January 12, 2021

The Honorable Joseph R. Biden
President-Elect of the United States

Dear President-Elect Biden:

As your team works to address the current public health crisis and develop an economic recovery plan, you have an opportunity to create a large number of green, long-term jobs performing vital conservation and restoration work. Similar to the establishment of the Civilian Conservation Corps during the recovery from the Great Depression, your administration can jump-start the United States economy by investing $25 billion in new and existing conservation programs that will create hundreds of thousands of direct jobs and provide benefits to people, communities and the environment.[1]

On the ground conservation and restoration work has myriad benefits. Most importantly, this work is needed in virtually every corner of the United States, creates quality jobs impossible to outsource, and can provide employment opportunities for low-wealth communities, Black, Brown, Indigenous and other people of color, and younger people, all of whom are suffering disproportionately from this current economic downturn and the pandemic. Conservation work can—and should—be conducted in an equitable manner, guaranteeing fair wages and utilizing project labor agreements, community benefit agreements, local hire, and other provisions and practices that ensure the rights of workers and promote environmental justice.

The United States can overcome this economic hardship while protecting and restoring our unique natural resources, which include a diverse array of fish and wildlife and our national wildlife refuges, forests, parks, monuments and other public lands. Restoring wildlife, wild lands and waterways contributes to significant public health benefits for all people. As you begin to plan for the post-pandemic recovery, we urge you to direct funding to federal agencies and federal grant programs to support the work of state and local governments and agencies, Tribes, public universities, and small businesses to immediately implement the following conservation and restoration projects for the benefit of all.

RESTORING WILDLIFE AND PUBLIC LANDS

Prioritizing Endangered Species Recovery[2]

Threatened and endangered fish, wildlife and plants are found across the United States, and every imperiled species would benefit from additional conservation work to further their recovery. Despite their importance, recovery programs have been consistently and significantly underfunded, with recent

[1] Economic activity generated by restoration activities is well documented, producing between 13 and 30 jobs for every $1 million invested. Restoration of coastal wetlands can create as many as 29 jobs for every $1 million invested. https://cdn.americanprogress.org/wp-content/uploads/issues/2011/09/pdf/public_lands.pdf; see also Nielsen-Pincus, Max and Cassandra Moseley. Economic and Employment Impacts of Forest and Watershed Restoration in Oregon. Ecosystem Workforce Program. Working Paper Number 24, Spring 2010. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/10776/WP24.pdf?sequence=1

[2] The Endangered Species Act is a popular law that enjoys the support of 90 percent of American voters. "Poll Finds Overwhelming, Broad-Based Support for the Endangered Species Act Among Voters Nationwide," Tulchin Research. 2015. https://earthjustice.org/sites/default/files/files/PollingMemoNationalESASurvey.pdf

estimates indicating species receive less than one-quarter of the funding scientists indicate is required.[3] Habitat restoration, the removal of invasive plants, the humane management of invasive animal species, and translocating and restoring species to their historic range all are contingent upon having sufficient funding and capacity. The U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA) work in close partnership with other federal, state, local agencies, Tribal governments and private landowners, and these collaborations helped to save the California condor, gray whale, black-footed ferret, and the bald eagle from extinction. Similar work on other species could put thousands of people to work on environmentally beneficial projects in a COVID-19 stimulus bill.[4] Recovery projects should be prioritized whenever possible as a primary component of the other conservation initiatives discussed below.

Restoring Public Lands

Public lands – including national forests, national parks, national wildlife refuges and lands managed by the Bureau of Land Management – are crucial to the conservation of our nation's fish and wildlife and the well-being of its people. Unfortunately, landscapes and habitats on public lands nationwide have suffered significant harm and are in need of environmental and cultural resource restoration. Similarly, much of the infrastructure associated with the use of public lands has been abandoned, left in disrepair, is no longer needed, and/or creates hazards for public land users and wildlife. We urge you to prioritize and significantly increase reclamation and restoration work on public lands to create significant job opportunities and improve the beauty, function, and safety of public lands. Examples of projects and funding recommendations include:

