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May 8, 2020

The Honorable Mitch McConnell
Majority Leader
United States Senate
S-230 The Capitol
Washington, DC 20510

The Honorable Chuck Schumer
Minority Leader
United States Senate
S-221 The Capitol
Washington, D.C. 20510

The Honorable Nancy Pelosi
Speaker
United States House of Representatives
H-222 The Capitol
Washington, DC 20515

The Honorable Kevin McCarthy
Minority Leader
United States House of Representatives
H-204 The Capitol
Washington, DC 20515

Dear Majority Leader McConnell, Minority Leader Schumer, Speaker Pelosi, and Minority Leader McCarthy:

As we address the immediate crisis of the COVID-19 pandemic and its devastating impacts on people, families and communities, the nation and our planet are also dealing with another crisis unfolding before us—the biodiversity crisis. In addition to the cost to nature, the loss of biodiversity carries with it severe consequences for society because of the ecosystem services that nature provides.[i] Fortunately, we know that we can address the major threats to biodiversity by increasing the resiliency of our natural systems, thereby protecting both nature and people.

As Congress looks toward funding infrastructure projects that provide economic stimulus and benefits to society, families, and individuals, we recommend that you use the opportunity to invest in programs and projects that also address the biodiversity crisis by enhancing the resiliency of our lands and waters – America's natural capital. Sustainably built and green infrastructure are both essential for the health and well-being of the American people. Below, we provide an overview of the highest-priority programs and themes for win-win infrastructure development on an agency-by-agency basis.

I. Transportation Infrastructure

Transportation infrastructure is essential to transport people and goods around the country, a fact that Congress recognizes as they consider the "America's Transportation Infrastructure Act," S. 2302. At the same time, building this infrastructure can destroy and fragment habitat essential for protecting biodiversity, and, left unchecked, leads to damaging development sprawl.

We recommend that any transportation infrastructure stimulus funding incorporate three high-priority issues:

(1) avoid impacting conservation lands and waters, especially those that harbor threatened and endangered species[ii];
(2) minimize and mitigate transportation infrastructure impacts through expanded easements and purchases; and

(3) fully fund both planned and retrofit wildlife crossings that improve connectivity for wildlife and reduce risks to human travelers.

We ask that any legislation include the bipartisan Wildlife Corridors Conservation Act, H.R. 2795/S.1499, which would develop a national system of wildlife corridors and provide over $75 million in annual funding to agencies, states, and private landowners. We also recommend that legislation include the $250 million wildlife crossing pilot grant program and related provisions expanding wildlife infrastructure funding eligibility found in S. 2302 which has already passed the Senate Environment and Public Works Committee.

II. Endangered Species Recovery and Infrastructure

Prioritizing infrastructure work that advances the recovery of species protected under the Endangered Species Act (ESA) can simultaneously stimulate the economy, help make up for historical recovery funding shortfalls, and help agencies meet their statutory responsibilities under the ESA. Adequate funding for recovery is essential to ensuring that ESA-listed species are conserved and, eventually, delisted. Despite its importance, recovery programs have been consistently and significantly underfunded, with recent estimates indicating species receive less than one-quarter of funding scientists indicate is required[iii]. Section 7 of the ESA requires each federal agency and department to use their authorities to recover listed species, which can mean carrying out, authorizing, or funding infrastructure projects—from habitat restoration for large roads to managing small culverts in national forests—in ways that advance recovery. As Congress weighs stimulus funding for projects and programs across the government and the economy—several detailed below—Defenders recommends Congress fund and prioritize federal infrastructure projects that also advance the recovery of ESA-listed species.

Habitat Range Mapping and Field Verification – To manage the imperiled species that depend on federal public lands, the agencies must know where species are and where they could live (that is, their occupied and potential ranges). The agencies need accurate spatial data that can be easily accessed and used by staff, partners and the public to inform project planning and design and guide habitat restoration leading to the eventual recovery and de-listing of threatened and endangered species. Developing computer models and maps and conducting field verification is labor-intensive, high-wage work. We urge Congress to fund much-needed range mapping for at-risk species prioritizing those listed under the ESA. Mapping and modeling with related field verification should be conducted by qualified contractors and the results made available for public use with appropriate measures to safeguard the species.

