



Coastal Protection and Restoration Authority
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2017 Coastal Master Plan

Attachment G3: Framework Development Team



Report: Final

Date: April 2017

Prepared By: Nick Speyrer and Avery Woodard (Emergent Method)

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Overview

The Framework Development Team (FDT) served as the primary collaborative group supporting and providing insight and counsel to the Master Plan Delivery Team and consisted of representatives from federal, state, and local governments; NGOs; business and industry; community; and academia. Through individual outreach and engagement to various citizen groups, FDT members were tasked with bringing citizens' ideas to the table and reporting back on how their ideas were discussed and addressed in the 2017 Coastal Master Plan.

The Framework Development Team held 10 in person meetings between July 2014 and April 2017. The following attachment provides an overview of the group's structure and as well as key discussions and outcomes from each meeting.

Ground Rules

Framework Development Team

July 21, 2014

Background

The Coastal Protection and Restoration Authority (CPRA) is convening a Framework Development Team (FDT) to support CPRA in fulfilling its mission to develop the 2017 Coastal Master Plan.

The FDT will serve as the primary collaborative group supporting and providing insight and counsel to the Master Plan Delivery Team (MPDT). The FDT membership will draw upon individuals who have previously served on the FDT during the 2012 Coastal Master Plan effort, as well as new participants. The FDT will consist of representatives from federal, state and local governments; NGOs; business and industry; community; and academia. FDT members will offer specific guidance on all of the major elements of the 2017 Coastal Master Plan. As key advisors, FDT members will work collaboratively to identify, discuss and reach a common understanding about the tough choices that lie at the heart of protecting and restoring Louisiana's coast. FDT members will reach out to citizens who share their interests, bring these citizens' ideas to the table and report back to these citizens about how their ideas were discussed and addressed in the 2017 Coastal Master Plan. In this capacity, the FDT serves as an important distribution network for early-stage communications.

The FDT will meet approximately 10 times in person between July 2014 and April 2017. The FDT may also meet in additional work sessions or webinars as appropriate. Most FDT meetings will be held in centrally located areas and will begin at 9:00 a.m. and conclude before 3:00 p.m.

The FDT's work will be guided by several key principles:

1. **"We are all in this together."** To be successful, the 2017 Coastal Master Plan must integrate the interests of a wide variety of coast wide interests and be mindful of the institutional context of the work.
2. **Legitimacy, accountability and representativeness.** To ensure the process is credible and results in advice useful to CPRA and the MPDT, the FDT's work must be structured to foster effective representation, accountability and thoughtful deliberation and weighing of choices and tradeoffs.
3. **Outcome-focused deliberations.** There are no easy answers, and all FDT members have their own ideas and desires. While disagreements and difficult discussions are expected, the purpose of the FDT is to outline concerns and work to develop solutions.

It is expected that the time commitment necessary to prepare for and actively participate as a FDT member is likely to be substantial.

Ground Rules

Membership. Members have been appointed to serve by CPRA's executive director and were selected to represent a broad range of stakeholder groups, geographies and agency perspectives.

Communication with Constituencies. FDT members should keep their constituencies informed of the FDT's efforts and report relevant feedback to the FDT. In reporting back, FDT members will strive to integrate the views of their constituency rather than resorting to a "lowest common denominator" portrayal.

Role of Alternatives. Primary FDT members will make every effort to attend all FDT meetings. An alternate has been designated to attend and speak on behalf of members unable to attend a meeting. Each FDT member may have one alternate. If neither the member nor the alternate can participate, another individual is welcome to attend the meeting as an observer.

Collaborative, Effective and Respectful Deliberations. The following ground rules are intended to foster collaborative, effective and respectful FDT deliberations:

- **Active, focused participation.** Every participant is responsible for communicating his/her perspectives. Everyone is encouraged to participate; no one dominates. Only one person will speak at a time. Everyone will help stay on track.
- **Respectful interaction.** Participants will respect each other's personal integrity, values and legitimacy of interests. Participants will assist each other in creating an effective atmosphere by turning off cell phones, refraining from sidebar conversations and using computers for FDT-related work only.
- **Integration and creative thinking.** Participants will strive to be open-minded and integrate members' ideas and interests. Participants will attempt to reframe contentious issues and offer creative solutions in a timely fashion to enable constructive dialogue.
- **Adherence to ground rules.** As a set of mutual obligations, FDT members will commit to adhere to these rules once they are adopted. FDT members should help uphold and enforce these rules.

Meeting Materials. The MPDT commits to provide, to the extent practicable, all primary meeting materials at least three days prior to meetings in order to give FDT members ample time to review the relevant information. All FDT members will have equal access to meeting materials. Members are expected to review meeting materials beforehand to foster informed deliberations. Members also are asked to bring supporting materials to each FDT meeting.

Information Sharing. FDT members recognize deliberation on the 2017 Coastal Master Plan depends on access to the best readily available information. FDT members commit to identify

information needs in a timely fashion and to contribute in framing needs for additional research and analysis. FDT members commit to share, and not withhold, relevant information. Likewise, the MPDT will strive to share information to the greatest extent possible, consistent with existing legal and regulatory constraints. At times, draft and preliminary information will be provided to the FDT, and FDT members will be asked to treat that information as such. Analyses will be presented in a manner that distinguishes interpretation and inference from underlying data.

Meeting Participation. Meeting deliberations include primary FDT members only. If the primary FDT member is not present, that primary member's alternate may participate. Designated alternates are welcome to attend FDT sessions as observers. Also, as needed, the MPDT may ask CPRA staff and other experts in attendance to share relevant expertise and information.

Working Groups. Cross-interest work groups may be an important way to develop constructive, integrative work products during and between FDT meetings. The aim of such work teams is to encourage multi-interest options and work products rather than work products put forward by a single bloc or interest group. It is anticipated that between meetings work teams will meet by teleconference. As appropriate, opportunities will be provided during FDT meetings for caucusing within and across interest groups.

Decision-Making. The FDT will seek to develop recommendations that reflect broad, cross-interest concurrence. In this context, "concurrence" means the recommendation in question is supported by all FDT members present at the meeting. This does not necessarily mean each FDT member likes every aspect of the recommendation but that each member is willing to accept and support it. When broad, cross-interest concurrence cannot be reached in the time available, the range of possibilities considered by the FDT will be presented.

Meeting Summaries. The MPDT will prepare and distribute a Key Outcomes Memorandum (KOM) to FDT members following each meeting. The KOM will summarize key decisions made, issues discussed and the next steps identified. It will not serve as a meeting transcript, nor will it typically attribute comments or suggestions to specific individuals. In general, the KOM will characterize the extent of concurrence reached on important Master Plan elements and issues that will require further deliberation.

In the event that FDT members believe the KOM significantly misrepresents particular decisions, issues, or next steps, they should notify the project facilitators, or conveners in a timely fashion. The MPDT will review the matter and use their professional judgment to determine if revisions are needed. If so, the MPDT will prepare a revised KOM and distribute it in a timely fashion to all FDT members.

Communication Protocols. FDT members wishing to send email correspondence, or documents to the full FDT are asked to send these through the MPDT. Should FDT members email documents to their constituents to elicit feedback, FDT members are asked to make clear that the

materials are being provided to support FDT deliberations and not targeted for general distribution.

Media Contact. The FDT recognizes that the press may contact members during the course of the FDT deliberations. FDT members agree to the following ground rules for interaction with the press:

- FDT members agree not to attribute particular comments to particular individuals, nor to characterize others' views.
- FDT members agree not to portray ideas as consensus before the FDT has explicitly agreed on them.
- FDT members inform CPRA when the 2017 Coastal Master Plan appears to be the primary focus of the media contact.

Role of Master Plan Delivery Team. The MPDT is non-partisan and will not act as an advocate for particular outcomes. The MPDT will strive to enforce the ground rules in a consistent, fair and firm manner and will ensure meetings stay on track. The MPDT will keep a list of those waiting to speak but may opt to take speakers out of turn to foster focused discussions on a particular topic. The MPDT may, at its discretion, call for breaks to refine meeting strategies to foster effective FDT deliberations. The MPDT may also recommend the use of within- and across-interests, small-group breakout sessions and will be responsible for drafting KOMs.

Key Outcomes Memo

Framework Development Team

Meeting #1 – July 10, 2014

August 14, 2014

Participants

Primary FDT Members: Todd Baker (LDWF), Sam Bentley (LSU CSI), Dwayne Bourgeois (NLLD), Michael Carloss (DU), Darryl Clark (USFWS), Laurie Cormier (Calcasieu Parish), Paul Frey (LLA), Karen Gautreaux (TNC), Henry Graham (LCA), Clint Guidry (LSA), Rick Hartman (NMFS-NOAA), Quin Kinler (NRCS), Lisa Landry (LDWF), John Lopez (LPBF), Keith Lovell (LDNR), Nick Matherne (Terrebonne Parish), David Muth (NWF), Mark Riley (GOHSEP), Jim Tripp (EDF), Robert Twilley (LA Sea Grant), Mark Wingate (USACE), Marnie Winter (Jefferson Parish), Patty Whitney (BISCO)

Alternate FDT Members: Harry Blanchet (LDWF), Ryan Bourriaque (Cameron Parish), Ron Boustany (USDA-NRCS), Cynthia Duet (NAS), Cassidy Lejeune (LDWF), Greg Linscombe (LLA), Simone Maloz (SLEC), Michael Massimi (BTNEP), Spencer Murphy (Canal Barge), Ronald Paille (USFWS), deEtte Smythe (St. Tammany Parish), Jim Stark (GICA)

Primary FDT Members Not Present: Pat Gallwey (Port of NO), Chris John (LMOGA), Scott Kirkpatrick (Coast Builders), Ryan Lambert (LCBA), Merritt Lane (Canal Barge), Larry Rase (LA River Pilots), Paul Sawyer (LED), Dan Borne (LCA)

Master Plan Delivery Team (MPDT)/CPRA Staff: Jerome Zeringue, Karim Belhadjali, Bren Haase, Mandy Green, Melanie Saucier, Michael Rabalais, Ashley Claro, Nick Speyrer, Alyson Gaharan, Tom Hunter, Mike Donahue, Wes LeBlanc, Micaela Coner, Ehab Meselhe

Others: Mark Schexnayder (LDWF)

Meeting Location

Galvez Building (602 North Fifth Street, Baton Rouge); Oliver Pollock Room

About this Key Outcomes Memorandum

As is customary procedure, the MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed and next steps identified. The KOM does not serve as a meeting transcript, nor will it typically attribute comments,

or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation and important next steps.

Welcome and Introductions – Jerome Zeringue

FDT and MPDT members were asked to introduce themselves by stating their name and organization. Jerome Zeringue then thanked everyone for participating in the FDT and described the FDT as a key advisory group for the CPRA and the agency's ongoing effort to incorporate new science, engineering and stakeholder input into its planning processes.

FDT Overview – Nick Speyrer

An overview of the FDT for the 2012 Coastal Master Plan effort was provided. Some highlights included:

- The FDT met 12 times over the 2-year planning effort and then met once again during the summer of 2012 following the adoption of the 2012 Coastal Master Plan; and,
- The FDT process was successful due to member participation and commitment.

The newly established FDT will be one of the most collaborative stakeholder groups to participate in this planning process. FDT members were encouraged to contact Nick Speyrer with any recommendations on how to best engage the FDT and best leverage FDT members' collective knowledge and experience.

FDT Ground Rules were then discussed, and a process for formally adopting Ground Rules was outlined. In advance of FDT Meeting #2, the MPDT will provide a draft version of FDT Ground Rules for the group to review and consider. Comments will be solicited and incorporated, and the FDT will proceed with adopting the Ground Rules at the next meeting. Topics to be included in the Ground Rules include the following: membership; communication with constituencies; role of alternates; collaborative, effective and respectful deliberations; meeting materials; information sharing; meeting participation; working groups; decision making; meeting summaries; communications protocol; media contact; and role of the MPDT. The MPDT process for producing and distributing KOMs was discussed and agreed upon.

Tentative future FDT meeting dates are as follows: Meeting #2 – Dec. 4, 2014; Meeting #3 – Mar. 12, 2015; Meeting #4 – Aug. 13, 2015; and Meeting #5 – Nov. 12, 2015. Agreed-upon start time was 9:00 a.m. and end time was on or before 3:00 p.m.

In addition to the FDT, focus groups (one each for fisheries, oil and gas, navigation, landowners, and communities) are being reconvened to serve as key outreach and stakeholder groups for the 2017 Coastal Master Plan. The focus groups will include representation from specific FDT members, and those FDT members will be asked to provide feedback and outcomes from those meetings back to the FDT.

CPRA Update: Implementing the Coastal Master Plan – Bren Haase

Bren Haase provided an overview of the 2012 Coastal Master Plan process, the involvement of others, ongoing work since 2008 and updates on current diversion projects. CPRA has completed \$13 billion in work since 2008, with \$2 billion spent on restoration projects.

The 2012 Coastal Master Plan recommended five Mississippi River sediment diversions (Mid Barataria, Lower Barataria, Mid Breton, Lower Breton and Lower Barataria) for the first implementation period. Mid Barataria is the only project in the Engineering and Design phase while the other four diversions are in the planning stage. An update was provided on all ongoing activities related to advancing sediment diversions (e.g., feasibility modeling, preliminary design, alternative screening, Mississippi River Hydrodynamic and Delta Management study, Diversion Advisory Panel, public engagement), and the decision making process was described. The MPDT committed to providing regular updates of these activities and how those decisions will be incorporated into the 2017 Coastal Master Plan.

In addition, FDT Members recommended that CPRA consider adaptive management options if specific diversion projects are determined to not be feasible. CPRA acknowledged that this effort is being considered and that future presentations of the process would include additional information on adaptive management.

2017 Coastal Master Plan Overview – Karim Belhadjali

A presentation was provided to describe the 2017 Coastal Master Plan. A few highlights included:

- CPRA is required to update the Coastal Master Plan every five years to consider changing environmental conditions and the need to incorporate new project ideas and concepts. There are many ongoing issues and new items to consider for 2017 – modeling and feasibility plans with diversions, RESTORE funding options, changing projects, sequencing larger projects into smaller pieces based on available funding, keystone projects and trends for each basin and updated funding assumptions.
- Engagement with stakeholders and the public will be included throughout the process.
- The planning process will require flexibility due to the potential for landscape changes and other unforeseen events (e.g., hurricanes).
- The 2017 Coastal Master Plan will build upon the 2012 Coastal Master Plan through refinement of previously selected projects and/or inclusion of new projects. CPRA will accept proposals for new projects to be included in the 2017 Coastal Master Plan. New projects can be proposed by CPRA, or by any external source, including academia, parishes, elected officials, agencies, NGO's, landowners, business/industry and the general public. Details on the program are listed here: <http://coastal.la.gov/wp-content/uploads/2013/09/2017-Coastal-Master-Plan-Project-Development-Program.pdf>. Ideas must be submitted to CPRA by Aug. 21, 2014 for consideration.

