NATIONAL FISH AND WILDLIFE FOUNDATION

2019 CONSERVATION INVESTMENTS









The National Fish and Wildlife Foundation is dedicated to sustaining, restoring and enhancing the nation's fish, wildlife, plants and habitats for current and future generations.

NFWF will advance its mission through innovative public and private partnerships, and by investing financial resources and intellectual capital into science-based programs designed to address conservation priorities and achieve measurable outcomes. Black skimmers

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In fiscal year 2019, NFWF invested more than \$507 million to support more than 930 projects across the nation.

Mountain goat



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UNITED STATES FISCAL YEAR 2019 CONSERVATION INVESTMENTS

ALABAMA

Alabama Forestry Foundation

Improving Habitat for At-Risk Species in the Alabama Cumberlands III

Restore riparian and upland forests on private lands in north Alabama benefiting at-risk freshwater mussels, such as the Cumberland moccasinshell and fish such as the blueface darter. Project will reach 500 private landowners through strategic marketing, field days, and demonstrations and restore more than 160 acres of riparian forest along 24 miles of stream. *\$300,000*

Alabama Forestry Foundation

Improving Habitat for At-Risk Species in Southwest Alabama Longleaf Forests III

Engage family forest owners in south Alabama to restore and enhance longleaf pine forests to improve habitat for at-risk species, such as gopher tortoise, eastern indigo snake, and eastern hognose snake. Project will reach and educate landowners through direct mail and social media marketing, workshops, and field days, resulting in 2,600 acres of longleaf planting, prescribed burning, and invasive species control. *\$300,000*

Alabama Forestry Foundation

Shortleaf Pine Restoration in the Alabama Cumberlands II

Restore and enhance shortleaf pine habitat on public and private lands in northern Alabama, benefiting northern bobwhite, Bachman's sparrow, and other forest and grassland dependent birds. Project will establish 400 acres of shortleaf pine and enhance an additional 2,200 acres of existing shortleaf pine habitat with prescribed burning and invasive species removal.

\$150,000

Alabama Wildlife Federation

Native Grassland Establishment and Restoration in Alabama

Engage private landowners to improve habitat for northern bobwhite and other grassland dependent species in priority areas across Alabama. Project will engage 880 private landowners, provide technical assistance and develop best management practice recommendations for at least 120 of these landowners, and improve 4,000 acres of grassland habitat. *\$171.615*

Baldwin County Soil and Water Conservation District

Increased Capacity for Mobile Bay Water Quality Improvement (AL)

Increase capacity for water quality enhancement projects benefiting Mobile Bay, Alabama. Project will increase technical planning and engineering capacity that will enable implementation of \$1.1 million in Natural Resources Conservation Service Environmental Quality Incentives Program contracts in FY 2019.

\$250,000

Cawaco Resource Conservation and Development Council

Understanding the Distribution and Range of the Trispot Darter in the Middle Coosa Watershed (AL, GA)

Collect stream water samples and conduct field visits in the Middle Coosa watershed to enhance knowledge of the distribution and range of the trispot darter, a species proposed for listing as threatened under the Endangered Species Act. Project will collect information to help focus conservation actions into smaller, more manageable areas and introduce new conservation opportunities for the species.

\$150,000

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. *\$95,469*

Forest Landowners Association Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, including a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Marine Environmental Sciences Consortium / Dauphin Island Sea Lab

Dauphin Island Causeway Restoration Engineering and Design (AL)

Investigate feasibility and recommend alternatives of sustainable shoreline protection measures providing critical edge habitat adjacent to Alabama's most productive and active oyster harvest area. Project will develop engineering plans and permit documents for restoration, including wave attenuation and marsh creation to bolster the resilience of the Dauphin Island community and fishery resources.

\$250,000

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Saltwater

The Longleaf Alliance

Integrating Electronic Technology Tools in the Gulf of Mexico Highly Migratory Species Fishery (AL, FL, LA) Develop and pilot electronic monitoring and reporting hardware and software solutions for the Gulf of Mexico Highly Migratory Species vessels using alternative gear, which will reduce the reporting burden on vessel operators and promote sustainability. Project will address challenges in data quality, accountability, and timeliness. *\$240,000*

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments.

\$150,000

The Longleaf Alliance Longleaf Restoration in the Gulf Coastal Plain

Ecosystem Partnership Landscape V (AL, FL)

Restore and maintain 20,000 acres of longleaf pine habitat in the western panhandle region of Florida to benefit rare and declining species such as the Bachman's sparrow, red-cockaded woodpecker, gopher tortoise, and northern bobwhite. Project will deploy an ecosystem support team to implement prescribed burns and other longleaf management practices and engage 200 private landowners in longleaf pine restoration through outreach, education, and technical assistance.

\$280,000

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The Nature Conservancy

Accelerating Longleaf Pine Ecosystem Restoration on the Fall Line IV (AL, GA)

Accelerate longleaf pine conservation on public and private land in west-central Georgia and east-central Alabama, improving habitat for redcockaded woodpecker, Bachman's sparrow, and gopher tortoise. Project will restore and enhance more than 10,000 acres of longleaf pine habitat, focusing on properties buffering Fort Benning, as well as high priority federal, state, and privately owned lands.

\$298,353

The Nature Conservancy Fire Mentoring Program (AL, FL, GA, NC)

Hire eight young adults to create mobile forestry technician crews that will assist U.S. Forest Service timber managers by performing 15,000 acres of prescribed burns and accelerating timber harvest of thousands of acres of planted, offsite pine plantations to replace with longleaf pine. Project will assist the Forest Service with recruiting quality, diverse candidates and experienced fire technicians to meet capacity needs to carry out ecological prescribed burns to manage and restore longleaf pine. *\$118,500*

The Nature Conservancy Helen Wood Park Shoreline Protection and Habitat Restoration (AL)

Protect a half mile of shoreline with ten acres of intertidal nearshore breakwater habitat and enhance 12 acres of intertidal marsh and seagrass beds in Alabama. Project will increase resilience to a local waterfront community and infrastructure frequently impacted by storms and threatened by sea level rise. \$999,563

The Nature Conservancy Restoring Riparian and Aquatic Habitats on Private

Lands in the Paint Rock River Watershed (AL) Restore and enhance riparian forests and instream habitat on private lands in the Paint Rock River watershed in Alabama to benefit numerous at-risk freshwater species, including freshwater mussels and fish, such as the Alabama lampmussel and spotfin chub. Project will restore 2 miles of in-stream and riparian habitat through streambank stabilization and planting native vegetation. *\$99,994*

The Nature Conservancy

Restoring and Managing Longleaf in Northeast Alabama and Northwest Georgia

Restore, improve and maintain montane longleaf pine habitat on public and private lands and collect monitoring data on the northern pine snake and other key terrestrial species in northeast Alabama and Northwest Georgia. Project will impact more than 35,000 acres of longleaf pine habitat through plantings, thinnings, and prescribed burning. *\$135,000*

The Nature Conservancy

Watershed Assessment, Habitat Restoration, and Landowner Engagement at Locust Fork (AL)

Create a Watershed Coordinator position focused on landowner engagement, data collection, and project management within the Locust Fork and Big Canoe Creek watersheds in Alabama. Project will involve the completion of a full-scale watershed assessment to prioritize sites for future restoration and project implementation within the Locust Fork watershed. *\$250,000*

University of Tennessee (AgResearch) Advancing Northern Bobwhite Management in the Longleaf Pine Range (AL, GA, LA, VA)

Develop northern bobwhite population goals for target sites within the longleaf pine range in Alabama, Georgia, Louisiana, and Virginia to support adaptive management. Project will engage local partners, including state wildlife agencies, to collect habitat and population data and will produce predictive statistical models that relate population abundance to habitat structure, landscape characteristics, and management actions.

\$147,568

Weeks Bay Foundation

Rio Vista and Rangeline Preserves Restoration and Outreach (AL)

Enhance two Foundation-held properties for public access opportunities, including invasive plant removal, native plantings, and trail construction. Project will restore 90 acres to provide public access on both sides of Mobile Bay, where visitors can learn about coastal habitat, waterway health, and land conservation.

\$39,307

ALASKA

Alaska Department of Fish and Game

Cataloging Anadromous Fish Distribution in Yukon and Tanana River Drainages (AK) Conduct a rapid, systematic inventory of anadromous and resident fish distribution and associated aquatic and riparian habitat in select drainages of the upper Yukon River and select drainages of the Tanana River to fill knowledge gaps in the Alaska Freshwater Fish Inventory Database. Project will monitor 120 sites in and around Yukon-Charley National Park and Yukon Flats National Wildlife Refuge.

\$31,278

Alaska Department of Fish and Game

Outreach and Communication for Shorebird Conservation in the Yukon-Kuskokwim Delta, Alaska Develop and implement culturally relevant outreach efforts to two student-age groups in order to increase awareness about shorebird ecology and conservation among subsistence users and to facilitate community-based conservation approaches. Project will directly and indirectly reach more than 2,000 people in three communities in Western Alaska. *\$59,758*

Alaska Department of Fish and Game

Restoring Riparian Habitat to Benefit Salmon in the Kenai Peninsula, Alaska

Protect and restore instream and riparian habitat in salmon bearing waters on the Kenai Peninsula, Alaska. Project will remove 100 linear feet of hardened banks, debris, and other structures that degrade fish habitat, stabilize and re-vegetate 600 feet of shoreline and riparian zone impacted by development or fishing pressure, and protect 1,000 feet of shoreline and riparian area by installing fencing and walkways. *\$118.000*

Alaska Department of Natural Resources Surveying and Treating Elodea-Infested Waters in Sucker Lake, Southcentral Alaska

Eradicate a newly found elodea infestation, an invasive weed that threatens Alaska's salmon and freshwater resources with wide-ranging ecological and economic consequences, located at the Sucker Lake Complex within the Alexander Creek Watershed. Project will protect treatment sites and survey 20 additional streams for presence-absence data on elodea.

\$49,808

Alaska Longline Fishermen's Association Scaling Electronic Monitoring in the Fixed Gear Fishery (AK)

Support stakeholder engagement to optimize electronic monitoring integration into the North Pacific Observer program and resolve implementation challenges as the program is transitioned to industry fees in 2020. Project will provide electronic monitoring hardware and field service support for 15 additional vessels in the Alaska fixed gear electronic monitoring program which primarily target halibut, sablefish, and pacific cod. *\$206,280*

,200,200

Alaska Native Tribal Health Consortium Managed Community Retreat and Ecological Restoration of Coastal Wetlands (AK)

Decommission 12 houses and all associated infrastructure to restore 3 acres of coastal wetland habitat in Newtok, Alaska. Project will prevent contamination of the Yukon Delta National Wildlife Refuge and build 12 new houses in the community relocation site of Mertarvik. \$2,731,774

Aleutians East Borough Implementing Electronic Monitoring in the Western

Gulf of Alaska Trawl Catcher Boat Fleet

Engage stakeholders, create an implementation plan and install electronic monitoring in the Western Gulf of Alaska pollock trawl fishery. Project will increase monitoring, provide bycatch reporting, and increase efficiency of the data review process to support fisheries conservation and management. *\$433,773*

Aleutians East Borough

Piloting Kelp Mariculture in the Near-Shore Waters of Aleutians East Borough Communities (AK) Engage fishing communities, seafood processors, and tribal entities to produce region-specific data that informs the siting and implementation of mariculture in the region. Project will result in three kelp mariculture pilots in Aleutians East Borough and a guidance manual for mariculture. *\$71,456*

Center for Science in Public Participation Identifying Risks to Freshwater Fish Populations and Consumers with a Contaminants Database (AK)

Combine multiple data sets on fish tissue contaminants into the publicly accessible Alaska Department of Environmental Conservation-Environmental Health (DEC) contaminants database. Project will complete three studies to improve spatial and temporal understanding of mercury and other metals in multiple species of freshwater fish, expand the DEC interactive fish tissue monitoring map and contribute to future fish, wildlife, and habitat conservation areas near proposed large mines. *\$15,303*

City and Borough of Sitka, Alaska Improving a Fish Passage Barrier to Benefit Salmon

and Char in Peterson Creek (AK)

Plan, design, permit, and reconstruct a culvert that is structurally failing and preventing proper fish passage up Peterson Creek in Sitka, Alaska. Project will construct a new stream simulation design structure that will improve passage for populations of coho and pink salmon and dolly varden char. *\$55,000*

Copper River Watershed Project Using Traditional and Modern Ecological Knowledge

to Enhance Copper River Watershed Stewardship (AK) Facilitate knowledge sharing and research coordination across 23,000 square miles within the Copper River watershed through a research symposium. Project will include research perspectives based on traditional and modern ecological knowledge in order to develop research and management tools to enhance stewardship of Copper River basin salmon populations and salmon habitat.

\$5,450

Farallon Institute Integrating Seabird Data into Fisheries Management in Alaska II (AK, CA, WA)

Evaluate how data from long-term seabird monitoring in Alaska may be used in fisheries management, with an emphasis on seabirds as samplers of young-of-the-year/juvenile age classes of commercial groundfish (e.g., pollock, sablefish, cod) that are difficult to sample by other means. Project will advance integration of data from seabird studies with fisheries science to improve ecosystem-based fisheries management and seabird conservation.

\$79,946

Friends of Alaska National Wildlife Refuges Peer to Peer Conference: Tanax Agliisada: "Taking Care of the Land" (AK)

Host a peer-to-peer conference with Friends organizations from Alaska, the Pacific Islands, and the Pacific Coast. Project will focus on topics such as increasing capacity, enhancing communications between the public and refuge, and increasing volunteerism for the participating Friends organizations. *\$15,000*

Friends of Alaska National Wildlife Refuges Tetlin Youth and Community Hunting and Fishing Initiative (AK)

Create a hunting and fishing skills program in a variety of settings for youth and community members. Project will increase participation in the outdoors and conservation in Tetlin National Wildlife Refuge.

\$6,810

International Pacific Halibut Commission Improving Discard Mortality Characterization of Pacific Halibut in Recreational Fisheries (AK)

Investigate handling practices and provide discard mortality estimates of Pacific halibut in the recreational fisheries in the Gulf of Alaska. Project will contribute to reducing uncertainty in discard mortality estimation to help improve stock assessment and management objectives. *\$98,902* UNITED STATES AND U.S. TERRITORIES

Island Conservation

11 Year Post-Eradication Seabird Monitoring on Hawadax Island (AK)

Complete a research trip to Hawadax Island in Alaska to conduct post-eradication monitoring to quantify the long-term changes to the Island's seabird and other bird communities 11 years after completion of a successful rat eradication. Project will examine the long-term benefits of rat removal and provide essential information for land managers in the region to understand the strength and timing of native seabird populations' response to the removal of invasive rats.

\$60,000

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

North Gulf Oceanic Society

Use Genetic Prey Identification to Understand Critical Salmon Stocks for Killer Whale Diet (AK, WA)

Characterize the diet of Southern Resident killer whales through genetic prey identification from fecal samples and prey remains and compare these samples to the diet of Alaska resident killer whales. Project will provide data to target specific salmon stocks and understand nutritional and foraging needs of the endangered whale population. \$101,923

Saltwater

Full Implementation of Electronic Monitoring in Alaska's Pot Cod Fishery

Advance full implementation of electronic monitoring in the Alaska pot cod fishery by installing electronic monitoring gear on five new vessels. Project will achieve the goal of 45 boats in the electronic monitoring pool that was set by the North Pacific Fishery Management Council. \$95,512

Southeast Alaska Watershed Coalition Restoring Rearing Habitat for Salmon, Trout and Char in Pats Creek (AK)

Restore habitat for salmon, trout, and char in Wrangell Alaska's Pats Creek watershed, an anadromous fish stream highly valued for subsistence, sport, and commercial fishing through a partnership between state, federal and community stakeholders. Project will improve five fish passage barriers, create six "Green Construction Jobs" for local contractors, and engage community stakeholders through outreach activities. *\$58.121*

Spruce Root

Building Community Resilience through Collaboration in Native Villages in Southeast Alaska (AK)

Increase collaboration by building relationships within and across tribal communities in Southeast Alaska to give all interested parties a voice when making decisions about the natural resources and infrastructure that Alaska Native and rural communities rely upon for their livelihoods. Project will train 20 community catalysts and engage 60 community members in the Hoonah, Hydaburg, Kake, Kasaan, Klawock, Sitka, and Yakutat tribes. *\$249,925*

Takshanuk Watershed Council

Temperature and Water Quality Monitoring of the Chilkat and Chilkoot Rivers (AK)

Collect baseline water quality data and fill current knowledge and conservation gaps to inform decisions on how best to protect the Chilkat and Chilkoot Rivers on the southwest coast of Alaska. Project will monitor eight streams, complete two research studies, and train three local residents to build institutional capacity. *\$21,340*

The Conservation Fund Creamer's Field Migratory Waterfowl Refuge Expansion (AK)

Expand Creamer's Field Migratory Waterfowl Refuge by 520 acres. Project will secure this cherished wildlife area within the city of Fairbanks, Alaska and allow for the enhancement of wildlife habitat for sandhill cranes, waterfowl and other migratory birds, and provide for expanded public recreation. *\$135,000*

U.S. Department of Agriculture, U.S. Forest Service Methods Refinement and Development of a Statewide Monitoring Framework for Aleutian Tern (AK)

Measure abundance of Aleutian tern at multiple sites across Alaska in 2019 with the aim of establishing more consistent and formalized protocols to inform future statewide survey protocols that can generate unbiased estimates of abundance. Project will address information gaps, specifically the refinement of colony monitoring methods to further advance Aleutian tern conservation and research. *\$50,000*

U.S. Department of the Interior, U.S. Fish and Wildlife Service - Division of Migratory Birds Studying the Movements, Distribution and Abundance of Bar-tailed Godwits in Alaska

Pair range-wide aerial survey information with detailed remote-tracking information to establish baseline information on the distribution and abundance of bar-tailed godwits, which breed only in Alaska. Project will use baseline information collected to identify the current threats and bottlenecks, determine basic demography, and inform future conservation action. *\$15,000*