III. Department of Agriculture

USDA Forest Service

The lands managed by the Forest Service account for about 9 percent of the nation's land base, and like most of our public lands systems, are in dire need of infrastructure attention. Investment in Forest Service infrastructure – including the essential "green" infrastructure of forested watersheds – creates jobs. Recent analysis finds that targeted forest watershed restoration and community wildfire protection activities could directly create more than 40,000 new jobs, many in rural communities.[iv] In fiscal year 2011, Forest Service activities – including watershed and habitat restoration, road and other infrastructure work, and wildfire mitigation and resiliency building efforts – contributed to nearly 450,000 jobs nationwide, many in rural communities adjacent to our national forests and grasslands. Forest Service jobs are literally "shovel" (and bulldozer) ready because they involve work in the woods. The Forest Service excels at creating green jobs, including through programs such as the Youth Conservation Corps, 21st Century Conservation Service Corps and Job Corps Civilian Conservation Centers.

Forest Service Watershed Restoration Investments – There may be no greater critical natural asset than the nation's watersheds and clean water supplies, and the Forest Service plays a vital role in their restoration and

protection; national forests provide roughly one-fifth of the drinking water to U.S. communities. In addition to National Forest System programs, other Forest Service State and Private Forestry programs assist state and private landowners maintain and improve watershed resiliency.[v] For that reason, Defenders recommends that Congress prioritize investment in Forest Service integrated watershed protection and restoration programs and activities:

- Congress should fund the implementation of existing Watershed Restoration Action Plans developed pursuant to the Watershed Condition Framework, a program that was established in 2011 and codified in the 2018 Farm Bill.[vi] The WCF establishes parameters for improving the health of NFS watersheds.
- Several Forest Service programs can support investments in watershed restoration, including the Vegetation and Watershed, Wildlife and Fisheries Habitat, and Capital Improvement and Maintenance programs.
- Watershed restoration strategies integrate a variety of labor intensive and "shovel ready" actions including stream, riparian and aquatic habitat restoration; invasive species removal; road decommissioning, maintenance and improvement.[vii]
- The Forest Service is adept at implementing integrated watershed restoration via direction in forest plans, and programs such as the Collaborative Forest Landscape Restoration Program (CFLRP) and the Legacy Roads and Trails (LRT) Program. Congress should permanently authorize and renew funding for the LRT program and reauthorize expiring CFLR projects for continued implementation.
- Watershed restoration work can be coupled with other priority forest and habitat restoration activities, including recovery actions that support ESA-listed species and hazardous fuel treatments such as controlled burning to reduce wildfire risk to communities and watersheds.

Forest Service Recreation Infrastructure – Covid-19 has reminded all of us of the value of outdoor recreation. National forests are havens for recreation. National forest infrastructure[viii] supports millions of annual visits to national forests, and the agency estimates that recreation generated more than $13 billion and nearly 200,000 jobs to local economies in 2012.[ix] Defenders therefore recommends that Congress invest in national forest recreation infrastructure; this would be done via the Capital Improvement and Maintenance program**,** which in addition to supporting road work, also supports the maintenance and improvement of recreation facilities and trails.

Community Wildfire Protection – Congress should invest in Forest Service programs that protect communities and other critical assets from wildfire. Investments in the Hazardous Fuels program should be directed at the highest priority areas for fuels reduction for the protection of public health and safety – for example within the Wildland Urban Interface – using tools like ecological thinning and prescribed and managed wildfire. Partnerships with state and local jurisdictions to treat mixed federal and non-federal landscapes should be emphasized. Congress should direct the Forest Service to allocate stimulus funding to ecologically-based forest restoration projects – including "shovel ready" prescribed burning activities[x] – that reduce risks of undesirable and uncharacteristic wildland fires and involve significant non-federal (state, private, and NGO) investment and stakeholder engagement.

Natural Resource Conservation Service (NRCS)

NRCS provides voluntary technical and financial assistance to private landowners to carry out conservation activities on working lands. Three key programs fund infrastructure work, from installing drinkers to keep cattle out of streams to fuels management to create habitat for gopher tortoises, that can benefit local workers, farmers and ranchers, and the wildlife they host include:

- Working Lands for Wildlife, which funds habitat work to help conserve select at-risk and ESA-listed species on private lands across the country.