Areas for Continued Deliberation: Projects screened out of the 2012 Coastal Master Plan will not be reevaluated for 2017. New projects will be considered if new engineering, design, or construction methods are used. If projects change and we are successful in implementing long-term goals, the MPDT may be able to go back and look at older projects that could be beneficial. The Coastal Master

Plan will continue to be resource-constrained, and the addition of projects would require adjustments and, potentially, the removal of projects currently included.

Some FDT members voiced concerns over not reevaluating projects that were not included in the 2012 Coastal Master Plan while others voiced concerns regarding revisiting decisions that have already been made. Given this, the December FDT meeting will include a presentation on the proposed methodology for which projects will and will not be considered for the 2017 Coastal Master Plan effort, as well as the process and methodology for updating project attributes, and FDT members will be asked to provide their feedback and comments on this methodology and path forward.

2017 Model Improvement Plan – Ehab Meselhe, Ph.D.

Ehab Meselhe gave an overview of the Model Improvement Plan, including the tasks involved, team members and schedule. A recent version of the 2017 Coastal Master Plan Model Improvement Plan is located at <http://coastal.la.gov/wp-content/uploads/2013/09/MIP-Overview-3-12-14.pdf>.

Navigation Focus Group Report Out – Spencer Murphy

Spencer Murphy provided the FDT with a brief update on the recent Navigation Focus Group meeting held on June 19. There were three major topics of discussion during the meeting:

- The focus group was concerned with locations of diversions near federal anchorage sites. CPRA may need to consider additional diversion locations and additional locations for new federal anchorages. The group agreed to keep the dialogue going to make sure all concerns are addressed.
- The focus group provided feedback on GIWW water flows and potential issues with velocities and/or high water in areas of Bayou Sorrel.
- Issues were discussed regarding the Calcasieu Salinity Control project and the navigation industry's concerns of any gate being placed on the Calcasieu River.

Next Steps

The next FDT meeting is tentatively scheduled for Dec. 4, 2014. Expected topics for discussion include project attributes, new project concept screening, Annual Plan updates, other ongoing CPRA studies and projects, further development of the nonstructural program and socio-economic analysis and how this all comes together within a decision framework for the 2017 Coastal Master Plan.

1. The MPDT will provide updated FDT Ground Rules for review and feedback from all group members
2. FDT members are encouraged to request a meeting or presentation from CPRA for more information on the new project proposal process
3. The MPDT will consider creating a Wildlife Focus Group and will schedule upcoming meetings with the Landowners and Community Focus Group

Next Meeting: Thursday, Dec. 4, 2014, 9:00 a.m. - 3:00 p.m., State Library

2017 Coastal Master Plan

Framework Development Team Meeting #2

Key Outcomes Memo

January 14, 2015 (9 a.m. to 3 p.m.)

State Library – Seminar Center (701 North Fourth Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Sam Bentley (LSU CSI), Dwayne Bourgeois (NLLD), Michael Carloss (DU), Darryl Clark (USFWS), Laurie Cormier (Calcasieu Parish), Paul Frey (LLA), Henry Graham (LCA), Karen Gautreaux (TNC), Tyler Gray (LMOGA), Clint Guidry (LSA), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), Lisa Landry (LDWF), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), Nick Matherne (Terrebonne Parish), David Muth (NWF), Mark Riley (GOHSEP), Jim Tripp (EDF), Mark Wingate (USACE), Marnie Winter (Jefferson Parish)

Alternate FDT Members: Andrew Barron (BTNEP), Archie Chaisson (Lafourche Parish), Cynthia Duet (NAS), Brad Inman (USACE), Alexander Kolker (LUMCON), Greg Linscombe (LLA), Simone Maloz (SLEC), Ronald Paille (USFWS), deEtte Smythe (St. Tammany Parish), Jim Stark (GICA), Glenn Thomas (LDWF)

Primary FDT Members Not Present: Matt Gresham (Port of NO), Ryan Lambert (LCBA), Robert Twilley (LA Sea Grant), Patty Whitney (BISCO)

Master Plan Delivery Team (MPDT)/CPRA Staff: Jerome Zeringue, Kyle Graham, Jason Lanclos, Karim Belhadjali, Bren Haase, Mandy Green, Melanie Saucier, Michael Rabalais, Ashley Claro, Nick Speyrer, Alyson Gaharan, Tom Hunter, Wes LeBlanc, Rudy Simoneaux, Kent Bollfrass, Austin Feldbaum, Stuart Brown, Denise Reed, Ehab Meselhe

Others: Maryal Mewherter (BISCO), Jim Wilkins (LA Sea Grant)

About this Key Outcomes Memorandum

As is customary procedure, the MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed and next steps identified. The KOM does not serve as a meeting transcript, nor will it typically attribute

comments, or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation and important next steps.

Key Outcomes

Introductions/Overview - Jerome Zeringue/Kyle Graham

Jerome Zeringue and Kyle Graham welcomed everyone to the second FDT meeting. New FDT members introduced themselves by stating their name and organization.

FDT Meeting #1 Key Outcomes Memo & FDT Ground Rules - Nick Speyrer

The FDT Meeting #1 KOM was approved by the group. After clarifying that the Ground Rules are similar to those from 2012 except for a few additions, the FDT Ground Rules were also approved. The MPDT clarified questions from FDT members regarding the communication protocols on page 3 that state all communications to the group are to be directed through the MPDT. This is meant to serve as volume control for email management purposes. Nick Speyrer, facilitator, confirmed that FDT member communications would not be altered and that the protocol can be revisited if the need arises.

Master Plan Candidate Project Selection Process - Karim Belhadjali

Karim Belhadjali gave a presentation on the objectives, decision drivers and decision criteria of the 2012 Coastal Master Plan. It was explained that the draft plan was a departure from the Max Land scenario and that the final plan was a result of decisions made by the group. The presentation also described the process for soliciting new projects and the proposed screening criteria and tentative outcomes of this process. Some highlights include:

- There were two solicitation periods: May 23 – August 21 (90 days) and September 11 – October 31 (50 days)
- CWPPRA candidate projects from PPL 19-24 were reconsidered
- CPRA requested and received the LOSCO project list in an effort to capture a richer suite of projects
- In total, approximately \$109 billion of restoration projects and \$2 billion of protection projects were submitted through the New Project Development Program
- Examples of projects received include many large marsh creation projects, shoreline protection projects, ridge restoration projects, oyster reef projects and a few hurricane protection projects

Except for large-scale oyster reef projects that are similar to living shoreline protection projects, submissions involving oyster reefs were mostly screened out. It was clarified that the state would consider small-scale oyster reef and hydrologic restoration projects on a case-by-case basis. At this point, the existing modeling suite being used for the 2017 Coastal Master Plan cannot fully capture the potential benefits of projects at this scale. The MPDT explained that oyster reefs will be treated

programmatically and addressed individually at the basin level with other restoration projects that are mutually beneficial. An FDT member suggested that oyster areas and interior marsh are not mutually exclusive and proposed having a working group with industry reef building professionals and others to provide feedback to the MPDT at a later point.

Examples of other projects screened out include Hydrologic Restoration projects, which will be part of a programmatic measure to ensure coast-wide needs are addressed, and Caernarvon Diversion operations, maintenance and wetland restoration enhancement elements as it lies within the footprint of an existing project. Because CPRA has the authority to do this work as part of the current project, there is no need to remodel or reconsider the project.

Draft maps with projects submitted through the New Project Development Program were presented to the FDT. Maps showing the projects that remained under consideration following the preliminary screening were also presented. The MPDT indicated a willingness to look again at projects that were removed from consideration following the preliminary screening and further discuss projects if FDT members feel that projects were substantially different from a project previously considered as part of the 2012 Coastal Master Plan. The MPDT confirmed that once the 2017 Project Solicitation process is presented to the CPRA board, the FDT will be able to review and provide official input on the project list.

Areas for Continued Deliberation

Some FDT members suggested reconsidering the decision not to include projects that were considered but not included in 2012 for the 2017 Master Plan effort.

- Due to limited CPRA resources (both time and available funding), the resulting compromise is that interested FDT members will form a working group to develop a methodology for reconsidering which, if any, of the projects that were not selected for 2012 should be reconsidered for 2017. As a starting point, the MPDT will develop proposed approaches for consideration. The MPDT will host a webinar with the FDT working group to review the approach/methodology and corresponding projects lists. The working group will finalize and present to the full FDT at the next meeting on March 12, 2015.
- Upon the completion of this effort, a document will be finalized that outlines the methodology and results of identifying which projects would be considered for the 2017 Coastal Master Plan.

Additional Discussion/Clarification Points

- The MPDT will update projects maps to include a symbol around Lake Charles to signify ongoing work to determine the most feasible approach to providing risk reduction to the area. The MPDT is working with local stakeholders and waiting on results of ongoing analysis to determine next steps.
- The MPDT clarified that a primary metric for evaluating restoration projects is the area of land built/maintained. Model results are input into the planning tool, and then decision criteria and constraints (funding water, sediment, water) are considered as part of the iterative decision making process.

- An FDT member expressed a desire to have more time for the 2017 effort as compared to the 2012 plan to review the proposed draft and final plans. The MPDT responded accordingly:
 - Project modeling is to begin this summer and is scheduled to take approximately four months. If additional projects are included in the analysis, additional time will be needed to complete the model runs.
 - After completing the modeling of individual projects, alternatives (groups of projects) will be developed and modeled over a six-month period. Modeling of these alternatives is anticipated to be completed in mid-2016.
 - Modeling of the draft and final plans would occur once those decisions are made.
 - The MPDT confirmed that modeling can capture benefits outside of a project's footprint (e.g., benefits of a large marsh creation project can extend beyond the area where new marsh was created).
- The MPDT reminded FDT members that there are legislative mandates when public meetings must occur. MPDT agreed to distribute the Master Plan timeline to the FDT when the draft KOM is distributed for those who did not see it initially.
- Lastly, an update was provided that the MPDT is extending an invitation to the state of Mississippi to have a representative on the FDT.

Changing Course Update - Clint Willson

Clint Willson gave a presentation update on Changing Course, a design competition aimed at developing innovative solutions to rebuild and protect the Louisiana coast. The FDT has been identified as a group that could provide valuable feedback/insight, so the FDT is being asked to also provide feedback on how to move this forward to Phase II of the design competition. The FDT is invited to participate in the final design framework presentations on the evening of Wednesday, February 25 in New Orleans, or after the Governor's Advisor Commission meeting on Thursday, February 26 in Baton Rouge.

It was confirmed that no state or federal funds are paying for Changing Course; however, CPRA has staff that participate on the steering committee and the technical review team. Additionally, USACE is participating in a similar manner.

Flood Risk and Resilience Program – Melanie Saucier

Melanie Saucier gave a presentation on the development of the Flood Risk and Resilience Program, reminding the group of the goals and objectives of the program. Improvements being made to the Coastal Louisiana Risk Assessment (CLARA) model include expanding the study region to capture the full extent of possible storm surge, increasing the spatial resolution of model output and updating data sets. Results from the CLARA analysis will be used to inform development of the Flood Risk and Resilience Program framework.

The next steps for the program include identifying vulnerability of coastal communities and appropriate mitigation for those areas. The presentation also gave an overview of the Flood Risk and Resilience data viewer, which combines 2012 Master Plan projects with data on flood depths

and damages. A short, two-minute video will accompany the viewer to walk users through its purpose and use. CPRA held a meeting in October with Parish Floodplain Managers to discuss the Flood Risk and Resilience Program and to gather feedback on their experiences with federal grant programs. It was a productive meeting and parishes were requested to share any parish-level data they had available.

In response to an FDT question regarding how a dollar value is assigned to an asset such as an oil refinery, the MPDT confirmed that the value is not influenced if the facility is shut down. The feedback received from the 2012 Master Plan Oil and Gas Focus Group was that the industry will protect its assets.

Tentatively Selected Plans – Wes LeBlanc

Wes LeBlanc introduced the tentatively selected plans (TSPs) for the Lower Breton and Barataria Diversion projects and the Calcasieu Ship Channel Salinity Control project and stressed that a great deal of work has been done in the last year and a half to bring the two Lower Diversion projects to a level where uniform comparisons with other diversion projects can be evaluated during the next phase of planning prior to CPRA's Fall 2015 decision point. The next phase will focus on basin-wide modeling to determine optimal sequencing and operations of diversion projects. CPRA will also be doing more evaluation on fish/shellfish communities and socio-economics.

Lower Breton and Lower Barataria Sediment Diversion – Kent Bollfrass

Kent Bollfrass walked the FDT through the objectives and screening process for evaluating project alternatives. It was clarified that the Lower Barataria Sediment Diversion's higher cost, as compared to that of Lower Breton, is due to the existing flood protection structures in the project area. Lower Barataria therefore includes large engineering contingencies. Other highlights/points for clarification from the presentation include:

- The Lower Breton TSP is the Port Sulfur site; the Lower Barataria TSP is the Diamond site. These will then move into the next phase of modeling/evaluation (basin-wide, fisheries, socio-economics) to determine optimal operation and confirm constructability.
- Engineering reports are going through third party independent technical review to check for efficiencies, cost savings, etc.
- The final TSP will be fed into the LCA Mississippi River Hydrodynamic and Delta Management Study.
- All alternatives were operated in the models at 50,000 cfs when the river is at 1,000,000 cfs with variable flows when the river is between 600,000 cfs and 1,250,000 cfs, which is more conservative than the Master Plan analysis.
- Once modeling results are in (hydro, fisheries abundance/distribution, population shifts to general area, local flood impacts, etc.) the project will also be analyzed for its socio-economic impacts.
- The basin-wide socio-economic analysis will include a look at the four diversions (Lower Breton, Lower Barataria, Mid-Breton, Mid-Barataria) and their effects under the Future

With Plan compared to Future Without Action scenarios. However, the work being done in Barataria and Terrebonne can be expanded coast-wide.

- The MPDT confirmed that the modeling analysis was done with Mardi Gras Pass being open.
- The MPDT confirmed that the back levee canal issue at Mardi Gras Pass might be a conservative concern but that this was just a feasibility analysis to get an idea of how each location compared to the others in terms of cost vs. benefit. Small boat traffic, velocities, etc., will be investigated if it moves into E&D.

