsh creation component of this project is a byproduct of the main goal of the project to enhance freshwater flow and spoke in favor of unconfined marsh creation. Mr. Roy asserted that deepening Bayou Blue without the Grand Bayou Freshwater project in place could actually increase salinity and be detrimental in this project area.

*#17 – Bayou Dularge Ridge Restoration and Marsh Creation.* This project was presented by Mr. Ron Boustany with NRCS. This project is in Terrebonne Parish on the western side of Terrebonne Bay. The Bayou Dularge Ridge is a prominent feature in the south central Terrebonne Basin, forming a diagonal ridge extending from northeast to southwest that historically restricted the Gulf marine influence into Central Terrebonne marshes. Erosion of adjacent marshes has threatened the integrity of this ridge. A gap in the ridge has negatively affected the hydrology of this area. This project includes approximately 27,000 linear feet of ridge north of Bayou Dularge and 568 acres of marsh creation and nourishment. The exact location of the ridge could be refined during E&D. This project works synergistically with the TE-66 project. The estimated construction cost, with 25% contingency, is \$30 million. Mr. Matherne noted that the gap in this ridge is known as Grand Pass and it is very large. He

encouraged RPT members to vote for this project even though the construction methods are uncertain. Many ridges need to be built throughout the State and the questions about constructability need to be answered. This is Terrebonne Parish's number one project for the western portion of the parish, and their number five project overall. This project is consistent with the Master Plan. An audience member noted that closing Old Pass may not be feasible because it is very large. He suggested building the ridge on the south side of Bayou Dularge.

Nominations for the Terrebonne Basin were closed.

d. Mr. Boustany opened the floor for nominations for coast-wide projects.

There were no coast-wide projects.

Nominations were closed for coast-wide projects.

e. Mr. Boustany opened the floor for nominations for demonstration projects.

*#1 – Artificial Seagrass Bed Shoreline Protection and Sediment Trapping.* This project was presented by Mr. W.P. Edwards, III with Vermilion Corporation. The shoreline on the northwest side of Vermilion Bay is becoming very thin and several lakes are close to breaching into the bay. This demonstration project would construct an artificial seagrass bed a few feet offshore in front of lakes that are about to breach. The estimated cost is less than \$5 million. An audience member voiced support for this demonstration project because it mimics natural processes that reduce wave strength. This project was originally nominated in the Teche-Vermilion Basin, but after discussion was changed to a demonstration project. Mr. Harold Schoeffler with Sierra Club expressed support for this concept because there are natural grass beds around the Jaws and Cote Blanche Bay. He questioned whether those plants could be transplanted to the areas of concern, using real plants instead of artificial. There may be a unique opportunity to use water hyacinths.

*#2 – Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines and Banks.* This project was nominated by Mr. Ken Teague of EPA on behalf of Ms. Jane Rowan of Normandeau Associates. The project would create living shorelines by planting willows and other species in hard structures such as rocks that have been used to stabilize shorelines. Mr. Teague did not review the details of this project at this RPT meeting.

Nominations were closed for demonstration projects.

6. Agenda Item #6, Announcement of Upcoming PPL 22, Task Force, Technical Committee and Other Meetings. Upcoming CWPPRA meetings include the Technical Committee meeting on April 16, 2013 in New Orleans and the PPL 23 Public Comment meeting on November 13, 2013 in Baton Rouge.

7. Agenda Item #7, Adjourn. The meeting was adjourned at 1:55 p.m.

## MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 4, Abbeville, LA, 29 Jan 13, 11:00 am

1. Agenda Item #1, Welcome and Introductions. Mr. Darryl Clark, U.S. Fish and Wildlife Service (USFWS) and RPT Region 4 Leader, opened the meeting and welcomed the attendees. Mr. Mark Shirley, Louisiana State University (LSU) Ag Center, welcomed everyone to the Vermilion LSU Ag Extension Building. Mr. Clark asked all attendees to introduce themselves.

