HLDB

DWH Louisiana Trustee Implementation Group September 13, 2022 – Call Notes

| | Reviewed by: |
|-----|--------------|
| | LAMOC |
| | NOAAJJP |
| RA | DOISC |
| oli | USDAJM |
| _ | EPAJDJ |
| | |

| NOAA | DOI | Louisiana CPRA | DOISC |
|---------------------|------------------|------------------|---------|
| Mel Landry | Sarah Clardy | Elizabeth Davoli | USDA_JN |
| Courtney Schupp | Robin Renn | Beth Golden | |
| Dawn Davis | Lena Flannery | Casey Wright | EPAJ |
| Brittany Jensen | | Chris Barnes | |
| Steve Giordano | USDA | Tim Smith | |
| Ramona Schreiber | Jon Morton | Syed Khalil | |
| DOJ | EPA | Louisiana DWF | |
| Rachel Hankey | Doug Jacobson | Jon Wiebe | |
| | Gale Bonanno | Matt Weigel | |
| | Tim Landers | Brady Carter | |
| Other | Louisiana DEQ | Louisiana DNR | |
| Jane Petersen (IEc) | Adrienne Gossman | Nick Lacroix | |

Discussion Item: MBSD Environmental/RP

A. MBSD EIS

1. Review of Corps Special Public Notice (forthcoming)

<u>Discussion</u>: The public notice will be shared with the TIG for review. Corps publication will be on 9/23.

2. Coastal Use Permit Update

<u>Discussion</u>: There are no comments yet, and the public comment period will end September 20th.

3. Corps to complete e-filing by 9/19

B. RP Review

1. AR Index

Discussion: This item is still under legal review.

2. Resolution releasing Final RP

Discussion: Signatures are due COB Thursday, September 15.

3. Factsheet and web story review

<u>Discussion:</u> Comments are due COB Wednesday, September 13.

- C. SWG meeting September 14, 2022
 - <u>Discussion</u>: there are no current agenda items, but meeting time will be held in case anything comes up. Potential items: embargoed Final EIS to select journalists, embargoed Final RP.

Discussion Item: RPs/Project Implementation/MAM/MAIP

A. Draft Restoration Plan #7.1: Birds

- 1. Draft RP/EA #7.1 Published August 25, 2022
- 2. Upcoming:
 - a. August 25 September 26: Public Comment Period
 - b. PEPC: no comments on RP as of yet.

B. Elmer's Island

<u>Discussion</u>: The contractors having a hard time with shuttles and supply chain issues for repair parts. A few invoices have come in without GPS data to verify operations. Memo to file will be written to update requirements that allow for alternative forms of location data.

Discussion Item: MAM

A. Revised funding resolution.

Discussion: Comments are due COB Monday, September 19th.

Discussion Item: Other

A. LA TIG Annual Meeting Date: RECAP

<u>Discussion</u>: 128 people registered for the webinar. According to GoToWebinar, there were 79 attendees (13 panelists/organizers, and 66 audience members). Since there were two separate webinars in one meeting, which led to some attendees hopping off early or joining late, the maximum number of audience members the TIG had at one time was 60.

| 2022 Calendar of In-Person (Virtual) Meetings | | |
|-----------------------------------------------|---------------------------------------|--|
| <u>Day 1</u> <u>Day 2</u> | | |
| UFT: 9:30 AM – 11:30 AM | Exec/Governance Meeting: 10 AM – Noon | |
| (CT) | (CT) | |
| LA TIG: 1:00 PM - 4:00 PM (CT) | Other Meetings as Scheduled | |
| September 27 | September 28 | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

From:

Billy Plauche

billy@plauchecarr.com>

Sent:

Friday, September 16, 2022 4:00 PM

To:

Harry Vorhoff; David Peterson (CPRA); Molly Lawrence; Megan Terrell

Subject:

RE: FTN modelling

Attachments:

FTN memo.Appendix B1 cover_hjv.swp.docx

Caution: External Email.

Great job on this, Molly. A few additional tweaks from me.

Samuel W. Plauché Plauché & Carr LLP

From: Harry Vorhoff < Harry. Vorhoff@la.gov> Sent: Friday, September 16, 2022 1:36 PM

To: Billy Plauche <billy@plauchecarr.com>; David Peterson (CPRA) <David.Peterson@LA.GOV>; Molly Lawrence

<mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

Subject: RE: FTN modelling

Nice work. My comments attached.

Thanks. Harry

From: Billy Plauche < billy@plauchecarr.com> Sent: Friday, September 16, 2022 11:57 AM

To: Harry Vorhoff < Harry. Vorhoff@la.gov >; David Peterson (CPRA) < David. Peterson@LA.GOV >; Molly Lawrence

<mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

And here

Samuel W. Plauché

Plauché & Carr LLP

From: Harry Vorhoff < Harry. Vorhoff@la.gov> Sent: Friday, September 16, 2022 9:22 AM

To: David Peterson (CPRA) < David.Peterson@LA.GOV >; Molly Lawrence < mol@vnf.com >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche <billy@plauchecarr.com>

Subject: RE: FTN modelling

Same here.

From: David Peterson (CPRA) <David.Peterson@LA.GOV>

Sent: Friday, September 16, 2022 10:13 AM

To: Molly Lawrence <mol@vnf.com>; Harry Vorhoff <Harry.Vorhoff@la.gov>; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche
billy@plauchecarr.com>

Subject: RE: FTN modelling

I will look at it this afternoon after all my morning meetings.



David A. Peterson

Coastal Protection and Restoration Authority General Counsel | Legal Section | Executive Division The Water Campus | 150 Terrace Avenue | Baton Rouge, LA 70802

| P.O. Box 44027 | Baton Rouge, LA 70804-4027 o: 225.342.6505 | c: 225.276-1822 | fax: 225.800.5607

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From: Molly Lawrence < mol@vnf.com > Sent: Friday, September 16, 2022 9:06 AM

To: Harry Vorhoff < Harry. Vorhoff@la.gov >; David Peterson (CPRA) < David. Peterson@LA.GOV >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche <billy@plauchecarr.com>

Subject: RE: FTN modelling

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Checking back with you all. Any comments?

Thanks.

From: Molly Lawrence

Sent: Thursday, September 15, 2022 7:28 AM

To: 'Harry Vorhoff' < Harry. Vorhoff@la.gov >; David Peterson (CPRA) < David. Peterson@LA.GOV >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche <billy@plauchecarr.com>

Subject: RE: FTN modelling

A/C privileged Morning All,

Attached is the proposed "cover page" that we would ask FTN to add to its numerical modeling report ahead of the sections that we held back from the submittal to the Corps. After looking at the report again, it seemed that FTN had already set the report up to include appendices, which were identified as modeling not critical to the 408 review – so it seemed quite smooth to add it there.

A pre-emptory thanks to Megan for taking a look at this before I sent to the whole group.

Let me/us know your thoughts. I think the idea is to get this to FTN on Monday. I'm also working on a version of the FTN report that includes the withheld data. It's not a perfect "one for one" cut/paste since at least some of the info withheld was just a sentence here and there. We'll have to make sure we are all comfortable with the material/sentences that were withheld but perhaps don't make it back into the final appendix. More on that soon.

Thanks.

Molly A. Lawrence

Partner

(Pronouns: she/her/hers)
Van Ness Feldman LLP

1191 Second Avenue, Ste. 1800**

Seattle, WA 98104 Office: 206-623-9372 Cell: 206-954-5011 www.vnf.com

**Please note our new address above. Thank you for updating your records, we look forward to serving you from our new location. **

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From: Harry Vorhoff < Harry. Vorhoff@la.gov > Sent: Tuesday, August 30, 2022 2:11 PM

To: David Peterson (CPRA) < David.Peterson@LA.GOV >; Megan Terrell < megan@plauchecarr.com >; Billy Plauche

<billy@plauchecarr.com>; Molly Lawrence <mol@vnf.com>

Subject: RE: FTN modelling

Caution: External Email.

Nice work, y'all. Accepted the edits in the attached. Will circulate to Chip and Bren shortly. Thanks,

Harry

From: David Peterson (CPRA) < <u>David.Peterson@LA.GOV</u>>

Sent: Tuesday, August 30, 2022 3:57 PM

To: Megan Terrell < megan@plauchecarr.com >; Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff

< Harry. Vorhoff@la.gov >; Molly Lawrence < mol@vnf.com >

Subject: RE: FTN modelling

All,

I am good with the last edits by Megan. Sorry for delay, I had a few interruptions. I have no other changes. Good work.



David A. Peterson

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Coastal Protection and Restoration Authority
General Counsel | Legal Section | Executive Division
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From: Megan Terrell < megan@plauchecarr.com>

Sent: Tuesday, August 30, 2022 1:20 PM

To: David Peterson (CPRA) < David.Peterson@LA.GOV>; Billy Plauche < billy@plauchecarr.com>; Harry Vorhoff

<a href="mailto:
Harry.Vorhoff@la.gov
Harry.Vorhoff@la.gov
Harry.Vorhoff@la.gov

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

This also looks great. A few more suggested revisions attached, none of which are substantive. This looks like a heavy markup (you may want to read in in simple markup), but I'm just channeling Chip in the hopes of giving him less than 1 ½ pages. And unlike our legal memo, I think a less formal/conversational tone is fine and often preferred for TPs. Bren has a very good grasp on this modeling, so he won't need much technical information (e.g. he knows the FTN model predicts several hundred million cy in dredging and what head differential means), and I think we can use acronyms without defining them first – they're both very familiar with FWOP and SLR.

Megan K. Terrell

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From: David Peterson (CPRA) < David.Peterson@LA.GOV>

Sent: Tuesday, August 30, 2022 12:55 PM

To: Megan Terrell < megan@plauchecarr.com >; Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff

<Harry.Vorhoff@la.gov>; Molly Lawrence <mol@vnf.com>

Subject: RE: FTN modelling

I'll just wait for Megan so I have everything in one place.

David



David A. Peterson

www.coastal.la.gov

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From: Megan Terrell < megan@plauchecarr.com >

Sent: Tuesday, August 30, 2022 12:47 PM

To: Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff < Harry.Vorhoff@la.gov >; Molly Lawrence < mol@vnf.com >

Cc: David Peterson (CPRA) < David.Peterson@LA.GOV>

Subject: RE: FTN modelling

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Y'all are killing me! Billy – I'll combine yours with Molly's and add mine.

Megan K. Terrell

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From: Billy Plauche < billy@plauchecarr.com > Sent: Tuesday, August 30, 2022 12:46 PM

To: Harry Vorhoff < Harry. Vorhoff@la.gov >; Molly Lawrence < mol@vnf.com >; Megan Terrell < megan@plauchecarr.com >

Cc: David Peterson (CPRA) < David.Peterson@LA.GOV>

Subject: RE: FTN modelling

Just one suggested addition from me in the attached.

Samuel W. Plauché
Plauché & Carr LLP

From: Harry Vorhoff < Harry. Vorhoff@la.gov > Sent: Tuesday, August 30, 2022 9:59 AM

To: Molly Lawrence <mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

Cc: Billy Plauche < billy@plauchecarr.com >; David Peterson (CPRA) < David.Peterson@LA.GOV >

Subject: RE: FTN modelling

Thanks, y'all. I wasn't able to include the "more detail" bullets and keep it to 1.5 pages or less. That said, I think this can be streamlined a bit further. Sending it now since Megan is free, but I can pick it back up later this afternoon.

Thanks, Harry

From: Molly Lawrence < mol@vnf.com > Sent: Tuesday, August 30, 2022 9:57 AM

To: Megan Terrell <megan@plauchecarr.com>; Harry Vorhoff <Harry.Vorhoff@la.gov>

Cc: Billy Plauche

billy@plauchecarr.com>; David Peterson (CPRA) <David.Peterson@LA.GOV>

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Thanks M. I feel like I tried to channel my "inner Billy" to find a phrasing that would be understandable to the less technically focused.

From: Megan Terrell < megan@plauchecarr.com >

Sent: Tuesday, August 30, 2022 7:46 AM

To: Molly Lawrence < mol@vnf.com >; Harry Vorhoff < Harry.Vorhoff@la.gov >

Cc: Billy Plauche < billy@plauchecarr.com >; David Peterson (david.peterson@la.gov) < david.peterson@la.gov >

Subject: RE: FTN modelling

Caution: External Email.

This looks great. One recommendation to rephrase what this modeling is - see below in red/strikethrough.

Megan K. Terrell

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From: Molly Lawrence <mol@vnf.com>
Sent: Tuesday, August 30, 2022 9:06 AM
To: Harry Vorhoff <harry.Vorhoff@la.gov>

Cc: Megan Terrell < megan@plauchecarr.com >; Billy Plauche < billy@plauchecarr.com >; David Peterson

(david.peterson@la.gov) <david.peterson@la.gov>

Subject: FTN modelling

A/c privileged

Ok, here is my effort at providing pithy summaries of the 85 pages that we extracted from FTN's initial 90% numerical modeling report. I've given a one line/sentence high level summary followed by a little more detail if Chip/Bren want to understand what the one liners mean. Let me know if this makes sense! Megan, please put your eyeballs on this. Additional modeling that was extracted from performed by FTN's as part of the draft 90% numerical modeling and draft report-included:

- 1. Analysis of variable flow levels when the diversion is expected to operate at "base flow" (when the MR is flowing less than 450kcfs).
 - More detail: Modeled the days per month when the diversion is operating at "base flow" but will not be able to achieve a continuous 5,000 cfs flow and may need to be closed to avoid "reverse flow" (from the basin into the river). Makes recommendations for closing the diversion at certain flow levels in the river to avoid reverse flow. Modeling assumes that sea level rise affects the basin, but not the river, so the results are over-reported.
- Options for flushing sediment that will deposit in the diversion channel during periods of base flow. More detail: Deposition (build up) of sediment in the diversion channel is expected during periods of base flow (up to 5,000 cfs). FTN modeled options for "flushing" those deposits out of the channel by flowing the diversion above 5,000 cfs when MR flows are below 450,000 cfs. Flowing the diversion above 5,000 cfs when the River is below 450,000 cfs is not included in the preliminary operations plan so this is outside the current operations plan. FTN modeled the potential effects on sediment in the channel and salinity in the outfall from "flushing" events.
- 3. Options for maintaining diversion capacity when sediment builds up in the outfall area. Included an analysis of basin-side effects of diversion operations over 50-years, including land building, salinity and water level effects in the basin.
 - More detail: FTN developed an outfall management model to identify operational changes that could be needed in the future to maintain the diversion's design capacity (75K cfs) over the 50 year analysis period. The model projected the land building of the diversion and the potential options for dredging in the outfall area in the medium to long term (30+ yrs) to maintain the diversion's capacity. This model also predicted salinity effects from head-driven levels of base flow (item #1 above). Modeling assumes that sea level rise affects the basin, but not the river, so the results are over-reported.

