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June 8, 2012

Deepwater Horizon Trustees
RE: April Monthly Report on Joint NRD Activities

Dear Trustees:

Find attached the April 2012 Deepwater Horizon monthly NRD cooperative report, which includes a section on Cooperative QA status. This report is provided to identify pending actions, ensure timely agreement on matters of concern to the Trustees and BP, and provide for a month look ahead in field activity planning. Information presented here is accurate to the best of our knowledge, but this document may contain inadvertent errors.

As before, we note that many work plans are not fully executed, even though associated field activities are complete. As of the end of April, there are 38 work plans which are under revisions/awaiting signature (9 under BP review, 29 under Trustee review); and 7 work plans are waiting for additional Trustee (Louisiana) signatures.

Please let us know if you would like to discuss any of the comments or status of the ongoing cooperative NRD program. We also request that this Monthly Activity Report be placed into the Deepwater Horizon Administrative Record.

Regards,

A handwritten signature in blue ink that reads "Robin Bullock/Ltz". The signature is written in a cursive, slightly slanted style.

Robin Bullock
Director, Natural Resources Damages and Environmental Science
BP Gulf Coast Restoration Organization

Deepwater Horizon Incident Monthly Report April 2012

Safety

- A Trustee contract employee [Stratus] had a car accident on April 17, 2012, when her car struck a deer. Notification was received and lessons learned were shared.

Key Decisions in April

- **Fish:** TWG decision made to proceed with ovigorous blue crab collection in Mississippi as part of the Phase 1 plan spring 2012 collections from April 10 to April 12, 2012.

Pending Decisions as of April 30, 2012

- **Birds:** On February 28, 2012, the Trustees requested funding for analysis of 2011 photographic colonial waterbird census data. BP responded to this request in an April 20, 2012 letter from Robin Bullock to Debra McClain requesting additional information.
- **Deepwater Benthic Communities:** Trustees on the DWBC TWG have agreed in principle that Gil Rowe's lab (TAMU-G) would be appropriate for identifying infauna to the species level, particularly polychaetes, pending final Trustee legal approval.
- **Fish:** To bring the Oyster Transition Plan Amendment 2 to signature, a new draft describing the activities performed and actual analysis procedures used was provided to the Trustees on April 23, 2012. Comment and/or discussion is anticipated.
- **Fish:** The Trustees provided a revised draft of the NRDA Sargassum Sample Processing Plan on April 30, 2012, and the plan is en route for signature.
- **Human Use:** In March 2012, BP proposed that the cooperative human use aerial imagery be extended from its end date of March 31, 2012 to April 30, 2012 while the parties negotiated a comprehensive data-sharing and funding agreement for human use. The Trustees did not agree to the data sharing/funding proposal, and BP sent a letter stating reasons why it would not continue to fund the cooperative aerial program on April 25, 2012. BP proposed that data collected through April 30, 2012 be shared; however, no agreement was reached by month end.
- **Marine Mammals and Turtles:** On December 23, 2011, NOAA presented a new proposed joint plan for photo identification of coastal dolphins in Alabama. BP responded that the original scope of work was overly broad and recommended discussing a revised project scope. Trustee response has not been received.
- **Marine Mammals and Turtles:** On March 26, 2012, DOI presented a request for funding the 2012 Kemps Ridley nesting plan. The plan is similar to those signed in 2010 and 2011. Data sharing language is being negotiated prior to funding approval.
- **SAV:** The Trustees submitted a work plan for Jean Lafitte National Historic Park (JELA) sampling in spring and fall 2012 and are awaiting a decision on whether BP will participate.
- **Water Column/Plankton:** BP provided comments on March 21, 2012, and participated in follow-up discussions, concerning the NRDA Image Data Processing Plan: Holocam, DAVPR, VPRII. A revised draft from the Trustees is pending.
- **Water Column/Plankton:** The Trustees provided the initial draft of the Image Data Processing Plan: SIPPER on February 22, 2012. All parties agreed to review this plan in conjunction with the the NRDA Image Data Processing Plan: Holocam, DAVPR, VPRII, that the Trustees will provide.
- **Water Column/Plankton:** BP submitted an addendum to the NRDA Plankton Processing Plan – Analysis of Zooplankton to the Trustees on January 18, 2012, providing for the addition of Dr. Julie Keister's University of Washington laboratory to the plan in order to increase lab capacity and expedite sampling processing. The Trustees countered with a new plan to instead add

additional laboratory processing capability using Dauphin Island Sea Lab. BP is reviewing this proposed addendum.