U.S. Department of the Interior, U.S. Fish and Wildlife Service

Population Assessment and Development of a Statewide Conservation Plan for Aleutian Tern (AK) Continue development of an Aleutian Tern Conservation Plan for the state of Alaska by reconvening a meeting of stakeholders to assess pilot efforts initiated in 2018 to monitor Aleutian tern colonies using drones, acoustic recorders, photo counts, and flush counts. Project will continue to fill information gaps through the use of satellite transmitters to gather information on inter-colony movement of adult terns during the breeding season, during dispersal, and along migration pathways. *\$100,000*

United Catcher Boats

Implementing Electronic Monitoring for Pollock Trawl Catcher Vessels (AK)

Examine the feasibility of electronic monitoring systems for compliance on pollock mid-water trawl catcher vessels delivering to shoreside processing facilities in the Bering Sea and Gulf of Alaska. Project will evaluate electronic monitoring for improved data quality and consistency, detection and quantification of groundfish discard events, and costs of collection and review of fisheries data. *\$353,400*

University of Alaska Anchorage Continuation of the Alaska Native Science and Engineering Intern Program

Develop new strategies for resource management for the sustainability of fish and wildlife resources with an emphasis on the needs of individuals that rely on these resources to support a subsistence lifestyle in the Yukon-Kuskokwim Region, the Cook Inlet/ Matanuska-Susitna watershed the North Slope Region, and Southeast Alaska. Project will hire Alaska native youth interns with traditional ecological knowledge who also speak the languages of local subsistence communities to work on conservation projects. **\$168,000**

ARIZONA

Arizona Land and Water Trust

Establishing a Baseline for Fishes and Farmers through an Upper Gila Flow Assessment (AZ)

Perform two hydrologic seepage runs to develop a critical baseline of flow data for an understudied 35-mile reach of the Gila River, a primary tributary to the Colorado River. Project will involve collaboration with Gila Valley Irrigation District to include flow restoration priorities into irrigation modernization plans, with strategic infrastructure improvements expected to increase flow through the intermittent reach of river and support critical habitat for endangered razorback sucker. *\$69,870*

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Rancho Santa Ana Botanic Garden

Range-wide Genetic Diversity of Sneed Pincushion Cactus: Genetic Basis for Taxon Recognition (AZ, NM, TX)

Conduct a study to genetically characterize the federally endangered Sneed pincushion cactus, endemic to the Chihuahuan Desert mountains of southwestern Texas and southern New Mexico. Project will clarify the relationships among the isolated populations, determine whether distinct elements are present, provide needed insight for consultations and management decisions, and meet goals outlined in the Recovery Plan for Lee and Sneed pincushion cacti. **\$80.000**

Rocky Mountain Bird Observatory Monitoring Wintering Grassland Birds in the Chihuahuan Desert III (AZ, TX)

Apply a rigorous sampling protocol to estimate the density and/or occupancy of wintering grassland birds in the Chihuahuan Desert, including Sprague's pipit and chestnut-collared longspur. Project will implement a monitoring program developed in phases 1 and 2 over two winter seasons (2019-2020 and 2020-2021) in order to produce robust baseline estimates of wintering bird populations and evaluate the impact of ongoing grassland restoration investments. *\$300,000*

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Sky Island Alliance

Eradication of Invasive Vinca to Benefit Spikedace and Loachminnow in Aravaipa Canyon (AZ)

Eradicate the invasive vinca plant from Aravaipa Canyon, Arizona where it interferes with natural hydrological processes and competes with native riparian vegetation in priority stream habitat for loachminnow and spikedance. Project will employ an environmentally sensitive and effective removal technique to maintain stream velocity, control fine sediments, and restore natural flood patterns. \$49,744

U.S. Department of Agriculture, U.S. Forest Service Instream Habitat Restoration in the East Verde River to Increase Resiliency of a Gila Trout Fishery (AZ)

Enhance instream and riparian habitat along the East Verde River to improve stream function, increase resilience to disturbance, and enhance a recreational Gila trout fishery. Project will mitigate recreational impacts, restore hydrologic processes, improve sediment transportation, stabilize stream banks, and support stream heterogeneity and pool habitats to improve Gila trout habitat. *\$38,531*

ARKANSAS

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. *\$95,469*

Ducks Unlimited

Arkansas Wetland Restoration and Water Quality Improvement Initiative (AR)

Improve 1,600 acres of bottomland hardwood forest habitat through invasive species removal and hydrological restoration on public and private properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program in Arkansas, benefiting waterfowl and forestdependent bird species. Project will engage private landowners through outreach and technical assistance, with the goal to enroll at least 30 landowners in stewardship programs that work to improve bottomland hardwood forests, wetland habitats and water quality. **\$499.444**

Ducks Unlimited

Stewardship of Privately-Owned Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, KY, LA, MO, MS, TN)

Increase stewardship of privately owned bottomland hardwood forests in the Mississippi Alluvial Valley through outreach, technical assistance, and developing conservation plans to guide management of existing forests and improve habitat for waterfowl, forest-interior birds, and other forest-dependent wildlife. Project will reach 150 landowners with existing conservation easements, including properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program, with the goal for least half of these landowners to implement conservation activities that will enhance 2,000 acres of forested wetlands and restore hydrologic conditions on 450 acres to improve water quality. \$153,047

Mississippi River Trust

Forest Conservation and Wetlands Reserve Lands Management in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Protect 375 acres of bottomland hardwoods with working forest conservation easements and enhance an additional 1,000 acres of existing bottomland hardwood forests to improve wildlife habitat and serve as demonstration sites for landowners and foresters. Project will provide an inventory of more than 30,000 acres of bottomland hardwood forest established through the Natural Resources Conservation Service (NRCS) Wetland Reserve Program in Mississippi, providing landowners, land managers, and NRCS with information needed to guide management treatments that enhance wildlife habitat at a landscape scale. *\$640,970*

Mississippi River Trust

Forests, Floodplains and Flow: Increasing Wetland Habitats, Habitat Complexity and Hydrologic Connections along the Lower Mississippi River (AR, LA, MS)

Work with private landowners to restore 1,000 acres of frequently flooded forests through the adoption of the Natural Resources Conservation Service Wetland Reserve Easements and restore flow and habitat complexity within priority Mississippi River secondary channels through ecological engineering with the U.S. Army Corps of Engineers. Project will benefit federally listed and at-risk birds, bears, fish, and mussels and improve water quality in the Lower Mississippi River's active floodplain in Arkansas, Louisiana, and Mississippi. *\$250,595*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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Pheasants Forever

Delivery of Conservation Technical Assistance and Implementation of Early Successional Habitat Practices II (AR, LA)

Work through Conservation Delivery Network partner organizations to conduct program promotion and strategic marketing efforts on sustainable forest management to 600 landowners located in southeastern Arkansas and northeastern Louisiana. Project will provide one-on-one technical assistance to 550 landowners from resource conservation organization staff to produce landowner management plans on a minimum of 10,000 acres and implement forest management on 1,400 acres, benefiting Bachman's sparrow, northern bobwhite, and other early successional species.

\$295,022

The Forest Stewards Guild

Engaging Private Forest Landowners and Enhancing Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Leverage the expertise and accomplishments of state lands managed by the Louisiana Department of Wildlife and Fisheries to promote and expand implementation of forest management practices that enhance wildlife habitat for forest interior birds, such as Kentucky warbler. Project will host a regional learning exchange and workshops to share best practices, perform strategic and targeted outreach to private forest landowners, prepare forest management plans for high-priority private landowners, and implement enhancement activities on 1,200 acres of private and state forest lands in Louisiana, Arkansas, and Mississippi. *\$133,212*

The Nature Conservancy Acquisition of Rockhouse Creek for the

Enhancement of the Kings River in the Ozark Highlands (AR)

Acquire the 550-acre Rockhouse Creek tract, connecting more than 20,000 acres of previously protected and publicly accessible land along the King's River in the Ozark Highlands. Project will secure habitat for 18 Ozark endemic species, expand opportunities for public recreation, and support a planned stream restoration project. *\$370,000*

CALIFORNIA

Alexandre EcoDairy Farms Water Diversion Replacement in Rowdy Creek for Salmonoid Migration (CA)

Remove existing permitted surface-water diversion for milk cow pasture irrigation along the mainstem of Rowdy Creek, a tributary of the Smith River. Project will replace current surface water diversion with a groundwater well designed to irrigate the 107 acres of adjacent pasture, restoring flows to Rowdy Creek during critical salmonid smolt migration periods in the spring and summer. \$33,915

Amador Resource Conservation District Restoring Meadows in the Bear River and Cole Creek Watersheds in Eldorado National Forest (CA) Restore Tyler, Upper Onion Valley, and High Onion meadows by repairing incised channels, improving grazing management, and reducing erosion in Eldorado National Forest. Project will restore 13 acres of meadows in the Bear River and Cole Creek watersheds and benefit the endangered Sierra Nevada yellow-legged frog. \$415,439

American Conservation Experience Improving Management of Native American Plants in Eldorado National Forest (CA)

Develop a Native American plant guide for culturally significant priority plants, a geospatial analysis to prioritize potential native plant restoration and gathering areas and develop associated conceptual designs in Eldorado National Forest. Project will improve management on Eldorado National Forest and increase public awareness for the sensitivity and importance of Native American plants. \$337,947

American Conservation Experience Quality Trail Inventory and Maintenance in San

Gabriel Mountains National Monument (CA) Provide a robust and sustainable trail inventory through a local, professionally trained trail maintenance crew to restore trails within San Gabriel Mountains National Monument. Project will engage and educate young adults in land management by training them to survey and catalogue 45 miles of trails, followed by selected trail maintenances and improvement work to provide long-term benefits for users and the natural environment.

\$102,658

American Forests

Community Wildfire Recovery and Forest Resilience in the San Bernardino Mountains (CA)

Accelerate resilience focused forest restoration and engage vulnerable communities in planning and decision-making surrounding managing wildfire risk while building local capacity. Project will use a participatory process to develop a regional conservation plan, plant 80,000 drought- and fire-resilient trees, restore 100 acres impacted by wildfire, and engage 400 community members. *\$202,072*

American Rivers

Meadow Restoration and Assessment Benefiting Yosemite Toad on Humboldt-Toiyabe National Forest (CA)

Build on previous meadow assessment, prioritization, and planning efforts in the Desert Terminal Lakes watersheds to implement shovelready, on-the-ground restoration at Upper Sardine meadow on Humboldt-Toiyabe National Forest. Project will improve hydrology on 7 acres to benefit the threatened Yosemite toad and develop conceptual designs for 400 meadow acres in Dog Valley meadow. *\$130,055*

Amigos de los Rios

Developing Interpretive and Wayfinding Signage in the San Gabriel Mountains National Monument (CA) Research, develop, and install educational interpretive and wayfinding signage, kiosks, and associated web content about the San Gabriel Mountains National Monument's natural and cultural history to inform visitors of the efforts in place to protect its natural resources. Project will design trail signage by hosting inventories, collecting reconnaissance data on trail conditions, and sharing research with U.S. Forest Service staff to design and refine sign content.

\$116,402

Cal Poly Pomona Foundation

Developing Precision-Restoration for Post-Fire Restoration in Angeles National Forest (CA)

Develop precision restoration prescriptions for postfire restoration using remote sensing data combined with field studies in chaparral and coastal sage scrub shrublands in the Copper Fire Scar of Angeles National Forest. Project will assess 15,000 acres to determine restoration success and efficiency. *\$165,054*

California Deer Association

Improving Endangered Sierra Nevada Yellow-Legged Frog Habitat in Eldorado National Forest (CA)

Restore Bear River's meadow hydrology and modify fencing to protect critical habitat for the Sierra Nevada yellow-legged frog in the Eldorado National Forest. Project will construct new wildlife-friendly fencing to protect sensitive riparian area for a fen and the Sierra Nevada yellow-legged frog. \$37,158

California Deer Association

Improving Fuels Management to Benefit California Spotted Owl in Eldorado National Forest (CA)

Conduct fuels reduction to enhance habitat for California spotted owl, as well as rare and sensitive plant species populations in the Power Fire nexus of Eldorado National Forest. Project will bring 32 acres under improved management, ten of which directly benefiting the California spotted owl. **\$47,897**

California Institute of Environmental Studies Anacapa and Santa Barbara Island Habitat Restoration (CA)

Restore habitat on both Anacapa and Santa Barbara Islands in the Channel Islands. Project will include restoring seabird habitat, increasing native vegetation diversity, establishing a local seed source, recovering/increasing rare plants, engaging in outreach and educational opportunities, and improving aesthetics on Anacapa Island, as well as restoration of a historical colony of Cassin's auklets and improving nesting conditions for Scripps's murrelets on Santa Barbara Island. *\$425,806*

California Institute of Environmental Studies Study of Common Raven Movements and Predation of Ashy Storm-Petrels at Santa Cruz Island (CA)

Investigate raven depredation on ashy stormpetrels at Santa Cruz Island, California to learn if depredation behavior is specific to individuals, a family group, or widespread across the resident raven population. Project will evaluate effectiveness of ashy storm petrel nest modules for deterring raven predation and will capture, mark, and follow up on 30 ravens to obtain movement and stormpetrel interaction data that will be used to inform management.

\$90,000

California State Coastal Conservancy

Gravel Beach and Berm Design for Shorebird Habitat, Erosion Control, and Flood Protection (CA) Conduct design, cost estimates, and pilot documentation for a two mile gravel beach and berm shoreline protection feature and shorebird habitat at Eden Landing Ecological Reserve in South San Francisco Bay, California. Project will design localized shorebird nesting habitat and erosion control at the bay's edge and create a new piece of regional flood protection infrastructure for wetlands restoration for habitat benefit, flood protection, and public access across 1,300 acres. *\$237,405*

California Trout

Designing Fluvial and Riparian Restoration in Rose Valley Lakes, Los Padres National Forest (CA)

Develop engineering drawings, specifications and cost-estimates for fluvial and riparian restoration in Rose Valley Lakes complex in the Piru Fire Scar of Los Padres National Forest. Project will secure all permitting and compliance documentation and provide all necessary materials for project implementation by the U.S. Forest Service. *\$445,992*

California Trout

Floodplain Restoration on the South Fork Scott River (CA)

Excavate inset floodplains, install large-wood structures, remove historic mining tailings, and plant native riparian vegetation within a one-mile reach of the South Fork Scott River. Project will restore floodplain function and instream habitat complexity to benefit Coho salmon. \$167,567

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. \$250,000

Channel Islands Restoration

Treating Tamarisk in the Sisquoc Watershed in Los Padres National Forest (CA)

Treat and remove tamarisk from the Sisquoc Watershed with herbicide and manual removal in the Zaca Fire Scar of Los Padres National Forest. Project will treat tamarisk across 45.000 acres and provide a management recommendation for untreated areas. \$438,043

Channel Islands Restoration

Treating Tamarisk in the Upper Santa Ynez River Watershed in Los Padres National Forest (CA) Restore the upper headwaters of the Santa Ynez River by treating and removing tamarisk trees and seedlings in the Zaca Fire Scar of Los Padres National Forest. Project will measure the extent of the infestation and conduct treatment within 24,500 acres with approval from the U.S. Forest Service, including at least nine survey and

treatment trips. \$396,802

Conservation Corps of Long Beach Expanding Collaborative Restoration in the Angeles National Forest II (CA)

Conduct non-native invasive vegetation management and install off-highway vehicle barriers to protect restoration areas from disturbance in the Copper Fire Scar in the Angeles National Forest. Project will build on the success of a previous grant to improve 15 miles of roads and to bring 20 acres under improved management. \$500.000

County of Del Norte

Improving Watershed Infrastructure in Six Rivers National Forest (CA)

Implement watershed infrastructure improvements for nearly 30 miles of stream in the Smith River National Recreation Area in Six Rivers National Forest. Project will benefit fish, wildlife, sensitive plants, and associated wildlife habitat health through improved road and trail conditions and enhanced water quality. \$330,526

Earth Island Institute

Improving Fish Passage by Removing Three Road Crossing Barriers in Los Padres National Forest (CA)

Remove three road crossings that are an aquatic passage barrier for southern steelhead trout within federally designated critical habitat in the Manzana Creek watershed in the Zaca Fire Scar of Los Padres National Forest. Project will replace two crossings with clear span vehicular bridges to improve safe access for public use with the third barrier restored to a naturalized creek channel, opening more than 3 miles of stream and restoring 0.5 acres of habitat. \$1,805,051

Earth Team

Building Youth Leadership in Watershed Restoration in the San Francisco East Bay (CA)

Develop youth leadership to engage local residents in planning, implementation, monitoring, and stewardship of two San Francisco East Bay watersheds. Project will hire 28 local high school students to monitor water quality, remove landbased litter from creek sides, restore 30 acres of riparian habitat through invasive species removal, and engage 2,000 community members to reduce litter, pet waste, and garden pesticide pollution. \$34.729

Farallon Institute Integrating Seabird Data into Fisheries Management in Alaska II (AK, CA, WA)

Evaluate how data from long-term seabird monitoring in Alaska may be used in fisheries management, with an emphasis on seabirds as samplers of young-of-the-year/juvenile age classes of commercial groundfish (e.g., pollock, sablefish, cod) that are difficult to sample by other means. Project will advance integration of data from seabird studies with fisheries science to improve ecosystem-based fisheries management and seabird conservation.