Thanks. Molly Lawrence

HLDB

DWH Louisiana Trustee Implementation Group September 20, 2022 – Call Notes

Reviewed by:

LA___MOC____

| NOAA | DOI | Louisiana CPRA | NOAAJJP |
|---------------------|---------------|------------------|---------|
| Mel Landry | Sarah Clardy | Maury Chatellier | 201 66 |
| Britney Jensen | Amy Mathis | Rick Raynie | DOI_SC |
| Scott Farley | John Rudolph | Renee Bennett | USDAJM |
| Rusty Swafford | Holly Herod | Molly Lawrence | EPA JDJ |
| Steve Giordano | Lena Flannery | Syed Khalil | |
| Craig Gothreaux | | Elizabeth Davoli | |
| | USDA | Billy Plauche | |
| DOJ | Jon Morton | Megan Terrell | |
| Mike Zevenbergen | Craig Johnson | Chris Barnes | |
| Rachel Hankey | | Casey Wright | |
| | EPA | Misty Banes | |
| Other | Doug Jacobson | | |
| Jane Petersen (IEc) | Tim Landers | Louisiana DNR | |
| | | Nick Lacroix | |
| | Louisiana DWF | | |
| | Jon Wiebe | Louisiana DEQ | |
| | Brady Carter | Adrienne Gossman | n |

Discussion Item: MBSD Environmental/RP

A. MBSD EIS

1. Coastal Use Permit Update

<u>Discussion:</u> The public notice period ends today. CPRA has received seven comments to date, one from the SHPO, five from ENGOs, and one from a resident of Barataria basin. CPRA is reviewing comments to draft responses.

2. Potential FEIS/Final RP pre-release

<u>Discussion:</u> The Final EIS went live yesterday on Corps' project website. An article was run in the New Orleans Times Picayune. The public review period will begin Friday 9/23 with notice published in the Federal Register.

B. RP Review

1. Moving up of Publication

<u>Discussion</u>: The RP will be released at 1PM EST tomorrow. Congressional notifications are out, and the NOA will be published in the Federal Register Friday. The Marine Mammal Commission has been provided with an embargoed copy of the Final RP. CPRA had interviews with local reporters.

2. AR Index Review

Discussion: Complete

3. All Signatures on Resolution releasing Final RP

<u>Discussion</u>: DOI counsel is the point of contact for the Corps on the Programmatic Agreement. Signature approvals are to be sent to TIG Support.

- C. SWG meeting September 21, 2022
 - 1. FEIS communications strategy
 - 2. Agenda items/strategy for September UFT and TIG meetings
 - 3. Discussion to amend funding resolution to include ROD activities

Discussion Item: RPs/Project Implementation/MAM/MAIP

A. Draft Restoration Plan #7.1: Birds

August 25 – September 26: Public Comment Period

<u>Discussion:</u> There are no comments on the RP to date. as of yesterday, no comments to date.

B. SMB MAIP Update (Jon Wiebe)

<u>Discussion</u>: The Sharepoint version of the file has been revised, with updated calendars and project timeframes. All permits have been received.

TIG Decision: All five trustees have approved the MAIP.

C. Terrebonne HNC Island Project Update

<u>Discussion</u>: Due to the availability of funds from the Citgo/Calcasieu oil spill NRDA settlement, \$1.65M is being allocated to HNC island, meaning that additional acreage can be built. In any resulting additional information to the public, it will be made clear where two additional acres would go, and the RP/EA will be very clear that it is a 40 acre project with the addition of funds from another NRDA settlement.

Discussion Item: MAM

<u>Discussion:</u> The MAM funding resolution will be circulated with signatures due COB Monday, September 26, 2022.

Discussion Item: waiving 7-day AR Review of Compliance Documents

<u>Discussion</u>: The SOP small group has given TIGs permission to decide whether to waive the 7-day AR review of documents from non-participating trustee agencies and permit responses, as these are final decisions and not subject to TIG edits or review. A memo to the AR from the TIG will be posted memorializing this decision.

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| September 27 | September 28 | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

From:

Megan Terrell <megan@plauchecarr.com>

Sent:

Wednesday, September 21, 2022 7:51 AM

To:

Molly Lawrence; Billy Plauche; Harry Vorhoff; David Peterson (CPRA)

Subject:

RE: FTN modelling

Caution: External Email.

This is great; weighing in only on whether CPRA requested the basin side analysis. Agree with Molly's response that the answer is mixed – see below for a few additional details from my notes during our calls with FTN when we specifically asked them this question. The distinction here is probably less on whether CPRA requested the analysis and more on whether they anticipated the analysis would be part of the 408 report. My impression is that Brad wasn't surprised the analysis existed, and it was expected as part of the design team's overall deliverable to CPRA, but he did not expect it to be in the 90% design report intended for the Corps' 408 deliverable.

What was the purpose of evaluating flushing below 450k?

As part of the design contract, we had a performance metric to have a self cleaning channel. FTN modeled that performance through operational scenarios, and that modeling showed deposition would occur in channel. How do you manage it? Dredge but if you look at topography of basin and channel, you would disturb the OTF (no draft to get in there). Dredging would be expensive. Better way would be to flush deposited sediment. Can you, during certain times of the year, flush out the deposited material in order to operate at peak efficiency? Operations manual does have flushing.

Chapter 10. Why did you do this modeling?

The owner's review team has a comment asking for this modeling / comment submitted in review of deliverable. **When?** Review of 60% is when the task was received. It may have been the comment at 30% and investigation started at 60%. It was not originally part of DT's scope. Something came up in Mid-Breton – outfall model came from TWIG and it had Mid-Breton team's improvements in the model. That was the starting point for FTN and then a few additional improvements were made.

Megan K. Terrell

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From: Molly Lawrence <mol@vnf.com>

Sent: Tuesday, September 20, 2022 10:04 AM

To: Billy Plauche <billy@plauchecarr.com>; Harry Vorhoff <Harry.Vorhoff@la.gov>; David Peterson (CPRA)

<David.Peterson@LA.GOV>; Megan Terrell <megan@plauchecarr.com>

Subject: RE: FTN modelling

A/C privileged

Thanks all. Here's a cleaned up version with redline edits and comment responses. I sent a clean version to Brad Barth this am and asked for his help getting this to FTN. (I think it is important than Brad continues to feel in the driver's seat.) We will then discuss it a bit more with him Thursday am (during a standing call Billy/Megan/Molly have with Brad/Brian). But the hope is that FTN reads this and says "sure, we can include that," and then we put humpty dumpty back together again.

Let me know if you have any further comments/concerns.

Thanks.

From: Billy Plauche < billy@plauchecarr.com > Sent: Friday, September 16, 2022 2:00 PM

To: Harry Vorhoff < Harry. Vorhoff@la.gov >; David Peterson (CPRA) < David. Peterson@LA.GOV >; Molly Lawrence

<mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

Subject: RE: FTN modelling

Caution: External Email.

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Samuel W. Plauché

Plauché & Carr LLP

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<mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

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<mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

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Samuel W. Plauché
Plauché & Carr LLP

From: Harry Vorhoff < Harry.Vorhoff@la.gov > Sent: Friday, September 16, 2022 9:22 AM

To: David Peterson (CPRA) < David.Peterson@LA.GOV>; Molly Lawrence < mol@vnf.com>; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche

billy@plauchecarr.com>

Subject: RE: FTN modelling

Same here.

From: David Peterson (CPRA) < David.Peterson@LA.GOV >

Sent: Friday, September 16, 2022 10:13 AM

To: Molly Lawrence < mol@vnf.com >; Harry Vorhoff < Harry. Vorhoff@la.gov >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche

billy@plauchecarr.com>

Subject: RE: FTN modelling

I will look at it this afternoon after all my morning meetings.



David A. Peterson

Coastal Protection and Restoration Authority
General Counsel | Legal Section | Executive Division
The Water Campus | 150 Terrace Avenue | Baton Rouge, LA 70802
| P.O. Box 44027 | Baton Rouge, LA 70804-4027
o: 225.342.6505 | c: 225.276-1822 | fax: 225.800.5607

email: david.peterson@la.gov

www.coastal.la.gov

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From: Molly Lawrence < mol@vnf.com > Sent: Friday, September 16, 2022 9:06 AM

To: Harry Vorhoff < Harry . Vorhoff@la.gov >; David Peterson (CPRA) < David . Peterson@LA.GOV >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche

billy@plauchecarr.com>

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Checking back with you all. Any comments?

Thanks.

From: Molly Lawrence

Sent: Thursday, September 15, 2022 7:28 AM

To: 'Harry Vorhoff' < Harry. Vorhoff@la.gov >; David Peterson (CPRA) < David. Peterson@LA.GOV >; Megan Terrell

<megan@plauchecarr.com>; Billy Plauche
billy@plauchecarr.com>

Subject: RE: FTN modelling

A/C privileged Morning All,

Attached is the proposed "cover page" that we would ask FTN to add to its numerical modeling report ahead of the sections that we held back from the submittal to the Corps. After looking at the report again, it seemed that FTN had already set the report up to include appendices, which were identified as modeling not critical to the 408 review – so it seemed quite smooth to add it there.

A pre-emptory thanks to Megan for taking a look at this before I sent to the whole group.

Let me/us know your thoughts. I think the idea is to get this to FTN on Monday. I'm also working on a version of the FTN report that includes the withheld data. It's not a perfect "one for one" cut/paste since at least some of the info withheld was just a sentence here and there. We'll have to make sure we are all comfortable with the material/sentences that were withheld but perhaps don't make it back into the final appendix. More on that soon.

Thanks.

Molly A. Lawrence

Partner

(Pronouns: she/her/hers)
Van Ness Feldman LLP
1191 Second Avenue, Ste. 1800**

Seattle, WA 98104 Office: 206-623-9372 Cell: 206-954-5011 www.vnf.com

**Please note our new address above. Thank you for updating your records, we look forward to serving you from our new location. **

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From: Harry Vorhoff < Harry. Vorhoff@la.gov > Sent: Tuesday, August 30, 2022 2:11 PM

To: David Peterson (CPRA) < David.Peterson@LA.GOV >; Megan Terrell < megan@plauchecarr.com >; Billy Plauche

<billy@plauchecarr.com>; Molly Lawrence <mol@vnf.com>

Subject: RE: FTN modelling

Caution: External Email.

Nice work, y'all. Accepted the edits in the attached. Will circulate to Chip and Bren shortly.

Thanks, Harry

From: David Peterson (CPRA) < David.Peterson@LA.GOV >

Sent: Tuesday, August 30, 2022 3:57 PM

To: Megan Terrell < megan@plauchecarr.com >; Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff

<Harry.Vorhoff@la.gov>; Molly Lawrence <mol@vnf.com>

Subject: RE: FTN modelling

All,

I am good with the last edits by Megan. Sorry for delay, I had a few interruptions. I have no other changes. Good work.



David A. Peterson

Coastal Protection and Restoration Authority
General Counsel | Legal Section | Executive Division
The Water Campus | 150 Terrace Avenue | Baton Rouge, LA 70802
| P.O. Box 44027 | Baton Rouge, LA 70804-4027
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From: Megan Terrell < megan@plauchecarr.com>

Sent: Tuesday, August 30, 2022 1:20 PM

To: David Peterson (CPRA) < David.Peterson@LA.GOV >; Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff

<Harry.Vorhoff@la.gov>; Molly Lawrence <mol@vnf.com>

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

This also looks great. A few more suggested revisions attached, none of which are substantive. This looks like a heavy markup (you may want to read in in simple markup), but I'm just channeling Chip in the hopes of giving him less than 1 ½ pages. And unlike our legal memo, I think a less formal/conversational tone is fine and often preferred for TPs. Bren has a very good grasp on this modeling, so he won't need much technical information (e.g. he knows the FTN model predicts several hundred million cy in dredging and what head differential means), and I think we can use acronyms without defining them first – they're both very familiar with FWOP and SLR.

Megan K. Terrell

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From: David Peterson (CPRA) < David.Peterson@LA.GOV>

Sent: Tuesday, August 30, 2022 12:55 PM

To: Megan Terrell <megan@plauchecarr.com>; Billy Plauche
billy@plauchecarr.com>; Harry Vorhoff

<<u>Harry.Vorhoff@la.gov</u>>; Molly Lawrence <<u>mol@vnf.com</u>>

Subject: RE: FTN modelling

I'll just wait for Megan so I have everything in one place.

David



David A. Peterson

Coastal Protection and Restoration Authority
General Counsel | Legal Section | Executive Division
The Water Campus | 150 Terrace Avenue | Baton Rouge, LA 70802
| P.O. Box 44027 | Baton Rouge, LA 70804-4027
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From: Megan Terrell < megan@plauchecarr.com >

Sent: Tuesday, August 30, 2022 12:47 PM

To: Billy Plauche < billy@plauchecarr.com >; Harry Vorhoff < Harry.Vorhoff@la.gov >; Molly Lawrence < mol@vnf.com >

Cc: David Peterson (CPRA) < David.Peterson@LA.GOV >

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Y'all are killing me! Billy – I'll combine yours with Molly's and add mine.

Megan K. Terrell

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From: Billy Plauche < billy@plauchecarr.com > Sent: Tuesday, August 30, 2022 12:46 PM

To: Harry Vorhoff < Harry. Vorhoff@la.gov>; Molly Lawrence < mol@vnf.com>; Megan Terrell < megan@plauchecarr.com>

Cc: David Peterson (CPRA) < David.Peterson@LA.GOV>

Subject: RE: FTN modelling

Just one suggested addition from me in the attached.

Samuel W. Plauché Plauché & Carr LLP

From: Harry Vorhoff < Harry. Vorhoff@la.gov > Sent: Tuesday, August 30, 2022 9:59 AM

To: Molly Lawrence <mol@vnf.com>; Megan Terrell <megan@plauchecarr.com>

Cc: Billy Plauche < billy@plauchecarr.com >; David Peterson (CPRA) < David.Peterson@LA.GOV >

Subject: RE: FTN modelling

Thanks, y'all. I wasn't able to include the "more detail" bullets and keep it to 1.5 pages or less. That said, I think this can be streamlined a bit further. Sending it now since Megan is free, but I can pick it back up later this afternoon.

