Testimony of Mr. Collin O'Mara President and CEO of the National Wildlife Federation United States Senate Committee on Energy and Natural Resources June 24, 2021

Chairman Manchin, Ranking Member Barrasso, and members of the Committee, thank you for inviting me to testify today. I am here on behalf of the National Wildlife Federation, the nation's largest member-based conservation group representing more than six million wildlife and outdoor enthusiasts and 53 state and territorial affiliates across the country.

The work the Committee is undertaking to forge 21st century infrastructure solutions is critical and life-saving. We of course need such investments for economic competitiveness and job creation, but such investments are equally important to our safety and health. A recent report released from a panel of international scientists earlier this month makes another clarion call to put the planet on a path toward a sustainable, healthy future by significantly reducing greenhouse gas pollution—or pay a disastrous price through extreme weather events, devastation of agricultural production, and international conflict over natural resources. The authors suggest that our human well-being relies upon both tackling the climate crisis and the biodiversity crisis.

The two are intertwined in both the causes and solutions. This is not an intellectual problem in the abstract. It is an urgent problem. We are inextricably tied to nature. Consider just one example: one-third of our food comes from wild pollinators. It makes for a simple deduction-what befalls nature befalls us. That's why your work both in this Committee and across Congress is so crucial now. By saving nature, we save ourselves.

As the Committee's discussion draft of the bipartisan Energy Infrastructure Act of 2021 illustrates, we have two allies in the critical work ahead: technological innovation and restoration of natural systems. The first, technological innovation: humans have shown over and over again how to solve problems. Innovation is at the core of what must drive the solutions to rebuild our nation's crumbling infrastructure, reduce the vulnerability of our grid, adopt cleaner sources of energy, revitalize communities, reduce pollution, restore degraded ecosystems, and avert the climate crisis. Our second ally is nature — natural infrastructure has delivered services for millennia: it protects communities from extreme weather and provides the air we breathe, the clean water we drink, the food we eat. Until the industrial era, it kept the carbon cycle in check. It is an elegant, engineering marvel and supports all life as we know it.

Through innovation and natural infrastructure, we can and must set ourselves on the path to a livable, sustainable future. It won't be easy but it will be full of opportunity. Investment in clean energy, manufacturing, innovation, natural infrastructure restoration, resilience, and reclamation will create millions of good-paying jobs across the country and launch new small businesses, while making our communities safer, healthier, and more prosperous. Doing this in a way that creates well-paying, family sustaining jobs through prevailing wage jobs, is essential to ensuring that more American families benefit from these essential investments.

Just as we need a whole-of-government approach to solve the climate and biodiversity crises, we will need all of Congress. It's appropriate that this particular Committee, with its long history of

bipartisanship and comity, is leading this conversation. This Committee's inspired work during the last Congress on the Great American Outdoors Act, the John D. Dingell, Jr., Conservation, Management, and Recreation Act, and the Energy Act of 2020, showed that significant bipartisan solutions can be forged for both our natural resources and technological advancement.

The bill before you today, the Energy Infrastructure Act, represents a solid foundation and the broad suite of tools available to the committee to help us transition to a clean energy economy. We believe it provides numerous critical investments in clean energy and infrastructure projects that will put Americans back to work, support the transition to clean energy solutions, and ensure our public lands and waters help drive climate and biodiversity solutions. We also believe that many parts of this bill are entirely consistent with the parts of the President's American Jobs Plan that are within this Committee's jurisdiction. This bill alone cannot solve all of the challenges we face, but it's a critical first step and we look forward to working with this Committee and other Committees to ensure the sum of all the parts rises to the moment.

Clean Energy

This bill represents the most significant investment in our committee's history to address the 20 percent of greenhouse emissions that come from the industrial sector, as well as advancing significant investments to reduce pollution in the power sector—and it does so in ways that support the creation of good-paying jobs, advance domestic manufacturing, reduce criteria pollution, lower energy bills, and build a competitive advantage developing technologies to export around the globe.