\$79.946

Fisheries Resource Volunteer Corps

Identifying and Surveying Aquatic Organism Passage Barriers in the Angeles National Forest (CA)

Inventory and identify barriers to aquatic organism passage to inform future restoration of natural stream and aquatic ecosystem processes on perennial and intermittent streams impacted by the Powerhouse Fire in the Angeles National Forest. Project will develop final summary report to support the management of forest resources by providing information necessary for improving fish passage and habitat accessibility for aquatic species. \$79,364

Golden Gate National Parks Conservancy One Tam Roving Ranger Project: Connecting the Public to Natural Resource Education (CA)

Dispatch a mobile information center that connects the public to natural resource education and disseminates information directly to community members in public spaces as a "mobile trailhead." Project will reach 1,200 visitors through educational service projects and monitor two preserves using the iNaturalist app. \$35,000

Humboldt County Resource Conservation District Restore Ecosystem Function and Community Resiliency in the Salt River Watershed (CA) Restore 7 miles of river channel and associated floodplains, wetlands, and riparian habitats in the upper reach of the Salt River in California. Project will provide area landowners with drainage to reduce flood impacts and create enhanced fish habitat and fish passage to the upper watershed. \$1,606,405

F

Integral Ecology Research Center Restoring Watersheds Impacted by Illegal Marijuana in Eldorado National Forest (CA)

Remove and mitigate hazardous and non-hazardous materials from illegal marijuana grow sites that are threatening sensitive headwater watersheds on the Eldorado National Forest within the Power Fire burn scar. Project will document environmental impacts, identify and mitigate hazardous chemicals, and remove all nonhazardous refuse and infrastructure, thereby improving water quality and availability for downstream public uses and aquatic habitats. *\$132,656*

Karuk Tribe

Fuels Management in Six Rivers National Forest, California

Implement manual fuels reduction treatments across 350 acres of U.S. Forest Service land adjacent to private property boundaries within the 5,500 total acreage of the Somes Bar Project in the Western Klamath Restoration Partnership planning area. Project will create a buffer of safety for nearby residences and properties in anticipation of future prescribed fire as well as unintended wildfires and incorporate key aspects of Karuk traditional ecological knowledge. *\$500,000*

LifeScape International

Researching the Effect of the Long-Term Fire Regime on Mammals in Los Padres National Forest (CA) Research the impact of long-term fire regimes on wildlife to provide pre- and post-fire management recommendations for the ecology, protected species, and general biodiversity of Los Padres National Forest. Project will provide baseline species information to determine the effect of fire on the general medium-large mammal community and the ecological processes critical to the functioning of Los Padres ecosystems. *\$198.800*

Local Bounty

Increasing Access to Local Abundant Species in the Monterey Bay Area (CA)

Test troll gear to maximize catch of targeted rockfish while reducing bycatch of overfished species of concern such as the cowcod and yelloweye. Project will demonstrate the feasibility of a new fishery and build markets for local, sustainable seafood. *\$99,259*

Los Angeles Audubon Society Ballona Creek Watershed Coastal Restoration and Youth Leadership Project (CA)

Engage under-served youth and community volunteers in educational and habitat restoration activities throughout the Ballona Creek watershed from the uplands in Baldwin Hills/Culver City to where the creek discharges into the Santa Monica Bay at the Pacific Ocean. Project will reach 3,500 community members to restore 2 acres of coastal sage scrub and 7.7 acres of beach habitat, benefiting wildlife and improving watershed health. *\$49,760*

Los Cerritos Wetlands Authority

Los Cerritos Wetlands Flood Control Planning and Restoration (CA)

Obtain U.S. Army Corps of Engineers permitting and complete design plans to restore 500 acres of San Gabriel River floodplain and 500 acres of Los Cerritos Wetlands estuarine habitat. Project will develop a restoration plan to breach or remove the existing flood control levee along the San Gabriel River to introduce tidal circulation into the restored wetland. *\$249,500*

Los Padres Forest Association

Construction of Cold Spring Trail Reroute in Los Padres National Forest (CA)

Reconstruct a portion of the Cold Spring recreational trail, locally known as the Mono Jungle, in the Zaca Fire Scar of Los Padres National Forest. Project will improve 1.5 miles of trails and bring 50 acres under improved management. *\$59,091*

Los Padres Forest Association

Instilling Conservation Stewardship with Interpretive Signage in Los Padres National Forest (CA)

Design and install interpretive signs at trailheads and campsites that lead into areas impacted by the Zaca Fire to help encourage shared stewardship. Project will install signage at 10 locations to educate the public about the impact of wildfires on forest ecosystems and endangered species and about ways to reduce human impact on forest lands. *\$74,112*

Los Padres Forest Association Restoring Trails and Habitat Damaged by the Zaca Fire in Los Padres National Forest (CA)

Design, organize, and complete trail and habitat restoration work along sites impacted by the Zaca Fire in Los Padres National Forest. Project will restore 37 miles across seven trails, building off previously successful trail maintenance work. *\$224,837*

Marine Life Studies Removing Derelict Crab Pots to Reduce Marine Wildlife Entanglement (CA)

Remove derelict crab and spawn prawn pots from the seafloor and in the water column of the Monterey Bay National Marine Sanctuary. Project will reduce potential entanglements of endangered marine wildlife and increase navigational safety for recreational and commercial boaters. *\$90,013*

Merkel and Associates Cosco Busan Eelgrass Restoration (CA)

Continue efforts to identify restoration sites and collect baseline data to determine suitability for eelgrass restoration efforts. Project will include the planting of 3 acres of eelgrass with 2.5 acres being planted in areas deemed "high success" and 0.5-acres used to expand the planting geography. **\$839,446**

Mid Klamath Watershed Council

Floodplain Connection Design on the Klamath River at Horse Trough Springs (CA)

Develop a fish habitat restoration project on the Klamath River near Horse Trough Springs to 100 percent design level. Project will incorporate connecting the Klamath River to its floodplain, which will provide thermal refuge, overwintering rearing habitat, and spawning habitat to benefit Klamath Basin coho and Chinook salmon and steelhead. *\$115,615*

Mid Klamath Watershed Council Improving Stream Habitat for Salmon in Klamath National Forest (CA)

Improve habitat complexity by creating deeper pools with diverse microhabitats and increase resilience to excessive sedimentation from recent wildfires in Horse Creek in Klamath National Forest. Project will place logs in Horse Creek at strategic sites in a low gradient reach on public lands. *\$263,847*

Mid Klamath Watershed Council Western Klamath Youth in Restoration (CA)

Hire eight teenage stewardship interns, three college-aged and minority natural resource technicians, and three college-aged field technicians to participate in hands-on restoration projects and relevant training opportunities occurring throughout Klamath Basin. Project will improve salmon habitat, remove invasive weeds from national forest lands, and provide relevant, hands-on work experience. *\$50,000*

Monterey Bay Fisheries Trust

Developing a Lost Gear Recovery Program to Align with California State Regulations

Modify existing gear retrieval program in Monterey Bay to comply with new California state regulations. Project will engage local fishermen and partner organizations to coordinate a voluntary gear retrieval program that removes lost or abandoned crab gear prior to entanglement with marine animals. *\$19,955*

Monterey Bay Aquarium

Developing Technology for the Live Rockfish Fishery to Promote Using Underexploited Stocks (CA)

Introduce and implement technology for the Monterey Bay port groundfish fleet for keeping deep-water rockfish species alive after capture for the live rockfish fishery. Project will increase exvessel prices received by fishermen and creating a high-value live fish market. *\$70,280*

Mount Wilson Bicycling Association

Trail Reconstruction in Mt Waterman Ski Area in the Angeles National Forest (CA)

Develop and implement reconstruction of 3.6 miles of mountain bike trails in the Mt. Waterman Ski Resort by engaging the surrounding community through trail building and education about the vegetation and species inhabiting the project area. Project will benefit the community and visitors by providing new recreation opportunities, revitalizing the area since ski-based recreation has sharply declined in recent years. *\$13,997*

Mountain Counties Water Resources Association Strategic Analysis of Fuels Management in the Power Fire Scar of Eldorado National Forest (CA) Create a large spatial scale fire fuels reduction analysis and strategic plan to identify innovative, efficient, and cost effective fuels reduction and biomass management plans for fuels reduction projects within the Panther Creek, Bear River, and Cole Creek watersheds of Eldorado National Forest. Project will recommend fuel reduction and biomass management strategies that will produce improved

ecological benefits to the forest and watersheds.

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Park Trust

Buddy Bison School Program (CA, DC, MD) Provide out-of-class watershed education experiences to 2,680 students and 120 teachers at U.S. Forest Service sites and connect them with Forest Service and Bureau of Land Management educators in the Washington, D.C. metro and Southern California regions. Project will use public lands as outdoor classrooms for Science Technology Engineering and Math and provide opportunities to experience the benefits of outdoor recreation and learn about the importance of stewardship of public lands and waters. *\$128,186*

Outdoor Outreach

YES San Diego: Youth Environmental Stewardship (CA) Engage 180 individuals, including 140 urban youths, in the restoration of 32 acres of land/wetland in United States Fish and Wildlife Service-designated National Wildlife Refuge and adjacent areas in San Diego, California. Project will support 13 youth-led environmental restoration and stewardship activities including invasive species removal, reestablishment of native species, and debris removal from beach and coastal habitats.

\$25,463

Plumas Corporation

Fish Creek Fish Passage Restoration in Sequoia National Forest (CA)

Remove a fish passage barrier for aquatic organisms and California golden trout, a California species of special concern, in Sequoia National Forest. Project will open 4 miles of fish passage, rebuild a creek channel, protect a wetland, and perform monitoring in California golden trout habitat in South Fork Kern River. *\$89,000*

Point Reyes Bird Observatory, Point Blue Conservation Science Developing Standardized Ashy Storm-petrel Monitoring Efforts (CA)

Evaluate existing long-term mark-recapture data for ashy storm-petrels from multiple breeding sites throughout their range and conduct a power analysis to determine the minimum effort needed to effectively monitor population trends. Project will integrate new data from ongoing studies to inform population modeling efforts and determine the best practices for standardizing methods at all regularly monitored colonies to enhance storm-petrel conservation as part of a range-wide monitoring program. *\$70,005*

Rancho Santa Ana Botanic Garden Restoring Plant Diversity in Fire-Affected

Watersheds on the Angeles National Forest (CA) Improve watershed conditions in the Copper and Powerhouse fire scars of Angeles National Forest through on-the-ground restoration, research and education to improve the U.S. Forest Service's resource management capacity and approach and promote ecological resilience for future fires. Project will collect 50 high priority seeds, propagate 15,000 high priority restoration species, monitor existing restoration sites, and conduct community outreach to advance nursery Best Management Practices.

\$493,658

Resource Institute

Aquatic Organism Passage Restoration Design at Powerhouse 2 Site in Angeles National Forest (CA)

Restore aquatic organism passage and sediment transport by developing engineering plans for a natural channel design at the "Powerhouse 2" reach in San Francisquito Canyon Creek in the Angeles National Forest. Project will provide an engineer plan set, construction specifications, a cost estimate and all associated National Environmental Policy Act and permitting documentation to the U.S. Forest Service for implementation. *\$538,869*

Resource Institute

Aquatic Organism Passage Restoration Design at St. Francis Dam Site in Angeles National Forest (CA) Examine aquatic organism passage and sediment transport options by developing engineering plans for a natural channel design at the Saint Francis Dam reach in San Francisquito Canyon Creek in the Angeles National Forest. Project will provide an engineer plan set, construction specifications, a cost estimate and all associated National Environmental Policy Act and permitting documentation to the U.S. Forest Service for implementation. *\$536,371*

Rocky Mountain Elk Foundation Brushy Mountain Conservation Easement Along the Coast Ranges of California

Permanently protect 26,144 acres of private forestland and rangeland along the Coast Ranges of California. Project will conserve high-quality critical habitat for salmon and steelhead trout, tule elk and numerous other sensitive species, expand a 49-mile long corridor of protected lands, enhance public access to the Eel River, and help to maintain a family-owned, sustainably-managed forest and a local timber industry reliant on private forestlands. *\$500,000*

\$179,022

San Gabriel Valley Conservation and Service Corps Forest Revitalization through Young-adult Engagement in San Gabriel Mountains National Monument (CA)

Engage, develop, and employ under-served community members who have had little exposure to the San Gabriel Mountains to identify trail and watershed health and address specific threats by assisting with river and forest stewardship. Project will address trash issues in the East Fork of the San Gabriel River by directly removing trash and providing visitor education, safe recreational access, and safety improvements designed to change behavior and reduce trash in the river. *\$50,000*

San Gabriel Valley Quail Forever

Upgrading Wildlife Guzzlers Destroyed in the Powerhouse Fire in Angeles National Forest (CA) Replace two old-style concrete wildlife guzzlers burned in the Powerhouse Fire with Nevadastyle guzzlers, which are not as susceptible to fire damage and are more efficient in collecting rainwater. Project will upgrade two guzzlers, add a stainless steel big game drinker, and repair the fencing around the guzzler. \$9,097

Scott River Watershed Council Coho Habitat Restoration Design on French Creek (CA)

Undertake a geomorphic and biological evaluation of existing conditions of an 800-foot long, 4.5-acre reach of French Creek, a high-value coho salmon spawning and rearing cold-water tributary of the Scott River. Project will lead to a 100 percent restoration design and state permitting in order to enhance coho summer and winter rearing habitat. *\$81,299*

Scott River Watershed Council Phase 2 Coho Habitat Enhancement through Wood Recruitment on Patterson Creek (CA)

Treat 280 meters of Patterson Creek with large wood, utilizing the accelerated, unanchored wood technique to provide immediate cover and instream nutrients to improve juvenile coho rearing. Project will improve geomorphic function, floodplain connectivity and increased side channel and off-channel rearing habitat at an important cold-water refuge site. *\$104,299*

Sonoma Resource Conservation District

Streamflow Technical Assistance for Coho Salmon (CA) Provide technical assistance to farmers, ranchers, and forestland owners for enhancing streamflow for the recovery of endangered Central California Coast coho salmon in the priority Russian River subwatersheds in Sonoma County, California. Project will decrease water use by enhancing irrigation efficiency, storing winter rainwater for dry season use, recharging groundwater for base flow enhancement, arresting stream incision, and controlling erosion and sediment. *\$149,204*

Santa Ynez Band of Chumash Indians Researching Restoration Plans for Conifer Recovery on Big Pine Mt., Los Padres National Forest (CA) Develop a restoration plan for Big Pine Mountain to

promote the recovery of conifer forests impacted by the Zaca Fire in Los Padres National Forest. Project will identify and map degraded areas and develop of report of recommended restoration strategies for future implementation. *\$100,359*

Scott River Water Trust

Enhancing In-Stream Flow to French Creek (CA) Enhance stream conditions within the French Creek system and mainstem Scott River for the benefit of coho salmon, chinook salmon, and steelhead trout. Project will deliver approximately 390 acre-feet annually during average water years and provide 2.5 miles of in-stream benefit. \$348.137

Siskiyou Resource Conservation District Fort Goff Fish-Passage

and Diversion Improvement (CA)

Work with the water users of the only active point of diversion from Fort Goff Creek to address environmental compliance measures for the purpose of improving anadromous fish access to 0.75 miles of spawning and rearing habitat. Project will provide unimpeded fish passage at the point of diversion, improve water conveyance from the point of diversion to the earthen ditch system, and install a permanent fish screen and bypass return. *\$36,578*

Social and Environmental Entrepreneurs Community-Driven Microtrash Cleanup along Bear and Santa Clara Divides, Angeles National Forest (CA) Conduct a series of community-driven microtrash cleanup projects to benefit the recovering wild California condor population along Bear Divide and Santa Clara Divide roads in the Sayer Fire Scar in the Angeles National Forest. Project will recruit and train volunteers from nearby communities to hand collect microtrash and assist with its disposal on 4 acres of heavily contaminated chaparral habitat. \$18,716

The Nature Conservancy Restoring and Monitoring Navarro River Watershed Streamflow (CA)

Develop and implement flow restoration projects to support new and existing flow data collection efforts in the Navarro River Watershed. Project will support the planning, permitting, implementation and flow accounting of dry season baseflow restoration projects to improve rearing habitat for juvenile coho and steelhead in priority reaches.

\$60,927

The Student Conservation Association Barrier Installation and Resource Damage Reduction in Angeles National Forest (CA)

Install 70 "no-dig" barriers at designated sites within the Drinkwater Flat off-highway vehicle area according to U.S. Forest Service specifications within the Copper Fires Scar of the Angeles National Forest. Project will bring 350 acres under improved management and prevent off highway vehicles from crossing into unauthorized forest areas to protect forest recovery. *\$40,3955*

The Student Conservation Association Performing Trail Maintenance for Soda Creek and Indian Springs on Lassen National Forest (CA) Perform trail maintenance for Soda Creek and Indian Springs for nearly eight miles within the Storrie Fire boundary on Lassen National Forest in California. Project will provide critical trail maintenance that will reduce erosion and includes reduction of user created trails, hazard tree and overgrown vegetation removal, sign installation, and other trail improvements. *\$130,509*

The Trust for Public Land Hanning Flat Acquisition Project (CA)

Increase resilience to wildfire for rural communities in Kern County, California by conserving a 3,806acre block of forest and grassland and developing a management plan that enhances fire resilience, ecological health, and outdoor recreation. Project will improve the health of native imperiled species, enhance opportunities for outdoor recreation, working lands and other local industries, and disseminate the lessons of a fire resilient approach to land conservation and management. *\$400,000* UNITED STATES

AND

U.S.

