

Oyster White Paper:  
A Response to NOAA's 2014 Deepwater Horizon NRD Funding Request  
Brett Marston, Arnold & Porter LLP  
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**I. Introduction**

NOAA's 2014 funding request calls for almost \$22 million in oyster studies.<sup>1</sup> For the reasons explained below, the Trustees' request has articulated no reasonable basis for funding these studies. BP has already paid over \$26 million to the Trustees for various oyster studies, including \$2.2 million through the National Pollution Fund Center's (NPFC's) funding process and \$18.9 million for oyster studies requested in the interim partial claim for 2013. As discussed below, the Trustees' request for millions of additional dollars to study oysters will not serve to illuminate any actual injury suffered by oysters as a result of the Deepwater Horizon accident.

NOAA justifies its request with vague allegations of impacts to oysters from MC-252 contaminants and broad assertions of an "extended injury period with little evidence of recovery in the oyster population."<sup>2</sup> In the 2013 funding request, NOAA states that "[s]ampling conducted by NOAA and its contractors throughout 2011 reinforced NOAA's concern that both spat settlement and abundance of live seed and market oysters in subtidal oyster reefs remain low in areas throughout much of the Gulf 18 months or more following the Incident."<sup>3</sup> The Trustees further allege that "analysis of larval settlement patterns ... shows widespread recruitment failure in 2010, 2011, and 2012, suggesting ongoing reproductive difficulties."<sup>4</sup> The Trustees propose to continue to investigate nearshore areas because of "preliminary findings of potential continued exposure of oysters to MC252-related contaminants, low abundance in areas with submerged oil, and the greater than expected extent of potential oyster habitat."<sup>5</sup>

Unfortunately, these claims are incomplete and misleading. Multiple sources of data indicate that oil and dispersant compounds did not have an effect on subtidal oysters in the northern Gulf, and that any effect on intertidal oyster populations is minimal and already studied sufficiently for assessment purposes. While 2010 did see widespread apparent oyster mortalities in Breton Sound and Barataria Bay, these effects are likely attributable not to oil but to increased freshwater from Mississippi River diversion structures. Because the effects of increased

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<sup>1</sup> NOAA, Third Interim Partial Claim for Assessment and Restoration Planning Costs (2014) [hereinafter "NOAA Claim (2014)"] at 128.

<sup>2</sup> *Id.*

<sup>3</sup> NOAA, Second Interim Partial Claim for Assessment and Restoration Planning Costs (2013) [hereinafter "NOAA Claim (2013)"] at 157.

<sup>4</sup> *Id.*

<sup>5</sup> NOAA Claim (2014) at 136.

freshwater largely wane with the freshwater itself, most of the effects of Louisiana's decision to open the diversions were likely confined to 2010. Effects that may not be confined to 2010 are likely difficult to distinguish from effects of subsequent periods of high freshwater.

Accordingly, and as discussed in greater detail below, the Trustees are simply unable to establish an underlying premise of the "likelihood of injury and the need for restoration." 15 C.F.R. § 990.30. Absent such a premise, the proposed studies are not "reasonable assessment costs," and the studies should not be funded.

## **II. No Apparent Effects from Oil in 2010**

Put simply, despite nearly four years of research and observation, the Trustees have presented no evidence that oyster populations were affected by exposure to oil or dispersant compounds from the Deepwater Horizon accident in 2010. Available data from a variety of sources confirm this conclusion.

Evidence of oiled reefs from the accident has been virtually nonexistent. During 2010 sampling for the Louisiana Department of Wildlife and Fisheries (LDWF) annual stock assessment for the public oyster seed grounds, "no direct oiling of sampled reefs was noted."<sup>6</sup> Subsequent stock assessments have also not mentioned observations of oiled beds. Similarly, according to a review of field notes from the 2010, 2011, and 2012 NRD sampling efforts, field personnel did not document a single visibly oiled oyster bed. In nearly four years of sampling, the only indication of visibly oiled oysters of which we are aware was a single sample reportedly collected near Timbalier Island in March 2013.<sup>7</sup>

Seafood safety testing provides additional support for the same conclusion that subtidal oyster beds were not exposed to oil in 2010. Seafood in the Gulf was repeatedly tested for oil and dispersant compounds. The basic conclusions of this extensive testing regimen are well known:

- "Of 2384 seafood samples collected between April 30, 2010 and October 27, 2011, trace levels of polycyclic aromatic hydrocarbons (PAHs) were detected in 740 samples and dioctyl sodium sulfosuccinate (DOSS), a major component of the dispersants used in the Gulf, was detected in 99 samples. No (0) sample results showed levels of concern, meaning that any chemicals were below levels that could potentially threaten the public's health."<sup>8</sup> For oysters specifically, in

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<sup>6</sup> LDWF 2010 Stock Assessment at vii.

