CEMVN-PM-C (10-1-7a) 27 Jan 11

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 1, New Orleans, LA, 27 Jan 11, 1:00 pm

1. Agenda Item #1, Welcome and Introductions. Mr. Chris Allen, RPT Region 1 Leader, opened the meeting, welcomed the attendees, and had the attendees introduce themselves. He recognized representatives from the parishes including Mr. Brian Fortson with St. Tammany Parish, Ms. Marnie Winter with Jefferson Parish, and Ms. Albertine Kimble with Plaquemines Parish.

2. Agenda Item #2, PPL 21 Selection Process Brief Overview and Ground Rules for PPL 21 Nomination Meeting. Mr. Allen provided 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 21st Priority Project List (PPL), as well as nominations for coast-wide and demonstration projects.

Anyone can propose a project for the region. Proposals should be consistent with the Coast 2050 strategies. 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, but splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Public comments on project proposals will be accepted orally during the meeting and in writing by February 10, 2011.

A coast-wide voting meeting will be held on February 22, 2011, in the Louisiana Room at the Louisiana Department of Wildlife and Fisheries in Baton Rouge. The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain basins; two projects in the Breton Sound, Teche-Vermilion, Mermentau, Calcasieu-Sabine, and Mississippi River Delta basins; and one project in the Atchafalaya Basin. If only one project is nominated at the RPT meeting for the Mississippi River Delta Basin, three nominees will be assigned to the Breton Sound Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select six demonstration projects for further evaluation.

In covering the ground rules for the meeting, Mr. Allen requested that each proposer submit a fact sheet and give their name, the project name, and describe the location, problem, proposed solution, and benefits of the presented project. Public comments on the proposals should be as constructive as possible.

3. Agenda Item # 3, Brief Overview of Coast 2050 Regional Strategies. Mr. Allen indicated that the proposals should be consistent with the Coast 2050 Regional Ecosystem or Coast-Wide Strategies and briefly reviewed the strategies for Region 1 under the headings of restore swamps, restore and sustain marshes, protect bay and lake shorelines, restore and maintain barrier islands,

maintain critical landforms, and resolve the Mississippi River Gulf Outlet (MRGO) problem. The specifics under each heading can be seen in the PowerPoint presentation for the Region 1 meeting on the CWPPRA website.

4. Agenda Item #4, PPL 21 Project Nominations.

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

#1 – LaBranche Central Marsh Creation Project. This project was presented by Mr. Jason Kroll with the Natural Resources Conservation Service (NRCS). The project is located in the Pontchartrain Basin in St. Charles Parish, south of I-10. Because of dredging of access/floatation canals for I-10, there has been an increase in salinity and an altered hydrology that has exacerbated conversion of wetland vegetation into shallow open water bodies. The project, which would cost $26 million, would involve the creation of approximately 750 acres of emergent wetlands and the nourishment of approximately 150 acres of existing wetlands using dedicated dredging from Lake Pontchartrain. Ten thousand linear feet of tidal creek will also be created. Project implementation would increase fisheries and wildlife habitat, acreage and diversity, improve water quality, provide a protective wetland buffer to the railroad and I-10, and complement hurricane protection measures in the area. Mr. Ed Fike supported the project on behalf of the landowners.

#2 – Guste Island Marsh Creation Project. This project was presented by Mr. Jason Kroll with NRCS. In this area, the Lake Pontchartrain rim has breached into a failed agricultural area and is expected to expand into this area by an additional 1,000 acres. The project would cost $23.5 million, and would create approximately 590 acres of emergent wetlands using dedicated dredging from Lake Pontchartrain. In addition, 2,000 linear feet of lake rim would be restored. Project implementation would increase fisheries and wildlife habitat, acreage and diversity, improve water quality, and provide a protective wetland buffer along the lake rim. Mr. Brian Fortson with St. Tammany Parish stated this was one of two projects the Parish supports and added that because of seasonal dewatering during the 1950's, the peat layers in this area are thin with few organics, so little compaction will be needed. He added that this is a unique opportunity because there is flexibility in the ultimate vegetative community in the project area because it is fairly fresh water. Mr. Kevin Roy asked how water will exchange once the breaches are closed, what feature is in the middle of the project, and if the areas to the north are under management. He was answered that breaches to the swamp would maintain exchange in a way that is naturally tidally connected and not through the lake rim;a neighborhood development is planned on the old ridge; and that ideally, the north areas are managed. However, the breaches can not stay closed because this area is under pump; this project would reduce the size of the management by opening tidal flow to the east and west. Mr. Kevin Roy asked if the costs are based on the previous LaBranche Marsh Creation Project and was answered that the costs are based on the Bonfouca project last year with some other considerations. Mr. Patrick Williams asked about the status of the mitigation bank and was answered that the bank is for the eastern portion and landowners have concluded that there is not sufficient market support to pursue.

#3- Small Mississippi River Reintroduction into LaBranche Wetlands. This project was presented by Mr. Ken Teague with the Environmental Protection Agency (EPA). The project area, located in the Lake Pontchartrain Basin in St. Charles Parish, has experienced substantial subsidence from soil oxidation due to agricultural drainage and construction of the MRGO; and access

canals for I-10 construction increased salinities resulting in further damage to swamp and marsh vegetation. Furthermore, the Bayou Trepagnier area in the southwest corner of the LaBranche Wetlands was contaminated by industrial discharges, but the requirement to cease those discharges, compounded by the lack of connectivity with the Mississippi River, increased salinity. The project would reintroduce approximately 4,000 cubic feet per second (cfs) of Mississippi River water into the southwest corner of the LaBranche Wetlands (including areas that were contaminated by the industrial discharges) via the Bayou Trepagnier "Clean Corridor". The high flow potential is expected to be used infrequently, for a pulsing operation. This project would reduce wetland loss rates and increase flow through the western side of the LaBranche Wetlands, improve swamp habitat quality, increase sediment accretion in the contaminated portions of the project area, decrease salinities in the LaBranche Wetlands, and increase submerged aquatic vegetation (SAV) production. The project would be able to be constructed and operated without disturbing contaminated sediments. Mr. Mark Davis with Tulane stated that some work has been done to clean up Bayou Trepagnier so there is no longer an impediment to nourishing the LaBranche Wetlands. Mr. Eldon Blancher with Sustainable Ecosystem Restoration, LLC, added that the contaminated spoils are being removed and taken to a landfill and that they are going to consolidate the existing sediments in the channel and then top with clean fill, with the intent to clean up enough to accommodate larger flows to allow more water to get to the wetlands to reduce salinity. It was asked where the water source was and was answered that water will be pumped from the river over the lower guide levee. Mr. Mark Davis added that the source of water depends on the volumes desired and that over the years, corridors have been offered to move water from the river in, but these offers could not be taken advantage of due to the contamination. He also added that the headwaters for this corridor were a refinery and that there is no natural source for the channel. Mr. Nathan Dayan added that there is a Louisiana Coastal Area (LCA) project also looking at pumping water over the guide levee and into this area. Mr. Kevin Roy asked if there is a plug at the east end of the "Clean Corridor" and was answered that the bayou will be filled in 6,000 feet beyond the eastern barrier. Mr. Ken Teague suggested that the project sponsors talk to other Federal agencies with representatives that worked on this effort.

#4 – Bayou Bienvenue Marsh Creation. This project was introduced by Mr. Paul Kaspar with EPA. Located in the Pontchartrain Basin in Orleans Parish, just east of Industrial Canal, this project area has seen a loss of wetlands because of altered hydrology due to impoundment, substance, and saltwater intrusion. The majority of the area is very shallow, open water littered with cypress logs and stumps. This project, which would cost $25 million, would create marsh in the triangular area adjacent to the headwaters of Bayou Bienvenue using dedicated dredging of sediment mined from the Mississippi River, restoring 350 acres of open water into emergent marsh and the historic bank line along Bayou Bienvenue.

#5 – Fritchie Marsh Creation and Terracing. This project was presented by Mr. Patrick Williams with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The CWPPRA PO-06 project was completed in 2001 and resulted in improved hydrology and marsh restoration throughout the area. However, a significant portion of the Fritchie Marsh was lost as a result of Hurricane Katrina. These marshes cannot recover without the replacement of lost sediments. The project, which would cost $27 million, would entail the construction of 550 acres of marsh platform and 100,000 linear feet of earthen terraces. There may be four culverts added under Highway 90 to promote tidal exchange and improve flushing, but coordination is still needed with a permitted residential development in

the area. Borrow material would be dredged from Lake Pontchartrain to build the marsh. Mr. Kevin Roy asked if Salt Bayou has been cleaned out and received the answer that it was not necessary because the bayou is scouring itself. It was asked what shallow dredging depths would be used and answered that the maximum depth guideline is 15 to 20 feet from the mean water. Mr. Chris Allen asked if the water depth is known where the terracing will take place and was answered that the area is still very shallow (approximately -0.8 feet) making it cost effective to build marsh at that location. Mr. Nathan Dayan added that there would be less impacts to water quality if the borrow site was somewhere near the Rigolets. Mr. Brian Fortson with St. Tammany Parish and Mr. James Harris with the U.S. Fish and Wildlife Service (USFWS) Refuge enthusiastically supported the project.

#6 – Northern Chandeleur Island Restoration. This project was presented by Ms. Kimberly Clements with NOAA NMFS. The project includes the Chandeleur Islands in St. Bernard Parish, north of Redfish Point and south of Hewe's Point. A net loss of barrier island sand to deepwater down-drift sinks has resulted in a reduction of the total Chandeleur Island area; and increased hurricane intensity and frequency in the northern Gulf of Mexico in the past decade has accelerated the land loss trend, forcing the Islands into a mode of rapid dissection and transgressive submergence. The project, which would cost $37 million, would increase the longevity of the existing and most stable landmass through the reintroduction of sand, restore/create beach fill landward to minimize offshore sediment losses, restore/create back barrier platform to provide a structural framework for overwash, restore/create barrier island beach and bay inter-tidal habitat, and reduce projected losses of unique Louisiana seagrass habitat. The project would construct a 250-foot-wide, landward supratidal berm with beach fill, restore 15,150 feet of Gulf shoreline, and construct a 1,200- to 1,400-foot-wide back barrier platform. The project would provide a low, but wide roll over platform during overwash events to maximize the longevity of the sand being re-introduced into the barrier island system. Material will be placed into semi-confined discharges to construct beach and back barrier platform. Ms. Kimberly Clements acknowledged Mr. Mike Miner whose research was used for this project proposal. Mr. Kevin Roy asked how far the current berm work has continued and was answered that the Chandeleur portion of the berm is almost completed. Ms. Albertine Kimble with Plaquemines Parish supported the project.

#7 – Golden Triangle Marsh Creation. This project was introduced by Mr. Patrick Williams with NOAA NMFS. Wetlands in the project area are being lost, and interior breakup and coalescence of newly formed open water with historic ponds, as well as increased connection with Bayou Bienvenue and the Gulf Intracoastal Waterway (GIWW) is taking place. The project would create 400 acres of brackish marsh using dedicated dredging from Lake Borgne. Some work has been conducted in this area by the U.S. Army Corps of Engineers (USACE) and this project will work to complement the placement of dredged material already conducted by starting in areas with the shallowest depths and then moving to other areas as the project allows. Ms. Summer Martin with the Office of Coastal Protection and Restoration (OCPR) asked if containment would be built around the cells and was answered that 100% containment is now included, but in reality they would look to minimize containment.

<u>Nominations were closed for the Lake Pontchartrain Basin.</u>

b. <u>Mr. Allen opened the floor for nominations for coast-wide projects.</u>

No new coast-wide projects were introduced. Ms. Marnie Winter with Jefferson Parish supported the coast-wide canal backfilling project that was presented for Region 2.

Nominations were closed for coast-wide projects.

c. Mr. Allen opened the floor for nominations for demonstration projects. Demonstration projects were presented for Regions 1 and 2 together.

#2 – Bioengineering Solutions Using Fascines and Coir Mattresses. This project was introduced by Mr. Doug Smith with Bioengineering Group. This demonstration project would use brush fascines, coir fascines, and mattresses for multiple coastal restoration applications. The coir fabric is made of shredded coconut husk which takes a long time to biodegrade and is a woody fiber that holds moisture. Brush mattresses are comprised of dormant plant material and the coir mattresses are grown with plants in a nursery. The fascines and mattresses can be used to create a base for vegetation to grow. The cost per linear foot is approximately $200 to $300 and this project is proposing to place $2 million worth of material over a one-mile shoreline. Bioengineering Group has been in discussions with Jean Lafitte Park and Lafourche and Plaquemines Parishes for use of this material.