- Environmental Quality Incentives Program, providing payments and technical assistance to farmers to improve environmental conditions, such as water quality and reduced erosion, that benefit wildlife.
- Conservation Stewardship Program, which focuses on maintaining and expanding existing conservation work from agricultural producers in a pay-for-performance framework.

We support increasing the funding to each of these programs to help put people to work across the landscape and to benefit wildlife. In addition to funding, we recommend that NRCS be required to use native seeds and stock for vegetation restoration and other purposes when implementing the actions they fund from the stimulus package.

IV. Department of the Interior

U.S. Fish and Wildlife Service National Wildlife Refuge System

The *National Wildlife Refuge System (NWRS)* is the nation's premier public lands system for protecting wildlife and their habitats, encompassing more than 850 million acres of land, freshwater, and marine habitats. In addition, the System adds an estimated $3.2 billion and 41,000 jobs per year to local economies.[xi] Refuge visitation accounts for $792 million in annual employment income, which contributes more than $342 million in tax revenues for all levels of government combined, generating a total of $4.5 billion to the economy overall. Every dollar Congress appropriates to the Refuge System produces an average return of $4.87, a 387 percent rate of return based on the 2017 Refuge System budget.[xii]

Green Infrastructure and Habitat Restoration – Habitat restoration is essential to support the mission of the NWRS, especially for the over 500 species listed under the ESA found on refuges.[xiii] The Refuge System enhances the natural features and processes of healthy ecosystems that clean our air, improve water and soil quality, buffer coastal areas from hurricanes and other storms, decrease erosion and sequester carbon. The estimated value of these refuge ecosystem services is $32.3 billion, an average return of $65, or about 6,575 percent, for every dollar appropriated to the Refuge System.[xiv] Habitat restoration, including of upland, wetland and coastal areas, is labor intensive and "shovel ready."

Restoration of coastal ecosystems is particularly important to develop resiliency to climate driven storm events. Restoration of coastal marshes and beaches not only provides habitat to fish and wildlife resources, but also provides protection to shorelines and communities from storm surge and flooding and protects infrastructure and communities located along the coast.

Funding of the Partners for Fish and Wildlife and Coastal Program will stimulate job creating habitat restoration activities on lands adjacent to national wildlife refuges.

Congress should emphasize the rehabilitation or development of infrastructure needed to effectively manage water systems on NWRS lands. Dams and culverts should be removed or retrofitted to improve water conditions, including benefits to at-risk aquatic species.

NWRS Capital Investments – Capital investments must be made to address maintenance backlogs, expand access, and improve operations. The current NWRS deferred maintenance backlog is over $1 billion. Every $1 the Service spends on maintenance and construction generates $3.12 for local and state economies and supports nearly 18 private sector jobs.[xv]

Congress should also focus investments within urban refuges – the roughly 100 wildlife refuges within a 25-mile radius of an urban area with a population of more than 250,000. Urban refuges would benefit significantly from reductions in deferred maintenance and capital improvement projects, particularly given the amount of public value that is provided by these natural havens.

Funding for NWRS road, bridge and trail maintenance and improvement will maintain opportunities for public enjoyment of refuges, while also protecting natural resources values. We support increased funding for the Service's Transportation Program to restore and maintain over seven thousand miles of roads, bridges, parking lots, and trails that connect people to wildlife refuges. S. 2302 provides $33 million per year from FY 2021 through FY 2025 for the Service's program, however at least $50 million per year is needed over 10 years to address 600 needed transportation projects at a cost of $510 million. Legislation should also make the Federal Lands Transportation Program more flexible, efficient, and eliminate competition for funds among federal agencies.

NWRS infrastructure can also be improved to reduce the impacts of future storm events. For example, flood protection infrastructure can be improved to reduce the risk of catastrophic failures during severe flooding events. Habitat management levees and water control structures are in need of repair due to recent storm damage.