TERRITORIES

Tolowa Dee-ni' Nation

Fuels Management in Low Divide, Hiouchi, and Big Flat, California

Treat 300 acres of vegetation located within four strategically placed fuel breaks around the communities of Low Divide, Hiouchi, and Big Flat in California. Project will provide additional defensible space and will improve the overall health of the forest and protect private and public improvements by reducing risk to wildfires. *\$287,643*

TreePeople

Assess Deforestation in the Copper Fire Scar in Angeles National Forest to Inform Restoration (CA) Determine precise deforestation coverage in the Copper Fire Scar of Angeles National Forest and assess the environmental impacts associated with implementing silvicultural prescriptions in these areas. Project will compile National Environmental Policy Act documentation, specialist reports, and a Biological Evaluation and Decision Memo for the U.S. Forest Service to use in approving forest woodland restoration actions. *\$194,186*

TreePeople

Community-based Restoration and Environmental Education Program, Angeles National Forest II (CA) Promote awareness of the role, impact, and history of fire through shared stewardship in a restoration site within the Sayre Fire Scar of Angeles National Forest. Project will maintain and water 0.25 acre of chaparral re-vegetation and install multi-lingual interpretive signage at the site that convey lessons regarding watershed health and the impact of fire and engage local youth and families through curriculum designed to introduce awareness of watershed health and fire ecology. *\$159,937*

TreePeople

Forest Aid on the Copper and Sayre Fire Scars in Angeles National Forest (CA) - Phase (II)

Expand on current restoration efforts in the Copper Fire Scar in Angeles National Forest, California, bringing site preparation, invasive weed control, native plant installation, watering, and monitoring to a new site in San Francisquito Canyon. Project will propagate 3,000 native plants, maintain and restore up to a total of 19 acres, and engage 2,200 volunteers. \$793,862

Trinity County Resource Conservation District Storm-proofing Roads to Benefit Watershed Health in Shasta-Trinity National Forest (CA)

Plan, design, and implement improvements to drainage structures on 67 culverts at stream crossings post-fire on Shasta-Trinity National Forest. Project will conduct road improvements and stormproofing on 44 miles. \$305,627

Trout Unlimited

Lahontan Cutthroat Trout Core Grant 2019 (CA, NV, OR) Continue to address the needs identified in the Lahontan Cutthroat Trout (LCT) Business Plan by providing range-wide facilitation, genetic assessment and research to guide LCT management, validation of non-native trout eradication for LCT reintroduction projects, staff support, hatchery security, and a barrier assessment to secure a stream population of LCT. *\$603,373*

Trout Unlimited

Restoration of Flow to Deer Creek to Benefit Chinook Salmon (CA)

Create a groundwater model that will predict the extent and magnitude of impacts to the aquifer from Deer Creek Irrigation District landowners switching from surface water to groundwater following a water-right sale. Project will inform negotiations of the potential acquisition of the water right held by the Deer Creek Irrigation District. **\$114.987**

Trout Unlimited

Streamflow Enhancement for Salmon, Steelhead, and People in Critical Russian River Tributaries (CA) Continue targeted outreach efforts, streamflow

and fisheries monitoring, and development and implementation of projects to increase streamflow during the dry season in order to improve coho survival and water reliability at the watershed scale. The project team will increase its focus on targeted flow releases and development of flow targets necessary for fish to thrive. *\$410.000*

Truckee River Watershed Council Prosser Creek Meadows Restoration Planning in Tahoe National Forest (CA)

Complete a watershed assessment and restoration opportunities report for a 20,000 acre watershed, home to multiple, large meadow ecosystems in the Sierra Nevada, on private lands and within Tahoe National Forest. Project will include a viability analysis for re-introduction of Lahontan cutthroat trout, analysis of available and potential Sierra Nevada yellow-legged frog habitat, and continue monitoring of a nesting population of willow flycatchers.

\$162,912

U.S. Bureau of Land Management Habitat Restoration for the Amargosa River Pupfish in San Bernardino County (CA)

Plant native willow and mesquite trees along 0.25 miles of river encompassing approximately 16 acres of riparian habitat which has been treated previously to remove invasive Salt Cedar. Project will improve habitat and increase the breeding population of the endemic Amargosa River Pupfish as well as reduce the number of invasive aquatic species competitors including mosquito fish and crayfish.

\$6,600

U.S. Department of Agriculture, U.S. Forest Service Improving Fire Resilience and Forest Health in the Klamath National Forest (CA)

Improve fire resiliency, forest health, early seral habitat for deer and wild turkey, enhance habitat for Calochortus persistens, a sensitive plant species, and restore watershed conditions to improve fire defensibility in Yreka and Hawkinsville communities, California. Project will conduct fuels management on 11,310 acres within the Klamath National Forest.

\$4,702,030

U.S. Department of Agriculture, U.S. Forest Service Nursery Accreditation To Reduce Phytophthora Introduction in Angeles National Forest (CA)

Conduct an accreditation to improve restoration and native plant nursery stock cleanliness through a voluntary pilot program in Angeles National Forest. Project will evaluate eight nurseries producing stock for restoration in the Copper, Sayre and Powerhouse fire scars and will conduct Phytophthora testing to prevent pathogen development. *\$41.887*

U.S. Department of Agriculture, U.S. Forest Service Preventing and Managing Phytophthora Pathogens Post-Fire Disturbance in Angeles National Forest (CA) Evaluate the incidence and impacts of Phytophthora plant pathogens in disturbed and undisturbed sites in a variety of ecosystems in the Copper and Sayre fire scars in the Angeles National Forest, California. Project will bring 20 acres under improved management and complete a second year of comprehensive analysis on Phytophthora population distribution and risk of invasion in response to a fire disturbance.

\$92,224

U.S. Department of Agriculture, U.S. Forest Service Surveying Aquatic Species of Concern and Invasives

in the Power Fire on Eldorado National Forest (CA) Use visual encounter surveys and eDNA sampling to determine the presence and distribution of aquatic species, specifically the endangered Sierra Nevada yellow-legged frog, in the Power Fire nexus on Eldorado National Forest. Project will increase understanding of how fire influences the distribution and habitat of species of concern and invasive species in the fire nexus. \$81,590

U.S. Department of Agriculture, U.S. Forest Service Surveying Aquatic Species of Concern and Invasives in Lassen National Forest (CA)

Use visual encounter surveys and eDNA sampling to determine the presence and distribution of aquatic species such as the endangered Sierra Nevada yellow-legged frog and the invasive American bullfrog, chytrid fungus, and brook trout within Lassen National Forest. Project will increase understanding of how the Storrie Fire influenced the distribution and habitat of species of concern and invasive species.

\$141,975

U.S. Geological Survey

Modeling Least Bell's Vireo Habitat in California to Achieve Recovery Criteria (CA)

Develop a partitioned Mahalanobis D2 model identifying important landscape-scale habitat relationships and a GIS-based map predicting suitable habitat for the state and federally endangered least Bell's vireo in California. Project will result in a habitat map used determine the distribution and abundance of this species across its range, identify areas for restoration to recover populations, and pro-actively plan and prioritize where management can be applied to control emerging threats including shot hole borer and Fusarium disease complex.

U.S. Geological Survey

Trout and Drought: Quantifying Sensitivity of Lahontan Cutthroat Trout Streams (CA, NV, OR)

Analyze field data to evaluate the sensitivity of extant and future populations of Lahontan Cutthroat Trout to temperature and drought conditions in critical streams range-wide. Project will produce results to will inform future recovery strategies. *\$121,354*

University of California - Davis Monitoring Little Shasta River Instream Flow Enhancement (CA)

Install equipment to monitor flows in a reach of the Little Shasta River, part of the Klamath River watershed, before and after 1.5 cubic feet per second of voluntary instream flow enhancement as part of a larger collaboration to enhance streamflow in the Little Shasta to promote salmonid recovery. Project will ensure compliance and account for changes in streamflow as the transferred water moves through downstream reaches. *\$17,056*

University of California - Santa Barbara Restoration of Bigcone Douglas-fir Post-2007 Zaca Fire - Phase III, Los Padres National Forest (CA)

Restore bigcone Douglas fir sites affected by the Zaca Fire in Los Padres National Forest. Project will improve the species' resilience to catastrophic wildfires, identify high-priority conservation areas, and develop successful methods for seedling preparation and survival.

\$299,707

University of California - Santa Barbara Restoration of Degraded Chaparral Within the Piru Fire, Los Padres National Forest (CA) - Phase III

Evaluate methods currently used to restore chaparral woody species in sites that have been degraded to annual savanna grassland by recurrent fire within the Piru Fire Scar of Los Padres National Forest. Project will determine dynamics of vegetation in response to multiple fires and environmental stressors, identify methods for native seed collection and germination, and experiment with native shrub restoration techniques while reducing invasive grasses. *\$279,116*

Upper Mokelumne River Watershed Authority Improving Drainage by Upgrading Culverts in Eldorado National Forest (CA)

Replace or reconstruct culverts and water control structures (e.g. water bars, graded dips, berms) on nearly 60 miles of roads in the Panther Creek and Bear River sub-watersheds in the Power Fire scar in Eldorado National Forest. Project will identify and reconstruct or replace 40 culverts and up to 200 water control structures that will improve aquatic organism passage, instream flow and watershed health.

\$1,286,611

Washoe Tribe of Nevada and California

Washoe Tribe Meadow Restoration in Lake Tahoe, California

Restore 300 acres of meadow habitat in Meeks Meadow in Lake Tahoe, California through removal of encroaching conifers, thinning conifers in select areas, and prescribed fire. Project will allow for the Washoe Tribe of Nevada and California Tribe to actively participate and manage aboriginal lands in a historic and traditional manner conjunctively with the U.S. Forest Service.

\$448,230

COLORADO

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Colorado Cattlemen's Agricultural Land Trust Target Habitat Conservation in Colorado Priority Areas through Agricultural Conservation Easements Increase capacity to complete agricultural conservation easements that advance the implementation of Farm Bill conservation programs within Colorado's priority areas. Project will engage with willing landowners to participate in the Agricultural Land Easement Program to protect habitat of high priority for sage grouse, burrowing owl, and cutthroat trout. \$110,000

Colorado Department of Transportation Reducing Wildlife-Vehicle Collisions and Increasing Habitat Connectivity in the San Juan Basin (CO)

Improve motorist safety, reduce wildlife mortality, and increase habitat connectivity along a major big game migratory route in the San Juan Basin in southwest Colorado. Project will provide wildlife/highway fencing to direct mule deer and elk to two newly constructed overpass and underpass structures. \$317,734

\$56,633

Colorado Rio Grande Restoration Foundation

Rio Grande Riparian Restoration Project (CO) Improve the health and resilience of the Rio Grande in Alamosa County, Colorado by restoring streambanks and riparian areas and removing noxious weeds, thereby reducing sediment load to the river, improving riparian and aquatic habitat, reconnecting the river to its floodplain, and revitalizing riparian wetlands. Project will restore 25 acres through noxious weed removal, restore 1.2 miles of instream habitat, and plant 1380 willows and cottonwood trees. *\$200,000*

Colorado State University

Assessment of Connectivity and Invasion Threat to Restore Greenback Cutthroat Trout in Colorado Reclaim 60 kilometers of stream habitat located in Rocky Mountain National Park and Arapahoe-Roosevelt National Forest upstream of the Long Draw Reservoir to assist the largest ever Greenback Cutthroat Trout reclamation effort. Project will evaluate the passage of non-native Brook Trout at a potential downstream barrier and assess the spatial population structure of the invasive Brook Trout.

\$98,909

Colorado Water Trust Implementing Stewardship and Monitoring in Colorado Rivers (CO)

Increase staff and organizational capacity to monitor compliance, hydrology, and aquatic habitat response for six permanent water acquisition projects. Project will also launch environmental monitoring efforts at two new projects to hone strategies for improving streamflow to benefit aquatic species throughout the Colorado River Basin.

\$69,275

Ducks Unlimited

Increasing Wildlife Resiliency and Productivity of Sagebrush Habitat on Working Ranches (CO, WY) Increase wildlife resilience and productivity of

mesic and sagebrush habitats on working ranches in Colorado and Wyoming to benefit sage grouse populations. Project will expand wet meadow restoration into drier mesic landscapes, increase awareness of opportunities and partnerships between landowners and conservation districts, and communicate restoration techniques to conservation practitioners from local, state and federal entities. *\$165,000*

Gunnison Conservation District

Developing Habitat Conservation Plans on Private Lands for the Threatened Gunnison Sage-Grouse (CO) Fund the Conservation District implementation of Gunnison sage grouse habitat improvement projects and developing conservation plans on private lands. Project will restore critical habitat in the Gunnison Basin and develop new partnerships with private landowners. \$51,000

Headwaters Alliance

Adopt an Oxbow: Volunteer-led Ecological Restoration on Willow Creek Floodplain (CO)

Restore the biological, physical, and aesthetic properties of the lower Willow Creek floodplain through collaboration of key partners in support of volunteer work projects focused on revegetation and irrigation infrastructure. Project will engage 66 community members to restore 36.3 acres through planting 13 large oxbows, reseeding native grasses and shrubs, and installing a user-friendly, waterefficient irrigation system. *\$31,871*

Institute for Environmental Solutions Nature Play Connections Project (CO)

Increase soil stability, restore native vegetation, and reduce stormwater runoff along Clear Creek in Wheat Ridge. Project will include two classroom workshops and two planting events, planting 90 native trees, shrubs, and perennials, restoring 0.5 acres and engaging 2,500 community members and students. *\$26,036*

Mountain Island Ranch

Wet Meadow Restoration on the Little Dolores and Colorado River (CO, UT)

Improve wet meadow habitat and forage along the Little Dolores River in Western Colorado to benefit Gunnison sage grouse, elk, mule deer, wild turkeys, and waterfowl; restore stream flows and improve water quality; improve soil health; and increase drought resilience. Project will install 170 beaver dam analogues and Zeedyk structures, remove invasive vegetation, and alter grazing patterns to restore 240 acres of wet meadow habitat. *\$125,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Pheasants Forever

Grassland Habitat Restoration Benefiting the Lesser Prairie Chicken (CO, KS, NM, OK, TX)

Support staff working with the Natural Resources Conservation Service's Lesser Prairie Chicken Initiative as the initiative evolves over time and through any potential changes in the next Farm Bill. Project will restore grassland habitat throughout the full potential range of the lesser prairie chicken which includes parts of Texas, Oklahoma, New Mexico, Colorado, and Kansas. *\$198,367*

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Rocky Mountain Field Institute

Engaging Community Volunteers in the Stewardship of Public Lands in Southern Colorado

Empower youth and adult volunteers to play a hands-on role in the conservation and stewardship of public lands and open spaces in Southern Colorado and the Pikes Peak Region. Project will engage and educate 2,300 community volunteers to restore 200 acres through erosion control, hill-slope stabilization, and trail improvement projects. \$30,000

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The Mule Deer Foundation

Coordination of Cross-Jurisdictional Habitat Improvement in Sagebrush Landscapes (CO, MT, WY)

Increase coordination of conservation partners in Montana, Wyoming, and Colorado for habitat work in the sagebrush landscape. Project will work with state agencies and other partners to increase awareness and opportunity across jurisdictional boundaries for habitat improvements such as modifying and removing fencing, protecting mesic habitats, and removing invasive cheatgrass and juniper. *\$200,000*

Trout Unlimited Reintroduction of Colorado River Cutthroat Trout to

Road Beaver Creek (CO)

Add 7.5 miles of native trout steam southwest of Gunnison, Colorado that will reintroduce a conservation population of green lineage Colorado River cutthroat trout back into Road Beaver Creek, a stream within its historic range. Project will construct a fish barrier to prevent non-native fish from moving upstream, partner with Colorado Parks and Wildlife to eradicate non-native brook trout, and stock green lineage Colorado River cutthroat trout.

\$25,000

World Wildlife Fund

Updating Plowprint to Identify Grassland

Restoration Opportunities (CO, IA, KS, NE, NM, OK) Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the bestavailable data to track rates of cropland conversion, monitor the status of previously converted lands, and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region. *\$61,628*

CONNECTICUT

Citizens Campaign Fund for the Environment Analyzing How to Increase Use of Reusable Bags to

Reduce Plastic Pollution into the Sound (CT) Conduct an analysis in twelve towns to collect qualitative information about use of plastic, paper, and reusable bags to determine the most effective ways to promote use of reusable bags in Fairfield and New Haven County, Connecticut. Project will provide information about how to reduce the use of plastic bags among consumers and businesses to decrease one source of plastic entering Long Island Sound.

\$10,000

City of Groton

Coastal Resiliency Action Strategy and Hazard Planning (CT)

Identify tools for a strategic plan to address vulnerabilities and risks to coastal resilience in Connecticut. Project will provide actions to improve the city's response to future storms and sea level rise. \$50,596

City of Norwalk, Connecticut

Green Infrastructure at Webster Street Parking Lot to Improve Water Quality in Norwalk Harbor (CT) Install green infrastructure as part of the repaving of a five acre public parking lot in the South Norwalk business district located near the Norwalk Harbor, which drains stormwater into Long Island Sound in Connecticut. Project will alleviate local flooding, increase tree canopy, and prevent 6,700,000 gallons of stormwater and 12 pounds of nitrogen annually from flowing into the Sound. *\$250,000* Creating Thriving Habitats for the Shorebirds of Long Island Sound (CT)

Connecticut Audubon Society

Provide education and deliver targeted stewardship of American oystercatcher and other migratory shorebirds and habitat along the Long Island Sound coastline of Connecticut. Project will increase public awareness about the value of sharing the shore with birds among recreational users and reduce disturbance to the birds' breeding and roosting sites. *\$75,000*

Connecticut Fund for the Environment Bringing the Alewife Back to Alewife Cove (CT)

Remove a barrier to fish passage and educate and engage the community and students in project implementation and monitoring at Alewife Cove, New London, Connecticut. Project will restore 3 miles of riverine migratory corridor benefiting alewife, sea lamprey, and American eel that migrate between rivers and Long Island Sound. \$187,282

Connecticut Fund for the Environment Planning for Fish Passage at the Dana Dam (CT)

Develop a plan to remove one barrier to fish passage on the Norwalk River, Wilton, Connecticut. Project will set the stage to restore access to 6.5 miles of migratory riverine corridor for blueback herring, American \$75,000

Cornell Cooperative Extension of Suffolk County Assessing and Removing Derelict Lobster Gear in Long Island Sound (CT, NY)

Remove 3,640 derelict lobster pots from Long Island Sound using a specialized grapple system. Project will implement a program with local lobster fishermen to remove abandoned gear to reduce debris in the sound and ghost fishing impacts to the depleted Southern New England lobster stock. *\$133,697*

Earthplace - The Nature Discovery Center Engaging Student Citizen Scientists for Long Island Sound (CT)

Engage student citizen scientists in five experiential learning programs about water quality and Long Island Sound ecology using rivers, harbors, and the Sound as outdoor classrooms, and make public presentations about their research at public events in Fairfield County, Connecticut. Project will train students in conservation science and improve public knowledge and understanding of the Sound. *\$50,000*

Farmington River Watershed Association Engaging Communities in "RiverSmart" Stormwater Management in the Pequabuck River Watershed (CT)

Conduct the RiverSmart education program connecting the story of local storm drains to the problem of stormwater pollution into local waterways that feed Long Island Sound and install green infrastructure in Bristol, Connecticut. Project will educate adults and youth groups about everyday actions people can take to reduce polluted stormwater from inland communities into the Sound.

\$34,560

Friends of Outer Island

A "Sound" Long Island Sound Education and Field Studies Program for Urban Communities (CT)

Deliver a 10-event experiential education series to immerse 385 students, teachers, families, and the public primarily from urban New Haven about environmental challenges faced by Long Island Sound in the footprint of a U.S. Fish and Wildlife Service National Wildlife Refuge island unit offshore of Branford, Connecticut. Project will foster knowledge about Long Island Sound water quality, sustainability, and coastal resilience among urban audiences.