#3 – Habitat Enhancements Through Vegetation Plantings Using Gulf Saver Bags. This project was presented by Mr. Eldon Blancher with Sustainable Ecosystem Restoration, LLC. Louisiana's coastal marsh continues to erode at a rate of 50 acres/day. The project would restore 500 acres of critical wetland areas on the outer borders of the Pass a Loutre Wildlife Management Area in Venice, Louisiana with "Gulf Saver" bags. The bags will be planted with a diverse selection of native marsh grasses and deployed by community volunteers. Black Mangrove will be planted in bags in specific sites where an increase in nesting areas and wildlife habitats for birds and greater shoreline protection is needed. The cost is currently unknown. Mr. Travis Creel clarified that this may be a site specific project rather than a demonstration project. Mr. John Jurgensen asked what part of the project was being submitted under CWPPRA and if enough bags have been deployed so that this would not be considered a demonstration project and was answered that the goal is to impact 500 total acres and that four deployments will be completed by the end of the year. Mr. Chris Allen asked if there were results on the bag effectiveness yet and was answered that they are trying to establish a baseline with the current work. Ms. Melanie Goodman asked if the bag effectiveness is being compared to other planting methods and costs and was answered that this approach is being compared to a plugging approach. Mr. Kenneth Ragas stated that he does not support this project for CWPPRA. Ms. Albertine Kimble with Plaquemines Parish supported the project.

#4 – Autoclaved Aerated Concrete for the Coastline. This project was introduced by Mr. Ned Couret with Coastline Solutions, LLC. The demonstration material is an autoclave aerated concrete which weighs 20% that of regular concrete. Applications could include lightweight interior material with armoring or elevating levees for hurricane protection. The material is produced offsite into hollow boxes which can vary from two to ten feet in height and can be dropped into place. The material is a green alternative, easy to work with in the field, and can be placed at a rate of 300 feet/day. The boxes are designed to create a concentrated load on the inside, thus giving an elevated wall of protection while compressing the soil underneath and giving a defined area of control. The boxes were recently used in Terrebonne Parish as a base for terraces. The cost is $1.5 million per mile and the cost to produce is $103 to $106 per cubic

meter. Mr. John Jurgensen asked how the material stands up under water and was answered it holds up well because it is concrete. Mr. John Jurgensen added that this project may not be appropriate for CWPPRA because it is not really a flood protection program and was answered that the boxes could be used as a more stable component to sand berms on barrier islands or armoring for coastline protection. Mr. Kevin Roy asked how the material could be applied as a demonstration and was answered that it could be used as a shoreline protection feature or to build terraces.

#5 –Deltalok. This project was introduced by Ms. Bari Blanks with Environmental Management Systems. This demonstration project would use non-woven geotextile bags filled with sand or other material to create an engineered wall with the properties of a hard material such as rock or concrete, but which is still flexible like a soft material. The bags are designed to be seeded with local vegetation. The Louisiana State University (LSU) Agricultural Center and the U.S. Department of Agriculture (USDA) have confirmed that vegetation can proliferate with this system. Indigenous grass will grow around and through the bags to create additional strength. This method has been used on interior shorelines, canals, etc., but would be new to coastal shoreline restoration. Ms. Vickie Duffourc asked about the cost and was answered approximately $650,000 per mile.

#7 – Alternative to Manual Planting. This project was introduced by Mr. Nathan Dayan with USACE. This demonstration project would add rhizomes to hopper dredge pipes to induce plant growth. Mr. Ken Teague asked how this would be timed so as to not get the rhizomes buried on the bottom and where the rhizomes would come from and was answered that it would only occur during the last 15 to 30 minutes of the dredge cycle and that the rhizomes could come from growing plants or seeds. Mr. Brian Fortson stated that St. Tammany Parish recently had a project where Hurricane Katrina debris was used for marsh restoration and rhizomes were spread over a large portion of the project and in these areas, there was 100% cover by the time the dredge pipe was removed. He added that they found moving rhizomes with the dredge material will vegetate the placement area if the rhizomes can be placed in the viable layer.

Nominations were closed for demonstration projects.

5. Agenda Item #5, Announcement of Coast-Wide Voting Meeting. Mr. Allen reiterated that the coast-wide voting meeting would be held on Feb. 22nd.

6. Agenda Item #6, Announcement of Upcoming PPL 21, Task Force, Technical Committee and Other Meetings. Mr. Allen reviewed upcoming CWPPRA meetings and indicated that all meeting notices are posted on the CWPPRA website.

7. Agenda Item #7, Adjourn. The meeting adjourned at 3:30 pm.

CEMVN-PM-C (10-1-7a) 27 Jan 11

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 2, New Orleans, LA, 27 Jan 11, 9:00 am

1. Agenda Item #1, Welcome and Introductions. Mr. Travis Creel with the U.S. Army Corps of Engineers (USACE), RPT Region 2 Leader, opened the meeting, welcomed the attendees, and had the attendees introduce themselves. He recognized representatives from the parishes including Mr. Jody Chenier with St. James Parish, Ms. Marnie Winter with Jefferson Parish, and Ms. Albertine Kimble with Plaquemines Parish.

2. Agenda Item #2, PPL 21 Selection Process Brief Overview and Ground Rules for PPL 21 Nomination Meeting. Mr. Creel provided 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 21st Priority Project List (PPL), as well as nominations for coast-wide and demonstration projects.

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In covering the ground rules for the meeting, Mr. Creel requested that each proposer submit a fact sheet and give their name, the project name, and describe the location, problem, proposed solution, and benefits of the presented project. Public comments on the proposals should be as constructive as possible.

3. Agenda Item # 3, Brief Overview of Coast 2050 Regional Strategies. Mr. Creel indicated that the proposals should be consistent with the Coast 2050 Regional Ecosystem or Coast-Wide Strategies and briefly reviewed the strategies for Region 2 under the headings of restore swamps; restore and sustain marshes; restore, protect and maintain bay, lake, and Gulf shorelines and barrier

islands; and maintain critical landforms. The specifics under each heading can be seen in the PowerPoint presentation for the Region 2 meeting on the CWPPRA website.

4. Agenda Item #4, PPL 21 Project Nominations.

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

#1 – Northwest Turtle Bay Marsh Creation and Shore Protection. This project was presented by Mr. Kevin Roy with the U.S. Fish and Wildlife Service (USFWS). Excluding canals, about half (390 acres) of the project area (750 acres) has been converted to open water. Shoreline erosion along the northwest shore of Turtle Bay is estimated to be 10 feet/year. The proposed project would create approximately 390 acres and nourish 360 acres of emergent marsh using sediment dredged from Turtle Bay or Little Lake. Existing canal spoil banks, emergent marsh, and limited segments of containment dikes will be used to guide distribution of deposited material. Any containment dikes constructed will be degraded as needed to re-establish hydrologic connections to adjacent wetlands. Newly constructed marsh will be assessed to determine if vegetative plantings will be necessary. Approximately 8,350 feet of shoreline protection is proposed for the northwest shoreline of Turtle Bay. Consideration will be given to the closure of three oil and gas access canals, pending discussion with the oil and gas operators in the area. The purpose of these canal closures would be to limit the multiple exchange points with Little Lake, thereby partially restoring the hydrology of the area. The project cost would be $19 million. Mr. Chris Allen asked about the Turtle Bay borrow area and was answered that the borrow area closest to the site from Turtle Bay or Little Lake will be used. Mr. Jeff DeBlieux with ConocoPhillips and Ms. Marnie Winter with Jefferson Parish expressed strong support for the project.

#2 – Bayou Grande Cheniere Marsh Creation. This project was presented by Mr. Kevin Roy with USFWS. Marsh loss is occurring in the West Pointe à la Hache area, even with the operation of the siphons. Significant marsh loss has occurred south of Lake Hermitage with the construction of numerous oil and gas canals. The primary goal of the project is to re-create marsh habitat in the open water areas, nourish marsh along the eastern side of the Bayou Grande Cheniere Ridge, and capture suspended sediment delivered via the West Pointe à la Hache siphons. Riverine sediments would be hydraulically dredged and pumped via pipeline to create approximately 500 acres of marsh. In addition, 61,000 linear feet of terraces would be constructed to reduce fetch and turbidity and capture suspended sediment. The project cost would be $36.2 million. Ms. Albertine Kimble with Plaquemines Parish supported the project as the Parish's number one preferred project.

#3 – Grand Bayou Marsh and Ridge Restoration. This project was presented by Mr. Kevin Roy with USFWS. From 1932 to 1990, the West Point à 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 à la Hache Siphons. Significant marsh loss has occurred south of Lake Hermitage and along Grand Bayou with the construction of numerous oil and gas canals. The primary goal is to re-create marsh and ridge habitat along Grand Bayou. Terraces are proposed to reduce fetch in large open water bodies and to capture suspended sediment delivered via the West Point à la Hache siphons. Project features include hydraulically dredging and pumping, via pipeline, riverine sediment to create approximately 540 acres of marsh, constructing 43,000 linear feet of terraces to reduce fetch and turbidity and

capture suspended sediment, and constructing a bottomland hardwood or shrub/scrub ridge approximately 7,400 feet long along Grand Bayou. The project cost would be $32.6 million. Ms. Albertine Kimble with Plaquemines Parish supported the project as the Parish's number one preferred project since the channel is choked up without much water going into the area.

#4 – Bayou Dupont to Bayou Barataria Marsh Creation. This project was presented by Mr. Quin Kinler with the Natural Resources Conservation Service (NRCS). The marshes located between Bayous Dupont and Barataria are severely deteriorated. The deteriorated marsh, along with numerous canals, allows a level of tidal exchange that is considerably greater than historic conditions. The project would create 311 acres and nourish 200 acres of marsh between Bayou Dupont and Bayou Barataria and restore 19 acres of the historic Bayou Barataria Ridge through bottomland hardwood ridge restoration. Material for marsh creation would be excavated from The Pen. The project would also include 1,740 feet of rock dike protection along the east bank of the Barataria Bay Waterway. The project cost would be $30 million. Mr. Patrick Williams asked where the borrow source is and was answered that the source would be The Pen, but with consideration of the Mississippi River, taking into account availability of material. Mr. Jeff DeBlieux with ConocoPhillips supported the project and added that land rights will not be an issue. Ms. Marnie Winter with Jefferson Parish stated that this and the Turtle Bay projects are the top preferred projects for the Parish.

#5 – South Lake Salvador Shoreline Restoration and Protection. This project was presented by Mr. Quin Kinler with NRCS. The Lake Salvador shoreline is eroding at approximately 10 feet/year and has nearly breached into the Gulf Intracoastal Waterway (GIWW). The project would widen approximately 2,500 feet of lake rim to provide a minimum width of 200 feet between Lake Salvador and the GIWW. Additionally, about 9,000 feet of offshore segmented breakwater would be constructed. Access channel material would be used for lake rim re-establishment and remaining material would be placed landward of the breakwater to create an additional 12 acres of marsh. The project cost would be $4.6 million.

#6 – Bayou L'Ours Terracing. This project was presented by Mr. Quin Kinler with NRCS. Areas located north and south of Bayou L'Ours and adjacent to the East Golden Meadow Hurricane Protection Levee have experienced marsh loss in the range of 8,000 to 10,000 acres. Because this location is far from preferred sediment sources, the now customary practice of marsh creation using hydraulically dredged and deposited material does not seem feasible at this time. The proposed project would re-establish landmass which will help protect, extend the life expectancy of, and help maintain the current function of the Bayou L'Ours Ridge, as well as protect the Larose to Golden Meadow Hurricane Protection Levee. Approximately 140,000 linear feet of terraces would be constructed, producing 80 acres of emergent marsh. The project cost would be $5 million. Mr. Ned Couret with Coastline Solutions, LLC, asked about water depths in the area and was answered that water depths are greater farther from the ridge, terraces will be limited to one to three feet deep water, and some terraces will use existing spoil banks. Mr. Chris Allen asked about the quality of the material in the area and was answered that more work will be done if the project progresses, but that soils on the south seem to be better, there are reasonably good soils near the levee line, and water deepens and soils are poorer as you move away from the ridge. Mr. Kevin Roy asked if terraces could be constructed to the north of the ridge and was answered that the area to the north is under servitude for a private mitigation bank. Mr. Randy Moertle with Little Lake Land Co. expressed support

for the project as a great example of an east-west ridge for a multiple line of defense for everything to the north and stated that Jefferson, St. Charles, and Lafourche Parishes all support the project (with Lafourche ranking this as their number one preferred project). Mr. Patrick Amedee with Lafourche Parish School Board supported the project and added that the school board as landowner means that this project would benefit the general public of Lafourche Parish. Mr. Wayne Keller with the Grand Isle Port Commission supported the project, but was skeptical of the low cost per acre to which he was answered that the project will use bucket dredging which is cheaper than bringing in new material. Mr. Windell Curole stated that this is Lafourche Parish's number one preferred project and the levee district also supports linear feature projects. Mr. Jeff DeBlieux with ConocoPhillips expressed support for the project and added that soil borings have shown that terraces would work well in this area.

