CEMVN-PM-C (10-1-7a) 2 Feb 17

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 1, Lacombe, LA, 2 Feb 17, 12:30 pm

Agenda Item #1, Welcome and Introductions. Mr. Stuart Brown, Louisiana Coastal Protection and Restoration Authority (CPRA), and RPT Region 1 Leader, opened the meeting and welcomed the attendees. Region 1 consists of the Pontchartrain Basin. Mr. Brown thanked Ms. Michelle Fischer (USGS), Ms. Kaitlyn Carriere, (USACE), and Randy Perkins (Perkins Video) for their services in this process. He asked that voting parish representatives register with Ms. Carriere.

2. Agenda Item #2, Project Priority List (PPL) 27 Selection Process Brief Overview and Ground Rules for PPL 27 Nomination Meeting. Mr. Brown delivered a PowerPoint presentation, which is available online at the CWPPRA website. Parishes eligible to vote for projects in Region 1 are: Plaquemines, Jefferson, Orleans, St. Bernard, Ascension, Livingston, St. James, St. Charles, St. John the Baptist, St. Tammany, and Tangipahoa. Mr. Brown acknowledged several parish representatives present.

Nominees must be consistent with the 2012 State Master Plan or the Draft 2017 State Master Plan. A project can be nominated from only one basin, except for coastwide projects. If a project crosses multiple basins, excluding coastwide projects, it should be nominated in one basin only, based on the majority area of project influence. Coastwide projects apply across basin boundaries; their benefits are not tied to one basin. Coastwide projects can be nominated from any basin and can be presented at any or all of the RPT meetings. If similar projects are proposed within the same area, the RPT representatives will determine if they should proceed as separate projects or if they are similar enough to combine.

Presenters were asked to complete a project information sheet for each project nominee, including demonstration project nominees, with the name of the proposed project and the presenter's contact information, if a fact sheet was not provided. The project information sheet or facts sheet should be provided to Ms. Carriere, Ms. Fischer, and the minutes-taker. Presentations should be limited to five minutes and five PowerPoint slides. Public comments on project proposals will be accepted orally during the meeting and in writing by March 1, 2017. Written comments should be sent to Mr. Brad Inman, USACE. Mr. Brown asked that attendees limit comments and questions to the PPL 27 proposals and processes.

Coastwide projects propose a technique applicable across the entire coast. Only one Coastwide nominee may be selected during the Coastwide Electronic Voting on March 7, 2017. The Technical Committee may or may not select a Coastwide project at the April 27, 2017 meeting. Demonstration projects demonstrate a technology which can be transferred to other areas in coastal Louisiana. The Engineering and Environmental Work Groups will determine whether or not a project meets the CWPPRA Standard Operating Procedures (SOP) criteria for demonstration projects. The RPT will select up to six demonstration projects during electronic voting on March 7, 2017; the Technical Committee may select up to three demonstration projects at the April 27, 2017 meeting. The Work Groups may recommend that no demonstration projects move into the candidate stage. Previous demonstration projects must be re-nominated to be considered for PPL 27.

3. Agenda Item #3, Explanation of Coastwide Voting Process. The Coastwide Electronic Voting will be held on March 7, 2017. The Coastwide Electronic vote will result in the following Projects-per-Basin breakdown (based on land loss rates): four projects each in Barataria and Terrebonne Basins, three projects each in Breton Sound and Pontchartrain, two projects each in Mermentau, Calcasieu/Sabine and Tech Vermilion and one Coastwide, for a total of 21 projects. Additionally, up to six Demonstration Projects may be chosen.

Parishes must identify their voting representative at the RPT meeting to be eligible to vote. No additional projects can be nominated and no significant changes can be made to projects after the RPT meeting. Oral comments on nominee projects will be accepted throughout the meeting, and written comments can be submitted to Mr. Inman before March 1, 2017.

Mr. Brown explained the voting process. Excel spreadsheets and portable document format (pdf) documents will be provided to the voting representatives one week prior to the vote. Voters will receive voting sheets for the basins for which they are eligible to vote, and the column on which they need to mark their vote will be highlighted. Voters must email or fax their votes to Ms. Carriere by 10:30 am on March 7, 2017.

Following the Coastwide Electronic Voting, an agency will be assigned to each project to prepare a fact sheet and map if one is not already involved. The Engineering and Environmental Work Groups will then review the draft features and assign preliminary costs and benefits. They will also verify that the Coastwide and Demonstration projects meet PPL 27 requirements.

Mr. Brown reviewed the remaining steps in the PPL 27 process. Ten candidate projects and up to three Demonstration projects will be selected on April 27, 2017 at the Technical Committee Meeting. Written and oral comments will be accepted at the Technical Committee Meeting. Candidate projects will undergo further review between May and October, and the Technical Committee will vote to recommend up to four projects for Phase I Engineering & Design (E&D) on December 7, 2017. The Task Force will make the final decision in January 2018.

Mr. Brown provided a brief overview of the 2012 State Master Plan projects. He reiterated that all projects must be consistent with the 2012 State Master Plan or the Draft 2017 Master Plan. As the State (CPRA) Representative, Mr. Brown will likely determine project eligibility based on consistency with either plan at this meeting.

4. Agenda Item #4, PPL project Nominations.

a. Mr. Brown opened the floor for nominations in the Pontchartrain Basin.

1 – Bayou Bienvenue Marsh Creation, Increment 1. This project was presented by Dr. Sharon Osowski, Environmental Protection Agency (EPA). The project is consistent with 2012/ 2017 Master Plans. It is located in the area east of the Inner Harbor Navigation Canal adjacent to St. Bernard Parish and north of the Lower 9th Ward area of New Orleans. Historic wetlands have been lost due to impoundment, subsidence, saltwater intrusion and construction of the MRGO. The project team has developed subsequent increments in order to complete the project. Increment 1 will result in 350 acres of marsh creation & nourishment and restore the historic bankline along Bayou Bienvenue. Dr. Osowski pointed out that the project is highly visible and

would be a good showcase for CWPPRA. The construction cost including a 25% contingency is $26 million. A question was raised about stakeholder support; Dr. Osowski and her colleague responded in the affirmative, iterating that several public and NGO entities were in support of this project. The questioner then reiterated his support of the project.

#2 – Guste Island Marsh Creation. This project was presented by Mr. Adrian Chavarria, EPA. It is consistent with the Draft 2017 Master Plan. The project location is east of the Tchefuncte River near Tangipahoa and St. Tammany Parish border. The area is prone to wind driven salt water intrusion from the south, which gets trapped in the impounded area, resulting in land loss. The project would create and nourish approximately 436 acres of marsh with sediment dredged from Lake Pontchartrain; project planners also expect to utilize existing containment features onsite. The construction cost including 25% contingency is $23 million. No questions or comments were proffered.

#3 – Tchefuncte River Area Wooded Island Protection, Peninsula Replacement and Marsh Restoration. Jean Pelloat, Mayor of Madisonville, introduced this project stating that thus far it is being supported by two 501c3 groups. The project presentation was made by Steven Champagne. It is located on the NW area of Lake Pontchartrain at/ near the mouth of the Tchefuncte River. He iterated that it is a four-phase project which will result in 188 acres of marsh creation, 35 acres of marsh nourishment, 7 acres of wooded land protection, 37 acres of marsh accretion and 4,000 acres of marsh protection. It affects the entire Tchefunte watershed and will help to protect two municipalities. It will be a highly visible project; Phase I is designed and permitted and ready for construction. The Peninsula Replacement would include the restoration of a natural spring that could provide marsh nourishment and help to sustain that feature. The total construction cost for all phases is $10.7 million. Mr. Brown declared that the project is not consistent with the 2012 Master Plan or the Draft 2017 Master Plan and thus is not eligible for this PPL. He encouraged project stakeholders to advocate for its inclusion in the final draft of the 2017 Master Plan. A question was raised about how the natural spring would be reclaimed. Mr. Champagne responded by describing the location and process by which the spring was capped, and that the intent is to get to it and open it up.

#4 – Southwestern Lake Pontchartrain Shoreline Protection and Marsh Creation. This project was presented by Mr. Rob DeLaune, representing St John the Baptist Parish. The project location is adjacent to I-10 and I-55 near the town of LaPlace. It includes the design and construction of 11,500 feet of rock breakwater for shoreline protection, and 264 acres of marsh creation behind that structure utilizing dredged material from Lake Pontchartrain. The project would provide protection for LaPlace against storm surge flooding, would protect the municipal water supply and water distribution system, protect existing marsh that is currently degrading, and protect an essential hurricane evacuation route. The planning phase has been completed utilizing parish RESTORE Act funding; further funding is needed for construction. The construction cost is $24.8 million. Mr. Brown declared that the project is not consistent with the 2012 Master plan or the Draft 2017 Master Plan and thus is not eligible for this PPL. He is also not sure how the project would compete in the CWPPRA program since E&D is already completed. He suggested that project stakeholders look into RESTORE Act Parish Matching Funds, an opportunity that will be open this summer. Mr. DeLaune responded that the Master Plan sediment diversion project is not actually having the accretion effect anticipated, thus the Master Plan does not adequately represent the actual conditions in the area.

#5 – Point aux Marchettes Shoreline Protection. This project was presented by Mr. Robert Dubois of the Fish and Wildlife Service, FWS. The project is consistent with the 2012 Master Plan. It is located along Lake Borgne adjacent to the Biloxi Marshes Wildlife Management Area, a privately owned, publically managed area. The main problem is shoreline erosion. Property managers declare that interior marshes are breaking up, allowing tidal inundation to further degrade the marsh. The project involves construction of 30,000 linear feet of rock revetment along the shoreline, and 7,000 linear feet of terracing to slow interior wave energy. The construction cost including a 25% contingency is approximately $18 million. Eric Zollinger with Biloxi Marshlands Corporation spoke in favor of the project; citing rapid erosion rates, and the need for protection of St. Tammany, St. Bernard, Jefferson & Orleans parishes. Shane Green with the Department of Wildlife and Fisheries, manager of the WMA, spoke in full favor of the project. A question was raised about the revetment quantity required to construct the feature in and out of coves. Mr. Dubois responded that the engineers may redesign the features into more straight lines, and possibly reduce the cost of the project. Mr. Brown asked if the property belonged to the WMA or Biloxi Marshland Corp. The response was "both" – DWF leases the land from Biloxi Marshlands Corp. Mr. Brown had a question regarding land rights for restoration projects; Mr. Zollinger asserted that they are working on that issue.

#6 – Bayou Cane Marsh Creation Project. This project was presented by Mr. David Brunet. The project is consistent with the Draft 2017 Master Plan. The project is located in the Upper Pontchartrain Basin along the shoreline of Lake Pontchartrain between Mandeville and Lacombe. The project goals are to repair breaches and create marsh in three distinct areas by constructing containment dikes and filling with dredged material from the lake. The project will work synergistically with the Goose Point project and the Bayou Bonfouca project. It will provide storm surge protection to two municipalities and be visible from Fontainebleau State Park. Total construction costs including 25% contingency is $22 million.