2. Agenda Item #2, Project Priority List (PPL) 23 Selection Process Brief Overview and Ground Rules for PPL 23 Nomination Meeting. Mr. Clark delivered a PowerPoint presentation, which is available online at the CWPPRA website. He stated that the purpose of the meeting was to accept project nominations and hear public comments for developing the 23<sup>rd</sup> PPL.

Mr. Clark asked that parish designated voters provide their contact information to Mr. Scott Wandell, U.S. Army Corps of Engineers (USACE). CWPPRA will accept project and demonstration project nominations in the eight basins in four coastal regions. Parishes eligible to vote for candidates in Region 4 are: Cameron, Calcasieu, and Vermilion. Anyone can propose a project for the region. Proposals should be consistent with the 2012 State Master Plan. A project can be nominated from only one basin (except for coast-wide projects). If a project crosses multiple basins, excluding coast-wide projects, it should be nominated in one basin only, based on the majority area of project influence. Coast-wide projects apply across basin boundaries; their benefits are not tied to one basin. Coast-wide projects can be nominated from any basin and can be presented in any or all of the RPT meetings. Multi-basin or coast-wide projects can be split into multiple individual projects. If the presenter does not choose a basin, the RPT leaders and Planning and Evaluation (P&E) Subcommittee will choose one. Alternatively, projects that are similar can be combined at the request of the project proposers. Splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Presenters were asked to complete a project information sheet for each project nominee (including demonstration project nominees) with the name of the proposed project and the presenter's contact information.

Public comments on project proposals will be accepted orally during the meeting and in writing to Mr. Brad Inman, USACE, until February 8, 2013. Presentations should be limited to five minutes and five PowerPoint slides. Mr. Clark asked that attendees limit comments/questions during the meeting to the PPL 23 proposals and processes.

A coast-wide electronic vote will be held on February 19, 2013. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain and Breton Sound Basins; two projects per basin in the Teche-Vermilion, Mermentau, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select up to six demonstration projects for further evaluation.

Following the coast-wide electronic vote, an agency will be assigned to each project to prepare a fact sheet. The Engineering and Environmental Work Groups will then review the draft features

and assign preliminary cost and benefit ranges. They will also verify that the projects meet PPL 23 requirements.

Mr. Clark reviewed the remaining steps in the PPL 23 process. Public comments should be submitted by April 2, 2013 for the April Technical Committee Meeting, where ten candidate projects and up to three demonstrations will be selected.

Mr. Clark asked all presenters and commenters to use the microphones provided so that their comments could be recorded. He stated that a project fact sheet and PowerPoint presentation were not necessary to propose a project.

3. Agenda Item # 3, Brief Overview of State Master Plan Consistency Requirement. Mr. Clark indicated that the proposals should be consistent with the 2012 State Master Plan. Mr. Bren Haase, Louisiana Coastal Protection and Restoration Authority (CPRA), presented the 2012 State Master Plan consistency requirements. He showed a map of the 2012 State Master Plan for the Calcasieu-Sabine and Mermentau Basins. If the project is of the same type, in the same footprint, and uses the same borrow source as a project identified in the Master Plan, then it will be considered consistent with the Master Plan. Representatives from the State were at the meeting to identify whether or not a project is consistent with the Master Plan. Copies of the Master Plan were available at the meeting.

4. Agenda Item #4, Explanation of Coast-wide Voting Process. Mr. Clark explained that each parish, the State, and each Federal member agency will receive one vote in the coast-wide electronic vote. Parishes can only vote on projects within their basin, as well as all demonstration and coast-wide projects. Parishes were asked to identify their designated voter at today's meeting. No additional projects can be nominated after the RPT meetings, and no significant changes to projects will be allowed after the RPT meetings, including combining projects. Voting members will rank each project. After the vote, the projects with the most points from each basin will be the top projects. Votes must be received by email or fax on February 19, 2013 by 10:30 am.