By funding critically important research and deployment programs, providing decarbonization assistance to states and manufacturers, and directing planning for modern transmission and electrification of the transportation sector, the bill puts forward a thoughtful approach to readying the grid for the future we need. That future requires a massive expansion of renewable and other clean sources of electricity, deployment of carbon capture, utilization, and storage, and smart technology to improve industrial and building efficiency. The bill also recognizes the threats posed to our energy systems by climate change itself, and invests in strategies to improve resilience and reliability in the face of increasingly severe weather events.

Innovation

We are excited to see all of the authorizations that were thoughtfully developed as part of the incredible bipartisan leadership from then-Chairman Murkowski and Senator Manchin in the Energy Act of 2020 being fully funded through this bill. The bill's emphasis on funding critical studies, pilot projects, and demonstration, are each essential to accelerating the development and commercialization of energy storage, carbon capture, utilization, and storage, hydrogen, advanced nuclear, rare earth elements, renewables, and direct air capture technologies. We appreciate the countless synergies between these sections and the President's American Jobs Plan.

Industrial Sector

We are pleased that the bill emphasizes the importance of reducing emissions in the industrial sector through carbon capture, utilization and storage, and other process improvements. To meet our 2030 and 2050 climate goals, we will need to capture, remove, and store more than a gigaton of carbon dioxide annually through technological and natural means, even while cutting emissions at the source. And, early research is showing that carbon capture retrofits can also achieve significant reductions in criteria pollution from particulate matter, sulfur dioxide, mercury, and heavy metals (we still have more work to do to reduce oxides of nitrogen) that are currently harming the health of too many Americans, particularly frontline communities. Ensuring that carbon capture technologies also achieve demonstrable improvements in air quality is going to prove essential to building the public support necessary for widespread deployment. We appreciate the leadership of Senators Manchin, Barrasso, Cassidy, and so many other in this area.

We're also encouraged by the Energy Infrastructure Act's proposed investment in the buildout of infrastructure to carry carbon dioxide from where it is captured to where it can be used or stored. We urge that these investments prioritize and incentivize reuse and expansion of existing infrastructure and existing right-of-ways, as envisioned by the SCALE Act.

Transmission

We greatly appreciate all of the Committee's attention to transmission expansion. Strengthening the Department of Energy (DOE) authority to enact a national transmission plan that is optimized across states and regions is critical to meeting our national needs, as we've seen in recent months. The transmission loan authority for DOE in Section 1007 is particularly thoughtful and could be expanded, because it solves the long-standing chicken-or-egg problem of undersized transmission or delayed projects due to the traditional user pre-pay model. We also encourage further simplification of FERC backstop siting authority, as well as additional resources for cost-sharing interregional transmission lines and the Smart Grid Investment grant program to facilitate greater collaboration and engagement.

We would also encourage that, similar to the SCALE Act, transmission and carbon pipeline projects prioritize buildout of existing infrastructure and existing right-of-ways wherever possible, instead of breaking new ground and further fragmenting wildlife habitat. We believe there are financial and permitting incentives that could drive infrastructure to places that make the most sense economically and ecologically. We also urge the committee to include requirements that the Department of Energy analyze local environmental impacts of new infrastructure and encourage early community engagement.

Renewable Energy

Wind, solar, and geothermal are being deployed at scale today, but could be adopted even more quickly to meet climate goals with additional direct investment and incentives. We urge the committee to work closely with Chairman Wyden and the Finance Committee on these direct incentives to accelerate clean energy deployment, while also considering enhancements to the Department of Energy's various loan programs and grants for renewable energy resource deployment to help speed the transition, particularly in disadvantaged communities and those on the frontlines of climate change and harmful pollution. Further, we encourage the Committee to

continue working with your colleagues on Environment and Public Works to develop an emission-based clean energy standard and with Finance on carbon pricing mechanisms that would complement these critical infrastructure investments and further accelerate deployment.

Critical Minerals

In order to transition to a clean energy future, this country will rely on a variety of critical minerals and we would much rather safely secure these minerals here than face the national security risk and environmental degradation that will continue if the supply chain is primarily abroad. It's unconscionable that we currently depend upon cobalt mined by children in the Congo and other minerals sources largely from unstable or antagonistic nations. We appreciate this Committee's attention and Senator Murkowski's commitment to this issue.