Thanks, Harry

From: Molly Lawrence < mol@vnf.com > Sent: Tuesday, August 30, 2022 9:57 AM

To: Megan Terrell < megan@plauchecarr.com >; Harry Vorhoff < Harry.Vorhoff@la.gov >

Cc: Billy Plauche

billy@plauchecarr.com>; David Peterson (CPRA) < David.Peterson@LA.GOV>

Subject: RE: FTN modelling

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Thanks M. I feel like I tried to channel my "inner Billy" to find a phrasing that would be understandable to the less technically focused.

From: Megan Terrell < megan@plauchecarr.com >

Sent: Tuesday, August 30, 2022 7:46 AM

To: Molly Lawrence <mol@vnf.com>; Harry Vorhoff <Harry.Vorhoff@la.gov>

Cc: Billy Plauche

| Cc: Billy Plauche

| Cc: Billy Plauche

| Cdavid.peterson@la.gov | Cdavid.peterson@la

Subject: RE: FTN modelling

Caution: External Email.

 $This \ looks \ great. \ One \ recommendation \ to \ rephrase \ what \ this \ modeling \ is-see \ below \ in \ red/strikethrough.$

Megan K. Terrell

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From: Molly Lawrence <mol@vnf.com>
Sent: Tuesday, August 30, 2022 9:06 AM
To: Harry Vorhoff <Harry.Vorhoff@la.gov>

Cc: Megan Terrell < megan@plauchecarr.com >; Billy Plauche < billy@plauchecarr.com >; David Peterson

(david.peterson@la.gov) < david.peterson@la.gov>

Subject: FTN modelling

A/c privileged

Ok, here is my effort at providing pithy summaries of the 85 pages that we extracted from FTN's initial 90% numerical modeling report. I've given a one line/sentence high level summary followed by a little more detail if Chip/Bren want to understand what the one liners mean. Let me know if this makes sense! Megan, please put your eyeballs on this. Additional modeling that was extracted from performed by FTN's as part of the draft 90% numerical modeling and draft report-included:

- Analysis of variable flow levels when the diversion is expected to operate at "base flow" (when the MR is flowing less than 450kcfs).
 - More detail: Modeled the days per month when the diversion is operating at "base flow" but will not be able to achieve a continuous 5,000 cfs flow and may need to be closed to avoid "reverse flow" (from the basin into the river). Makes recommendations for closing the diversion at certain flow levels in the river to avoid reverse flow. Modeling assumes that sea level rise affects the basin, but not the river, so the results are over-reported.
- 2. Options for flushing sediment that will deposit in the diversion channel during periods of base flow. More detail: Deposition (build up) of sediment in the diversion channel is expected during periods of base flow (up to 5,000 cfs). FTN modeled options for "flushing" those deposits out of the channel by flowing the diversion above 5,000 cfs when MR flows are below 450,000 cfs. Flowing the diversion above 5,000 cfs when the River is below 450,000 cfs is not included in the preliminary operations plan so this is outside the current operations plan. FTN modeled the potential effects on sediment in the channel and salinity in the outfall from "flushing" events.
- Options for maintaining diversion capacity when sediment builds up in the outfall area. Included an analysis of basin-side effects of diversion operations over 50-years, including land building, salinity and water level effects in the basin.
 - More detail: FTN developed an outfall management model to identify operational changes that could be needed in the future to maintain the diversion's design capacity (75K cfs) over the 50 year analysis period. The model projected the land building of the diversion and the potential options for dredging in the outfall area in the medium to long term (30+ yrs) to maintain the diversion's capacity. This model also predicted salinity effects from head-driven levels of base flow (item #1 above). Modeling assumes that sea level rise affects the basin, but not the river, so the results are over-reported.

Thanks. Molly Lawrence

HLDB

DWH Louisiana Trustee Implementation Group September 27, 2022 – Meeting Notes

DOI

| | Reviewed by: |
|------------------|--------------|
| Group | LAMOC |
| | NOAAJJP |
| Louisiana CPRA | DOI SC |
| Maury Chatellier | |
| Rick Raynie | USDAJM |
| Molly Lawrence | EPAJDJ |
| | |

| 3717 1 | | | 1 DOI |
|---------------------|---------------|------------------|-------|
| Mel Landry | Sarah Clardy | Maury Chatellier | |
| Ramona Schreiber | Robin Renn | Rick Raynie | USDA_ |
| Scott Farley | John Rudolph | Molly Lawrence | EPA |
| Rusty Swafford | | Syed Khalil | |
| Dawn Davis | USDA | Elizabeth Davoli | |
| Craig Gothreaux | Jon Morton | Billy Plauche | |
| | | Beth Golden | |
| DOJ | EPA | Denise Stafford | |
| Mike Zevenbergen | Doug Jacobson | Casey Wright | |
| Rachel Hankey | Tim Landers | | |
| | Gale Bonanno | Louisiana DWF | |
| Other | | Matt Weigel | |
| Jane Petersen (IEc) | Louisiana DNR | Brady Carter | |
| | Nick Lacroix | | |
| | | Louisiana DEQ | |

Discussion Item: MBSD Environmental / RP

A. Update from UFT

NOAA

<u>Discussion:</u> DOI counsel to coordinate with IEc on obtaining federal agency signatures on the Programmatic Agreement. A comment on the Final EIS has been received from Washington state. Final EIS comments to be uploaded to the NOAA Sharepoint daily for TIG review. The October UFT will be devoted to addressing comments. The TIG will continue discussions with the Corps regarding the TIG's level of involvement in the comment response process and expectations for the ROD.

B. MBSD EIS

a. Coastal Use Permit Update

<u>Discussion:</u> Public notice comment period closed 9/20. SHPO submitted a second comment to DNR stating that adverse effects have been addressed through the Programmatic Agreement. DNR's Mitigation Section uploaded the determination that the benefits of the diversion outweigh the negative impacts.

b. FEIS adoption process/letter

<u>Discussion:</u> The TIG legal team discussed briefly on 9/26 and will start discussing schedule for developing ROD over the next week.

C. RP

a. AR Index Review

<u>Discussion:</u> This review has been completed.

- D. SWG meeting September 28, 2022
 - a. Follow-up from UFT fed discussions

- b. Steps/schedule to ROD roles, responsibilities
- c. Micro-group for development of ROD outline.

Discussion Item: Restoration Plan #1.2: Spanish Pass/Lake Borgne

General Check-in/Project Implementation Update

<u>Discussion</u>: Spanish Pass dredging is ongoing, with about 7.4M cubic yards of material placed. The dredge will be leaving in October, but returned in April. The project deadline will be pushed to completion around June 2023. Dredging on Lake Borgne will be re-initiated in October.

Discussion Item: Restoration Plan #1.3: JELA

<u>Discussion:</u> The shoreline construction solicitation has been posted. The project is on schedule to begin work November of 2022.

Discussion Item: Restoration Plans #2 and #4: Recreational Use and Nutrient Reduction Projects

<u>Discussion:</u> The Nutrient Reduction Winter Water Holding project in Southwest Louisiana is targeting three HUC-12 watersheds, resulting in 40 private farmland contracts on 8,300 acres. USDA is working with Ducks Unlimited to expand to an additional two watersheds. The Bayou Segnette prefab shelter has been received, with the contractor beginning installation. As this is the last element, construction on the project as a whole is expected to be complete on October 14th. The Recreational Use Atchafalaya Campgrounds project has been slightly delayed due to rain. The Cypremort Point contractor is on site for the RV Campground element.

Discussion: Restoration Plan #3.3: Large-Scale Marsh Creation in Barataria Basin Discussion: Progress has been made on the fill. However, the river is so low that the Corps will construct a sill to prevent salt water from flowing upriver. The borrow area for the sill is the same one used by NOAA for the project, so NOAA will be relocated to the other borrow area. The same dredge is being used for the Corps' project, so that may cause a delay.

Discussion Item: Restoration Plan #5: Brood Reefs, Cultch Plant, Hatchery, MM Stranding

<u>Discussion:</u> No updates at this time.

Discussion Item: Restoration Plan #6: Golden Triangle, Biloxi Marsh

<u>Discussion:</u> Progress is ongoing for Biloxi Marsh. Golden Triangle update- the filling of Marsh Containment Area 1 displaced an Entergy pipeline, as well as another natural gas pipeline. The contractor, Great Lakes, has demobilized. The Contractor will have a meeting at CPRA's office to continue discussion on a project-level solution.

Discussion Item: Restoration Plan #7: Construction – Bayou Terrebonne, Grand Cheniere; E&D – Bird's Foot, Isle au Pitre (On-hold), Terrebonne HNC

<u>Discussion:</u> Surveys on Grande Cheniere are expected to begin by the end of the October; the Notice to Proceed will be issued soon. Project surveys are continuing on Birds Foot Delta and were scheduled to be completed by the end of September, but delays have arisen due to staffing and weather. This will delay completion of the modelling effort. Bayou Terrebonne continues to be held up due to landowner/servitude issues with Conoco Phillips – this has been elevated to the Louisiana Governor's office.

Discussion Item: Restoration Plan #7.1: Birds

- B. Public Comment Period Ended Yesterday Summary of Comments Received <u>Discussion:</u> No comments were received. The schedule will be adjusted as a result.
- E. Upcoming:
 - a. 9/27 10/9: Bin Comments, Draft Concern Statements, Revise RP/EA and MAM Plans
 - b. 10/11 10/25: TIG Review of Preliminary Final RP/EA, MAM Plans, FONSI and resolution
 - c. 10/26 11/14: Revise Preliminary Final and preparation of Final documents
 - d. 11/5 11/14: TIG Reviews Webstory
 - e. 11/15 11/23: TIG Approval of Final RP/EA, FONSI, Signature on Resolution
 - f. 11/24: Plan Published

Discussion Item: Restoration Plan #8: Wetland, Coastal, and Nearshore Habitats

<u>Discussion:</u> A task order has not yet been sent out for Raccoon Island. The Orleans Land Bridge is in the preliminary design phase, with data collection ongoing. Details are being finalized for Bayou Dularge and Bayou La Loutre so those projects can be bid for construction.

Discussion Item: Avian Guidance Update

Discussion: No updates at this time.

Discussion Item: MAM

<u>Discussion:</u> The MAM small working group will hear proposals soon and is on track to have recommendations to the TIG on November 1st.

Discussion Item: Other

- A. Post-webinar web stories for the RP #7.1 and Annual Meeting are on SharePoint for your review. Edits and your approval (In yellow box) By COB Thursday, September 29, 2022.
- B. Virtual or In-Person Future Monthly Meetings
- C. <u>Discussion</u>: The TIG will discuss opportunities to meet in-person, possibly around the Restore America's Estuaries conference.

| 2022 Calendar of In-Person (Virtual) Meetings | | |
|------------------------------------------------------------|---------------------------------------|--|
| <u>Day 1</u> <u>Day 2</u> | | |
| UFT: 9:30 AM – 11:30 AM | Exec/Governance Meeting: 10 AM – Noon | |
| (CT) | | |
| LA TIG: 1:00 PM – 4:00 PM (CT) Other Meetings as Scheduled | | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

DWH Louisiana Trustee Implementation Group October 4, 2022 – Call Notes

| 1 | LA_BG via email |
|------------------|-----------------|
| Louisiana CPRA | NOAAJP |
| Maury Chatellier | DOISC |
| G1 1 D | |

Reviewed by:

| DOI | Louisiana CPRA | Niek - |
|---------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sarah Clardy | Maury Chatellier | DOI |
| Robin Renn | Chris Barnes | USDA |
| Ben Frater | Molly Lawrence | USDA |
| Lena Flannery | Megan Terrell | EPA |
| James Chapman | Elizabeth Davoli | |
| | Billy Plauche | |
| EPA | Syed Khalil | |
| Doug Jacobson | Rick Raynie | |
| Tim Landers | Beth Golden | |
| | Denise Stafford | |
| Louisiana DNR | | |
| | Louisiana DWF | |
| Louisiana DEQ | Brady Carter | |
| | Matt Weigel | |
| | | |
| | | |
| | Robin Renn Ben Frater Lena Flannery James Chapman EPA Doug Jacobson Tim Landers Louisiana DNR | Sarah Clardy Robin Renn Chris Barnes Ben Frater Lena Flannery James Chapman Elizabeth Davoli Billy Plauche EPA Syed Khalil Doug Jacobson Tim Landers Beth Golden Denise Stafford Louisiana DNR Louisiana DWF Brady Carter |

Discussion Item: MBSD Environmental/RP

A. MBSD EIS

i. Coastal Use Permit Update

<u>Discussion:</u> The DNR process for the coastal use permit is distinct and separate from the Corps FEIS process – this is something DNR will try to message to the public. Comments are mostly positive, coming from ENGOS

ii. Review of FEIS comment letters

<u>Discussion:</u> There have been no new comments on the FEIS that raise issues not already addressed in response to comments submitted on the DEIS..

B. RP

i. Review of RP comments

Discussion: No updates at this time.

- C. SWG meeting October 5, 2022
 - a. Any topics?

Discussion: NOAA will coordinate with TIG agencies on EIS adoption. There will be no call this week, and the SWG will discuss the ROD outline next week.

Discussion Item: RPs/Project Implementation/MAM/MAIP

A. Final Restoration Plan #7.1: Birds

Upcoming:

- a. 9/27 10/6: Bin Comments, Draft Concern Statements, Revise RP/EA and MAM Plans
- b. 10/7 10/21: TIG Review of Preliminary Final RP/EA, MAM Plans, FONSI and resolution
- c. 10/22 10/28: Revise Preliminary Final and preparation of Final documents

d. 10/29 – 11/4: TIG Fatal Flaw Review

e. 11/5 – 11/13: Preparation of and formatting of Final Documents

f. 11/11 – 11/21: TIG Approval of Final RP/EA, FONSI, Signature on Resolution

g. 11/21: Plan Published

Discussion: The TIG will see the NOA on Friday for a one-week review.