#7 – Bayou Villars Shoreline Stabilization Project. This project was presented by Mr. Scott Wandell with USACE. The project is located along the east shore of Lake Salvador near the Barataria Preserve of the Jean Lafitte National Park and Preserve and lands south of Bayou Villars in Jefferson Parish, Louisiana. Within the past 50 years, the project area has lost more than 650 acres of wetlands, and the opening of Bayou Villars at Lake Salvador has retreated 5,100 feet into the GIWW. Shoreline retreat and wetland loss were accelerated by winds and storm surge caused by Hurricanes Katrina and Rita. Within the project area, these storms eroded the shoreline 100 feet in places, and interior marsh was compacted or torn apart, creating open water ponds. The flooding of the communities of Crown Point, Jean Lafitte, and Barataria may be partly attributed to these high wetland losses. Stabilizing the shoreline and protecting the remaining marsh would protect natural coastal resources, communities, and infrastructure. The project would involve the installation of 31,000 tons of rock along 5,500 linear feet of shoreline from the pipeline crossing north of Bayou Villars to the north bank of the mouth of Bayou Villars, and 44,000 tons of rock along 8,000 linear feet of shoreline from the pipeline crossing south of Bayou Villars to the south bank of the mouth of Bayou Villars. The project cost would be $10 million. Mr. John Jurgensen suggested that if cut flotation is needed for access, that material be placed behind it for additional benefits, but was answered that a cut may not be needed. Support for the project was expressed by Ms. Marnie Winter with Jefferson Parish (stating this is the Parish's number three top project choice), Ms. Vickie Duffourc with Shaw Coastal (adding that if the land mass in this area is lost, there will be an attack on the landbridge to the north and the cost will be unaffordable once the entire area opens up), and Mr. Dusty Pate with the National Park Service (stating that this area of the Barataria Preserve is the most vulnerable).

#8 – Bayou Dupont Sediment Delivery—Marsh Creation 3. This project was presented by Mr. Paul Kaspar with the Environmental Protection Agency (EPA). The wetlands in the Barataria Basin were historically nourished by freshwater, sediments, and nutrients delivered by the Mississippi River and its many distributaries. These inputs ceased when levees were constructed on the lower river for flood control and navigation. In addition, numerous oil and gas canals in the area have contributed significantly to wetland losses. The project, which would cost $31.7 million, would create 522 acres of emergent intermediate marsh by placing sediment from the Mississippi River into open water areas. The sediment would be obtained through an existing pipeline. Mr. Kenneth Ragas asked how using a pipeline versus a river diversion performs over time, why the pipeline from the previous project was removed, and if the area previously dredged in the river has filled in. He was answered that a pipeline builds land much faster, but is not a full substitute for creating a water diversion, that the pipeline was not a permanent feature of the previous project, and that the area filled in as the dredging was in progress and will fill in over

time. Mr. Tim Allen with ConocoPhillips supported the project, offered to cooperate in any way, and added that some of the pipeline was used elsewhere after it was demobilized. Support for the project was also expressed by Ms. Albertine Kimble with Plaquemines Parish, Ms. Marnie Winter with Jefferson Parish (stating this would provide support to Jefferson and Plaquemines Parishes and add to the success of other projects in the area), and Ms. Vickie Duffour with Shaw Coastal (adding that the previous project did pay for the pipeline to cross the railroad and highway).

#9 – West Pointe à la Hache Marsh Creation South. This project was presented by Mr. Paul Kaspar with EPA. The Mississippi River Levee has isolated the West Pointe à la Hache wetlands from historic overbank flooding of the river. Without continued sediment input, the marshes have been unable to maintain viable elevations because of ongoing subsidence. In addition, oil and gas canals have disrupted the hydrology and facilitated saltwater intrusion, further degrading the marsh. Beginning in 1993, the siphons at West Pointe à la Hache were operated to reintroduce Mississippi River water, fine sediments, and nutrients into the general area; however, land loss rates continue to be high. There is an opportunity to create marshes in the southern portion of the siphon outfall area using sediment from the nearby Mississippi River. The project would create 240 acres of intermediate marsh and would protect the Mississippi River Levee in the vicinity of the project. The project cost would be $13 million. Mr. Ken Teague added that the idea is to create marsh in this area and maintain it in perpetuity by taking advantage of the existing siphon. Ms. Albertine Kimble with Plaquemines Parish supported the project as the Parish's number three preferred project.

#10 – Home Place Siphon. This project was presented by Mr. Paul Kaspar with EPA. Leveeing of the Mississippi River for flood control and navigation deprived the area of sediment needed to maintain elevation against subsidence, as well as freshwater to maintain low salinity marshes. Aerial photography clearly shows that much wetland loss has occurred in the project area. The project would construct a 1,500 to 2,000 cubic feet per second (cfs) Mississippi River siphon that would create marsh and/or reduce the rate of marsh loss, restore intermediate and fresh marshes, and increase submerged aquatic vegetation (SAV) cover. The project would create or protect 500 to 750 acres of marsh and help protect the Mississippi River Levee in the vicinity of the project area at a cost of $16 million. Ms. Albertine Kimble with Plaquemines Parish supported the project. Mr. Ned Couret with Coastline Solutions, LLC, asked if the rate of marsh replenishment is equal to the rate of loss and was answered that the siphon and project will reduce the rate of loss, but that only a simple model is used to determine estimated benefits for CWPPRA.

#11 – Mississippi River Reintroduction North of Lac des Allemands. This project was presented by Mr. Ken Teague with EPA. Swamps and marshes in the Barataria Basin have been isolated from the Mississippi River for many years, which historically was their primary source of water, sediments, and nutrients. Swamps are now dependent on local rainfall and flooding caused by wind-driven high coastal water levels. Subsidence is moderate, and because of the lack of sediment input and low swamp productivity, there is an accretion deficit that results in increased swamp flooding. The project would divert 400 to 1,000 cfs of Mississippi River water into the swamps northwest of Lac des Allemands via a siphon at a cost of $9.8 million. Mr. Chris Allen asked if any features will direct outfall to knock down the spoil banks and was answered that if not already included in the project fact sheet, that feature would be added. Mr. John Jurgensen asked if the cost includes a provision to prevent flooding on the highways and was

answered no, but that the project would be pulled before flooding anyone. Mr. Travis Creel added that the project would need weirs in some places. Mr. Quin Kinler asked if the project is up or down river and was answered only downriver of Barataria with a dredge boat canal as the conduit.

#12 – Mississippi River Small Reintroduction (Siphon) and Outfall Management East of Lac des Allemands. This project was presented by Mr. Ken Teague with EPA. Swamps and freshwater marshes in this area have experienced high loss rates resulting in a large area of shallow open water. The project would be a Mississippi River siphon south of Hahnville with 1,000 cfs average discharge. The project would have five siphon pipes discharging into a diversion channel that would be constructed to transport water southeast into the highly degraded swamp/marsh areas east of Lac des Allemands. The project would reduce swamp/marsh loss, create approximately 500 acres of swamp and marsh, and would have water quality benefits by increasing dissolved oxygen concentrations in the receiving area and reducing nutrient loading to the Inner Continental Shelf of the Gulf. The project cost would be $15 million. Mr. John Jurgensen asked if the EPA has prioritized any of the projects it is proposing in this basin and was answered, not at this time. The project received support from Mr. Jody Chenier with St. James Parish, as well as support from St. John's Parish, because it will protect swamp, cypress trees, and upland areas.

#13 – Rebuild East Bank of Empire Waterway. This project was presented by Mr. Kenneth Ragas, Plaquemines Parish landowner and former Region 3 RPT member. The project area has severely eroded to the extent that tidal patterns have changed greatly, accelerating erosion caused by rapid tidal exchange. The project would be a necessary step in rebuilding the inner ecosystem after barrier island restoration is completed. The project will include dredging the Empire Waterway to the required depth to accommodate vessel traffic and placing spoil on the severely eroded east bank of the channel after laying some type of protection. This area can not use rocks or have a large diversion due to oyster fishing in the area. Ms. Albertine Kimble with Plaquemines Parish supported this project.

Nominations were closed for the Barataria Basin.

b. Mr. Creel opened the floor for nominations in the Mississippi River Delta Basin.

#1 – Pass a Loutre Restoration. This project was presented by Mr. James Harris with USFWS. Historically, Pass a Loutre was a major distributary of the Mississippi River and carried sediments that created and maintained marsh. Pass a Loutre is not maintained and over time has silted in, making it shallow, narrow and capable of carrying less freshwater and sediments to the area. In addition, a hopper dredge disposal site located at the head of Pass a Loutre has accelerated infilling of the channel. The project would create approximately 587 acres of marsh with dredged material from construction of a conveyance channel and enhance marsh-building processes in the area by increasing freshwater and sediment into the area. The project cost would be $28 million. Mr. Kenneth Ragas asked why money would be spent in an area where no one lives rather than on hurricane protection and was answered that this area protects Venice and oil and gas infrastructure that supports people upriver. Mr. Ken Teague asked if there are plans to continue disposing material at the head of the pass and was answered yes, but that Venice serves as a sediment trap that could be mined and reused and may not be a problem. Ms. Albertine Kimble with Plaquemines Parish supports the project.

Nominations were closed for the Mississippi River Delta Basin.

c. Mr. Creel opened the floor for nominations in the Breton Sound Basin.

#1 – Terracing and Marsh Creation South of Big Mar. This project was presented by Ms. Angela Trahan with USFWS. Marshes in the project area were severely deteriorated by Hurricanes Betsy and Katrina. The project would create terraces in the shallow open water areas within the Caernarvon Diversion outfall area to reduce wave fetch and promote conditions conducive to growth of marsh and SAV. The project would construct 65,000 linear feet of terraces with *in-situ* material to reduce fetch and turbidity and capture suspended sediment. Sediments would be hydraulically dredged from Lake Lery and pumped via pipeline to create approximately 388 acres of marsh in the project area. The project would cost $15 to 20 million. Ms. Albertine Kimble with Plaquemines Parish supported the project, stating that terraces work. Mr. Patrick Williams asked where the borrow material would come from and was answered Lake Lery, with Big Mar as an alternate option.

#2 – Lake Lery Shoreline Marsh Creation. This project was presented by Ms. Kimberly Clements with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The marshes forming the northern and eastern shoreline of Lake Lery were severely deteriorated by Hurricane Katrina. Unless these marshes are rebuilt, the lake will likely continue to grow and will extend to Bayou Terre aux Boeufs. The project would create/nourish 540 acres of marsh through dedicated dredging and vegetative plantings. The target elevation for the marsh creation area will correspond with the elevation of healthy marsh in the surrounding area. An earthen berm will be constructed along approximately 16,600 feet of deteriorated lake shoreline. Temporary containment dikes will be constructed and gapped within three years of construction to allow greater tidal exchange and estuarine organism access. The project would cost $27 million.

#3 – 40-Arpent Canal Outfall Management. This project was presented by Mr. Loland Broussard with NRCS. Wetlands surrounding Big Mar/Lake Lery were heavily damaged due to Hurricane Katrina in 2005. Most damaged areas resulted in large, shallow open water ponds, as well as fragmented shorelines along the perimeter of Lake Lery. Since the storm, marshes east of Big Mar and north of Lake Lery have shown little to no recovery which could result in the expansion of Lake Lery and further loss of interior emergent vegetation. Those marshes have been deteriorating from increased salinities and a lack of freshwater from the diversion. After Hurricane Katrina, the canals that transport limited amounts of freshwater eastward have been completely blocked with debris to a point where there is virtually no freshwater reaching those marshes. The USACE has received congressional supplemental funding to address these problems; however, due to a lack of sufficient funds, only partial remediation measures can be implemented. The project goals include incorporating outfall management features south of the 40-Arpent Canal to further enhance the distribution of freshwater, sediment and nutrients provided by the USACE 4th Supplemental Project and to provide benefits to approximately 7,000 acres of fresh/intermediate marsh and shallow open water areas. The project would clean out distributary channels and install diversion structures in strategic locations to allow river water to flow into targeted marshes, would create 100 acres of emergent marsh, construct a series of earthen terraces in large open water areas to trap sediment, reduce fetch, prevent channelization of diverted river water, restore the southern shoreline of Lake Lery, and plant the lakeward edge. Mr. Kevin Roy asked if the USACE project is a done deal and what diversion structures are

planned in the pipeline canal and was answered that the current schedule shows a February timeline for construction, but more realistically would be June or July, and that it may be as simple as enlarging the cut to allow more volume, but that the water control structures are tricky because there is a pipeline in the canal. Mr. Patrick Williams asked about the length of terraces and project cost and was answered that the linear footage would be about 15,000 to 20,000 and the project cost would be in the $15 million range. Ms. Albertine Kimble with Plaquemines Parish supported the project, stating that any type of protection of Plaquemines East Bank is good even if the project is located in another parish. Mr. Loland Broussard added that the Lake Lery area is a critical area of need and that usually if freshwater is removed from one system, it hurts another area, but in this case, others have agreed to increase the diversion to compensate for water losses.