\$5,000

Housatonic Valley Association

Planning for Fish-Friendly and Flood Resilient Road-Stream Crossings in the Naugatuck Valley (CT)

Create road-stream crossing management plans for three towns with historical runs of diadromous fish in the Naugatuck Valley, Connecticut. Project will be officially adopted by each community as part of natural hazard mitigation planning, and serve as a tool for securing support and financing for future road-stream crossing replacement projects. *\$67,097*

Long Island Community Foundation Development and Delivery of the Long Island Sound Community Stewardship Fund (CT, NY)

Develop and deliver the Long Island Sound Stewardship Fund, a pooled competitive grant program of the Long Island Sound Funders Collaborative managed by the Long Island Community Foundation in the Long Island Sound Study boundaries of New York and Connecticut. Project will advance an existing and expanding partnership with the Long Island Sound Funders Collaborative and the U.S. Environmental Protection Agency around the common mission of restoring and protecting the health and living resources of Long Island Sound based upon the 2015 Comprehensive Conservation and Management Plan. *\$100,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

National Audubon Society

Coastal Habitat Restoration Planning for Salt Marsh and Nesting Birds in Long Island Sound (CT, NY)

Assess and identify priority high salt marsh restoration sites along the coast of Long Island Sound in Connecticut and New York. Project will set the stage to restore salt marsh that buffers coastal communities from storms and provides habitat for nesting bird species such as salt marsh sparrow through effective coastal management planning. *\$50,498*

National Audubon Society Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Niantic River Watershed Committee

Healthy Lawns, Healthy Rivers for a Healthy Long Island Sound (CT)

Conduct a social marketing program for residents aiming to reduce or eliminate the use of fertilizer on lawns in the Niantic River watershed of Long Island Sound in East Lyme and Waterford, Connecticut. Project will prevent 10,000 pounds of nitrogen from fertilizer flowing into the Niantic River and ultimately Long Island Sound. *\$15,637*

Sea Research Foundation

Long Island Sound – Stewards in Training (CT) Provide 16 educational programs for middle and high school students and their teachers to expose them to Long Island Sound and Science Technology Engineering and Math career resources, engaging them in hands-on scientific activities and mentorship from working professionals at Mystic Aquarium, Connecticut. Project will open pathways for youth to achieve a better understanding of their connection with Long Island Sound and to green careers in the watershed. \$9,655

SoundWaters

Deploying a Skimmer in Stamford Harbor for a Trash Free Long Island Sound (CT)

Install a marine trash skimmer in Stamford Harbor, Stamford, Connecticut. Project will remove 3,190 pounds of floatable marine debris annually from Long Island Sound. *\$21,454*

SoundWaters

Parking Lot to Dunescape Conversion (CT)

Remove a 40,000-square-foot, waterfront parking lot at John J. Boccuzzi Park and replace it with a dunescape of naturally resilient sea grass and other native species. Project will engage 300 diverse community volunteers to help plant the new dunescape and restore 3 acres. *\$347,371*

State of Connecticut

Green Infrastructure to Improve Water Quality and Coastal Resilience in Bridgeport (CT)

Install green infrastructure in the Seaside Park neighborhood of Bridgeport, Connecticut. Project will convey, infiltrate, filter stormwater from a pump station which is part of a coastal flood defense system, improve water quality in Bridgeport Harbor and Long Island Sound by reducing stormwater runoff, and address flooding in the South End of the city. *\$250,000*

Thames Valley Chapter of Trout Unlimited Planning for Fish Passage at Papermill Pond Dam (CT)

Conduct an engineering alternatives analysis, prepare designs, and commence pre-application consultations with federal and state agencies to advance installation of a fishway on the Papermill Pond dam, Sprague, Connecticut. Project will set the stage for how to address a large barrier to fish migration to Long Island Sound inaccessible for over 150 years.

\$53,500

The Middlesex Land Trust Planning for Fish Passage at the Highland Pond Dam (CT)

Develop a design to remove one barrier to fish passage on the Sawmill Brook in Middletown, Connecticut. Project will set the stage to restore access to 1 mile of spawning and nursery habitat along a migratory riverine corridor for alewife, blueback herring, American eel, and sea lamprey to Long Island Sound.

\$51,390

The Trust for Public Land

Sliver by the River: Planning for Greening the Pequonnock River on the Bridgeport Waterfront (CT)

Develop an alternatives analysis about the type of green infrastructure to add to the coastal hazard mitigation plan for a three-acre sliver of land along the Pequonnock River, Bridgeport, Connecticut. Project will set the stage for improving water quality and enhancing community resilience to storms and floods in an urban coastal community of Long Island Sound. \$85,113

Town of Sprague

Planning for Fish Passage on Beaver Brook (CT)

Develop engineered plans to remove barriers to fish passage on Beaver Brook, Sprague, Connecticut. Project will set the stage to address two barriers to fish migration at the mouth of the brook for alewife, blueback herring, American eel, and sea lamprey along an important migratory riverine corridor of Long Island Sound. \$48,900

Yale University

New Strategies to Prevent Litter for a Trash Free Long Island Sound (CT)

Install three kinds of litter traps to analyze the type and amount of litter in New Haven, Connecticut. Project will identify the best technology to trap litter and pinpoint sources of pollution from surrounding neighborhoods to inform management that better targets and prevents litter into New Haven Harbor and Long Island Sound.

\$39,950

DELAWARE

Alliance for the Chesapeake Bay

Strengthening Watershed Initiatives and Increasing Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, identifying areas of common concern and need, and developing solutions to common challenges. *\$500,000*

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges *\$469,482*

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Chesapeake Bay Trust

Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale. *\$1,200,000*

Chesapeake Stormwater Network

Chesapeake Stormwater Training and Engagement II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states. *\$125,000*

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed.

\$125,000

City of Wilmington, Delaware

South Wilmington Freshwater Tidal Wetland Habitat Restoration for Flood Prevention (DE) Restore 14 acres of degraded wetland to a high functioning freshwater tidal wetland habitat in South Wilmington, Delaware. Project will reduce flooding, enhance resiliency, restore freshwater tidal exchange, filter polluted runoff, improve soil and water quality, and restore habitat for a variety of fish and wetland and aquatic wildlife.

\$2,999,972

Delaware Environmental Institute

Improving Shad Passage in the White Clay Creek (DE) Project will remove one impediment to fish passage on the White Clay Creek and build a rock ramp around another impediment to open primary streambed for shad and anadromous fish. Project will improve water quality and recreational opportunities in the White Clay Creek. *\$72,848*

Delaware River Basin Commission Characterization of Algal Composition and Dissolved Oxygen in the Delaware Estuary (DE, NJ, PA)

Perform algal composition and dissolved oxygen characterization of Delaware Estuary to better understand existing and potential fish habitat quality. Project will inform the propagation of important species populations such as Atlantic sturgeon and striped bass and improve the eutrophication model of the entire tidal Delaware River and Bay.

\$88,854

Delaware River Basin Commission

Reducing Microplastics in the Delaware Estuary (DE, NJ, PA)

Identify key sources of microplastics in the Delaware Estuary through monitoring and modelling efforts to ultimately execute targeted cleanup efforts on key source tributaries. Project will conduct studies to develop a more comprehensive understanding of microplastics in the Estuary and then use the results of these efforts to organize the removal of large amounts of plastic products from the waters of the basin to benefit fish, wildlife, and habitats. **\$60,454**

Ducks Unlimited

Restoring Shallow Water Wetland at Delaware's National Wildlife Refuges (DE)

Restore 90 acres of shallow freshwater ephemeral marsh and managed wetlands at the Coastal Delaware National Wildlife Refuge Complex. Project will finalize conceptual design plans and secure permits to initiate habitat restoration efforts. *\$100,000*

Future Harvest - Chesapeake Alliance for Sustainable Agriculture

Supporting a CBFN Soil Health Summit Alongside Future Harvest Conference (DE)

Deliver a Chesapeake Soil Health Forum to engage regional agricultural conservation partners in advancing the use of soil health-promoting programs and practices in Chesapeake Bay watershed restoration efforts. \$10,278

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

Nanticoke Watershed Alliance

Developing Poultry House Buffer Alternatives in the Nanticoke Watershed (DE)

Test alternatives to mowed grass on poultry grower properties by evaluating several variations of buffer plantings for improved stormwater management. Project will convert mowed grass areas located between chicken houses into a variety of vegetative buffer alternatives to capture and filter stormwater runoff and serve as a demonstration to encourage other farmers to install similar plantings on their properties. *\$38,629*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Partnership for the Delaware Estuary Developing a Site-Based Decision Tool for Targeted

Implementation of Living Shoreline Strategies (DE, NJ) Refine and test a wetland decision support tool to prioritize sites for living shoreline construction in Delaware and New Jersey. Project will quantify sitespecific wetland conditions to develop a decision tool that will identify and prioritize intervention efforts to maximize conservation outcomes for living shorelines and resolve crucial data gaps to ensure living shoreline success. *\$181,501*

The Nature Conservancy Accelerating Wetland Restoration Through Partnerships and Landowner Engagement (multiple states)

Accelerate water quality and black duck habitat improvements through strengthened partnerships to advance wetland and stream restoration in priority regions and identification of landowner priorities and constraints to guide restoration outreach and opportunities. Project will leverage existing partnerships and expertise and add needed capacity to further foster watershed-wide collaboration to restore, enhance, and protect a network of habitats to improve water quality. *\$965,852*

The Nature Conservancy

Improving Spawning and Rearing Habitat for Alosines in the Delaware River Basin (DE, NJ, NY, PA) Advance a targeted in-depth assessment to improve aquatic connectivity for American shad and river herring in the Delaware River Basin. Project will evaluate barriers and habitats throughout the watershed to identify key sites for shad and river herring restoration, resulting in a "Restoration Road Map" which will provide recommendations on meeting funding needs and feasibility and opportunity for potential phasing projects. *\$175.101*

University of Delaware

Brandywine River Shad Restoration Project (DE)

Restore anadromous and domestic fish passage to 17.6 miles and 250 acres of freshwater spawning habitat from tidewater to the Piedmont. Project will remove 10 dams along the Brandywine River to restore fish passage for American Shad, hickory shad, striped bass, and herring species as part of the initiative to restore this freshwater habitat by 2020. *\$241,000*

University of Delaware

Examining the Effects of Modifications in the Delaware River on Sturgeon Populations (DE, NJ, PA) Develop new bottom sediment maps for segments of the Delaware River using high-resolution, sidescan sonar imagery. Project will address areas of the Delaware River navigation channel that have recently been deepened, potentially impacting habitats for Atlantic and shortnose sturgeon. \$46,658

University of Maryland Center for Environmental Science

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states)

Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for nontidal watershed areas and indicators for socially, culturally, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project.

\$82,678

RIES

University of Maryland **Environmental Finance Center**

Leveraging Partnership and Data in the Nanticoke for Stormwater Best Management Practices (DE)

Use existing collaborative structures in the watershed to collect and analyze data about demographics and land ownership to identify needed changes and gaps. Project will assist Nanticoke Watershed Alliance in developing recommendations for stormwater management to increase participation in programs and implementation, meet total maximum daily load goals across regulated and unregulated parts of the region, and fit the communities' financing capacity.

\$49,996

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds.

\$999,942

DISTRICT OF COLUMBIA

Alliance for the Chesapeake Bay

Strengthening Watershed Initiatives and Increasing Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, identifying areas of common concern and need, and developing solutions to common challenges. \$500,000

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges \$469,482

Anacostia Riverkeeper

Anacostia Watershed Water Quality Monitoring (DC, MD)

Expand an existing volunteer water quality monitoring program, currently isolated to DC waters, further into Maryland and the Anacostia River watershed. Project will engage 40 volunteers in monitoring dissolved oxygen, temperature, and conductivity and reach 500 community members at community forums and through sharing monitoring data results. \$45.927

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. \$250,000

Chesapeake Bay Trust

Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale. \$1.200.000

Chesapeake Stormwater Network Chesapeake Stormwater Training and Engagement II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states.

\$125,000

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed.

\$125,000

Department of Energy and Environment Applying Soil Amendment Techniques and Subsoiling on Compacted Urban Land (DC)

Implement and monitor the efficacy of a variety of subsoiling and soil amendment techniques on open lands in the District of Columbia. Project will aim to reduce compaction, restore hydraulic functionality, and improve soil health for the purposes of reducing stormwater runoff and pollutants generated from compacted and public lands in the District of Columbia. \$200.000

Department of Energy and Environment Freshwater Mussel Restoration in the Anacostia (DC)

Improve and study water quality conditions in Kingman Lake, Nash Run, and Watts Branch using three native species of freshwater mussels: eastern elliptio, alewife floater, and eastern pondmussel. Project will educate 400 young people per year on the importance of freshwater mussels for ecosystem services and develop a freshwater mussel restoration plan for the District of Columbia based on work performed during this grant and prior to this grant. \$200,000

Future Harvest - Chesapeake Alliance for Sustainable Agriculture Supporting a CBFN Soil Health Summit Alongside Future Harvest Conference

Deliver a Chesapeake Soil Health Forum to engage regional agricultural conservation partners in advancing the use of soil health-promoting programs and practices in Chesapeake Bay watershed restoration efforts. \$10,278

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. \$249,161

Buddy Bison School Program (CA, DC, MD)

Provide out-of-class watershed education experiences to 2,680 students and 120 teachers at U.S. Forest Service sites and connect them with Forest Service and Bureau of Land Management educators in the Washington, D.C. metro and Southern California regions. Project will use public lands as outdoor classrooms for Science Technology Engineering and Math and provide opportunities to experience the benefits of outdoor recreation and learn about the importance of stewardship of public lands and waters. \$128,186

University of Maryland Center for Environmental

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states)

Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for nontidal watershed areas and indicators for socially, culturally, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project. \$82,678

University of Montana

Science

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds.

\$999,942

FLORIDA

Alachua Conservation Trust Ocala Regional Implementation Team VI (FL)

Accelerate longleaf pine habitat restoration on public and private lands in north central Florida to benefit the federally endangered red-cockaded woodpecker and imperiled reptiles, such as the gopher tortoise. Project will engage private landowners in longleaf restoration through a prescribed burn association and will restore and enhance more than 8,000 acres of longleaf pine habitat, including key sites on the Ocala National Forest and Camp Blanding Joint Training Center. \$300.000

Audubon Nature Institute

Developing a Gulf Highly Migratory Species Industry Association (FL, LA)

Facilitate shareholder meetings that will develop a plan to implement a Gulf Highly Migratory Species Industry Association. Project will develop an association to address sustainability, address economic viability, and foster communication amongst stakeholders.

\$78,653

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Florida Department of Environmental Protection Removal of Derelict Fishing Gear on Artificial Reefs in the Charlotte Harbor Aquatic Preserves (FL) Remove derelict fishing gear from artificial reefs in Charlotte Harbor. Project will properly remove and recycle gear and coordinate with local counties and volunteer divers to monitor the reefs. \$59,300

Florida Forest Service Longleaf Pine Hurricane Recovery on Private Lands (FL)

Provide outreach and education, technical assistance, and financial assistance to private forest landowners in the Florida panhandle who were impacted during Hurricane Michael. Project will engage 150 private forest landowners through two workshops, plant 300 acres of longleaf pine, and enhance an additional 800 acres with prescribed fire, thinning, and other management treatments.

\$75,000

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives.

\$150,000

Friends of Arthur R. Marshall Loxahatchee National Wildlife Refuge

Enhancing Capacity Through Strategic Planning (FL) Implement a strategic planning review to align organization vision and goals with the refuge system mission. Project will focus on developing events and learning activities that address conservation issues and engage the community. \$4,000

Groundwork Jacksonville

McCoys Creek Restoration Plan for Improved Wildlife Habitat and Flood Management (FL)

Develop a restoration plan for McCoys Creek in Jacksonville, Florida to improve the waterway's health and water quality, improve flood conditions for residents and businesses, and create habitat for wildlife. Project will establish natural channel design and bioengineering treatments for restoring the creek and identify locations for recreational amenities and natural storm-water remedies. *\$250,000*

Gulf and Caribbean Fisheries Institute

Managing Stony Coral Tissue Loss Disease Threat in the Caribbean (FL)

Improve management capacity for disease detection, monitoring, and communications across the Caribbean. Project will host a workshop for Caribbean Marine Protected Area managers to train on early response options to the disease that is spreading from Florida to across the Caribbean. \$63,800

Manatee County Board of County Commissioners Robinson Preserve Coastal Habitat Restoration (FL)

Implement restoration activities, conduct monitoring to assess restoration outcomes, and engage in outreach and educational activities. Project will provide approximately 58 acres of coastal upland habitat and 61 acres of wetland, open water sub-tidal, and open freshwater habitats, for a total of 118 acres of restored productive habitat. \$1,510,000

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. **\$67,737**

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

Mote Marine Laboratory

Maintain Coastal Protection of Florida's Reefs through Restoration of Resilient Corals Restore more than 130 acres of coral reef to strengthen coastal resiliency to storm enhanced waves and expand essential fisheries habitat for sustainable commercial and recreational use. Project will recover threatened and endangered coral species in the Florida Keys through the culture and out-planting of disease and temperature resilient corals.

\$1,499,462

Museum of Science Virginia Key North Point Extension Habitat Enhancement (FL)

Restore a unique subtropical wetland and dune ecosystem on Virginia Key through the removal of invasive vegetation and replanting of native plants. Project will engage 700 volunteers in restoring 3 acres and planting 4,000 native plants. \$31,767

National Audubon Society Guy Bradley Award - Federal Winner (FL)

Funds awarded to National Audubon Society-Florida on behalf of 2019 Guy Bradley Award Federal level winner, U.S. Fish and Wildlife Service Special Agent in Charge, James R. Gale. *\$1,000*

National Audubon Society

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering.