<sup>7</sup> BP technical consultants were not present at this sampling event, and BP does not currently have any detailed information on the sampling results.

<sup>8</sup> Louisiana Department of Health & Hospitals, Archived Seafood Surveillance, (Nov. 30, 2011), <http://new.dhh.louisiana.gov/index.cfm/page/78/n/103>.

1408 total samples, less than half (662) had any detectable levels of PAHs or DOSS.<sup>9</sup>

- “In most cases, no PAHs were found, and, when they were, the PAH levels in the seafood were 100-1000 times below the levels which would raise a health concern.”<sup>10</sup>

Finally, extensive testing data for the NRDA tell the same story:

- NOAA reported that screening of sediment samples associated with oyster beds found less than 1 percent of the sediment samples had obvious oil present (6 of 1997), and none of those 6 samples with oil present have associated TPAH data presently available.
- Baseline TPAH concentrations in sediment samples collected in May 2010 and associated with oyster resources in Louisiana were reported by MusselWatch to range from 0.2 to 1.1 ppm. Mississippi Department of Environmental Quality (MDEQ) pre-assessments conducted in late April and early May 2010 found a sediment TPAH range from 0.02 to 5.1 ppm.
- NOAA chemistry data available on Query Manager and associated with oyster sampling programs indicate that only 1.23 percent of available sediment samples are greater than 1 ppm TPAH, and no samples have been greater than 4 ppm TPAH.

Despite the extraordinary amount of dollars spent to date in assessing oyster beds in nearshore areas, including intertidal beds, the Trustees have been unable to find any significant source of ongoing injury. A single Trustee presentation of preliminary results from a 2012 oyster study asserts that intertidal beds in oiled areas could have been exposed to oil.<sup>11</sup> Data from the Trustee study have only become recently available to BP. However, these data are not sufficient to establish a need to continue assessment on oyster beds. The Trustees themselves agreed to take sediment samples in nearshore areas during initial cooperative oyster sampling efforts to investigate the potential for continued exposure to Macondo oil in any sampling location. The Trustees made a unilateral decision in late 2012 to reverse course, however, and they did not collect sediment or tissue samples that could be tested for the presence of Macondo oil or other contaminants. Trustees therefore gave up the opportunity to associate sediment

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<sup>9</sup> *Id.* at 4.

<sup>10</sup> Michael R. Taylor, U.S. Food and Drug Administration, *Gulf Seafood Is Safe To Eat After Oil Spill*, (Jan. 11, 2012), <http://blogs.fda.gov/fdavoices/index.php/2012/01/gulf-seafood-safety/>.

<sup>11</sup> *DWH Oyster NRDA Technical Working Group Intertidal 2012: Preliminary Results for Trustees and RP* (Nov. 8, 2012).

chemistry with other indicators of oyster health in 2013, even though BP had agreed to fund that work. Since the existing evidence does not show widespread ongoing exposure to Macondo oil, there is no rational basis for conducting more studies to evaluate the effects of such exposure.

### III. Diversion Effects

#### A. Freshwater Diversion Openings Were Widespread in 2010

Starting in late April 2010, freshwater diversion structures were opened by the State of Louisiana, adding high levels of freshwater input into Barataria Bay and Breton Sound at the critical spring spawning season for oysters. Freshwater continued to flow through diversion structures through the hot summer months and in some cases through August 2010, well after the well was capped. Flow from Bayou Lamoque and the Caernarvon Diversion into Breton Sound and from Davis Pond into Barataria Bay apparently constituted the bulk of the freshwater released from the Mississippi River by Louisiana during this period.<sup>12</sup>

Government sampling data indicate that the diversions significantly reduced salinity in Breton Sound and Barataria Bay. According to an LDWF report issued in May 2011, the “average recorded bottom salinity during this sampling event was 3.2 parts per thousand (ppt) in the Breton Sound basin and 9.9 ppt in the Barataria Basin.”<sup>13</sup>