#7 – East Labranche Shoreline Protection Project. This project was presented by Cody Colvin with the Natural Resources Conservation Service (NRCS). It is located in St. Charles parish near Kenner in the Labranche Wetlands area. It is consistent with the Draft 2017 Master Plan. The goal of the project is to complete the shoreline from the Bonnet Carre Spillway to the St. Charles/ Jefferson Parish line by installing 12,800 linear feet of lightweight aggregate and rock riprap, and filling the degraded marsh with dredged material. The project is synergistic with PO-75 and PO-133, for which E&D has been completed, thus reduced E&D costs could be expected for this project. Estimated construction costs plus contingencies is $20 million.

Mr. Brown opened the floor for further Coastwide or Demonstration projects; none were proffered, so he closed the nominations. He then adjourned the meeting at 1:52 p.m.

CEMVN-PM-C (10-1-7a) 2 Feb 17

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 2, Lacombe, LA, 2 Feb 17, 10:00 am

1. Agenda Item #1, Welcome and Introductions. Mr. Brad Inman, United States Army Corps of Engineers (USACE), Program Manager for the CWPPRA, Branch Chief for Projects and Restoration, and RPT Region 2 Leader, opened the meeting and welcomed the attendees. He introduced James Harris of the Big Branch National Wildlife Refuge (NWR); Mr. Harris also welcomed attendees and invited them to visit the grounds and Visitors' Center onsite. Mr. Inman complimented the Welcome Center exhibits and the beauty of the grounds. He introduced Mr. Randy Perkins, who provides audio recordings of all CWPPRA meetings. Mr. Inman then asked all attendees to introduce themselves and indicate whether or not they were voting parish representatives.

2. Agenda Item #2, Project Priority List (PPL) 27 Selection Process Brief Overview and Ground Rules for PPL 27 Nomination Meeting. Mr. Inman delivered a PowerPoint presentation, which is available online at the CWPPRA website. Parishes eligible to vote for candidates in Region 2 are: (in the Barataria Basin) Plaquemines, Jefferson, Orleans, Ascension, Assumption, St. James, St. Charles, Lafourche, and St. John the Baptist, and (in the Breton-Sound Basin) St. Bernard Parish and Plaquemines Parish.

Nominees must be consistent with the 2012 State Master Plan and the Draft 2017 Master Plan. He stated that the Governor's Advisory Board unanimously approved the Draft 2017 Master Plan yesterday, and it is now expected to go before the state legislature. A project can be nominated from only one basin, except for Coastwide projects. If a project crosses multiple basins, excluding Coastwide projects, it should be nominated in one basin only, based on the majority area of project influence. Coastwide projects apply across basin boundaries; their benefits are not tied to one basin. Coastwide projects can be nominated from any basin and can be presented at any or all of the RPT meetings. If similar projects are proposed within the same area, the RPT representatives will determine if they should proceed as separate projects or if they are similar enough to combine.

Presenters were asked to complete a project nomination sheet for each project nominee, including demonstration project nominees, with the name of the proposed project and the presenter's contact information, if a factsheet was not provided. Factsheets should be given to Ms. Carrier, Ms. Fischer and the minutes taker. Presentations should be limited to five minutes and five PowerPoint slides. Public comments on project proposals will be accepted orally during the meeting and in writing until March 1, 2017. Written comments should be sent to Mr. Inman. He asked that attendees limit comments and questions to the PPL 27 proposals and processes.

Coastwide projects propose a technique applicable across the entire coast. Only one Coastwide nominee may be selected during the Coastwide Electronic Voting on March 7, 2017. The Technical Committee may or may not select a Coastwide project. Demonstration projects demonstrate a technology which can be transferred to other areas in coastal Louisiana. The Engineering and Environmental Work Groups will determine whether or not a project meets CWPPRA criteria. The RPT will select up to six demonstration projects; the Technical Committee

may select up to three demonstration projects at the April 27, 2017 meeting. The Work Groups may recommend that no demonstration projects move into the candidate stage. Previous demonstration projects must be re-nominated to be considered for PPL 27.

3. Agenda Item #3, Explanation of Coastwide Voting Process. The Coastwide Electronic Voting will be held on March 7, 2017. The Coastwide Electronic vote will result in the following Projects-per-Basin breakdown (based on land loss rates): four projects each in Barataria and Terrebonne Basins, three projects each in Breton Sound and Pontchartrain, two projects each in Mermentau, Calcasieu/Sabine and Tech Vermilion and one Coastwide, for a total of 21 projects. (There were no projects nominated yesterday for the Atchafalaya Basin.) Additionally, up to six Demonstration Projects may be chosen.

Parishes must identify their voting representative at the RPT meeting to be eligible to vote. No additional projects can be nominated and no significant changes can be made to projects after the RPT meeting. If projects overlap, nominators will have the option to combine them into one project prior to the end of the meeting.

Mr. Inman explained the voting process. Excel spreadsheets and portable document format (pdf) documents will be provided to the voting representatives one week prior to the vote. Voters will receive voting sheets for the basins for which they are eligible to vote, and the column on which they need to mark their vote will be highlighted. Voters must email or fax their votes to Ms. Carriere by 10:30 am on March 7, 2017.

Following the Coastwide Electronic Voting, an agency will be assigned to each project to prepare a factsheet and map if one is not already prepared. The Engineering and Environmental Work Groups will then review the draft features and assign preliminary costs and benefits. They will also verify that the Coastwide and Demonstration projects meet PPL 27 requirements.

Mr. Inman reviewed the remaining steps in the PPL 27 process. Ten candidate projects and up to three demonstration projects will be selected at the April 27, 2017 Technical Committee Meeting. Written and oral comments will be accepted at the Technical Committee meeting. Candidate projects will undergo further review between May and October, and the Technical Committee will vote to recommend up to four projects for Phase I Engineering & Design (E&D) on December 7, 2017. The Task Force will make the final decision in January 2018.

Mr. Inman provided a brief overview of the 2012 State Master Plan projects. He reiterated that all projects must be consistent with the 2012 State Master Plan or the Draft 2017 Master Plan. As the State (CPRA) Representative, Mr. Stuart Brown will likely determine project eligibility based on consistency with either plan at this meeting.

4. Agenda Item #4, PPL Project Nominations (Entire RPT).

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

#1 – Grand Bayou Ridge and Marsh Restoration. This project was presented by Mr. Kevin Roy, U.S. Fish and Wildlife Service (FWS). The project is located along Grand Bayou just south of Lake Hermitage. It is consistent with the Draft 2017 Master Plan. The project consists of previously proposed marsh creation (366 acres) and 21,700 linear feet of terracing, and has the

added feature of 11,000 linear feet of forested ridge restoration. Dredge material would be obtained from the Mississippi River. Project is synergistic with BA-42, BA-173 and the siphons at West Pointe a la Hache. The construction cost including a 25% contingency is $30 to $35 million. A question was raised about where reductions may be considered to cut costs. Mr. Roy responded that he would consider trimming back the marsh creation.

#2 – East Bayou Lafourche Marsh Restoration. This project was presented by Mr. Kevin Roy, U.S. Fish and Wildlife Service (FWS). The project is located on eastern side of Bayou Lafourche just North of Leeville. It is consistent with the Draft 2017 Master Plan, and has been previously proposed. The project is vital to protect the Highway 1 corridor with 368 acres of marsh creation utilizing dredge material from Little Lake, and 49 acres of marsh nourishment. Project is synergistic with East Leeville Marsh Creation project (Phase I). The construction cost including a 25% contingency is $25 to $30 million. No comments or questions were proffered.

#3- Coffee Bay Marsh Creation and Shoreline Protection. This project was presented by Robert Dubois, FWS. The project is located in Lafourche Parish southwest of Little Lake. The project will place about 23,000 linear feet of shoreline revetment, 2,000 feet of foreshore rock dike, four small marsh creation cells (utilizing existing containment features and dredge material from Little Lake), and 8,000 feet of terracing in open water areas. The project is synergistic with several projects associated with the Barataria Basin Landbridge. The construction cost including a 25% contingency is $26 million. No questions or comments were proffered.

#4 – Barataria Bay Waterway East Marsh Creation. This project was presented by Quin Kinler, Natural Resources Conservation Service (NRCS). The project is located on the east side of the Barataria Bay Waterway. The project intent is to create 240 acres of marsh at the end of the existing long distance dredge corridor. Dredged material would come from the Mississippi River and be fully contained. The project is synergistic with BA-41, BA-26, BA-23 and several others. The construction cost including a 25% contingency is $35 million. No questions or comments were proffered.

#5 – Northeast Turtle Bay Marsh Creation and Shoreline Protection. This project was presented by Quinn Kinler, NRCS. The project is located at the Harvey cutoff where several small breaches have occurred, and more potential breaches have been identified, leading to increased land loss in the interior of the shoreline. Another problem is a man-made canal which acts as a conduit for tidal flow in and out of the project area. The project intent is to strategically place several areas of marsh creation to fortify the shoreline, along with a hard shoreline protection feature at the site of a narrow peninsula. A larger area of marsh restoration is planned along the pipeline canal to interrupt the tidal interchange. This project is synergistic with BA-27 (C&D), BA-36 and BA-125. It would enhance the concept and purpose of the Barataria Landbridge. Total construction costs including 25% contingencies is $33 million. No questions or comments were proffered.

#6 – North Fourchon Marsh Creation Project. This project was presented by Adrian Chavarria, Environmental Protection Agency (EPA). The project is consistent with the Draft 2017 Master Plan, and is located just north of the port and adjacent to Highway 1 and just east of Bayou LaFourche. The project consists of four marsh creation cells totaling 476 acres, a with dredge material from Timbalier Bay or Little Lake. The estimated cost with contingencies is $27

million. A question was raised regarding whether or not the project location conflicts with the Greater Lafourche Port Commission's mitigation plan or other projects. Mr. Chavarria responded that he visited the area with port representative Joni Tuck, and that this project does not conflict. Another question was presented regarding water depths; Mr. Chavarria responded that water depths were acquired during the site visit.

#7 – Elmer's Island Back Barrier Marsh Creation. This project was nominated by Dawn Davis, NOAA Fisheries. This project was a candidate from PPL-26. It is located SW of Grand Isle and is part of an erosional headland. The project is synergistic with the Caminada Dune Restoration project, which will help with the height deficit; this project would help with the width deficit. The project intent is to create 228 acres of confined marshland, nourish 37 acres of saline marsh, and install a total of eight culverts in four locations in order to restore hydrologic connectivity between the lagoon and the marsh. The fully funded cost estimate with contingencies is $25 to $30 million. No questions or comments were proffered.

