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March 24, 2017

The Honorable Garret Graves, Chairman  
Subcommittee on Water Resources and Environment  
U.S. House Committee on Transportation and Infrastructure

The Honorable Grace Napolitano, Ranking Member  
Subcommittee on Water Resources and Environment  
U.S. House Committee on Transportation and Infrastructure

*Re: Building a 21<sup>st</sup> Century Infrastructure for America: The Role of Federal Agencies in Water Infrastructure*

Dear Chairman Graves and Ranking Member Napolitano:

Thank you for the opportunity to submit for the record the following testimony in response to the Subcommittee's March 9, 2017 hearing on "Building a 21<sup>st</sup> Century Infrastructure for America: The Role of Federal Agencies in Water Infrastructure."

This testimony addresses two areas of critical concern to our organizations: (1) the importance of National Environmental Policy Act review for water infrastructure projects; and (2) the importance of prioritizing the use of natural and nature-based water resources infrastructure.

## **I. Robust Environmental Reviews Produce Better Projects and Save Taxpayer Dollars**

Careful compliance with the National Environmental Policy Act (NEPA) is fundamental to making sound decisions on federal water projects. NEPA ensures that the public and agency decision makers will have the information they need to understand the impacts of a proposed action and to know whether reasonable alternatives exist to achieve the project goals while causing less environmental harm. NEPA's public comment requirements ensure that the concerns and input of affected stakeholders' are taken into account by federal agencies before final decisions are made.

However, during the March 9, 2017 hearing, a number of members and witnesses commented that NEPA and other regulations, were a major cause of delay in infrastructure projects. This theory has been comprehensively examined and rebuffed by numerous studies, including studies conducted by the Congressional Research Service and the U.S. Department of the Treasury.

The most recent report was released by the Treasury Department in December 2016 (attached). This report, like the others, found that "a lack of funds is by far the most common challenge to

completing” major infrastructure projects.<sup>1</sup> The report listed three additional challenges to large-scale infrastructure projects in order of their impact on the project development process. The second largest challenge was lack of consensus when multiple public and private entities and jurisdictions are involved. The third largest challenge was capital costs increasing at a greater rate than inflation. The last, and smallest challenge by far, to large-scale infrastructure projects was the environmental review and permitting process.

The Treasury Department report also noted, however, that this small challenge could be addressed through successful implementation of recently-passed legislation addressing the permitting processes under NEPA. As the Committee is aware, changes to the NEPA process for U.S. Army Corps of Engineers (Corps) civil works projects was enacted in the Water Resources Reform and Development Act of 2014. As a result, additional legislative changes to the NEPA process are unwarranted. To effectively advance critical infrastructure projects, Congress should instead allocate sufficient funds.

The Congressional Research Service (CRS) has likewise concluded, on multiple occasions, that NEPA is not a primary or major cause of delay in project review. In fact, CRS has found that the most commonly identified causes of delay are completely unrelated to the NEPA review process. In one report, CRS concludes that for transportation projects, the lack of funding, securing community consensus, and accommodating affected stakeholders, including utility companies and railroads, account for the vast majority of delays.<sup>2</sup> In another report, CRS determined:

“[T]here is little data available to demonstrate that NEPA currently plays a significant role in delaying federal actions” and “factors *outside the* NEPA process were identified as the cause of delay between 68% and 84% of the time.”<sup>3</sup>

Robust environmental review and meaningful public input under NEPA lead to better, more effective water resources projects. Indeed, as eight past chairs of the Council on Environmental Quality have concluded, NEPA review is a prerequisite for responsible agency action:

[C]onsideration of the impacts of proposed government actions on the quality of the human environment is essential to responsible government decision-making. Government projects and programs have effects on the environment with important consequences for every American, and those impacts should be carefully weighed by public officials before taking action. **Environmental impact analysis is thus not an impediment to responsible government action; it is a prerequisite for it.**<sup>4</sup>

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<sup>1</sup> Toni Horst, et al., *40 Proposed U.S. Transportation and Water Infrastructure Projects of Major Economic Significance*. AECOM, (2016). <https://www.treasury.gov/connect/blog/Documents/final-infrastructure-report.pdf> (last accessed March 20, 2016).