Calcasieu Ship Channel Salinity Control – Austin Feldbaum

Austin Feldbaum walked the FDT through the objectives and screening process for evaluating concept alternatives. Presentation highlights/points for clarification include:

- There was no target salinity during this process – the goal was to lower salinity enough to create conducive habitat for land preservation.
- Identifying the right modeling tools to look at how berms affect how water on the landscape drains will need to be done in the future; it is not a current strength of ADCIRC.
- The MPDT confirmed that channel isolation does not force salinity further upstream. The berms along the channel are low enough to allow for spill-over into the lake should water surface elevations increase.
- The MPDT clarified that the isolation features are built to a freeboard height of five feet, which explains why it does not funnel storm surge north.
- In reply to concerns regarding weir projects drying up shrimping, MPDT responded that proposed weir projects will actually improve salinities and allow the weirs to be open more often.
- The MPDT confirmed it is looking into flushing issues but the analysis is not yet complete. There is a possibility that things could drain a bit slower but there is still a tidal effect, just reduced. It is not expected to be stagnant.

Tentatively Selected Plans Additional Clarification Points and Next Steps

The MPDT confirmed that projects get moved into the Future Without Action scenario once CPRA has funding to see the project through construction.

Next steps for the Lower Diversions involve The Water Institute developing a 3D model, incorporating sediment (to address concerns that sediment will lead to increased shoaling) and performing some fisheries modeling (the MPDT knows there will be some changes but does not expect it to be catastrophic). In addition, geotechnical work is needed and an adaptive management plan needs to be developed.

Open Discussion & Next Steps – Nick Speyrer

The next FDT meeting is scheduled for March 12, 2015 at the State Library. Expected topics for discussion include outcomes from the projects working group, revisiting the Master Plan objectives

and principles, additional information on the modeling and planning tool and changes in technical analysis and how this all comes together for a 2017 framework.

Committed Next Steps:

- The MPDT will draft the FDT #2 KOM and circulate to the FDT for review/feedback.
- The MPDT will establish a Projects Working Group to provide feedback on further refining the methodology for selecting projects to be considered for the 2017 Coastal Master Plan.
- The MPDT will coordinate the establishment of a Wildlife Focus Group with Todd Baker and Mike Carloss.
- The MPDT will share the literature reviewed on subsidence polygons and ranges with John Lopez and Alex Kolker, as requested.

Next Meeting: March 12, 2015, 9:30 a.m. – 3:30 p.m., State Library – Seminar Center (701 North Fourth Street, Baton Rouge)

2017 Coastal Master Plan

Framework Development Team Meeting #3 Key Outcomes Memo

March 12, 2015 (9 a.m. to 12:30 p.m.)

State Library – Seminar Center (701 North Fourth Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Sam Bentley (LSU CSI), Dwayne Bourgeois (NLLD), Michael Carloss (DU), Darryl Clark (USFWS), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Henry Graham (LCA), Karen Gautreaux (TNC), Tyler Gray (LMOGA), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), Ryan Lambert (LCBA), Lisa Landry (LDWF), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), Nick Matherne (Parish Rep Central), David Muth (NWF), Jim Tripp (EDF), Marnie Winter (Parish Rep East), Patty Whitney (BISCO)

Alternate FDT Members: Andrew Barron (BTNEP), Stephen Carville (LMOGA), Cynthia Duet (NAS), Alexander Kolker (LUMCON), Cassidy Lejeune (LDWF), Greg Linscombe (LLA), Simone Maloz (SLEC), Spencer Murphy (Canal Barge Co.), Ronald Paille (USFWS), deEtte Smythe (Parish Rep East), Jim Stark (GICA), Glenn Thomas (LDWF)

Primary FDT Members Not Present: Clint Guidry (LSA), Matt Gresham (Port of NO), Joe Jewell (MS DMR), Merritt Lane (Canal Barge Co.), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Mark Wingate (USACE)

Master Plan Delivery Team (MPDT)/CPRA Staff: Chip Kline, Kyle Graham, Karim Belhadjali, Bren Haase, Mandy Green, Melanie Saucier, Michael Rabalais, Ashley Claro, Stuart Brown, Nick Speyrer, Alyson Gaharan, Denise Reed, Charles Sutcliffe

Others: Sarah Bradley (USACE)

About this Key Outcomes Memorandum

As is customary procedure, the MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed and next steps identified. The KOM does not serve as a meeting transcript, nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation and important next steps.

Key Outcomes

Welcome and Introductions – Nick Speyrer

Nick Speyrer welcomed everyone to the FDT Meeting #3 and introduced Sarah Bradley, who attended in lieu of USACE’s Mark Wingate and Brad Inman.

FDT Meeting #2 Key Outcomes Memo – Nick Speyrer

The MPDT incorporated feedback and edits from FDT members on the draft KOM, and the final revised version was circulated prior to the FDT Meeting #3. The FDT Meeting #2 KOM was approved by the group.

Modeling Update – Denise Reed

Before her presentation, Denise Reed reminded the FDT of the 2017 Coastal Master Plan Modeling Update scheduled for Thursday, March 19, in the Galvez building. Denise proceeded to give an overview of the modeling effort conducted for the 2012 Coastal Master Plan as well as the lessons learned and a summary of the improvements to be completed for the 2017 Coastal Master Plan effort. Highlights of updates being made for the 2017 modeling effort as well as the current status of activities are as follows:

- Risk reduction model will use an expanded grid and increased spatial resolution.
- Current status for risk reduction models: ongoing discussion of storm selection/number of storms (40 storms were used in the 2012 Master Plan modeling effort), reviewing population growth scenarios.
- The 2012 landscape and ecosystem models were merged into one model to create the Integrated Compartment Model (ICM) that now includes hydrology, wetland morphology, barrier shoreline morphology, vegetation and ecosystem outcomes subroutines.
- The ICM now includes dune and swale vegetation and an improved hydrology compartment resolution to better represent how water moves within the system.
- The barrier island subroutine includes additional processes like breaching, overwash and storm effects.
- The fish and shellfish Habitat Suitability Index (HSI) models were revised based on statistical analysis of LDWF data.
- The HSIs have been coded into the ICM and new HSIs for 2017 include bay anchovy, blue crab, gulf menhaden and brown pelican.
- The Ecopath with Ecosim (EwE) fish and shellfish community model tracks the biomass and how it is distributed throughout the estuaries.

Additional Discussion/Clarification Points

- An FDT member discussed St. Tammany Parish’s recent work with the Naval Research Laboratory on Adcirc modeling that goes beyond the coastal region and suggested that the MPDT connect with the team to discuss approaches and share information.
- In response to the comment that submerged aquatic vegetation (SAV) is a critical element missing in the vegetation model, it was explained that the dynamics of SAV

presence/absence are difficult to track between one year and the next. However, the vegetation subroutine does include various SAV species. ICM output will include pond depth and salinity information that will reflect conditions that support SAV presence.

- It was clarified that the 2017 vegetation subroutine will better represent the diversity of the system but will not be able to show the responses of one vegetative species over another, e.g. representing wind damage to coastal forest canopies. Denise will follow up with Jim Tripp regarding whether coastal forest regeneration can be modeled.
- Confirmed there is not currently a way to utilize information about storm shear within a modeling context. Historical erosion rates were used for marsh edge erosion due to the lack of confidence in the relationship between wave power and marsh edge erosion.
- Confirmed that the effects of incomplete levees are incorporated into the models via a topography layer, and levee breaching is incorporated via a breaching algorithm; this was to be explained in more detail at the March 19th modeling meeting previously referenced.
- Clarified that the Master Plan project evaluation process compares model outputs with project implementation to a future without action model output at those same years (e.g., land area for future with project implementation at year 50 minus land area for future without action at year 50). The difference between future with project and future without project is considered the project effect and included as input into the Planning Tool.
- MPDT confirmed that focus group questions/comments are shared with the technical teams and that this is a MPDT responsibility.

The next steps for the Coastal Master Plan modeling effort are to identify the environmental scenarios to be used for 2017; the list of variables for the scenarios has been narrowed. Values for each scenario will be informed by sensitivity analysis being conducted with the ICM. Modeling production runs are scheduled to start in June 2015.

Projects Working Group Report-Out – Karim Belhadjali

At FDT Meeting #2 in January 2015, the FDT and MPDT decided to establish a Projects Working Group to provide feedback on further refining the methodology for identifying projects to be considered for the 2017 Coastal Master Plan. Specifically, the Projects Working Group charge was to work to develop a methodology for reconsidering which, if any, of the projects that were evaluated but not selected for 2012 should be reconsidered for 2017.

The MPDT hosted two webinars (February 11 and 20, 2015) with the Projects Working Group to discuss options and review the approach/methodology and corresponding projects lists. As a starting point, the MPDT developed proposed that to use results from the 2012 analysis of top performing projects using the following Planning Tool decision criteria:

1. Maximize land building using a 50/50 funding split (\$25 billion for restoration)
2. Maximize land building using a 60/40 funding split (\$30 billion for restoration)

The Project Working Group agreed with this approach.

Several proposals were developed by members of the working group but no consensus was reached.

Additionally, the MPDT, based on feedback from the Working Group, considered projects that were evaluated in 2012 and not selected but are located on critical landforms, as defined by the LaCPR Report, in which component projects were included in the 2012 Master Plan. This analysis identified one additional restoration project in the Barataria Basin to be included for consideration.

These results and proposed approaches were presented to the full FDT for consideration.

Additional Discussion/Clarification Points

- FDT members expressed appreciation that CPRA listened to FDT requests to reconsider some projects from 2012 that did not make the final plan.
- FDT member question/comment that a critical landscape feature outside Henry Hub, near Bayou L'Ours was missing.
- FDT members suggested that the results of the new project solicitation process include descriptions of which criteria the project did not meet for each project(s) that was selected but not accepted.
 - CPRA will update this information and distribute to the FDT and post the updated version on the CPRA website.
- Discussed the fact that additional projects being included for consideration has impacts on the time and funding required for the modeling work. Any delays in the modeling schedule could potentially impact CPRA's ability to complete a thorough alternatives analysis.
- MPDT confirmed that projects that did not meet the criteria for the new project solicitation would not be reconsidered unless new information is brought to the MPDT that materially changes the project.
- Suggestion that if MPDT is going to look at what \$5 billion more could mean for the Plan, MPDT should then look at the implications of what would happen if CPRA receives \$5 billion less than planned. It was clarified that this effort was only to identify the list of candidate projects but the MPDT confirmed that available funding scenarios will be reviewed in the coming months and those decisions will impact the projects included in the 2017 Plan.
- When discussing swamp forests in a modeling context, it was questioned if it should make a difference if sustained land is a cypress forest or marsh. MPDT expressed that they could have that discussion but were concerned the analysis cannot detect that level of detail. Additionally, the primary decision driver in the decision-making framework has been and will remain land built or maintained.
- In response to a concern regarding public transparency of decisions for which projects to include for consideration, the MPDT confirmed that the entire decision process (including specifics on each project) will be documented. It was suggested that the resulting document be written so that the general public could understand it.
- MPDT clarified that model outputs from 2012 cannot be compared to 2017's because while the outputs are similar, they are based off different assumptions and would not be an equal comparison.
- MPDT reiterated that if a project is not included in a list now, it is not off the table forever. Because the Master Plan is a 50-year analysis, the landscape will change and have to be reconfigured and reconsidered. As things change, there will be an opportunity to reevaluate things.

- FDT member requested that the MPDT consider options for evaluating projects costs if local parishes or jurisdictions would commit to matching funds to pay for a project.

Next Steps

The MPDT will analyze resulting projects associated with the 50/50 and 60/40 Max Land projects to determine if all should be evaluated or if some projects have been previously deemed not feasible or are duplicative of other projects being considered. Upon the completion of this effort, a document which outlines the methodology and results of identifying which projects would be considered for the 2017 Coastal Master Plan will be finalized and distributed to the FDT. All final 2017 candidate projects will then have project attributes and costs developed and will be sent to the modelers to begin production runs by June 2015.

Revisiting the Master Plan Technical Process – Karim Belhadjali

Karim Belhadjali discussed an overview of the technical process for individual project selection, modeling and iterations of the Planning Tool for alternative analysis. He concluded with a timeline of upcoming projects tasks for the 2017 Plan. Some points of clarification include:

- MPDT explained that for 2017, select storms will be able to be run through the landscape models to show the effects of restoration projects on water levels associated with those storms. For the 2012 Plan, it was not possible to look at the interactive effects of protection and restoration projects until after the final plan was drafted. It is the intent that this will be done for 2017 as part of the step to select certain sets of alternatives. However, the models will not be able to say what the effect will be on a 100 year flood event or a 1% storm, like an expected annual damages calculation. The models will only be able to show that, for example, a Betsy-like storm, the water level could be “x”.
- MPDT reminded the FDT that while the timing of official public meetings is dictated by state statutes, the MPDT intends to be able to complete the technical analysis and share draft results with the public in the Fall 2016 timeframe to have conversations/receive feedback before the draft plan is developed and published for formal public review and comment.
- In response to request for a draft timeline of the 2017 process to be shared with the FDT or online, MDPT confirmed that a high level timeline was sent after FDT Meeting #1.

Reviewing Master Plan Objectives and Principles – Nick Speyrer

Nick Speyrer introduced the Master Plan objective and principles that were discussed and developed for the 2012 Coastal Master Plan. MPDT requested the FDT provide feedback over the next 6-12 months on anything that should be edited, added, or changed.

Additional Discussion/Clarification Points

- Suggestion to consider adding “critical infrastructure” to the working coast objective.
- The FDT noted that the current objectives do not explicitly mention communities, and some members would like to see a greater depth of detail in the 2017 Plan about what the future holds for people/communities. Other members suggested that the mission described in the 2012 Plan, as well as in each objective, had a community element and that there may be ways to make slight wordsmithing tweaks to further highlight that the Master Plan acknowledges and focuses on the people in south Louisiana as well as the country that rely on its sustainability and resilience.
- MPDT clarified that in developing the Master Plan, its primary role is to be honest about what the future looks like for coastal Louisiana and the projects that can support coastal protection and restoration. CPRA provides the overall big picture framework (e.g., large scale projects, what to expect, etc.), but others will have to look at the Master Plan recommendations and determine what should be done at the parish or community level. Local communities and governments need to work from the bottom up as well to accomplish those things that are outside of the CPRA’s purview, such as workforce development, job creation, road infrastructure, etc.
- It was suggested that a new principle be added that describes the role of the plan at a state level and the role of local governments in implementing actions within their responsibility.
- Suggestion to include language on coastal Louisiana’s national significance within the objectives and principles in addition to the section of the Plan’s introduction if trying to sell the Plan to Congress to receive national-level funding.
- Suggestion to include language on wildlife resources within the coastal habitats objective.