- Removal of unauthorized and unneeded roads and trails that negatively impact fish and wildlife habitat, movement, and security;[5]
- Reclamation of orphaned well pads, abandoned mines,[6] and degraded rangelands;
- Removal of degraded and abandoned rangeland infrastructure, debris, and waste;
- Conversion and repair of existing or damaged rangeland infrastructure to mitigate impacts to fish and wildlife and safeguard sensitive habitats; and
- Support efforts to fully fund and expand the U.S. Youth Conservation Corps.[7]

Restoring Watersheds and Coastal Areas

Watershed and coastal restoration projects have immediate positive impacts for local communities, wildlife and water quality, including long-term benefits for advancing biodiversity and building resilience. For example, numerous national wildlife refuges are located along coasts and waterways and serve a crucial role buffering coastal areas and communities from climate change-induced sea-level rise, hurricanes and other storms; protecting shorelines; decreasing erosion; and sequestering carbon. Federal,

[3] See for example https://defenders-cci.org/files/ESA_recovery_costs_2019.pdf; and https://www.biologicaldiversity.org/programs/biodiversity/pdfs/Shortchanged.pdf..

[4] https://www.fws.gov/ecological-services/about/what-we-do.html, https://www.fisheries.noaa.gov/feature-story/habitat-restoration-supports-jobs-stewardship

[5] The Legacy Roads and Trails Remediation Program (LRT) is an example of a very successful program created by Congress to address problems with the USFS's massive roads and trails system. LRT has created many thousands of good jobs while restoring watersheds and habitat, improving access and recreation, and providing drinking water protection. See:. https://www.fs.fed.us/restoration/Legacy_Roads_and_Trails/

[6] https://www.americanprogress.org/issues/green/reports/2020/04/29/484158/congress-can-help-energy-states-weather-oil-bust-coronavirus-pandemic/

[7] https://www.nps.gov/subjects/youthprograms/ycc.htm

state, local and Tribal agencies have already identified countless conservation projects that could be immediately implemented with additional funding.[8] Project funding should be prioritized to improve water quality, fish habitat, aquatic connectivity and stream flows; serve disadvantaged and frontline Environmental Justice communities; and recover endangered species. Below are examples of watershed protection and restoration projects, many of which are supported by existing programs and could be immediately implemented with additional funding:

- Decommissioning, repair and/or relocation of roads that negatively impact waterways and water quality, including removal or replacement of culverts to reconnect stream segments and re-establish passage of native aquatic species;[9]
- Restoration of natural stream channels and hydrologic flows, including removing dams and water diversion infrastructure and stabilizing gullies;[10]
- Restoration of coral reefs, coastal dunes, and estuaries;[11]
- Creation of wetlands and other natural alternatives to gray infrastructure;[12] and
- Humane management of invasive animal species, removal of invasive plant species and restoration of native vegetation for wildlife habitat and stream bank stability.[13]

Safeguarding Key Wildlife Corridors and Reducing the Impacts of Infrastructure on Wildlife[14]

Connecting fish and wildlife habitats is critical to conserving biodiversity in the face of habitat fragmentation, climate change, and other individual and cumulative stressors, which will increasingly trigger geographical shifts for wildlife populations and plant communities. Many benefits accrue from facilitating the safe and unimpeded movement of fish and wildlife — from saving lives by reducing collisions between vehicles and wildlife, to restoring functional wildlife corridors.[15] The activities listed below would create smart infrastructure with significant economic returns, support state efforts to mitigate the harmful effects of roads, and help create more climate resilient landscapes that protect people and wildlife.

- Identification and management of wildlife corridors by increasing agency capacity, funding improvements, and directing grants to landowners, states, and Tribes;

---

[8] For example: https://www.epa.gov/hwp/what-epa-doing-healthy-watersheds, https://www.fisheries.noaa.gov/topic/habitat-conservation#how-we-restore

[9] See LRT program above and https://www.fisheries.noaa.gov/national/habitat-conservation/reopening-rivers-migratory-fish

[10] https://www.fisheries.noaa.gov/national/habitat-conservation/current-and-past-community-based-restoration-projects

[11] https://www.epa.gov/nep and https://www.noaa.gov/topic-tags/coastal-restoration

[12] A single acre of wetlands can hold up to 1.5 million gallons of rain or melting snow. Wetlands, once constructed or restored, also require little to no maintenance investment, a savings over conventional water treatment options. See: Function and Value of Wetlands. EPA 843-f-01-002c. Sep. 2001. Available at https://www.epa.gov/sites/production/files/2016-02/documents/functionsvaluesofwetlands.pdf, https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=30004TBD.TXT, and https://www.wateronline.com/doc/constructed-wetlands-a-low-cost-alternative-0002