5. Agenda Item #5, PPL Project Nominations (Entire RPT).

a. Mr. Clark opened the floor for nominations in the Calcasieu-Sabine Basin.

*#1 – East Holly Beach Gulf Shoreline Protection.* This project was presented by Mr. Troy Mallach with the Natural Resources Conservation Service (NRCS). This project is located in Cameron Parish, south of State Highway 82 and west of the Calcasieu Ship Channel (CSC). This project is designed to reduce wave energies on the Gulf shoreline west of the CSC and trap sediment between the breakwaters and shoreline. The project proposes approximately 38,000 linear feet of breakwaters similar to the Holly Beach Breakwater Project (CS-01) to protect the most critical shoreline area along Highway 82, where only a very small amount of land remains between the shoreline and Highway 82. This highway was repaired several times after hurricanes and tropical storms. Breakwaters will be designed using lessons learned from the CS-01 project. Approximately 40 round rubble breakwaters will be placed 300-700 feet offshore and built to an elevation of +3.8 feet. This project will protect a proposed State project that will create and nourish the beach behind this project with 1.9 million cubic yards of sand from an offshore borrow site. The area is currently lined with baskets, which were placed during the BP oil spill. The total benefitted area is 350 acres.

The estimated construction cost, with 25% contingency, is \$19 million. This project is consistent with the Master Plan.

*#2 – East Calcasieu Lake Marsh Creation and Hydrologic Restoration.* This project was presented by Mr. Troy Mallach with NRCS. This project is located in Cameron Parish, east of Calcasieu Lake and west of Highway 27. Coast-wide Reference Monitoring System stations in the Cameron-Creole area show that the project marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention. Salinity has been measured as high as 35 parts per thousand inside the marsh. Saltwater enters the area through water control structures and the existing borrow ditch. The project goal is to promote the expansion of emergent marsh vegetation throughout the project area and restore hydrology by creating marsh in areas designed to reduce saltwater intrusion and rapid water exchange. The project proposes to create or nourish 150 acres of marsh along the canal to halt the exchange of water through the area and prevent future breaches. This includes backfilling the canal with material brought in via barge, similar to the methodology used for recent CPRA levee repairs. The project will also reduce prolonged periods of inundation by relieving flooding stress and restoring the function, value, and sustainability of approximately 7,500 acres of marsh and open water. The exact location of the proposed water control structure has yet to be determined. Dr. Ehab Messehle is developing a model using the Southwest Coastal Model to try to develop the best location for the spillway. The estimated construction cost, with 25% contingency, is \$23.5 million. The project is consistent with the Master Plan. There were questions about the borrow location, but this will be further refined during engineering and design (E&D).

*#3 – No Name Bayou Marsh Creation and Nourishment.* This project was presented by Dr. John Foret with the National Marine Fisheries Service (NMFS). This project is located on the corner of East Fork and the south bank of Calcasieu Lake in Cameron Parish. This area has high salinity which weakens the plant community and makes it susceptible to export from the system. Cameron Parish has created a levee along the Calcasieu Lake rim, but a large geographic area had already experienced land loss. Marshes that once provided a buffer to the southwest rim of Calcasieu Lake are now shallow, open water areas. The project's primary feature is to create 438 acres and nourish 77 acres of emergent brackish marsh south of Calcasieu Lake in the vicinity of No Name Bayou. The project area covers both private land and land in the Cameron-Creole Watershed. The borrow areas are two upland dredged material disposal sites, one north of East Fork and one across the CSC. A hydraulic dredge would be used to re-slurry the compacted material and pipe it to the project area. The project also includes cleaning out 5,600 feet of the Cameron Creole Watershed Levee borrow channel to facilitate water movement into the newly created area. 12,000 linear feet of tidal creeks will be constructed. Minimal containment dikes will be required. This area is only about 8 inches deep with a hard bottom and the project will have a target elevation of +1.5 feet after dewatering. The project also includes 260 acres of vegetative plantings. The estimated construction cost, plus 25% contingency, is \$21.7 million. This cost assumes 2.5-3 feet of material prior to dewatering. It is consistent with the Master Plan. A geotechnical analysis of both the borrow area and the project area will be conducted before the project is constructed. The USACE periodically performs contaminant analysis when the CSC is dredged.