- **Water Column/Plankton:** The Trustees provided the initial draft of the NRDA Offshore Fish and Nekton Sample Processing Plan on April 2, 2012, and BP provided comments on April 20, 2012. Following TWG discussions with the Trustees and internal discussions, BP provided revised comments on the plan to the Trustees on April 30, 2012.

Data Management as of April 30, 2011

- **Birds:** BP believes the exchange of cooperatively collected data is materially complete with the exception of some information held by the Trustees related to chain of custody for blood and carcasses and shorebird aerial survey calibration imagery. Cooperative QA of one data set is underway but not finalized.
- **Birds:** BP has requested but not received pre-spill Osprey nesting data collected by NPS.
- **Deepwater Benthic Communities:** Historical fish count data from 1997-2005 have been committed, but have not yet been received by BP. Trustees requested BP take the lead in drafting a cooperative data analysis plan to capture these data.
- **Deepwater Benthic Communities:** BP and the Trustees submitted a joint request for “drop camera” video data from the Pinnacles and West Florida Shelf mesophotic reefs from NOAA. NOAA provided an inventory and map of the available video. BP and Trustees are working to focus the request.
- **Deepwater Benthic Communities:** Trustees provided available (to date) meiofauna and macrofauna data from the Sarah Bordelon 9 Cooperative Deepwater Sediment Study. Data are provided as provisional (i.e., non-validated) data. Data updates are expected in May and June 2012.
- **Marine Mammals & Turtles:** Data sharing and laboratory analysis language continue to be developed for incorporation into several work plans. Alternative funding/data sharing agreements are being explored for analytical plans. Communication regarding redactions seen in turtle nesting observation sheets for Padre Island nesting data are ongoing. Sargassum data subject to the NOAA organization plan have been deemed non-cooperative and not available to BP at this time. Data from the dolphin live capture health assessments is being received by BP periodically via noaa.nrda.

Cooperative QA Status as of April 30, 2012

- **Birds:** Cooperative QA discussions have been ongoing. The Beached Bird Survey Searcher Efficiency Data set has undergone cooperative QA. Trustees are preparing a summary report of that QA. BP has requested cooperative QA of all other avian databases. Trustees verbally requested that BP fund a joint contractor to handle the QA for the Trustees. BP agreed to fund a joint contractor and offered to assist the Trustees in identifying the approach and potential contractor. Trustees are developing a QA study plan. BP awaits Trustee plan to initiate further work on cooperative QA. Approximately 75% of the non-QA'd data is available across all bird plans.
- **Deepwater Benthic Communities:** Cooperative photo/video data and infauna (macrofauna/meiofauna) data QA and validation continues. Cooperative QA of the field logs, cruise reports, and data sheets have not yet been initiated. Only very limited QA'd chemistry data are publicly available on Query Manager.
- **Fish:** Discussion of cooperative QA has been initiated. NOAA has informed Cardno ENTRIX that a validation SOP specific to Fish TWG is being drafted. BP expects to receive a copy of this draft for review once complete. All of the unstructured data is available. However, none of the fish-related QA'd chemistry data, including sediment data, are publicly available on Query Manager.
- **Fish:** A cooperative QA process has been established under the NRDA Sargassum Sample Processing Plan. Sample processing and QA will be initiated upon signature of the finalized

processing plan. None of the data is yet available.