Focus Group Report-Out/Update

Community – Patty Whitney

Highlights include:

- Meetings are experiencing a low turnout; however, it was suggested that an increased frequency of meetings might lead to greater participation. Conference calls and video conferencing were also suggested to help garner increased engagement from members.
- Nonstructural projects versus programs were discussed and led to greater understanding among group members.
- Demonstration of the Flood Risk and Resilience Viewer was well received by the Focus Group and the public at the CPRA/Shell Community Conversation events.
- Explained communities’ concern over buyouts – fears/distrust that the acquisition will result in future land sales by the government and loss of their mineral rights. This thinking hinders people from moving to safer areas and should be addressed for relocation.
- Requested the FDT to share any suggestions for additional Community Focus Group members from the southwest coastal area.

Landowners – Paul Frey

Highlights include:

- Suggestion to add a member from the farming community to the group, such as from the Farm Bureau or LSU Ag Center.
- Landowner Group feels that the Master Plan funding ceiling of \$50 billion is a constraint and would like to see a broad statement that expresses that if a project is not included in the Plan, it does not mean that it is not viable.
- Discussed that models will look at plant diversity from a historical perspective.
- Discussed the deauthorization of CWPPRA projects and abandoned pipelines issues.
- Expressed the group's concerns about CPRA's policy on projects that are a federal responsibility and would like to see the 2017 Plan mention the progress made on the GIWW bank stabilization.

Navigation – Spencer Murphy

Highlights include:

- Calcasieu Ship Channel Salinity Control TSP was received positively; TSP sites for the Lower Breton and Barataria Sediment Diversion is adjacent to a federal anchorage which generated concern.
- Ongoing discussion about diversions versus dredging and pumping. There was a strategic and tactical discussion of how to think about mobilization and de-mobilization of dredges. This will likely continue to be a prevalent topic at future meetings.
- Discussed the Navigation decision criteria and scoring impacts.
- Suggested that the next meeting be held closer to New Orleans for greater participation from River pilots.

Fisheries

Due to a low number of committed attendees, the meeting originally planned for January 30 was moved to March 30. MPDT will share the summary meeting notes after group reviews them for accuracy.

Energy & Industry

Previously the Oil & Gas Focus Group in the 2012 Plan, MDPT is working with Tyler Gray of LMOGA, as the FDT representative, to develop a substantive list to cover the needed and appropriate areas. To date, the companies to be invited to engage have been identified. Next steps are to identify and contact people in the appropriate roles who can participate on a regular basis, as well as to schedule the initial meeting later in the spring of 2015.

Wildlife

The idea for this group originated early in the 2012 planning process but dovetailed into the Landowner Focus Group. MPDT met with Todd Baker and Mike Carlross to discuss the group standing alone due to the cultural resources wildlife provides and drafted a potential member list. CPRA is committed to working with Todd and Mike to capture important wildlife interests (public access, etc.) from a report-out or decision criteria perspective.

Open Discussion & Next Steps – Nick Speyrer

The next FDT meeting is scheduled for **August 13, 2015**, at the State Library. Expected topics for discussion include initial outcomes from the individual project modeling, decision criteria, additional information on the Planning Tool and changes in technical analysis and how this all comes together for a 2017 framework.

Additional Open Discussion Items

- Flood Risk and Resilience Viewer Community Conversation meetings were successful and well attended. MPDT has a preliminary plan for public and stakeholder outreach over the next few years and will share that as it develops.
- MPDT reminded FDT members about their participation level and to consider the bigger picture for FDT deliberations/exercises, leaving their agency hats at the door if possible.
- FDT members expressed that although there are many concerns, the group should think about the benefits, if they care about restoration and why. The FDT was urged to think about the national audience for the Master Plan as eventually, in all likelihood, we will want to receive national funding for this.

Next Steps

- MPDT to send the presentation slides and the draft FDT #3 KOM for review/feedback.
- MPDT to send all focus group meeting notes to the FDT.
- Denise Reed to follow up with Jim Tripp regarding if the models looked at coastal forests dying due to subsidence.
- MPDT will include a column to describe the criteria that each project did not meet if the project was not accepted for the new project solicitation process.
- MPDT to connect with deEtte Smythe regarding St. Tammany's work with the Naval Research Laboratory on Adcirc modeling that goes beyond the coastal region.
- MPDT will meet with both the Fisheries and Energy & Industry Focus Groups in the upcoming weeks.
- FDT Members to send any feedback on Objectives and Principles text to Nick Speyrer.

Next Meeting: Thursday, August 13, 2015, 9 a.m. to 3 p.m. at the State Library – Seminar Center (701 North Fourth Street, Baton Rouge)

2017 Coastal Master Plan

Framework Development Team Meeting #4

Key Outcomes Memo

August 13, 2015 (9:30 a.m. to 3:30 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Sam Bentley (LSU CSI), Dwayne Bourgeois (NLLD), Michael Carloss (DU), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Henry Graham (LCA), Tyler Gray (LMOGA), Clint Guidry (LSA), Richard Hartman (NOAA -NMFS), Brad Inman (USACE), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), Lisa Landry (LDWF), Mel Landry (NOAA), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), Mandi Mitchell (LED), David Muth (NWF), Jim Tripp (EDF), Marnie Winter (Parish Rep East)

Alternate FDT Members: Andrew Barron (BTNEP), Ryan Bourriaque (Parish Rep West), Stephen Carville (LMOGA), Cynthia Duet (Audubon), Alexander Kolker (LUMCON), Cassidy Lejeune (LDWF), Al Levron (Parish Rep Central), Simone Maloz (SLEC), Ronald Paille (USFWS), deEtte Smythe (Parish Rep East), Jim Stark (GICA), Leslie Suazo (DU), Glenn Thomas (LDWF)

Primary FDT Members Not Present: Todd Baker (LDWF), Darryl Clark (USFWS), Archie Chaisson (Parish Rep Central), Matt Gresham (Port of NO), Joe Jewell (MS DMR), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Patty Whitney (BISCO)

Master Plan Delivery Team (MPDT)/CPRA Staff: Chip Kline, Kyle Graham, Jason Lanclos, Karim Belhadjali, Bren Haase, Mandy Green, Melanie Saucier, Michael Rabalais, Ashley Cobb, Charles Sutcliffe, Nick Speyrer, Denise Reed, David Groves

About this Key Outcomes Memorandum

The MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed and next steps identified. The KOM does not serve as a meeting transcript nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation, and important next steps.

Key Outcomes

Welcome and Introductions – Nick Speyrer

Nick Speyrer welcomed everyone to the FDT Meeting #4, and Kyle Graham gave an update on CPRA activities and briefly discussed the impacts of the BP settlement on the program and Coastal Master Plan. More information on this topic, including its effect on the “budget” for the 2017 Coastal Master Plan, will be discussed at subsequent FDT meetings.

FDT Meeting #3 Key Outcomes Memo – Nick Speyrer

The MPDT incorporated feedback and minimal suggested revisions from FDT members on the draft KOM, and the final revised version was circulated prior to the FDT Meeting #4. The FDT Meeting #3 KOM was ratified by the group.

2017 Candidate Projects – Karim Belhadjali

Karim Belhadjali presented an overview of the 2017 Coastal Master Plan process to identify candidate projects and recapped the FDT Project Attributes Webinar held on July 30, 2015. Updates made to the list of 2017 candidate projects for evaluation include:

- Project footprints for West Shore Lake Pontchartrain, Calcasieu Ship Channel Salinity Control, Central Terrebonne Hydrologic Restoration, Bayou Chene Floodgate, and Upper Barataria Risk Reduction have been revised based on new information.
- Two new projects were added based on ongoing modeling studies: Ama Sediment Diversion and Union Freshwater Diversion.
- Specifics regarding these changes are included in the document titled “2017 Coastal Master Plan: Developing the List of Candidate Projects.”

Additional Discussion/Clarification Points

- There was discussion about the amount of sediment for restoration projects from interior borrow areas. The areas that are currently being used as potential borrow sites for candidate projects are based on ongoing work through the Borrow Area Monitoring and Maintenance (BAMM) program.
 - An FDT member informed the group an LSU research project is looking at dredge basin infill primarily in federal waters; preliminary findings will likely be available by the end of the year.
- The Lake Pontchartrain borrow site was selected based on data collected for the Goose Point marsh creation project through CWPPRA. The Lake Borgne site selection was based on input from CPRA engineers. An FDT member encouraged CPRA to also consider a potential limited borrow site in Barataria Bay.

Final project attributes and cost estimates are being developed and will be shared with the FDT before the next meeting.

Modeling Update – Denise Reed

Denise Reed gave a presentation on the updates to the modeling effort, explaining that there will be further analysis of how projects interact with one another for the 2017 Coastal Master Plan as compared to the 2012 analysis. For example, the team intends to evaluate assumptions previously made for the 2012 Coastal Master Plan regarding the additive effects of projects. Highlights of the 2017 modeling effort updates, as well as the current status of activities, are as follows:

- Initially, risk reduction and restoration projects will be evaluated separately.
- Risk Reduction
 - Sea level rise is included in the risk reduction analysis.
 - For 2017, 154 synthetic storms will be run for the draft and final plans to allow for more refined flooding data. In 2012, 40 storms were run.
 - Models will incorporate improved characterization of critical infrastructure and strategic assets using the HSIP Gold federal database.
 - Scenario analysis will be performed to evaluate the effects of population density, land loss, and flood depths on future estimates of population change.
- Landscape and ecosystem
 - Swamp and bottomland species are now included.
 - The barrier island model is vastly improved compared to the model used for 2012.
 - The EwE model is being run for the whole coast for the first time.
 - Habitat Suitability Indices (HSI) have been adjusted based on a robust statistical analysis of fisheries independent data from LDWF.
 - Resolution of the hydrology model has been significantly improved.
 - Stage calibration, where actual data and model predictions are compared, is revealing positive results; predictions are within 10cm of available data.
 - Sediment diversions will be run through the models individually. Other restoration projects will be run in groups and are sufficiently distant from each other to ensure there will be no interactions among them.
 - Project level model runs should begin in August/September, and results should be available to be shared by the next FDT meeting in December.
 - Draft model documentation is being posted to the CPRA website as tasks are completed.
 - A webinar on the 2017 modeling and technical analysis will be held on **Tuesday, September 22**. Logistics are currently being confirmed, but it will be advertised and recorded. The recorded webinar, including bookmarks to specific topic sections, will be posted to the CPRA website.

Additional Discussion/Clarification Points

- An FDT member noted that the population slides reflected an assumption that people were leaving the coast and questioned if the \$78 billion expansion in southwest Louisiana has been considered. It was clarified that the only way CPRA can analyze population data for the whole coast is to use Census data; 2010 Census data was utilized for the analysis. The MPDT will investigate whether there is a more recent coast wide population data set available that would allow deviation from using 2010 Census data.
- In the first phase of modeling, all of the projects will be run independently; protection projects will be run through ADCIRC, and restoration projects will be run through the ICM model. The Planning Tool will use project data for evaluation and formulation of alternatives. A select number of alternatives (protection and restoration projects) will be analyzed through the ICM, ADCIRC, and CLARA to evaluate the synergistic effects of various project combinations, as well as the contribution of restoration to risk reduction.
- Fisheries independent monitoring data, not landings data, was used to develop the HSI equations. Reports that show which data is being used in the analysis will be available in September.

- Similar to the 2012 process, CPRA will QA/QC data and will set up a webinar/call prior to the December FDT meeting for those interested in reviewing the model output.
- The models used for 2017 will not predict effects of projects on the river (e.g., how currents change). Changes in the river due to environmental scenarios and restoration projects are being studied as a part of other efforts.

Focus Group Report-Out/Update

Nick Speyrer explained that offering a webinar option for focus group participation was positively received and resulted in increased engagement for the Energy and Industry Focus Group; as a result, an option to participate via webinar has been offered to all focus groups for the next round of focus group meetings:

Focus Group	Meeting Date	Location
Fisheries	Sept. 2, 2015	Baton Rouge/webinar
Energy and Industry	Sept. 15, 2015	Baton Rouge/webinar
Community	Sept. 21, 2015	Luling/webinar
Landowner	Sept. 29, 2015	Baton Rouge/webinar
Navigation	Oct. 9, 2015	New Orleans/webinar

Fisheries – Clint Guidry

Highlights include:

- The group discussed models and the data being used; some members felt that some of the fisheries data was not being used properly.
- The group discussed the Calcasieu Ship Channel Salinity Control project and members concerns about using a gate.
- The group discussed concerns regarding proposed diversions.

Energy and Industry – Tyler Gray

Highlights include:

- This group was formerly called the Oil and Gas Focus Group for the 2012 plan.
- Due to previous difficulties engaging the group, membership was expanded to include the chemical industry and oil and gas interests that are represented geographically across the state. Productive feedback was provided at the initial meeting for the 2017 Coastal Master Plan effort.
- Due to the high number of pipelines in the landscape, Tyler suggested adding a pipeline representative to the group.

Planning Tool Update – David Groves

David Groves gave a presentation on the Planning Tool and explained its importance as a decision support tool that performs calculations and creates interactive visualizations valuable to supporting conversations about master plan alternatives. David explained how the Planning Tool compares different projects and develops alternatives subject to constraints (i.e., funding, water, sediment) to assist in understanding which projects will make the largest impacts given the constraints.

Highlights of the Planning Tool update include:

- The Planning Tool will assist in developing and selecting alternatives to be employed in three implementation periods to provide additional guidance on what CPRA should focus on in the near-term. The first implementation period is years 1-10, the second implementation is years 11-30, and the third implementation period years 31-50. Each implementation period will analyze projects sequentially as the goal is to implement the most cost-effective projects first.

Additional Discussion/Clarification Points

- For the Planning Tool process, it is important to understand that when the max land or max risk reduction alternative is selected, as other objectives are balanced and metrics are considered, there will be a change in the net benefit because it is a constrained system.
- If a project is included within an implementation period, the project receives funding within that period and is implemented in the model within that period. The Planning Tool allocates project funding in each time period.
- Project benefits are based on when they are implemented in the landscape. For example, benefits of a ridge restoration project implemented at year 5 will be determined from year 5 to year 50.
- Projects are evaluated in terms of their benefits in both the near- and long-term.
- An FDT member suggested that the Planning Tool would be a great outreach tool if it could be made available for the public to understand how decisions are made. CPRA is thinking through the best approach given the complexity of the analysis.