#8 – Wilkinson Canal Marsh Creation and Terracing. This project was nominated by Dawn Davis, NOAA Fisheries. It is consistent with 2012 and Draft 2017 Master Plan. It was a PPL-26 nominee and a PPL-23 candidate. It is located downstream from the proposed Mid-Barataria Diversion project and provides synergy with Bayou Dupont project and the Lake hermitage project. The project intends to install 425 acres of marsh creation, 40 acres of marsh nourishment, and 345 acres of terracing, with a fully funded cost range of $35 to $40 million. No questions or comments were proffered.

#9 Bayou Long Ridge and Marsh Restoration. This project was presented by Kenneth Ragas from lower Plaquemines Parish. It is consistent with the 2012 Master Plan. The project has been proposed five times previously. According to the fact sheet, it focuses on restoring the structural function of the Bayou Long/ Empire Waterway ridge with a foreshore hard revetment and an earthen levee/ ridge feature utilizing dredged material from the Empire Waterway. The ridge would be planted with woody species. Another feature of the project is an area of contained marsh creation and vegetative plantings. The cost estimate with contingencies is $28 to $43 million. Clarification of project location and project title were raised. Ms. Fischer provided both.

A motion was made and seconded to close nominations for the Barataria Basin. The motion carried without objection.

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

#1 – Mid Breton Landbridge Marsh Creation and Terracing. This project was presented by Robert Dubois, FWS. The project is consistent with the Draft 2017 Master Plan, and was nominated in PPL16 and a candidate project in PPL 18. The project intends to create 500 acres of contained marsh with dredge material from Lake Lery, and create 23,000 linear feet of terraces in areas where wind induced waves are causing erosion. The cost estimate with contingencies is $27 million. No questions or comments were proffered.

#2 – Breton Landbridge Marsh Creation (West), River aux Chenes to Grand Lake. This project was presented by Patrick Williams, NOAA Fisheries. Mr. Williams began by iterating the complications and expenses of locating and move dredge material in this area. Borrow sources

have been identified, but some are cost-prohibitive through CWPPRA. He presented a multi-phase concept with the goal to create/ nourish marsh along the western and southern shores of Grand Lake, along Orange Bayou and along Bayou Chantilly. Each phase would net approximately 373 acres at a fully-funded cost of approximately $25- $30 million. A question was raised about which option is considered priority. Mr. Williams responded that Option B could be mainly from a visual perspective, but there is the existing problem of acquiring dredge material without affecting the tidal prism. He requests that both options be available for consideration after further investigation of bottom depths. Another question was raised about whether or not the northern portion of the project is consistent with the Draft 2017 Master Plan. Mr. Brown responded that south Grand Lake is preferable, but that the northern portion could be considered if more feasible.

#3 – Lake Lery Shoreline Marsh Creation and Terracing. This project was presented by Patrick Williams, NOAA Fisheries. He began by admitting that this project does not appear to be consistent with the 2017 Draft Master Plan. He then showed slides to emphasize the fact that the eastern and northern shore of Lake Lery are either gone or highly fragmented. This project was a candidate in PPL-22. This project intends to create 422 acres and nourish 138 additional acres of marsh along both those shores using dredge material from the lake, and construct 21,000 feet of terraces planted with marsh vegetation. The estimated fully-funded cost is approximately $30-$35 million. Mr. Brown declared that because this project is not consistent with the 2012 or the Draft 2017 Master Plan, it cannot be voted upon in the electronic vote for this PPL. However, he also stated that it may eventually be included in the final 2017 Master Plan or a future plan.

#4 – North Lake Lery Wetland Restoration. This project was presented by Robert Dubois, FWS. The project is consistent with the Draft 2017 Master Plan. The project area has been surveyed by NRCS and is feasible. It intends to construct 9,000 feet of shoreline utilizing a bucket dredge, and subsequently planted with bullwhip. It also consists of 110 acres of marsh creation with dredge material from Lake Lery. There is a channel dredging component which would promote freshwater introduction. It is synergistic with a St. Bernard CIAP project and BS-16 and BS-24. The cost estimate with contingencies is $10.7 million. Mr. Brown stated that the project is not consistent with the Draft 2017 Master Plan, unless it is submitted strictly as a hydrologic project without including the other features.

#5 – Phoenix Marsh and Ridge Restoration. This project was presented by Kevin Roy of the FWS. The project is located on the western side of the Breton Sound Basin, and is consistent with the Draft 2017 Master Plan. It intends to tie into the projects associated with the Breton Landbridge as an extension between River aux Chenes and the Mississippi River. Project features included the creation of 8,450 feet of forested ridge, 390 acres of created marsh and 9,500 feet of planted terraces. The cost estimate with contingencies is $30-35 million. A question was raised about the necessity of the ridge feature. Mr. Roy replied that the ridges are generally associated with storm surge protection, and that it would also restore forested coastal habitat. Another question was asked about the placement of terraces, and the potential impact of that feature on future landbridge projects. Mr. Roy replied that the terracing feature was included as a cost-effective way to increase the acreage impact. He also stated that terraces may be eliminated, especially if it is deemed unnecessary to protect the marsh creation feature. A final question was asked about the cost of piping the dredged material from the river. Mr. Roy estimates a cost of $7 - $8 per cubic yard.

#6 – Daevant Marsh Creation. This project was presented by Sharon Osowski, EPA. The project is located adjacent to the east bank of the Mississippi River near Pointe a la Hache and is consistent with the Draft 2017 Master Plan. With dredge material from the river, the project intends to create and nourish 350 acres of contained marsh, which would subsequently be planted. The preliminary cost estimate with contingencies is $26 million; fully funded costs are estimated at $35 - $40 million. No questions or comments were proffered.

#7 – East Delacroix Marsh Creation and Terracing. This project was presented by Twyla Cheatwood, NOAA Fisheries. The project is located to the east of Delacroix and is consistent with the Draft 2017 Master Plan. It is synergistic with a CIAP project on the west side. Accessing Lake Lery for borrow would mean a short pump distance, but will require boring under the highway to install the dredge pipe; the project area is shallow. Projects goals are to create 300 acres and nourish 75 acres of marsh, and construct 13,860 linear feet of terraces which would be planted with marsh vegetation. Fully funded costs are estimated at $30 - $35 million. No questions or comments were proffered.

#8 – Bayou Terre aux Boeuf Ridge Restoration and Marsh Creation. This project was presented by Blaise Pezold, LDAF-CRVP. The project is very close geographically to the previously presented project and there may be some overlap. The project is consistent with the Draft 2017 Master Plan. The project features include restoring the Bayou Terre aux Boeuf forested ridge, the habitat of which is rated S1 and S2 priority by the state. Another feature of the project is the creation of 377 acres of semi-confined marsh and nourishing 94 acres of marsh using sediment dredged from Lake Lery. The cost estimate with contingencies is $26 million. A question was asked about the ridge construction. Mr. Pezold responded that the ridge would be built partly in water and partly on marsh.

#9 – Bayou La Chape Marsh Creation. This project was presented by Sharon Osowski, EPA. The project is north of the previous two projects, and is consistent with the Draft 2017 Master Plan. The project seeks to create and nourish 406 acres of wetlands with dredged materials from Lake Borgne. The preliminary cost estimate with contingencies is $18 million; fully funded costs are estimated at $25 - $30 million. A question was raised about the access to dredge materials from Lake Borgne because of the presence of the St. Bernard Parish Floodwall. Project engineers are admittedly not sure at this time.

A motion was made and seconded to close nominations for the Breton Sound Basin. The motion carried without objection.

c. Mr. Inman opened the floor for nominations for Coastwide projects.

#1 – Coastwide Floating Marsh Creation. The project was presented by Quin Kinler, NRCS. This project seeks to build upon the knowledge gained and expand the size of techniques used in Demonstration Project (LA-05). The floating frame is built, planted with maidencane and linked linearly to create floating marsh. Floating marsh terraces serve to reduce wave action and also serve as barriers to interrupt the movement of water hyacinth mats which tend to overtop floating marsh and drag it out of the system. Another concept includes the trapping of water hyacinth mats behind a floating marsh barrier, to give colonizing plants a substrate on which they can

become established. The floating marsh system can be placed along the perimeter of open-water systems, which would reduce wave degradation of the edges. Terraces can also be placed across open-water areas to break them up, further reducing wave energy and providing support for submerged vegetation. Cost estimates are incremental according to project year, beginning with $3 million; total projects costs are estimated for a 15-year span at $18.7 million. No questions or comments were proffered.

#2 – Feral Swine Control. This project was presented by Ronnie Paille, FWS. He began with photos of feral swine damage, explaining that these animals wallow in and forage on the roots and tubers of marsh vegetation, resulting in disturbances that likely accelerate shoreline erosion. Furthermore, feral hogs have been known to feed on alligator eggs, eggs of ground-nesting birds, eggs of endangered sea turtles and to consume fiddler crabs and baby muskrats. Their reproductive rates are very high; some experts believe that 75% of the population would have to be removed yearly to maintain a stable population. This project is modeled from a 2013 study conducted by Pass a Loutre WMA wherein a helicopter shoot resulted in 103 hogs killed. One year later a vegetative survey across a 7,100 acre marsh revealed damaged acreage was reduced by 179 acres. Mr. Paille presented evidence comparing airboat hunts to helicopter hunts and declared that more hogs can be killed from the air. This project proposes to spend $200,000 per year for cooperating landowners to hire USDA Animal Plant Health Inspection Service (APHIS) personnel and equipment or private helicopter services for annual or bi-annual helicopter gunning on their properties. Such efforts could reduce feral hog damage by 1,343 – 2,685 acres annually. Costs over the 20-year project life would total $20 million. No questions or comments were proffered.

Nominations were closed for Coastwide projects.

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

#1 – Crescent Stabilization System. The project was presented by Tyler Ortego with the Coastal Resilience Group. The system consists of precast concrete forms which are crescent-shaped to articulate and designed to "seal" to the bottom of an area to be stabilized. The forms may be used in bank stabilization, shoreline protection, as containment for dredge material, and may be planted if installed at grade. The system can be sized and designed for various functions, like hydrologic exchange or oyster cultivation. It is designed to be simple to install and to cost less, because it is composed of less concrete. No questions or comments were proffered.

#2 – Shoreline Protection Utilizing In Situ- Engineered Systems. The project was presented by Richard Leonard with Project Consulting Services. The product he highlighted is a LSS Reagent developed by RECON which will react with the native soils onsite to form a hard, water resistant substance not prone to erosion or degradation associated with wave energy and water inundation. The ratio of reagent to soil by weight depends on the soil itself so preliminary testing would be performed at each site. The reagent is mixed onsite and remains in place. His presentation includes success stories involving two other projects – one to contain contaminants and one to construct levees around an LNG plant. One advantage to the material is that it is lightweight and not prone to subsidence. Mr. Leonard cited another CWPPRA project and asserted that the cost of embedding this into the landscape would have been approximately one-fifth of the cost of traditional rip-rap. No questions or comments were proffered.