[13] See for example: http://escalanteriverwatershedpartnership.org/success-stories/healthy-rivers-and-healthy-communities-story/ and https://www.troutheadwaters.com/services-restoration-mitigation-climate-more/, and https://www.beaverinstitute.org/management/stream-restoration/

[14] The Administration should consider endorsing and incorporating the bipartisan Wildlife Corridors Conservation Act of 2019, H.R. 2795 and (S. 1499) and the Tribal Wildlife Corridors Act of 2019, H.R. 5179 (S. 2891) passed by the House Natural Resources Committee in 2020, and the bipartisan wildlife crossing pilot program (Section 1125) and related provisions expanding wildlife infrastructure funding eligibility found in S.2302 unanimously passed by the Senate Environment and Public Works Committee in July 2019 and in H.R. 2 passed by the House in June 2020.

[15] To learn more about this issue, this publication on highway crossings for wildlife discusses benefits that could be expected to accrue from a national commitment to increase driver and animal safety: https://arc-solutions.org/wp-content/uploads/2017/04/ARC-Special-Pub-White-Paper.pdf. The Federal Highway Administration's 2008 Report to Congress containing a wildlife-vehicle collision reduction study contains additional useful information: https://www.fhwa.dot.gov/publications/research/safety/08034/08034.pdf

- Construction of wildlife overpasses, underpasses, and bounding fences across busy roads and highways;[16]
- Removal, re-siting, or modifying infrastructure that is a barrier to fish and wildlife migrations and movements;
- Burial of transmission lines to reduce bird strikes and other impacts to wildlife; and
- Developing and employing technology to reduce impacts to wildlife from energy production and other infrastructure.

Addressing Invasive Species and Restoring Native Plants

Invasive species undermine critical infrastructure, placing entire communities at risk, overwhelming some of the most treasured and biologically significant landscapes in the United States, and leading to degraded habitat for fish and wildlife.[17] For example, over two million acres in the National Refuge System are infested with invasive plants, and more than 1,700 invasive animal populations are found on refuge lands. Yet current funding and capacity only allows treatment of a small fraction of the impacted acres.[18] Addressing the proliferation of invasive species, restoring degraded landscapes, and protecting vital infrastructure is urgently needed and will provide many new jobs while generating substantial returns on investment.[19] Timely examples of potential actions include, but are not limited to:

- Substantial increases in federal and state agency staffing in the areas of import/border inspection for agriculture and wildlife;[20]
- Creation of additional invasive species strike teams on national wildlife refuges and other public lands to remove invasive plants and humanely manage invasive animals;
- Direction to the Bureau of Land Management Plant Conservation and Restoration Program to implement the National Seed Strategy,[21] including the construction, operation and maintenance of up to five native seed storage facilities across the country;
- Expansion of existing contracts for seed collection and research, and support native plants material development on Tribal lands, including culturally significant plants; and
- Establishment of a comprehensive national survey of invasive plants and animals.

Promoting Wildlife Coexistence

Wildlife and humans are increasingly coming into contact due to expansion of the development footprint into wildlife habitat. The need to increase coexistence efforts where wildlife conflicts are already occurring (or are likely to occur) is clear and demonstrable. Additionally, efforts must be made to safeguard wildlife from negative impacts associated with human development by implementing non-lethal programs and projects in communities that are in need of adaptation for coexistence with native wildlife. This may include but is not limited to:

---

[16] For a list of potential projects, see https://wildlandsnetwork.org/wp-content/uploads/2020/05/Wildlife-Crossing-List-for-Infrastructure-Funding.pdf. For a list of wildlife crossing success stories, see https://arc-solutions.org/success-stories/.