We applaud the bill's requirement to assess existing closed and abandoned mines for the potential of sourcing these critical minerals and rare earth minerals. We urge the committee to compliment this effort with significant incentives to increase the recycling and reuse of these minerals. Today, less than one percent of rare earth elements are recycled. It's essential that we drive more private investment and emphasis on the importance of recycling as a means of curing supply shortages of not just critical mineral and rare earth elements, but also materials like copper that are necessary for a range of renewable technologies. We encourage the Committee to build upon the existing Section 2008 on battery recycling and consider adding Senator King's Battery and Critical Mineral Recycling Act of 2021 to the package.

We'd also like to continue to work with the Committee on several other provisions related to mining. We'd urge caution on some of the permitting provisions, as the GAO has found that federal mine permitting averages two years which is consistent with other nations and that most delays are usually due to a failure of the mining company to provide sufficient and timely information to the permitting agency.

We also believe that as part of a larger conversation about increased domestic mining that there are additional places worthy of permanent protection, such as the Boundary Waters, Greater Grand Canyon, Bristol Bay, Chaco Canyon, Oak Flat, etc., and that there are bipartisan conversations to be had on modernizing the 1872 General Mining Act to ensure companies pay royalties on the shared public resources they extract from the ground, as well as establishing a formal hardrock mine reclamation program.

Natural Infrastructure Restoration & Resilience

Protecting and restoring natural systems is often the most cost-effective and efficient solution for bolstering resilience to extreme weather, fires, droughts, floods, and hurricanes, while also enhancing biodiversity. Natural infrastructure, like wetlands and forests, also provide communities with additional benefits like pollution filtration, carbon sequestration, wildlife habitat, and recreational opportunities. Investing in pre-disaster mitigation through natural defenses demonstrates a benefit-cost ratio of 6:1 for every federal dollar invested. Better still, restoring natural infrastructure is a particularly cost-effective for job creation, because most funding goes towards labor.

Orphan Well and Abandoned Mine Reclamation

We greatly appreciate that the committee addresses the festering issue of orphaned oil and gas wells and abandoned mines on the landscape. The economic recession created by the pandemic, coupled with oil and gas and coal markets that have trended downward for years, provides a critical moment to address the issue, as skilled workers in energy-dependent communities seek good-paying jobs that can sustain families, while confronting long-standing environmental injustices harming local communities.

The need is acute for abandoned mine lands. Tens of thousands of abandoned coal mines pose risk to human and wildlife health. We can put tens of thousands of people to work in communities affected by the boom and bust cycles of these mines. We thank Chairman Manchin for his tireless leadership to secure this critical funding, as well as for his leadership of the RECLAIM Act, which would help revitalize distressed communities through reclamation and restoration of natural resources—all of which would go a long way toward addressing these pressing environmental, health and energy transition issues in coal country. Significant investment in the Abandoned Mine Lands (AML) program would also provide much-needed support to coal workers suffering long-term health effects of underground mining.

In addition to abandoned coal mines, there are approximately 57,000 documented orphaned oil and gas wells on federal, state, tribal and private lands and up to 745,000 undocumented orphaned oil and gas wells, according to the Interstate Oil and Gas Compact Commission, that were drilled and abandoned before modern regulation. Many of these sites leak methane, a greenhouse gas that is 84 times more potent than carbon dioxide in the first two decades of its release. Quite simply, there is an overwhelming need to fix this problem. Properly plugging these sites will reduce methane emissions, increase economic productivity of agricultural lands, reduce invasive species, protect groundwater and restore connectivity of native habitats. Investing \$4.7 billion in fixing the problem would put tens of thousands of people to work immediately in energy-producing states, a critical job lifeline. We estimate that this investment could plug over 150,000 documented and undocumented wells. We are grateful for the leadership of Senators Cramer, Luján, Hoeven, and Heinrich on this important issue.

We also encourage the Committee to address the underlying problem that bonding has been chronically low for oil and gas wells. If we invest taxpayer dollars today in cleaning up the problem of abandoned wells, we should assure taxpayers that we won't repeat the problem. A September 2019 GAO report indicates that at least 84 percent of collected bonds are insufficient to fully recover reclamation costs in a low-cost scenario; the number jumps to 99 percent in its high-cost scenario. Either way, this leaves a remarkable liability for taxpayers. We urge this committee to take up bonding reform efforts, such as the bill proposed by Senator Bennet just this week.