<sup>2</sup> Congressional Review Service (CRS), *Accelerating Highway and Transit Project Delivery: Issues and Options for Congress 1* (Aug. 3, 201), available at <http://www.aashtojournal.org/Documents/August2011/CRSinfrastructure.pdf>.

<sup>3</sup> CRS, *The National Environmental Policy Act: Background and Implementation* 28, 30 (Feb. 29, 2008), available at <http://www.cniec.org/NLE/CRSreports/08Mar/RL33152.pdf>.

<sup>4</sup> September 19, 2005 Letter to the Honorable Cathy McMorris, Chair of the Task Force on Improving the National Environmental Policy Act from Russell E. Train (CEQ Chair 1970-1973), Russell W. Peterson (CEQ Chair 1973-1976), John Busterud (CEQ Chair 1976-1977), Charles W. Warren (CEQ Chair 1977-1979), J. Gustave Speth (CEQ Chair 1979-1981), Michael R. Deland (CEQ Chair 1989-1993), Kathleen A. McGinty (CEQ Chair 1995-1998), George T.

In testimony before the House Armed Services Committee regarding plans to address problems with obsolete nuclear reactors at the Savannah River site, then Secretary of Energy Admiral James Watkins, testified:

“Looking back on it, thank God for NEPA because there were so many pressures to make a selection for a technology that it might have been forced upon us and that would have been wrong for the country.”<sup>5</sup>

Effective environmental reviews are critical for water resource projects that often have a profound effect on the environment and on public safety and well-being. NEPA reviews are typically the only opportunity for members of the public to provide input into these projects. Effective NEPA reviews expose the true cost of environmentally damaging and ill-conceived proposals, leading to better and far less damaging projects and substantial savings for federal taxpayers.

For example, preparation of a supplemental environmental impact statement led the Corps to save more than 4,300 acres of wetlands that would have been destroyed had the Corps followed its original plan for raising levees along the Mississippi River. Environmental review of a proposed project to dredge Bolinas Lagoon, one of the most pristine tidal lagoons in California, demonstrated that the environmentally destructive project was in fact unnecessary, saving taxpayers \$133 million. The environmental review process exposed the devastating impacts of the Yazoo Backwater Pumping Plant project in Mississippi, prompting the George W. Bush Administration to veto the project, protecting 200,000 acres of wetlands and saving taxpayers more than \$220 million.

When resource agency concerns are ignored or necessary studies are not done, the results can be devastating. Prior to construction of the Mississippi River Gulf Outlet (MRGO) in Louisiana, the U.S. Fish and Wildlife Service raised serious concerns and recommended additional environmental and hydrologic modeling, but the Corps ignored this advice. By 2000, the MRGO had impacted over 600,000 acres of coastal ecosystems surrounding the Greater New Orleans area and destroyed over 27,000 acres of wetlands that once served as an important buffer from storm surge. During Hurricane Katrina, the MRGO funneled Katrina’s storm surge into New Orleans, resulting in devastating and deadly flooding in St. Bernard Parish and the lower Ninth Ward.

The Corps continues to rely on outdated NEPA analyses in highly dynamic environments like the Mississippi River Delta, despite both vastly changed conditions and vastly improved scientific understanding of the impacts of the Corps’ management of the flood control and navigation systems that affect those environments. The solution to this dangerous problem is to conduct a comprehensive update of these outdated NEPA analyses and to modernize the Corps’ management practices in accordance with those studies.

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Frampton Jr. (CEQ Chair 1998-2001), Gary Widman (CEQ General Counsel 1974-1976), Nick Yost (CEQ General Counsel 1977-1981) (emphasis added).

<sup>5</sup> Hearings on National Defense Authorization Act for Fiscal Year 1993 - H.R. 5006, and Oversight of Previously Authorized Programs before the House Committee on Armed Services, 102nd Cong. 912 (1992).