We also support legislation which would provide dedicated funding for the Land and Water Conservation Fund and for repairing deteriorating infrastructure on our public lands such as the Great American Outdoors Act (S. 3422). However, while S. 3422 would provide five percent of maintenance funding for National Wildlife Refuge System and other FWS deferred maintenance, related bills in the House of Representatives provide ten percent, which would better meet the needs of the FWS.

U.S. Fish and Wildlife Service Ecological Services Program

The *Ecological Services* program of FWS leads the implementation of the ESA for the vast majority of the nation's 1,662 threatened and endangered species. In addition to the need for significant increases in recovery funding, outlined above, one dire need for the program that we have highlighted previously is for technology infrastructure investment, which will improve the effectiveness and efficiency of implementing the law.[xvi] The agency has a roadmap for advancing systems such as the ECOS data system and creating new systems that streamline ESA implementation, such as IPaC for section 7 consultations[xvii]. The agency is, however, unable to carry out this roadmap because of decades of funding shortfalls. Investing heavily in the program's technology infrastructure can help address unemployment in the tech sector and meet an outstanding need for the agency to protect biodiversity.

Bureau of Land Management (BLM)

The National System of Public Lands is the largest federal lands system in the U.S. and is managed by BLM for multiple uses including wildlife conservation. The BLM manages a complex array of ecosystems and multiple uses all of which are dependent on having accurate ecological data and the capacity to implement projects to prevent further biodiversity losses and recover imperiled species. Program priorities include:

Built Infrastructure Projects to Benefit Wildlife – Infrastructure can help promote biodiversity if constructed in the right places and with the right designs. Recommended stimulus infrastructure investments on BLM lands include:

- Removal of unnecessary infrastructure to benefit wildlife and reduce long-term maintenance costs. This includes roads, tracks, and fences.
- Fence conversion (from not wildlife friendly to wildlife friendly) to enhance migration and co-existence.
- Improvements to recreation facilities – such as trailhead parking lots, restrooms, trails, informational kiosks, boat ramps, campgrounds, and fences – to protect resources and vulnerable and imperiled species.
- Burial of Transmission Lines prioritizing those that have been identified as barriers to wildlife migration or are associated with wildlife mortality.

For all projects, BLM should be required to use only native vegetation and aesthetic building materials and techniques (e.g., native stone bridges, wooden fences, etc.). Investing in quality and aesthetic construction creates a lasting legacy and encourages visitors to treat the public lands with more respect and care.

Habitat Restoration Projects – Where BLM habitat is degraded, restoration may be necessary. This is especially true where aggressive invasive species have overtaken native vegetation or where soil damage is extreme. Because soil disturbance accelerates invasions and soil instability, labor intensive work that minimizes soil disturbance and creates jobs can often be the best approach. Recommended stimulus restoration investments on BLM lands include:

- Removing invasive species.
- Gully stabilization (to help sage grouse and other species that need moisture retained on the land).
- Restoration of degraded riparian ecosystems. This could include beaver mimicry projects and beaver restoration, adding woody debris to streams and rivers to promote fish habitat, culvert removal/replacement, streambank reconstruction/planting, etc.

In addition, we strongly recommend funding the Plant Conservation Program to fully implement the National Seed Strategy[xviii] that includes the (labor-intensive) collection and propagation of genetically-appropriate native seeds, hiring botantists, constructing regional seed facilities, and supporting native plants material development on Tribal lands. BLM cannot combat the serious invasive weed problem without considerably higher levels of investment in native seed, plants, and botanical expertise.

V. Department of Defense (DoD)

The ~25 million acres managed by DoD have a greater diversity of ecological systems than any federal land system except the National Park Service[xix] and harbor a disproportionate number of imperiled species.[xx] The primary infrastructure need that would advance the Department's role in addressing the biodiversity crisis is funding habitat restoration, especially for ESA-listed species, both on installations and in adjacent lands and waters, such as under the Sentinel Landscapes program.[xxi] We support stimulus funding for infrastructure projects that advance recovery of ESA-listed species as detailed in installation Integrated Natural Resources Management Plans and those that involve decommissioning built infrastructure or carrying out restoration and habitat enhancement on Sentinel Landscapes.