It is widely assumed that the reduction in salinity from the freshwater diversion openings caused mortality to resident oyster populations. LDWF issued a report in May 2011 indicating that low salinity caused oyster mortalities and noting a likely correlation between oyster mortalities and proximity to the Mississippi River.<sup>14</sup> In Breton Sound, the report indicates that approximately 93 percent of spat, 81 percent of the seed oysters, and 56 percent of the sack oysters (harvestable size) died, with mortality higher in areas located closer to sources of freshwater.<sup>15</sup> In the Barataria Basin, the report estimates that approximately 49 percent of spat, 32 percent of the seed oysters, and 34 percent of the sack oysters died.<sup>16</sup>

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<sup>12</sup> Published reports indicate that maximum discharge capacities from the largest diversions were 12,000 cubic feet per second (cfs) (Bayou Lamoque), 10,650 cfs (Davis Pond), and 8,800 cfs (Caernarvon). See Press Release (May 12, 2010), <http://emergency.louisiana.gov/Releases/05122010-Lamoque.html>.

<sup>13</sup> LDWF, *Comprehensive Report of the 2010 Oyster Mortality Study in Breton Sound and Barataria Basins*, (May 2011) at 1, [http://www.wlf.louisiana.gov/sites/default/files/pdf/document/34262-oyster-mortality-study/ldwf\\_-\\_oyster\\_mortality\\_study\\_-\\_exec\\_summary\\_\\_full\\_report\\_combined.pdf](http://www.wlf.louisiana.gov/sites/default/files/pdf/document/34262-oyster-mortality-study/ldwf_-_oyster_mortality_study_-_exec_summary__full_report_combined.pdf) [hereinafter “Louisiana Oyster Mortality Study”].

<sup>14</sup> See Louisiana Oyster Mortality Study, *supra* note 13.

<sup>15</sup> *Id.* at 1 & tbl. 1, 4.

<sup>16</sup> *Id.* at 4.

The detrimental effects of extended low salinity on oysters, particularly when temperatures rise, are well known. According to LDWF, for example, “[s]cientific research indicates that reproduction of oysters becomes limited as salinities drop below seven parts per thousand (ppt). Additionally, salinities below five ppt coupled with water temperatures above 23° Celsius has [sic] been documented to cause significant oyster mortalities. As depressed salinities continue into the hotter summertime months, physiological stress on oysters increases and mortalities can occur.”<sup>17</sup> Similarly, the Gulf States Marine Fisheries Commission (GSMFC) notes that “[s]alinities less than 10 ppt through the spring and summer inhibit [oyster] spawning and reduce larval survival thereby resulting in insufficient numbers of mature oyster larvae.”<sup>18</sup>

Louisiana’s May 2011 report does not suggest that oil or dispersants affected reefs in this area. The report draws no connection between oiling or dispersant compounds and the mortality event. Instead, the resulting mortalities were “similar in nature to documented oyster mortality events in past years,”<sup>19</sup> including “most recently in 2009 – large fresh water inputs (“freshets”) were observed in coastal Louisiana during summertime months.”<sup>20</sup> The pattern of mortalities in these two basins tracked the differences in salinity changes between the two areas: “Based on discrete salinity measurements recorded during sampling, it is not surprising that the Breton Sound basin suffered more of a mortality signal than did the Barataria basin.”<sup>21</sup> In sum, based upon Louisiana’s own data, the increased oyster mortality in these basins resulted from freshwater diversion openings, not from contamination by oil or other compounds.

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<sup>17</sup> LDWF 2011 Stock Assessment at ix [citations omitted].

<sup>18</sup> GSMFC, *The Oyster Fishery of the Gulf of Mexico, United States: A Regional Management Plan*, (Mar. 1991) at 5-16.

<sup>19</sup> Louisiana Oyster Mortality Study at 4.

<sup>20</sup> *Id.* at 2 [citations omitted].

<sup>21</sup> *Id.* at 4.

**B. Effects of the Diversions in 2010 Cannot Be Expected To Extend into 2013**

LDWF suggests that the effects of increased freshwater include oyster mortality due to decreased salinity, low dissolved oxygen, and stratification of the water column; potentially increased prevalence of certain parasites including sponges; fouling of beds that inhibit settlement; and increased siltation on beds.<sup>22</sup> Nearly all of these potential effects of increased freshwater flows in 2010 are connected to the temporary lower salinity regime created by the influx of freshwater. Low dissolved oxygen and stratification are phenomena that tend to follow low salinity events and eventually recede after salinity rises once the natural freshet ends or flow rates through managed diversions fall.