## II. Federal Agencies Should Prioritize Natural and Nature-Based Water Infrastructure

Communities are increasingly suffering the adverse impacts of more intense storms and more frequent floods. These impacts often reverberate throughout the nation's economy, particularly when severe weather strikes vulnerable areas like coastal Louisiana that support critical industries and nationally significant navigation infrastructure.

For many decades, Federal efforts to protect communities from storms and floods have focused primarily on constructing gray infrastructure such as levees, floodwalls, and dikes. While these projects have provided some benefits, they have also caused significant—and often avoidable—harm to rivers, coasts, wetlands, and floodplains and the many vital and free services those resources provide. The health of these already degraded natural systems continues to decline due to rising sea levels, rising water temperatures, salt water intrusion, invasive species, and the increasing frequency and intensity of extreme drought and storm events.

It is imperative that the Federal government embrace a new paradigm for water resources planning that protects both communities and water resources. Smart investments in natural and nature-based infrastructure can create resilient, self-sustaining, and cost-effective protections for communities. As aptly stated by the President of the Reinsurance Association of America:

“One cannot overstate the value of preserving our natural systems for the protection of people and property from catastrophic events.”<sup>6</sup>

As Chairman Graves is fully aware, this value is demonstrated in Louisiana's 2012 *Comprehensive Master Plan for a Sustainable Coast* which is proposing to spend half of its funding over the next fifty years on such measures.<sup>7</sup>

Natural and nature-based infrastructure make use of natural systems such as wetlands and healthy rivers to protect communities. Wetlands act as natural sponges, storing and slowly releasing floodwaters after peak flood flows have passed, and coastal wetlands buffer the onslaught of hurricanes and tropical storms. Restoring a river's natural flow and meandering channel, and giving at least some floodplain back to the river, slows down floodwaters and gives the river room to spread out without harming homes and businesses. A single acre of wetland can store 1 to 1.5 million gallons of floodwaters.<sup>8</sup> Just a one percent loss of a watershed's wetlands can increase total flood volume by almost seven percent.<sup>9</sup>

Natural and nature-based infrastructure also protects the many free services that that the nation's rivers, floodplains, and wetlands provide to people and wildlife. For example, healthy rivers,

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<sup>6</sup> Restore America's Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) ([http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)).

<sup>7</sup> *Louisiana's Comprehensive Master Plan for a Sustainable Coast* 2012. Coastal Protection and Restoration Authority of Louisiana. Baton Rouge, LA. at 36-37.

<sup>8</sup> Environmental Protection Agency, “*Functions and Values of Wetlands*.” EPA 843-F-01-002c. (2001) (*factsheet*).

<sup>9</sup> Demissie, M. and Abdul Khan. 1993. “Influence of Wetlands on Streamflow in Illinois.” Illinois State Water Survey, Contract Report 561, Champaign, IL, Table 7, pp. 44-45.

floodplains, and wetlands provide vital fish and wildlife habitat and allow people and wildlife to benefit from natural flood cycles.<sup>10</sup>

Living shorelines are a prime example of nature-based infrastructure. Living shorelines are constructed with natural materials including vegetation, fiber logs, and marsh sills to protect coasts from erosion. Use of living shorelines is a demonstrably viable and environmentally-preferable alternative to traditional structural approaches to shoreline hardening like bulkheads.

Scientific research demonstrates that when shorelines are hardened with grey infrastructure, the function and resilience of valuable ecosystems are reduced.<sup>11</sup> Bulkheads are particularly harmful, often destroying the habitat in front of them.<sup>12</sup> Additional adverse effects of bulkheads include: prevention of upslope migration of tidal wetlands as sea level rises<sup>13</sup>; disruption of the food web<sup>14</sup>; reduction of biodiversity; and a reduction of ecosystem services at the bulkhead site and surrounding areas.<sup>15</sup> Bulkhead induced erosion contributes to the destruction of marsh plants<sup>16</sup> and the ultimate destruction of marshes as a natural form of erosion prevention.<sup>17</sup>