- **Nearshore Sediment:** Nearshore sediment and water sampling plan for Louisiana metadata were cooperatively QA'd and complete in February 2012. Only a limited subset of the QA'd sediment and water chemistry data is publicly available on Query Manager.
- **Oyster:** Discussion regarding cooperative QA has been initiated, though no cooperative QA procedure has yet been established. A call was held in early March 2012 to discuss the procedures/protocols Trustee representatives have been following – further documentation is anticipated. Almost all of the unstructured data (75-100%) across all oyster efforts is available. None of the QA'd chemistry data is available on Query Manager.
- **SAV:** Cooperative QA discussion has been initiated with the Trustees. Most of the QA'd chemistry related data is not yet on Query Manager.
- **Shallow-Water Coral:** Cooperative discussions have not yet been initiated and none of the data is currently available.
- **Shoreline:** Discussion regarding cooperative QA has been initiated. BP proposed progression towards cooperative datasets. It has been mentioned on cooperative TWG calls since then, but no progress has been made. Approximately 50% of the QA'd chemistry data is available on Query Manager.
- **Water Column:** Second round revisions on the cooperative post-processing plan ("NRDA CTD Processing Plan") for CTD/fluorometry data (to establish a common post-processing SOP and consensus QA'd dataset for all cooperative and independent offshore water column studies) was provided to BP on April 2, 2012, and returned to Trustees with comments on April 10, 2012. A series of topic-specific calls were conducted with Trustees to gain agreement on processing details, and consensus on these processing steps has been essentially reached.
- **Water Column/Plankton:** A cooperative QA process has been established. Sample processing and QA is ongoing under the cooperative NRDA Plankton Processing Plan – Analysis of Zooplankton and first quarter progress reports have been received. None of these data are yet available from NOAA.
- **Water Column/Plankton Imaging:** Discussion regarding cooperative QA of plankton imagery data has been initiated, and the Trustees and BP are developing a series of cooperative processing plans for the various imaging systems utilized for the NRDA. None of these data are yet available from NOAA.
- **Water Column/Plankton:** Discussion regarding cooperative QA of fish and nekton data has been initiated, and the Trustees and BP are finalizing a cooperative processing plan. None of these data are yet available from NOAA.
- **Marine Mammals and Turtles:** No discussion regarding cooperative QA has been initiated. While a fair portion (50 – 100% depending on the program) of the telemetry data is available, almost none of the other dolphin, turtle, or manatee data has been made available to BP.

Trustee Council/BP Communications in April 2012

- **Administrative Record:** By letter dated April 4, 2012, BP responded to the Trustees' March 1, 2012 letter concerning inclusion of communications between BP and the Trustees in the NRDA Administrative Record.
- **Early Restoration Tranche 1:** Several interactions took place in April in order to make progress and finalize the required stipulations concerning agreed upon early restoration projects.
- **Aerial Imagery:** DOI requested advance funding for 2012 aerial imagery activities on April 17, 2012.
- **Birds:** BP responded to DOI's February 28, 2012 funding request for analysis of 2011 photographic colonial waterbird census dated by letter dated April 20, 2012. BP requests additional information and agreement on deliverables and other items prior to funding.
- **Communications:** By letter dated April 20, 2012, BP responded to the Trustees' letter of March

20, 2012 concerning BP's draft second year report on NRD.

- **Communications:** On April 20, 2012, the Trustees released their NRD Status report to the public and press. It should be noted that BP has moved forward on production of the BP status report with applicable disclaimers.
- **Letter received from Garret Graves:** Letter received on April 2, 2012 concerning BP's video which discusses BP collected bird data. BP provided a response to Mr. Graves on April 20, 2012.
- **Human Use:** BP sent a letter to the Trustees on April 25, 2012 indicating why BP will not continue to fund the cooperative aerial program absent agreement on ground count data sharing. BP also sent a proposed addendum to the Trustees for signature that will allow the parties to share data collected through April 30, 2012.
- **Restoration:** BP sent a letter to the Trustees on April 27, 2012, responding to the Trustees' proposed early restorations projects provided March 29, 2012.
- **Fugro Report:** On April 12, 2012, a letter agreement was provided to the Trustees to enable sharing of the full Fugro report. No response has been received to date.
- **Sample Analysis:** BP sent a letter to Bob Haddad of NOAA on April 26, 2012, requesting action on various samples that are approaching their laboratory holding times.