B. RP/EA #4 Pointe-aux-Chenes WMA: Pirogue Pullovers

<u>Discussion:</u> This is the last component to be constructed of the project. The 408 permit process is delaying completion due to the planning of a levee lift by USACE. It is unclear whether this levee lift will require a redesign, given that the pullovers may not be useful due to the increased elevation. The TIG will continue to discuss the feasibility of going forward with this component. The amount of funds remaining in the Recreational Use restoration category funding is limited, and this would be the project's third redesign.

Discussion Item: MAM

A. Update

<u>Discussion:</u> The working group is working through comments on potential MAIPs for next year.

Discussion Item: Other

A. NHPA Presentation - Ben Frater

<u>Discussion:</u> Ben gave a presentation on DOI's process regarding the National Historic Preservation Act and went over frequently asked questions.

B. Elmer's Island Memorandum to AR – Review/Comments by COB Thursday, October 6, 2022.

<u>Discussion:</u> These documents will be uploaded to the Administrative Record on October 7 if there are no comments or edits.

| 2022 Calendar: 2022 Calendar of In-Person (Virtual) Meetings | | |
|----------------------------------------------------------------------------|------------------------------------------------------------------------|--|
| Day 1 UFT: 9:30 AM - 11:30 AM (CT) LA TIG: 1:00 PM - 4:00 PM (CT) | Exec/Governance Meeting: 10 AM – Noon (CT) Other Meetings as Scheduled | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

From:

Ranjit Jadhav <rsj@ftn-assoc.com>

Sent:

Thursday, October 6, 2022 1:41 PM

To:

Lelong, Bruce

Cc:

Duhe, Jennifer; Agnimitro Chakrabarti

Subject:

FW: A/C Privilege Transmittal - MBSD Operations Management and Sensitivity Modeling

Report

Attachments:

2022-10-05 MBSD-Operations Management and Sensitivity Modeling.docx; 2022-10-05

MBSD-Operations Management and Sensitivity Modeling.pdf

This Message Is From an External Sender

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Bruce,

Please see email below and the attached Word and PDF files of the MBSD numerical modeling related to operations management and sensitivity. This report is made up of chapters taken out of the initial version of the DDR report. There is no new modeling reported here beyond what was submitted in the original single report and reviewed by the ITR and ORT. We submitted this to CPRA per their request.

Thanks.

Ranjit Jadhav, PhD, PE, D.WRE

FTN Associates, Ltd.

O: 225-766-0586 C: 225-337-4592

From: Ranjit Jadhav

Sent: Wednesday, October 5, 2022 8:44 AM

To: Bradley Barth (Bradley.Barth@la.gov); David Peterson (david.peterson@la.gov)

Cc: Agnimitro Chakrabarti

Subject: A/C Privilege Transmittal - MBSD Operations Management and Sensitivity Modeling Report

Brad,

Attached please find the MS Word and PDF versions of the numerical modeling work performed to support operations management and sensitivity analysis of the proposed Mid-Barataria Sediment Diversion. Please let us know if you have any questions or comments.

Thank you.

Ranjit Jadhav, PhD, PE, D.WRE

FTN Associates, Ltd. O: 225-766-0586

C: 225-337-4592

From: Molly Lawrence

Sent: Monday, October 10, 2022 9:37 PM

To: Megan Terrell

Subject: RE: MBSD - FTN modeling question

Well, this is my question partially too – which of their scenarios do they think is similar to those evaluated in the EIS. (I think it could be High SLR with BF and no dredging...but we could ask.)

So I guess I think the "scenario" may be "similar", but the differences in some of the "refinements" and inputs/parameters are what we are relying on to say not comparable. So I think I'm agreeing with you mostly: we can acknowledge that one of the FTN modeled scenarios is "similar" to the APA, but that the model had been changed enough that the results could not be compared apples to apples with the EIS. Is that what you mean?

Based on my discussion with Brad B, I also added the following at the start of Section 2.5.1:

These model runs were conducted to determine the volume of dredging needed to maintain the design discharge capacity of the diversion over the 50-year analysis period. None of the four scenarios analyzed here are equivalent to the alternatives analyzed in the EIS. Further, the model domain for the FTNOMLV-CONSOL is much smaller than the model domain used for the EIS. The EIS contemplates dredging in the diversion outfall area, but CPRA has not proposed including dredging beyond the first 10 years of operation in its permit application. Consequently, these modeling results are informational only to assist CPRA with future planning related to diversion operations and maintenance.

Not buying it? Or just worried we need to doctor the language more.

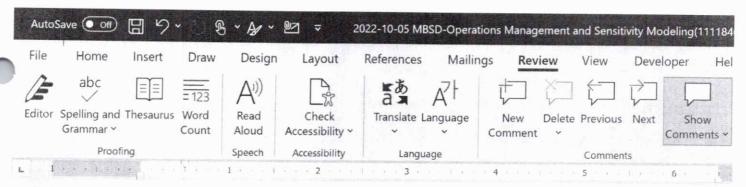
Thanks.

From: Megan Terrell <megan@plauchecarr.com>

Sent: Monday, October 10, 2022 3:30 PM
To: Molly Lawrence <mol@vnf.com>
Subject: MBSD - FTN modeling question

Caution: External Email.

To follow my text.



permitting document and includes a more exhaustive investigation of other scenarios. The land-building, salinity, and vegetation results here should be considered as representative of diversion effects mostly within the first 8-mile radius of the outfall where the model is mostly active in land-building. For the scenarios that are similar to those in EIS, the model results here could be taken as a refinement of those results however, given the fact that a refined diversion geometry (and hence flow rating curve) as well as greater resolution within the this 8-mi zone is possible in this modeling. As will be discussed later number of detailed scenarios are modeled here including effects of High and Low SLR as well as with and without base flow (defined as a minimum flow during when MR<450,000 cfs). In addition, the effects of maintenance dredging in the basin are also investigated in this chapter.

One of the important additions to the existing investigations by CPRA (GEC 2021) is that the FTNOMLV-CONSOL model is a head-driven based model, meaning that the diversion capacity can change based on the head difference available between the riverside and the basin side of the diversion and therefore can dynamically change the rating curve (Diversion Discharge

2-1

Page 9 of 94 23292 words 🔯 Text Predictions: On 🕫 🛣 Accessibility: Investigate

How does this compare to the ppt where we say they are not the same or equivalent? Is the "similar" different enough? Does the term scenario include the modeled inputs and parameters? Versus maybe the model runs, which may be discharge and base flow (or not) but not include inputs like sea level rise and rating curves? Just wondering if we can use two different terms to describe the model runs (which may be somewhat similar to those in the EIS) and model inputs (which have differences).

Megan K. Terrell

Plauché & Carr LLP

1110 River Road S., Ste 200

Baton Rouge, Louisiana 70802

Phone: (225) 256-0649 Cell: (206) 295-1934

Email: megan@plauchecarr.com

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From: Megan Terrell <megan@plauchecarr.com>

Sent: Tuesday, October 11, 2022 7:40 AM

To: Molly Lawrence

Subject: RE: MBSD - FTN modeling question

Caution: External Email.

Yes, that it what I meant. We are tracking. Scenarios, or at least one scenario, may be, similar but the inputs/parameters are different and not comparable. I am just trying to get the terminology straight in my head, because it helps me understand it which also means if I ever need to explain it, it will be easier if I get it right now. I am more advanced than keep it simple stupid but not quite at your honorary modeling degree.

Megan K. Terrell

This e-mail is intended only for the use of the individual or entity to whom it is addressed and may contain confidential, privileged information. If the reader of this e-mail is not the addressee, please be advised that any dissemination, distribution or copying of this e-mail is strictly prohibited. If you receive this communication in error, please call (206) 588-4188, return this email to Megan K. Terrell at the above e-mail address, and delete this e-mail from your files. Thank you.

From: Molly Lawrence <mol@vnf.com>
Sent: Monday, October 10, 2022 9:37 PM
To: Megan Terrell <megan@plauchecarr.com>
Subject: RE: MBSD - FTN modeling question

Well, this is my question partially too – which of their scenarios do they think is similar to those evaluated in the EIS. (I think it could be High SLR with BF and no dredging...but we could ask.)

So I guess I think the "scenario" may be "similar", but the differences in some of the "refinements" and inputs/parameters are what we are relying on to say not comparable. So I think I'm agreeing with you mostly: we can acknowledge that one of the FTN modeled scenarios is "similar" to the APA, but that the model had been changed enough that the results could not be compared apples to apples with the EIS. Is that what you mean?

Based on my discussion with Brad B, I also added the following at the start of Section 2.5.1:

These model runs were conducted to determine the volume of dredging needed to maintain the design discharge capacity of the diversion over the 50-year analysis period. None of the four scenarios analyzed here are equivalent to the alternatives analyzed in the EIS. Further, the model domain for the FTNOMLV-CONSOL is much smaller than the model domain used for the EIS. The EIS contemplates dredging in the diversion outfall area, but CPRA has not proposed including dredging beyond the first 10 years of operation in its permit application. Consequently, these modeling results are informational only to assist CPRA with future planning related to diversion operations and maintenance.

Not buying it? Or just worried we need to doctor the language more.

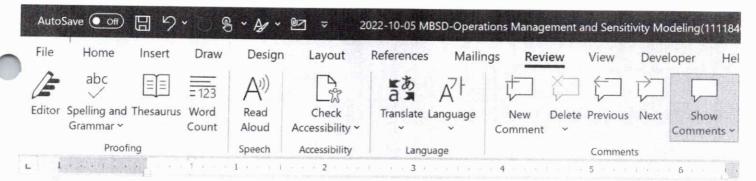
Thanks.

From: Megan Terrell < megan@plauchecarr.com >

Sent: Monday, October 10, 2022 3:30 PM
To: Molly Lawrence < mol@vnf.com >
Subject: MBSD - FTN modeling question

Caution: External Email.

To follow my text.



permitting document and includes a more exhaustive investigation of other scenarios. The land-building, salinity, and vegetation results here should be considered as representative of diversion effects mostly within the first 8-mile radius of the outfall where the model is mostly active in land-building. For the scenarios that are similar to those in EIS, the model results here could be taken as a refinement of those results however, given the fact that a refined diversion geometry (and hence flow rating curve) as well as greater resolution within the this 8-mi zone is possible in this modeling. As will be discussed later number of detailed scenarios are modeled here including effects of High and Low SLR as well as with and without base flow (defined as a minimum flow during when MR<450,000 cfs). In addition, the effects of maintenance dredging in the basin are also investigated in this chapter.

One of the important additions to the existing investigations by CPRA (GEC 2021) is that the FTNOMLV-CONSOL model is a head-driven based model, meaning that the diversion capacity can change based on the head difference available between the riverside and the basin side of the diversion and therefore can dynamically change the rating curve (Diversion Discharge

2-1

Page 9 of 94 23292 words 💢 Text Predictions: On 🗑 🛱 Accessibility: Investigate

How does this compare to the ppt where we say they are not the same or equivalent? Is the "similar" different enough? Does the term scenario include the modeled inputs and parameters? Versus maybe the model runs, which may be discharge and base flow (or not) but not include inputs like sea level rise and rating curves? Just wondering if we can use two different terms to describe the model runs (which may be somewhat similar to those in the EIS) and model inputs (which have differences).

Megan K. Terrell

4

Plauché & Carr LLP

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Email: megan@plauchecarr.com

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HLDB

DWH Louisiana Trustee Implementation Group October 11, 2022 – Call Notes

| neviewed by. | ! |
|--------------|-----|
| LA_BG via em | ail |

Reviewed by:

| NOAA | DOI | Louisiana CPRA | NOAA_JP |
|---------------------|------------------|------------------|---------|
| Mel Landry | Sarah Clardy | Maury Chatellier | DOI_SC_ |
| Craig Gothreaux | Amy Mathis | Elizabeth Davoli | 001_30 |
| Scott Farley | Lena Flannery | Molly Lawrence | USDAJMN |
| Brittany Jensen | | Rick Raynie | EPAJDJ_ |
| Steve Giordano | EPA | Billy Plauche | |
| Ramona Schreiber | Doug Jacobson | Syed Khalil | |
| | Tim Landers | Misty Banes | |
| USDA | | Joe Wyble | |
| | Louisiana DEQ | Megan Terrell | |
| DOJ | Adrienne Gossman | | |
| Michael Zevenbergen | | Louisiana DWF | |
| | Louisiana DNR | Jon Weibe | |
| Other | Nick Lacroix | | |
| Jane Petersen (IEc) | | | |

Discussion Item: MBSD Environmental/RP

A. MBSD EIS

a. Review of FEIS comment letters

<u>Discussion:</u> Representatives from EPA and CPRA have taken a look at the FEIS comment letters and noted nothing new or different than what is being seen in the press.

B. RP

a. Review of RP comments

Discussion: Comments have been uploaded to SharePoint for TIG review.

- C. SWG meeting October 12, 2022
 - a. Review outline for ROD and next steps for drafting
 - b. Review steps between now and ROD

Discussion Item: RPs/Project Implementation/MAM/MAIP

A. Final Restoration Plan #7.1: Birds

Upcoming:

- a. 10/7 10/17: Review of NOA
- b. 10/7 10/21: TIG Review of Preliminary Final RP/EA, MAM Plans, FONSI
- c. 10/22 10/28: Revise Preliminary Final and preparation of Final documents
- d. 10/29 11/4: TIG Fatal Flaw Review of documents and review of Resolution
- e. 11/5 11/13: Preparation of and formatting of Final Documents
- f. 11/11 11/21: TIG Approval of Final RP/EA, FONSI, Signature on Resolution
- g. 11/21: Plan Published

B. Other

<u>Discussion:</u> The TIG was reminded that the NOA is out for review through the 17th.

Discussion Item: MAM

A. Update

Discussion: No updates at this time.

| 2022 Calendar: 2022 Calendar of In-Person (Virtual) Meetings | | |
|----------------------------------------------------------------------------|------------------------------------------------------------------------|--|
| Day 1 UFT: 9:30 AM - 11:30 AM (CT) LA TIG: 1:00 PM - 4:00 PM (CT) | Exec/Governance Meeting: 10 AM – Noon (CT) Other Meetings as Scheduled | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

From: Bradley Barth <Bradley.Barth@la.gov>
Sent: Thursday, October 13, 2022 12:57 PM

To: Molly Lawrence

Cc: Megan Terrell; Bren Haase

Subject: RE: a/c Priv

Attachments: 2022-10-05 MBSD-Operations Management and Sensitivity Modeling mol bwb.docx;

FTN Modeling.NOAAUSACE presentation.Draft.101122(1113505.1).pptx

Follow Up Flag: Follow up Flag Status: Flagged

Caution: External Email.