\$190,000

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Wildlife Federation

Strategic Longleaf Restoration on Private Lands in Florida II

Engage family forest owners to restore and enhance longleaf pine habitat in the Florida panhandle, with an emphasis on assisting landowners impacted by Hurricane Michael. Project will reach family forest owners through an innovative social marketing platform and provide technical assistance to restore and enhance 2,700 acres of longleaf habitat, with an emphasis on reaching landowners. *\$221,488*

Saltwater

Integrating Electronic Technology Tools in the Gulf of Mexico Highly Migratory Species Fishery (AL, FL, LA) Develop and pilot electronic monitoring and reporting hardware and software solutions for the Gulf of Mexico Highly Migratory Species vessels using alternative gear, which will reduce the reporting burden on vessel operators and promote sustainability. Project will address challenges in data quality, accountability, and timeliness. *\$240,000*

Southeastern Association of Fish and Wildlife Farmer to Farmer Marketing for Water Conservation (FI, GA)

Conduct a targeted outreach and marketing campaign to increase the number of landowners adopting water conservation practices in the southern portion of the Apalachicola-Chattahoochee-Flint River basin. Project will produce materials explaining the costs and benefits behind adoption and appeal to farmers through various marketing techniques. \$300,000

The Longleaf Alliance

Accelerating At-Risk Species Recovery in the Gulf Coastal Plain Ecosystem Partnership Landscape II (FL)

Restore forested wetland habitats and accelerate recovery of the federally endangered reticulated flatwoods salamander within the western panhandle of Florida. Project will reduce woody vegetation to enable long-term management with prescribed fire and implement species-specific management and monitoring, including captive rearing of salamanders for release to suitable habitat.

\$1,499,035

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments.

\$150,000

The Longleaf Alliance

Red-cockaded Woodpecker Translocation Support for the Southern Range Translocation Cooperative: Years 17 and 18 (AL, FL, GA, MS)

Support recovery of the federally endangered red-cockaded woodpecker through translocation of birds from the Apalachicola National Forest to designated recovery properties in Florida, Georgia, and Mississippi selected by the Southern Range Translocation Cooperative. Project will translocate at least 20 birds to restored longleaf pine habitat that will be managed long-term. **\$90,000**

The Longleaf Alliance

Longleaf Restoration in the Gulf Coastal Plain Ecosystem Partnership Landscape V (AL, FL) Restore and maintain 20,000 acres of longleaf pine habitat in the western panhandle region of Florida to benefit rare and declining species such as the Bachman's sparrow, red-cockaded woodpecker, gopher tortoise and northern bobwhite. Project will deploy an ecosystem support team to implement prescribed burns and other longleaf management practices and engage 200 private landowners in longleaf pine restoration through outreach, education, and technical assistance. *\$280,000*

The Nature Conservancy

Fire Mentoring Program (AL, FL, GA, NC) Hire eight young adults to create mobile forestry technician crews that will assist U.S. Forest Service timber managers by performing 15,000 acres of prescribed burns and accelerating timber harvest of thousands of acres of planted, offsite pine plantations to replace with longleaf pine. Project will assist the Forest Service with recruiting quality, diverse candidates and experienced fire technicians to meet capacity needs to carry out ecological prescribed burns to manage and restore longleaf pine. *\$118,500*

The Nature Conservancy - Florida Apalachicola Longleaf Restoration Initiative VII (FL, GA)

Restore and enhance longleaf pine habitat on public and private lands in the central panhandle region of Florida, including lands impacted by Hurricane Michael, to benefit songbirds such as the Bachman's sparrow, and imperiled reptiles such as the eastern indigo snake and gopher tortoise. Project will establish 800 acres of longleaf pine and improve management of more than 20,000 acres of existing longleaf habitat through prescribed burning, thinning, and native groundcover plantings. *\$225,000*

GEORGIA

Atlanta Audubon Society Restoring Migratory Songbird Habitat at Atlanta's Cascade Springs (GA)

Restore urban bird habitat by removing exotic, invasive plants and installing native, bird-friendly plants and conducting bird surveys in Cascade Springs Nature Preserve located in the Utoy Creek watershed in southwest Atlanta, Georgia. Project will result in 12 acres of restored bottomland forest, one year's worth of bird population data, interpretive signage, and a series of educational programming with the local community. *\$25,831*

Blue Heron Nature Preserve

Restoring Urban Riparian Corridor at the Blue Heron Nature Preserve in Atlanta, GA

Restore 1.5 acres of riparian corridor and 500 feet of creek in the Mill Creek Watershed in Atlanta, Georgia by removing invasive plant species along the creek, supplementing the area with appropriate native plantings, and connecting with two other Five Star restored areas. Project will create 2,200 feet of contiguous restoration and engage 135 community volunteers through seasonal plant surveys and regular trash pickup in the watershed. **\$20,000**

Cawaco Resource Conservation and Development Council Understanding the Distribution and Range

of the Trispot Darter in the Middle Coosa Watershed (AL, GA)

Collect stream water samples and conduct field visits in the Middle Coosa watershed to enhance knowledge of the distribution and range of the trispot darter, a species proposed for listing as threatened under the Endangered Species Act. Project will collect information that will help focus conservation actions into smaller, more manageable areas and introduce new conservation opportunities for the species. *\$150.000*

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits and facilitate knowledgesharing and capacity-building across cities. *\$250,000*

College of William and Mary

Full Life-cycle Conservation for Whimbrels on the Western Atlantic Flyway (multiple states)

Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring to serve as a metric of success, map critical whimbrel sites to focus onthe-ground management, and improve conditions within critical sites.

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Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Forest Landowners Association Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Georgia Department of Natural Resources Acquisition of Canoochee Sandhills for Gopher Tortoise Conservation (GA)

Acquire and manage the 6,065-acre Canoochee Sandhills property in Georgia to create a new publicly accessible wildlife management area. Project will support viable gopher tortoise habitat to potentially avoid a federal listing of this candidate species, as well as allow for expansion of longleaf pine habitat on the property. \$500,000

Georgia Department of Natural Resources Fish and Mussel Population Monitoring at Holly Creek (GA)

Build on an initial year of sampling to conduct two annual surveys of mussels and fish and collect basic water quality data within Holly Creek in northwest Georgia, a hot spot for aquatic biodiversity. Project surveys will provide a baseline understanding of aquatic community composition, including spatial and temporal variability, to help evaluate the potential effects of management interventions. *\$65,000*

Georgia Department of Natural Resources Silver Lake Wildlife Management Area Redcockaded Woodpecker Recovery (GA)

Install 110 artificial cavity inserts on the Silver Lake Wildlife Management Area in Georgia to replace the red-cockaded woodpecker (RCW) cavity trees destroyed by Hurricane Michael in order to help stabilize the RCW population. Project will also remove storm debris from RCW sites, road edges, and fire breaks, which will help prevent fire damage to residual cavity trees, reduce the likelihood of intense fire behavior, and reduce potential for smoke management issues. *\$96,488*

Georgia Forestry Commission Restoring Longleaf Pine in the Lower Altamaha Landscape (GA)

Engage non-industrial private forest landowners to restore and enhance longleaf pine forests in the Lower Altamaha landscape in southeast Georgia to benefit at-risk reptiles such as gopher tortoise and eastern indigo snake, and open-pine and grassland dependent bird species such as red-cockaded woodpecker and Bachman's sparrow. Project will create a landowner prescribed burning co-op, implement a new financial assistance program and provide technical assistance to willing landowners to restore, and enhance 3,000 acres of high priority longleaf pine habitat. *\$150,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast.

\$191,000

National Audubon Society Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Pheasants Forever

Using Precision Agriculture to Increase Habitat for Bobwhite Quail in the Savannah Project Area (GA) Build technical assistance capacity for bobwhite quail in the Savannah Project Area through the hiring, training, and work of a precision agriculture and conservation specialist. Project will engage farmers directly to analyze precision agriculture data on bobwhite ranges, identify positive economic return through Farm Bill programs for landowners to implement precision agriculture, and increase awareness of the benefits of integrating precision agriculture with precision conservation programs. *\$289,236*

Southeastern Association of Fish and Wildlife Farmer to Farmer Marketing for Water Conservation (FI, GA)

Conduct a targeted outreach and marketing campaign to increase the number of landowners adopting water conservation practices in the southern portion of the Apalachicola-Chattahoochee-Flint River basin. Project will produce materials explaining the costs and benefits behind adoption and appeal to farmers through various marketing techniques. \$300,000

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments.

\$150,000

The Longleaf Alliance

Red-cockaded Woodpecker Translocation Support for the Southern Range Translocation Cooperative: Years 17 and 18 (AL, FL, GA, MS)

Support recovery of the federally endangered red-cockaded woodpecker through translocation of birds from the Apalachicola National Forest to designated recovery properties in Florida, Georgia, and Mississippi selected by the Southern Range Translocation Cooperative. Project will translocate at least 20 birds to restored longleaf pine habitat that will be managed long-term. \$90,000

The Nature Conservancy

Accelerating Longleaf Pine Ecosystem Restoration on the Fall Line IV (AL, GA)

Accelerate longleaf pine conservation on public and private land in west-central Georgia and east-central Alabama, improving habitat for redcockaded woodpecker, Bachman's sparrow and gopher tortoise. Project will restore and enhance more than 10,000 acres of longleaf pine habitat, focusing on properties buffering Fort Benning, as well as high priority federal, state, and privately owned lands.

\$298,353

The Nature Conservancy Apalachicola Longleaf Restoration Initiative VII (FL, GA)

Restore and enhance longleaf pine habitat on public and private lands in the central panhandle region of Florida, including lands impacted by Hurricane Michael, to benefit songbirds such as the Bachman's sparrow, and imperiled reptiles such as the eastern indigo snake and gopher tortoise. Project will establish 800 acres of longleaf pine and improve management of more than 20,000 acres of existing longleaf habitat through prescribed burning, thinning, and native groundcover plantings. \$225,000

The Nature Conservancy Fire Mentoring Program (AL, FL, GA, NC)

Hire eight young adults to create mobile forestry technician crews that will assist U.S. Forest Service timber managers by performing 15,000 acres of prescribed burns and accelerating timber harvest of thousands of acres of planted, offsite pine plantations to replace with longleaf pine. Project will assist the Forest Service with recruiting guality, diverse candidates and experienced fire technicians to meet capacity needs to carry out ecological prescribed burns to manage and restore longleaf pine. \$118,500

The Nature Conservancy

Improving Fish Passage for Species Endemic to the Conasauga River (GA)

Remove and replace a collapsed set of pipe culverts to restore connectivity within Mill Creek, a major tributary to the Conasauga River in Georgia. Project will provide fish passage to an additional 6 miles of stream habitat for as many as 20 native, endemic species including the blue shiner, trispot darter, southern pigtoe, and Coosa creekshell and restore access for adjacent land management. \$100,000

The Nature Conservancy Restoring and Managing Longleaf in Northeast

Alabama and Northwest Georgia

Restore, improve and maintain montane longleaf pine habitat on public and private lands and collect monitoring data on the northern pine snake and other key terrestrial species in northeast Alabama and Northwest Georgia. Project will impact more than 35,000 acres of longleaf pine habitat through plantings, thinnings, and prescribed burning. \$135,000

The Nature Conservancy Reversing and Preventing Declines in Native Mussel Populations in Holly Creek (GA)

Improve populations of Alabama rainbow and Coosa Creekshell mussels through propagation and augmentation of populations in the Holly Creek watershed. Project will help slow a regional decline of aquatic biodiversity and provide a basis for implementing future conservation actions in the watershed.

Trees Atlanta

\$75,000

Connally Nature Park Forest Restoration (GA)

Restore a segment of Connally Nature Park in East Point, Georgia. Project will improve 4 acres of forest and stream buffer through invasive removal, native replanting, improving and expanding a walking trail, adding educational signage, and engaging the community.

\$29.600

Trees Atlanta

Youth Tree Team (GA)

Employ 25 high school and four college-age students to conduct on-the-ground restoration and maintenance projects in the Browns Mill Park neighborhood in Atlanta. Project will improve approximately 500 linear feet of walking trails, remove 1.1 acres of invasive species, build season extenders for 30 garden plots, and plant 700 native perennials.

\$32,000

University of Tennessee (AgResearch) Advancing Northern Bobwhite Management in the Longleaf Pine Range (AL, GA, LA, VA)

Develop northern bobwhite population goals for target sites within the longleaf pine range in Alabama, Georgia, Louisiana, and Virginia to support adaptive management. Project will engage local partners, including state wildlife agencies, to collect habitat and population data, and will produce predictive statistical models that relate population abundance to habitat structure, landscape characteristics, and management actions. \$147,568

HAWAII

American Bird Conservancy

Conserving the Endangered Seabirds of Hono a Na Pali Natural Area Reserve, Kauai III (HI)

Provide nest protection for Newell's shearwater and Hawaiian petrels in the Hono O Na Pali Natural Area Reserve on Kauai Island in Hawaii. Project will reduce predation, identify new nests for protection and translocation, develop estimates of reproductive success, increase local capacity, and increase awareness of the impacts of non-native predators on seabirds and Hawaiian native forest ecosystems.

\$150,000

American Bird Conservancy

Establishing Populations of Endemic Seabirds at Kilauea Point National Wildlife Refuge VII (HI)

Establish a new colony of endangered Hawaiian seabirds in the Nihoku Restoration Area at Kilauea Point National Wildlife Refuge on Kauai, Hawaii. Project will translocate 20 Hawaiian petrel and 20 Newell's shearwater to predator-free habitat on the refuge and will continue habitat restoration and monitoring efforts at this site. \$224.825

UNITED STATES AND U.S. TERRITORIES

American Bird Conservancy

Saving Hawaii's Imperiled Forest Birds XI

Conduct multiple actions to protect forest bird species across the Hawaiian Islands, including the reintroduction of Maui parrotbills and Palila, predator control, habitat restoration, fence maintenance, population surveys and analysis. Project will support the species goals established by the business plan and address additional priorities including development of a comprehensive community engagement strategy as a first step to implementing the mosquito-free Hawaii vision. \$340,000

Archipelago Research and Conservation Restoring and Monitoring Seabirds in Honopu Valley, Kauai (HI)

Monitor seabird response to conservation actions implemented within Honopu Valley. Project will include assessments of breeding success, call rates, burrow attendance and occupancy for Newell's shearwater, Hawaiian petrel, and band-rumped storm petrel; this project will also initiate social attraction techniques, including broadcasting calls and installing artificial burrows, to encourage seabirds to breed inside the fence. *\$80,966*

Hallux Ecosystem Restoration

Eradication of Rodents from a Predator Proof Fence to Benefit Seabirds in Honopu Valley (HI)

Conduct rodent eradication within a predator proof fence in Honopu Valley, Kauai to provide a safe breeding area for Newell's shearwater, Hawaiian petrel, and band-rumped storm petrel. Project will occur within the footprint of a three-acre fence (completed under a parallel award) to protect the only known dry mesic forest colony of Newell's shearwater and will house a social attraction site for all three seabird species to further enhance seabird colony growth. *\$30.455*

Hallux Ecosystem Restoration

Implementing Landscape level Predator Control for the Protection of Seabirds in Honopu Valley (HI)

Manage invasive predators within the proposed footprint of the 264 acre ungulate fence. Project will initially focus on landscape-level rodent control and predator monitoring prior to and following fence construction in order to protect listed seabirds nesting on the cliffs below and in the surrounding mesic forest.

\$78,920

Hawaii Department of Land and Natural Resources Providing Technical Capacity to Increase Habitat Conservation for Nene (Hawaiian Goose) (HI)

Provide staff capacity to increase nene (Hawaiian Goose) conservation planning and participation from private landowners by coordinating between state and federal management efforts. Project will hire field professionals to provide incentives and education for landowners currently not involved in habitat restoration for nene.

\$100,508

Hawaii Division of Forestry and Wildlife Installation of an Ungulate Fence to Benefit Seabirds in Honopu Valley, Kauai (HI)

Install an ungulate proof fence around approximately 264 acres of native, mesic forest within Honopu Valley to exclude feral pigs, goats, and deer. Project will, in conjunction with ungulate removal and a separate predator control project, result in 100 percent eradication of ungulates and control of other invasive mammals within the fence area resulting in improved seabird habitat. \$439,750

Hawaii Division of Forestry and Wildlife Restoring Seabird Breeding Habitat on Kure Atoll

IV (HI) Control invasive plants, plant native plants, and

document seabird response to habitat restoration on Kure Atoll, Hawaii. Project will restore 188 acres of seabird nesting habitat, including habitat for Laysan albatross, black-footed albatross, brown booby, and masked booby. *\$250,000*

Kaho'olawe Island Reserve Commission Removing Marine Debris from Kanapou on Kaho'olawe (HI)

Detect, assess, and remove derelict fishing gear and debris from Kanapou Beach on the island of Kaho'olawe. Project will remove damaging debris to conserve coral reefs and test their use in reducing erosion in upland habitats.

\$76,025

Kilauea Point Natural History Association Increasing Fishing Access and Education at Kauai National Wildlife Complex (HI)

Create additional public access opportunities and provide a comprehensive fishing and environmental education program to teach conservation and preservation of wetland, coastal, and shoreline habitats. Project will build capacity including a core curriculum to enhance outdoor opportunities at the wildlife complex. *\$12,261*

Kupu

Hawaii Youth Conservation Corps at Pu'uwa'awa'a

Engage ten youths to restore 108 acres through the removal of invasive vegetation and planting of native and endangered plants at Pu'u Wa'awa'a Dry Forest. Project will re-establish native ecosystems to improve watershed health and reduce erosion, increase the abundance of culturally and ecologically important species, and protect the endangered dryland forest from wildfire. *\$54,894*

Lynker Technologies

Piloting Electronic Monitoring in the Hawaii Longline Fisheries

Implement new, advanced electronic monitoring and reporting technology on up to five Hawaiian longline fisheries vessels to maximize the quantity, quality and utility of fishing activity data collected in the Pacific Islands Region. Project will monitor up to 220 trips to validate the utility of electronic technology as a viable approach to the pelagic longline fisheries dependent data collection. **\$266,277**

Malama Na Apapa

Marine Debris Removal in Kauai (HI)

Locate and remove debris from the reefs and adjacent shorelines along the north and east shores of Kauai associated with lost drift nets and derelict fishing gear and from washouts caused by two major flooding events in 2018. Project will survey and clear debris from nine priority sites in cooperation with the Division of Aquatic Resources. *\$58,850*

Maui Nui Marine Resource Council

Enhancing Forest Reserve Resiliency through Fuels Management in Pohakea Watershed (HI)

Establish and improve fuel breaks in strategically placed corridors to mitigate the pervasive cycle of wildfire and protect 3,414 acres of Forest Reserve in Ma'alaea. Project will engage more than 10 partner organizations and community volunteers to create fuel breaks and establish fire resistant plants.