Review Decision Framework – Karim Belhadjali/Denise Reed

Karim Belhadjali presented an overview of the planning framework, the technical process currently taking place, and the overall 2017 Coastal Master Plan timeline. Denise Reed described the additional metrics that will be used to evaluate projects and alternatives and clarified that the “decision criteria” in the 2012 Coastal Master Plan will be referred to “metrics” moving forward.

Additional Discussion/Clarification Points

- For 2017, the use of natural processes metrics will be calculated based on how a project is implemented in the model rather than on a predetermined score by project type. For example, a project that increases a hydrologic exchange (natural process), as compared to the initial condition, will receive a positive score; a project that inhibits exchange will receive a negative score. There is no natural process exchange rate to benchmark against. Based on FDT feedback and questions about scoring for projects that close barrier island breaches or fill man-made channels, the MPDT will give more thought to the way this metric is currently calculated and is open to suggestions from the FDT.
- Regarding the land sustainability metric, net gain from implementation of a project is scaled by the net loss that would occur in a future without action condition to match the scale of the project.
- The traditional fishing communities metric is based on economic damages to the communities (assets include residential/commercial properties but not equipment, boats, docks, etc.) and availability of suitable habitat for species the communities rely on.
- An FDT member suggested that CPRA clearly define the synergistic relationships between the benefits of the 2017 Coastal Master Plan and the importance of those benefits to the nation. This information should be conveyed both at the local and national level. Karim

relayed that there was a recent study on land loss by the Governor's Office that could be leveraged in the plan and that CPRA will attempt to more clearly articulate this argument.

Outreach and Engagement Update – Nick Speyrer

Nick Speyrer gave an overview of the recent and planned outreach and engagement activities and described the multiple new resources available on the CPRA website, such as technical reports and a general overview video presentation of the 2017 Coastal Master Plan available in both English and Vietnamese. In addition, a Speakers Bureau presentation was shared with the FDT for members to utilize as a way to continue to spread awareness of the 2017 Coastal Master Plan. Nick explained that future FDT meetings will be less process-orientated and more about project evaluation and alternative formulation. Regarding an FDT member's question about what CPRA is doing to reach out to the African American community; Nick described the concerted effort that has been made to reach this community through the Community Focus Group and assured that these efforts will continue.

General Updates

Flood Risk & Resilience Program – Melanie Saucier

Melanie Saucier gave an overview of the recent and upcoming Flood Risk and Resilience Program meetings, described the feedback received, and reviewed the next steps for the program.

Additional Discussion/Clarification Points

- The Flood Risk and Resilience Viewer will be updated to incorporate the 2017 Coastal Master Plan data once available.
- Nonstructural assets only consider primary residences.
- Updated data from studies such as Southwest Coastal, West Shore, and Morganza to the Gulf are included in the CLARA model.
- Any acquisition recommended in the 2017 Coastal Master Plan would be voluntary; this is an important distinction from current efforts related to the Southwest Coastal Plan.

Updated on Diversion Planning and Implementation – Bren Haase

Bren Haase presented an update on CPRA's diversion planning and implementation activities and reviewed CPRA's progress in addressing the Diversion Advisory Panel's recommendations, which can be found on The Water Institute of the Gulf's website.

Additional Discussion/Clarification Points

- The Mid-Barataria diversion is included in the Delta Management study and is one of the diversions being considered for further advancement.
- A decision has not been made regarding whether any of the diversions will move forward. If results of ongoing analysis indicate that a diversion project should advance, CPRA will be in a position to fund engineering and design due to the BP settlement.
- CPRA is open to discussion and suggestions for how to loop information from the recent diversion work back to existing diversions, such as Davis Pond.

Open Discussion & Next Steps – Nick Speyrer

The next FDT meeting is scheduled for **December 3, 2015**, at the State Library. Expected topics for discussion include individual project modeling outcomes and Planning Tool analysis.

Next Steps

- MPDT to send the presentation slides and the draft FDT #4 KOM for review/feedback.
- MPDT to connect with Jim Tripp on coastal Louisiana's national significance language.
- MPDT to connect with interested FDT members on the natural processes metric.
- MPDT will share project attributes and cost information with the FDT once available.
- MPDT to follow up before the December FDT meeting to potentially host a meeting/webinar to review and discuss model results.
- MPDT will meet with all of the focus groups throughout September/October.
- Nick will share meeting date, time, and webinar details for the upcoming Modeling Technical Webinar on September 22.

Next Meeting: Thursday, December 3, 2015, 9:30 a.m. to 3 p.m. at the State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Framework Development Team

Framework Development Team Meeting #5

Key Outcomes Memo

December 3, 2015 (9:30 a.m. to 3:00 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Darryl Clark (USFWS), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Karen Gautreaux (TNC), Tyler Gray (LMOGA), Clint Guidry (LSA), Richard Hartman (NOAA -NMFS), Brad Inman (USACE), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), David Muth (NWF), George Ramseur (MS-DMR), Glenn Thomas (LDWF), Jim Tripp (EDF), Robert Twilley (LA Sea Grant), Patty Whitney (Bayou History Center)

Alternate FDT Members: Ryan Bourriaque (Parish Rep West), Cynthia Duet (Audubon), Billy Guste (LDWF), Alexander Kolker (LUMCON), Mel Landry (NOAA), Greg Linscombe (LLA), Simone Maloz (SLEC), Spencer Murphy (Canal Barge Co.), Ronald Paille (USFWS), deEtte Smythe (Parish Rep East), Jim Stark (GICA), Leslie Suazo (DU)

Primary FDT Members Not Present: Sam Bentley (LSU CSI), Dwayne Bourgeois (NLLD), Michael Carloss (DU), Archie Chaisson (Parish Rep Central), Henry Graham (LCA), Matt Gresham (Port of NO), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Mandi Mitchell (LED), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Marnie Winter (Parish Rep East)

Master Plan Delivery Team (MPDT)/CPRA Staff: Kyle Graham, Karim Belhadjali, Bren Haase, Mandy Green, Melanie Saucier, Andrea Galinski, Ashley Cobb, Rudy Simoneaux, Charles Sutcliffe, Nick Speyrer, Denise Reed, Ehab Meselhe, Eric White, Paul Tschirky, Brett McMann

About this Key Outcomes Memorandum

The MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above-mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed and next steps identified. The KOM does not serve as a meeting transcript nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation, and important next steps.

Welcome and Introductions – Nick Speyrer

Nick Speyrer welcomed everyone to the FDT Meeting #5, provided an overview of the agenda, and introduced George Ramseur, a new FDT member representing the Mississippi Department of Marine Resources Coastal Restoration and Resilience Office.

FDT Meeting #4 Key Outcomes Memo – Nick Speyrer

The final version of the FDT Meeting #4 KOM was circulated prior to the FDT Meeting #5 and was ratified by the group with no additional changes.

Projects Update: Attributes and Costs – Rudy Simoneaux, Brett McMann

Rudy Simoneaux presented a recap of the July 2015 project attributes webinar and the modifications that were made to the templates used to develop project attributes. The following items were discussed:

- Marsh creation project costs were based on average bid packages for recently constructed marsh creation projects, and costs were derived for these projects in 2,000 acre increments.
- The master plan is considering a number of marsh creation projects that leverage a variety of sediment sources. While none of the marsh creation projects leverage beneficial use of dredged materials from navigation projects for master plan cost estimates, CPRA is committed to continue looking for opportunities to partner with other agencies on navigation projects.
- It was clarified that there is a difference between maintenance and re-nourishment of marsh creation projects; every project includes a maintenance cost that is computed as 5% of the construction cost. Re-nourishment of marsh creation projects would be considered a new project for master plan purposes.
- At the request of FDT members during the FDT Meeting #4 as well as the FDT Project Attributes Webinar, the MPDT investigated the potential addition of inland mixed sediment borrow sources for certain marsh creation projects. Based on input from subject matter experts, existing data, and CPRA policy, inland borrow sources were added in Lake Pontchartrain, Lake Borgne, and Terrebonne Bay, which are distant from offshore deposits and renewable sources such as the Mississippi River. However, marsh creation projects in the Barataria and Breton basins will borrow renewable sediments from the Mississippi River for this planning effort.
- Once the project attributes and costs are finalized, they will be made available to the FDT.

Brett McMann discussed the modified costs for diversions and hurricane protection projects, explaining that much more data is available for this effort (as compared to 2012) because of recent projects and ongoing diversion studies. Updates to the costs for these projects include:

- For previously studied projects, existing costs and designs were used.
- For new projects lacking available data, existing reports and methodologies were used to derive dimensions and unit costs.
- It was confirmed that Caernarvon's costs were not used in the analysis due to difficulty in acquiring information that could be used in the standardized template.
- It was confirmed that nonstructural projects costs are based on existing bids from several parishes and other ongoing USACE studies.

Modeling Update – Denise Reed

Denise Reed gave a presentation on environmental scenarios, future without action model outcomes, and examples of project results.

Environmental scenarios

- Based on a 2014 literature review, the plausible range of eustatic sea level rise being considered for the 2017 Coastal Master Plan is .14-.83 m over 50-years; this range is consistent with the National Climate Assessment.
- For the 2012 Coastal Master Plan, the plausible range of subsidence for various coastal regions was determined by an expert panel. Subsidence values used in project evaluation were 20% and 50% of the range. Based on a literature review, the ranges for each region were not modified for 2017.
- A sensitivity analysis was conducted to investigate the influence of sea level rise, subsidence, evapotranspiration, precipitation, and storm frequency and intensity on the landscape both individually and in combination.
- Storm frequency and intensity are not included in the candidate future environmental scenarios because these variables did not materially change the output of model results from the Integrated Compartment Model (ICM). However, these variables are included in CLARA's risk analysis.
- A number of technical reports related to environmental scenarios are posted on CPRA's website.

Future without action

- Future without action (FWOA) is simulated for a 50-year period.
- Synthetic storms similar to the historical record of storms (in terms of temporal and spatial distribution) are simulated in the ICM to approximate storm impacts.
- An FDT member suggested showing scenario results at year 10 instead of 50 years in the future as it is difficult for people to relate to.
- The FDT suggested CPRA consider forming a communications workgroup to think through how to communicate this information to the public as it is a delicate issue.

Vegetation

- An FDT member expressed concerns about some areas where vegetation output is counterintuitive.
- It was clarified that the vegetation output might not be intuitive for all areas because the output shown is aggregated to wetland type rather than individual plant species. There are more complicated interplays (probabilities of establishment/dispersal, etc.) that drive some of the vegetation effects. When an area converts from one wetland type to the next, it might be based on a very small difference in a few species.

Example project results

- Regarding an FDT member's question if there will be a HSI for humans, it was confirmed there are metrics for people (e.g., the traditional fishing communities metric looks at communities that will be flooded in the future and the communities' access to resources). However, these metrics are more about communities and community dynamics rather than individuals. The social vulnerability metric will also be used to understand the effects of projects on the coastal population. Lastly, it was mentioned that a major decision driver for this effort is reducing risk to communities from flooding/storms.
- The FDT was asked to provide feedback on the most effective way to view the terabytes of modeling data. Tabular summaries of metrics would be relatively easy to produce, but reviewing multiple data sets spatially for each model run will be a challenge. Sharing data with the FDT will be an iterative process; the next meeting in March will likely involve more breakout groups, similar to what was done for the 2012 Coastal Master Plan.

Visualizations: Maps and Graphics – Nick Speyrer

Nick Speyrer explained that all output data used for the visualization presentation was sample data and that it is only meant to illustrate the different color schemes and visualization options. A survey was distributed to gather the FDT's input and preferences on the most effective ways to present and visualize master plan information for the plan document and future presentations. Next steps include:

- CPRA to convene a small workgroup to discuss communication strategies. FDT members interested in participating in this workgroup are Scott Kirkpatrick, Alex Kolker, Mel Landry, Simone Maloz, Susan Testroet-Bergeron, Robert Twilley, and Patty Whitney.

Focus Group Report-Out/Update

Nick Speyrer explained that offering a webinar option for focus group participation was positively received and resulted in increased engagement across the focus groups. The next round of focus group meetings will be held in early 2016; exact meeting dates are TBD.

Energy and Industry – Tyler Gray

Highlights include:

- Tyler is working with the focus group members to try to provide a map of priority oil and gas infrastructure throughout the region (e.g., where high voltage pumps are located).
- The focus group is looking forward to receiving more specifics on key projects to give feedback on with respect to their industries.
- Since the last FDT meeting, a pipeline representative has been added to the focus group.
- It was confirmed that the industries are taking into account the commercial development occurring along the coast and that the master plan information shared with the focus group provides them with information so they can take it into account.

Fisheries – Rick Hartman

Highlights include:

- The majority of the group's discussion was regarding concerns surrounding the diversion projects; the Calcasieu Ship Cannel Salinity Control project was also discussed.
- The focus group is struggling with participation; only the recreational fishing interests and menhaden interests were represented at the last meeting.

Community – Patty Whitney

Highlights include:

- Patty wrote a letter asking focus group members to participate as the group has previously struggled with participation and engagement.
- The focus group was pleased to hear socio-economic variables are being added to the Flood Risk and Resilience Viewer and believe the tool has great potential to help people plan for their future.
- The focus group discussed updates to the Flood Risk and Resilience Program, funding, and how there are virtually no funds for nonstructural adaptation.
- It was suggested that a potentially helpful data source for CPRA is through the Secretary of Insurance, which requires insurance companies to post the claims and payouts that have been made and paid out by parishes during disasters.

Landowners – Paul Frey

Highlights include:

- It was clarified that focus group membership includes both private and public landowners.
- The focus group members thought the latest meeting was the best meeting to-date in terms of productivity and attendance. Members said they feel that they do have a voice in the master plan discussions.
- The focus group discussed concerns regarding the CWPPRA program and is working with congressional delegates on this, which is due in 2017.
- The focus group discussed the issue of invasive species and concerns with salvinia with the influx with fresh water. The group stressed that CPRA cannot lose sight of the invasive species issue as projects are implemented.

Navigation – Spencer Murphy

Highlights include:

- The focus group discussed the diversion projects and the Calcasieu Ship Channel Salinity Control project. Previously, this was a contentious topic for the focus group; however, due to stakeholder involvement that led to project feature modifications, the final form is more acceptable with net positives to navigation. The group feels this is a good example of how stakeholder involvement can help in the project development process.
- A contentious part of meeting pertained to Mississippi River dredging for deep draft navigation, as those involved in deep draft navigation in the lower river see value and have seen positive results achieved from beneficial use of dredging material. They are concerned that there are no master plan projects below the diversions and that the navigation industry will be left to fend for itself. This is something that needs to be addressed in the future, as the navigation community has and will continue to be very focused on this topic.