We would also urge the Committee to consider adding at least \$5 billion to clean up the nation's abandoned hardrock and uranium mine sites and related pollution problems. There are roughly a half-million abandoned hardrock mines across the United States. Of those, the Government Accountability Office identified at least 140,000 sites on lands under federal jurisdiction, 67,000 of which may pose dangers of injury or death. About 22,500 pose risks to human and wildlife health. There is no national cleanup fund to address this massive problem – only an inadequate

patchwork of funding sources, such as Superfund, for which many hardrock sites would not be eligible. As President Biden proposed in the American Jobs Plan, we encourage this Committee to invest in hardrock and uranium mine reclamation, which will also deliver economic, health, and environmental benefits as those generated by coal mine and oil and gas well reclamation.

Confronting Escalating Wildfires

Megafires—wildfires that reach over 100,000 acres—were once a rarity on the landscape, and now they are becoming the norm. A combination of historic fire suppression, cycles of wet springs followed by record drought, invasive species, and other climate-fueled changes on the landscape have created a tinderbox. We must address this problem head-on to protect the millions of Americans that live within the wildland-urban interface and this bill provides an excellent start.

We deeply appreciate the significant down-payment of funding in the bill for urgently needed forest restoration work, including hazardous fuels reduction, prescribed burning, and watershed health projects—and we urge the Committee to go even further. To effectively restore our forests and reduce fire risks over the next five years, we need at least \$60 billion of investment in the National Forests, State forests, Tribal forests, private forests over the next five years, including at least \$33 billion for the U.S. Forest Service. We urge this Committee to work with Chairwoman Stabenow, Ranking Member Boozman, and the Committee on Agriculture to significantly increase the level of forest and fire resilience investments across landownership types. Both Senator Wyden and Senator Bennet have proposed thoughtful legislation that we would encourage including in the final package.

We also encourage the committee to increase the level of restoration ambition. The bill calls for treating at least 10 million of the 46.8 million acres of federal and tribal land identified as "very high" for wildfire hazard potential by 2027. Given the cascading risks of catastrophic fire, we need to accelerate the pace of restoration significant and aspire to eliminate restoration backlog within a decade, fully acknowledging that this is a significant undertaking that will require greater investments in the agency staffing, infrastructure, planning, and collaboration.

We would also encourage the Committee to be less prescriptive in Section 8003. For example, we applaud the inclusion of Collaborative Landscape Forest Restoration Program (CFLRP) in the bill, but believe that the requirement to focus on lowest overall cost and cost per acre could be counterproductive and would undermine the collaborative, community-based decision making that is at the heart of the CFLRP program. We recommend that CFLRP projects should be funded based on projects that have the most benefits for public safety, watershed health, fish and wildlife habitat, and to local communities instead.

We urge the Committee to leave assessment of the trade-offs between ecological and risk-reduction objectives in our National Forests to the agencies. By prioritizing climate-informed, ecologically appropriate, and adaptive management practices—and not merely cost—we will ensure that actions related to wildfire risk reduction and forest restoration will not only protect the most vulnerable communities, but also increase the resilience of forest ecosystems in the face of rapidly changing climatic conditions.

We also thank the Committee for including funding for the Forest Service's Legacy Roads and Trail Remediation Program, which fixes roads that contribute to water quality problems in streams and other bodies of water that support species recovery and community water sources. It prioritizes roads that need to be relocated, decommissioned, or updated located near streams or wetlands or on sensitive soils. In addition to the critical funding in this bill, we recommend Congress codify the Legacy Roads and Trails program to continue protecting habitat, improving water quality, and creating jobs.

Reducing Fire Risks on Rangelands and Grasslands

We greatly appreciate the bill's focus on restoring healthy forests and reducing fire risks. We urge the committee to place much greater focus on restoration of the 247 million acres managed by the Bureau of Land Management. Today, invasive cheatgrass covers 100 million acres of land in the United States, largely on BLM lands, a serious problem for both wildlife and cattle and a catalyst for catastrophic fire and ecosystem degradation on both public and private land. Rangeland fires are increasing in intensity as invasive grasses are a ladder fuel, making fires burn hotter and farther. Grassland bird populations have declined by 40 percent in our lifetimes, and some indicator species, like the greater sage-grouse and lesser prairie chicken, are teetering on the edge of listing under the Endangered Species Act.