Commercial landings data further bolster the conclusion that any effects from the 2010 diversions were likely short lived. Commercial landings data from NOAA suggest that oysters are still commercially available in the northern Gulf in numbers near pre-Spill averages.<sup>23</sup> Similarly, preliminary data indicate that Louisiana oyster landings in both 2011 and 2012 were at or slightly below the long-term state average of 11.06 million pounds.<sup>24</sup> These landings levels are particularly significant in light of multiple environmental factors discussed below that have affected oysters since 2010.

**IV. Subsequent Events Have Confounded Any Relationship between 2010 Diversions and Oyster Populations**

Subsequent developments in many areas of the Gulf have had dramatic and negative effects that complicate, or even render impossible, any assessment of allegedly lingering effects from 2010. Portions of Louisiana and Mississippi experienced extreme flooding in 2011. Some of those areas in Louisiana affected by the 2011 floods were also affected by freshwater diversions in 2010.<sup>25</sup> In 2012, some areas of Louisiana experienced high inputs of freshwater and corresponding low salinity levels in spring and early summer.<sup>26</sup> Early indications appear to

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<sup>22</sup> See LDWF 2011 Stock Assessment at x, 1-3, and 1-6 to 1-7.

<sup>23</sup> <http://www.st.nmfs.noaa.gov/Assets/economics/documents/feus/2011/FEUS2011%20-%20Gulf%20of%20Mexico.pdf> (Landings of oysters in the Gulf of Mexico were 25.052 million pounds in 2004, 20.174 million pounds in 2005, 19.674 million pounds in 2006, 22.518 million pounds in 2007, 20.655 million pounds in 2008, 22.833 million pounds in 2009, 15.870 million pounds in 2010, and 18.386 million pounds in 2011.) Recently released preliminary data from 2012 report commercial landings of 20.479 million pounds. Data available at <http://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>.

<sup>24</sup> [http://www.wlf.louisiana.gov/sites/default/files/lotf\\_minutes\\_3.19.13.pdf](http://www.wlf.louisiana.gov/sites/default/files/lotf_minutes_3.19.13.pdf).

<sup>25</sup> Indeed, Louisiana's 2011 stock assessment report noted that in the Breton Sound area in Louisiana east of the Mississippi River, the 2011 flooding represented the "fourth consecutive year of abnormally high spring inputs or late season increases in Mississippi River discharge." LDWF 2011 Stock Assessment at 2-7.

be that salinity was depressed in 2013 in some of the same areas as well, particularly in Louisiana east of the Mississippi River.<sup>27</sup>

**A. 2011 Flooding and Tropical Storm Lee**

Beginning in March 2011, the Mississippi River basin experienced flooding of historic proportions. In 2011 “[r]iver stages and flow rates broke records up and down the river during what was the largest flood in recorded history on the Mississippi River.”<sup>28</sup> The Pearl River system also “input a relatively large volume of fresh water into western Mississippi Sound in March 2011.”<sup>29</sup> In response to the spring flooding, the U.S. Army Corps of Engineers (ACOE) opened two major diversion structures. The Morganza Spillway opening flooded approximately 4,600 square miles of rural Louisiana.<sup>30</sup> Between May 9 and June 21, 2001, the Bonnet Carre Spillway pushed substantial amounts of freshwater into Lake Pontchartrain; maximum discharge rates were 316,000 cfs.<sup>31</sup>

During the 2011 flooding, additional freshwater also flowed into Breton Sound through open areas of the Bohemia Spillway north of Port Sulfur. The 2011 flooding created a “complete breach of the river” at an area that is now known as Mardi Gras Pass.<sup>32</sup> Mardi Gras pass is still open and allows freshwater to flow into Breton Sound.<sup>33</sup> If not altered by proposed construction activities, it is predicted to continue to enlarge.<sup>34</sup>

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<sup>26</sup> “Low salinity conditions occurred again in parts of the Louisiana coastline during critical reproductive time periods in the spring of 2012. Coastal Study Areas 1 North, 1 South, and 6 each experienced low salinities (< 7 parts per thousand) over large expanses of oyster habitat.” LDWF 2012 Stock Assessment at vi. Coastal Study Areas 1 North and 1 South include areas east of the Mississippi River.