A/C Priv.....

All

Here are my edits, mark ups, and comments for this refined review. In my opinion this is not a refinement of the EIS Modeling.

I am including my Take Aways......

- 1. FTNOMLV-CONSOL may need to be re-modeled to address a few input parameters. RESULTS will change, gut feeling, it may not be by much, +/-?
- Diversion loses Q efficiency with time as a result (primarily) due to ESLR in the out decades (consistent with H&H reporting starting at 30%)
- 3. Maintenance Dredging may be used to maximize Q efficiency with time.
- MRSLR was not included in FTNOMLV-CONSOL, however based on sensitivity analyses, MRSLR may improve Q
 efficiency, sediment load delivery, while reducing potential maintenance dredging needs as compared to
 number 2 above.
- 5. Channel Flushing as presented, I don't believe answers our questions. Does not appear to properly isolate "flushing". Run 1 should be eliminated, Run 2 and 3 should be compared to themselves with and without flushing. As we have already concluded regular flushing of 5,000 cfs should be considered when available and needed.
- Flushing Salinities are within the No Action and the EIS Action. If CPRA pursues a permit change and/or needs
 added Env. Documentation for flushing outside of current criteria, this is very useful, however, the added Env.
 Docs may need to consider evaluation of other resources.
- 7. Sections 2.8 and 2.9 were not requested or scoped, recommend they be deleted.

Thanks

Brad

Brad Barth, P.E.

Operations Assist Administrator

Operations Division

Coastal Protection and Restoration Authority (CPRA)

150 Terrace Ave

Baton Rouge, LA 70802 Office: 225.342.4553 Mobile: 225.454.4345 bradley.barth@la.gov

From: Molly Lawrence <mol@vnf.com>
Sent: Wednesday, October 12, 2022 9:27 AM
To: Bradley Barth <Bradley.Barth@la.gov>

Cc: Megan Terrell <megan@plauchecarr.com>

Subject: RE: a/c Priv

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

A/C privileged

One more... we should modify the language about the OM modeling being a refinement of the EIS modeling. Megan noticed it on her pass through and I realized I hadn't removed it when I add some alternative language later (in redline). You'll see it as you make your way through.

Thanks.

From: Bradley Barth < Bradley.Barth@la.gov > Sent: Wednesday, October 12, 2022 7:06 AM

To: Molly Lawrence < mol@vnf.com >

Cc: Megan Terrell < megan@plauchecarr.com >

Subject: a/c Priv

Caution: External Email.

About 1/2 way through the report......am trying to get done today......

FY

Based on my reviews, there may be needed changes to the graphs/etc. Don't expect trends to change, but numbers

Stay tuned.

Brad Barth, P.E.

Operations Assist Administrator

Operations Division

Coastal Protection and Restoration Authority (CPRA)

150 Terrace Ave

Baton Rouge, LA 70802 Office: 225.342.4553 Mobile: 225.454.4345 bradley.barth@la.gov

From: Molly Lawrence <mol@vnf.com>
Sent: Tuesday, October 11, 2022 6:29 PM
To: Bradley Barth <Bradley.Barth@la.gov>
Cc: Megan Terrell <megan@plauchecarr.com>

Subject: FTN Modeling.NOAAUSACE presentation.Draft.101122(1113505.1)

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

A/C privileged

Hey there. Not sure whether/how far you've made it through the FTN updated memo, but please let me know. Attached is our proposed PPT for Bren to use in discussing the FTN modeling with Chris Doley and potentially Mark Wingate. As you'll see, there are a few spots that remain highlighted in yellow or subject to comments. Those are items we still need to understand better from you/FTN. Please take a look and get back to us with comments/concerns. (We're hoping its close – it's been through legal review.)

Thanks.

Molly A. Lawrence

Partner

(Pronouns: she/her/hers)
Van Ness Feldman LLP

1191 Second Avenue, Ste. 1800**

Seattle, WA 98104 Office: 206-623-9372 Cell: 206-954-5011 www.vnf.com **Please note our new address above. Thank you for updating your records, we look forward to serving you from our new location.**

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From:

Billy Plauche

Silly Plauche

Silly Plauche

All 2022 11 21 All

Sent:

Tuesday, October 18, 2022 11:01 AM

То:

Molly Lawrence; Bradley Barth; Bren Haase; Brian Lezina

Subject:

RE: MBSD Check-In - Starting in 20 Minutes

Attachments:

V.2 FTN TPs for USACE and LA TIG.101822.clean.swp.docx

Caution: External Email.

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ATTORNEY-CLIENT COMMUNICATION

I'd suggest we strip it down even more, not getting into any of the modeling details unless they really want to know about them and ask questions. The hope here is that when we explain why the land building number is different and say we don't want them to do anything about it, they'll say fine and the conversation is done.

Also, I'd combine this discussion with a discussion of ROD integration, as we discussed on our calls.

Samuel W. Plauché

Plauché & Carr LLP

From: Molly Lawrence <mol@vnf.com>
Sent: Tuesday, October 18, 2022 8:36 AM

To: Billy Plauche <billy@plauchecarr.com>; Bradley Barth <Bradley.Barth@la.gov>; Bren Haase <Bren.Haase@LA.GOV>;

Brian Lezina < Brian. Lezina@la.gov>

Subject: RE: MBSD Check-In - Starting in 20 Minutes

A/C privileged

Updated TPs based on our discussion this am. Redline is compared to the TPs we provided to Chip/Bren for their first conversations with Chris/Mark in Sept. Clean version is easier to read/edit for this round.

Thanks. Molly

----Original Appointment----

From: Elizabeth Shoenfelt < Elizabeth. Shoenfelt@LA.GOV >

Sent: Tuesday, October 18, 2022 6:43 AM

To: Elizabeth Shoenfelt; Billy Plauche; Bradley Barth; Molly Lawrence; Bren Haase; Brian Lezina

Subject: MBSD Check-In - Starting in 20 Minutes

When: Tuesday, October 18, 2022 9:00 AM-10:00 AM (UTC-06:00) Central Time (US & Canada).

Where: 'CPRA-EXEC ZOOM; 'CPRA/311 Conference Room

Caution: External Email.

Adding Zoom.

ELIZABETH SHOENFELT is inviting you to a scheduled Zoom meeting.

Topic: MBSD Check-In

Time: Oct 18, 2022 09:00 AM Central Time (US and Canada)

Join from PC, Mac, Linux, iOS or Android:

https://us06web.zoom.us/j/7302095986?pwd=Y2xaa3p4RkFDWFk1S0Y4MWJwckd1dz09

Password: Coastal944

Or Telephone:

Dial:

USA 216 706 7075

Conference code: 964105

Find local AT&T Numbers:

For CPRA Discussion with USACE and LA TIG re: FTN Modeling for MBSD 10/18/22

- Follow-up conversation from a discussion that we started with you earlier this month.
- Refresher: Issue is that CPRA's E&D team produced some additional modeling to support
 future operation and maintenance of the diversion. We realized that a project opponent could
 try to use that modeling to suggest that the EIS needs more analysis. Because that modeling
 had some different land building numbers, we wanted to make sure you were aware of it and
 understood the reason for that difference.
- We originally thought it would be good for you all to review this information and get something in the record pre-ROD. As we've dug a bit deeper, we are less concerned about the differences in the models and we don't think it is necessary to do anything about this issue.
- Now recognize two things:
 - We've continued to review the FTN modeling and better understand why it is not necessary to formally consider it now. FTN was looking at future operations and maintenance, not current operations plan.
 - We don't need you to do anything right now but we did want to make sure you were aware of this in case someone tries to raise the FTN modeling in the EIS or RP appeals.
- FTN has done a lot of modeling for this project. Their modeling has been part of each phase of the project design, and has been provided to the Corps with the 30%, 60% and 90& design reports. (So you've seen the vast majority of this modeling...)
- What we are talking about now is a little different. Rather than relevant to current design, this FTN modeling is evaluating future operations and potential changes that CPRA could decide to make in the future based on how the diversion actually operates. Specific modeling includes:
- 0
- Analysis of variable flow levels when the diversion is expected to operate at "base flow" (when the MR is flowing less than 450kefs) and the resulting sediment that may deposit in the diversion channel during periods of base flow.
- Options for flushing this sediment out of the diversion channel to maintain the diversion capacity up to 75kefs. (
 - * Modeling produced with 90% design talked about flushing when the River is above 450kefs—so during standard operational period.
 - FTN also proposed and evaluated flushing when the MR is below 450kefs.
- Options for maintaining diversion capacity when sediment builds up in the outfall area. This included evaluating how dredging in the outfall could be used to maintain diversion capacity in the later operational years, and the effects of that dredging on basin outputs—years, including projected e.g. land building, and salinity and water level effects in the basin.
 - The Delft model used in the EIS projected a net increase of 13,400 acres of land over the FWOP scenario at year 50. The FTN models had similar maximum peak building, but it then show greater decline in the later years due to SLR, resulting in the 4,700 8,000 acre range, depending on the

- operational scenario. In general, the FTN models predict that land will be built faster and lost faster than in the Delft model.
- We've dug into the FTN modeling significantly and feel comfortable that the results are not
 relevant to the EIS and that we can thoroughly explain that if/when it comes up. For now,
 tThe highlights are.
 - None of the FTN runs/scenarios are fully analogous to the Delft runs/scenarios be focused on future operational scenarios.
 - Most of the FTN modeling was designed to evaluate worst-case scenarios or operations regimes not currently being proposed. Neither of those are appropriate for EIS.
 - * For example, when considering the effects of base flow, they used just one hydrograph 1980 which had a very long period of base flow. That is a worst-case sensitivity type analysis.
 - The FTN model runs for land building and dredging are closer to the Delft model runs but still have significant differences in model set up, parameters, and operational scenarios. Most notably.
 - The FTN model did not cap the diversion capacity at 75,000 cfs in the early years likely accounts for earlier land building in the FTN results.
 - The FTN models did not take SLR in the River into account, which results in lower flows being transported from the River to the basin. If Mississippi River SLR had been considered, the projected land building would have been higher, the volume of dredging needed to maintain diversion capacity would have been lower, and the impacts to salinity from flushing would likely have been greater.
- We're working on a memo for CPRA's records that capture and memorialize these differences together with the FTN model results. We will be able to produce this if/when anyone raises concerns.
- Otherwise, we don't need to raise these issues with either the Corps or the TIG unless/until CPRA actually decides to implement any of the operational changes evaluated by the modeling. The EIS and RP evaluate CPRA's current operations plan. If we propose to change that plan, we'll come talk with you but we won't do that for years....

If they want more, say: I can explain it enough to really confuse you. If want more details, I'd like to pull in the technical folks for more explanation.

DWH Louisiana Trustee Implementation Group October 18, 2022 – Call Notes

| | Reviewed by: |
|---|-----------------|
| | LA_BG via email |
| | NOAA_JP |
| A | DOISC |
| | USDAJMM_ |
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| NOAA | Louisiana Ci KA | | DOIS |
|---------------------|-----------------|-----------------------|-------|
| Mel Landry | Sarah Clardy | Maury Chatellier DOI_ | |
| Britney Jensen | Robin Renn | Rick Raynie | USDA |
| Dawn Davis | John Rudolph | Syed Khalil | EPA J |
| Rusty Swafford | Lena Flannery | Molly Lawrence | |
| Jared Paggione | | Beth Golden | |
| Craig Gothreaux | EPA | Elizabeth Davoli | |
| | Doug Jacobson | Billy Plauche | |
| USDA | Tim Landers | | |
| Jon Morton | Gale Bonanno | Louisiana DWF | |
| | | Jon Weibe | |
| DOJ | | | |
| Rachel Hankey | Louisiana DNR | Louisiana DEQ | |
| | Nick Lacroix | Adrienne Gossman | |
| Other | | | |
| Jane Petersen (IEc) | | | |

Discussion Item: MBSD Environmental/RP

A. MBSD EIS

a. Review of FEIS comment letters

<u>Discussion:</u> Comment letters are being uploaded to NOAA SharePoint daily. There are letters of support and against the project, though the majority of comments are similar to those submitted on the DEIS and were responded to in the FEIS. There were two comments regarding mitigation for oysters.

b. Update from TIG SWG meeting

<u>Discussion:</u> The SWG discussed the ROD outline and process. The template for the ROD will be made available on SharePoint later today and will be a topic of discussion on the next SWG call.

c. October face-to-face UFT

<u>Discussion:</u> The TIG will brainstorm agenda items ahead of the meeting, although most of discussion will likely be focused on comment responses. The TIG expects more comments to come in right before the comment period closes on Monday. The potential for a TIG in-person meeting will also be discussed next week.

B. RP

a. Review of RP comments

<u>Discussion:</u> There were several comments that were just an email exchange between two individuals with the PEPC portal CC'd, potentially by accident. LAT Comms is deciding how to proceed.

b. Implementation Plan due to TIG on 11/3.

- C. SWG meeting October 19, 2022
 - a. Draft Implementation Work Plan
 - b. ROD drafting
 - c. Status of EIS adoption analysis

<u>Discussion:</u> A saltwater sill is being placed by USACE in order to prevent saltwater from flowing up the Mississippi, which is lower than normal due to current drought conditions. The sill will use the same borrow area and dredge as the Large-scale Barataria Marsh Creation project. Dredging and pumping to the project will be interrupted, although the contractor will still finish the project within the contract's timeframe.

Discussion Item: RPs/Project Implementation/MAM/MAIP

A. Final Restoration Plan #7.1: Birds

Upcoming:

- a. 10/7 10/17: Review of NOA
- b. 10/7 10/21: TIG Review of Preliminary Final RP/EA, MAM Plans, FONSI
- c. 10/22 10/28: Revise Preliminary Final and preparation of Final documents
- d. 10/29 11/4: TIG Fatal Flaw Review of documents and review of Resolution
- e. 11/5 11/13: Preparation of and formatting of Final Documents
- f. 11/11 11/21: TIG Approval of Final RP/EA, FONSI, Signature on Resolution
- g. 11/21: Plan Published

<u>Discussion:</u> MAM Plan needs to be updated to reflect changes made based on discussions. The updated RP has been sent to contractors and updated on SharePoint. The NOA with TIG feedback has been pulled down from SharePoint and routed to LAT Comms. The updated BE forms should be completed by Friday.