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<sup>10</sup> In a healthy, functioning river system, natural floods deposit nutrients along floodplains creating fertile soil for bottomland hardwood forests. Sediment transported by floods form islands and back channels that are home to fish, birds, and other wildlife. By scouring out river channels and riparian areas, floods prevent rivers from becoming overgrown with vegetation. Floods also facilitate breeding and migration for a host of fish species, and provide vital connectivity between habitat areas. In the deltas at the mouths of rivers, floods release freshwater and sediment, sustaining and renewing wetlands that protect coastal communities from storms and provide nurseries for multibillion dollar fisheries.

<sup>11</sup> Carolyn Currin et al., *Shorelines Change in the New River Estuary, North Carolina: Rates and Consequences*, 31 J. OF COASTAL RES. 1069-77 (2015); J.E. Dugan et al., 8.02 *Estuarine and Coastal Structures: Environmental Effects, A Focus on Shore and Nearshore Structures*, 8 TREATISE ON ESTUARINE & COASTAL SCI. 17-41 (Eric Wolanski and Donald McLusky eds. 2011); James G Titus, *Rising Seas, Coastal Erosion, and the Takings Clause: How to Save Wetlands and Beaches Without Hurting Property Owners*, 57 MD. L. REV. 1279-1398 (1998); Thomas K. Ruppert, *Eroding Long-Term Prospects for Florida's Beaches: Florida's Coastal Management Policy*, SEA TURTLE GRANT PROGRAM, 1-157 (2008); U.S. ARMY CORPS OF ENGINEERS & YELLOWSTONE RIVER CONSERVATION DISTRICT COUNCIL, *YELLOWSTONE CUMULATIVE EFFECTS ANALYSIS*, 1-433 (2015).

<sup>12</sup> Karen F. Nordstrom, *Living with Shore Protection Structures: A Review*, 150 ESTUARINE COASTAL & SHELF SCI., 11-23 (2014).

<sup>13</sup> Catherine M. Bozek & David M. Burdick, *Impacts of Seawalls on Saltmarsh Plant Communities in the Great Bay Estuary, New Hampshire U.S.A.*, 13 WETLANDS ECOLOGY & MGMT., 553-68 (2005); Nigel Pontee, *Defining Coastal Squeeze: A Discussion*, 84 OCEAN & COASTAL MGMT., 204-07 (2013); James G. Titus, *Rising Seas, Coastal Erosion, and the Takings Clause: How to Save Wetlands and Beaches Without Hurting Property Owners*, 57 MD. L. REV., 1279-1398 (1998).

<sup>14</sup> Sarah M. Heerhartz et al., *Shoreline Armoring in an Estuary Constrains Wrack-Associated Invertebrate Communities*, 39 ESTUARIES & COASTS, 171-88 (2016); Sarah M. Heerhartz et al., *Effects of Shoreline Armoring on Beach Wrack Subsidies to the Nearshore Ecotone in an Estuarine Fjord*, 37 ESTUARIES & COASTS, 1256-68 (2014).

<sup>15</sup> Nathan R. Geraldini et al., *Artificial Substrates Enhance Non-Native Macroalga and N<sub>2</sub> Production*, 16 BIOLOGICAL INVASIONS, 1819-31 (2014); Guillermo Diaz-Agras et al., *Distribution and Population Structure of *Patella Vulgata* Linnaeus, 1758 (Gastropoda: Patellidae) on Intertidal Seawalls and Rocky Shores in the Ria de Ferrol*, 26 INTERNATIONAL J. OF MARINE SCIENCES, 79-91 (2010); Tim M. Glasby et al., *Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions?* 151 MARINE BIOLOGY, 887-95 (2007).

<sup>16</sup> C.A. Currin, *Developing Alternative Shoreline Armoring Strategies: The Living Shoreline Approach in North Carolina*, PUGET SOUND SHORELINES AND THE IMPACTS OF ARMORING- PROC. OF A ST. OF THE SCI. WORKSHOP, 91-102 (2010).

