Can the Deepwater Horizon Trust Take Account of Ecosystem Services and Fund Restoration of the Gulf?

by Carrie Presnall, Laura López-Hoffman, and Marc L. Miller

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November 1, 2010

Dear Mr. Feinberg,

We write today to emphasize the importance of *restoration* as an appropriate and necessary goal of the Deepwater Horizon compensation fund, and to note the centrality of the concept of *ecosystem services* to the proper assessment of compensation for environmental harms and strategies for achieving ecosystem restoration. To the extent that the existing Trust authority is not sufficient to take account of these concepts, we encourage you to seek broader authority.

Restoration as Part of Compensation

President Barack Obama has repeatedly emphasized the importance of looking not just to the past with respect to the Gulf, but to the future as well. In his June 12 Oval Office address, President Obama said: "Beyond compensating the people of the Gulf in the short term, it's also clear we need a long-term plan to restore the unique beauty and bounty of this region." In late August, BP CEO Bob Dudley, speaking to the Southern Governors' Association, said that BP will "make this right" and restore the region. The BP website reaffirms this commitment, stating that "[a]t BP, we have taken responsibility for the cleanup in the Gulf," and "[w]e have committed to do everything we can to make things right in the Gulf region, working as long as it takes, on the ocean, on the shore and in the community."¹

However, there appears to be some tension between this broad and commonly asserted commitment to restore the Gulf and the scope of the Deepwater Horizon Oil Spill Trust and the Gulf Coast Claims Facility (GCCF), which you now administer. The GCCF was established "for the purpose of administering, mediating and settling . . . Damage Claims." The Trust document defines damage claims as follows:

3. "Damage Claims" shall be limited to amounts owed by the Grantor pursuant to: (i) claims resolved and settled by the GCCF ("GCCF Claims"); (ii) amounts owed by the Grantor pursuant to final judgments or settlement agreements that are resolved outside of the GCCF process and relate to the Oil Spill ("Other Resolved Claims"); (iii) natural resource damage costs (including assessment costs) pertaining to the Oil Spill ("NRD Claims"); and (iv) state and local government response costs pertaining to the Oil Spill ("Government Response Costs")...²

Do you believe that you have the authority under the GCCF claim funds to pay for restoration projects, or do you believe your responsibility is limited to a narrower remedy of fixed payments for environmental harms suffered to date from the oil spill? If you cannot fund restoration projects, how will you compensate for ongoing and future harms? If the Gulf's ecosystems are not restored, people will continue to suffer well into the future from an ecosystem that no longer provides the economic and cultural services it once did. If, at the end of the day, all current harms from the Deepwater Horizon spill have been compensated, but the ecological systems upon which much of the region's economy rests are not restored, the president and BP will have made empty promises to restore the beauty and bounty of the region.

BP, Making It Right—Highlights, http://www.bp.com/extendedsectiongenericarticle.do?categoryId=9034427&contentId=7063885.

Deepwater Horizon Oil Trust Agreement, Aug. 6, 2010, available at http:// media.nola.com/2010_gulf_oil_spill/other/Trust%20Agreement.pdf.

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Ecosystem Services to Measure Both Harm and Hope

The restoration of the Gulf's ecology and economy will require concepts and strategies that do not uniformly fit into a fixed payment to discrete claimants for past harm. The concept of ecosystem services provides a critical and wellestablished scientific measure for some of the harms from the spill. Attention to ecosystem services can help provide solutions that aim not solely for past compensation but also for restoration and protection of Gulf residents' future economic and cultural well-being.

Ecosystem services are the benefits humans receive from functioning ecosystems and the species that comprise them. The Gulf of Mexico and Gulf Coast ecosystems provide a wealth of services, including seafood, flood control, carbon sequestration, habitat for resident and migrating wildlife, hunting, sport fishing, wildlife watching and other outdoor recreation, a rich local culture, and more. It has been well-documented how these services benefit Gulf residents and visitors.