\$300,000

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

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North Shore Community Land Trust Kahuku Point Coastal Strand Restoration: Engaging Community in Stewardship (HI)

Initiate the restoration of 10 acres of coastal strand ecosystem to create nesting habitat for Laysan albatross, Hawaiian monk seals, hawksbill and green sea turtles, and native seabirds on the north coast of Oahu, Hawaii. Project will engage eight local resource management partners and 600 volunteers to plant 3,000 native coastal plants and 75 native trees and remove 5-10 acres of invasive ironwood trees and other weeds.

\$50,000

Pacific Rim Conservation

Construction of a Predator Exclusion Fence to Benefit Seabirds in Honopu Valley (HI)

Construct a 3-acre predator-exclusion fence in the Honopu State Forest Reserve on Kauai to protect a small colony of Newell's shearwater and serve as a social attraction site for both Hawaiian petrel and band-rumped storm petrel. Project will result in the first fully protected predator-free Newell's shearwater colony worldwide. *\$457,679*

Pacific Rim Conservation Creating the First Predator-free Montane Hawaiian Petrel Colony on Kauai, Hawaii

Construct a stainless steel predator proof fence around Hawaiian petrels at Pohakea on Kauai, Hawaii and initiate social attraction for Newell's shearwater and Hawaiian petrel to increase the number of nesting pairs within the protected area. Project will result in the first montane nesting colony of petrels and shearwaters protected by a predator exclusion fence in Hawaii and will be crucial for the long-term survival of both species. *\$169,736*

Pacific Rim Conservation

Locating Breeding Colonies of Newell's Shearwaters and Hawaiian Petrels on Oahu, Hawaii

Ground-search a minimum of three sites on Oahu, Hawaii for the presence of Newell's shearwaters and Hawaiian petrels. Project will determine whether listed seabirds are breeding on Oahu or simply transiting; information generated from this study will be presented to land managers to inform conservation decisions. *\$54,997*

Pacific Rim Conservation

Protecting the World's Highest Laysan Albatross colony from Predation in Oahu, Hawaii

Build a 2,100 feet long and five acre area predatorexclusion fence in the Kuaokala State Forest Reserve on Oahu in order to protect a colony of 55 breeding pairs of Laysan albatrosses that has been severely affected by predation from mongooses. Project will result in predator exclusion of feral dogs, pigs, cats, mongooses, rats, and mice, contributing to the production of about 30 Laysan albatross chicks annually. **\$277,788**

Pulama Lanai

Construction of a Predator-proof Fencing for Hawaiian Petrel on the Island of Lanai, Hawaii

Construction a fully predator-proof fence around approximately 85 acres of nesting Hawaiian petrels on the Island of Lanai, Hawaii. Project will result in largest predator-proof fence outside of New Zealand, will protect more than 40 percent of the known Hawaiian petrel burrows on Lanai and will support continued monitoring and additional predator control in adjacent unfenced colonies. *\$450,003*

State of Hawaii, Department of Land and Natural Resources

Predator Control for Endangered Hawaiian Seabirds on Kauai Island, Hawaii

Reduce barn owl presence in and around endangered seabird colonies, including Newell's shearwater, Hawaiian petrel, band-rumped stormpetrel and Laysan albatross, on the North, West and East shores of Kauai and on Lehua Islet. Project will form a "Rapid Response Unit" to respond to episodic predator activity in and around nesting areas, reduce predation impacts by other predators on Laysan albatross, and use nest monitoring data to assess the efficacy of control efforts. *\$200,000*

SymbioSeas

Mapping Coral Reef Vulnerability to Design a Resilient Managed Area Network (HI)

Assess vulnerability of coral reef habitat in the Main Hawaiian Islands to inform ongoing prioritization process for state managers. Project will asses changes in coral reef conditions to determine vulnerability to projected environmental stressors and develop resilience indicators that will help focus future investments.

\$79,998

The Nature Conservancy Wetlands Restoration for Ecosystem and

Community Resilience in He'eia, Oahu (HI) Establish a natural constructed wetlands system in the He'eia wetlands to protect and enhance the ecosystem and community of Kane'ohe Bay, Hawaii. Project will minimize flood events, reduce sediment and nutrient run-off, and create habitat and fish passage for marine and estuarine species. \$768,454

U.S. Geological Survey Evaluating Watersheds for Regional Decision Making in North Kihei (HI)

Measure and model fine sediment production from hill slopes in North Kihei's lower and middle watershed areas impacting priority coral reefs. Project will collect and analyze the amount of sediment observed in storm water discharges and the amount of sediment in nearshore waters to synthesize data on water quality and coral reef health.

\$97,414

University of Hawaii

Assessing the Condition of Non-commercial Fishing Infrastructure and Shoreline Access (HI)

Assess and map the condition of selected noncommercial fishing infrastructures. Project will result in publicly available maps and summaries to promote recreational fishing opportunities and assist state managers in identifying maintenance priorities. *\$71,623*

University of Hawaii

Enhance Coastal Protection with Resilient Coral Reefs along Oahu (HI)

Identify thermally tolerant coral stocks for restoration of reefs in Oahu to enhance shoreline protection from wave and storm energy. Project will propagate resilient corals in nurseries and partner in the out-planting at three sites to test the efficacy of this strategy and evaluate best practices to increase restoration efforts across the state. *\$1,056,114*

Zoological Society of San Diego

Reintroduction of the alala to Hawaii Island

Implement an intensive conservation breeding and reintroduction program for 'Alala, the Hawaiian crow, within Pu'u Maka'ala Natural Area Reserve on Hawaii Island. Project will execute the fourth of five planned years under phase 1 of the recovery program and includes producing 15 juveniles via the conservation breeding program, the release of approximately 11-13 juveniles into managed native forest habitat, and monitoring of each release cohort – there are currently 20 free living alala. *\$70,000*

IDAHO

Friends of the Teton River

Monitoring Streamflow Restoration and Ecological Response in the Teton Watershed (ID)

Conduct compliance monitoring in the Upper Teton Watershed for water transaction projects, using various flow monitoring methods, temperature monitoring, and a watershedwide Yellowstone Cutthroat Trout population assessment. Project will maintain and strengthen water transaction compliance monitoring efforts in the watershed, while determining how hydrologic changes resulting from flow restoration efforts impact habitat, water quality, and ecological response in the trout fishery. *\$72,853*

Friends of the Teton River Permanent Badger Creek Water Acquisition for Yellowstone Cutthroat Trout (ID)

Improve stream flow conditions and fish passage issues in Badger Creek by permanently securing water in stream. Project will generate flow conditions that allow genetically pure Yellowstone cutthroat trout to migrate upstream through a fish ladder and a historically dewatered stream reach into a perennial flowing section of Badger Creek. *\$244,437*

Friends of the Teton River Restoring Yellowstone Cutthroat Trout Habitat in the Upper Teton River (ID)

Implement stream restoration and best management practices to improve water quality, riparian vegetation, stream shading, and habitat for Yellowstone cutthroat trout in the Upper Teton River. Project will improve 2,000 linear feet of habitat on grazing-impacted and agriculturaladjacent public land.

\$52,232

Idaho Department of Water Resources Identifying, Assessing, Prioritizing and Implementing Water Transactions in the Upper Salmon and Teton River Basins (ID)

Work in a voluntary manner with water users in the Upper Salmon River Basin and the Teton River Basin to improve tributary flows for the benefit of Chinook salmon, steelhead, and native trout populations. Project will identify, assess, prioritize, and implement new water transactions, as well as monitor existing water transactions for compliance and biological and ecological effectiveness. *\$254,487*

Idaho Fish and Wildlife Foundation Conserving Big Game Migration Routes at Rocky

Point by Reducing Wildlife-Vehicle Collisions (ID) Provide safe passage for wildlife in southeastern Idaho in order to sustain big game herds and a critical seasonal migration corridor. Project will secure open space for the 'Rocky Point' migration corridor and winter range through a 1,600 acre conservation easement on private lands and build wildlife crossing structures and funnel fence at a critical four-mile location where a large number of mule deer die in wildlife-vehicle collisions. *\$150,000*

National League of Cities Institute Leadership in Community Resilience Program III

(multiple states) Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. \$249,161

Nez Perce Tribe

Nez Perce Tribe Restoration of Wet Meadows (ID)

Protect, restore and inventory culturally and ecologically important wet meadow habitat in the Lolo Creek watershed to benefit unique vegetation communities and improve water quality. Project will restore 70 acres through invasive species management and stream buffer enhancements and provide sustainable management education opportunities to youth in five different schools within undeserved communities. *\$201.300*

The Nature Conservancy

Improved Wildlife Habitat through Land Management of the Central Idaho Rangelands Sustain the natural and social values of central Idaho by improving the economic and operational stability of ranching operations and achieving increased wildlife abundance and habitat condition through the conservation and restoration of public and private lands. Project will improve grazing management, improve instream habitat, reconnect tributary streams, and improve riparian condition and overall rangeland health in participating ranches. *\$50.000*

Trout Unlimited

Comprehensive Watershed Restoration and Stream Reconnection in the Clearwater and Grande Ronde Watershed (ID, OR)

Restore habitat and stream connectivity projects in two Snake River watersheds through a combination of Aquatic Organism Passage restoration, wood installation and floodplain reconnection projects. Project will restore natural hydrologic processes and increase resiliency for populations of trout, salmon, Pacific lamprey and other native fish species. Project will improve access to over 8 miles of habitat, restore water quality and habitat, and increase spawning success.

\$58,500

U.S. Department of Agriculture, U.S. Forest Service Targeted Herbicide Control of Noxious Weeds in

Greater Sage-grouse Habitats in Central Idaho Treat cheatgrass using herbicides along roads and trails to prevent encroachment into highquality habitat for greater sage-grouse in Lemhi and Custer counties of central Idaho. Project will improve 1,000 acres of habitat and protect it from future catastrophic wildfire due to annual grassfuel overloading. *\$75,000*

Western Landowners Alliance

Enhancing Connectivity and Reducing Rancher/ Wildlife Conflicts in the Northern Rockies (ID, MT, WY)

Coordinate a network of landowners across priority landscapes in the Northern Rockies around sustained efforts to reduce and mitigate conflicts with key wildlife species. Project will reduce humancarnivore and human-ungulate conflicts, implement new strategies to improve connectivity, and increase visibility of collaborative landowner efforts on behalf of regional wildlife.

\$231,660

Yellowstone to Yukon Conservation Initiative Reducing Human-Grizzly Bear Conflict in the Cabinet-Yaak Ecosystem (ID, MT, WA)

Reduce conflicts between humans and grizzly bears in the Cabinet-Yaak Ecosystem by improving waste management, providing community education, road closure and restoration, and securing grizzly bear habitat. Project will also restore private land parcels in a critical linkage zone for two imperiled grizzly bear populations through a partnership with federal and state agencies and local conservation groups. \$208,871

Yellowstone to Yukon Conservation Initiative Restoration of a Lowland Wetland Forest in Northern Idaho's Kootenai Valley

Collaborate with Idaho Department of Fish and Game, along with nonprofit partners and citizen scientists, to restore ecological function to degraded forested lowlands in northern Idaho's Kootenai Valley, an east-west linkage between the Purcell and Selkirk mountain ranges. Project will improve riparian and pollinator habitat for native western toads, northern leopard frogs, and bumble bees and support connectivity for wide-ranging mammals such as grizzly bears, lynx, and wolverines. \$157,422

ILLINOIS

American Farmland Trust

Responding to Farmer Demand for Targeted Technical Support in the Upper Macoupin Creek Watershed (IL)

Provide targeted technical assistance and one-onone conservation planning to agricultural producers in the Upper Macoupin Creek Watershed. Project will reach more than 300 individuals, resulting in more than 300 best management practice recommendations, a significant reduction in sediment and nutrient runoff. and 15.000 acres under improved soil and nutrient management. \$218,265

Chicago Audubon Society Building on Partner Successes to Expand Birding in Diverse Neighborhoods (IL)

Train new field trip leaders and engage the community to restore riparian woodland, prairie, and savanna habitat and address windows that are dangerous to birds. Project will train 25 new field trip leaders, ultimately increasing the number of field trip leaders of color in Chicago, put 9.6 acres of habitat under improved management, and engage 300 new people in birding activities. \$24,819

Elmhurst Park District Aquatic Connectivity, Shoreline Stabilization and Restoration at Sugar Creek (IL)

Stabilize 2,400 linear feet of shoreline at Sugar Creek. Project will improve aquatic connectivity, convert turf grass to native plants, implement stream re-meandering on 819 linear feet, construct wetlands on 0.5 acres, convert an inlet area into a sediment forebay, plant native species on 2 acres, and build five rock riffle structures on the restored stream channel. \$47,000

Friends of the Forest Preserves Centennial Volunteers Network Restoration along the Chicago River IV (IL)

Continue to build on the success of Centennial Volunteers program at five new Cook County Forest Preserves, including preserves adjacent to the Chicago Sanitary and Ship Canal and Cal Sag Channel. Project will create new and fortify existing volunteer stewardship communities that will manage and conduct habitat restoration activities, including invasive species control, to advance the Forest Preserves of Cook County's goals. \$114,930

\$300,000

Friends of the Chicago River

Enhancing Habitat Quality at Crooked Creek (IL) Improve habitat quality at the headwaters of Crooked Creek through invasive species remediation and removal and native plantings. Project will restore 81 acres of Cook County Forest Preserve land to improve infiltration provided by deep-rooted native plants and enhance habitat for wildlife within Crooked Creek and the surrounding watershed. \$242,669

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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OAL The Robbins Renewal Project (IL)

Install green stormwater infrastructure across 10 acres of degraded urban space to reduce stormwater runoff and create habitat and accessible public greenspace in the Village of Robbins Illinois. Project will build on a multiphase effort to mitigate significant flooding and restore community vitality in Robbins by establishing native wetland and prairie plants to slow and store stormwater runoff on 10 acres adjacent to the Cal-Sag Channel.

The Morton Arboretum

Improving the Urban Tree Canopy in the Chicago Region through Increased Community Capacity (IL)

Provide education and outreach to under-resourced communities in the Chicago region using regional data to identify communities with the lowest canopy, highest percent of impervious surfaces, flooding, heat islands, and air pollution. Project will plant 50 native trees in five communities increasing habitat for migrating birds and other wildlife and will work in the communities to protect and preserve trees and green infrastructure and train community members to care for trees on their properties. \$49,827

The Nature Conservancy

Restoring Wetlands and Controlling Invasive Species in the Calumet Region IV (IL, IN)

Protect and enhance habitat values of previously restored wetland and upland habitat through invasive species control in the Calumet region of Southern Lake Michigan. Project will retreat 425 acres for invasive species and expand invasive control on 70 acres, contributing to a multistakeholder effort to restore and manage declining wetland birds and expand ongoing monitoring of birds, water quality, and vegetation throughout the Calumet region.

\$442,352

INDIANA

Keep Indianapolis Beautiful Community-Based Habitat Restoration along

Pogue's Run and Pleasant Run (IN)

Work with Indianapolis city and community partners to restore 23.46 acres of native habitat along the Pogue's Run and Pleasant Run waterways. Project will restore native habitat, train and employ 10 college students and young adults through KIB's Urban Naturalist program, enlist 300 volunteers in habitat restoration work, and engage 1,675 Indianapolis residents.

\$35,000

Indiana Dunes Environmental Learning Center Northwest Indiana Urban Wilderness Paddles Water Quality Monitoring

Connect 3,500 students and teachers with their local waterways and the Lake Michigan watershed through canoe experiences, guided hikes and volunteering. Project will engage students in restoring 4 acres by removing invasive species, bank stabilization, and native seed collection and dispersion. \$30,000

\$50,000

National Audubon Society

Establishing the Little Calumet Marsh Bird Conservation Area (IN)

Restore habitat in northeast Indiana on the largest and most critical marsh habitat in the Little Calumet region. Project will restore 350 acres through invasive species control to support species such as black-crowed night heron, least bitters, and black tern and help establish the Little Calumet Marsh Bird Conservation Area. *\$294,697*

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

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\$249,161

Shirley Heinze Land Trust

Managing Invasives on Recently Restored Wetlands in the Indiana Dunes Conservation Area (IN)

Preserve, restore, and manage high quality wetland and upland habitats in and adjacent to the Indiana Dunes National Park through invasive species control. Project will control and manage invasive species on 200 acres that have undergone restoration in recent years. *\$153,976*

Shirley Heinze Land Trust

Restoration and Access Improvements Within the Little Calumet River Conservation Corridor (IN) Restore 25 acres of wetland and riparian habitat and improve public access to the Little Calumet River. Project will amplify multi-partner efforts to the Little Calumet Conservation Corridor by improving critical habitat for wildlife and providing safe public access opportunities through the addition of 0.25 miles of hiking trail, installation of an accessible kayak launch, and clearing of a minimum of 5 miles of water trail within the Little Calumet. \$141,956

The Nature Conservancy

Restoring Wetlands and Controlling Invasive Species in the Calumet Region IV (IL, IN)

Protect and enhance habitat values of previously restored wetland and upland habitat through invasive species control in the Calumet region of Southern Lake Michigan. Project will retreat 425 acres for invasive species and expand invasive control on 70 acres, contributing to a multistakeholder effort to restore and manage declining wetland birds and expand ongoing monitoring of birds, water quality, and vegetation throughout the Calumet region.

\$442,352

The Student Conservation Association Calumet Tree Conservation Corps (IL)

Reduce stormwater and sediment runoff and restore degraded habitat in the Grand Calumet and Little Calumet Rivers. Project will add 72,275 gallons of stormwater storage capacity by strategically planting 1,000 native trees in riparian zones and offer training in basic arboriculture to residents across the region to build capacity and sustain project impact through long-term maintenance. *\$152,747*

IOWA

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Iowa Department of Natural Resources

Farm Bill Promotion and Conservation Planning Addressing Wildlife and Water Quality in Iowa (IA) Use Farm Bill programs and conservation planning to provide technical assistance to producers within the Mississippi River Basin's priority areas. Project will address wildlife and water quality by promoting diverse native grassland, pollinator, and wetland habitats.