[17] https://www.doi.gov/sites/doi.gov/files/uploads/invasive_species_impacts_on_infrastructure.pdf, and https://www.doi.gov/sites/doi.gov/files/uploads/invasive_species_impacts_on_federal_infrastructure.pdf

[18] Cooperative Alliance for Refuge Enhancement: Testimony submitted to U.S. Senate Appropriations Committee Subcommittee on Interior, Environment and Related Agencies FY 2021 Appropriations Request for National Wildlife Refuge System

[19] https://www.doi.gov/sites/doi.gov/files/uploads/isac_green_economy_white_paper.pdf

[20] Reaser and Waugh 2007; https://portals.iucn.org/library/sites/library/files/documents/2007-058.pdf

[21] https://www.blm.gov/sites/blm.gov/files/programs_natural-resources_native-plant-communities_national-seed-strategy_pca_Framework.pdf

- Development and implementation of wildlife-friendly waste management strategies;[22]
- Installation of electric fencing and application of other non-lethal wildlife deterrents;
- Creation and maintenance of livestock composting facilities and carcass removal programs;
- Expansion of on-the-ground community outreach and education programs;[23]
- Increases in funding for federal, state and Tribal non-lethal wildlife conflict specialists; and
- Creation of pilot programs geared towards creative, non-lethal solutions to conflicts in the wildland-urban interface.

Conclusion

Bold investments and initiatives to stimulate the economy through the restoration of public lands, waters, and fish and wildlife habitat not only have the potential to put hundreds of thousands of people to work, but also to ensure more resilient ecosystems and communities throughout the United States. The result would be enduring public health benefits and quality of life improvements.[24] Accordingly, programs that focus on restoration rather than resource extraction and consumption, promote coordination and cooperation with local communities, and embody the principles of environmental justice should be prioritized. Recovery programs should fully comply with all laws designed to safeguard the environment, workers and the public. Scientists warn that relaxing environmental standards will only lead to future pandemics.[25] For that reason, we urge you to fully enforce and strengthen our bedrock environmental laws including the restoration of critical protections under the Endangered Species Act, the Clean Water Act, the Clean Air Act, and the National Environmental Policy Act.

We must also ensure that our programs and policies are designed to protect against future pandemics. Decades of scientific studies have warned that—in addition to live wildlife markets—habitat destruction and biodiversity loss create significant risk of zoonotic disease spillover into the human population.[26] The projects and programs we have outlined above, which focus on changing our relationship with the natural world by restoring lost and degraded fish and wildlife habitat, promoting coexistence, and increasing biodiversity, are key steps toward protecting against future pandemics.

Thank you for your attention to these important issues and proposals. We look forward to working with you on a stimulus package that provides relief and recovery from the crisis triggered by COVID-19, and safeguards the health and resilience of people, public lands and wildlife for generations to come.

Sincerely,

Advocates for Snake Preservation
Advocates for the West
All-Creatures.org
Alliance for the Wild Rockies
Animal Defenders International
Animal Legal Defense Fund

[22] http://www.bearsmart.com/managing-communities/waste-management/

[23] For example: hiring additional wildlife rangers, conducting bear identification and bear spray deployment clinics, printing and distribution of education materials, conducting livestock husbandry workshops, purchase of equipment for removal of attractants, etc. See also: http://fwp.mt.gov/fwpDoc.html?id=95623

[24] Additional resources and information on many of the programs and benefits of restoration and recovery projects can be found at: https://www.endangered.org/protect-our-ecology/

[25] Settele, Josef, Sandra Díaz Eduardo Brondizio, and Dr. Peter Daszak. COVID-19 Stimulus Measures Must Save Lives, Protect Livelihoods, and Safeguard Nature to Reduce the Risk of Future Pandemics. April 27, 2020. Available at https://ipbes.net/covid19stimulus.

[26] See, e.g.: Ostfeld RS, Biodiversity loss and the rise of zoonotic pathogens. Ja. 2009. Available at https://www.ncbi.nlm.nih.gov/pubmed/19220353; Wilkinson, David A., Jonathan C. Marshall, Nigel P. French, and David T. S. Hayman. Habitat fragmentation, biodiversity loss and the risk of novel infectious disease emergence. Dec. 2018. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6303791/.