We urge the Committee to include an additional \$6.5 billion for forest restoration and hazardous fuels management, and reduction of fire risks on Bureau of Land Management lands and an additional \$6 billion for rangeland management and restoration of sagebrush steppe and grasslands, removal of invasive vegetation, water resources resilience, and research on Bureau of Land Management and Tribal lands. (We are also working on a North American Grasslands Conservation Act, modeled after the highly successful North American Wetlands Conservation Act, that would complement these efforts on private lands that is under EPW's jurisdiction.) This investment would significantly reduce fire risks, increase water resources and mitigate drought conditions, improve range management to benefit livestock and wildlife—including reversing the downward spiral of grassland bird populations, and enhance carbon storage—all while creating jobs in rural communities.

Hurricane Resilience

While much of the jurisdiction for hurricane resilience resides in other committee, it is a significant infrastructure need similar to the threats we face from megafires. We encourage the committee to work with Senator Cassidy and Senator Whitehouse on strategies within this Committee's jurisdiction to invest in the restoration of coastal defenses, such as wetlands, dunes, and living shorelines, that can save billions of dollars in avoided damage from extreme weather.

Moving Forward

The Energy Infrastructure Act of 2021 provides a critical foundation to ensuring our nation has 21st century infrastructure that enhances our economic competitiveness, creates well-paying jobs, expands domestic manufacturing, and moves us one step closer to having the technological and natural infrastructure investments necessary to avert the climate crisis. This bill addresses many of the critical investments that are within this Committee's jurisdiction and we urge this Committee to work with other key committees on priorities where jurisdictions overlap.

Several Senators, such as Senator Wyden, Senator Coons, and Senator Casey, have introduced legislation to create or enhance a Civilian Climate Corps that would largely work on the lands under this Committee's jurisdiction. We encourage this Committee to work with the Committee on Health, Education, Labor and Pensions to convene a robust conversation about how these proposals intersect so that people, especially youth, can quickly be put to work repairing natural infrastructure and restoring our forests, wetlands, and degraded ecosystems.

When combined with the other pillars of an infrastructure package from the Senate Environment and Public Works Committee, Finance Committee, and Banking Committee, this bill would achieve significant progress in the fight to address climate change. This discussion draft pairs well with complementary efforts from other committees. This bill's innovation investments pair well with Finance Chairman Wyden's clean energy incentives. The resiliency grants, funding for wildlife crossings, and emissions-reduction provisions developed by EPW Chairman Carper and Ranking Member Capito through Surface Transportation Reauthorization Act of 2021 complement the investments of this package. Agriculture Chairwoman Stabenow has developed an incredibly thoughtful package of infrastructure investments on working lands to bolster productivity, resilience, and carbon sequestration through Farm Bill conservation programs and forestry programs, particularly as envisioned by legislation like Senator Bennet's Outdoor Restoration Partnership Act (S. 1248) and more robust Natural Resource Conservation Service programs are key to the work ahead, where Americans are a part of charting our sustainable future in the jobs they do each day. We're also working to ensure inclusion of the bipartisan Recovering America's Wildlife Act, which would complement many of the natural resource provisions of this bill by investment in proactive, collaborative restoration of our natural infrastructure to save thousands of imperiled species.

Conclusion

Chairman Manchin's bipartisan Energy Infrastructure Act of 2021 and the work of the entire Committee on Energy and Natural Resources could not come at a more critical time. We look forward to working with the Committee to strengthen the bill during the markup process on its way to the Senate floor. As our nation recovers from a deadly pandemic and as the twin climate and biodiversity crises reaching tipping points, there is not a moment to waste. Passing a bold, ambitious infrastructure bill would not only help secure our economic future and equitably create well-paying jobs, but would avert disasters that would otherwise have devastating consequences for generations. We urge the Committee to act boldly. Thank you.