Discussion Item: MAM

<u>Discussion:</u> The full TIG review of MAM proposals will start around November 1st, with the goal of getting feedback in before Thanksgiving.

Discussion Item: Other

<u>Discussion:</u> Resolutions to process the withdrawals of RP8 funds will be drafted soon. Committed funds from NFWF will be coming in soon as well.

| 2022 Calendar: 2022 Calendar of In-Person (Virtual) Meetings | | |
|----------------------------------------------------------------------------|------------------------------------------------------------------------|--|
| Day 1 UFT: 9:30 AM - 11:30 AM (CT) LA TIG: 1:00 PM - 4:00 PM (CT) | Exec/Governance Meeting: 10 AM – Noon (CT) Other Meetings as Scheduled | |
| October 25 | October 26 | |
| November 15 | November 16 | |
| December 13 | December 14 | |

Nicole Landry

From: Molly Lawrence

Sent: Monday, October 24, 2022 3:09 AM

To: Bradley Barth
Cc: Megan Terrell
Subject: RE: a/c Priv

Attachments: 2022-10-05 MBSD-Operations Management and Sensitivity Modeling_mol_bwb.docx

A/C privileged

Morning Brad,

Sending the FTN draft report back to you. In general, I thought your comments/edits looked great. Thanks for responding to a few of my questions. There are a few places where I also responded back to your comments. Please take a look. Seems like a good next step would be another convo with FTN and then asking them to edit this. Considering where Bren's conversation with Mark and Chris landed last week, this is not "on fire" (by any means), but we should make sure we get it done. I'm out until 11/5. If we could schedule a call within them the week of 11/7 and get the final report done by the end of November, that seems okay to me.

Megan, please chime in if you see the situation differently.

Thanks much. Molly Lawrence

From: Bradley Barth < Bradley.Barth@la.gov>
Sent: Thursday, October 13, 2022 10:57 AM
To: Molly Lawrence < mol@vnf.com>

Cc: Megan Terrell <megan@plauchecarr.com>; Bren Haase <Bren.Haase@LA.GOV>

Subject: RE: a/c Priv

Caution: External Email.

A/C Priv.....

All

Here are my edits, mark ups, and comments for this refined review. In my opinion this is not a refinement of the EIS Modeling.

I am including my Take Aways.....

- 1. FTNOMLV-CONSOL may need to be re-modeled to address a few input parameters. RESULTS will change, gut feeling, it may not be by much, +/-?
- 2. Diversion loses Q efficiency with time as a result (primarily) due to ESLR in the out decades (consistent with H&H reporting starting at 30%)

- 3. Maintenance Dredging may be used to maximize Q efficiency with time.
- MRSLR was not included in FTNOMLV-CONSOL, however based on sensitivity analyses, MRSLR may improve Q
 efficiency, sediment load delivery, while reducing potential maintenance dredging needs as compared to
 number 2 above.
- 5. Channel Flushing as presented, I don't believe answers our questions. Does not appear to properly isolate "flushing". Run 1 should be eliminated, Run 2 and 3 should be compared to themselves with and without flushing. As we have already concluded regular flushing of 5,000 cfs should be considered when available and needed.
- 6. Flushing Salinities are within the No Action and the EIS Action. If CPRA pursues a permit change and/or needs added Env. Documentation for flushing outside of current criteria, this is very useful, however, the added Env. Docs may need to consider evaluation of other resources.
- 7. Sections 2.8 and 2.9 were not requested or scoped, recommend they be deleted.

Thanks

Brad

Brad Barth, P.E. Operations Assist Administrator Operations Division

Coastal Protection and Restoration Authority (CPRA)
150 Terrace Ave

Baton Rouge, LA 70802 Office: 225.342.4553

Mobile: 225.454.4345 bradley.barth@la.gov

From: Molly Lawrence <mol@vnf.com>
Sent: Wednesday, October 12, 2022 9:27 AM
To: Bradley Barth <Bradley.Barth@la.gov>
Cc: Megan Terrell <megan@plauchecarr.com>

Subject: RE: a/c Priv

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

A/C privileged

One more... we should modify the language about the OM modeling being a refinement of the EIS modeling. Megan noticed it on her pass through and I realized I hadn't removed it when I add some alternative language later (in redline). You'll see it as you make your way through.

Thanks.

From: Bradley Barth < Bradley.Barth@la.gov > Sent: Wednesday, October 12, 2022 7:06 AM

To: Molly Lawrence < mol@vnf.com >

Cc: Megan Terrell < megan@plauchecarr.com>

Subject: a/c Priv

Caution: External Email.

About 1/2 way through the report......am trying to get done today......

FYI

Based on my reviews, there may be needed changes to the graphs/etc. Don't expect trends to change, but numbers may.

Stay tuned.

Brad Barth, P.E. Operations Assist Administrator Operations Division

Coastal Protection and Restoration Authority (CPRA)

150 Terrace Ave

Baton Rouge, LA 70802 Office: 225.342.4553 Mobile: 225.454.4345 bradley.barth@la.gov

From: Molly Lawrence <mol@vnf.com>
Sent: Tuesday, October 11, 2022 6:29 PM
To: Bradley Barth <Bradley.Barth@la.gov>
Cc: Megan Terrell <megan@plauchecarr.com>

Subject: FTN Modeling.NOAAUSACE presentation.Draft.101122(1113505.1)

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

A/C privileged

Hey there. Not sure whether/how far you've made it through the FTN updated memo, but please let me know. Attached is our proposed PPT for Bren to use in discussing the FTN modeling with Chris Doley and potentially Mark Wingate. As you'll see, there are a few spots that remain highlighted in yellow or subject to comments. Those are items we still need to understand better from you/FTN. Please take a look and get back to us with comments/concerns. (We're hoping its close – it's been through legal review.)

Thanks.

Molly A. Lawrence

www.vnf.com

Partner

(Pronouns: she/her/hers)

Van Ness Feldman LLP 1191 Second Avenue, Ste. 1800** Seattle, WA 98104 Office: 206-623-9372 Cell: 206-954-5011

| | location. ** |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P | This communication may contain information and/or metadata that is legally privileged, confidential or exempt from disclosure. If you are not the intended recipient, please do not read or review the content and/or metadata and do not disseminate, distribute or copy this communication. Anyone who receives this message in error should notify the sender immediately by telephone (206-623-9372) or by return e-mail and delete it from his or her computer. |
| | |
| | |

HLDB

DWH Louisiana Trustee Implementation Group October 25, 2022 – Meeting Notes

| | Reviewed by: | |
|---|-----------------|--|
| | LA_BG via email | |
| | NOAA_JP | |
| - | DOISC | |
| - | USDAJMM | |
| | EPA JDJ | |

| NOAA | DOI | Louisiana CPRA | 1 001 |
|---------------------|--------------------------------|------------------|-------|
| Mel Landry | Sarah Clardy | Maury Chatellier | DOI_ |
| Ramona Schreiber | Amy Mathis | Rick Raynie | USDA |
| Steve Giordano | John Rudolph | Elizabeth Davoli | EPA |
| Rusty Swafford | Barret Fortier | Beth Golden | |
| Dawn Davis | Clare Cragan | Denise Stafford | |
| Craig Gothreaux | | Megan Terrell | |
| | USDA | Louisiana DWF | |
| DOJ | Jon Morton | Matt Weigel | |
| Mike Zevenbergen | | | |
| | EPA | Louisiana DEQ | |
| Other | Doug Jacobson Adrienne Gossman | | |
| Jane Petersen (IEc) | Tim Landers | | |
| | Gale Bonanno | Louisiana DNR | |
| | | Nick Lacroix | |

Discussion Item: MBSD Environmental / RP

A. Update from UFT

<u>Discussion:</u> This call was relatively short and focused on comment responses.

B. Review of FEIS comment letters

<u>Discussion</u>: Seventy comments have been received so far. Negative comments mostly focused on questioning why dredging was not evaluated as an alternative. Other comments were related to impacts to fisheries and dolphins, as well as questioning the overall efficacy of the project. The TIG would like to collaborate with the Corps on comment responses to avoid duplication of effort, given that many comment topics are the same as the DEIS and are responded to in the FEIS. GEC will have gone through all the comments by the end of this week.

C. Potential for in-person UFT Meeting in November

<u>Discussion:</u> Informal conversations may occur around the RAE conference, but agencies have the sense that booking travel for an in-person UFT meeting would not be worthwhile.

- D. RP
 - a. Review of RP comments

<u>Discussion</u>: Comments on the RP don't seem to be substantive/new so far. The team is working on comment responses and will try to figure out how to respond to an email back-and-forth between two individuals that the public comment email is CC'ed on.

- E. SWG meeting October 26, 2022
 - a. Draft Implementation Work Plan
 - b. ROD drafting and review
 - c. Status of EIS adoption analysis

<u>Discussion:</u> NOAA is drafting the EIS adoption analysis using NOAA NEPA implementation guidance. Other agencies will have the opportunity to review.

F. Other?

<u>Discussion</u>: CPRA will provide the TIG with an updated cashflow analysis soon. Also, there should be no conflict between MBSD and the Corps' saltwater sill project.

Discussion Item: Restoration Plan #1.2: Spanish Pass/Lake Borgne

A. General Check-in/Project Implementation Update <u>Discussion</u>: On Spanish Pass, 7.7M cubic yards of sediment have been placed to date. The dredge has left for MS river maintenance but is to return in April.

Discussion Item: Restoration Plan #1.3: JELA

A. General Check-in/Project Implementation Update Discussion: Construction will begin next month.

Discussion Item: Restoration Plans #2 and #4: Recreational Use and Nutrient Reduction Projects

A. General Check-in/Project Implementation Update

<u>Discussion</u>: Nutrient Reduction projects: The Bayou Folse project has partnered with the
Nicholls State University farm, and there will be a site visit soon. Recreational Use
projects: the Atchafalaya Delta Campgrounds project had a recent site visit, and the
project will be wrapping up soon. A site walkthrough occurred for the Bayou Segnette
boating area improvements project, which also went well. The project will be ready to be
closed out once final expenses are reconciled. Mobilization of the Cypremort Point
campgrounds began last month; instillation of the water well will continue through the late
summer and early fall. The Wetlands Center will take another ten months of construction
followed by six months of exhibit installation. Construction has been delayed due to
material costs. The Science Center is in progress.

Discussion Item: Restoration Plan #3.3: Large-Scale Marsh Creation in Barataria Basin

A. General Check-in/Project Implementation Update

<u>Discussion:</u> The dredge has returned and will continue without additive alternates awarded. Dredging is expected to continue through February.

Discussion Item: Restoration Plan #5: Brood Reefs, Cultch Plant, Hatchery, MM Stranding

A. General Check-in/Project Implementation Update <u>Discussion</u>: The Marine Mammal Stranding Network is starting to make plans to remove the cow calf pair to get them away from construction starting in the area. There are no updates on oyster projects.

Discussion Item: Restoration Plan #6: Golden Triangle, Biloxi Marsh

A. General Check-in/Project Implementation Update <u>Discussion</u>: Process for resolving Golden Triangle issues is ongoing. For the Biloxi Marsh project, 3,328 wave attenuation devices have been placed, as well as 6,500 linear feet of type 1 breakwater. 2139 shorejack units, 15,000 linear feet of type 2 breakwater, and 22.525 linear feet of marine mattresses (3,000).

Discussion Item: Restoration Plan #7: Construction – Bayou Terrebonne, Grand Cheniere; E&D – Bird's Foot, Isle au Pitre (On-hold), Terrebonne HNC (Construction #7.1)

A. General Check-in/Project Implementation Update

<u>Discussion:</u> Surveys of access routes have begun for the Grande Cheniere project, and a preconstruction meeting will be held soon. Access dredging will start in November. The land rights issues around the Bayou Terrebonne project with Conoco Phillips and Apache. Meetings with the governor's office are continuing. Survey work for Bird's Foot Delta is complete, while modelling continues (which is scheduled to be completed summer of 2023).

Discussion Item: Restoration Plan #7.1: Terrebonne HNC Island

A. Upcoming:

- a. 10/7 10/17: Review of NOA (Complete)
- b. 10/7 10/21: TIG Review of Preliminary Final RP/EA, MAM Plans, FONSI (Complete)
- c. 10/22 10/28: Revise Preliminary Final and preparation of Final documents
- d. 10/29 11/4: TIG Fatal Flaw Review of documents and review of Resolution
- e. 11/5 11/13: Preparation of and formatting of Final Documents
- f. 11/11 11/21: TIG Approval of Final RP/EA, FONSI, Signature on Resolution
- g. 11/21: Plan Published

<u>Discussion:</u> The TIG review of the MAM plans are in and with the contractor, which is wrapping up final documents this week, after which there will be a fatal flaw review.

Discussion Item: Restoration Plan #8: Wetland, Coastal, and Nearshore Habitats

A. General Check-in/Project Implementation Update

Discussion: The Bayou La Loutre cultural resources report has been sent to the SHPPO, awaiting acceptance. Bayou Dularge permit application is expected next month. The East Orleans Land Bridge data collection for preliminary design is expected to be complete by the end of January 2023. A funding resolution for CPRA-led RP 8 projects will be circulated shortly.

Discussion Item: Avian Guidance Update

Discussion: There are no updates at this time.

Discussion Item: MAM

<u>Discussion:</u> The annual process is ongoing. In the last round of approved projects, NOAA had a funding scheme that ended up being costly to track – a set of resolutions will be sent around to re-allocate all NOAA funds to one project.

Discussion Item: Other

A. Calendar

| 2022 Caler | ndar of In-Person (Virtual) Meetings |
|------------|--------------------------------------|
| Day 1 | <u>Day 2</u> |

| UFT: 9:30 AM - 11:30 AM (CT) LA TIG: 1:00 PM - 4:00 PM (CT) | Exec/Governance Meeting: 10 AM – Noon (CT) Other Meetings as Scheduled |
|-------------------------------------------------------------|------------------------------------------------------------------------|
| November 15 | November 16 |
| December 13 | December 14 |

Nicole Landry

From:

Bradley Barth <Bradley.Barth@la.gov>

Sent:

Wednesday, November 16, 2022 9:39 AM

To:

Ranjit Jadhav; Agnimitro Chakrabarti

Cc:

David Peterson (CPRA); Molly Lawrence

Subject: A/C Privilege

Attachments: 2022-10-24 MBSD-Operations Management and Sensitivity Modeling_mol_bwb.docx

Caution: External Email.