#3 – Living Blanket. This project was presented by Chris Cannon. He highlighted the patent-pending process and product which seeds oyster larvae onto an articulating concrete mat. It is fully modular, and Mr. Cannon claims that it is the only product available that upon placement is a living shoreline. Oyster stock is obtained from individual project areas. As opposed to other products that depend on natural oyster recruitment, this product is already embedded with native oyster larvae and is less vulnerable to wave and tidal influence for growth and viability. Costs are comparable to other concrete products used in coastal protection and restoration. No questions or comments were proffered.

#4 – Marine Gardens Marsh Armor. This project was presented by Michael Boatright of Marine Gardens. He introduced a concept of utilizing geopolymers as a superior structural material and employing 3-D printer technology as a superior construction method for coastal projects. His project proposes to build and install a trapezoidal erosion control structure using a marine geopolymer concrete with a portable shotcrete printer to form/ print and install the structure. He emphasized the strength, durability and versatility of the geopolymer product and the efficiency of the process. No questions or comments were proffered.

Nominations were closed for demonstration projects until after the Region 1 meeting. Mr. Inman called for a short break prior to the start of the RPT Region 1 proceedings.

CEMVN-PM-C (10-1-7a) 1 Feb 17

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 3, Morgan City, LA, 1 Feb 17, 9:30 am

1. Agenda Item #1, Welcome and Introductions. Mr. Ron Boustany, Natural Resources Conservation Service (NRCS) and RPT Region 3 Leader, opened the meeting and welcomed the attendees. He introduced Cindy Cutrera with Port of Morgan City Economic Development. She delivered a welcome and gave a brief history and orientation of the new facility where this meeting was held. Mr. Boustany also introduced several parish representatives. Mr. Boustany introduced Ms. Kaitlyn Carriere, U.S. Army Corps of Engineers (USACE), who organized the meeting and controlled the PowerPoint presentations; Ms. Michelle Fischer U.S. Geological Survey (USGS), who provided geographic information system (GIS) mapping; Ms. Lonnie Fontenot (JESCO), who recorded the minutes of the meeting; and Mr. Randy Perkins, who recorded the sound for the meeting. Mr. Boustany pointed out several members of the CWPPRA workgroups, including the Technical Committee, Planning and Evaluation (P&E) Subcommittee, Academic Advisory Group and Environmental & Engineering Work Group members He specifically acknowledged Brad Inman (USACE) who is also instrumental in the coordination of these meetings throughout the year.

Presenters without factsheets were asked to complete a project information sheet for each project nominee, including demonstration project nominees, with the name of the proposed project and the presenter's contact information.

2. Agenda Item #2, Project Priority List (PPL) 26 Selection Process Brief Overview and Ground Rules for PPL 26 Nomination Meeting. Mr. Boustany delivered a PowerPoint presentation, which is available online at the CWPPRA website. Copies of the PPL 27 Selection Process and Schedule were available at the meeting. He went throughout the current RPT meeting schedule.

Mr. Boustany asked that the parish-designated voters identify themselves to Ms. Carrier and fill out a voting registration form and provide their contact information. Parishes eligible to vote for nominees in Region 3 are: St. Mary, Terrebonne, Assumption, Lafourche, Iberia, St. Martin, and Vermilion.

Project proposals must be consistent with the 2012 State Master Plan or the Draft 2017 Master Plan. A project can be nominated from only one basin, except for Coastwide projects. If a project crosses multiple basins, excluding Coastwide projects, it should be nominated in one basin only, based on the majority area of project influence. Coastwide projects apply across basin boundaries; their benefits are not tied to one basin. Coastwide projects can be nominated from any basin and can be presented at any or all of the RPT meetings. If similar projects are proposed within the same area, the RPT representatives will determine if they sufficiently different and should proceed as separate projects, or if they are similar enough to combine. That decision will be made at this meeting.

Mr. Boustany reiterated that presenters without factsheets should complete a project information sheet for submission. Those with fact sheets should provide a copy to Ms. Carrier, Ms. Fischer and Ms. Fontenot, as well as stakeholders, agency representatives and parish representatives for each project nominee, including demonstration project nominees. Presentations should be limited to five minutes and five Power Point slides. Public comments on project proposals will be accepted orally during the meeting and in writing until March 1, 2017. Mr. Boustany asked that attendees limit comments and questions to the PPL 27 proposals and processes.

Coastwide projects propose a technique applicable across the entire coast. They can be nominated at any or all RPT meetings. Mr. Boustany gave examples of Coastwide projects previously approved – most recently the Salvinia Weevil Propagation project. All coastal Parishes and agencies will vote on the selection of a Coastwide nominee. Only one Coastwide nominee may be selected during the Coastwide Electronic Voting on March 7, 2017. The Technical Committee may or may not select a Coastwide project at the April 27, 2017 meeting. Demonstration projects demonstrate a technology which can be transferred to other areas in coastal Louisiana. The Engineering and Environmental Work Groups will validate whether or not a project meets CWPPRA Standard Operating Procedure (SOP) criteria. The RPT will select up to six demonstration projects during the March 7, 2017 Coastwide Electronic Vote; the Technical Committee may select up to three demonstration projects at the April 27, 2017 meeting. The Work Groups may recommend that no demonstration projects move into the candidate stage. Previous demonstration projects must be re-nominated to be considered for PPL 27.

3. Agenda Item #3, Explanation of Coastwide Voting Process. The Coastwide Electronic Voting will be held on March 7, 2017. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain and Breton Sound Basins; two projects per basin in the Mermentau, Teche-Vermilion, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. If proposed, one Coastwide project may be chosen for inclusion as a nominee. In addition, the RPTs can select up to six demonstration projects for further evaluation.

Parishes must identify their voting representative at the RPT meeting to be eligible to vote. Each parish representative, Federal agency, and the State (CPRA) will have one vote. No additional projects can be nominated and no significant changes can be made to projects after the RPT meeting. If projects overlap, nominators will have the option to combine them into one project prior to the end of the meeting. Public comments will be accepted orally at the RPT meeting or in writing by March 1, 2017.

Mr. Boustany explained the voting process. Excel spreadsheets and portable document format (pdf) documents will be provided to the voting representatives one week prior to the vote. Voters will receive voting sheets for the basins for which they are eligible to vote, and the column on which they need to mark their vote will be highlighted. Voters must email or fax their votes to Ms. Carriere by 10:30 am on March 7, 2017.

Following the Coastwide Electronic Voting, an agency will be assigned to each project to prepare a nominee project factsheet and map if one is not already prepared. The CWPPRA Engineering and Environmental Work Groups will then review the draft features and assign

preliminary cost and benefit ranges. They will also verify that the Coastwide and Demonstration projects meet PPL 27 requirements.

Mr. Boustany reviewed the remaining steps in the PPL 27 process. Ten candidate projects and up to three demonstration projects will be selected on April 27, 2017 at the Technical Committee Meeting. Work Groups spend time vetting the projects from May to October, and project benefits, features and costs are developed.

Mr. Boustany reviewed the PPL 27 timeline again and presented the address for written public comments, which was also available in the PPL 27 Selection Process and Schedule available at the meeting. Written comments should be submitted at the address provided no later than March 1, 2017.

Mr. Boustany gave an overview of the 2012 Master Plan and the Draft 2017 Master Plan. Mr. Brown reiterated that projects presented today may comply with either.

4. Agenda Item #4, PPL project Nominations (Entire RPT).

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

#1 – South Humble Canal Marsh Creation. This project was presented by Mr. Ronnie Paille, of the FWS. This project is located on the bank Freshwater Bayou Channel and is consistent with the 2012 Master Plan. This project was nominated for PPL 26, but several changes were made for this years' proposal. The project features include terracing in open water areas adjacent to the channel that experience water displacement surge when ships come through. The purpose of the earthen terraces is to trap sediment and reduce the wave energy in front of the proposed marsh creation area. The project would create 285 acres and nourish 105 acres of marsh, and 7,710 feet of terracing. The borrow area for dredge material is the Gulf of Mexico. The cost estimate including a 25% contingency is $23 million. No questions or comments were proffered.

#2 – Belle Isle Bayou Marsh Creation and Terracing. This project was presented by Patrick Williams with NOAA Fisheries. This project is located due north of the previously proposed project, east of Freshwater Bayou. It is consistent with the 2012 and Draft 2017 Master Plans. This area and areas to the west are experiencing increases in connectivity to the ship channel, and increases in marsh fragmentation. This project would construct 300 acres of marsh, 75 acres of marsh nourishment. Vermilion Bay was chosen as the borrow site. The project also includes 8,470 linear feet of planted terracing. The fully funded cost range is $35-$40 million. Mr. Moertle asked Mr. Brown if the current state regulation regarding the use of rock along ship channels was being reevaluated. Mr. Brown responded that he was not part of that conversation, but that as it stands rock for shoreline protection along navigation channels cannot exceed 25% of total project costs. Mr. Moertle commented that landowners are very much in favor of both projects presented, but they'd like to see strategically placed rock revetment to protect marsh creation adjacent to a ship channel. A question was asked regarding previously constructed projects along the west side of the channel; Mr. Libersat replied that those projects were successful. Mr. Libersat commented that marsh projects without shoreline protection are likely to fail. He asserts that projects should address the problem of wave inundation from the channel and focus on protecting the marshes first, followed by marsh creation and terracing.

#3 – Freshwater Bayou East Marsh Creation and Hydrologic Restoration. This project was presented by Mr. Ron Boustany, NRCS. The project is located in the same area as the previous projects presented. It was proposed in PPL 26, but has an added feature of shoreline protection using rock, which increases the cost. There may be some geographic overlap with the Belle Isle project presented earlier. Technical overlap is questionable because this project is mainly hydrologic restoration. This projects seeks to use minimal fill material in open areas, wrapping them with terraces to trap more sediment and breakup the fetch. The project includes inlet and outlet culverts and relies on hydrology and tidal fluctuations for nourishment. This project uses less borrow material to impact a broader area than a traditional marsh creation project. The project would use material from Freshwater Bayou. The construction cost including a 25% contingency is $17.1 million. Mr. Libersat comment with his full support and agreement with the project plans. Mr. Boustany pointed out that the project is consistent with the Master Plan. Mr. Brown clarified that the state's policy has nothing to do with the Master Plans, and that the regulation is that no more than 25% of total projects costs can be spent on rock shoreline protection along federally-maintained navigation channels. Mr. Libersat commented that he read the master plan and understood there to be a caveat to the state's policy – that each project could be considered on a case-by-case basis. Mr. Boustany then asked for the project to be considered separately because of its unique features, rather than combined with the other project that occupies the same geographic space. He called for other comments. A separate comment was made regarding the width of the federal waterway, originally much narrower at its construction than it is now; thus the proposed project shoreline may not fall within the federal boundaries after all. Mr. Boustany appreciated that comment, acknowledging the complexity of the issue, but returned to the issue of project overlap. He put it forth as a motion. The motion was made and seconded to leave both projects in as separate projects. The motion passed without objection. A question was raised about whether or not the project can be voted on if it is non- compliant with the state regulation. Mr. Boustany replied that there may be some modifications to the rock feature if needed to remain eligible. A suggestion was made to bring the issue to the governor's office for clearance. Mr. Brown clarified that the project is compliant with the Master Plan, but will not know if the project will remain eligible for state match until he sees a cost breakdown.