Animal Welfare Institute
Animals Are Sentient Beings, Inc
Animas Valley Institute
Appalachian Trail Conservancy
Association of Zoos and Aquariums
Atlanta Botanical Garden
Audubon Society of Central Arkansas
Bark
Battle Creek Alliance & Defiance Canyon Raptor Rescue
Bayou City Waterkeeper
Berkeley Partners for Parks
Bernheim Arboretum and Research Forest
Bird City Wisconsin
Bird Conservation Network
Blue Mountains Biodiversity Project
Born Free USA
Brighter Green
Californians for Western Wilderness
Cascades Raptor Center
Center for Biological Diversity
Center for Large Landscape Conservation
Champaign County Forest Preserve District
Citizens Committee to Complete the Refuge
Clark Fork Coalition
Coalition on the Environment and Jewish Life
Coalition to Protect America's National Parks
Conservation Congress
Conservation Council For Hawaii
Cool Planet
Defenders of Wildlife
Earth Ethics, Inc.
Earthjustice
Eastern Coyote/Coywolf Research
Eastern Oregon Legacy Lands
Endangered Habitats League
Endangered small animal Conservation fund
Endangered Species Coalition
Environmental Protection Information Center
Florida Wildlife Federation
Franciscan Action Network
Friends of Alaska National Wildlife Refuges
Friends of Blackwater, Inc.
Friends of Harbors, Beaches and Parks
Friends of Nevada Wilderness
Friends of the Bitterroot
Friends of the Inyo
Friends of the Sonoran Desert
Friends of the Wild Swan
Fund for Wild Nature
Gallatin Wildlife Association
Gaviota Coast Conservancy
Grand Canyon Trust
Grand Staircase Escalante Partners
Great Old Broads for Wilderness
Great Salt Lake Audubon
Greater Hells Canyon Council
Hilton Pond Center for Piedmont Natural History
Hoosier Environmental Council
Howling For Wolves
Illinois Environmental Council
In Defense of Animals
Inland Ocean Coalition
Institute for Applied Ecology
International Fund for Animal Welfare
International Marine Mammal Project of Earth Island Institute
Keep Coyote Creek Beautiful
Kentucky Heartwood
Kettle Range Conservation Group
Klamath Forest Alliance
Klamath-Siskiyou Wildlands Center
Libby Creek Watershed Association
Life of the Land
Los Padres ForestWatch
Maine Audubon
Maryland Ornithological Society
Maryland United for Peace and Justice
Mass Audubon
Michigan Audubon
MIghty Earth
Milwaukee Riverkeeper
Minnesota River Valley Audubon Chapter
Mountain Lion Foundation
National Wolfwatcher Coalition
Natural Resources Defense Council
NC WARN
Northeast Oregon Ecosystems
Northern California Council, Fly Fishers International
Northern Rockies Conservation Cooperative

Northwest Center for Alternatives to Pesticides
Ocean Conservation Research
Oceanic Preservation Society
Oregon Natural Desert Association
Oregon Wild
Organized Uplifting Resources and Strategies
Patagonia
Pathways: Wildlife Corridors of NM
Predator Defense
Project Eleven Hundred
Public Employees for Environmental Responsibility
Public Lands Project
R2H Action [Right to Health]
Rachel Carson Council
Raptors Are The Solution
Resource Renewal Institute
RESTORE: The North Woods
Rocky Mountain Wild
Sacramento River Watershed Program
Salem Audubon Society
San Jose Peace and Justice Center/Collins Foundation
San Luis Valley Ecosystem Council
SanDiego350
Santa Clara Valley Audubon Society
Save Animals Facing Extinction
Save The Colorado
SAVE THE FROGS!
Sequoia ForestKeeper®
Seven Circles Foundation
Shagbark
Sierra Club
Sky Island Alliance
Social Compassion in Legislation
Soda Mountain Wilderness Council
South Florida Wildlands Association
South Yuba River Citizens League
Southeastern Plant Conservation Alliance
Southern Environmental Law Center
Southwest Environmental Center
Tennessee Riverkeeper
The Carl Safina Center
The Grazing Reform Project
The Lands Council
The Rewilding Institute
Turtle Island Restoration Network
Utah Audubon Council
Utah Native Plant Society
Ventana Wilderness Alliance
Western Environmental Law Center
Western Slope Conservation Center
Western Watersheds Project
Western Wildlife Conservancy
Western Wildlife Outreach, WA
WILD HORSE EDUCATION
Wild Nature Institute
WildEarth Guardians
Wildlands Network
Wisconsin Society for Ornithology
Wyoming Wilderness Association
Wyoming Wildlife Advocates
Yellowstone to Uintas Connection