#4 – Monsecour Siphon. This project was presented by Mr. Ken Teague with EPA. The area north of Phoenix, Louisiana, in Plaquemines Parish has been disconnected from the Mississippi River since levees were constructed in the early 20th century. The lack of overbank flooding/crevasses ensures that wetlands do not have sufficient sediment input to maintain elevation against subsidence. In addition, drainage canals and oil and gas canals and associated spoil banks probably create some undesirable impoundment and tidal scour/saltwater intrusion in the area. The project would involve construction of a siphon from the Mississippi River with a 2,000 cfs maximum capacity that would introduce sediments and nutrients into the project area, thereby protecting 990 acres of intermediate marsh and reducing wetland loss rates. The project would cost $10 to 15 million. Ms. Albertine Kimble with Plaquemines Parish expressed support for the project. Mr. Paul Kaspar stated that there has been concern in the past about overlap with the White Ditch project, but that this project would supplement the other project and that the environmental analysis from this project could be used for the other project as well. Mr. Nathan Dayan pointed out that this project location is almost the same as the Louisiana Coastal Area (LCA) White Ditch project, but that the LCA project is not near construction.

#5 – White Ditch Marsh Creation Sediment Delivery. This project was presented by Mr. Ken Teague with EPA. Marshes east of the Mississippi River in the vicinity of Belair, Louisiana, in Plaquemines Parish were historically intermediate to brackish. They were completely converted to brackish when the early development of New Orleans cut off the freshwater that had been supplied by overbank flooding of the Mississippi River. Failed agricultural impoundments converted much of the area to open water. A siphon built in 1963 to bring freshwater and sediment to the marshes became nonfunctional, but has recently been partially rehabilitated. The project would create/nourish 380 acres of intermediate marsh using dredged sediments from the Mississippi River. The project would cost $19.5 million. Ms. Albertine Kimble with Plaquemines Parish expressed support for the project because it would protect infrastructure in the area from hurricane effects. Mr. John Jurgensen asked about the marsh acreage on the fact sheet and was answered that it takes into account future land loss.

#6 – Wills Point Marsh Creation. This project was presented by Mr. Scott Wandell with USACE. The project area is located in Plaquemines Parish on the east bank of the Mississippi River, northeast of Wills Point, and adjacent to the local 40-Arpent levee. The area lies between the natural ridge of River aux Chenes and Tigers Ridge. The area is mostly shallow water that appeared when marsh was lost between 1958 and 1974. Although Hurricane Katrina did not cause a great deal of damage in the project area, adjacent areas were severely affected, and another hurricane could further open the area and impact the two natural

ridges. The project would restore 630 acres of marsh and provide additional protection to the levee and the ridges by mining 5.8 million cubic yards of material from the bar at Wills Point on the Mississippi River. The project would cost $28 million. Support for the project was expressed by Ms. Albertine Kimble with Plaquemines Parish since it would help protect the back levee.

Nominations were closed for the Breton Sound Basin.

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

#1 – Coastal Wetland Restoration by Backfilling Canals. This project was presented by Mr. Ken Teague with EPA. Canal dredging has contributed significantly to land loss in Louisiana, yet little has been done to reverse the damage caused by canals and spoil banks. Canals have turned marsh and swamps to open water, and spoil banks have replaced wetlands with an upland environment. Spoil banks also restrict water flow above and below the wetland surface and cause increased periods of flooding and drying of the wetlands behind them. Increased flooding can lead to stress and mortality of wetland vegetation, while drying the soil increases subsidence through oxidation of organic matter. These hydrologic alterations also limit sediment deposition in the adjacent wetlands. In addition to these effects, canals can also facilitate saltwater intrusion into wetlands, and spoil banks retain saltwater on the landscape after storm surges. This project would backfill a system of oil and gas, pipeline, and residential development canals (estimated 16 miles) at strategic locations in Jean Lafitte National Historical Park and Preserve and other locations. Backfilling will involve removing the existing spoil banks and disposing of the dredged material in the canals. While there is not sufficient sediment volume remaining in the spoil banks to completely fill the canals to adjacent wetland elevation, typically there is enough to significantly shallow the canals. In similar scenarios, over time some addition to the target elevation is observed. Those areas returned to adjacent wetland elevation rapidly re-vegetate without the need for planting. In addition, removal of the spoil banks will restore natural hydrology across the wetland surface over a larger area in the vicinity of the canals. The project goals include converting approximately 184 acres of upland spoil bank habitat and 40 acres of open water to emergent wetlands, beginning to convert deepwater habitat in 199 acres of canals to shallow water habitat, increasing SAV cover, and improving hydrology. The project cost would be $9 million. The current work at Jean Lafitte is considered a key component to this coast-wide project, but the other two-thirds of the project would take place elsewhere in the State. Mr. Dusty Pate with the National Park Service presented additional information about a canal backfilling project at the Jean Lafitte National Historic Park at the Barataria Preserve. They have conducted the backfilling project over five linear miles of canals and use a double plug system to keep sediment in, but allow water flow out. The project has used marsh excavators to remove the woody vegetation from the top of the banks and then move the spoil material into the canal, where the area re-vegetates very quickly. Mr. Kevin Roy asked if they have used the same equipment for all sizes of trees and was answered that while saving some of the larger trees, a short boom has been used for larger sized trees and land based equipment has been used in areas with very tall spoil banks.

Nominations were closed for coast-wide projects.

e. Mr. Creel opened the floor for nominations for demonstration projects. Demonstration projects were presented for Regions 1 and 2 together.

#2 – Bioengineering Solutions Using Fascines and Coir Mattresses. This project was introduced by Mr. Doug Smith with Bioengineering Group. This demonstration project would use brush fascines, coir fascines, and mattresses for multiple coastal restoration applications. The coir fabric is made of shredded coconut husk which takes a long time to biodegrade and is a woody fiber that holds moisture. Brush mattresses are comprised of dormant plant material and the coir mattresses are grown with plants in a nursery. The fascines and mattresses can be used to create a base for vegetation to grow. The cost per linear foot is approximately $200 to $300 and this project is proposing to place $2 million worth of material over a one-mile shoreline. Bioengineering Group has been in discussions with Jean Lafitte Park and Lafourche and Plaquemines Parishes for use of this material.

#3 – Habitat Enhancements Through Vegetation Plantings Using Gulf Saver Bags. This project was presented by Mr. Eldon Blancher with Sustainable Ecosystem Restoration, LLC. Louisiana's coastal marsh continues to erode at a rate of 50 acres/day. The project would restore 500 acres of critical wetland areas on the outer borders of the Pass a Loutre Wildlife Management Area in Venice, Louisiana with "Gulf Saver" bags. The bags will be planted with a diverse selection of native marsh grasses and deployed by community volunteers. Black Mangrove will be planted in bags in specific sites where an increase in nesting areas and wildlife habitats for birds and greater shoreline protection is needed. The cost is currently unknown. Mr. Travis Creel clarified that this may be a site specific project rather than a demonstration project. Mr. John Jurgensen asked what part of the project was being submitted under CWPPRA and if enough bags have been deployed so that this would not be considered a demonstration project and was answered that the goal is to impact 500 total acres and that four deployments will be completed by the end of the year. Mr. Chris Allen asked if there were results on the bag effectiveness yet and was answered that they are trying to establish a baseline with the current work. Ms. Melanie Goodman asked if the bag effectiveness is being compared to other planting methods and costs and was answered that this approach is being compared to a plugging approach. Mr. Kenneth Ragas stated that he does not support this project for CWPPRA. Ms. Albertine Kimble with Plaquemines Parish supported the project.

#4 – Autoclaved Aerated Concrete for the Coastline. This project was introduced by Mr. Ned Couret with Coastline Solutions, LLC. The demonstration material is an autoclave aerated concrete which weighs 20% that of regular concrete. Applications could include lightweight interior material with armoring or elevating levees for hurricane protection. The material is produced offsite into hollow boxes which can vary from two to ten feet in height and can be dropped into place. The material is a green alternative, easy to work with in the field, and can be placed at a rate of 300 feet/day. The boxes are designed to create a concentrated load on the inside, thus giving an elevated wall of protection while compressing the soil underneath and giving a defined area of control. The boxes were recently used in Terrebonne Parish as a base for terraces. The cost is $1.5 million per mile and the cost to produce is $103 to $106 per cubic meter. Mr. John Jurgensen asked how the material stands up under water and was answered it holds up well because it is concrete. Mr. John Jurgensen added that this project may not be appropriate for CWPPRA because it is not really a flood protection program and was answered that the boxes could be used as a more stable component to sand berms on barrier islands or armoring for coastline protection. Mr. Kevin Roy asked how the material could be applied as a demonstration and was answered that it could be used as a shoreline protection feature or to build terraces.

#5 –Deltalok. This project was introduced by Ms. Bari Blanks with Environmental Management Systems. This demonstration project would use non-woven geotextile bags filled with sand or other material to create an engineered wall with the properties of a hard material such as rock or concrete, but which is still flexible like a soft material. The bags are designed to be seeded with local vegetation. The Louisiana State University (LSU) Agricultural Center and the U.S. Department of Agriculture (USDA) have confirmed that vegetation can proliferate with this system. Indigenous grass will grow around and through the bags to create additional strength. This method has been used on interior shorelines, canals, etc., but would be new to coastal shoreline restoration. Ms. Vickie Duffourc asked about the cost and was answered approximately $650,000 per mile.

#7 – Alternative to Manual Planting. This project was introduced by Mr. Nathan Dayan with USACE. This demonstration project would add rhizomes to hopper dredge pipes to induce plant growth. Mr. Ken Teague asked how this would be timed so as to not get the rhizomes buried on the bottom and where the rhizomes would come from and was answered that it would only occur during the last 15 to 30 minutes of the dredge cycle and that the rhizomes could come from growing plants or seeds. Mr. Brian Fortson stated that St. Tammany Parish recently had a project where Hurricane Katrina debris was used for marsh restoration and rhizomes were spread over a large portion of the project and in these areas, there was 100% cover by the time the dredge pipe was removed. He added that they found moving rhizomes with the dredge material will vegetate the placement area if the rhizomes can be placed in the viable layer.

Nominations were closed for demonstration projects.

5. Agenda Item #5, Announcement of Coast-Wide Voting Meeting. Mr. Creel reiterated that the coast-wide voting meeting will be held on Feb. 22nd.

6. Agenda Item #6, Announcement of Upcoming PPL 21, Task Force, Technical Committee and Other Meetings. Mr. Creel reviewed upcoming CWPPRA meetings and indicated that all meeting notices are posted on the CWPPRA website.

7. Agenda Item #7, Adjourn. The meeting adjourned at 12:30 pm.

CEMVN-PM-C (10-1-7a) 26 Jan 11

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 3, Morgan City, LA, 26 Jan 11, 9:00 am

1. Agenda Item #1, Welcome and Introductions. Mr. Ron Boustany, RPT Region 3 Leader, opened the meeting, welcomed the attendees, and had the attendees introduce themselves. He recognized representatives from the parishes including Mr. Sherrill Sagrera with Vermilion Parish, Mr. Paul Naquin, President of St. Mary Parish, Mr. Nic Matherne with Lafourche Parish, and Ms. Vicki Summer and Mr. James Miller with Terrebonne Parish.

2. Agenda Item #2, PPL 21 Selection Process Brief Overview and Ground Rules for PPL 21 Nomination Meeting. Mr. Boustany provided 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 21st Priority Project List (PPL), as well as nominations for coast-wide and demonstration projects.

Anyone can propose a project for the region. Proposals should be consistent with the Coast 2050 strategies. 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, but splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Public comments on project proposals will be accepted orally during the meeting and in writing by February 10, 2011.

A coast-wide voting meeting will be held on February 22, 2011, in the Louisiana Room at the Louisiana Department of Wildlife and Fisheries in Baton Rouge. The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain basins; two projects in the Breton Sound, Teche-Vermilion, Mermentau, Calcasieu-Sabine, and Mississippi River Delta basins; and one project in the Atchafalaya Basin. If only one project is nominated at the RPT meeting for the Mississippi River Delta Basin, three nominees will be assigned to the Breton Sound Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select six demonstration projects for further evaluation.

In covering the ground rules for the meeting, Mr. Boustany requested that each proposer submit a fact sheet and give their name, the project name, and describe the location, problem, proposed solution, and benefits of the presented project. Public comments on the proposals should be as constructive as possible.

3. Agenda Item # 3, Brief Overview of Coast 2050 Regional Strategies. Mr. Boustany indicated that the proposals should be consistent with the Coast 2050 Regional Ecosystem or Coast-Wide Strategies and briefly reviewed the strategies for Region 3 under the headings of restore swamps; restore and sustain marshes; restore and protect bay, lake, and Gulf shorelines; and resolve

Vermilion-Cote Blanche Bays salinity and turbidity. The specifics under each heading can be seen in the PowerPoint presentation for the Region 3 meeting on the CWPPRA website.