<sup>17</sup> Catherine M. Bozek & David M. Burdick, *Impacts of Seawalls on Saltmarsh Plant Communities in the Great Bay Estuary, New Hampshire U.S.A.*, 13 WETLANDS ECOLOGY & MGMT., 553-68 (2005).

By causing erosion on either side of the structure,<sup>18</sup> bulkheads also jeopardize their own stability and create the need for ongoing and costly maintenance<sup>19</sup> and additional shoreline armament. Failure rates for coastal armoring, like bulkheads, can be high. When bulkheads and similar structures fail, infrastructure and human safety are put at risk.<sup>20</sup> Hurricanes, in particular, can cause significant damage to bulkheads.

By contrast, living shorelines enhance coastal habitats,<sup>21</sup> including by creating nursery grounds for fish and shellfish, providing feeding grounds for shorebirds and wading birds, and helping reduce water pollution. A substantial body of scientific literature also demonstrates that living shorelines are more effective at preventing erosion<sup>22</sup> and are highly resilient to storms.<sup>23</sup>

Living shorelines can be better at protecting the coast from storm damage than bulkheads. A survey of the North Carolina coast after Hurricane Irene showed no visible damage in living shoreline projects, while 76 percent of bulkheads suffered damage.<sup>24</sup> While living shorelines may not be appropriate everywhere, they are in many cases, a better solution than building hard structures. The use of living shorelines, like other natural and nature-based infrastructure, should be strongly encouraged.

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<sup>18</sup> Megan N. Dethier et al., *Multiscale Impacts of Armoring on Salish Sea Shorelines: Evidence for Cumulative and Threshold Effects*, 175 ESTUARINE, COASTAL, & SHELF SCI., 106-17 (2016); Christopher R. Mattheus et al., *Impacts of Land-Use Change and Hard Structures on the Evolution of Fringing Marsh Shorelines*, 88 ESTUARINE, COASTAL & SHELF SCI., 365-76 (2010); U.S. ARMY CORPS OF ENGINEERS & YELLOWSTONE RIVER CONSERVATION DISTRICT COUNCIL, *YELLOWSTONE CUMULATIVE EFFECTS ANALYSIS*, 1-433 (2015); Scott L. Douglass & Bradley H. Pickel, *Tide Doesn't Go Out Anymore- The Effect of Bulkheads on Urban Bay Shorelines*, 67 SHORE & BEACH, 19-25 (1999).

<sup>19</sup> Steven B. Scyphers et al., *Participatory Conservation of Coastal Habitats: The Importance of Understanding Homeowner Decision Making to Mitigate Cascading Shoreline Degradation*, 8 CONSERVATION LETTERS, 1-8 (2015).

<sup>20</sup> Rachel K. Gittman et al., *Marshes with and without Sills Protect Estuarine Shorelines from Erosion Better than Bulkheads During a Category 1 Hurricane*, 102 OCEAN & COASTAL MGMT., 94-102 (2014).

<sup>21</sup> S. Sharma et al., *A Hybrid Shoreline Stabilization Technique: Impact of Modified Intertidal Reefs on Marsh Expansion and Nekton Habitat in Northern Gulf of Mexico*, 90 ECOLOGICAL ENGINEERING, 339-50 (2016); Amanda S. Lawless et al., *Effects of shoreline stabilization and environmental variables on benthic infaunal communities in the Lynnhaven River System of Chesapeake Bay*, 457 J. OF EXPERIMENTAL MARINE BIOLOGY & ECOLOGY, 41-50 (2014).