Planned May 2012 Field Activities

- **Birds:** BP is currently reviewing the Aerial Bird Colony Photography 2012 Work Plan for cooperative study submitted by the Trustees on May 1, 2012 that would potentially start in May 2012.
- **Deepwater Benthic Communities:** No further cooperative activities planned.
- **Fish (Oysters):** No further cooperative activities planned.
- **Fish:** Blue Crab collections in Mississippi concluded April 12, 2012. No further cooperative activities are planned at this time
- **Human Use:** No further cooperative activities planned.
- **Marine Mammals & Turtles:** Turtle and dolphin prey sampling began October 7, 2011, and concluded in April 2012. Photo ID and remote biopsy collection for dolphins resumed in January 2012 and will continue until June 2012. Discussions about appropriate data sharing provisions and development of laboratory analysis agreements are ongoing.
- **Shoreline:** Erosion stakes in LA will be measured, and new stakes will be set in the Delta. Aerial targets will also be set in the Delta.
- **Water Column:** No further cooperative activities planned.

Joint Work Plans Signed in April 2012

TWG	Plan	Signature Date		Comments
		NOAA/USFWS	BP	
Marine Mammals & Turtles	MC252 Deepwater Horizon Oil Spill MARU & HARPS Recovery February 20 – March 9 Mission Plan February 10, 2012	4/2/2012	4/6/2012	One MARU remains un-recovered due to the presence of a drill ship. Alternatives are being evaluated.

Data Summary Reports Transmitted to Date (as of April 30, 2012)

DSR Number	DSR Short Title	Transmittal Date	Comments	Outstanding Data Issues
DSR 002	Estimating Mortality of Birds Using Beach Bird Surveys	1/13/2012		
DSR 005	Detection Probability (Searcher Efficiency) (Bird Study 1B)	2/6/2012		
DSR 006	Carcass Persistence Pilot Study (Bird Study 1C)	2/6/2012		
DSR 007	Using Radio Telemetry to Determine the Fates of Bird Carcasses Drifting in the Northern GoM (Bird Study 1D)	2/6/2012		
DSR 049	Aerial Surveys for Assessing Marine Mammals and Sea Turtles in the Region of DWH	2/29/2012		
DSR 068	Oyster Sampling Plan - Phase I	1/23/2012		
DSR 071	SAV Tier 1 Pre-Assessment Plan Pre-Impact Baseline Characterization	2/29/2012		
DSR 078	Tier 2 Rapid Assessment and Tier 2 Submerged Oil Sentinel Monitoring Plan	2/29/2012		
DSR 080	Shoreline/Vegetation NRDA Pre-Assessment	1/13/2012		
DSR 134	Water Column Profiling to Measure Dissolved Phase – Jack Fitz 1	10/16/2011		
DSR 139	Water Column Injury Ephemeral Data Collections: Deepwater Horizon Oil Spill (DWHOS) Plan for Adaptive Water Column NOAA-NRDA Sampling (PAWNNS) Cruise Plan – American Diver 2	2/6/2012		
DSR 149	Water Column Ephemeral Data – HOS Davis 3	1/13/2012		
DSR 157	Deep Benthic Sediment Sampling – Soft Sediment Plan	1/13/2012		

Joint Work Plans Under Revision/Awaiting Signature (April 2012)					
		Signature Date			
TWG	Plan	NOAA/ USFWS	BP	Comments	Status
Aerial Imagery	Assessment Plan Concerning Aerial Imagery in the Northern Gulf of Mexico			Revised draft and budget received in February 2012. BP agreed during the March 28, 2012 TWG meeting that comments would be provided.	BP Review
Aerial Imagery	Assessment Plan: Assessment of Coastal Marshes and Shoreline Impacted by the Deepwater Horizon Oil Spill Using AVIRIS Hyperspectral Remote Sensing Data			BP agreed during the March 28, 2012 TWG meeting that comments would be provided.	BP Review
Aerial Imagery	Assessment Plan: Estimating Offshore Surface Oil Volumes of Select Portions of the Deepwater Horizon Oil Spill Using AVIRIS Imaging Spectroscopy Data			BP agreed during the March 28, 2012 TWG meeting that comments would be provided.	BP Review
Aerial Imagery	Aerial Photo Target Placement and Survey in Support of: Sampling and Monitoring Plan for the Assessment of Marsh Loss			BP/Trustees agreed to support plan at the March 28, 2012 TWG meeting. BP to provide final plan.	BP Review
Birds	Quality Assurance/Quality Control			BP responded on February 9, 2012, with request for a more developed work plan.	Trustee Review
Deepwater Benthic Communities	Deepwater Corals ROV Hardground Survey			BP returned comments for final revisions to the Trustees on Mar 22, 2012. Field work is complete.	Trustee Review