4. Agenda Item #4, PPL 21 Project Nominations.

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

#1 – Cote Blanche Freshwater & Sediment Introduction & Shoreline Protection. This project was presented by Ms. Cindy Steyer with the Natural Resources Conservation Service (NRCS). Substantial loss occurred in the project area due primarily to significant increases in hydrologic energy and marine impacts within highly vulnerable, organic marsh following oil and gas canal installation. The TV-4 project implementation reduced water level variability and the rate of marsh loss, and is also promoting the accretion of sediment entering the interior from the adjacent bays. Hurricanes Lili and Rita caused severe impacts along with direct removal of more than 1,800 acres of emergent marsh within the project area. Significant quantities of freshwater and sediment are available from the Gulf Intracoastal Waterway (GIWW), but only a small portion currently reaches the adjacent interior marshes for a number of reasons. The targeted Marone Point shoreline experienced historical erosion rates that varied from nine to 20 feet/year. If left unchecked, the rapidly eroding shoreline along East Cote Blanche Bay will lead to a conversion of the highly organic interior to open water. The project goals are to tap the freshwater and sediment flow available in the GIWW to cease emergent marsh loss, promote land building, and to halt and/or reverse shoreline erosion. The project would construct a total of 37,043 linear feet of flow improvements along various reaches of existing channels and install a structural measure to provide a net flow increase of 930 cubic feet per second (cfs) diverted from the GIWW. The freshwater and sediment input would be distributed through multiple avenues to optimize flow delivery to isolated damaged areas. Project features also include 27,150 linear feet of shoreline protection along the northern shoreline of East Cote Blanche Bay. The project would cost $33 million. Mr. Ken Teague asked if this project could be combined with the coast-wide project to backfill canals and it was agreed that the projects could potentially be combined.

#2 – Cole's Bayou Marsh Creation and Restoration. This project was presented by Dr. John Foret with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The project is located on the eastern bank of the Freshwater Bayou Canal in the vicinity of Schooner Bayou and to the west of Little Vermilion Bay. Marshes in this area are subject to losses from shoreline erosion, subsidence/sediment deficit, and interior ponding. Shoreline erosion along the Freshwater Bayou Canal has resulted in direct wetland loss as the canal has widened to 800 feet from an authorized width of less than 200 feet. In addition to these direct losses, significant interior marsh loss has resulted from saltwater intrusion and hydrologic changes associated with increasing tidal influence. As hydrology within this area has been modified, habitats have shifted to more of a flotant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Erosion of the eastern bankline of Freshwater Bayou has resulted in formation of two breaches, allowing boat wakes and hydrologic action to adversely affect the interior marsh east of the canal. The project would create 345 acres of intermediate marsh in open water areas through dedicated dredging from Vermilion Bay. Approximately 30,000 feet of terraces would be constructed in shallow open water areas to reduce pond enlargement. Two 300-foot-long rock dikes would be constructed at the existing breaches. Flap-gated culverts would be replaced/installed in the

southern portion of the project area to provide drainage and encourage water intake from the north. The project would cost $22 million. Mr. John Jurgensen asked about the State and landowner stance on the project since a past project to the south was under consideration for de-authorization for navigation issues and was answered that those parties met earlier this week and are moving toward supporting the project. Mr. Chris Allen added that it seems there will be support on this project from the State and probably support on the older project. Mr. Harold Schoeffler supported this concept and added that re-establishing the natural bayou system and hydrologic features is critical. Mr. Randy Moertle supported this project and added that there would be no landowner issues since the landowners have met and are in support. Mr. John Jurgensen asked if they have considered having the other side included and received a positive answer.

#3 – Southeast Marsh Island Marsh Creation and Nourishment. This project was presented by Mr. Paul Kaspar with the Environmental Protection Agency (EPA). Areas of emergent marsh in the Marsh Island interior have been converted to open water, primarily due to hurricane activity and subsidence, and the site is projected to continue to lose habitat through 2050. Areas targeted by this project are those with the greatest historical land loss and are proximal to East Cote Blanche Bay. The project will create and restore approximately 1,300 acres of brackish marsh habitat by filling the open water and deteriorated areas of the interior marsh primarily formed by hurricane damage and to nourish the surrounding marsh. The marsh nourishment will be completed with minimal or limited containment to allow finer material to flow through the interior marsh areas and provide nourishment. Borrow material will be hydraulically dredged from the State offshore area to limit water quality impacts and minimize impacts to potential oyster beds. The project would cost $25 million.

Nominations were closed for the Teche-Vermilion Basin.

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

#1 – West Wax Lake Wetlands Diversion. This project was presented by Ms. Karen Wicker with Coastal Environments, Inc. The project area is the west side of the Wax Lake Wetlands in St. Mary Parish. Three Wax Lake Outlet bayous (Hog, Leopard, and Blue) are becoming blocked by the development of the outlet's west bank natural levee, which is reducing the diversion of freshwater, nutrients, and sediment to the West Wax Lake wetlands east of Bayou Sale and causing marsh loss. The project would restore and maintain the hydrologic connection between the Wax Lake outlet and distributary channels to sustain hydrologic processes and wetlands. The project is designed to restore and maintain the bayou openings by dredging to create 64 acres of freshwater wetlands through deposition of dredged material from the channels and indirectly create 55 acres of freshwater wetlands through accretion in access canals and shallow ponds adjacent to the channel. Mr. Harold Schoeffler asked about the bayou to the east and about sand bars forming to the west and was answered that further up, there are bayous coming off of the GIWW, but that in this area there is a considerable amount of freshwater and sediment and that if the area is not maintained, it will be subject to tidal influx from East Cote Blanche Bay.

#2 – Reef Restoration Between Point Au Fer and East Marsh Island. This project was presented by Dr. Nick Accardo. The project would use coal mining material to re-build the low tide breakwater reef and barrier islands from Point Au Fer to Marsh Island to stop storm surges. The project also

proposes to build barrier islands in this area back to the 1853 standard by using a Dutch ship for pumping large quantities of offshore material into the project area. The ship could re-construct the barrier islands in a 12 to 18 month timeframe. Mr. Harold Schoeffler strongly supported the concept of rebuilding the reefs, adding that in the late 1980's a hydrologic expert commented that removing the reef in this area was a huge mistake, increasing storm surge and flooding. He suggested that the break at Point Au Fer Island is large and needs to be closed. He also asked if the State is looking at a plan for this and was answered that the cost would be $100's of millions and the project would be a massive undertaking. Mr. Ron Boustany pointed out that this is two projects and needs to be further defined as to the reef and barrier island components and defined within the scope of the CWPPRA Program. Mr. John Jurgensen added that in the area discussed, the project would be in the Atchafalaya Basin, but if extended along the coast, the project would become coast-wide.

Nominations were closed for the Atchafalaya Basin.

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

#1 – Lake Decade Marsh Creation and Nourishment. This project was presented by Mr. Patrick Williams with NOAA NMFS. The project would restore lake edge and interior wetlands that have been lost and fragmented. The marsh creation and nourishment areas would maintain delineation of the lake rim if the lake shoreline levees are no longer possible to be maintained. The lake shoreline breaches routinely even with efforts by the landowner. Generally, a breach or two develop in between the annual maintenance efforts to re-establish the integrity of the shoreline, but the area will not last more than two years without breaching. Construction of the South Lake Decade project is set to begin soon and will address some vulnerability of the lake shoreline and will allow for project synergy. This project, which would cost $21.4 million, would create 350 acres and nourish 150 acres of marsh with sediment dredged from Lake Decade and placed in semi- to confined strategic locations along the lake shoreline to enhance and maintain the structural integrity of the lake shorelines. Approximately half of the marsh area created would be planted with appropriate wetland vegetation. Mr. Phil Precht with ConocoPhillips supported the project and offered help. Mr. Tim Allen with Apache Louisiana Minerals LLC added that they may be in a position soon where they can no longer maintain the shoreline to the level that a Federal project could.

#2 – Wine Island Barrier Island Restoration. This project was presented by Mr. Cassidy Lejeune with NRCS. Wine Island was re-created in 1991 from subaqueous shoal to 25 to 35 acres, but the area has had significant erosion. A second attempt to nourish the island was made in 2007, but the material did not stay due to high wave energy. The current footprint is about five acres. The Island used to support 15,000 to 20,000 nesting birds, but habitat has been lost over time, decreasing the number of nests. The project would expand the footprint of Wine Island to include the shallow shoal to the southwest. The project would include a beach area, dune creation, approximately 250 acres of marsh creation, and a breakwater component. The project would provide equivalent quality wildlife habitat to nearby islands and would be at an elevation of six to seven feet, high enough to support nesting birds. The project would cost $15 to $20 million and would fall within the historical boundary of Wine Island. Dr. Jenneke Visser asked if there were any plans to use the remaining rocks from the original project and was answered that the original rocks will be buried by sand due to the larger size of the new project in comparison to the original project.

#3 – Timbalier Island Shoreline Sediment Nourishment. This project was presented by Mr. Paul Kaspar with EPA. Timbalier Island is part of the Lafourche Delta headland and barrier island system, one of the rapidly deteriorating Louisiana shorelines. Additionally, the pass east of Timbalier Island (Little Pass Timbalier) is moving in a westerly direction. Recent hurricanes have breached the island in the project area. Closure of the breach would help to prevent the pass from shifting west. The project would place dredged material on the back side of the island to create 60 acres of intertidal marsh and to provide a stable platform for the island to migrate landward. Dredged material would also be placed on the front of the island, closing the cut and extending the life of the island by increasing its width. The cost would be $30.5 million. Mr. Ken Teague added that while barrier islands are expensive, they need to be filled in since they represent a terrible risk. Mr. John Jurgensen asked where the original project was, if this project would be an O&M event of the original, what would prevent a future breaching if the original project already breached, and if O&M would be needed in the future. He was answered that the original project is to the south. Mr. Patrick Williams asked if the project has a beach component, while Mr. John Jurgensen added that without a dune feature, the project would be vulnerable. They were answered that the project fact sheet could be amended to add a dune feature to fill the breach. Mr. Patrick Williams pointed out that a breach in the canal is a sign that the island is rotating to a different angle and there is a risk of rotation and separation into two islands. Mr. Tim Allen with Apache Louisiana Minerals LLC suggested including rock features or breakwaters to stabilize against future breaching. Mr. Loland Broussard added that the canal is active and it would help to extend the rocks. Mr. Mark Hester cautioned that rocks do not work well in areas as dynamic as the Louisiana coast because rocks in one area accelerate erosion down drift so that the result is robbing one side to get protection on the other. Mr. Ken Teague clarified that the EPA proposal is for sand nourishment and marsh creation, not rock. Mr. Loland Broussard added that reconnaissance during the oil spill shows that no dune remains on the island, that the highest point of the island is at three to four feet, with the cut 12 to 15 feet deep and widening near the bay.

#4 – East Island Beach and Backbarrier Marsh Restoration. This project was presented by Mr. Ken Teague with EPA. East/Trinity Island is part of the Isles Denieres barrier island chain, one of the most rapidly deteriorating barrier shorelines in the U.S. The islands ensure that the estuaries behind them are low energy environments capable of supporting wetlands and emerging deltas where Mississippi River water is reintroduced. The islands lack a stable sub-aerial backbarrier platform upon which to migrate landward. The project would place dredged material on the back side of the island to create 232 acres of vegetated intertidal marsh and provide a backbarrier platform to enable successful island migration. Dredged material would also be placed on the front of the island, extending the life of the island by increasing its width, providing additional sand for redistribution by currents and waves along the entire island's Gulf beach, and protecting the Terrebonne estuary and vegetated wetlands against direct exposure to the Gulf. The cost would be $15 to $20 million. Mr. John Jurgensen asked about the eastern end of the island and was answered that no work may happen on the east end because it is so dynamic and too sacrificial of an investment even though the project includes that area now. Mr. John Jurgensen asked if the material must be sand or if a different material could be used and was answered that pure sand is not needed and the material could be a mixture that would optimize cost and ecological purposes. Mr. Patrick Williams asked if the east acres would be placed somewhere else and was answered that the overall project acres would be maintained.

#5 – Marsh Nourishment on Point Au Fer Island by Beneficial Use of Dredged Material. This project was presented by Mr. Ken Teague with EPA. Brackish marshes continue to be lost over time at Point Au Fer Island, presumably due to insufficient accretion, oil and gas canal effects, and semi-impoundment marsh management. The project would nourish 10,000 acres of existing brackish marsh on the island by beneficially using dredged material from the Atchafalaya navigation channel to the west in Atchafalaya Bay and in the near-shore Gulf of Mexico. Two to four million cubic yards of dredged material would be discharged across the marsh surface without containment. The project would cost $20 to $40 million and would nourish existing degraded marsh and temporarily increase accretion on the marsh and reduce marsh loss rates. Mr. Harold Schoeffler stated that he would like to see the breach at Point Au Fer closed, possibly using the sand bars that have formed in the area to re-establish the peninsula. Mr. Ronny Paille responded that such a project was looked at years ago, but would be very expensive.