A/C Priv Document

Ranjit/Agni, See attached.

This a combo of comments/questions/edits, etc.

Please start to look over and gather your all's thoughts. Maybe I can swing by Friday afternoon to look over with you at your office....maybe sometime around 1 or 2 pm

Thanks Brad

Brad Barth, P.E.

Operations Assist Administrator

Operations Division

Coastal Protection and Restoration Authority (CPRA)

150 Terrace Ave

Baton Rouge, LA 70802 Office: 225.342.4553 Mobile: 225.454.4345 bradley.barth@la.gov



DEPARTMENT OF THE ARMY U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT 7400 LEAKE AVENUE NEW ORLEANS LA 70118-3651

December 19, 2022

Mr. Lawrence B. Haase Louisiana Coastal Protection and Restoration Authority 150 Terrace Avenue Baton Rouge, LA 70802

Dear Mr. Haase:

The Coastal Use Permit (CUP) P20131098 issued on November 21, 2022 by the Louisiana Department of Natural Resources for the Mid-Barataria Sediment Diversion and the U.S. Army Corps of Engineers Essential Fish Habitat Final Response provided by letter dated November 17, 2022 to the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, conclude compliance with all environmental laws required under Section 10 of the Rivers and Harbors Act of 1899 (33 USC § 403), Section 404 of the Clean Water Act (33 USC § 1344) (Section 10/404 Permit), and Section 408 permission (33 USC § 408).

Enclosed is a permit dated December 19, 2022, MVN-2012-02806-EOO, authorizing work under the Department of the Army permit program. You must sign and date the permit, signifying acceptance of the terms and conditions herein, and return the signed permit to this office.

Return To: U.S. Army Corps of Engineers, Regulatory Division, Eastern Evaluation Branch, 7400 Leake Ave, New Orleans, LA 70118-3651 or you can send back electronically. If you have any questions regarding this permit, please contact Mr. Brad LaBorde, Chief, Eastern Evaluation Branch, at (504) 862-2225.

Before signing and returning the permit to this office, carefully consider the information contained in the permit. Also, carefully consider the information contained in the attached form "Notification of Applicant Option (NAO)" which lists the options available to you in your evaluation of the enclosed permit.

If you choose to accept the terms and conditions of this permit, you must sign and return this permit with the drawings and the fee within 60 days of the date of this letter. If you fail to do so, we will assume that you no longer plan to do the work covered by the permit and your application will be removed from our files.

It is necessary that you notify the District Engineer, Attention: Eastern Evaluation Branch, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of Page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

In addition, please find enclosed Mississippi Valley Division's Approval letter pursuant to 33 USC 408 (Section 408) concerning your request to alter or occupy an existing U.S. Army Corps of Engineers Civil Works Project. Questions concerning the enclosed Approval should be directed to the point of contact provided in the Section 408 Approval letter.

Sincerely,

Cullen A. Jones, P.E., PMP Colonel, U.S. Army Commanding

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

| Applic | cant: LA Coastal Protection and Restoration Authority | File Number: MVN-2012-02806-EOO | Date: 12/19/2022 |
|--------|------------------------------------------------------------|---------------------------------|-------------------|
| Attacl | hed is: | | See Section below |
| | INITIAL PROFFERED PERMIT (Standard Pe | | A |
| V | PROFFERED PERMIT (Standard Permit or Letter of permission) | | В |
| | PERMIT DENIAL | | С |
| | APPROVED JURISDICTIONAL DETERMINA | ATION | D |
| | PRELIMINARY JURISDICTIONAL DETERM | INATION | E |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/cecw/pages/reg_materials.aspx Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for
 final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized.
 Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and
 waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations
 associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer. If you
 received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard
 Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit,
 including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein,
 you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of
 this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of
 the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This formmust be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD orprovide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the
 date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers
 Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This
 form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you mayprovide new information for further consideration by the Corps to reevaluate the JD.

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| ADDITIONAL INFORMATION: The appeal is limited to a rev | riew of the administrative record, the Corps memorandum for oplemental information that the review officer has determined |
| is needed to clarify the administrative record. Neither the ap | pellant nor the Corps may add new information or analyses |
| to the record. However, you may provide additional informat administrative record. | ion to clarify the location of information that is already in the |
| POINT OF CONTACT FOR QUESTIONS OR INF | |
| If you have questions regarding this decision and/or the appeal process you may contact: | If you only have questions regarding the appeal process you may also contact: |
| Brad P. LaBorde Chief, Eastern Evaluation Branch | Brian Oberiles Administrative Appeals Review Officer |
| U.S. Army Corps of Engineers | Mississippi Valley Division |
| 7400 Leake Ave New Orleans, LA 70118-3651 | P.O. Box 80 (1400 Walnut Street) Vicksburg, MS 39181-0080 |
| (504) 862-2225 | (601) 634-5820 FAX: (601) 634-5816 |
| RIGHT OF ENTRY: Your signature below grants the right of | entry to Corps of Engineers personnel, and any |
| government consultants, to conduct investigations of the pro- be provided a 15 day notice of any site investigation, and will | ject site during the course of the appeal process. You will have the opportunity to participate in all site investigations |
| De provided a 15 day notice of any site investigation, and will | Date: Telephone number: |
| | |
| Signature of appellant or agent. | |
| | MVD version revised 性软件服件 |

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to

clarify where your reasons or objections are addressed in the administrative record.)

DEPARTMENT OF THE ARMY PERMIT

Permittee: LA Coastal Protection and Restoration Authority

Permit No.: MVN-2012-02806-EOO

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Clear, grade, excavate, and deposit fill for construction of the Mid-Barataria Sediment Diversion, in accordance with drawings attached in 140 pages:

pages 1-9, 11, 14, 29-33, 37, 40-51, 55-56, 58-69, 80, 85-95, 108 dated August 2022, pages 10, 12-13, 15-28, 34-36, 38-39, 52-54, 57, 81-84 dated July 2022, pages 70-79, 105 dated, July 13, 2022

pages 70-79, 105 dated July 13, 2022,

pages 96-104, 106-107 dated June 2022,

pages 109-127, 134-135 dated November 9, 2021,

pages 128-133 dated July 20, 2022,

pages 136-139 dated March 16, 2021, and

page 140 dated March 31, 2022.

Project Location: On the right descending bank of the Mississippi River at river mile (RM) 60.7 in the vicinity of the town of Ironton, Plaquemines Parish, Louisiana. (29.662083, -89.963278).

Permit Conditions:

General Conditions:

- 1. The time limit for completing the work authorized ends on <u>December 31, 2032</u>. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

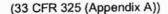
(33 CFR 325 (Appendix A))

- 4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
- 5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
- 6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: See page 4.

Further Information:

- 1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
- 2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
- 3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.



- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fall to comply with the terms and conditions of this permit.

(TRANSFEREE)

ENG FORM 1721, Nov 86

- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corns will normally give favorable consideration to a request for an extension of this time

| limit. | tavorable consideration to a request for an extension of this time |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | |
| CULLEN A. JONES, P.E., PMP, Colonel, U.S. Army, | District Commander (DATE) |
| Your signature below, as permittee, indicates that yo this permit. | ou accept and agree to comply with the terms and conditions of |
| (PERMITTEE) | X (DÂTE) |
| terms and conditions of this permit will continue to be | it are still in existence at the time the property is transferred, the e binding on the new owner(s) of the property. To validate the sociated with compliance with its terms and conditions, have the |
| | <u> </u> |
| (TRANSFEREE) | (DATE) |

3

(33 CFR 325 (Appendix A))



ENG FORM 1721, Nov 86

(33 CFR 325 (Appendix A))

Special Conditions: MVN-2012-02806-EOO

- The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
- 8) The permittee must install and maintain, at its expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on its authorized facilities. Any inquiries concerning a U.S. Coast Guard Private Aids to Navigation marking determination may be directed to the Eighth Coast Guard District (dpw), Hale Boggs Federal Building, 500 Poydras St., Suite 1230, New Orleans, Louisiana 70130, at (504) 671-2330 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation, you may visit the Eighth CG District web site at: http://www.atlanticarea.uscg.mil/district-8/district-divisions/waterways/PATON
- 9) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from USACE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- 10) If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, the permittee is advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of this permit approval and drawings can be emailed to: D8MarineInfo@uscg.mil, or mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Suite 1230, New Orleans, Louisiana 70130. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2118.
- 11) The U.S. Army Corps of Engineers, New Orleans District (CEMVN) may suspend, modify, or revoke this permit if it is in the public interest to do so.
- 12) The permittee agrees that details associated with the project component that will reestablish/nourish marsh (labeled as "Dredged Material Placement Area" in the permitted drawings and referred to here as the "marsh creation component") are still conceptual at the time of permit issuance and that all details regarding construction, schedule, success criteria and deadlines, monitoring and reporting and maintenance for the marsh creation component must be finalized prior to initiation of construction. Specifications to ensure sufficient and appropriate data is obtained and provided in monitoring reports must be developed. Design, planning, and monitoring requirements regarding target construction marsh elevation (TCME), target settled marsh elevation (TSME), timing/phasing for single versus multiple lifts, cell size and location, transect layout, number and location of survey plots, timing of the monitoring events, vegetative

goals, success and performance milestones, etc., must be coordinated and approved by CEMVN prior to initiation of structure construction. The permittee will submit the required details of the marsh creation component plan at least forty-five (45) days prior to any planned initiation of construction for CEMVN review and approval. In addition to the foregoing information, the marsh creation component plan will contain:

- a. Detailed written specifications and work descriptions including, but not limited to, construction methods, timing, schedule and sequence; methods for establishing the desired marsh; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management and erosion control measures.
- Performance standards. Ecologically-based standards that will be used to determine whether the project marsh component is achieving its objectives.
- c. Maintenance plan. A description and schedule of maintenance requirements to ensure the continued viability of the marsh once initial construction is completed.
- d. A description of parameters to be monitored in order to determine if the marsh creation component is on track to meet performance standards and if adaptive management is needed.
- 13) The marsh creation component plan must be approved by CEMVN prior to initiation of construction. Failure to obtain approval from CEMVN prior to initiation of construction will result in assessment of compensatory mitigation, in which case the permittee will provide compensatory mitigation to account for direct, secondary and temporal adverse impacts to jurisdictional wetlands from project construction in the form of mitigation bank credits. If determined to be required, CEMVN will inform the permittee of the appropriate number and type of credits and from which banks the permittee may purchase credits. If purchase of bank credits is required for failure to obtain CEMVN approval for the final marsh creation component plan, that credit purchase will be completed and proof of satisfaction of compensatory mitigation requirements will be provided to CEMVN prior to initiation of construction.
- 14) The permittee will fully offset unavoidable direct, secondary, and temporal adverse impacts to jurisdictional wetlands associated with project construction. To accomplish this, the permittee will construct the marsh creation component of the project and will ensure that it achieves all success milestones (temporal, spatial and functional) and will maintain the marsh creation/nourishment components as set forth below.
 - Construction of both activity components (diversion structure components and marsh cereation components) must occur concurrently.
 - b. In the event that the permittee fails to complete the marsh creation component of the project as authorized and agreed upon through the coordination effort discussed in special condition number 12 above and/or if the marsh creation component does not meet its success criteria as outlined in special condition number 15 and/or the permittee

fails to monitor or submit reports in accordance with the requirements developed pursuant to special condition number 12 above or if the marsh creation cells are not maintained for the duration identified, the permittee must provide compensatory mitigation to account for any remaining direct, secondary and temporal adverse impacts to jurisdictional wetlands from project construction in the form of compensatory mitigation banking credits. CEMVN will inform the permittee of the appropriate number and type of credits and from which banks the permittee may purchase credits.

- c. Failure to complete the marsh creation component as agreed through the coordination effort discussed in special condition number 12 above or otherwise provide compensatory mitigation to account for direct, secondary and temporal adverse impacts to jurisdictional wetlands from project construction in the form of compensatory mitigation bank credits will be grounds for permit suspension and/or revocation, and restoration of the permit site.
- 15) The following criteria will be used to determine success of the creation component of the project:
 - a. Spatial completeness, regarding re-establishment of 375 acres emergent marsh and nourishment of 92 acres of existing emergent marsh as identified on drawings 60 through 64 of 140.
 - All permanent transects, elevation survey plots, and vegetative plots have been established as agreed upon through the coordination effort discussed in special condition number 12 above.
 - c. All monitoring reports contain the type and level of information, and have been provided in accordance with the reporting schedule as agreed upon through the coordination effort discussed in special condition number 12 above.
 - d. For the following specific monitoring events/intervals:
 - As-built construction survey must be submitted within 60 days after dredged material placement is completed.
 - The average of the measurements from the post-construction elevation survey in the As-Built Report is at or above the TCME and a minimum of 80% of the site is within 6 inches of the TCME.
 - ii. Initial Monitoring must be completed 12 to 14 months after completion of dredge material placement.
 - The average of the elevation survey measurements taken from the site are at or above the projected TSME and a minimum of 80% of the site is within 6 inches of the TSME.

- Interim Monitoring must be completed 3 years after completion of dredge material placement or prior to initial operation of the diversion structure, whichever is first.
 - All containment dikes have been breached or degraded and all control structures removed, and any additional work determined necessary has been completed such that hydrologic exchange between the restored and/or enhanced marsh and adjacent water bodies is unimpeded.
 - The average of the elevation survey measurements taken from the site are at or above the TSME and a minimum of 80% of the site is within 6 inches of the target settled marsh elevation.
- Long-Term Monitoring must be completed 5, 10, 15 and 20 years after completion of dredge material placement.
 - The average of the elevation survey measurements taken from the site are at or above the TSME and a minimum of 80% of the site is within 6 inches of the target settled marsh elevation.
 - Wetland vegetative coverage is 100% on the target settled marsh elevation. The species composition and diversity at this time are consistent with the intended community.
 - Observed use of restored and/or enhanced marsh by wildlife species typically found in natural marsh habitats of similar salinity regime.
 - 4. Tidal fluctuations are comparable to those in adjacent tidal areas.
- e. If additional dredged material needs to be deposited to meet elevation requirements, then the permittee shall base all required monitoring and reporting time-frames on that new dredge placement completion date.
- f. If, prior to any sampling event, the permittee is aware that the success criteria would not be met, the permittee may submit an adaptive management plan requesting a delay in that monitoring event, documenting why the success criteria would not be met, providing details on any adaptive management that may be needed, and proposing a new schedule for conducting monitoring events.
- g. The marsh re-establishment/nourishment component of the project) must be maintained to its fullest extent, both spatially and functionally, for a period of not less than 20 years from submission and approval of the required As-Built Report documenting completion of the project.