Attention to the importance of ecosystem services had been identified as relevant to Gulf Coast restoration even before the Deepwater Horizon spill. In 2009, President Obama convened the Louisiana-Mississippi Gulf Coast Ecosystem Restoration Working Group, comprised of highlevel agency officials, to create a new plan for restoration. On March 4 of this year, the Working Group released a "Roadmap for Restoring Ecosystem Resiliency and Sustainability." The Roadmap recommended more attention to ecosystem services, and said that, "[t]he exploration of alternative financing mechanisms could foster progress on projects."

The total damage to Gulf ecosystems is extensive but yet unknown. Many sensitive ecosystems and animals remain threatened by oil, dispersants, and tar balls. Numerous fisheries were closed, leading to economic losses today and perhaps well into the future. Marine turtles are successfully laying eggs on nesting beaches, but the hatchlings needed to be transported to safer waters.

The oil spill also occurred in areas where primary production is usually very high in June and July.³ Primary producers (phytoplankton) are a food source for many marine organisms, including commercially harvested fish and marine mammals. Lost income from reduced primary production has been estimated at \$350-\$875 million.⁴ Gulf Coast mangroves provide billions of dollars worth of ecosystem services in the form of wood, erosion and flood control, shelter for young fish, and breeding grounds for shrimp.⁵ Oil spill damage to the mangroves is yet unknown, but costs could climb rapidly, as the value of coastal protection offered by mangroves has been estimated as high as \$300,000 per kilometer of coastline.⁶

Ecosystem services from the Gulf region benefit people in distant communities as well, such as the diners around the world who enjoy seafood imported from the Gulf. The August 23, 2010, GCCF policy statement on eligibility criteria for claims includes a proximity factor.

Economic losses which are more remote, or occurred at a location more distant from the Spill, are less likely to be fully compensated. In determining eligibility, and how much compensation is appropriate for such eligible claims, the GCCF will take into account geographic proximity to the Spill, the nature of the claimant's job or business, and the extent to which the claimant's job or business is dependent upon injured property or natural resources. Each of these factors will be weighed in the initial assessment of a claim.

Geographic proximity will primarily be based on whether the claimant's loss occurred in a community or municipality adjacent to a beach, shoreline, marsh, bay, or tributary of the Gulf where oil or oil residues came ashore or appeared in the waters. Determinations regarding proximity focus on where the claimant's work or business activity takes place (or normally takes place)—not an individual's or business's mailing address.⁷

The GCCF's use of proximity as a criterion for compensation may undervalue important interests. The Millennium Ecosystem Assessment explained that ecosystems provide benefits that are enjoyed locally, as well as regionally and globally.⁸ For example, the only spawning ground in the Western Hemisphere of the bluefin tuna, a migratory species commercially harvested around the world, is in the Gulf of Mexico.⁹ The Deepwater Horizon spill occurred in the spawning ground during the height of the species' breeding season. Because the bluefin tuna population was already threatened before the spill, the potential decline in the remaining bluefin due to the oil spill could present a major loss of income for local and global fishing industries.

Ecosystem processes occur on diffuse geographic scales. Because of the spatial mismatch between where ecosystem services are generated and where humans receive those benefits, proximity will distort proper compensation for some harms and claimants. In appropriate circumstances, the fund should compensate for wide-reaching harms.

Structures for Restoration

We encourage you to clarify your ability to pay for restoration in response to harms caused by the Deepwater Horizon spill, and to account for ecosystem services when assessing

John Talberth & Stephen Posner, Ecosystem Services and the Gulf Disaster, World Resources Institute, July 7, 2010, available at http://www.wri.org/ stories/2010/07/ecosystem-services-and-gulf-disaster.

^{4.} *Id.*

Alice Kenny, BP Disaster Highlights Need to Value Ecosystem Services, Ecosystem MARKETPLACE, June 17, 2010, http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=7590§ion=home (last visited Sept. 22, 2010).

^{6.} Ia

Gulf Coast Claims Facility, Understanding the GCCF's Eligibility Criteria for Emergency Advance Payments, Aug. 23, 2010, http://www.gulfcoastclaimsfacility.com/proto_2.