Army Corps of Engineers

The Army Corps is sometimes referred to as the largest construction company in the nation because of the scale of its operations. With that distinction comes an out-sized impact on wildlife and their habitats, including for ESA-listed species.[xxii] The Corps has been advancing their Engineering With Nature (EWN) program, which is the "intentional alignment of natural and engineering processes to efficiently and sustainably deliver economic, environmental and social benefits ("Triple-Win" solutions) through collaborative processes." We recommend that Congress prioritize funding to the Corps for infrastructure projects that (a) use EWN approaches that improve the agency's standard operating procedures for protecting wildlife and habitats as they carry out their mission and (b) advance the conservation of ESA-listed species pursuant to section 7(a)(1). Given that an April 2020 Congressional Research Service report found that the Corps has not been doing as much to prioritize the use of nature-based solutions as they could and as Congress has directed, additional strong direction from Congress would be needed to ensure that implementation is truly consistent with the goals of the program.

VI. Department of Commerce

National Oceanic and Atmospheric Administration

The NOAA Habitat Restoration Center has billions of dollars in projects that could be started immediately. NOAA has a proven track record in completing projects and generating jobs. NOAA received $167 million

dollars from the American Recovery and Reinvestment Act to restore coastal areas throughout the country and help jumpstart the nation's economy. The primary goals were to restore habitats and stimulate economic growth by supporting "shovel-ready" projects by putting American's back to work.

Coastal restoration is a significant source of jobs. It requires a diverse set of skills and materials that directly and indirectly employ a wide variety of people, including construction workers, engineers, ecologists, project managers, and heavy equipment operators. Key benefits of these projects include:

- Supporting an average of 15 jobs per $1 million invested (up to 30 jobs per $1 million invested for labor-intensive projects).
- Supporting 2,280 jobs, the majority of which were directly created by Recovery Act funding.
- Restoring 25,584 acres of habitat, opening 677 miles of stream for fish, and removing 433,397 tons of debris from coastal habitats.
- Expending $154.1 million dollars on projects to generate $260.5 million dollars in economic output (sales) annually.
- Contributing $143.7 million dollars in new or expanded economic activity nationwide.

These on-the-ground restoration projects opened historic river habitat, removed marine debris, reconnected tidal wetlands, and restored shellfish and coral reefs. Typical species that benefited include flounder, perch, groundfish, and salmon. The projects also enhanced a sense of community-level stewardship toward the restored habitats. Additional information, including case studies of several restoration projects can be found on NOAA's website[xxiii].

VII. Wildlife Conflict Reduction

Interactions between wildlife and people living in the same landscape are inevitable. Wildlife and humans are increasingly coming into contact due to our continued expansion into wildlife habitat, the re-establishment and growth of wildlife populations, and the impacts of climate change. While positive interactions with wildlife can provide enjoyment and a sense of connection, negative interactions can create challenges for both people and wildlife. Coexistence measures aimed at minimizing negative human-wildlife interactions can provide significant relief to communities dealing with such conflicts.

We urge Congress to provide additional funding and grants to state and federal agencies, landowners, Native American tribes, non-profit organizations and small businesses for the implementation of nonlethal conflict avoidance/reduction projects. These programs are administered through USDA Wildlife Services and Forest Service and the Department of the Interior Fish and Wildlife Service. This may include:

- Wildlife deterrence measures such as noise, lights, fladry and guard dogs
- Enclosed structures to secure attractants
- Removal and disposal of attractants (carcasses, spilled grain, etc.)
- Wildlife proof garbage storage and collection
- Wildlife proof food storage lockers
- Training and technical assistance

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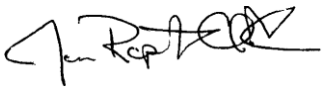
As you consider how to fund relief across the country that gets people back to work, we greatly appreciate your consideration of these priorities that support resilient natural systems and the health and economic well-being of the American people. Thank you for your attention.

Sincerely,



Jamie Rappaport Clark
President and CEO

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[i] IPBES. 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES, Bonn, Germany. Available at: https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf

[ii] Florida panthers, which face high mortality from vehicle strikes every year, are a prime example of an endangered species for which wildlife crossing investments could pay huge dividends for recovery.