- 16) The permittee is reminded of its agreement to comply with all 14 (fourteen) of U.S. Fish and Wildlife Service's (FWS) recommendations in the Final "Fish and Wildlife Coordination Act Report For the Mid-Barataria Sediment Diversion Project" dated May 25, 2022.
- 17) The permittee is reminded of its agreement to comply with all 2 (two) of NOAA Fisheries, National Marine Fisheries Service's (NMFS) Essential Fish Habitat Conservation Recommendations.
 - a. The MAM Plan should clearly identify variables and conditions to be monitored and describe the monitoring protocols. The MAM Plan should also identify specific management alternatives including, but not limited to alternate flow rate, frequency, timing and duration, and an effective decision making regime to modify project management if monitoring and subsequent analyses indicate diversion operations are not providing the desired outputs, or are causing unexpected or unwanted effects to resources of concern.
 - b. The CPRA and LA TIG should continue investment in ecosystem models (e.g., EwE and CASM) and individual species models (e.g., HSI) development and refinement for their use in comparing alternatives in the MAM Plan. Recommended ecosystem model improvements to support MAM, include but are not limited to:
 - i. Continued calibration
 - ii. True validation with independent data
 - iii. Sensitivity analyses with biotic and abiotic parameters
 - iv. Refined uncertainty analyses
 - v. Structural sensitivity analysis
 - vi. Translation of salinity or other environmental parameters to changes in growth, mortality, reproduction, movement/distribution, production, prey availability, etc. to get at population-, or food web-level effects
- 18) Mechanized land clearing, filling, or vehicle tracking of jurisdictional wetland areas outside the project area for access, staging, and/or implementation of the authorized work is not allowed.
- 19) The permittee shall employ siltation controls around all construction sites that require earthwork (clearing, grading, dredging and/or deposition of fill material) such that eroded material is prevented from entering adjacent wetlands and/or waterways.
- 20) Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. The authorized project involves dredging and/or placement of fill, therefore, the permittee must contact the local

- municipal and/or parish governing body regarding potential impacts on floodplains and compliance of your proposed activities with local floodplain ordinances, regulations, or permits.
- 21) If rutting or disturbance to ground surface occurs in jurisdictional areas during construction, steps shall be taken to return pre-project elevations and contours immediately following that occurrence. This includes hauling in appropriate material and stabilizing damaged areas if necessary. If any hydrologic connections are created from equipment moving across shorelines or banklines, these areas must be immediately stabilized and restored to pre-project conditions by hauling in appropriate fill material, if necessary. As-built drawings of any such repair/restoration must be provided to this office no later than 90-days following completion of such work. If it is later determined that permanent impacts on wetland areas have occurred within the project footprint from such repair/restoration efforts, compensatory mitigation or on-site restoration may be required by this office.
- 22) If the authorized project requires any additional work that requires a Department of Army Section 10/404 permit and that is not expressly permitted herein, the permittee must apply for an amendment to this authorization.
- 23) The permittee must comply with all stipulations in the enclosed Programmatic Agreement for National Historic Preservation Act compliance.
- 24) The permittee shall, in coordination with USACE, contact FWS and Louisiana Department of Wildlife and Fisheries (LDWF) for additional consultation if: 1) the scope of location of the authorized project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat, 3) the action is modified in a manner that causes effects to listed species or designated critical habitat, or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made or finalized.
- 25) The permittee must adhere to the following Reasonable and Prudent Measures (RPM) and their associated Terms and Conditions (TC) and Monitoring and Reporting Requirements (MRR) as laid forth in FWS Biological Opinion dated December 13, 2021:
 - a. FWS RPM 1: Gate operation that would significantly increase or decrease the velocity through the structure should be implemented over several hours to allow fish sufficient time to migrate back to the river or swim away from the structure.
 - i. FWS TC 1: The FWS's Louisiana Ecological Services Office (337-291-3126) should be notified of any proposed changes to the proposed action described in the biological opinion, so that re-initiation of consultation under Section 7 of the ESA can proceed as quickly and efficiently as possible
 - b. FWS RPM 2: The permittee will develop a plan to be implemented for the proposed MBSD that identifies potential avoidance and minimization measures for pallid sturgeon. Live sturgeon captured in the structure, or the cofferdam area should be tagged and returned to the river.

- FWS TC 2: Develop a plan to be implemented for the proposed MBSD that identifies potential avoidance and minimization measures for pallid sturgeon. Live sturgeon captured in the structure or the cofferdam area should be tagged and returned to the river.
- FWS RPM 3: Dredging (cutterhead/suction) in the Mississippi River will be conducted using dredge operational parameters coordinated with FWS.
 - i. FWS TC 3: Should dredging (cutterhead/suction dredge) activities be necessary in the Mississippi River, the following operational parameters would be included as conditions of the permit and in the design of the project:
 - The cutterhead must remain completely buried in the bottom material during dredging operation. If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate will be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased.
 - During dredging, the pumping rates will be reduced to the slowest speed possible while the cutterhead is descending to the channel bottom.
- d. FWS RPM 4: Ensure that the terms and conditions are accomplished and completed as detailed in FWS's incidental take statement (ITS) including the completion of reporting requirements.
 - i. FWS TC 4: Upon locating a dead, injured, or sick individual of an endangered or threatened species, the permittee must notify the Louisiana Ecological Services Office at Lafayette, Louisiana at (337) 291-3100 and the CEMVN within 48 hours. Care should be taken in handling sick or injured individuals and in the preservation of specimens in the best possible state for later analysis of cause of death or injury.
 - ii. FWS TC 5: A report describing the actions taken to implement the terms and conditions of this ITS shall be submitted to the Project Leader, U.S. Fish and Wildlife Service, 200 Dulles Drive, Lafayette, LA 70506, within 60 days of the completion of project construction. This report shall include the dates of work, assessment, and actions taken to address impacts on the pallid sturgeon, if they occurred.
- e. FWS MRR1: Monitoring of the diversion structure for the entrainment of pallid sturgeon should be conducted, once the diversion is in operation. Reporting of monitoring results will be conducted yearly.

- f. FWS MRR2: A monitoring report will be submitted to FWS after maximum flow conditions have occurred. This report should include any data sheets, maps, and the findings of the pallid sturgeon monitoring efforts.
- 26) The permittee must adhere to the following RPMs and their associated TCs as laid forth in NMFS Biological Opinion dated December 13, 2021:
 - a. NMFS RPM 1: Monitoring Brown Shrimp Fishing Effort in the Action Area: Monitor the annual trip ticket data for area 211 and reports to NMFS (as described below) the 3year running average of brown shrimp fishing trips on an annual basis.
 - i. NMFS TC 1: The permittee must monitor the annual trip ticket data collected by LDWF for area 211 and provides an annual report to NMFS PRD, sent to the following address (takereport.nmfsser@noaa.gov). The federal action agencies may specify if they would also like to receive these reports from the project proponent. The reports shall reference the Consultation Identification Number for this consultation (SERO-2021-00433), and shall provide the raw trip ticket data, as well as the 3-year running average of brown shrimp fishing trips. The first report shall be provided within 1 year of the commencement of MBSD operations, using the previous 3 years' data to calculate the 3-year running average.
 - b. NMFS RPM 2: Monitoring Salinity Conditions in the Lower Barataria Basin: Develop (in coordination with NMFS), fund and implement a salinity monitoring program in Barataria Bay and reports the data output from that monitoring plan to NMFS on an annual basis (as described below).
 - i. NMFS TC 2: The permittee must develop in coordination with NMFS (SERO and SEFSC), fund, and implement a monitoring program and analytical design that will allow NMFS to determine if seasonal salinity conditions under actual project operations are within the expected range projected by the model relied upon and analyzed in this Opinion. The final monitoring design must establish measurable triggers that will indicate when salinity conditions have exceeded the levels anticipated and analyzed in the NMFS Biological Opinion dated December 13, 2021, and would thus trigger the requirement to reinitiate consultation on the proposed project. The monitoring plan must be fully developed and approved by NMFS PRD prior to the commencement of MBSD operations. Once the monitoring plan design has been developed and approved, it must be integrated into the existing Monitoring and Adaptive Management Plan for the Proposed Project. The monitoring plan shall be implemented prior to, or immediately following commencement of MBSD operations. An annual report of the data and analytical output from this monitoring shall be sent to NMFS at the following address (takereport.nmfsser@noaa.gov). The first report shall be submitted to NMFS within 1 year of the commencement of monitoring. The federal action

agencies may specify if they would also like to receive these reports from the project proponent. The reports shall reference the Consultation Identification Number for this consultation (SERO-2021-00433).

- c. NMFS RPM 3: Monitor Sea Turtle Habitat Use and Abundance in the Action Area: Develop (in coordination with NMFS SEFSC), fund and implement a monitoring plan targeting sea turtle distribution, health and habitat use within the Barataria Basin.
 - NMFS TC 3: The permittee must develop in coordination with NMFS SEFSC. fund, and implement a monitoring plan designed to study sea turtle distribution and habitat use to increase the body of knowledge and understanding of distribution, relative abundance, and seasonal and spatial sea turtle habitat use in the action area before project operations and to monitor how project operations affect distribution, relative abundance, and seasonal and spatial sea turtle habitat use of the action area. This sea turtle monitoring plan must include 3 years of field work prior to implementation of MBSD operations, 3 years of field work immediately following implementation of MBSD operations, and 1 year of data analysis. The field work must include trawl vessel surveys, satellite tagging, health assessment, and data analysis. This study would include deploying up to 240 satellite tags (target of 40 per year), some or all equipped with specialized salinity sensors, and conducting transect surveys to better understand sea turtle abundance and distribution. Turtle monitoring and tagging field work is be conducted in selected areas of the lower Barataria Basin, from the area below the proposed outfall, down to and including the passes and inlets around the barrier islands and the Gulf-side shallow water habitat adjacent to the barrier islands at the southern end of Barataria Bay. The monitoring plan must receive final approval by NMFS PRD, and shall include the following components:
 - Field Work: Conduct 6 years of field work (three years prior to implementation of MBSD operations and 3 years after operations

start) employing the following methods:

a. Transect surveys – Direct capture of sea turtles using otter trawl and skimmer trawl vessels using standardized seasonal 30-minute transects during spring, summer, and autumn of each year to obtain a statistically appropriate sample size in the action area. Turtles will be captured using skimmer trawls in shallow areas (less than 10 feet), focusing on salt marsh habitat where we expect to find smaller juvenile sea turtles, and larger otter trawl vessels using paired otter trawls in depths greater than 10 feet. Appropriate scientific research and collection permits will be required for these activities.

- b. Health assessments turtles captured in trawl surveys will be measured, weighed, tagged with flipper and passive integrated transponder (PIT) tags, tissue sampled (for genetic analysis and stable isotopes), and blood sampled (for blood chemistry analyses). Environmental data (salinity, water temperature, etc.) will be collected in conjunction with sea turtle capture efforts. Turtles will be released at or near the capture site.
- c. Satellite Tagging up to 240 turtles (target of 40 per year, with selection based on appropriate size and condition), captured in the trawl surveys will be satellite tagged to monitor location, dive behavior, salinity, and temperature. Salinity sensor-equipped satellite tags will be used on a portion of these turtles to better understand habitat use patterns relative to salinity regimes and if shifts in salinity affect behavior.
- Annual and seasonal estimates of relative abundance will be generated from the trawl data at the conclusion of each year's sampling.
- Analysis and Modeling: Conduct 1 year of data analysis, including the following:
 - a. Estimate habitat use by overlaying our satellite tracking data on available GIS benthic habitat layers, as well as salinity information collected by the satellite tags. Additionally, data from any current in-water environmental monitoring stations could be used to provide additional supplemental environmental data. In addition, we plan to coordinate with other research groups, such as benthic researchers studying lower trophic level organisms to provide abundance and species composition data for key prey organisms to further understand habitat use and sea turtle distribution.
 - b. Complete development of a predictive model for sea turtle species habitat use and distribution in relation to physical and biological habitat characteristics and salinity level parameters. The model can be used to assess the overlap of sea turtle distribution with known and emerging threats to prioritize the type and location of restoration activities and to evaluate their effectiveness.
- Adaptive Management of Monitoring Activities: Due to the scarcity of information on sea turtle activity and use of the study area, there is

uncertainty regarding the expected results and efficacy of the monitoring of sea turtle habitat use and abundance in the action area required herein (number of turtles that may be captured, number that may be suitable for tagging, etc.). There are also many extrinsic factors that may impact monitoring efficacy and results, such as hurricanes and annual hydrologic conditions affecting the Basin. Due to the uncertainties, it may be necessary to adjust monitoring targets and methodologies (gear, locations, effort, etc.) during the study period to ensure the monitoring efforts are optimized to effectively discern the effects of the project on sea turtles. An adaptive management team consisting of up to three state (CPRA) and three federal (NMFS SEFSC, NMFS PRD, and NOAA RC) representatives (along with any technical experts invited by these entities) will meet at least once a year to review progress and results of the monitoring activities. The USACE may also participate on this team if they wish. This team may make recommendations on any necessary changes to the monitoring and tagging activities, locations, timing, or level of effort, based on current information and monitoring/tagging results to date. Any proposed changes to the sea turtle monitoring activities must be approved by NMFS PRD before implementation of those changes.

- 4. Project Outputs/Deliverables: Data collected will be used to analyze habitat use in relation to physical and biological habitat characteristics and salinity level parameters. Outputs include:
 - a. satellite tagging datasets;
 - b. transect survey data;
 - c. health assessment data;
 - d. modeling outputs; and
 - e. technical report synthesizing data.
- 27) The Permittee must comply with the "Standard Manatee Conditions for In-Water Activities."
 - a. All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, inwater work can resume under careful observation for manatee(s).
 - b. If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

- c. If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- d. Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT." A second temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION."
- e. Collisions with, injury to, or sightings of manatees should be immediately reported to the Service's Louisiana Ecological Services Office (337-291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225-765-2821). Please provide the nature of the call (that is, report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.