MILLENNIUM ECOSYSTEM ASSESSMENT, ECOSYSTEMS, AND HUMAN WELL-BE-ING (2005).

Paul Greenberg, *Tuna's End*, NYTIMES.COM, June 22, 2010, *available at* http:// www.nytimes.com/2010/06/27/magazine/27Tuna-t.html?_r=1.

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those harms. If you do so, you will be well-served to consider a variety of strategies that, when combined with direct payments for past harm, may increase the chance of achieving the goal to return the Gulf to ecological and economic health.

Commentators have widely noted the lack of detailed data over time and space to fully account for harms from the spill, and to distinguish ecological harms from other sources. Perhaps one of the most helpful steps the GCCF compensation fund could make would be to fund scientifically sound, wide-scale, and long-term monitoring of the Gulf. Data collection might include carefully structured citizen science, since so many people live and work in the Gulf, and their observations and interactions with the environment may provide unique insights into effects and trends.

Another strategy is to utilize tools from ecosystem markets. Ecosystem markets are an emerging mechanism for achieving restoration and conservation of ecosystems and for putting in place a structure to ensure continued benefits to human well-being.¹⁰ Ecosystem markets have been developing over the last decade and have provided payments for a variety of services, including water quality improvements, wildlife habitat, and carbon sequestration. Market incentives can be especially beneficial to property owners or restoration professionals in need of funding to improve resource stewardship or implement new conservation projects.

Several U.S. companies provide good examples of how ecosystem markets currently work. Chesapeake EcoFinance Company (CEFC) buys farms, restores habitat, reduces nutrient runoff, sells credits for wildlife habitat and nutrient reductions, and then sells the restored properties with conservation easements for a small profit. Willamette Partnership is developing mechanisms, such as a credit calculator for different ecosystem services, which have been used by their partner, the Freshwater Trust, in an online tool, StreamBank. StreamBank allows local restoration professionals to initiate restoration projects by entering project details on interactive maps and online forms, thereby reducing planning and implementation time from years to months.¹¹ Another site, LandServer, allows individual landowners in the Chesapeake Bay area to map their property and use integrated data layers from various agencies to determine if they can receive payments for implementing conservation actions.

An Illustration of a Potential Ecosystem Market for Restoration in the Gulf

One way of compensating for lost income due to decreased phytoplankton production, or lost income due to spill-related fishing closures, could be to directly pay fishers. Following an adaptation of the CEFC model, impacts from the oil spill could be offset in other ways in addition to direct compensation or oil cleanup. The Trust could remediate harm done and improve Gulf ecosystem functioning by reducing the "dead zone," a hypoxic area caused by nutrient-rich runoff from the Mississippi River. The Trust could purchase nutrient-reduction credits from a centralized broker, like Markit or Mission Markets, to pay for upstream nutrient-reduction projects, thereby improving water quality and increasing the Gulf's marine biodiversity and fisheries' productivity. The number of credits required-the size of the market-could be determined based on a variety of functions including, but not limited to, estimated primary production loss, number of acres affected by the spill, or income lost from fishing.

In this way, the Trust would not only compensate fishers for their direct financial losses in the past, but also take steps to ensure that the ecosystem on which fishers rely will be able to support the fish they need in the future. Incorporating ecosystem services into measures of harm and strategic responses to the spill will increase the likelihood of achieving sustainable and revived ecosystems. It is these ecosystems that support the economies and communities in the Gulf region.

We urge you to fulfill the promises of President Obama and BP and use the extent of your authority to consider new mechanisms to restore the Gulf's ecosystem functions, now and into the future.

Sincerely,

Carrie Presnall Laura López-Hoffman Marc L. Miller

Ecosystem Marketplace, Payments for Ecosystem Services, http://www. ecosystemmarketplace.com/pages/dynamic/web.page.php?page_id=7183& section=about_us&eod=1#pes_5 (last visited Sept. 22, 2010).

^{11.} See http://www.thefreshwatertrust.org.