Updated on Mississippi River Sediment Diversions – Bren Haase

Bren Haase discussed the stakeholder concerns and the decision drivers that were considered when looking at Mid-Barataria, Mid-Breton, Lower Barataria, and Lower Breton diversion projects.

Highlights and additional points of clarification include:

- CPRA has information on the Mid-Breton and Mid-Barataria diversions running individually but does not yet have information on running these two diversions together. This analysis is currently being performed.
- Annual Plan public meetings will be held on January 12-14, 2016. Once the Annual Plan is revised to incorporate public comments, the document will first go to the CPRA Board and then to the legislature for approval.
- If the legislature approves the Annual Plan, the diversions will advance to the next level of engineering and design. The anticipated timeframe for E&D and EIS will depend on a number of factors.
- The FDT requested that the MPDT notify members as the Annual Plan progresses through the review and approval process.

Funding Scenarios – Kyle Graham & Karim Belhadjali

Kyle Graham explained that CPRA is working through what the 2017 Coastal Master Plan funding scenarios will be; nothing has been settled. CPRA has decided, at this time, to analyze a funding level range between \$40 billion and \$70 billion over the next 50 years.

- It was confirmed that project costs are developed using present day value and do not account for future inflation. However, projections for future revenue sources are discounted to present value for consistency purposes.

- The master plan's funding has two purposes: first, it is a constraint for project priorities, and second, it is a price tag to be used from an advocacy standpoint for lobbying for dollars for the state over time.

Open Discussion & Next Steps – Nick Speyrer

An FDT member suggested that as those who are politically vulnerable are often the most impacted during a disaster, a renewed effort should be made to increase diversity in both FDT and focus group representation. Given that expansion of the FDT is not being considered at this time, FDT members were asked to think about people within their own organizations who might be able to increase diversity on the FDT.

Next Steps

- MPDT to send the presentation slides and the draft FDT #5 KOM for review/feedback.
- MPDT will provide Patty Whitney with materials regarding the cost analysis efforts for nonstructural projects.
- MPDT will follow up with Michael Massimi regarding the implementation time for marsh creation projects.
- MPDT to convene a model results workgroup to review project outputs, including vegetation changes, salinity changes, etc. If FDT members are interested in participating in this workgroup, please email Nick at nick@emergentmethod.com.
- MPDT to convene a communications workgroup to address how to communicate the model years, scenarios, visualizations, and other topics to the public. If other FDT members are interested (in addition to those that volunteered during the meeting), please email Nick at nick@emergentmethod.com.
- MPDT will keep FDT members apprised of the FY 17 Annual Plan process.
- MPDT to send the project attributes and costs to the FDT once they are finalized.

Next Meeting: Thursday, March 17, 2015, 9:30 a.m. to 3:00 p.m. at the State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Future Meetings

- Meeting #7 – June 21, 2016
- Meeting #8 – September 27, 2016
- Meeting #9 – December 15, 2016

Framework Development Team

Framework Development Team Meeting #6

Key Outcomes Memo

March 17, 2016 (9:30 a.m. to 3:00 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Dwayne Bourgeois (NLLD), Michael Carlross (DU), Sidney Coffee (AWF), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Karen Gautreaux (TNC), Tyler Gray (LMOGA), Richard Hartman (NOAA -NMFS), Brad Inman (USACE), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), David Muth (NWF), George Ramseur (MS-DMR), Glenn Thomas (LDWF), Jim Tripp (EDF), Robert Twilley (LA Sea Grant), Marnie Winter (Parish Rep East)

Alternate FDT Members: Ryan Bourriaque (Parish Rep West), Cynthia Duet (Audubon), Billy Guste (LDWF), Alexander Kolker (LUMCON), Mel Landry (NOAA), Greg Linscombe (LLA), Simone Maloz (SLEC), Spencer Murphy (Canal Barge Co.), Ronald Paille (USFWS), deEtte Smythe (Parish Rep East), Jim Stark (GICA)

Primary FDT Members Not Present: Sam Bentley (LSU CSI), Darryl Clark (USFWS), Henry Graham (LCA), Matt Gresham (Port of NO), Clint Guidry (LSA), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Mandi Mitchell (LED), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Patty Whitney (Bayou History Center)

Master Plan Delivery Team (MPDT)/CPRA Staff: Michael Ellis, Karim Belhadjali, Bren Haase, Melanie Saucier, Ashley Cobb, Charles Sutcliffe, Nick Speyrer, Denise Reed, Eric White, Paul Tschirky, Brett McMann

About this Key Outcomes Memorandum

The MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above-mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed, and next steps identified. The KOM does not serve as a meeting transcript nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation, and important next steps.

Welcome and Introductions – Michael Ellis

Nick Speyrer welcomed everyone to FDT Meeting #6 and introduced new FDT members Sidney Coffee (America's Wetland Foundation) and Mart Black (Terrebonne Parish), as well as Michael Ellis, CPRA's new Executive Director.

FDT Meeting #5 Key Outcomes Memo – Nick Speyrer

The final version of the FDT Meeting #5 KOM was circulated prior to the FDT Meeting #6 and was ratified by the group with no additional changes.

Communications and Outreach & Engagement – Nick Speyrer

Nick Speyrer recapped the FDT Communications/Visualizations Workgroup meeting on March 9, 2016, and provided an overview of the Outreach & Engagement plan, including the updated timeline and upcoming meetings to engage citizens, communities, parish officials, and levee boards.

The following items were discussed:

- An FDT member suggested meeting with Parishes Against Coastal Erosion (PACE) as an additional way to engage local elected officials.
- An FDT member suggested the MPDT consider giving a detailed master plan presentation to federal agencies and other groups in Washington, D.C., as the draft and final plans are developed because these groups would appreciate and could benefit from seeing the depth of scientific analysis that is going into the master plan's development, as well as how master plan efforts connect to other ongoing federally supported efforts, such as the Mississippi River Hydrodynamic and Delta Management Study.
- FDT members who participated in the Communications/Visualizations Workgroup said that the meeting was productive and that the parish factsheets being developed to provide information on the master plan on a parish by parish basis will be useful.
- The MPDT will develop a standalone executive summary of the 2017 Coastal Master Plan to share with a variety of audiences, including constituents and stakeholders.
- The MPDT confirmed that the 2017 Coastal Master Plan will include a greater level of detail for the nonstructural program as compared to the 2012 effort. The 2017 plan will include the number of commercial and residential structures CPRA recommends for mitigation; however, the plan won't recommend specific structures by address. Identifying specific projects within a project area would be done through the program once funding was appropriated and would then be administered by their respective parish.

Modeling Update – Denise Reed

Denise Reed recapped the FDT Modeling Workgroup meeting on February 26, 2016, and gave a presentation on the future without action model results and project-level updates. FDT members who participated in the workgroup expressed their appreciation for the MPDT's effort to explain the technical details of the modeling effort.

Landscape and Ecosystem

- The vegetation data sources are explained in the [Attachment C3-5 – Vegetation](#) report posted to CPRA's website.
- It was clarified that the brackish marsh on the vegetation maps signifies the vegetation species that are present, not the water's salinity when displayed within the context of the vegetation maps.
- It was clarified that the Ecopath with Ecosim (EwE) model produces an estimate of biomass, not habitat suitability. The EwE output for the master plan is produced monthly over the 50-year period.
- The MPDT will follow up with Ronald Paille regarding draft EwE results for juvenile brown shrimp in Lower Terrebonne.
- It was clarified that the lower dips in the future without action water level and salinity graphs are due to the model taking into account river flooding and precipitation events over 50 years, in addition to sea level rise.
- For further explanation of the data used in the models, please see the reports posted to the CPRA website's [Technical Analysis](#) page.

Surge/Waves and Flood Depths

- For further information on the modifications to the surge/waves approach, please see the report [Attachment C3-25 – Storm Surge and Risk Assessment](#) posted to CPRA's website.
- It was clarified that the 2012 models ran 40 storms, and for the 2017 effort, 92 storms are being run for the draft/final master plan.
- The MPDT will follow up with John Lopez regarding what was used for the 2012 effort regarding river confluence with higher sea level rise.
- It was confirmed that the New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) is modeled at its current elevation and is maintained at the 100-year level of flood protection over time. HSDRRS is the only structural project that the models assume maintenance is sustained at a certain level over time.
- An FDT member suggested CPRA communicate why other levees are not maintained at the current level of flood protection in the master plan.

Restoration Project Results – Denise Reed

Denise Reed presented restoration project results for various project types, including:

- Mid-Barataria Diversion (002.DI.03)
- Calcasieu Ship Channel Salinity Control Measures (004.HR.06)
- Large-Scale Barataria Marsh Creation- Component E (002.MC.05e)
- Small Bayou LaPointe Ridge Restoration (03a.RC.03)
- Grand Lake Bankline Stabilization (004.BS.01)

The following points of clarification were discussed:

- It was clarified that for project maps shown during the FDT presentation that compared the results of a project against future without action, land classified as land loss was land that remained in future without action but was lost due to the effects of the project.
- It was confirmed that, while it may difficult to view changes in the project visualizations, especially for ridge restoration and bankline stabilization projects, even slight changes to the landscape are captured within the models and are part of the project-level information that is sent and used as part of the Planning Tool analysis.
- It was clarified that the models derive marsh edge erosion from historical data, and erosion continues into the future unless an implemented project stops the erosion.
- There were a few questions about classification and predictions of floatant marsh in the presented vegetation maps for the Mid-Barataria Sediment Diversion. FDT members were asked to review [Attachment C3-5 – Vegetation](#) report posted to CPRA’s website to learn more about the model, including an understanding of the initial condition used as a starting point for the modeling effort.
- It was confirmed that, as regional soil data is incorporated, the analysis takes into account the difference in soil building across various parts of the coast.

Nonstructural Project Formulation Update – David Groves

David Groves discussed how nonstructural projects will be analyzed in the Planning Tool for the 2017 Coastal Master Plan. The following items were discussed:

- An analysis has not been done to look at the correlation between areas of low to moderate (LMI) income and flood depths, but could easily be compared with CPRA’s data and mapping.
- The elevation standard is defined as the 100-year flood level plus 2 feet for each scenario/time slice, as 2 feet is the current federal standard for base flood elevation (BFE).
- At a future meeting, the MPDT can explore the percentage of all of the structures within the nonstructural project areas that are recommended for mitigation.
- Illustrative project examples were provided that showed a wide-range of costs and mitigation options across variations in example project areas, providing information on the number of structures mitigated and total mitigation costs. While this data was only illustrative in nature, it was confirmed that the figures shown for mitigation costs by project example did include the estimated costs of acquisitions that were recommended in the example. Regarding an FDT member’s question about how the cost information data was determined, the MPDT confirmed that the cost estimates are based on information received from parish floodplain managers and other sources and will be available to review in Appendix A.
- It was clarified that cost-effectiveness is defined as the reduction in estimated annual damages, which can be calculated for any time slice, divided by the total cost of mitigation. FDT members raised concerns that this can lead to a bias towards higher-valued properties, and the MPDT acknowledged and appreciated this concern, reiterating that this measure is only one of many variables in the analysis and decision-making process.
 - For example, it was clarified that constraining LMI as a decision factor would potentially exclude high income properties which are likely more cost-effective to mitigate due to their higher property values.
- It was clarified that the Planning Tool is used to determine the level of investment and in which nonstructural project areas the investment would be recommended. The next step in the Flood Risk and Resilience Program process would be for parishes to determine the actual structures to be mitigated based on the needs and attributes of the community.

- It was clarified that economic feedbacks are not built into the model; however, the future conditions in the CLARA scenarios take into account population and asset growth. These results can be used to think through such feedbacks.

Planning Tool Update – David Groves

David Groves discussed the updates to the Planning Tool regarding future without action and restoration projects. Highlights and additional points of clarification include:

- The MPDT will share a draft, Planning Tool link with the FDT but caveated that **this version of the Planning Tool is not to be shared with the public/any non-FDT members**. As FDT members have received the contextual education and background from the FDT meetings that are necessary to understand the tool, FDT members are asked to respect this request. In addition to the draft Planning Tool link, a Readme file will be shared to direct FDT members to the modeling report chapters that support the data within the Planning Tool's tabs.
- It was confirmed that project costs in the Planning Tool are in present value dollars only.
- It was clarified that project attributes for length of time for projects to be designed and built was derived based on information from CPRA's experience with similar projects.
- The MPDT clarified that project effects are based on year 25 and year 50 and are weighted equally; there will be two points in time where project benefits are determined based on future without action and future with action.

Topics to Revisit During Future FDT Meetings

- Concerns were raised about how the Planning Tool calculates benefits at year 25 and year 50 only, especially when comparing projects that have significantly different estimates for the length of time for engineering/design and construction. Some members suggested that instead of taking a snapshot of project benefits at year 25 and year 50, the MPDT should consider a metric, such as acre per year. The MPDT explained that the Planning Tool is designed to capture effects over time for this planning level of analysis and is used to help identify the most viable projects over time. While the focus of the FDT discussion was on land, the MPDT emphasized that additional metrics are considered as well to account for other effects on communities, industry, and the environment.
- Concerns were raised by some FDT members related to the MPDT's decision to focus on present value when determining project costs and not inflate those costs depending on the period a project is implemented. Concerns have been raised regarding how to account for uncertain funding scenarios and what funding range should be considered as a constraint. The MPDT voiced concerns that taking any approach other the current approach to keep cost estimates in present values would be incredibly difficult given the uncertainties around project costs and future inflation.

Open Discussion & Next Steps – Nick Speyrer

Next Steps

- The MPDT will send the presentation slides, Planning Tool link and Readme file, and the draft FDT #6 KOM for review/feedback.
- The MPDT will follow up with Ronald Paille regarding the EwE results for shrimp in Lower Terrebonne.
- The MPDT will follow up with John Lopez regarding what was used for the 2012 effort regarding river confluence with higher sea level rise.
- The MPDT will follow up with Mart Black on nonstructural cost estimates.