Deepwater Benthic Communities	HOS Sweetwater 4 and 6 – ROV Sediment and Water Sampling Plan - Addendum			BP provided comments on the addendum for revised sampling dates and sheen on December 15, 2011. Field work is complete.	Trustee Review
Deepwater Benthic Communities	Mesophotic Reef Follow-Up Cruise Plan			BP provided comments to the Trustees on October 14, 2011. Field work is complete.	Trustee Review
Deepwater Benthic Communities	Red Crab Study			BP provided comments on the study plan on April 9, 2012. Field work is complete.	Trustee Review
Deepwater Benthic Communities – Analysis Plan	ROV Megafauna/ Megaplankton Consolidated Analysis Plan			Revised plan sent to Trustees February 27, 2012.	Trustee Review
Deepwater Benthic Communities	SPI Survey Addendum #1			BP sent the Trustees on October 25, 2011, a no-cost addendum that addresses the removal of the water column data collection and adds one day to the study. Field work is complete.	Trustee Review
Deepwater Benthic Communities	SPI Survey Addendum #2			BP returned to the Trustees as approved for signature on November 30, 2011. Field work is complete.	Trustee Review
Deepwater Benthic Communities /Water Column – Seeps	Natural Hydrocarbon Seep Study Plan – Leg 1			BP provided revised study plan to Trustees December 2, 2011, awaiting comments back to finalize the plan. Field work is complete.	Trustee Review
Deepwater Benthic Communities /Water Column – Seeps	Natural Hydrocarbon Seep Study Plan – Leg 2			BP provided revised study plan to Trustees December 6, 2011, awaiting comments back to finalize the plan. Field work is complete.	Trustee Review
Deepwater Benthic Communities	Seeps Plan Microbial Water and Sediment Core Processing SOP Addendum			BP provided a revised addendum to Trustees on April 18, 2012.	Trustee Review

Fish	Bluefin Tuna Tagging Work Plan			BP returned to the Trustees as approved for signature on March 28, 2012.	Trustee Review
Fish	Gulf Sturgeon - Year 2 NRDA Assessment - Fall 2011 & Spring 2012			BP provided second round of comments on September 20, 2011.	Trustee Review
Fish	Transition Oyster Sampling Plan Amendment 2			BP returned a revised draft to Trustees on April 23, 2012. Field work is complete.	Trustee Review
Fish	NRDA Sargassum Sample Processing Plan			Trustees provided final unsigned draft for signature on April 30, 2012.	Ready for Trustee Signature
Fish	Submerged Oil Characterization 2010			BP provided comments to a revised draft in November 2010.	Trustee Review
Fish	Submerged Oil Characterization Plan 2011 – Addendum 1 – Sediment Sampling with a Vibracorer			Trustees provided draft in October 2011 then agreed to table pending results of original plan.	Tabled
Human Use	Human Use – First Work Plan for the Collection of Data Related to Beach Usage Along the Coast of the Gulf of Mexico – 2 nd Addendum			Addendum to the plan which would extend cooperation and data sharing through April 30, 2012.	Program Negotiations Ongoing
Marine Mammals & Turtles	Dry Tortuga MARU and HARP Recovery & Servicing Mission July 11-13, 2011			No substantive issues remain. BP provided comments in January 2012. Field work is complete.	Trustee Review
Marine Mammals & Turtles	Genetic Analysis of Stock Structure, Species Identification and Sex Determination for Marine Mammal Biopsies and Strandings: ADDENDUM	7/2/2011		Trustees provided revised draft to BP on April 12, 2012.	BP Review