#4 – West Vermilion Marsh Creation and Shoreline Protection. This project was presented by Dr. Sharon Osowski, EPA. This project is consistent with the 2012Master Plan and is located on the eastern portion of Rainey Marsh. The project was previously proposed and was a candidate in PPL 25. It seeks to create and nourish 651 acres of marsh east of Hog Lake, and a small marsh restoration along a shoreline remnant between North Lake and Vermilion Bay. Both these areas will be further protected by shoreline armoring features which total 18,351 ft. The project will protect a refuge area which was donated to the state in 1911. The construction cost including a 25% contingency is $17.3 million; fully funded cost range is estimated at $20-$25 million. Mr. Moertle reminded Dr. Osowski that the state DWF will assume liability for maintaining the Shoreline Protection feature; that assertion was confirmed by Todd Baker with the LDWF. Mr. Libersat spoke in support of the project, commending the shoreline protection features. A question was raised about the rock shoreline exceeding the 25% threshold; Mr. Brown clarified that the navigation channel policy does not apply to shoreline protection along the bay.

#4 – Lake Sand Marsh Creation and Shoreline Protection Project. This project was presented by Cindy Steyer of the NRCS. The project is consistent with the 2012 and Draft 2017 Master Plans. The project addresses critical areas of shoreline areas on the southern West Cote Blanche Bay and within Lake Sand and Lake Hawkins, and also addresses the fragmenting of marsh between the

lakes. The project builds on previous projects TV-14 and TV-21. Project features include 19,431 linear feet of rock breakwater along the bay shoreline of marshes, 90 acres of marsh creation, 210 acres of marsh nourishment, and 17,144 linear feet of interior lake rim restoration. Lance Campbell of DWF spoke in support of the project, citing crucial needs on the NE side of the refuge. Ray Freeman of Iberia Parish Levee District spoke in favor of the project, pointing out that if Marsh Island is left to the forces of nature, that entire region of Louisiana is in jeopardy.

A motion was made and seconded to close nominations in Teche-Vermilion Basin. The motion carried without objection.

b. Mr. Boustany opened the floor for nominations of Coastwide Projects.

#1 – Feral Swine Control. This project was presented by Ronnie Paille with the FWS. He began with photos of feral swine damage, explaining that these animals wallow in and forage on the roots and tubers of marsh vegetation, resulting in disturbances that likely accelerate shoreline erosion. Furthermore they've been known to feed on alligator eggs, eggs of ground-nesting birds, eggs of endangered sea turtles, and to consume baby muskrats and fiddler crabs. Their reproductive rates are very high; some experts believe that 75% of the population would have to be removed yearly to maintain a stable population. This project is modeled from a 2013 study conducted by Pass a Loutre WMA wherein a helicopter shoot resulted in 103 hogs killed. One year later a vegetative survey across a 7,100 acre marsh revealed damaged acreage was reduced by 179 acres. This project proposes to spend $200,000 per year for cooperating landowners to hire USDA Animal Plant Health Inspection Service (APHIS) personnel and equipment or private helicopter services for annual or bi-annual helicopter gunning on their properties. Such efforts could reduce feral hog damage by 1,343 – 2,685 acres annually. Costs over the 20-year project life would total $20 million. No questions or comments were proffered.

c. Mr. Boustany opened the floor for nominations of Demonstration Projects.

#1 – Shoreline Protection Utilizing In Situ- Engineered Systems. The project was presented by Terry Dugas with Project Consulting Services and Carl Peckhouse with RECON. The product he highlighted is a LSS Reagent developed by RECON which will react with the native soils onsite to form a hard, water resistant substance not prone to erosion or degradation associated with wave energy and water inundation, potentially useful in shoreline protection, levee construction and terracing. The ratio of reagent to soil by weight depends on the soil itself so preliminary testing would be performed at each site. The reagent is mixed onsite and remains in place. His presentation includes success stories involving two other projects – one to contain contaminants and one to construct levees around an LNG plant. One advantage to the material is that it is lightweight and not prone to subsidence. Mr. Leonard cited another CWPPRA project and asserted that the cost of embedding this into the landscape would have been approximately one-fifth of the cost of traditional rip-rap. A question was raised about the product durability in the presence of organic soils. Mr. Peckhouse replied that the organics are mixed in the matrix. If organic content is high, the amount of reagent added is adjusted. Another question was asked regarding how the reagent is mixed with the onsite soils. Mr. Peckhouse answered that an excavator is used. Lastly, a question was posed about whether or not the reagent is a powder; Mr. Peckhouse affirmed that it is.

#3 – Living Blanket. This project was presented by Blaine Sanchez and Chris Cannon. He highlighted the patent-pending process and product which seeds oyster larvae onto an articulating

concrete mat. It is fully modular, and Mr. Sanchez claims that it is the only product available that upon placement is a living shoreline. Oyster stock is obtained from individual project areas. As opposed to other products that depend on natural oyster recruitment, this product is already embedded with native oyster larvae and is less vulnerable to wave and tidal influence for growth and viability. Costs are comparable to other concrete products used in coastal protection and restoration. A question was asked regarding the location of the production facility. Mr. Cannon replied that the oyster hatchery is in Mississippi, the concrete facility is located north of Baton Rouge. Another question was asked about the placement of the mats. Mr. Sanchez responded that the mats will stay in place, and that spawning oysters would naturally be dispersed and potentially start new oyster colonies. Mr. Cannon interjected that they utilize hopper barges to seed the blankets and have the capacity to layout 3,000 linear feet per day. Another question was asked the about thickness of the blanket; Mr. Sanchez replied from 4 – 9 inches. A question was posed about whether any project has been funded. Mr. Cannon replied that a large-scale test in the Cocodrie area had been self-funded. A question was posed about the size of the blankets. Mr. Sanchez replied that the height is 17 inches, but that the length could be customized from 8-28 feet, according to project specifications. Mr. Cannon interjected that the most common size is 8 x 28 feet for seeding purposes, asserting that the process results in 1,000 seeded oysters per square foot. The back of the mats are treated with wax so that oyster seeding only occurs on the exposed side of the blanket.

Mr. Boustany deferred the remaining demonstration projects until the end of the next session.

d. Mr. Boustany opened the floor for nominations in the Atchafalaya Basin.

No projects were presented.

A motion was made and seconded to close nominations for the Atchafalaya Basin. The motion carried without objection.

e. Mr. Boustany opened the floor for nominations in the Terrebonne Basin.

#1 – North Terrebonne Marsh Creation. Jenna Brunet and Lauren Robichaux of South Terrebonne High school presented the project on behalf of the EPA. The project seeks to create 730 acres of marsh using dredge material from Lake Felicity, and will be contained initially and planted for sustainability. The estimated cost including a 25% contingency is $25 million; the fully funded range is $25 to $30 million. A question regarding whether or not the project is located south of the Twin Pipeline; the presenters answered affirmatively.

#2 – Grand Caillou Marsh Creation and Terracing. The project was presented by Ronnie Paille of the FWS. The project is located south of Falgout Canal between Bayou Du Large and Bayou Grand Caillou in an area consistent with the Draft 2017 Master Plan. The project intends to install 429 acres of marsh and 23,400 linear feet of terracing in an attempt to reduce north-south water exchange that contributes to marsh degradation. The borrow area is located in Sister Lake, which is a moderate pump distance. The construction cost including a 25% contingency is an estimated $30 million. No question or comments were proffered.

#3 – Bayou Terrebonne Freshwater Diversion project. This project was presented by Todd Baker with DWF. It was a candidate project in PPL 26. The project intends to restore the natural

hydrology of the area. By utilizing and improving existing pump stations and an existing canal system, this project will redirect freshwater from Bayou Terrebonne in to the marsh. Mr. Baker cited other freshwater diversion projects in the area that are nourishing marshes, resulting in successful rebound in previously open water acres. Because soils in the area are not conducive to marsh creation, Mr. Baker asserts that this option is the most feasible, and will result in enhancement of many more acres than can be calculated. The additional feature of 26,000 linear feet of terracing will be conducive to the creation of approximately 16 acres of marsh. Mr. Baker pointed out that because these marshes are within impounded marsh management units there is no exchange of aquatic organisms. He insisted that at some point the water will have to be released, the MMUs opened up partially, and this will enhance the ingress and egress of wildlife organisms. He also expects an enhancement of submerged aquatic vegetation. The fully-funded cost estimate is $22.6 million. A comment was made by Mark Black in support of the project, who also asserts that the diversion will eventually have an expanded area of benefit. Monique Verdin of the United Houma Nation also spoke in strong favor of the project. Mr. Boustany reiterated the successful rebound of marsh in other areas of freshwater diversion, and asserted that this is one of the only options in this particular area of the state.

#4 – Lake Chapeau 2 Marsh Creation. Patrick Williams with NOAA Fisheries presented this project, which is consistent with the Draft 2017 Master Plan. The project seeks to build upon past projects, and restore the western and southern shoreline of Lake Chapeau on Point au Fer Island. Two marsh creation areas have been defined, and will utilize dredge material from Atchafalaya Bay. The project will repair a breach that has opened up between Locust Bayou and Lake Chapeau. The goal is to restore 360 acres and nourish 154 acres of marsh. The created marsh will be planted with smooth cordgrass. The fully funded cost range is $30 to $35 million. Randy Moertle commented that that Point au Fer is ranked #5 in the state for total benefits, and offers full landowner support of the project. A Morgan City representative also spoke in favor of the project stating that Point au Fer Island is first line of defense for Morgan City and East St. Mary Parish during major storm events. She also asserted that dredging of the bay is helpful in allowing floodwaters to drain out of Morgan City.

#5 – West Louisiana Highway 1 Marsh Creation and Terracing. This project was presented by Dawn Davis with the NOAA Fisheries. Project was a candidate in PPL 26, and is consistent with the Draft 2017 Master Plan. This project includes 292 acres of marsh creation and 54 acres of marsh nourishment in a cell south of the Twin Pipelines along the west side of LA-1, and will offer protection to the highway during high water events. The currently proposed borrow source is Catfish Lake. The construction cost including a 25% contingency is $30- $35 million. No questions or comments were proffered.