Next Meeting: Tuesday, June 21, 2016, 9:00 a.m. to 3:00 p.m. at the State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Future Meetings

- Meeting #9 – September 27, 2016
- Meeting #10 – December 15, 2016

Framework Development Team

Framework Development Team Meeting #7

Key Outcomes Memo

June 21, 2016 (9:00 a.m. to 12:30 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Michael Carloss (DU), Sidney Coffee (AWF), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Karen Gautreaux (TNC), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), Scott Kirkpatrick (Coast Builders), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), David Muth (NWF), George Ramseur (MS-DMR), Jim Tripp (EDF), Marnie Winter (Parish Rep East), Patty Whitney (Bayou History Center)

Alternate FDT Members: Andrew Barron (BTNEP), Sarah Bradley (USACE), Alexander Kolker (LUMCON), Greg Linscombe (LLA), Ronald Paille (USFWS), Glenn Thomas (LDWF), Earl Melancon (LA Sea Grant), Mart Black (Parish Rep Central), Stephen Carville (LMOGA), Lanor Curole (United Houma Nation)

Primary FDT Members Not Present: Brad Inman (USACE), Sam Bentley (LSU CSI), Darryl Clark (USFWS), Henry Graham (LCA), Matt Gresham (Port of NO), Clint Guidry (LSA), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Mandi Mitchell (LED), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Tyler Gray (LMOGA), Dwayne Bourgeois (NLLD)

Master Plan Delivery Team (MPDT): Karim Belhadjali, Bren Haase, Melanie Saucier, Mandy Green, Ashley Cobb, Nick Speyrer, Denise Reed, David Groves, Brett McMann

About this Key Outcomes Memorandum

The MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above-mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed, and next steps identified. The KOM does not serve as a meeting transcript nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation, and important next steps.

Welcome and FDT Meeting #6 Key Outcomes Memo – Nick Speyrer

Nick Speyrer welcomed everyone to FDT Meeting #7 and introduced new FDT member Lanor Curole with United Houma Nation, who will serve as an alternate for the Community Focus Group, and Sarah Bradley with USACE, who was sitting in for Brad Inman.

Bren Haase addressed concerns raised during the last FDT meeting regarding the emphasis in the planning tool on measuring benefits at year 25 (short-term) and year 50 (long-term) given projects being evaluated were implemented in varying model years based on project attributes developed by the MPDT. The concern raised related to projects being implemented within the model later than others is that some might be at an advantage in terms of land area during those evaluation periods because they are not subjected to the environmental conditions in the model until the year they are implemented. As such, the MPDT changed the short-term evaluation period from year 25 to year 20. In addition, the MPDT reiterated that short-term benefits are weighted equally to long-term benefits (year 50) and that the Planning Tool evaluates project modeling results that maximize both.

Following this discussion, the final version of the FDT Meeting #6 KOM, which was circulated prior to the FDT Meeting #7, was ratified by the group with no additional changes.

2017 Coastal Master Plan Update – Karim Belhadjali

Karim Belhadjali gave an update on the 2017 Coastal Master Plan process, reviewed recent outreach and engagement activities, and discussed outreach plans for the coming months. In addition, he provided a recap of recent focus group meetings held during May 2016 and reminded FDT members that summaries of those meetings were distributed with other materials in advance of FDT Meeting #7.

The following items were discussed:

- The State Steering Committee was established to provide an opportunity for continued updates and input into the development of Louisiana’s 2017 Coastal Master Plan and creates shared ownership across all relevant and interested state departments/agencies. With the signing of Executive Order No. JBE 2016 – 09, all state agencies are directed to adhere to the Coastal Master Plan, and this engagement allows the sharing of information for use by other departments as they plan their own initiatives in coastal Louisiana.
- Regarding a question about whether CPRA is involved in a current study by GOHSEP focused on evaluating evacuation routes, Karim confirmed that CPRA has shared information and worked with GOHSEP in the past, but he was not aware if they had requested information for this effort at this point.

Modeling Update – Denise Reed

Denise Reed recapped the analysis that was presented at the last FDT meeting and provided an update on adjustments made to the Integrated Compartment Model (ICM) restoration analysis based on feedback/questions by the FDT as well as ongoing QA/QC processes.

The following items were discussed:

- References to V1 on the slides presented at the FDT meeting are in regard to the original version of the ICM, and V3 is the output from the refined model.
- It was confirmed that the Mississippi River channel is not included in the model; FDT members suggested that the MPDT consider ways to discuss the future of the channel in the master plan using analysis from other CPRA studies due to the river's national significance.
- The MPDT is doing combined model runs to test if the sum of the project benefits is the same or different when compared to adding the benefits from individual project runs.
- The rates defining each environmental scenario are available in Section 2.2.4 of Appendix D – Planning Tool Methodology posted to CPRA's website (http://coastal.la.gov/wp-content/uploads/2016/05/CPRA-Appendix-D-Planning-Tool-Methodology_DRAFT.pdf)
- FDT members suggested that from a general public standpoint, the environmental scenarios terminology is a little confusing and difficult to comprehend. This is a topic that has been discussed at previous meetings, and the FDT was encouraged to provide any suggestions on terminology for the general public on the scenario naming or descriptions.

Project Results and Interactions

Denise explained the project interaction results of putting more than one project into the model to look at their combined effects. The following examples were shown:

- Calcasieu Ship Channel Salinity Control and Calcasieu Lake West Bank Marsh Creation and East Calcasieu Lake Marsh Creation
- Morganza to the Gulf (in order to test if there was a land change difference as compared to future without that project)
- Mid-Barataria Sediment Diversion and Large-Scale Barataria Marsh Creation Component E

In addition, the MPDT presented results from testing adjustment in sediment diversion operations during low river years. The main adjustment was to have the diversion flow at 5,000 cubic feet per second (cfs) with the Mississippi River flowing at less than 200,000 cfs.

The following items were discussed:

- The ICM projects long-term coastal land change. While sediment compaction and shallow subsidence are not explicitly included in the ICM, Cesium core data (that includes sediment compaction) were used as part of the model verification process for accretion model results.
- An FDT member commented that for many of the combined project results the benefit is trivial in the high scenario in later years (e.g., year 40, year 50) and questioned to what extent this is driven by high rates of sea level rise. It was explained that while sea level rise is a major driver, it is not the only factor. It was suggested that the MPDT have answers prepared in advance to reference the effects of sea level rise in driving outcomes for messaging to local and national audiences.
- When discussing potential operational regimes for sediment diversions, an FDT member suggested that while the 30/70 split that is codified in law for the Atchafalaya River, the current law does allow for some flexibility in how that flow can be altered if needed for some period of time.

- In response to a FDT member's question, the MPDT explained that it plans to look at the impacts of the timing of when projects are implemented in more detail at the FDT Workshop on July 19.

Planning Tool Analysis – Karim Belhadjali and David Groves

Karim Belhadjali presented an overview of the funding scenarios and the Planning Tool analysis. David Groves discussed the project results for nonstructural project formulation as well as the restoration project results and how the Planning Tool is used to help determine alternatives for the plan.

The following points of clarification were discussed:

- MPDT is considering three funding scenarios: \$40-, \$50-, and \$60-billion (present-day value) over 50 years. The MPDT is analyzing how the mix of projects change if the funding level changes; however, the master plan will be formulated around only one funding scenario that is yet to be determined.
- CPRA has made a policy decision to front load dollars in the master plan to reflect the urgency of the issue coastal Louisiana faces. In addition, the plan will be front loaded because there is greater certainty about the dollars the State will receive in the near-term.
- The Planning Tool selects projects that create benefits regardless of the implementation period and funding; it puts equal emphasis on benefits in the near- and long-term.
- The Flood Risk and Resilience Program accounts for leveed versus un-leveed areas as the CLARA model receives inputs from the ADCIRC model to calculate flood depths and how the environmental scenarios impact areas inside protection systems.
- The Planning Tool does not select either structural or nonstructural projects; there are some cases where a structural project will induce flooding in a surrounding area, and the Planning Tool is then required to select a nonstructural project to mitigate that flooding.
- An FDT member expressed that the impact of sea level rise on navigation behind structures and anticipating that current flood gates will eventually have to become locks will be a critical planning issue in the future. The MPDT explained that this is included in the models when the risk projects are run through the ICM model, which uses a set of operational rules to show how frequently the structures will be closed in the future.
- The MPDT explained that the variant restricting LMI to 30% was not selected as it is very restrictive. It was decided to obtain a larger set of potential projects and then from that list it will be conveyed to the parishes that initial project implementation should focus on LMI properties.
- It was clarified that for large infrastructure such as schools, hospitals, etc., parishes must propose nonstructural projects (e.g., berms); however, this will take money away from other possible nonstructural projects within their parish. Private industrial facilities are not included in the Flood Risk and Resilience Program.
- An FDT member inquired about whether the MPDT is looking at the potential situation where all of the structures in an area are elevated but the infrastructure and roads in the area are always flooded. Although this is outside of CPRA's scope, it is information that CPRA can analyze and coordinate with other state and federal agencies.

Open Discussion & Next Steps – Nick Speyrer

- An FDT member suggested that language communicating flexibility regarding the future needs to be written into the 2017 plan to make it easier for the public to understand that plan will change over time to adapt to the changing landscape.
- An FDT member suggest, that from a community perspective, MPDT and FDT members need to think carefully about how to communicate with and engage communities where restoration and protection projects are limited. CPRA needs to be able to answer the question, “Is this fair?” and explain why projects were, or were not, selected.

Next Steps

- The MPDT will send the presentation slides, updated Planning Tool link and Readme file, and the draft FDT #7 KOM for review/feedback.
- In preparation for the FDT Workshop on July 19, FDT members should explore the updated Planning Tool link: https://public.tableau.com/views/JI605-CPRA_PT-FDT-June2016-temp/2017PlanningToolFDT?:embed=y&:display_count=yes&:showTabs=y.

Future Meetings

- FDT Workshop – Projects and Alternatives: Tuesday, July 19, 2016, 9:00 a.m. to 1:00 p.m. at the Galvez Building – Oliver Pollock Room
- Meeting #8 – September 13, 2016 (9:00 a.m. to 3:00 p.m.)
- Meeting #9 – December 15, 2016 (9:00 a.m. to 3:00 p.m.)
- Meeting #10 – January 23, 2016 (9:00 a.m. to 12:00 p.m.)

Framework Development Team

Framework Development Team Meeting #8

Key Outcomes Memo

September 13, 2016 (9:00 a.m. to 12:30 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Karen Gautreaux (TNC), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), David Muth (NWF), Jim Tripp (EDF), Marnie Winter (Parish Rep East), Brad Inman (USACE), Sam Bentley (LSU CSI), Darryl Clark (USFWS), Henry Graham (LCA), Tyler Gray (LMOGA), Billy Guste (LDWF)

Alternate FDT Members: Alexander Kolker (LUMCON), Greg Linscombe (LLA), Ronald Paille (USFWS), Glenn Thomas (LDWF), Donna O'Dell (Parish Rep East), Sherri McConnell (LED), Simone Maloz (SLEC), Cynthia Duet (Audubon), Spencer Murphy (Canal Barge)

Primary FDT Members Not Present: Matt Gresham (Port of NO), Clint Guidry (LSA), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Mandi Mitchell (LED), Larry Rase (LA River Pilots Assoc.), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Dwayne Bourgeois (NLLD), Patty Whitney (Bayou History Center), Scott Kirkpatrick (Coast Builders), Mike Carloss (DU), George Ramseur (MDMR), Sidney Coffee (AWF)

Master Plan Delivery Team (MPDT): Michael Ellis, Karim Belhadjali, Bren Haase, Melanie Saucier, Mandy Green, Nick Speyrer, Denise Reed, David Groves, Brett McMann

About this Key Outcomes Memorandum

The MPDT has prepared and distributed this Key Outcomes Memorandum (KOM) to all FDT members as the summary of the above-mentioned meeting. The purpose of the KOM is to summarize the key decisions made, issues discussed, and next steps identified. The KOM does not serve as a meeting transcript nor will it typically attribute comments or suggestions to specific individuals. It does attempt to characterize areas of emerging agreement, areas requiring future deliberation, and important next steps.

Welcome and FDT Meeting #7 Key Outcomes Memo – Nick Speyrer

Nick Speyrer welcomed everyone to FDT Meeting #7 and introduced new FDT member Donna O’ Dell, an alternate from St. Tammany Parish representing the eastern parishes of the State on the FDT. The final version of the FDT Meeting #7 KOM, which was circulated prior to the FDT Meeting #8, was ratified by the group with no additional changes.

Outreach & Engagement Update – Nick Speyrer

Nick Speyrer provided an overview of all upcoming engagements and briefings scheduled for the MPDT and let the FDT members know about a series of six community meetings planned with community partners/hosts in October across coastal Louisiana. FDT members were reminded that the schedule of upcoming public activities can be on CPRA’s website and a full list of scheduled activities can be found in the slide deck from the meeting.

An overview from the recent National Significance Stakeholder Workgroup meeting was also provided, and Nick reminded FDT members to provide any thoughts, statistics, etc. that would help improve master plan text and graphics describing Louisiana’s importance to the nation. An FDT member recommended that the MPDT consider the role of the Mississippi River and its importance to the coast and also the upper Mississippi River Valley region. Lastly, an FDT member was pleased to hear that the MPDT was coordinating outreach activities with community organizers in an effort to engage minority and disadvantaged populations.

2017 Coastal Master Plan Update – Bren Haase

Bren Haase provided a recap of the recent FDT Workshop – Projects and Alternatives (held July 19, 2016) and thanked members who were able to attend and provide feedback. Based on the discussion and deliberation at the workshop, the MPDT is refining the draft plan using a constrained budget of \$50 billion, with a 50/50 restoration/protection split, and focusing on formulating alternatives and selecting projects based on how they perform across multiple scenarios, especially against the high environmental scenario, keeping consistent with the philosophy to “plan for the worst and hope for the best.”

Preliminary Alternative Modeling Results – Denise Reed

Denise Reed recapped the analysis that was presented at FDT Meeting #7 and the FDT Workshop and provided an update on current results from the alternatives analysis.

The following items were discussed:

- There are no barrier island projects in these alternative results, as the MPDT has decided to include barrier island projects in the draft plan as part of a programmatic approach.
- The Atchafalaya River Delta does have some areas of land loss in the model but overall, it’s experiencing continuous land gain.
- The output maps shown compared future without action and future with action, displaying side by side land/water maps. FDT members suggested that future visualizations include green and red color schemes to highlight the difference between the two sets of model output.
 - A question was raised regarding whether the models take into account future beneficial dredging/marsh creation at the mouth of the Mississippi River from the USACE. The MPDT responded that the model doesn’t assume this since these

projects don't necessarily have dedicated funding. The concern raised is that the birdsfoot's delta is showing land loss, but over the past several decades, the USACE has dredged and created marsh at the mouth of the river. The MPDT acknowledged that this was difficult to account for within the model. A question was raised regarding whether there was any model output that showed changes in nuisance flooding for a six-month or one-year event. The MPDT responded that we didn't have output on nuisance flooding since we use a synthetic storm suite that doesn't account for small frequency events; however, one could investigate non-storm responses in mean water level from the ICM as a sort of proxy to see how inundation changes over time.