*#4 – North Mud Lake Marsh Creation and Nourishment.* This project was presented by Dr. John Foret with NMFS. This project is located in Cameron Parish west of the CSC. The goal of this project would be to alleviate increased salinity that has been observed in the project area. The

project would use dredge spoil from upland disposal sites for the CSC to create marsh in shallow, open water areas north of Mud Lake. The dredging methodology would be similar to that described for the No Name Bayou Marsh Creation and Nourishment Project. The borrow area is approximately four miles from the project area. 455 acres of emergent brackish marsh would be created and another 89 acres nourished. Minimal containment dikes will be constructed, and they will be degraded and gapped once the marsh creation is complete. The project will also include 272 acres of vegetative plantings. The project would help protect Highway 27, which is a hurricane evacuation route. The State indicated that this project is consistent with the Master Plan. The estimated construction cost, plus 25% contingency, is \$25.8 million. However, a member of the audience indicated that the project may be able to use the pipeline that is being installed for a nearby CIAP project on Rabbit Island to reduce the costs. Mr. Harold Schoeffler, Sierra Club, asked what has caused the loss of marsh in this area. Dr. Foret responded that the CSC has increased saltwater intrusion. Mr. Schoeffler asked what would prevent the saltwater intrusion from deteriorating the marsh that would be created. Dr. Foret indicated that a more saltwater-tolerant species would be planted. There was a discussion about why this project was considered consistent with the Master Plan. A small portion of the marsh creation is outside of a polygon identified in the Master Plan, but since this portion was so small, the project was considered consistent with the Master Plan.

*#5 – Sabine National Wildlife Refuge Marsh Creation and Nourishment.* This project was presented by Dr. John Foret with the NMFS. The proposed project is located in Cameron Parish, west of the CSC and north of West Cove. Construction of the CSC and LA Highway 27 have caused significant hydrologic changes in this system and contributed to the weakening of the wetland plant community. Water depths are not conducive to the reestablishment of emergent vegetation, and submerged aquatic vegetation habitat is limited by wave action within the large, open water area. The proposal includes mining two upland disposal areas of the CSC to create 450 acres and nourish 55 acres of emergent brackish marsh. The disposal areas would be mined to +2 feet elevation, reestablishing this 325 acre area as emergent marsh. 10,000 linear feet of tidal creeks would be constructed. The current cost estimate also includes 275 acres of vegetative planting. The existing Hog Island Gully channel would be used as the pipeline corridor. USFWS owns the project area. The cost estimate, plus 25% contingency, is \$25.9 million. A member of the audience asked if the permanent pipeline could be used. Dr. Foret responded that it could be used, but the project would have to use a different borrow area. This project is not consistent with the Master Plan. There was discussion about protection of Lake Charles and consistency with the Master Plan. In the past, the State has indicated that it plans to protect Lake Charles to the 500-year level, and this marsh creation would help meet this goal. It is consistent with the principle of the Master Plan, even if it is not consistent with the bureaucracy. Mr. Karim Belhadjali, CPRA, responded that the State has not decided on the methodology that would be used to protect Lake Charles. If levees are not constructed, then this marsh creation project may be considered in the future. The State indicated that every good project cannot be built due to resource limitation. Anything that is being proposed at these meetings will be considered for future Master Plan updates.