<sup>27</sup> Supporting data from the U.S. Geological Survey available upon request.

<sup>28</sup> ACOE, *Room for the River*, (2012) at 7-8  
[http://www.mvd.usace.army.mil/Portals/52/docs/regional\\_flood\\_risk\\_management/RoomForTheRiver\\_lowres.pdf](http://www.mvd.usace.army.mil/Portals/52/docs/regional_flood_risk_management/RoomForTheRiver_lowres.pdf).

<sup>29</sup> LDWF 2011 Stock Assessment at 1-4.

<sup>30</sup> <http://www.nws.noaa.gov/hic/summaries/WY2011.pdf>.

<sup>31</sup> LDWF 2011 Stock Assessment at 1-3.

<sup>32</sup> <http://www.mississippiriverdelta.org/blog/2012/03/21/mardi-gras-pass-a-new-diversion-on-the-mississippi-river-springs-to-life/>.

<sup>33</sup> The flow of water at Mardi Gras Pass was not measured, but it has apparently been documented to be 2,400 cfs with estimates of up to 5,000 cfs. See <http://www.saveourlake.org/PDF-documents/our-coast/Mardi%20Gras%20Pass/LPBF%20summary%20Mardi%20Gras%20Pass%201-18-2013.pdf>.

<sup>34</sup> *Id.*

According to NOAA, total direct damages from the spring 2011 Mississippi River floods were estimated at \$3.4 billion.<sup>35</sup> A draft LDWF report predicted major impacts to the oyster industry from the historic 2011 flooding – nearly \$500 million over three years.<sup>36</sup> According to the ACOE report on the 2011 flooding, the State of Louisiana did not give ACOE a formal estimate of damage to oyster resources.<sup>37</sup> ACOE estimates that the effect on oyster resources from the operation of the spillways alone (apart from any flooding from the Mississippi River) was approximately \$80 million.<sup>38</sup>

In addition to the historic 2011 spring flooding, Louisiana and other portions of the Gulf Coast were hit by Tropical Storm Lee on September 1 and September 2. The storm produced 10 to 15 inches of rain over Louisiana, Alabama, and Mississippi, resulting in significant additional freshwater input.<sup>39</sup>

As noted in Section III.A above, low salinity can cause widespread mortality and inhibit successful reproduction and spat settlement, particularly when combined with high temperatures. Given the frequent freshwater events in recent years in several areas of Louisiana, trends in oyster resources there can likely be explained by focusing on salinity regimes during critical spring, summer, and early fall spawning periods.

## **B. Subsequent Events In Other States**

Like Louisiana, other states in the northern Gulf have also seen harvests and populations fluctuate since the Spill due to factors unrelated to any alleged contamination from the Deepwater Horizon accident.

- On September 6, 2012, Governor Rick Scott of Florida requested a federal declaration of a fisheries failure for the Florida oyster fisheries in the Gulf of

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<sup>35</sup> <http://www.nws.noaa.gov/hic/summaries/WY2011.pdf>. This estimate of direct damages includes damage to private property, structural damage, and lost agriculture, but does not include economic losses. *Id.*

<sup>36</sup> LDWF, *2011 Mississippi River Flood Impacts*, (Draft dated July 2011). The draft report also notes that “[o]yster reefs may have also been negatively impacted by fouling organisms and sediment following the introduction of large volumes of freshwater.”

<sup>37</sup> ACOE, *Mississippi River and Tributaries System, 2011 Post-Flood Report*, at V-22, available at [http://www.mvd.usace.army.mil/Portals/52/docs/regional\\_flood\\_risk\\_management/Docs/MRT\\_PostFloodReport\\_\(Main%20Report\).pdf](http://www.mvd.usace.army.mil/Portals/52/docs/regional_flood_risk_management/Docs/MRT_PostFloodReport_(Main%20Report).pdf) (hereinafter “ACOE 2011 Flood Report”) (“Information was requested about the impacts to Louisiana oysters, but the Louisiana state resource agencies declined to comment on their situation.”).

<sup>38</sup> *Id.*

<sup>39</sup> <http://www.nws.noaa.gov/hic/summaries/WY2011.pdf>.