Planning Tool Analysis – David Groves

David Groves presented an overview of the Planning Tool analysis and discussed the project results for nonstructural project formulation as well as the restoration project results and how the Planning Tool is used to help determine alternatives being considered as a draft plan is developed. David also discussed both the results from the FDT-suggested alternatives from the July workshop and the updated results from the CPRA modified max land/max risk reduction alternative.

The following points of clarification were discussed:

- CPRA has made a policy decision to front load dollars in the master plan to reflect the urgency of the issue coastal Louisiana is facing. In addition, the plan will be front loaded because there is greater certainty about the dollars the state will receive in the near-term.
- The Planning Tool selects projects that create benefits regardless of the implementation period and funding; it puts equal emphasis on benefits in the near- and long-term.
- The differences in the Version 3 model project data were discussed, and it was suggested that we need clear reasons why certain projects results were used and others were not.
 - Denise explained where the model issues were updated because of the salinity issues and that there wasn't time to update all the projects in Version 3. The FDT encouraged the MPDT to be clear about the rational of why these project results were used, and the MPDT agreed.
- There was some confusion over why projects, especially diversions, seem to come into and out of alternative lists when model versions are updated or when certain projects are forced in the Planning Tool. The reason is that for every action in the Planning Tool, there is a reaction so altering budgets, scenarios, implementation periods, or project selections themselves always have a consequence in the selection of other projects.
- Compared to 2012, the projects being considered in the CPRA-modified alternative use less of the Mississippi River flow (roughly 20% of flow in the modified max land alternative is diverted, roughly 50% of the flow in the 2012 plan was diverted).
- Alternatives formulated on the premise of maintaining juvenile brown shrimp and white shrimp habitat results tended to not perform as well as the modified max land alternative from a land sustained/built perspective, and the modified max land alternative tended to come close to maintaining current levels of shrimp habitat.
- A concern was raised that nonstructural projects were developed considering year 10 flood depth BFE's +2 ft. rather than something higher. It was mentioned by the MPDT that year 10 flood depths were deemed achievable whereas aiming for year 50 flood depths could be overly ambitious, especially in the face of higher uncertainty in later years of the plan.
- A question was raised about if the MPDT/Planning Tool prioritized areas of repetitive flooding in the nonstructural analysis. The answer is not directly, although the Planning Tool is geared to optimize reduction in EAD, so projects that have higher residual risk, by nature, would not perform as favorably within the Planning Tool analysis.

- It was suggested that it would be beneficial to include the amount of EAD reduced and total value of all assets to compare versus the percentage of EAD reduced so that efficiency and magnitude of effects of projects can both be considered.
- There were questions as to whether the nonstructural analysis has a bias toward higher value homes since it is optimizing based on cost effectiveness. The analysis is not biased for several reasons, most notably because there is not a cost effectiveness criterion or cutoff programmed into the Planning Tool. Additionally, the areas we are looking at for nonstructural projects are generally vast and diverse in makeup; the MPDT team has not observed a bias in results thus far.

Open Discussion & Next Steps – Nick Speyrer

Future Meetings

- Meeting #9 – December 15, 2016 (9:00 a.m. to 3:00 p.m.)
- Meeting #10 – January 23, 2017 (9:00 a.m. to 12:00 p.m.)

Framework Development Team

Framework Development Team Meeting #9 Key Outcomes Memo

December 15, 2016 (9:30 a.m. to 12:00 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Todd Baker (LDWF), Laurie Cormier (Parish Rep West), Paul Frey (LLA), Karen Gautreaux (TNC), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), John Lopez (LPBF), Keith Lovell (LDNR), Michael Massimi (BTNEP), David Muth (NWF), Jim Tripp (EDF), Marnie Winter (Parish Rep East), Darryl Clark (USFWS), Henry Graham (LCA), Patty Whitney (Bayou History Center), Mike Carloss (DU), George Ramseur (MDMR), Sidney Coffee (AWF)

Alternate FDT Members: Alexander Kolker (LUMCON), Greg Linscombe (LLA), Glenn Thomas (LDWF), Sherri McConnell (LED), Simone Maloz (SLEC), Cynthia Duet (Audubon), Spencer Murphy (Canal Barge), Leslie Suazo (DU), deEtte Smythe (Parish Rep East), Mart Black (Parish Rep Central), Ryan Bourriaque (Parish Rep West), Jim Stark (GICA), Steven Carville (LMOGA), Sarah Bradley (USACE), Daniel Henry (LDWF)

Primary FDT Members Not Present: Matt Gresham (Port of NO), Clint Guidry (LSA), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Mandi Mitchell (LED), Larry Rase (LA River Pilots Assoc.), Brad Inman (USACE), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Dwayne Bourgeois (NLLD), Scott Kirkpatrick (Coast Builders), Sam Bentley (LSU), Tyler Gray (LMOGA)

Master Plan Delivery Team (MPDT): Bren Haase, Melanie Saucier, Mandy Green, Nick Speyrer, Denise Reed, Brett McMann

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Welcome and FDT Meeting #8 Key Outcomes Memo – Nick Speyrer

Nick Speyrer welcomed everyone to FDT Meeting #9 and announced that the Draft 2017 Coastal Master Plan will be available for public review on January 3, 2017. The final version of the FDT Meeting #8 KOM, which was circulated prior to the FDT Meeting #9, was ratified by the group with no additional changes.

Coastal Master Plan Update – Bren Haase

Bren Haase provided a preview of the 2017 Coastal Master Plan with emphasis placed on the key decision points in developing the draft plan. Funding by project type reflected a constrained budget of \$50 billion, with a 50/50 restoration/protection split, and maps were presented displaying land change, both with and without implementing the 2017 Draft Coastal Master Plan projects, under the medium and high environmental scenarios.

A brief discussion followed on how projects were chosen based on the master plan decision drivers of building or maintaining land and reducing risk (in terms of economic damage), and why certain projects are either included or not included in the 2017 draft plan.

Many FDT members raised the issue of the national significance of coastal Louisiana. The MPDT acknowledged the importance of this point and recognized that more detail was needed to bridge the gap between master plan investments in coastal Louisiana and the national economic impact if coastal Louisiana is not protected. The People in the Landscape document (Appendix B), which focuses on the human impacts and national significance of the master plan, was well received.

A question was raised about Parish Fact Sheet and Project Fact Sheet availability, and the MPDT responded that these documents would become available for download when the draft master plan is released on January 3, 2017. An FDT member mentioned that her organization had received some grant funding to create and distribute USB flash drives with relevant master plan documents to citizens.

Outreach & Engagement Update – Nick Speyrer

Nick Speyrer provided an overview of past and upcoming engagements and briefings scheduled for the MPDT and informed FDT members of four formal public hearings scheduled for January after the release of the draft plan. An overview of Appendices was provided to ensure all members were aware of supporting documents that provide details on how the draft plan was developed. FDT members were reminded that the schedule of upcoming public activities can be found on CPRA's website and a full list of scheduled activities can be found in the slide deck from the meeting. FDT members were encouraged to request and coordinate meeting/briefing requests with Nick.

Additional Technical Analysis – Denise Reed

Denise Reed presented a modeling analysis that tested how combinations of restoration and protection projects may affect storm surge and waves. The analysis included simulating selected storms in specific locations and observing wave height, surge height, and elevation changes with and without future action.

Some points discussed included the following:

- Morganza to the Gulf (impacts of draft master plan restoration projects in combination with the protection project on elevation, storm surge height, and wave height)
 - Greater reduction in peak surge near the lee side of the projects, with diminishing reduction effects observed further inland or east/west of storm track

- More confined reduction in wave height in the region where land elevation and roughness are changed due to the restoration projects
- Restoration projects of large footprints may redirect surge water to adjacent areas
- Chenier Plan (impacts of draft master plan restoration projects accompanied by additional restoration projects)
 - Impacts depend on simulated storm track and project type
 - Wave height reduction due to shoreline protection, bank stabilization, and ridge restoration is localized
 - Restoration may need to be strategically placed to affect communities
- Biloxi Marsh (impacts of Biloxi Marsh Creation project on storm surge and wave height)
 - FDT members inquired if surge modeling included erosion of the Biloxi Marsh Platform due to loss of vegetation. Denise indicated that they had not modeled that condition.

FDT members provided positive feedback on this analysis and stated that this testing would be a useful analysis for sediment diversion projects.

Open Discussion & Next Steps – Nick Speyrer

Future Meetings

- Meeting #10 – January 23, 2017 (9:00 a.m. to 12:00 p.m.)

Framework Development Team

Framework Development Team Meeting #10

Key Outcomes Memo

March 2, 2017 (9:00 a.m. to 12:00 p.m.)

State Library – Seminar Center (701 North 4th Street, Baton Rouge)

Meeting Participants

Primary FDT Members: Karen Gautreaux (TNC), Richard Hartman (NOAA -NMFS), Quin Kinler (USDA-NRCS), John Lopez (LPBF), Michael Massimi (BTNEP), David Muth (NWF), Jim Tripp (EDF), Darryl Clark (USFWS), Mike Carloss (DU), George Ramseur (MDMR), Sidney Coffee (AWF), Scott Kirkpatrick (Coast Builders), Sam Bentley (LSU)

Alternate FDT Members: Alexander Kolker (LUMCON), Greg Linscombe (LLA), Cynthia Duet (Audubon), Spencer Murphy (Canal Barge), Leslie Suazo (DU), Mart Black (Parish Rep Central), Steven Carville (LMOGA), Ronnie Paille (USFWS), Lanor Curole (UHN), Sarah Bradley (USACE)

Primary FDT Members Not Present: Matt Gresham (Port of NO), Clint Guidry (LSA), Ryan Lambert (LCBA), Merritt Lane (Canal Barge Co.), Larry Rase (LA River Pilots Assoc.), Brad Inman (USACE), Mark Riley (GOHSEP), Robert Twilley (LA Sea Grant), Dwayne Bourgeois (NLLD), Tyler Gray (LMOGA), Laurie Cormier (Parish Rep West), Patty Whitney (Bayou History), Paul Frey (LLA), Henry Graham (LCA), Cary Bergeron (Parish Central), Marnie Winter (Parish East), Mandi Mitchell (LED), Keith Lovell (DNR), Billy Guste (LDWF), Todd Baker (LDWF)

Master Plan Delivery Team (MPDT): Bren Haase, Melanie Saucier, Mandy Green, Nick Speyrer, Denise Reed, Raynie Harlan

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Welcome and FDT Meeting #10 Key Outcomes Memo – Nick Speyrer

Nick Speyrer welcomed everyone to FDT Meeting #10g. The final version of the FDT Meeting #9 KOM, which was circulated prior to the FDT Meeting #10, was ratified by the group with one minor change requested by FDT member John Lopez. The updated and ratified KOM #9 was re-sent to FDT members.

Coastal Master Plan Update – Bren Haase

Bren Haase provided an update on the outreach efforts of the 2017 Coastal Master Plan and an overview of past and upcoming engagements and briefings scheduled for the MPDT. He informed the FDT about the number of public comments received to date and associated themes. FDT members were reminded that all public comments would be published for transparency and that any project and programmatic changes made from draft to final plan would be documented in the master plan. FDT members were reminded that the schedule of upcoming public activities can be found on CPRA's website and a full list of scheduled activities can be found in the slide deck from the meeting. FDT members were encouraged to request and coordinate meeting/briefing requests with Nick and to submit public comments by March 26th.

FDT Feedback on Draft Plan

Break out groups of five to six FDT members collectively discussed feedback on the draft master plan. They were asked to consider 3-5 strengths of the draft plan and 3-5 opportunities for improvement. Feedback received included the following:

- Data viewer is a great tool, but is underutilized
- Parish fact sheets are great and could be good to have in main plan document
- Project fact sheets should use project results from the same scenario as is presented in the main plan (medium)
- ICM results seem intuitive and useful improvements were made to the models since 2012
- All candidate projects from the 2012 plan were not re-analyzed, and some wondered if they would performed better using the updated modeling tools
- Would be good to separate land gained from land sustained by each individual project
- More clarification is needed on what the barrier island program really would entail
- How environmental and community metrics (other than decision drivers) are used in the project selection process is not clear
- Appendix B provides useful information, and CPRA should consider incorporating it into the main plan document
- Continue to emphasize importance of coast to the entire state/economy/nation
- Science in plan is sound and process is good
- Need to make more of a business case as to why restoration of the coast is important and incorporate more about the return on the \$50B investment; capture this as an infrastructure and job creation issue. Look in to comparing/contrasting cost benefit for other “large” state projects to show how master plan projects compare (Big Dig, Boston).
- In addition to showing the year 50 outcomes, consider including interim snapshots of land change/flood risk
- A question was asked if there was a better way to capture marsh creation projects in front of levees and how this may reduce operations and maintenance
- Outreach and engagement and modeling are improved from 2012
- Better description of funding by implementation periods than in 2012
- 2017 plan project uses less river water/sediment than 2012 plan, and this is not communicated in draft plan
- More clarification on consistency with the master plan for others projects is needed

- Text on accountability if projects in the plan do not get implemented in time frame they are planned for in the master plan should be considered
- More clarification on transparency between master plan and annual plan and funds tied to certain projects should be considered
- More diversity in membership of stakeholder groups is needed
- Consider separating the above 15 feet category on flood depth maps into multiple categories
- Communicate subsidence and the subsidence ranges better; subsidence values under the high scenario seem to be too high in some places
- Complimented that the state maintained a consistent approach to 50 years and \$50 billion
- More marsh creation overall is good benefit of 2017 plan
- Phasing of projects on the ground is not communicated in maps and should have more focus on projects in next 10-20 years
- Consider that projects that are part of Future Without Action (FWOA) should be expanded so it does not look like we are just constantly reevaluating the same projects – those that we know we are going to build/spend dollars on in the next few years. This could help with the large gaps that we are seeing in projects in certain locations and could lead to better consideration of future projects/how to address needs/gaps.
- It should be made clear in master plan text that, with a long-term planning horizon, adaptive management will be an important factor for success.

Current & Future Technical Analysis – Denise Reed

Denise Reed presented feedback we have received from the SEB, modeling team, and TAC groups on the modeling analysis for 2017. She also went through some of the ongoing modeling analysis in areas of continued land loss both in FWOA and future with draft plan projects under different simulated environmental conditions (period of low precipitation, opening/closing navigation locks on the landscape). Feedback stressed the need to consider probabilistic models and analysis since many of the assumptions in the modeling are rough estimates. Denise stressed that these details of the model outcomes can be found in Appendix C, Chapter 5.

Open Discussion & Next Steps – Bren Haase

- Reminder that public comments are due March 26th
- Plan submitted to CPRA Board on April 19th
- Legislative session and plan submitted in April 25th