<sup>22</sup> J. E. Manis et al., *Wave Attenuation Experiments Over Living Shorelines Over Time: A Wave Tank Study to Assess Recreational Boating Pressures*, 19 J. OF COASTAL CONSERVATION, 1-11 (2015); Rachel K. Gittman et al., *Marshes with and without Sills Protect Estuarine Shorelines from Erosion Better than Bulkheads During a Category 1 Hurricane*, 102 OCEAN & COASTAL MGMT., 94-102 (2014); Steven B. Scyphers et al., *Participatory Conservation of Coastal Habitats: The Importance of Understanding Homeowner Decision Making to Mitigate Cascading Shoreline Degradation*, 8 CONSERVATION LETTERS, 1-8 (2015); S. Crooks & R. K. Turner, *Integrated coastal management: sustaining estuarine natural resources*, in 29 ADVANCES IN ECOLOGICAL RES., 241-289 (D. B. Nedwell and D. G. Raffaelli, eds. 1999); I. Möller et al., *Wave Attenuation over Coastal Salt Marshes under Storm Surge Conditions*, 7 NATURE GEOSCIENCE, 727-848 (2014); B. P. Piazza, *The potential for created oyster shell reefs as a sustainable shoreline protection strategy in Louisiana*, 13 RESTORATION ECOLOGY, 499-506 (2005); C. C. Shepard et al., *The Protective Role of Coastal Marshes: A Systematic Review and Meta-Analysis*, 6 PLOS ONE e27374, 1-11 (2011); S. Coleman et al., *Living Shorelines: Using Created Oyster Reefs and Science to Develop Better Erosion Control Structures for Coastal Georgia*, SAPELO ISLAND NAT'L ESTUARINE RES. RESERVE (2014), <http://www.sapelonerr.org/wp-content/uploads/2014/04/Sapelo-LSSI-Cannons-Point-poster-final-2.pdf>.

<sup>23</sup> Rachel K. Gittman et al., *Marshes with and without Sills Protect Estuarine Shorelines from Erosion Better than Bulkheads During a Category 1 Hurricane*, 102 OCEAN & COASTAL MGMT., 94-102 (2014); Rachel K. Gittman, *Living Shorelines Can Enhance the Nursery Role of Threatened Estuarine Habitats*, 26 ECOLOGICAL APPLICATIONS, 249-63 (2016); Steven B. Scyphers, *Natural Shorelines Promote the Stability of Fish Communities in an Urbanized Coastal System*, PLOS ONE 10:e0118580, 1-12 (Maura G. Chapman ed. 2015); Cornelia Harris et al., *The Ecology of Freshwater Wrack Along Natural and Engineered Hudson River Shorelines*, 722 HYDROBIOLOGIA, 233-45 (2014).

<sup>24</sup> *Id.*

Natural and nature-based infrastructure provide important additional benefits by supporting the nation's outdoor economy and creating jobs. Natural and nature-based infrastructure protects the rivers, coasts, and wetlands that form the basis of the nation's outdoor economy. In 2011, "90.1 million Americans, 38% of the U.S. population 16 years old and older, enjoyed some form of fishing, hunting or wildlife-associated recreation" contributing \$145 billion to the national economy in the process.<sup>25</sup> "This equates to 1% of gross domestic product; meaning one out of every one hundred dollars of all goods and services produced in the U.S."<sup>26</sup>

Healthy rivers, coasts and wetlands are equally critical to the nation's commercial fisheries. Healthy coasts "supply key habitat for over 75% of our nation's commercial fish catch"<sup>27</sup> that support vital economies. For example, commercial fishing in Florida's Apalachicola River and Bay contributes \$200 million annually to the regional economy and directly supports up to 85 percent of the local population.

Natural and nature-based infrastructure projects that restore the nation's waters are also an important creator of jobs that are "inherently local and cannot be exported."<sup>28</sup> Restore America's Estuaries reports that coastal restoration "can create more than 30 jobs for each million dollars invested" which is "more than twice as many jobs as the oil and gas and road construction industries combined."<sup>29</sup>

In Louisiana, analysis of a proposed \$72 million project to restore a 30,000-acre expanse of degraded marsh near downtown New Orleans known as the Central Wetlands Unit shows that it could create 689 jobs (280 direct jobs and 400 indirect and induced jobs) over the project's life.<sup>30</sup> Implementation of the entire \$27.6 billion dollars of restoration in Louisiana's Master Plan over the next fifty years would multiply those jobs hundreds of times over.