[iii] See Gerber LR. 2016. Conservation triage or injurious neglect in endangered species recovery. Proc. Natl. Acad. Sci. U. S. A. 113:3563–3566 and an updated estimate of recovery cost requirements at https://defenders-cci.org/files/ESA_recovery_costs_2019.pdf

[iv] Ryan Richards, Center for American Progress. 2017. *Restoring Our Investment in America's Forests: How the 2018 Farm Bill Can Create New Jobs for Rural America*. https://www.americanprogress.org/issues/green/reports/2017/10/17/440816/restoring-investment-americas-forests/ According to this report, "As an industry, ecological restoration already generates $24.5 billion in economic activity and directly provides 126,000 jobs in the United States. For every $1 million invested in restoration, between 12 to 30 jobs are created, depending on the level of mechanization used on-site."

[v] For example, under the State and Private Forestry Landscape Scale Restoration (LSR) program the Forest Service works collaboratively with states and other partners to address critical forest priorities using an "all lands" approach. The 2018 Farm Bill officially codified the LSR program and authorized $20M in annual appropriations.

[vi] USDA Forest Service. 2011. *Watershed Condition Framework: A framework for assessing and tracking changes to watershed condition*. https://www.fs.fed.us/biology/resources/pubs/watershed/maps/Watershed_Condition_Framework2011FS977.pdf

[vii] The Forest Service attempts to manage 375,000 miles of roads, many of which degrade watershed conditions and pose a risk to clean water. Other roads are essential for public access and management and must be diligently maintained.

[viii] The National Forest System includes 25 major visitor centers and more than 26,000 recreation sites, comprised of campgrounds, trailheads, and day use sites. The Forest Service manages 143,000 miles of trails.

[ix] 2012 Forest Service National Visitor Use Monitoring Report

[x] Mechanical treatments are generally more effective when used together with prescribed fire to achieve and maintain desired conditions. Further, the Forest Service's own scientists estimate that many national forest acres that may benefit from ecological restoration are not even accessible for mechanical treatments.

[xi] See https://www.doi.gov/pressreleases/visitor-spending-national-wildlife-refuges-boosts-local-economies-32-billion

[xii] Defenders of Wildlife. 2017. *Keeping Wildlife First in Our National Wildlife Refuge System*. https://defenders.org/sites/default/files/publications/keeping-wildlife-first-in-our-national-wildlife-refuge-system.pdf

[xiii] Defenders of Wildlife. No date. Preliminary analysis of Endangered Species Act on the National Wildlife Refuge System. Report to be released in 2020.

[xiv] Defenders of Wildlife, *Keeping Wildlife First in Our National Wildlife Refuge System.*

[xv] FWS, "Transportation, Giving People Safe Access to Wildlife & Recreation" at p. 3.

[xvi] Defenders of Wildlife. 2020. FY2021 Interior and Related Agencies budget testimony. Available at: https://defenders-cci.org/files/Malcom_House_Testimony_FY_2021.pdf

[xvii] Available at: https://ecos.fws.gov/ipac/

[xviii] https://www.blm.gov/programs/natural-resources/native-plant-communities/national-seed-strategy. See the National Seed Strategy business plan for costs at https://www.blm.gov/sites/blm.gov/files/uploads/programs_natural-resources_native-plant-communities_national-seed-strategy_NSS-BUSINESS-PLAN.pdf.

[xix] Aycrigg JL, Belote RT, Dietz MS, Aplet GH, Fischer RA. 2015. Bombing for Biodiversity in the United States: Response to Zentelis & Lindenmayer 2015. Conservation Letters 8:306–307. DOI: 10.1111/conl.12197.

[xx] Stein BA, Scott C, Benton N. 2008. Federal Lands and Endangered Species: The Role of Military and Other Federal Lands in Sustaining Biodiversity. BioScience 58:339–347. DOI: 10.1641/B580409.
[xxi] See https://sentinellandscapes.org/
[xxii] Malcom JW, Li Y-W. 2015. Data contradict common perceptions about a controversial provision of the US Endangered Species Act. Proc. Natl. Acad. Sci. U. S. A. 112:15844–15849.
[xxiii] See https://repository.library.noaa.gov/view/noaa/15030