#6 – Bay Raccourci Shoreline Restoration and Marsh Creation. This project was presented by Mr. Kevin Roy with the U.S. Fish and Wildlife Service (USFWS). The project is located between Lake Mechant and Bayou DeCade. Salinity spikes from Lake Mechant have directly contributed to the loss and/or conversion of much of the historically intermediate marshes to low-salinity brackish marshes north of Lake Mechant. Much of the shoreline has succumbed to erosion and much of the interior emergent marshes have converted to open water, increasing fetch and accelerating interior marsh loss. The zone of intermediate marsh in this area is very narrow and is located directly north of Lake Mechant. This transition zone between brackish marsh and the very productive fresh marshes is a very unique zone that is becoming increasingly scarce in coastal Louisiana. The recently constructed CWPPRA North Lake Mechant Project will help retain the transition zone by strengthening critical marshes directly north of the lake. It will also close some key water exchange points to further slow the movement of high salinity waters north. The largest exchange point between Lake Mechant and the lower saline marshes north of the lake is Bayou Raccourci. Currently, water from the lake enters Bayou Raccourci, continuing north until it empties into Bay Raccourci. High salinity water within Bay Raccourci can flow unimpeded into the lower saline marshes in any direction. The project would help reduce the effects of that water exchange point by restoring the integrity of the Bay Raccourci shoreline through marsh creation and construction of an earthen lakeshore berm. The project would restore 25,500 linear feet of Bay Raccourci shoreline by creating an earthen berm and create 430 acres of intermediate/low salinity brackish marsh by hydraulically dredging material from either Lake Decade or Lake Mechant. The cost would be $17 million. Mr. Patrick Williams asked about the low cost estimate and was answered that the cost estimate may be low and would more likely be around $20 million. Mr. Phil Precht with ConocoPhillips and Mr. Tim Allen with Apache Louisiana Minerals LLC supported the project.

#7 – Lake Tambour Marsh Creation. This project was presented by Mr. Kevin Roy with USFWS. Marshes north of Terrebonne Bay have experienced some of the highest erosion rates along coastal Louisiana, caused by subsidence, lack of sediment input, and a limited supply of fresh water coupled with past dredging of oil and gas canals. As these marshes convert to shallow open water, the tidal prism will increase which will in turn increase the frequency and duration of tides north of Terrebonne Bay. This increasing tidal prism is likely to increase the future interior marsh loss rates for marshes north of Terrebonne Bay. These marshes are not only important for habitat value, but also serve to slow the progress of highly saline waters that threaten the lower salinity marshes north and west of Madison Bay and in Lake Boudreaux. The

continued loss of these marshes has directly contributed to the ongoing flooding problems of many communities along Bayou Terrebonne, including the town of Montegut. The project, which would cost $17.5 million, consists of filling approximately 482 acres of shallow open water with material hydraulically dredged from Terrebonne Bay/Lake Barre, which would reduce water exchange between Terrebonne Bay and interior marshes and reduce shoreline erosion along 12,000 feet of the northern shoreline of Terrebonne Bay and major bayous. Containment dikes would be constructed around each marsh creation site. Containment dikes located adjacent to naturally occurring marshes or small interior ponds would be sufficiently gapped within three years of construction to allow tidal exchange and estuarine organism access. This project would be the second phase of a comprehensive plan to protect the northern shoreline of Terrebonne Bay and the interior marshes from further erosion and reduce the tidal prism.

#8 – Lake Boudreaux Marsh Creation and Shoreline Protection. This project was presented by Mr. Ronny Paille with USFWS. During summer and fall, high salinity water enters Lake Boudreaux via Robinson and Boudreaux Canals impacting the low salinity marshes north of Lake Boudreaux. This high salinity water and lack of sediment and freshwater inputs, coupled with the historical dredging of oil and gas canals has directly contributed to the loss and/or conversion of much of the historically fresh/intermediate marshes to brackish marsh within the basin. The zone of intermediate marsh is very narrow and is located directly north of the lake. This transition zone between brackish and fresh marsh is a very unique zone that is becoming increasingly scarce along coastal Louisiana. The Lake Boudreaux shorelines have high erosion rates, some as high as 60 feet/year, thus several projects have been constructed to protect some of these shorelines. Within the project area, several of those shoreline protection and marsh creation projects have been completed and/or will be completed shortly. However, several stretches of vulnerable shoreline and areas of shallow open water or highly deteriorated marsh adjacent to the shoreline still exist. The project would include 9,900 linear feet of revetment/dike in three sections along the western, northern, and eastern shorelines of Lake Boudreaux which would provide protection for 131 acres of marsh along vulnerable shoreline. This would effectively complete the restoration and protection of that shoreline by physically tying three projects into one continuous project. Two hundred acres of marsh would be created adjacent to the proposed shoreline protection, as well as behind existing shoreline protection. Sediment will be hydraulically dredged and pumped into the shallow water marsh creation areas. Containment dikes will be constructed around the marsh creation sites. The containment dikes will be degraded to the marsh platform elevation and gapped, hydraulically connecting the created marsh with adjacent open water. The project would cost $10.4 million. Mr. Ron Boustany asked about the marsh cells and was answered that they will be filled in with material from another project. Mr. Phil Precht with ConocoPhillips and Mr. Tim Allen with Apache Louisiana Minerals LLC supported the project.

#9 – Caillou Lake Land Bridge Restoration. This project was presented by Ms. Kimberly Clements with NOAA NMFS. The integrity of the Caillou Lake Land Bridge has been impacted by storm activity and oil/gas canal development. This landscape feature helps maintain a salt water gradient between Caillou Lake and the Gulf of Mexico. Expansion of Bayou Grand Caillou/Grand Bayou De Large has increased salt water intrusion from the Gulf of Mexico into marshes north of the remaining landbridge. The project would create/nourish 300 acres of marsh through dedicated dredging and vegetative plantings, restore 15,000 linear feet of Bayou Grand Caillou bank line, and restore/stabilize two miles of Caillou Lake south shoreline utilizing artificial oyster reef. The target elevation of the creation area will correspond with that of the

surrounding healthy marsh. Temporary containment dikes will be constructed *in situ* around the marsh creation/nourishment area and will be gapped within three years of construction for greater tidal exchange and estuarine organism access. One of the three treatments utilized from the Terrebonne Bay demonstration project would be evaluated and utilized based on shoreline conditions. The project would cost $40-45 million. Mr. Phil Precht with ConocoPhillips offered to work with the project sponsors.

#10 – North Catfish Lake Rim Restoration Project. This project was presented by Mr. Ron Boustany with NRCS. The project area, on the northeastern shoreline of Catfish Lake, has experienced an average erosion rate of approximately 9.8 feet/year with some areas losing as much as 40 feet/year. Interior marsh loss along the lake rim has also formed a large pond on the east side of the lake shoreline that has breached and threatens to greatly accelerate wetland loss in the area. The project will create 146 acres and nourish 167 acres of marsh along the northeastern lake rim of Catfish Lake using a small dredge. The small dredge approach will be used to limit the amount of borrow volume required and to reestablish a healthy and stable lake rim marsh community. The project will also reduce shoreline loss rates by half, resulting in an additional 45 acres of benefit. The project would cost $6.7 million. Mr. Chris Allen asked what amount of material would be needed and was answered perhaps half a million cubic yards. Mr. Nic Matherne with Lafourche Parish supported the project and pointed out that there is concern with taking material from inside the system to rebuild in the system, but that Lafourche Parish is not near a river so material needs to come from other sources. Mr. Ron Boustany supported using the small dredge as a creative solution. Mr. Phil Precht with ConocoPhillips supported the project and added that vegetation is growing well in areas where they have used this method.

#11 – South East Bayou Terrebonne Marsh Creation. This project was presented by Mr. Ron Boustany with NRCS. The wetlands in Terrebonne Basin were historically nourished by the freshwater, sediment, and nutrients delivered by the Mississippi River and its many distributary channels. Following the creation of levees along the lower river for flood control and navigation, and numerous oil and gas canals, these inputs ceased, causing wetland losses. As the marshes break up and tidal channels expand to interior marshes, saltwater intrusion penetrates deep into fresh areas and continues to degrade marshes. Without action, Lake Barre and Bayou Terrebonne will coalesce resulting in more direct transmission of saline water deep into fresh areas. The project would cost $19.4 million and would create and/or nourish 472 acres of emergent brackish marsh using sediment hydraulically pumped from Terrebonne Bay. During pumping, the lake-front side of the dikes will be armored with revetment for protection, but will be degraded to the current platform elevation after pumping. Gaps will be made in the containment dike to reestablish tidal connections once pumping has been completed. The new marsh area will be evaluated to determine if vegetative plantings are needed. Funds are budgeted to plant 50% of the created area. Mr. Chris Allen asked where borrow material would come from and was answered that it would come from the Terrebonne Bay area, which is far from the project site, but would be helping one of the worst areas of wetland loss in the State.

#12 – Carencro Bayou Freshwater Introduction Project. This project was presented by Mr. Ron Boustany with NRCS. The potential to flow water from the Atchafalaya River into the Penchant Basin has increased over the past few decades through the GIWW from the north and west through Bayou Chene and into Bayou Penchant. Although the Pechant Basin Plan project will do much to increase flow to the south through Bayou Copesaw into Brady and Superior Canals, much of the water flowing through Bayou Penchant short-circuits back to the

Atchafalaya Bay area through Palmetto, Plum and Carencro Bayous. Therefore, fresh water rich in nutrients and sediments never reach the marshes of Central Terrebonne where they are most needed. The project would cost $5.5 million and would open critical pathways through existing canals to allow increased flow of riverine water to reach areas where salinity intrusion has devastated previously vibrant fresh and intermediate marshes north of Bayou Decade. The project would capture approximately 10% of current flow capacity and would evaluate various pathways and existing plugs and structures to determine the most advantageous routes to move water into areas of greatest need. Mr. Phil Precht with ConocoPhillips supported the project even though there is no direct effect to their property and added that freshwater diversion is the key to restoration and that this is the most promising project of all those presented today. Mr. Greg Linscombe with Continental Land and Fur supported the project, adding that it takes advantage of existing canals. He asked if the project considers a large bay structure that had been proposed at one time and was answered that the structure was taken out because it would deprive the western part of the marsh to benefit the eastern portion, did not show a large increased benefit in the modeling, would increase water levels when the project is intended to lower water levels, and does not fit the project objectives. Mr. Greg Linscombe added that if water could be brought back in to natural system levels, it would be ideal, but that he would not want to increase water levels. Mr. John Jurgensen pointed out that this project would open things up without placing a structure. Mr. Greg Linscombe supported the project over the Louisiana Coastal Area (LCA) project to dredge the channel. Mr. Tim Allen with Apache Louisiana Minerals LLC supported the project and added that the landowners prefer it over the LCA project, but cautioned that coordination with the landowners will be necessary to avoid impacting high pressure pipelines in the area.

Nominations for the Terrebonne Basin were closed.

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

#1 – Coastal Wetland Restoration by Backfilling Canals. This project was presented by Mr. Ken Teague with EPA. Canal dredging has contributed significantly to land loss in Louisiana, yet little has been done to reverse the damage caused by canals and spoil banks. Canals have turned marsh and swamps to open water, and spoil banks have replaced wetlands with an upland environment. Spoil banks also restrict water flow above and below the wetland surface and cause increased periods of flooding and drying of the wetlands behind them. Increased flooding can lead to stress and mortality of wetland vegetation, while drying the soil increases subsidence through oxidation of organic matter. These hydrologic alterations also limit sediment deposition in the adjacent wetlands. In addition to these effects, canals can also facilitate saltwater intrusion into wetlands, and spoil banks retain saltwater on the landscape after storm surges. This project would backfill a system of oil and gas, pipeline, and residential development canals (estimated 16 miles) at strategic locations in Jean Lafitte National Historical Park and Preserve and other locations. Backfilling will involve removing the existing spoil banks and disposing of the dredged material in the canals. While there is not sufficient sediment volume remaining in the spoil banks to completely fill the canals to adjacent wetland elevation, typically there is enough to significantly shallow the canals. In similar scenarios, over time some addition to the target elevation is observed. Those areas returned to adjacent wetland elevation rapidly re-vegetate without the need for planting. In addition, removal of the spoil banks will restore natural hydrology across the wetland surface over a larger area in the vicinity of the canals. The project goals include converting approximately 184 acres of upland spoil bank habitat and 40 acres of

open water to emergent wetlands, beginning to convert deepwater habitat in 199 acres of canals to shallow water habitat, increasing SAV cover, and improving hydrology. The project cost would be $9 million. The current work at Jean Lafitte is considered a key component to this coast-wide project, but the other two-thirds of the project would take place elsewhere in the State. Mr. Patrick Williams asked if this would be only three areas or if it could be smaller areas in more locations and was answered that that could be possible because only the Jean Lafitte Park location has been identified. Mr. John Jurgensen suggested that the project could be set up with an annual amount to conduct backfilling in various areas and was answered that the intent is only for one-third of the project to happen in Jean Lafitte Park, but that the other two-thirds could happen anywhere. It was asked if this could be done in swamps or only canals and was answered that swamps would work also. Mr. Harold Schoeffler stated that he hopes the project would target more sensitive areas such as the wildlife preserves. Mr. Nic Matherne asked if the Jean Lafitte Park had to look at impacts and was answered that it was uncertain because they did not have to go through the permitting process.