In Florida, restoration of the Everglades will produce more than 442,000 jobs over the next 50 years and almost 23,000 short- to mid-term jobs for the actual restoration work.<sup>31</sup> Restoring the Everglades is also predicted to produce a return of four dollars for each dollar invested.<sup>32</sup>

The Department of the Interior's FY2010 investment of \$156 million for ecosystem restoration activities in the Chesapeake Bay, Great Lakes, and Everglades supported more than 3,200 jobs and contributed \$427 million in economic outputs.<sup>33</sup> The full economic output is even greater, however,

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<sup>25</sup> U.S. Fish and Wildlife Service, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview, Issued August 2012.

<sup>26</sup> *Id.*

<sup>27</sup> Restore America's Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) ([http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)).

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> Environmental Defense Fund, Profiles in Restoration: The Central Wetlands Unit, Part VI (May 3, 2010) (<http://blogs.edf.org/restorationandresilience/category/central-wetlands-unit/>).

<sup>31</sup> Everglades Foundation, Everglades Restoration a 4-to-1-Investment ([http://everglades.3cdn.net/79a5b78182741ae87f\\_wvm6b3vhn.pdf](http://everglades.3cdn.net/79a5b78182741ae87f_wvm6b3vhn.pdf)).

<sup>32</sup> *Id.*

<sup>33</sup> The Department of the Interior's Economic Contributions (Department of the Interior, 2011) at 106 (<http://www.doi.gov/news/pressreleases/upload/DOI-Econ-Report-6-21-2011.pdf>).

as the \$427 million does not capture the net benefits associated with the restoration of environmental goods and services not bought and sold in markets.<sup>34</sup>

In Oregon, a \$411 million investment in restoration from 2001 to 2010 generated an estimated \$752 to \$977 million in economic output.<sup>35</sup> The 6,740 restoration projects completed during that time supported an estimated 4,600 to 6,500 jobs, including jobs in construction, engineering, wildlife biology, and in supporting local businesses such as plant nurseries and heavy equipment companies.<sup>36</sup> On average, \$0.80 of every \$1.00 spent on a restoration project in Oregon stays in the county where the project is located and \$0.90 stays in the state.<sup>37</sup> Importantly, the monies spent on restoration are “an enduring investment” whose value “continues to accrue and pay out over generations. Improvements in habitat and fish and wildlife populations provide recreation and commercial opportunities as well as ecosystem services that are fundamental to our health, productivity, and quality of life.”<sup>38</sup>

Restoration projects can also provide critical business opportunities during difficult economic times:

“During the economic recession, a habitat restoration project kept our marine transportation business afloat. We were able to keep many of our people working to rebuild a critical part of the marine environment that had been all but lost in North Carolina.”<sup>39</sup>

### III. Conclusion

To protect communities, wildlife, and a healthy economy, Congress should ensure robust environmental reviews that fully comply with the National Environmental Policy Act, and prioritize the use of natural and nature-based water resources infrastructure. Our organizations look forward to working with you to achieve these important goals.

Sincerely,

Alliance of Nurses for Healthy Environments  
American Rivers  
American Sustainable Business Council  
Clean Water Action  
Earthjustice  
Environment America  
Izaak Walton League of America

League of United Latin American Citizens  
Missouri Coalition for the Environment  
National Wildlife Federation  
Natural Resources Defense Council  
Sierra Club  
Southern Environmental Law Center

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<sup>34</sup> *Id.* at 5.

<sup>35</sup> Whole Watershed Restoration Initiative, Oregon’s Restoration Economy, Investing in natural assets for the benefit of communities and salmon (2012)([http://www.ecotrust.org/wwri/downloads/WWRI\\_OR\\_brochure.pdf](http://www.ecotrust.org/wwri/downloads/WWRI_OR_brochure.pdf)).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

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

<sup>39</sup> Restore America’s Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) ([http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)) (quoting Simon Rich, General Manager of Stevens Towing Company).