#6 – East Catfish Lake Marsh Creation and Terracing. This project was presented by Mr. Kevin Roy, USFWS. The project is consistent with the 2012 Master Plan, but is not yet included in the Draft 2017 Master Plan. The area east of Catfish Lake particularly is inundated with oil and gas canals, with only spoil banks between it and Golden Meadows. The lake shoreline is eroding, with rates as high as 29 feet per year on the southeast shoreline. This project is essentially an extension to southeast of an NRCS project (PPL 22 North Catfish Lake Marsh Creation) currently in Phase I. The project consists of 483 acres of marsh creation in three cells, 6,900 linear feet of shoreline armoring at those cells, 37,000 – 38,000 LF of terracing in three cells; adding other areas of terracing may be considered. The project would use Catfish Lake as a borrow source. The construction cost including a 25% contingency is $25 to $30 million. No questions or comments were proffered.

#7 – Small Bayou LaPointe Marsh and Ridge Restoration. This project was presented by Mr. Kevin Roy, USFWS. This project is consistent with the 2012 Master Plan; the ridge component was taken out of the Draft 2017 Master Plan, but the marsh creation component was added. This project is an extension eastward of the North Lake Mechant Landbridge Restoration project (TE-44). The proposed project features 18,500 LF (23 acres) of ridge restoration (which Mr. Roy is choosing to leave in the proposal at this time) with 393 acres of marsh creation on the back side of the ridge in three cells. The proposed borrow area is Lake Mechant. The construction cost including a 25% contingency is $25-$30 million. A question was raised about how removing the ridge feature would reduce costs. Mr. Roy responded that it would probably reduce project costs by $2 to $3 million.

#8 – West Raccourci Bay Marsh Creation and Terracing. This project was presented by Mr. Kevin Roy, USFWS. The project area is to the east of TE-72 Lost Lake Marsh Creation and Hydrology Restoration, on which construction is commencing. It also builds northward the TE-44 North Lake Mechant Landbridge Restoration project. This project features include 628 acres of contained marsh creation and 30,520 linear feet of planted terracing. Lost Lake would likely be the borrow site for dredged material. The construction cost including a 25% contingency is $25 to $30 million. No questions or comments were proffered.

#9 – North Lake Boudreaux Shoreline Protection and Marsh Creation. This project was presented by Robert Dubois, USFWS. The project is located south of Houma between Hwy 56 and Hwy 57 on the northern shore of Lake Boudreaux. The area is being inundated by salt water intrusion which degrades the low-salinity marshes to the north. Other shoreline protection projects are in place, (TE-46 and the Ward 7 Mitigation Project) but key areas have been left unprotected. This project would basically fill those gaps with a total of 11,000 linear feet of shoreline protection and 300 acres of marsh creation behind the rock dike. The project also features 56,000 linear feet of terracing north of Boudreaux canal to reduce wind fetch and protect the levee. Lake Boudreaux would likely be the borrow source for dredge material. The preliminary construction cost including a 25% contingency is $26 million. No questions or comments were proffered.

#10 – Point au Fer Marsh Creation. This project was presented by Robert Dubois, USFWS. The project is located to the east of Locust Bayou which is a conduit (along with numerous oil & gas canals) for salt water intrusion. As a result interior marshes are becoming increasingly fragmented. There is a source of fresh water from the north that this project will try to maximize. Project features include 400 acres of marsh creation, 65 acres of marsh nourishment, and 56,000 linear feet of terracing. Dredge material will be obtained from the Atchafalaya Bay. The project also intends to close strategic areas along a canal just north of Locust Bayou, which is another area where salt water enters the marsh. The preliminary construction cost including a 25% contingency is $24.5 million. Dr. Osowski raised a question of project overlap with the Lake Chapeau project. Mr. Boustany asked for comments. It was stated that often times terrace fields must be adjusted because of water depth or other conditions, Mr. Dubois concurred that his proposed terrace fields could be adjusted. Mr. Williams offered his opinion that because the restoration features are different, there is not sufficient overlap. There was general consensus to keep the projects separate. Mr. Boustany asked for any objections, but none were forthcoming.

#11 Point au Chien Ridge Restoration and Marsh Creation. This project was presented by Adrian Chavarria, EPA. This project is consistent with the 2012 and Draft 2017 Master Plans. The project

is located north of Grand Bayou Felicity along the southern portions of Bayou Terrebonne. Project features include the creation of 13,985 linear feet of ridge, and create 402 acres of contained marsh utilizing dredge materials obtained from Deep Lake and Lake Raccourci. The preliminary cost estimate including a 25% contingency is $26 million. The fully funded range is $30-$35 million. No questions or comments were proffered.

#12 – North Bayou Decade Ridge and Marsh Creation. This project was presented by Mr. Ron Boustany, NRCS. This project was proposed in PPL26 and is located on the north ridge of Bayou Decade. It is synergistic with a Phase I NOAA project to the east. There does exist a rock feature along the bayou, which this project would maximize by creating the ridge behind it, then pumping materials dredged from Lake Mechant into the proposed cells behind that. The resulting features would be 310 acres of marsh creation and 18,700 linear feet of ridge creation. The construction cost including a 25% contingency is an estimated $23.8 million. No questions or comments were proffered.

#13 – South Catfish Lake Marsh Creation. This project was presented by Mr. Ron Boustany, NRCS. The project seeks to extend an existing project to the north (NRCS project from PPL22) and a project proposed earlier today that addresses the east shoreline. There are two potential borrow areas but with so much oil and gas infrastructure, it is difficult to dredge in certain areas, so the design is intentionally small. The project features includes 280 acres of marsh creation along the twin pipeline on the southern rim of the lake. The construction cost including a 25% contingency is estimated at $16 million.

A motion was made and seconded to close nominations for the Terrebonne Basin. The motion carried without objection.

e. Mr. Boustany called for nominations for any remaining Coastwide projects.

A motion was made and seconded to close nominations for the Coastwide Projects. The motion carried without objection.

f. Mr. Boustany called for nominations for the final Demonstration projects.

#4 – Crescent Stabilization System. The project was presented by Tyler Ortego with the Coastal Resilience Group. The system consists of precast concrete forms which are crescent-shaped to articulate and designed to "seal" to the bottom of an area to be stabilized. The forms may be used in bank stabilization, shoreline protection, as containment for dredge material, and may be planted if installed at grade. The system can be sized and designed for various functions, like hydrologic exchange or oyster cultivation. It is designed to be simple to install and to cost less, because it is composed of less concrete. A question was asked about utilizing the material in marsh creation, and if it would sink. Mr. Ortego replied that it is a low bearing pressure piece, i.e. a large space being occupied by a small amount of concrete.

#5 – Project Monitoring and Assessment with Unmanned Aircraft Systems (UAS). This project was presented by Dr. Whitney Broussard representing JESCO Environmental & Geotechnical Services. He introduced the concept of utilizing UAS technology to increase cost- effectiveness and enhance data deliverables of the monitoring program. He pointed out that gathering monitoring data requires many man-hours, and that site access is often difficult. UAS technology

provides high-resolution photographs and is increasingly more cost-effective. The project seeks to evaluate the use of UAS in CWPPRA's current monitoring program. He went into detail about imagery comparisons and resolution capabilities, asserting that the level of detail provided by UAS will enhance how the changing coastline can be monitored, and how projects are evaluated for success. Dr. Broussard then outlined project specifics, beginning with project site selections and ending with data analysis. The goal of the project is to provide data in order to evaluate project effectiveness and to develop a UAS standard operating procedure (SOP) for use in the CWPPRA program. The proposed two-year project is estimated at $1.2 million. A question was asked regarding how the data would be made available or shared. Dr. Broussard responded that on federally funded projects the data is public domain, and that data delivery could occur through the CRMS program. Another question was raised regarding FAA restrictions. Dr. Broussard stated that for commercial use FAA requires a certified remote pilot in command; there are a host of rules to which that person must adhere. In rural areas many of those restrictions do not apply, although landowner permission would have to be obtained.

A motion was made and seconded to close nominations for the Demonstration Projects. The motion carried without objection.

5. Agenda Item #6, Adjourn.
A motion was made and seconded to adjourn the Region 3 Planning Meeting. The motion carried without objection. The meeting was adjourned at 12:55 pm.

CEMVN-PM-C (10-1-7a) 31 Jan 17

MEMORANDUM FOR RECORD

SUBJECT: Regional Planning Team (RPT) Region 4, Abbeville, LA, 31 Jan 17, 12:30 pm

1. Agenda Item #1, Welcome and Introductions. Mr. Darryl Clark, U.S. Fish and Wildlife Service (USFWS) and RPT Region 4 Leader, opened the meeting and welcomed the attendees. The purpose of the RPT meeting is to receive nominations and public comments for projects in Region 4. He called upon Laurie Cormier - Calcasieu Parish Policy Jury, Ryan Bourriaque - Cameron Parish Administrator, Nedra Davis - Chenier Plain Authority, and Linda Duhon – Vermilion Parish Administrator, to extend a welcome; each did so. He then introduced staff who would be helping to distribute fact sheets, Mr. Randy Perkins who is recording the proceedings, Ms. Lonnie Fontenot, JESCO, who recorded the minutes, Ms. Kaitlyn Carriere, U.S. Army Corps of Engineers (USACE) CWPPRA Program Coordinator; and Ms. Michelle Fischer, U.S. Geological Survey (USGS), who provided geographic information system (GIS) mapping of the 2012 State Master Plan. Mr. Clark introduced or acknowledged the presence of several CWPPRA officials, committee and subcommittee members, RPT leaders and work group members. He then asked all attendees to introduce themselves individually and state their affiliation.

Mr. Clark congratulated the agencies who had projects approved by the Task Force for Phase I funding and listed them thus:

Bayou DeCade Ridge and Marsh Creation (NMFS)	$3,282,292
St. Catherine Island Marsh Creation & Shoreline Protection (FWS),	$2,389,308
Bayou LaLoutre Ridge and Marsh Creation (NRCS),	$3,236,952
Salvinia Weevil Propagation Facility (FWS)	$3, 800,000
(approval for the 20-year project life)	

Mr. Clark then congratulated the agencies who had projects approved by the Task Force for Phase II funding and listed them thus:

Northwest Turtle Bay Marsh Creation (BA-125)
Cameron Meadows Marsh Creation and Terracing (CS-66)

2. Agenda Item #2, Project Priority List (PPL) 27 Selection Process Brief Overview and Ground Rules for PPL 27 Nomination Meeting. Mr. Clark delivered a Power Point presentation which is available online at the CWPPRA website. He announced that copies of the agenda and PPL 27 selection process were available at the sign-in table. Mr. Clark reviewed the rest of the RPT schedule. Mr. Clark asked that the parish-designated voters identify themselves by a show of hands, and asked that they complete a voting registration form and provide their contact information to Ms. Carriere, USACE. Parishes eligible to vote for nominees in Region 4 are: Cameron, Calcasieu, and Vermilion.