*#6 – Sabine Refuge Marsh Creation Project Cycles 6 and 7.* This project was introduced by Mr. Robert Dubois with USFWS. This project is located in Cameron Parish east of Highway 27 on the Sabine National Wildlife Refuge. This project would be an extension of the Sabine Refuge Marsh Creation Project (CS-28), which consists of five marsh creation cycles and the construction of a permanent pipeline. Three of the cycles have been constructed and Cycles 4

and 5 are scheduled for 2014. Past cycles have been very successful in using the material from the CSC. This project would create 448 acres of emergent, brackish marsh using material piped in the permanent pipeline from the CSC Miles 5-17. In the recent past, the USACE has not been funded to dredge the CSC to its full width. If it receives the necessary funding, it could provide more material for this marsh creation. The project would use earthen containment dikes, which will be gapped upon consolidation of the material. The estimated construction cost, with a 25% contingency, is \$8.1 million. This is outside of the marsh creation polygons of the Master Plan. An audience member asked why this project is not consistent when the permanent pipeline is already in place. Mr. Haase responded that he did not know if the pipeline was considered when the projects were evaluated for the Master Plan. Mr. Schoeffler asked about the nature of the material that is dredged from the CSC. Mr. Clark responded that it is a mixture of clay, fine sands, and some organic material. He stated that past projects using this material have performed very well.

*#7 – West Cove Marsh Creation.* This project was introduced by Mr. Robert Dubois with USFWS. This project is located in Cameron Parish on the Sabine National Wildlife Refuge, east of Highway 27 and north of Mud Lake. The CSC, immediately east of the project area, provides an avenue for the rapid movement of high-salinity water into the Mud Lake area. This has stressed vegetation in the area and much of the emergent marsh within the project area has been lost in recent years. Within the newly-formed open water areas, wind generated waves can increase shoreline erosion if not addressed through restoration. Saltwater gets trapped in this area, which has contributed to the degradation. The project includes 400 acres of marsh creation in shallow water areas and 65 acres of marsh nourishment southwest of West Cove using material from the CSC. The marsh creation cells would have earthen containment dikes which would be breached following consolidation of the material. This project is synergistic with the previously constructed East Mud Lake Marsh Management (CS-20), which is directly south of this project area, and with the Sabine Refuge Marsh Creation, Cycle 1 (CS-28). Potential issues include pipe length and pipe placement due to oyster seed grounds in the area. The estimated construction cost is \$13.4 million using the USACE dredge cycle and \$25.5 million with dedicated dredging. This project is consistent with the Master Plan. *NOTE: It was discussed in this meeting that this project overlaps in general location and features with project #8 – West Cove Marsh Creation and Nourishment. The lead agencies of these projects (USFWS and USACE) agreed to combine these projects into one project to be nominated for PPL 23.*

*#8 – West Cove Marsh Creation and Nourishment.* This project was introduced by Mr. Scott Wandell with the UASCE. This project is located in Cameron Parish, west of the CSC. Two major hurricanes have decimated this area and the CSC has caused a large amount of saltwater intrusion. This is another opportunity for beneficial use of dredged material outside of those areas identified in the CSC Dredged Material Management Plan. The primary feature of this project is 265 acres of marsh creation and 362 acres of marsh nourishment. The project area was divided into two cells to maintain access to an oil and gas area. The project is about 5.5 miles from the CSC and would try to use the maintenance cycle of the CSC from Miles 5-9. The estimated construction cost, with 25% contingency, is \$9.8 million using the ship channel maintenance cycle and \$17.5 million with dedicated dredging. The project area follows the footprint of the Master Plan and was identified in the Southwest Coastal Feasibility Study. Mr. Haase noted that the eastern cell is outside of the Master Plan, but overall the project is consistent. There was some discussion about the possibility of this area being located along a fault line because it is subsiding much more rapidly than surrounding areas. *NOTE: It was*

*discussed in this meeting that this project overlaps in general location and features with project #7 – West Cove Marsh Creation. The lead agencies of these projects (USFWS and USACE) agreed to combine these projects into one project to be nominated for PPL 23.*