#2 – Re-establish Mouth Bar Features at Navigable Waterways with Inflatable Bladders. Ms. Melanie Goodman with the U.S. Army Corps of Engineers (USACE) explained this project which was introduced at the Region 4 RPT meeting. Historically, there were natural rivers and marsh systems, but this has been destroyed by digging channels. The sand bars at the mouth of rivers have also been dredged for navigation, increasing tidal exchange and causing problems with tidal flux. As a coast-wide strategy to slow down saltwater intrusion and tidal flux, a solution should be placed at bar mouths. This coast-wide project would use inflatable bladders to create plugs in canal or river systems which would allow navigation, but also work as an artificial bar to limit tidal exchange. Dr. Nick Accardo added that something like this is being used in the Venice area.

Nominations were closed for coast-wide projects.

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

#1 – The Wave Robber Wave Suppressor Sediment Collection System. This project was presented by Dr. John Foret with NOAA NMFS. The system is designed to attenuate waves and to collect sediment behind the system. The face of the system is sloped towards the waves, and the system contains holes to let water and sediment pass through. The system acts as a barrier to wave action and tidal surge, thereby protecting shorelines and wetlands. The sediment that passes through is trapped and deposited between the system and the shorelines and wetlands, which then consolidate to form a solid base for the establishment of emergent marsh. The system is transportable and reusable. It has been laboratory tested with promising results. The demonstration project would involve 50 units on three different shorelines (500 linear feet for each shoreline) with two different spacing patterns at each site at a cost of $1 million.

Nominations were closed for demonstration projects.

5. Agenda Item #5, Announcement of Coast-Wide Voting Meeting. Mr. Boustany reiterated that the coast-wide voting meeting would be held on Feb. 22nd.

6. Agenda Item #6, Announcement of Upcoming PPL 21, Task Force, Technical Committee and Other Meetings. Mr. Boustany reviewed upcoming CWPPRA meetings and indicated that all meeting notices are posted on the CWPPRA website.

7. Agenda Item #7, Adjourn. The meeting adjourned at 1:00 pm.

CEMVN-PM-C (10-1-7a) 25 Jan 11

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 4, Abbeville, LA, 25 Jan 11, 1:00 pm

1. Agenda Item #1, Welcome and Introductions. Mr. Darryl Clark with the United States Fish and Wildlife Service (USFWS), RPT Region 4 Leader, opened the meeting, welcomed the attendees, and had the attendees introduce themselves. Mr. Clark thanked the Vermilion Agricultural Center for providing the meeting facilities. He welcomed all of the attendees and recognized representatives from Cameron, Calcasieu, Iberia and Vermilion parishes. Mr. Clark also recognized Dr. Jenneke Visser and Mr. Erick Swenson of the Academic Advisory Committee, Mr. Chris Allen and Mr. Ron Boustany, the Region 1 and 3 team leaders, and Mr. Richard Hartman with the Technical Committee.

2. Agenda Item #2, PPL 21 Selection Process Brief Overview and Ground Rules for PPL 21 Nomination Meeting. Mr. Clark provided 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 21st Priority Project List (PPL), as well as nominations for coast-wide and demonstration projects.

Anyone can propose a project for the region. Proposals should be consistent with the Coast 2050 strategies. 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, but splitting or combining projects should occur during the RPT meeting when the project(s) are first presented. Public comments on project proposals will be accepted orally during the meeting and in writing by February 10, 2011.

A coast-wide voting meeting will be held on February 22, 2011, in the Louisiana Room at the Louisiana Department of Wildlife and Fisheries in Baton Rouge. The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain basins; two projects in the Breton Sound, Teche-Vermilion, Mermentau, Calcasieu-Sabine, and Mississippi River Delta basins; and one project in the Atchafalaya Basin. If only one project is nominated at the RPT meeting for the Mississippi River Delta Basin, three nominees will be assigned to the Breton Sound Basin. If proposed, one coast-wide project may be chosen for inclusion as a nominee. In addition, the RPTs will select six demonstration projects for further evaluation.

In covering the ground rules for the meeting, Mr. Clark requested that each proposer submit a fact sheet and give their name, the project name, and describe the location, problem, proposed solution, and benefits of the presented project. Public comments on the proposals should be as constructive as possible.

3. Agenda Item # 3, Brief Overview of Coast 2050 Regional Strategies. Mr. Clark indicated that the proposals should be consistent with the Coast 2050 Regional Ecosystem or Coast-Wide Strategies and briefly reviewed the strategies for Region 4 under the headings of restore and sustain wetlands; salinity control in Calcasieu-Sabine Basin; restore, protect, and maintain all shorelines; and maintain critical landforms. The specifics under each heading can be seen in the PowerPoint presentation for the Region 4 meeting on the CWPPRA website.

4. Agenda Item #4, PPL 21 Project Nominations.

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

#1 – Cameron Meadows Marsh Creation and Wetland Restoration Project. This project was presented by Dr. John Foret with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). Rapid fluid and gas extraction beginning in 1931 has resulted in a down warping of the marsh surface along distinguished geologic fault lines. In the decades that followed, organic matter filled the low area and an emergent marsh community became established. Physical removal of the marsh during the hurricanes of 2005 and 2008, coupled with low rainfall after Hurricane Ike has resulted in the conversion of intermediate to brackish emergent marsh to approximately 7,000 acres of shallow open water. In addition to these direct losses, significant interior marsh loss has resulted from saltwater intrusion and hydrologic changes associated with storm damage and blocked drainages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in intermediate wetlands. It is unlikely that many of these areas will recover unaided. Project goals include: creating approximately 610 acres of marsh with dredge material and terraces, restoring coastal marsh habitat, and reversing the conversion of wetlands to shallow open water through reestablishment of hydrologic connectivity. The project would construct 350 acres of marsh in two adjacent areas utilizing dredge material from the Gulf of Mexico and 10,000 linear feet of earthen terraces, oriented in such a way as to reduce wind generated wave fetch and create approximately 20 acres of marsh. Also, approximately 50,000 linear feet of drainage canals that have filled in as a result of the hurricanes would be cleaned out, using an existing HD model to assist in the identification of those canal reaches that need clearing to restore the system back to an intermediate/brackish system. Marsh creation areas would be planted with appropriate species of wetland vegetation to reestablish plant productivity. The project would cost $27.7 million. Mr. John Jurgensen asked if landowners in the area have been contacted and was answered that the landowner has pledged $1 million toward Phase II construction if the project is approved.

#2 – Oyster Bayou Restoration. This project was presented by Dr. John Foret with NOAA NMFS. The project would restore marsh to offset levels of historic and ongoing wetland loss. Saltwater intrusion, drought stress, and hurricane induced wetland losses have resulted in interior marsh breakup and coalescence of Oyster Lake with interior water bodies. At a cost of $30 million, this project would create between 300 and 400 acres of saline marsh with sediment mined from offshore and potentially create an undetermined amount of ridge restoration. The disposal of the sediment would be semi-confined and the created elevations would be planted with smooth cordgrass plugs. Although marsh creation via dedicated dredging of sediment would be the primary technique, opportunities exist to include approximately 50,000 linear feet of terracing where warranted. Ridge restoration along Mud Pass is also a potential restoration feature. Lastly, cleanout of sediment along Highway 82 to facilitate any surplus water delivery

from First Bayou to the Oyster Bayou area via the water control structures installed by the Gravity Drainage District could be considered. Further coordination with the landowners would be conducted to ensure no effect on water introduction into Mud Lake. Mr. Rick Hartman asked if there will be clean out in the roadside ditches to mitigate high salinities and Mr. Darryl Clark asked if the project had a freshwater introduction component. They were answered that a different project addresses bringing freshwater into the project area and that currently the water shunts and travels directly down, but that this project would bring water into the area and flush the system.

#3 – Beneficial Use of Dredge Spoil at Sabine National Wildlife Refuge. This project was presented by Dr. John Foret with NOAA NMFS. Historically, wetlands in this portion of Cameron Parish have been significantly altered by hydrologic modifications, saltwater intrusion, and conversion of marsh to open water. Anthropogenic factors such as construction of the Calcasieu Ship Channel and Highway 27 have caused significant hydrologic changes, contributing to weakening of the wetland plant community, such that the community cannot respond to increasing salinities and flood duration. The conversion of the wetlands to open water also occurred during increased tidal action (i.e. tropical events) and wetland vegetation was physically removed, leaving open water areas. Salinity levels and flood duration have been improved with time, however water depths are not conducive for the reestablishment of emergent vegetation, and submerged aquatic vegetation (SAV) habitat is limited by wave action within the large, open water area. The project would create and/or nourish approximately 550 acres of emergent brackish marsh and 10,000 linear feet of tidal creeks using sediment hydraulically pumped from the upland disposal areas along the Calcasieu Ship Channel. Containment dikes will be constructed around the marsh creation area to keep material on site during pumping and the existing Hog Island Gully channel pipeline corridor and Highway 27 crossing will be utilized. Once pumping is completed, the dikes will be degraded to current platform elevation and gaps will be made, hydraulically connecting the constructed tidal creeks to the adjacent water. Additionally, the newly constructed marsh will be assessed to determine if vegetative plantings will be necessary. Funds are budgeted to plant 50% of the created marsh acres. The project will provide direct protection to Highway 27, the region's only northward hurricane evacuation route. The project would cost $22.5 million. Mr. John Jurgensen asked if using an upland site would encourage the U.S. Army Corps of Engineers (USACE) to use upland more in the future and was answered that the areas highlighted are owned by USFWS so that may or may not happen. Mr. Charles Broussard with Vermilion Parish suggested comparing the aerials from 60 years ago to now to visualize how the land has become open water and agreed that the dredging in the area has modified the hydraulics. Mr. Chris Allen asked if the proposed cells are part of the Calcasieu Ship Channel Dredged Material Management Plan (DMMP) and was answered that the larger area is, but the identified cells are not. Ms. Angela Trahan suggested modifying part of the site to create habitat since the USACE does not do that with their dredge disposal and Mr. Darryl Clark responded that the USFWS has asked the USACE to no longer place material on Unit Area F of the Refuge. Mr. Frank Chapman asked if the project will mimic historic channels and was answered yes, but now that there are two cells, there will be a new channel outside of the cells.

#4 – East Holly Beach Gulf Shoreline Protection. This project was presented by Mr. Troy Mallach with the Natural Resources Conservation Service (NRCS). This project area has experienced erosion with recent rates at 26.5 feet/year. In 2010, approximately 25 feet of shoreline remained between Highway 82 and the Gulf of Mexico. The project, which would cost

$17 million, would reduce erosion of the Gulf shoreline and protect the State's proposed beach nourishment project, using sand from offshore borrow sites. The project would construct 15,000 linear feet of breakwaters to protect the most critical shoreline area along Highway 82. Breakwaters will be designed on the CS-01 template, using all lessons learned from the Holly Beach Breakwater Enhancement and Sand Management Project. Approximately 40 round rubble breakwaters, placed 300 to 700 feet, offshore will be created. Mr. Frank Chapman asked how far the sand material comes from offshore and was answered about 20 miles because it was the closest material they could find, which is why it is so important to protect the material once it is placed.

#5 – North Willow Lake Restoration. This project was presented by Mr. Troy Mallach with NRCS. The most significant environmental problem affecting the marshes in this area is deterioration and conversion to open water. Additionally, several breaches between Willow Lake and interior open water areas have developed since Hurricane Rita. Those areas were again impacted by Hurricane Ike and rapid deterioration from organic soil export is occurring. The project will protect approximately 7,000 linear feet of Willow Lake shoreline, construct approximately 150 acres of marsh, and create approximately 60,000 linear feet of terraces with approximately 300-foot spacing. The project would protect/create/restore approximately 193 acres by re-establishing the north shoreline of Willow Lake. Approximately 150 acres of emergent marsh would be created with dedicated dredge material and an additional 43 acres would be created with terraces. SAV habitat would be restored by reducing wave energy and tidal scour associated with fetch and water exchange. The project cost would be $10 million.