Mexico, particularly in Apalachicola Bay.<sup>40</sup> Governor Scott's request attributed the causes of low harvest of oysters in Florida primarily to low levels of freshwater from drought, and from overharvesting of illegal oysters, not to effects of oil from the Deepwater Horizon accident.<sup>41</sup>

- On June 22, 2011, Governor Haley Barbour of Mississippi requested a fisheries disaster declaration for Mississippi. Governor Barbour's letter outlining the request emphasized the effects of increased input of freshwater into Mississippi Sound through the Bonnet Carre Spillway.<sup>42</sup> On September 12, 2012, acting Secretary of Commerce Rebecca Blank determined that there was a commercial fisheries failure due to a fishery resource disaster for the oyster fishery in 2011 to 2013 and the blue crab fishery in 2011.<sup>43</sup> Neither Governor Barbour nor the Department of Commerce concluded that the Deepwater Horizon accident caused the commercial fisheries failure for the Mississippi oyster fishery or the Mississippi blue crab fishery.
- On March 26, 2012, Governor Rick Perry of Texas requested a federal disaster declaration for the Texas oyster fishery. Governor Perry's request cited severe drought and a closure of the oyster fishery due to a red tide bloom as causes of revenue and landings reductions in the Texas oyster fishery.<sup>44</sup> Neither Governor Perry's request, nor the federal response, attributed problems in the Texas oyster industry to effects from the Deepwater Horizon accident.<sup>45</sup>

## V. Conclusion

A connection between the current status of oyster populations in the Gulf of Mexico and the 2010 Deepwater Horizon accident is non-existent. Virtually all available evidence indicates that oysters in 2010 were not oiled. Available evidence suggests that the conditions of oyster

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<sup>40</sup> Letter from Gov. Rick Scott (FL) to Rebecca Blank, Acting Secretary, U.S. Dept. of Commerce (Sept. 6, 2010) (requesting a declaration of commercial fishery failure due to a fishery resource disaster for Florida's oyster harvesting areas in the Gulf of Mexico).

<sup>41</sup> *See id.* See also Press Release, *Gov. Scott: Florida Will Take Historic Legal Action Against Georgia in Fight to Save Apalachicola*, (Aug. 13, 2013), available at <http://www.flgov.com/2013/08/13/gov-scott-florida-will-take-historic-legal-action-against-georgia-in-fight-to-save-apalachicola/> ("Historically low water levels brought about by Georgia's excessive consumption have caused oysters to die because of higher salinity in the Bay and increased disease and predator intrusion.").

<sup>42</sup> [http://www.nmfs.noaa.gov/sfa/sf3/disasters/MS\\_Flood\\_2011/MS\\_Request.pdf](http://www.nmfs.noaa.gov/sfa/sf3/disasters/MS_Flood_2011/MS_Request.pdf).

<sup>43</sup> [http://www.nmfs.noaa.gov/stories/2012/09/docs/blank\\_bryant\\_9\\_13\\_12.pdf](http://www.nmfs.noaa.gov/stories/2012/09/docs/blank_bryant_9_13_12.pdf).

<sup>44</sup> [http://www.nmfs.noaa.gov/sfa/sf3/disasters/TX\\_RedTide/TX\\_Request.pdf](http://www.nmfs.noaa.gov/sfa/sf3/disasters/TX_RedTide/TX_Request.pdf).

<sup>45</sup> [http://www.nmfs.noaa.gov/sfa/sf3/disasters/TX\\_RedTide/TX\\_Decision.pdf](http://www.nmfs.noaa.gov/sfa/sf3/disasters/TX_RedTide/TX_Decision.pdf).

resources in 2010 were influenced by increased freshwater from diversion structures, not by oil. Most of the effects were likely either confined to injury resulting from the 2010 diversions, or confounded by subsequent, intervening events, including freshwater flooding and low salinity levels in 2011 and 2012. There are indications that freshwater inputs in 2013 also affected oyster populations in some areas.

Accordingly, given the extremely limited nature of any Spill-related effects on oysters, as well as subsequent intervening events, additional study of this resource is neither probative nor necessary for conducting a natural resource damages assessment under the Oil Pollution Act. Because the Trustees are unable to establish an underlying premise of the “likelihood of injury and the need for restoration,” 15 C.F.R. § 990.30, the proposed studies are not reasonable assessment activities, and the studies should not be funded.