*#9 – East Prong Grand Bayou Marsh Creation.* This project was introduced by Ms. Angela Trahan with USFWS. The project is located in Cameron Parish in the Cameron Creole Watershed, north of East Prong Grand Bayou on Cameron Prairie National Wildlife Refuge property. A combination of human-induced hydrologic changes and severe storm events has resulted in extreme deterioration of the marsh in this area. The project goals are to restore marshes in large open water areas, reduce saltwater intrusion into interior marshes, and reduce wave action erosion. This project includes 511 acres of marsh creation and 75 acres of marsh nourishment in a semi-unconfined area. The project would also spray dredge East Prong to reinforce the channel banks, avoiding natural trenasses, which would nourish an additional 138 acres of marsh. Net acres are 475. Three million cubic yards of material would be needed, and the borrow source would be existing bayous and large ponds. The exact borrow location would need to be coordinated with Louisiana Wildlife and Fisheries. Selection of specific borrow sites will require coordination with NMFS. The Grand Bayou Marsh Creation Project, which will restore 600 acres of marsh on the Cameron Prairie National Wildlife Refuge, is northwest of this project area and is currently in the E&D phase. Several other projects in this area are aiming to increase the freshwater inflow. The estimated construction cost, with a 25% contingency, is \$18.8 million. This project is consistent with the Master Plan.

Nominations were closed for the Calcasieu-Sabine Basin.

b. Mr. Clark opened the floor for nominations in the Mermentau Basin.

*#1 – South Grand Chenier Baker Track Marsh Creation.* This project was presented by Mr. Martin Miller, representing Rellim Surface Management and the Miller Family. This project is located in Cameron Parish, between Highway 82 and Hog Bayou. The marshes within the Hog Bayou Unit are stressed due to limited freshwater input and seasonal salinity spikes, exacerbated by the construction of the Mermentau Ship Channel. The project area is currently open water with degraded areas of wetland vegetation and low organic production. This project consists of creating 451 acres of emergent marsh to create new wetland habitat, restore degraded marsh, and reduce wave erosion. The total benefitted area is approximately 600 acres. This project has landowner approval and support, and work by the local drainage board will enhance this project. The landowners installed terraces and water control structures and they work hard to maintain this area, but the South Baker Track is too large of an area for their capabilities. This project would protect the evacuation route on Highway 82 and the Grand Chenier Ridge. The borrow source would be the Gulf of Mexico. The preliminary construction costs are around \$25 million based on the cost of the nearby ME-20 project. This area is within a Master Plan polygon. Mr. Schoeffler asked about marking dredge holes in the Gulf. Mr. Clark responded that that is not currently an item in the budget, but it can be studied.

*#2 – East Pecan Island Marsh Creation – Increment 1.* This project was presented by Mr. Chris Allen with the CPRA. This project is located in Vermilion Parish between Pecan Island and the west bank of the Freshwater Bayou Canal. The marshes west of Freshwater Bayou have experienced severe land loss and habitat conversion due to exchange caused by the Freshwater Bayou Navigation Channel and major hurricane events. This project would create and/or nourish

506 acres of marsh using 3.5 million cubic yards of material from a Gulf of Mexico borrow site. This project would fortify another project directly adjacent to Freshwater Bayou that is currently in E&D. The project will have tidal creeks and retain historical ponds for functionality. The estimated construction cost, including 25% contingency, is \$34.2 million. This project is consistent with the Master Plan.

*#3 – North Big Marsh Restoration.* This project was presented by Mr. W.P. Edwards, III with the Vermilion Corporation. The project is located in Vermilion Parish within the CWPPRA Project ME-04 project area. The project will restore approximately 450 acres of fresh and intermediate marsh that is currently shallow, open water using material from the Gulf of Mexico. Ponds would be included for habitat enhancement. This project is north of the East Pecan Island Marsh Creation Project and will fill an area scoured by Hurricanes Rita and Ike. The estimated construction cost is \$17-20 million. This project is consistent with the Master Plan.