#6 – West Cove Marsh Creation and Nourishment. The project was presented by Mr. Scott Wandell with USACE. The Calcasieu Ship Channel, immediately east of the project area, provides an avenue for the rapid movement of high-salinity water into the marshes around Mud Lake. This movement increased salinity in the area, resulting in plant death and marsh loss. The marshes located between Mud Lake and West Cove were decimated by Hurricanes Rita and Ike. Marshes that once provided a buffer to the southwest rim of West Cove are now shallow, open water areas. The project would create and/or nourish approximately 623 acres of marsh by hydraulically pumping from offshore into the shallow water marsh creation area. Containment dikes will be constructed around the marsh creation area to keep material on site during pumping. Once pumping has been completed, containment dikes will be degraded to the current platform elevation and gaps will be made in the containment dike. Additionally, the newly constructed marsh will be assessed to determine if vegetative plantings will be necessary. The project goal is to create and/or nourish approximately 623 acres of emergent brackish marsh using sediment from offshore. The project will help to restore the rim of West Cove and prevent breaching of Lake Calcasieu into the adjacent marsh. This project would have a synergistic effect with the CWPPRA East Mud Lake Marsh Management Project. The project would cost $13.8 million. Mr. Tim Creswell asked if the offshore borrow material would come from the Gulf and Mr. John Jurgensen asked how far out it would be and they were answered that borrow material would come from five to ten miles out in the Gulf. Mr. Darryl Clark asked if the cost was correct for that distance and was answered that the cost estimate may be low. Mr. Ron Boustany suggested it would be cheaper to dredge the upper area of West Cove, but Mr. Darryl Clark responded that the area has oyster reefs and is sensitive, but suggested mining the upland disposal site. Mr. Rick Hartman asked if this area is included in the DMMP and was answered no, because it is too far away.

Nominations were closed for the Calcasieu-Sabine Basin.

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

#1 – Willow Cutoff Wetland Restoration (segmented breakwaters). This project was presented by Mr. Wayne Siren with USFWS. The project area was once a productive freshwater marsh system, but has been severely degraded so that the emergent vegetation areas have eroded and the entirety of the original habitat has been completely covered by the very turbid waters of Lacassine Bayou. The area is now void of all SAV, has very little emergent vegetation, and almost no habitat for waterfowl and aquatic organisms. The project would construct a 1,430-foot rock levee to decrease turbidity by acting as a barrier to decrease the water's current, thereby allowing suspended solids to fall out of the water column. As a result, sunlight will reach the water bottom and SAV will have a chance to grow. Decreased erosion will increase the chances for establishment of high quality forage and wintering habitat for migrating water fowl. The barrier will retard any further water bottom erosion of the emergent vegetation areas, but will not restrict the access of aquatic organisms or the public to the area because the east side of the rock levee will still be connected to both Lacassine Bayou and the Mermentau River via oil field canals, and the rock breakwater will have a 50-foot gap. Dissolved oxygen levels are expected to increase in the newly created clear water due to the input of oxygen from submerged aquatic plants and decreased biological oxygen demand from suspended carbon. The increase in oxygen will benefit aquatic organisms. Once the barrier is constructed and the waters have cleared, volunteers could be used to transplant beneficial plants. The project would cost $540,000. Mr. John Jurgensen asked about water depths in the area and was answered that they are one to two feet and that the project will put geotextile fiber below the rock. Mr. John Jurgensen suggested placing the material cut from the access channel behind the rocks for increased project benefits.

#2 – Southwest White Lake Shoreline Protection. This project was presented by Mr. Troy Mallach with NRCS. This portion of the White Lake shoreline is experiencing significant erosion of approximately 15 feet/year. In some areas, the historic lake rim is completely lost and interior organic soils are exposed to high wave energies. This project would complete the protection of the southern shoreline and protect small interior ponds from coalescing with the lake, as well as protect emergent marsh and interior ponds from high wave energies associated with White Lake. The project would construct 35,200 linear feet of rock breakwater shoreline protection and 45,000 linear feet of terracing with 300-foot spacing in an adjacent interior open water body. The shoreline feature would protect approximately 242 acres from erosion and the terraces would create an additional 28 acres of wetlands. Sufficient material would be available from dredging the flotation channel to raise the substrate behind the rock dike to marsh elevation. The recommended best-fit alignment should provide approximately 90 acres of marsh creation behind the dike. The project would cost $9.5 million. Mr. Sherrill Sagrera with Vermilion Parish stated that the soil and water conservation district has planted some of the area behind the site and that it is working out well.

#3 – Front Ridge Freshwater Introduction and Marsh Creation. This project was presented by Mr. Troy Mallach with NRCS. Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention associated with Freshwater Bayou Canal and Humble Canal. Highway 82 traverses cheniers wherever possible; however, low spots between cheniers historically allowed drainage from the Lakes Sub-basin south into the Chenier Sub-basin. Currently, Highway 82 forms a hydrologic barrier that isolates

those sub-basins. The project, which would cost $21.5 million, would create/nourish 450 acres of emergent marsh with dedicated dredge material. Conventional structures demonstrate the project's benefits and are applicable; however, structure type and design would be completed during engineering and design and would target the most appropriate flow rates. The project would provide increased organic productivity and sediment to the project area, as well as restore/improve hydrologic conditions. Mr. Chris Allen asked where the borrow material would come from and was answered that 80% to 90% of the containment is already built. Dr. John Foret asked if the cost accounts for the improvements in the Highway 82 corridor and was answered that it includes the clean out and hydrology portions. Mr. Ron Boustany added that those culverts have good movement of water, but that the water does not go south and that this project would encourage some of the water to move south. Mr. Albright asked if there would be a flap or if saltwater would come onto the Albright property and was answered that to get freshwater to flow into the area from the north would push saltwater to the south. Mr. Sherrill Sagrera with Vermilion Parish suggested looking at dredging between Front Ridge Road and Highway 82 because there is no flow moving south and was answered that they will look at that and if there is an outlet then some flow will move through. Mr. Harold Schoeffler asked about hurricane damage and was answered that the area is freshening up, but that it is taking a long time to get the saltwater out. Mr. Darryl Clark asked if the project would utilize the canal to the west and was answered that if it turns out to be better, the west canal would be used, but that the proposed canal already has infrastructure in place.

#4 and #5 – Southeast Pecan Island Levee & Marsh Restoration Project. This project was presented by Mr. Wayne Henderson with Postletwaite & Netterville. Hurricanes have destroyed the south levee and allowed saltwater intrusion in the proposed project area. Because the levee is porous, high tides and heavy rains cause water across Front Ridge Road. The project would rebuild the levee along the south to prevent saltwater intrusion and would be planted with freshwater marsh species. The area is becoming open water and needs terracing or land fill. The project cost has not yet been determined, but the estimated 2009 levee cost was $45 million. Mr. John Jurgensen suggested possibly combining this project with the Front Ridge Freshwater Introduction and Marsh Creation Project. Mr. Rick Hartman stated that maybe the projects cannot be combined because this would have a managed marsh area and the other project is designed to run water through the area. Mr. Troy Mallach suggested using terraces.

#6 – Dedicated Dredging in White Lake. This project was presented by Mr. Charlie Mestayer. The project would re-dredge to widen and deepen the old Intracoastal Channel across White Lake and pump the material across the south side of Highway 82 to nourish marshes. Because the channel is already authorized to be dredged for navigation, there would be no landowner or oil and gas issues. The material is believed to be primarily organic and would be good for marsh nourishment. Mr. Sherrill Sagrera asked if the White Lake Preserve could use the material to build the area up for whooping crane habitat and was answered that there could be mineral rights issues, but that if the northwest corner of the White Lake shoreline was protected, then it could be used to re-establish such habitat. Mr. Rick Hartman suggested increasing project benefits by also dredging in the lake and not limiting the project to the GIWW. Mr. W.P. Edwards suggested using the material from White Lake in general for sediment. Dr. Jenneke Visser added that it would be possible to use some of the material for the Southwest White Lake Project that was also presented today. Dr. John Foret stated that NMFS would work with Mr. Charlie Mestayer to develop a fact sheet.

Nominations were closed for the Mermentau Basin.

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

#1 – Coastal Wetland Restoration by Backfilling Canals. This project was presented by Mr. Ken Teague with EPA. Canal dredging has contributed significantly to land loss in Louisiana, yet little has been done to reverse the damage caused by canals and spoil banks. Canals have turned marsh and swamps to open water, and spoil banks have replaced wetlands with an upland environment. Spoil banks also restrict water flow above and below the wetland surface and cause increased periods of flooding and drying of the wetlands behind them. Increased flooding can lead to stress and mortality of wetland vegetation, while drying the soil increases subsidence through oxidation of organic matter. These hydrologic alterations also limit sediment deposition in the adjacent wetlands. In addition to these effects, canals can also facilitate saltwater intrusion into wetlands, and spoil banks retain saltwater on the landscape after storm surges. This project would backfill a system of oil and gas, pipeline, and residential development canals (estimated 16 miles) at strategic locations in Jean Lafitte National Historical Park and Preserve and other locations. Backfilling will involve removing the existing spoil banks and disposing of the dredged material in the canals. While there is not sufficient sediment volume remaining in the spoil banks to completely fill the canals to adjacent wetland elevation, typically there is enough to significantly shallow the canals. In similar scenarios, over time some addition to the target elevation is observed. Those areas returned to adjacent wetland elevation rapidly re-vegetate without the need for planting. In addition, removal of the spoil banks will restore natural hydrology across the wetland surface over a larger area in the vicinity of the canals. The project goals include converting approximately 184 acres of upland spoil bank habitat and 40 acres of open water to emergent wetlands, beginning to convert deepwater habitat in 199 acres of canals to shallow water habitat, increasing SAV cover, and improving hydrology. The project cost would be $9 million. The current work at Jean Lafitte is considered a key component to this coast-wide project, but the other two-thirds of the project would take place elsewhere in the State. Mr. John Jurgensen asked where material would come from and pointed out that the spoil banks would only fill a fraction of the canals. Mr. Ken Teague responded that over time, these areas emerge as emergent wetland after the spoil banks are knocked down. Mr. Frank Chapman asked if the material would be evened out and was answered with a yes. Mr. Harold Schoeffler suggested re-establishing the natural waterways intersected by the canals and suggested that soil consistency be considered at the project sites. He was answered that it would be looked at if feasible, but that by knocking down the spoil banks, the water would flow more like it naturally did in the past. Mr. Rick Hartman suggested letting landowners nominate canals to be backfilled. Mr. Charlie Mestayer cautioned that some spoil banks are useful as wildlife habitat, for marsh management of the areas behind the banks, or as buffer for storm effects and suggested that these factors be taken into account when choosing locations. He also suggested plugging the canals after backfilling so that the material does not get sucked out with the tide. He was answered that the Park Service has a plug maze design that has worked well. Mr. W.P. Edwards agreed that when material is placed in the canal, the canal must be plugged or the material will be lost to the tide.

#2 – Re-establish Mouth Bar Features at Navigable Waterways with Inflatable Bladders. Mr. W.P. Edwards with Vermilion Parish presented this project. Historically, there were natural rivers and marsh systems, but this has been destroyed by digging channels. The sand bars at the mouth of rivers have also been dredged for navigation, increasing tidal exchange and causing problems with

tidal flux. As a coast-wide strategy to slow down saltwater intrusion and tidal flux, a solution should be placed at bar mouths. This coast-wide project would use inflatable bladders to create plugs in canal or river systems which would allow navigation, but also work as an artificial bar to limit tidal exchange. Mr. Harold Schoeffler supported this idea and added that the biggest mouth opening is currently at the Point Au Fer reef, which is 3.5 million square feet and growing approximately 3/10th of a mile each year; he also suggested re-establishing the natural capacity of the channels with this project. It was noted that the Vermilion Parish Police Jury has been looking at similar type projects on a smaller scale.

Nominations were closed for coast-wide projects.

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

#6 –Dewater and Re-vegetate Small Open Water Areas Using Planting and Aerial Seeding. This project was presented by Mr. Harold Schoeffler. Artificial sea level rise has been created by closing natural waterways and moving where areas drain. This demonstration project would contain, de-water, and plant small, shallow, open water areas that were formerly vegetated. Once vegetation is re-established, the areas would be re-opened to tidal exchange.

Nominations were closed for demonstration projects.

5. Agenda Item #5, Announcement of Coast-wide Voting Meeting. Mr. Clark reiterated that the coast-wide voting meeting will be held on Feb 22nd.

6. Agenda Item #6, Announcements of Upcoming PPL 21, Task Force, Technical Committee and Other Meetings. Mr. Clark reviewed upcoming CWPPRA meetings and indicated that all meeting notices are posted on the CWPPRA website.

7. Agenda Item #7, Adjourn. The meeting was adjourned at 3:45 pm.