Nominees must be consistent with the 2012 State Master Plan or the Draft 2017 Master Plan. Stuart Brown, CPRA will make a determination of project consistency with either plan. If two or more projects have sufficient project overlap, the RPT will vote at this meeting whether or not to combine projects. A question was raised about the eligibility of landowners to vote. Mr. Clark

responded in the negative, but asserted that landowners could make statements regarding the motion. Amid statements of dissent, Mr. Clark offered assurances that this particular ruling will be re-considered before the next round of RPT meetings.

Presenters were asked to complete a project information sheet for each project nominee, including demonstration project nominees, with the name of the proposed project and the presenter's contact information, if a factsheet was not provided. Ms. Carriere, Ms. Fischer and Ms. Fontenot should all be provided with copies. Presentations should be limited to five minutes and five PowerPoint slides. Public comments on project proposals will be accepted orally during the meeting and in writing until March 1, 2017. Written comments should be sent to Mr. Inman. Mr. Clark asked that attendees limit comments and questions to the PPL 27 proposals and processes.

Coastwide projects propose a technique applicable across the entire coast. He cited the recently approved Salvinia control project and the Nutria control project as examples. Coastwide projects can be nominated from any basin and can be presented at any or all of the RPT meetings. Each parish and Federal agency is eligible to vote for all Coastwide projects and only one Coastwide nominee may be selected during the Coastwide Electronic Voting on March 7, 2017. The Technical Committee may or may not select a Coastwide project.

Demonstration projects demonstrate a technology which can be transferred to other areas in coastal Louisiana. He cited the Non-Rock project in Vermilion Bay as an example. The Engineering and Environmental Work Groups will determine whether or not a project meets CWPPRA Standard Operating Procedures (SOP) criteria. The RPT will select up to six demonstration projects; the Technical Committee may select up to three demonstration projects at the April 27, 2017 meeting. The Work Groups may recommend that no demonstration projects move into the candidate stage. Previous demonstration projects must be re-nominated to be considered for PPL 27.

3. Agenda Item #3, Explanation of Coastwide Voting Process. The Coastwide Electronic Voting will be held on March 7, 2017. The RPTs will select four projects per basin in the Terrebonne and Barataria Basins; three projects per basin in the Pontchartrain and Breton Sound Basins; two projects per basin in the Mermentau, Teche-Vermilion, and Calcasieu-Sabine Basins; and one project in the Atchafalaya Basin. If proposed, one Coastwide project may be chosen for inclusion as a nominee. In addition, the RPTs will select up to six demonstration projects for further evaluation.

Parishes must identify their voting representative at the RPT meeting to be eligible to vote. No additional projects can be nominated and no significant changes can be made to projects after the RPT meeting. Public comments will be accepted at the RPT meetings and written comments can be submitted to Mr. Inman until March 1, 2017.

Mr. Clark explained the voting process. Excel spreadsheets and portable document format (pdf) documents will be provided to the voting representatives one week prior to the vote. Voters will receive voting sheets for the basins for which they are eligible to vote, and the column on which they need to mark their vote will be highlighted. Voters must email or fax their votes to Ms. Carriere by 10:30 am on March 7, 2017.

Following the Coastwide Electronic Voting, an agency will be assigned to each project to prepare a factsheet and map if one is not already prepared. The Engineering and Environmental Work Groups will then review the draft features and assign preliminary costs and benefits. They will also verify that the Coastwide and Demonstration projects meet PPL 27 requirements.

Mr. Clark reviewed the remaining steps in the PPL 27 process. Ten candidate projects and up to three demonstration projects will be selected at the April 27, 2017 Technical Committee Meeting. Written & oral comments will be accepted at the Technical Committee Meeting. Candidate projects will undergo further review between May and October, and the Technical Committee will vote to recommend up to four projects for Phase I Engineering and Design (E&D) on December 7, 2017. The Task Force will make the final decision in January 2018.

4. Agenda Item #4, PPL 26 Project Nominations (Entire RPT).

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

#1 – East Holly Beach Shoreline Protection. This project was presented by Mr. Ryan Bourriaque, Cameron Parish Administrator. It has been a priority for the parish and other stakeholders for a long time, and has been nominated several times. It is consistent with the 2012 Master Plan, and is a priority in the Cameron Parish Master Plan. Using data collected from the Governor's Office of Homeland Security & Emergency Preparedness (GOHSEP), GIS data, and data from the SW Coastal Study, Mr. Bourriaque iterated many benefits that would result from the construction of these breakwaters. The project would result in the protection of 267 acres of beach and supratidal habitat directly, as well as 654 acres inland behind the breakwaters, $30 billion in expected industrial expansion, $375 million in residential and non-residential structures, and $104 million in CWPPRA projects. The area is a critical habitat for the threatened piping plover. The fully funded cost range is $30 to $35 million, which includes approximately 15,000 LF of breakwaters. However, if the Work Groups recommend a more suitable construction alternative, the Police Jury is open to it. No questions or comments were proffered.

#2 – East Prong Marsh Creation and Terracing. This project was presented by Angela Trahan, USFWS. It is a continuation of efforts to recreate marsh in the Cameron-Creole watershed and near the Cameron Prairie NWR. This project is east of CS-54 on which construction has been delayed. Problems in the area include saltwater intrusion, storm impacts and wave-induced erosion and prolonged inundation. Project goals are to create 435 acres of marsh, 25,000 linear feet of inland terraces, and spray dredge approximately 55,000 linear feet of bayous onto the bankline to restore the functional capacity of the waterways and the natural tidal hydrologic pattern of the system. Alternative solutions may be considered as well to benefit species of conservation concern. The construction cost including a 25% contingency is approximately $23 million.

#3 – Long Point Bayou Marsh Creation. This project was presented by Dr. Sharon Osowski, EPA. It is consistent with the Draft 2017 Master Plan. It is located about four miles south of Hackberry to the west of Calcasieu Lake. The area hydrology has been disrupted; subsidence and saltwater intrusion have led to severe marsh degradation. Historically the area was healthy fresh water marsh, but is now mostly open water. Project goals are to create and nourish 376 acres of marsh utilizing sediment from Calcasieu River upland disposal sites or beneficial use of material

from the Calcasieu Ship Channel. The project is synergistic with CS-28. The cost estimate is $16 million for construction; fully funded costs are estimated at $20 to $25 million. A question of property ownership was asked. Dr. Osowski believes that David Richard owns it, but he has not been contacted yet because this project is only conceptual at this point. A question of cost was raised; Dr. Osowski referred to the project fact sheet to clarify the cost difference between the sources of borrow material.

#4 – Sabine Marsh Creation Cycles 6&7. This project was nominated by Ronnie Paille, FWS for Robert Dubois. It is a continuation of the project that utilizes material from maintenance dredging in the Calcasieu Ship Channel to create marsh in the Sabine National Wildlife Refuge. The project proposes two events – Cycles 6a & 6b in one year, then two years later Cycles 7a and 7b, resulting in the placement of beneficial use material in four different locations. One of these areas is located just outside the Sabine Refuge on private land, the owner of which is requesting the project. The project would utilize the permanent pipeline, and must follow the USACE dredging schedule. The cost estimate with 25% contingency is $18 million. A question was raised about the cost. Mr. Paille clarified that the cost estimate is for both cycles, all four sites. Scott Wandell was called upon to explain the permanent pipeline. It was constructed in 2010; it was used in 2014 and 2015 to create Units 1A and Cycles 4 and 5, resulting in about 900 acres. Cost saving is realized each time the permanent pipeline is used. Mr. Moertle asked for specification regarding costs since the pipeline is already there and there is no charge for the dredge material. Mr. Wandell explained that there is still some amount of temporary dredge pipe required, and that there are mobilization and demobilization costs. There may also be costs associated with dike construction. A question was asked regarding the Cycles and how they coincide with dredging events. Mr. Wardell responded that the full template of the channel would need to be dredged to have enough material for a full cycle. Ms. Cormier asked how often the river is dredged. Mr. Wandell replied that from mile 5 – 15 it is dredged every two years. Mr. Inman interjected to exemplify cost savings during the last dredge cycle. Billy Leonard (FWS), Sabine Refuge, commented that the cycles previously constructed are responding well – emerging marsh is apparent at all sites.

#5 – West Sabine Refuge Marsh Creation. This project was nominated by Ronnie Paille, FWS. The project is located in the western portion of the Sabine National Wildlife Refuge to the east of Sabine Lake. It is consistent with the Draft 2017 Master Plan. A portion of the project area is on Gray Estate; David Richard who represents the estate is in favor of the project location as is Billy Leonard. The project would create 462 acres of marsh and nourish 197 acres with material dredged from Sabine Lake. The cost of construction including a 25% contingency is $23 Million. Mr. Moertle asked a question of Mr. Brown about acquiring interior borrow, to which Mr. Brown responded affirmatively. Mr. Leonard commented that this project would retain sediment currently being lost from Three Bayou. Mr. Paille asked Mr. Leonard if he had observed erosion of the banks of the large open areas; Mr. Leonard responded affirmatively citing wave fetch and feral hog destruction as the primary culprits.

#6 – North Mud Lake Marsh Creation and Nourishment. This project was presented by Donna Rogers, NOAA Fisheries. It was previously presented in PPL- 26 and is consistent with the 2012 Master Plan. The project area is north of Mud Lake, and suffered damage from Hurricanes Rita and Ike. Much of the area has been converted from brackish marsh to open water. The project has been modified to reduce cost associated with borrow material. The project intent is to create and nourish 330 acres of brackish marsh utilizing dredge material from a nearshore Gulf area.

Fully funded costs are estimated in the range of $30 to $35 million. Ms. Cormier questioned the logic of using an offshore borrow site as opposed to the ship channel. Ms. Rogers asserted that the issue of timing project activities with USACE dredging events is difficult. Ms. Cormier then asked about the cost effectiveness of using the permanent pipeline. Ms. Rogers and others in attendance stated that the pumping distance is too great. Mr. Wandell pointed out that dredge material from the lower end of the channel is too scarce for the fill area, so the material would have to come from a more northern area, would require booster pumps, and ultimately be piped through West Cove, potentially impacting oyster seed areas therein. Mr. Leonard commented that the FWS is in full support of the project, citing wildlife benefits and enhanced recreational use such as kayaking, fishing and duck hunting.

Nominations were closed for the Calcasieu-Sabine Basin without objection.

b. Mr. Clark opened the floor for nominations for Coastwide projects.