*#4 – Platform 1 Marsh Creation.* This project was presented by Mr. Troy Mallach with NRCS. This project is in Vermilion Parish, west of Freshwater Bayou, east of Front Ridge, and southeast of White Lake. There is currently limited freshwater exchange across Highway 82. The project consists of 495 acres of marsh creation. The total benefitted area is 892 acres. Limited containment levees will need to be constructed; total dike length is 28,000 feet. The borrow source will be the Gulf of Mexico. A 36-inch pipeline has been abandoned in the area, and Mr. Edwards would like to ask the pipeline company if it could be used to pump material. There was a discussion about the length of pipe, size of pipe, and size of pumps that would be required for this project. This project is consistent with the Master Plan. Mr. Schoeffler asked what caused the problems in this area. Mr. Mallach responded that the saltwater intrusion is caused by Freshwater Bayou. Also, the construction of Highway 82 limited the freshwater flow into the area. *NOTE: It was discussed in this meeting that project #5 – Pecan Island Freshwater Diversion at Front Ridge Road and Highway 3147 would enhance this project. The nominators of these projects (Mr. Mallach with NRCS and Mr. Edwards with Vermilion Corporation) agreed to combine these projects into one project to be nominated for PPL 23 and rename the project the Platform 1 Marsh Creation and Freshwater Introduction Project.*

*#5 – Pecan Island Freshwater Diversion at Front Ridge Road and Highway 3147.* This project was presented by Mr. Edwards with Vermilion Corporation. This project is located in Vermilion Parish directly north of the Platform 1 Marsh Creation Project. This is a simple project for freshwater introduction into the Platform 1 area, consisting of removing some existing plugs and adding culverts under the Highway 3147 and Front Ridge Road north of the Platform 1 Marsh Creation Project. The project would increase freshwater flow into the area and should cost less than \$1 million. Front Ridge Road is a gravel road, so the cost to install culverts should be minimal. The project has landowner approval and is consistent with the Master Plan. *NOTE: It was discussed in this meeting that this project would enhance project #4 – Platform 1 Marsh Creation. The nominators of these projects (Mr. Mallach with NRCS and Mr. Edwards with Vermilion Corporation) agreed to combine these projects into one project to be nominated for PPL 23 and rename the project the Platform 1 Marsh Creation and Freshwater Introduction Project.*

*#6 – Umbrella Bay Shoreline Protection Project.* This project was introduced by Mr. Darryl Clark with USFWS. This project is in Cameron Parish along the eastern Grand Lake-Umbrella Bay shoreline. Shoreline erosion in this area averages 15 feet/year based on the 1952-2008

analysis. 275 acres of marsh will be lost over the next 20 years if nothing is done. Shoreline breaches have already caused small interior lakes to coalesce with Grand Lake and continued shore loss will increase connectivity with Grand Lake and introduce greater energy to the interior marsh. Umbrella Point has been lost. The goal of this project is to reduce or halt shoreline erosion along the eastern Grand Lake and Umbrella Bay shorelines and prevent shoreline breaches into interior ponds by creating 40,000 linear feet (7.5 miles) of shoreline protection consisting of foreshore segmented rock breakwater placed at the 1 to 2 foot depth contour with gaps every 1,000 feet. This is similar to the Grand-White Lakes Landbridge Protection (ME-19) Project. Dredged material from the access channel will be placed behind the rock to create marsh. The total net marsh acres benefited are 275 acres. The estimated project cost is \$12 - \$15 million. The project is consistent with the State Master Plan.

Nominations were closed for the Mermentau Basin.

c. Mr. Clark opened the floor for nominations for demonstration projects.

There were no nominations for demonstration projects.

Nominations were closed for demonstration projects.

d. Mr. Clark opened the floor for nominations for coast-wide projects.

There were no nominations for coast-wide projects.

Nominations were closed for coast-wide projects.

6. Agenda Item #6, Announcement of Upcoming PPL 23, Task Force, Technical Committee and Other Meetings. Mr. Clark reviewed upcoming CWPPRA meetings. Written comments should be sent to Mr. Brad Inman by February 8, 2013, whose contact information was included in the agenda.

7. Agenda Item #7, Adjourn. The meeting was adjourned at 1:50 pm.