Marine Mammals & Turtles	Analysis of Marine Mammal Tissue Samples Collected Pursuant to the Deepwater Horizon Mississippi Canyon 252 Oil Spill			Trustees provided revised draft to BP on January 7, 2012. Significant issues pertaining to sample selection and analyses remain. Alternative agreement being developed.	BP Review
Marine Mammals & Turtles	Kemps Ridley Nesting Plan Addendum 2012			Comments provided to Trustees in April 2012. Data sharing language under development	Trustee Review
Marine Mammals & Turtles	Loggerhead Nesting Plan Addendum 2012			Document under review. Data sharing language under development	BP Review
SAV	Tier 3 Plan			Trustees revising plan to address prior BP comments and to include Fall 2011 Signature Verification Addendum. Field work is complete.	Trustee Review
SAV	Mississippi Canyon 252 Incident Submerged Aquatic Vegetation Tier 2 Pre-Assessment Low Altitude Aerial Photography of the Seagrass Beds of Southeastern Louisiana and Coastal Mississippi			BP submitted comments on February 7, 2012. Anticipate response from Trustees April 2012. Field work is complete. (This plan will also appear as an appendix in the aerial imagery assessment plan.)	BP Review
Water Column	December Cooperative Cruise- (NOAA/BP-Cardno ENTRIX NRDA Cooperative Deep Tow Cruise 2/December 2010 Arctic-HOS Davis 5-Sarah Bordelon Cruise)	Original Signature Page December 17, 2010	Amended Signature Page March 26, 2011	Signature Page was revised after Trustee signed. BP requested Trustees re-sign in March 2011 so all signatures are on one sheet. Awaiting new Trustee signature.	Trustee Review
Water Column	CTD Data Processing Work Plan			BP provided second round of comments to Trustees on April 10, 2012.	Trustee Review

Water Column - Plankton	Plankton Sampling Plan – Fall 2010 Shakedown Cruise 1 – Nick Skansi			Trustees reviewing revised plan provided February 8, 2011. Field work is complete.	Trustee Review
Water Column - Plankton	Plankton Sampling Plan – Fall 2010 Shakedown Cruise 2 – Nick Skansi			Trustees reviewing revised plan provided on February 8, 2011. Field work is complete.	Trustee Review
Water Column - Plankton	Plankton Sampling Plan – Fall 2010 Cruise 3 – Nick Skansi			Trustees reviewing revised plan provided January 11, 2011. Field work is complete.	Trustee Review
Water Column – Plankton	Plankton Sampling Plan – Fall 2010 Cruise 4 – Nick Skansi			Trustees reviewing revised plan provided January 11, 2011. Field work is complete.	Trustee Review
Water Column - Plankton	Image Data Processing Plan: Holocam, DAVPR, VPRII			BP provided comments to the Trustees on March 21, 2012.	Trustee Review
Water Column - Plankton	Image Data Processing Plan: SIPPER			Trustees provided draft for review on February 22, 2012; BP is currently reviewing the draft plan.	BP Review
Water Column - Plankton	NRDA Offshore Fish and Nekton Sample Processing Plan			Trustees provided draft for review on April 2, 2012; BP provided comments on April 30, 2012.	Trustee Review
Water Column - Plankton	Walton Smith Marine Snow Cruise 4 Work Plan			Work plan reopened when Trustees received notice in January 2012 that BP will pay for the study in exchange for the data. Field work is complete.	Trustee Review

Joint Work Plans Awaiting Louisiana Signature (April 2012)			
TWG	Plan	Date NOAA/USFWS Submitted to Louisiana	Comments
Birds	Carcass Persistence Study	6/12/2011	Field work is complete.
Birds	Colonial Waterbird (CWB) Extension 2 (BRPE and GREG satellite telemetry)	7/29/2011	Satellite data collection in progress.
Birds	Using Radio Telemetry to Determine the Fates of Bird Carcasses Drifting in NGOM	7/15/2011	Field work is complete.
Corals	Shallow-water Coral Tier 1 Plan Addendum	5/17/2011	Field work is complete.
Deepwater Benthic Communities	NRDA Tier 1 for Deepwater Communities – Addendum Plan for Coral Aging	2/6/2012	Laboratory work in progress.
Marine Mammals & Turtles	Addendum February 2011 ADCP Maintenance and HARP Recovery Plan	3/18/2011	Field work is complete.
Water Column	ADCP December 2011 Maintenance and ADCP Removal plan	3/30/2012	Field work is complete.