#1 – Feral Swine Control. This project was presented by Ronnie Paille with the FWS. He began with photos of feral swine damage, explaining that these animals wallow in and forage on the roots and tubers of marsh vegetation, resulting in disturbances that likely accelerate shoreline erosion. Furthermore they've been known to feed on alligator eggs, eggs of ground-nesting birds, eggs of endangered sea turtles, and to consume baby muskrats and fiddler crabs. Their reproductive rates are very high; some experts believe that 75% of the population would have to be removed yearly to maintain a stable population. This project is modeled from a 2013 study conducted by Pass a Loutre WMA wherein a helicopter shoot resulted in 103 hogs killed. One year later a vegetative survey across a 7,100 acre marsh revealed damaged acreage was reduced by 179 acres. Mr. Paille presented evidence comparing airboat hunts to helicopter hunts and declared that more hogs can be killed from the air. This project proposes to spend $200,000 per year for cooperating landowners to hire USDA Animal Plant Health Inspection Service (APHIS) personnel and equipment or private helicopter services for annual or bi-annual helicopter gunning on their properties. Such efforts could reduce feral hog damage by 1,343 – 2,685 acres annually. Costs over the 20-year project life would total $20 million. A question was posed about the minimum acreage that can be requested and still have a beneficial impact. Mr. Paille responded that this issue needs to be addressed in order to develop a comprehensive plan; ideally several landowners with adjoining property would sign up for the program. Mr. Moertle reiterated the seriousness of the damage and of the populations in Vermilion Parish, claiming that landowners there have begun coordinated hunts. He stated that if marsh is burned and begins to green up, the hogs move in and have nowhere to hide, creating an opportunity to kill a large number of them at a time. Mr. Leonard concurs with pre-burning to increase kill numbers and with multi-landowner cooperation. Chad Courville of the Miami Corporation expressed concern about liability issues regarding the type of ammunition used and potential to hit pipelines. Mr. Paille responded that APHIS employs shotguns with a non-toxic shot rather than a rifle in order to avoid that issue. Mr. Courville suggested providing hunters with shape files or some other resource so they could be aware of such features on the properties. Jason Kroll directed a question to Billy Leonard regarding population. Mr. Leonard responded that estimating the original population and the current population is difficult, but that the reproductive rates are very high. Mr. Moertle pointed out that the trajectory of a bullet from a helicopter renders that technique safer than shooting across the landscape from an airboat.

Nominations were closed for Coastwide project without objection.

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

#1 – Living Blanket. This project was presented by Blaine Sanchez. He highlighted the patent-pending process and product which seeds oyster larvae onto an articulating concrete mat. It is fully modular, and Mr. Sanchez claims that it is the only product available that upon placement is a living shoreline. Oyster stock is obtained from individual project areas. As opposed to other products that depend on natural oyster recruitment, this product is already embedded with native oyster larvae and is less vulnerable to wave and tidal influence for growth and viability. Costs are comparable to other concrete products used in coastal protection and restoration. Mr. Paille asked about seasonality associated with spawning and seeding the oysters. Mr. Sanchez responded that the oysters are cultivated in a controlled setting and placed in dormancy; they can be introduced according to project timelines. Mr. Clark asked about where project areas exist. Mr. Sanchez replied that while the system has been tested extensively, the product has never actually been placed. Mr. Williams asked about per unit cost. Mr. Sanchez did not have that information, but said he could provide it. Mr. Clark wondered if the technology is cost-feasible in areas like Louisiana when there may not be a shortage of oyster larvae.

Mr. Clark closed the floor for nominations for Demonstration projects in the Calcasieu-Sabine Basin without objection.

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

#1 – Highway 82 South Marsh Creation and Terracing. The project was presented by Jason Kroll, NOAA Fisheries presenting on behalf of Richard Hartman. It is a "re-make" of the Sweeney Tract Marsh Creation (PPL-25) project. The project vicinity is east of Creole & Grand Chenier, just southwest of Grand Lake. The project seeks to create 320 acres of planted marsh, in an east-west orientation along the south side of Hwy 82, and construct 50,000 linear feet of planted terraces on the south side of the marsh creation. The design may include creeks and ponds. Mr. Kroll cited multi-agency interest and existing projects in the area. Fully funded estimated costs are $30 to $35 million. Mr. Clark questioned if the property was owned by the school board. Mr. Kroll affirmed that it was both school board property and property of the Sweeney heirs. He asserted that both entities had been contacted and are preliminarily in favor of it. There is an upcoming school board meeting which Mr. Hartman will make a presentation so the school board can consider a resolution regarding the project.

#2 Gulf Shoreline Protection at Beach Prong. This project was presented by Ronnie Paille, FWS. He began by explaining the hydrologic function of Beach Prong as it relates to Hog Bayou and the Gulf of Mexico. During high water events, Beach Prong connects Hog Bayou to the Gulf, providing drainage of the area. If erosion continues the beach would be lost and Hog Bayou could become impounded, creating drainage problems. The project proposes the installation of 15,000 linear feet of fore-shore rock dike with lightweight aggregate core, which would save 278 acres over 20 years. Estimated project costs are $31 million. No questions or comments were proffered. Mr. Paille later added that the project has full support of stakeholders associated with the Miller Estate.

#3 Deep Lake Spillway Modification/ Mermentau Sub-Basin Hydrologic Restoration Project. This project was presented by Phillip Trosclair, Rockefeller Wildlife Refuge. Mr. Trosclair highlighted the fact that historically this area, primarily located in the Rockefeller WMA, has tremendous drainage issues, and

the resulting ponding damages vegetation. While water control structures exist, Mr. Trosclair insists that a faster route is necessary, especially along Highway 82. The projects features include tying into the existing culverts at Hwy 82, allowing drainage directly into the gulf. Also proposed is another set of locks which would allow a more rapid discharge of water. Another project feature is creation of 200 acres of unconfined marsh utilizing material from permitted areas indicated, with freshwater introduction to promote regeneration. Construction estimates with 25% contingency is $27.6 million. A Vermilion Parish representative spoke in full support of the project. Mr. Clark posed a question about DWF sharing in the cost. Mr. Trosclair responded that they are, and that DWF will accept responsibility of 20-year O&M for the project. Mr. Brown questioned the need for another flood gate instead of a barrel structure. Mr. Trosclair asserted that floodgates provide for maximum flow with no restrictions, and provided defense for the 60' floodgate. Mr. Bourriaque expressed Cameron Parish support of the project, and asked if the project would assist in draining areas north of the project area. Mr. Trosclair responded affirmatively, insisting that the project would enhance other drainage infrastructure throughout the basin.

#4 Southeast Pecan Island Marsh Creation and Freshwater Enhancement. This project was presented by Ron Boustany, NRCS. He began by stating that the general idea is to move freshwater from the upper basin into marshes south of Highway 82. The project will attempt to utilize existing canals, and improve existing infrastructure. In addition to the freshwater introduction component, the project will include the creation of small marsh cells, which will be surrounded by terraces for protection. An additional feature would allow for tidal flow through a flap-gated system of culverts. All features of this project are designed to work synergistically, allowing the marsh to regenerate itself. The construction estimate with 25% contingency is $10.9 million. Mr. Moertle asked if Mr. Boustany would employ the Amphibdex. Mr. Boustany responded in the affirmative and intends to investigate using dredge material from the Humble Canal.

#5 – East Pecan Island Marsh Creation. This project was presented by Adrian Chavarria, EPA. It is located between Pecan Island and the west bank of Freshwater Bayou, and is consistent with the 2012 Master Plan. It is co-sponsored by EPA and USACE. Primary goals are to create 521 acres of marsh creation utilizing borrow from Vermilion Bay. It will retain historical ponds and add creeks for hydrologic functionality. Construction costs including a 25% contingency is $43 million; fully funded estimate is $54 million. Mr. Libersat pointed out that this project is synergistic with an adjacent NRCS project, and asked about reducing cost. Mr. Chavarria indicated that certainly the project could be re-analyzed and modified if not selected. The project developers were commended for its selection as a candidate project last year.

#6 – North Big Marsh Restoration Project. This project was presented by Mr. Darryl Clark, USFWS. The project is located NE of Pecan Island on land adjacent to the previously proposed project. The property is owned by Vermilion Corporation. Mr. Clark began by iterating the accelerated rates of loss primarily due to Hurricanes Rita and Ike. The project seeks to restore 450 acres of fresh and intermediate marsh with material dredged from Little Vermilion Bay or the Gulf of Mexico. Another project feature is the introduction of freshwater from White Lake via 3, 48 inch diameter culverts at Hwy 82. This feature would include improving an existing trenasse through which water would enter the marsh. The construction cost including a 25% contingency is $40 to $45 million. Mr. Moertle commented that the project has full support of the Rainey Conservation alliance.

#8 – South Pecan Island Marsh Creation. This project was nominated by Mr. Darryl Clark, USFWS. He began with land loss statistics of 46,000 acres south of Pecan Island. The project is

located near the Gulf of Mexico shoreline southeast of Pecan Island on land owned by the Vermilion Corporation. Project sponsors are Vermilion Corporation and FWS. The Project intends to restore and nourish 620 acres of intermediate and brackish marsh utilizing Gulf of Mexico borrow material. Project features include four separate marsh creation cells, each of which is designed with a small pond and a constructed trenasse to promote tidal exchange. The construction cost including a 25% contingency is $40 to $45 million. Mr. Moertle commented that the project has full support of the Rainey Conservation alliance.

e. Mr. Clark opened the floor for nominations of Coastwide projects in the Mermentau Basin.

No projects were proffered.

Nominations were closed for Coastwide projects in the Mermentau Basin without objection.

f. Mr. Clark opened the floor for nominations of Demonstration projects in the Mermentau Basin

#1 – Shoreline Protection Utilizing In Situ- Engineered Systems. The project was presented by Richard Leonard with Project Consulting Services and Carl Peckhouse with RECON. The product he highlighted is a LSS Reagent developed by RECON which will react with the native soils onsite to form a hard, water resistant substance not prone to erosion or degradation associated with wave energy and water inundation, potentially useful in shoreline protection, levee construction and terracing. The ratio of reagent to soil by weight depends on the soil itself so preliminary testing would be performed at each site. The reagent is mixed onsite and remains in place. His presentation includes success stories involving two other projects – one to contain contaminants and one to construct levees around an LNG plant. One advantage to the material is that it is lightweight and not prone to subsidence. Mr. Leonard cited another CWPPRA project and asserted that the cost of embedding this into the landscape would have been approximately one-fifth of the cost of traditional rip-rap. A question was asked about elevation at the refuge. Mr. Leonard responded that the elevation is at 2.5-3 feet; they built it up to 3.5 feet. Mr. Trosclair pointed out that the shell hash is unstable and in his opinion this product would be very stable, allowing natural rebuilding of beach. Mr. Clark explained that while this project is being proposed at Rockefeller Refuge, the ultimately location of the demonstration project is up the engineering work group if the project is selected.

Nominations were closed for demonstration projects without objection.

5. Agenda Item #5, Announcement of Upcoming PPL-27, Task Force, Technical Committee and Other Program Meetings. Mr. Clark reminded sponsoring agencies that no significant changes can be made to projects at this point.

6. Agenda Item #6, Adjourn.
Mr. Clark asked for a motion to adjourn; the motion was made and seconded. The meeting was adjourned at 3:12 pm.