\$251,587

Iowa Soybean Association

Implementing Conservation Practices to Improve Water and Habitat Quality in the Raccoon Watershed (IA)

Increase outreach and targeted technical assistance to advance landowner adoption of conservation practices that will improve water quality and aquatic habitat in the North Raccoon Watershed. Project will reduce nutrient losses and evaluate the efficiency of data-driven watershed analytics and diffusion modeling.

\$299,998

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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Prairie Rivers of Iowa Resource Conservation and Development

Increasing Quality Habitat for Endangered Pollinators in the South Skunk River Watershed (IA) Work with local partners to implement targeted conservation practices that provide quality habitat in the priority South Skunk River Watershed for three endangered pollinator species: rusty patched bumble bees, Poweshiek skipperlings, and Dakota skippers. Project will increase awareness and implementation of targeted conservation practices to decrease nutrient and sediment load reduction. \$251,369

World Wildlife Fund

Updating Plowprint to Identify Grassland Restoration Opportunities (CO, IA, KS, NE, NM, OK)

Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the best-available data to track rates of cropland conversion, monitor the status of previously converted lands, and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region. *\$61,628*

KANSAS

Friends of Quivira National Wildlife Refuge Implementing an Educational Hunting Program Experience for Youth (KS)

Provide and facilitate a hunter safety educational program in conjunction with the junior waterfowl hunting season at the Quivira National Wildlife Refuge. Project will encourage the use of public lands in a sporting activity thereby providing the foundation to a lifetime of outdoor recreation and wildlife conservation engagement.

\$1,000

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

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Pheasants Forever

Grassland Habitat Restoration Benefiting the Lesser Prairie Chicken (CO, KS, NM, OK, TX)

Support staff working with the Natural Resources Conservation Service's Lesser Prairie Chicken Initiative as the initiative evolves over time and through any potential changes in the next Farm Bill. Project will restore grassland habitat throughout the full potential range of the lesser prairie chicken which includes parts of Texas, Oklahoma, New Mexico, Colorado, and Kansas. *\$198,367*

Rocky Mountain Bird Observatory Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation. *\$60,000*

World Wildlife Fund

Updating Plowprint to Identify Grassland Restoration Opportunities (CO, IA, KS, NE, NM, OK)

Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the bestavailable data to track rates of cropland conversion, monitor the status of previously converted lands and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region. *\$61,628*

Bluegrass Greensource Junior Nature Explorers Program (KY)

Engage 720 pre-kindergarten-aged students and 48 of their teachers with hands-on lessons that incorporate material on shortleaf pine and oak savanna forests, riparian forests and freshwater habitats, and key umbrella species for aquatic and savanna forests. Project will increase the students' awareness and interest in native habitats and species, as well as create and build the capacity of early childhood educators who will replicate the curricula as part of their regular classroom engagement. **\$149,999**

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Ducks Unlimited

Stewardship of Privately-Owned Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, KY, LA, MO, MS, TN)

Increase stewardship of privately owned bottomland hardwood forests in the Mississippi Alluvial Valley through outreach, technical assistance, and developing conservation plans to guide management of existing forests and improve habitat for waterfowl, forest-interior birds, and other forest-dependent wildlife. Project will reach 150 landowners with existing conservation easements, including properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program, with the goal for least half of these landowners to implement conservation activities that will enhance 2,000 acres of forested wetlands and restore hydrologic conditions on 450 acres to improve water quality. \$153,047

The Forest Stewards Guild

Increasing Prescribed Fire Delivery and Shortleaf Pine Ecosystem Restoration in the Cumberland Plateau (KY, TN)

Increase prescribed fire delivery and shortleaf pine ecosystem restoration in the Cumberland Plateau of Tennessee and Kentucky to benefit songbirds such as prairie warbler and pine warbler and game species such as wild turkey. Project will engage public and private landowners through outreach and technical assistance to restore and enhance more than 5,400 acres of shortleaf pine forests, including more than 4,000 acres of prescribed burning. *\$199,875*

LOUISIANA

Audubon Nature Institute

Developing a Gulf Highly Migratory Species Industry Association (FL, LA)

Facilitate shareholder meetings that will develop a plan to implement a Gulf Highly Migratory Species Industry Association. Project will develop an association to address sustainability, address economic viability, and foster communication amongst stakeholders.

\$78,653

CDP North America

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Ducks Unlimited

Terrebonne Basin Ecosystem and Community Resiliency (LA)

Restore 575 acres of coastal wetlands in the Terrebonne Basin, Louisiana. Project will prevent additional wetland erosion and provide storm surge protection for the Golden Meadow, Pointe aux Chene, and Isle de Jean Charles communities. \$1,725,850

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150.000*

Groundwork New Orleans

Teaching Students to Install Solar Powered Charging Benches (LA)

Teach students to build and install solar powered charging benches on or near bus stops in underserved communities which will provide clean energy sources for public transportation users and educate community members on natural resource and energy conservation. Project will install three solar benches and engage 290 students and community members through educational workshops. *\$50,000*

Jefferson Parish Department of Environmental Affairs Bucktown Marsh Restoration and Living Shoreline

Design (LA)

Prepare design and engineering plans to improve resiliency of the Jefferson Parish levee system in Louisiana and educate and engage urban communities. Project will lead to the restoration of indigenous marshland and ecological features along a 1-mile stretch of lakefront between Bonnabel Park and Boat Launch and Bucktown Harbor. *\$250,000*

Mississippi River Trust

Forest Conservation and Wetlands Reserve Lands Management in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Protect 375 acres of bottomland hardwoods with working forest conservation easements and enhance an additional 1,000 acres of existing bottomland hardwood forests to improve wildlife habitat and serve as demonstration sites for landowners and foresters. Project will provide an inventory of more than 30,000 acres of bottomland hardwood forest established through the Natural Resources Conservation Service (NRCS) Wetland Reserve Program in Mississippi, providing landowners, land managers, and NRCS with information needed to guide management treatments that enhance wildlife habitat at a landscape scale. **\$640,970**

Mississippi River Trust

Forests, Floodplains and Flow: Increasing Wetland Habitats, Habitat Complexity and Hydrologic Connections along the Lower Mississippi River (AR, LA, MS)

Work with private landowners to restore 1,000 acres of frequently flooded forests through the adoption of the Natural Resources Conservation Service Wetland Reserve Easements and restore flow and habitat complexity within priority Mississippi River secondary channels through ecological engineering with the U.S. Army Corps of Engineers. Project will benefit federally listed and at-risk birds, bears, fish, and mussels and improve water quality in the Lower Mississippi River's active floodplain in Arkansas, Louisiana, and Mississippi. *\$250,595*

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Pheasants Forever

Delivery of Conservation Technical Assistance and Implementation of Early Successional Habitat Practices II (AR, LA)

Work through Conservation Delivery Network partner organizations to conduct program promotion and strategic marketing efforts on sustainable forest management to 600 landowners located in southeastern Arkansas and northeastern Louisiana. Project will provide oneon-one technical assistance to 550 landowners by resource conservation organization staff to produce landowner management plans on a minimum of 10,000 acres and implement forest management on 1,400 acres, benefiting Bachman's sparrow, northern bobwhite, and other early successional species. *\$295,022*

Saltwater

Integrating Electronic Technology Tools in the Gulf of Mexico Highly Migratory Species Fishery (AL, FL, LA)

Develop and pilot electronic monitoring and reporting hardware and software solutions for the Gulf of Mexico Highly Migratory Species vessels using alternative gear, which will reduce the reporting burden on vessel operators and promote sustainability. Project will address challenges in data quality, accountability, and timeliness. *\$240,000*

The Forest Stewards Guild Engaging Private Forest Landowners and Enhancing

Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Leverage the expertise and accomplishments of state lands managed by the Louisiana Department of Wildlife and Fisheries to promote and expand implementation of forest management practices that enhance wildlife habitat for forest interior birds, such as the Kentucky warbler. Project will host a regional learning exchange and workshops to share best practices, perform strategic and targeted outreach to private forest landowners, prepare forest management plans for high-priority private landowners, and implement enhancement activities on 1,200 acres of private and state forest lands in Louisiana, Arkansas, and Mississippi. *\$133,212*

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments. *\$150,000*

The Nature Conservancy Pineywoods Longleaf Restoration VI (LA)

Restore and enhance longleaf pine habitat on private lands adjacent to and surrounding the Kisatchie National Forest and Fort Polk in westcentral Louisiana, benefiting open pine and grassland-dependent birds, such as the redcockaded woodpecker and northern bobwhite. Project will engage private landowners, forestry practitioners, and agency staff through field days and workshops. Technical assistance will be provided to willing private landowners to restore and enhance 2,700 acres of longleaf pine habitat. *\$190,942*

University of Tennessee (AgResearch) Advancing Northern Bobwhite Management in the Longleaf Pine Range (AL, GA, LA, VA)

Develop northern bobwhite population goals for target sites within the longleaf pine range in Alabama, Georgia, Louisiana, and Virginia to support adaptive management. Project will engage local partners, including state wildlife agencies, to collect habitat and population data, and will produce predictive statistical models that relate population abundance to habitat structure, landscape characteristics, and management actions. *\$147,568*

MAINE

Cape Cod Commercial Fishermen's Alliance Scaling Electronic Monitoring in New England's Groundfish Fishery (ME, MA, NH, RI)

Expand participation of electronic monitoring to 35 vessels for the New England groundfish fishery. Project will finalize innovations in technology and audit model protocols, scale up the implementation of electronic monitoring that improve accountability, strengthen partnerships among fishermen and the federal government, and lay the foundation for long-term industry investment in accountability. **\$568,161**

Frenchman Bay Conservancy

Union River Watershed Restoration (ME) Respond to public demand for a renewed focus

on the Union River by restoring shoreline, building public trails, conserving green space, and establishing meaningful community connections that get people outside and into nature. Project will conserve 900 acres of high priority wildlife habitat, plant 500 native trees, and remove invasives on 100 acres.

\$46,094

Gulf of Maine Research Institute

Test Machine Learning Software for Dockside Monitoring, Seafood Monitoring, and Research (ME, MA, RI)

Test electronic monitoring and machine-learning applications in dockside monitoring, explore uses of the data collected from electronic monitoring, and educate stakeholders about machine analysis. Project will improve efficiency of the dockside monitoring program by developing algorithms to verify fish weights and counts, facilitate the use of electronic monitoring data by two new groups, and publish a report about transitioning from human to machine analysis of data.

\$170,112

Integrated Monitoring

Optimizing Machine Learning for Streamlining Reporting for the New England Groundfish Fishery (ME)

Continue to develop activity recognition and species recognition algorithms and combine them into an activity and species recognition algorithm, develop new machine learning algorithms to train smart cameras to improve image quality, and develop a web application version of electronic vessel trip reports for the New England groundfish fishery. Project will optimize machine learning and video recognition algorithms to improve and streamline reporting. *\$193,395*

Kennebec Estuary Land Trust Back River Creek and Saltmarsh Restoration for Coastal Infrastructure Resilience (ME)

Develop engineering designs to restore habitat and hydraulic function at Back River Creek and Pleasant Cove in Maine while providing protection to road and drinking water infrastructure. Project will conduct a feasibility study and assessment of conditions on the 140-acre marsh to evaluate which designs will have the greatest benefits for resilience of critical infrastructure to flooding from storm surge and projected sea level rise scenarios while also restoring salt marsh and fish passage. *\$249,999*

Legit Fish

Developing an Integrated Electronic Vessel Trip Reporting and Sector Management Tool (ME, MA, NH, RI)

Expand on a logistics and traceability system by developing an integrated electronic vessel trip reporting application and sector management system that will be integrated with dealer reporting. Project will increase the speed of data and decision-making capabilities for management in New England.

\$471,557

Maine Coast Fishermen's Association Piloting Electronic Monitoring in the Northern Gulf of Maine Scallop Fleet (ME, MA, NH)

Develop and pilot an electronic monitoring program for the northern Gulf of Maine scallop fleet. Project will test the feasibility of electronic monitoring on small scallop vessels, which will demonstrate the amount and value of data that it can provide and test the use of video recognition software for video review. *\$108,009*

Maine Department of Marine Resources Design Fish Passage Solutions at Five Barriers Along the Sabattus River for Anadromous Fish (ME)

Provide technical assistance for the design and permitting needed to remove all five barriers to anadromous fish passage in the Sabattus River, a tributary to the Androscoggin River in central Maine. Project will complete full design, engineering, and permitting for future removal or replacement of five barriers to fish passage that will, when implemented, open 75 miles of historic stream habitat and 2,400 acres of pond habitat for river herring, Atlantic salmon, and other anadromous fish. *\$200.000*

Maine Forest Service

Engage Family Woodland Owners to Improve Forest Bird Habitat and Restore Fish Passage

Implement an innovative outreach program for family woodland owners with between 10 and 1,000 acres in priority watersheds in Maine, developing or updating forest management plans to maximize benefits for fish and wildlife. Project will develop or update 30 forest management plans, implement activities on 300 acres to benefit young forest species like American woodcock and late successional forest species like black-throated blue warbler, and address 10 barriers to fish passage. *\$199,976*

Maine Rivers

Restore Fish Passage for River Herring at Box Mill Dam in the Sebasticook River Watershed

Install a fishway on Outlet Stream in the Sebasticook River watershed to restore access to historic spawning and nursery habitat for river herring and other diadromous fish. Project will design and construct a Denil fishway at the Box Mill Dam in the town of Vassalboro, which will restore access to more than 3,900 acres of habitat in China Lake and more than 5 miles of habitat in Outlet Stream and Redd Brook. *\$200,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Marine Mammals of Maine Northeast Pinniped Unusual Mortality Event (ME)

Respond to the 2018-2019 Pinniped Unusual Mortality Event for Gray and Harbor Seals in Maine. Project will provide hot line response to stranding, conduct triage, rehabilitation and necropsies, and ensure timely data reporting to the National Oceanic and Atmospheric Administration. *\$45,305*

Midcoast Conservancy

Install a Fishway at Branch Pond to Open Habitat for Eastern Brook Trout and River Herring (ME) Restore access to historic habitat for sea-run brook trout, river herring, and other anadromous fish by installing a fishway at Branch Pond on the Sheepscot River in southern Maine. Project will modify one barrier to fish passage at a historically important site with an Alaskan steep pass fishway, restore access to 322 acres of pond habitat, and provide public access and recreational opportunities for the community. *\$114,380*

National Audubon Society

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

New England Forestry Foundation

Improve Habitat on Private Forests in Mountains of the Dawn Through Technical Assistance (ME)

Provide private forest landowners in the Mountains of the Dawn region of western Maine with technical and financial assistance to improve management of forest blocks to benefit key bird and fish species including Bicknell's thrush, black-throated blue warbler and eastern brook trout. Project will engage at least 15 landowners to increase the amount of mature and late successional forest by compensating landowners who leave older trees on the property to mature. *\$200,000*

Rangeley Lakes Heritage Trust

Create and Implement a Comprehensive Forest Management Plan in the Rangeley Lakes Region (ME)

Develop and implement a comprehensive forest management plan for conserved lands owned by the Rangeley Lakes Heritage Trust and the Stephen Phillips Memorial Preserve Trust in the Rangeley Lakes region in the Upper Androscoggin River watershed in Maine. Project will produce a comprehensive plan for 20 parcels totaling almost 12,000 acres and restore 1,000 of those acres to mature forest habitat for black-throated blue warbler and improve riparian habitat for eastern brook trout.

\$53,008

Smelts Sea Mammal Education Learning Technology Society

Partnering with Lobster Fisherman to Reduce Entanglement of North Atlantic Right Whales (ME) Test and evaluate ropeless lift bag fishing gear with lobster fishermen and National Oceanic and Atmospheric Administration gear experts to reduce vertical lines that can entangle endangered North Atlantic right whales. Project will test effectiveness and integration of new gear innovation and begin to socialize with lobster fishermen and enforcement in the Gulf of Maine to evaluate feasibility. *\$205,000*

Trout Unlimited

Restore Passage for Sea-Run Brook Trout and Other Species at Frost Gully Brook in Freeport (ME)

Remove barriers to passage of anadromous fish at Frost Gully Brook, a tributary to the Presumpscot River in southern Maine. Project will remove five barriers to fish passage, including two undersized culverts, and improve access to 2 miles of stream habitat for sea-run (salter) brook trout, blueback herring, sea lamprey, and American eel. *\$120,000*

Wells National Estuarine Research Reserve Increase Capacity for Young Forest Habitat Management to Benefit New England Cottontail in Maine

Provide training, outreach, and technical assistance to restore habitat for New England cottontail on public and private lands. Project will increase capacity for on-the-ground implementation of young forest habitat in southern Maine, creating 400 acres of new young forest and shrub habitat to benefit New England cottontail, American woodcock, and pollinators and provide technical assistance to 50 landowners. *\$74,233*

MARYLAND

Alliance for the Chesapeake Bay Nestle Agriculture and Dairy Conservation Initiative (MD, PA, VA)

Pilot the planning and implementation of agriculture conservation practices with six Nestle farmers to build a model to scale implementation to the entire 900 farms that supply milk to the company in the Chesapeake Bay Watershed. Project will lay the ground work for building a watershed-wide conservation program to support the farmers that supply to Nestle. *\$200,000*

Alliance for the Chesapeake Bay

Strengthening Watershed Initiatives and Increasing Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, identifying areas of common concern and need, and developing solutions to common challenges. *\$500.000*

Alliance for the Chesapeake Bay Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges. *\$469,482*

Anacostia Riverkeeper Anacostia Watershed Water Quality Monitoring

(DC, MD) Expand an existing volunteer water quality

monitoring program, currently isolated to DC waters, further into Maryland and the Anacostia River watershed. Project will engage 40 volunteers in monitoring dissolved oxygen, temperature, and conductivity and reach 500 community members at community forums and through sharing monitoring data results.

\$45,927

Anacostia Watershed Society Treating and Teaching: Outdoor Classrooms in Prince George's County (MD)

Build 12 customized outdoor classrooms in Prince George's County, increasing the capacity of the county to deliver effective stormwater management. Project will engage approximately 80 teachers from 35 public school schools in professional development about stormwater management, train building supervisors to maintain the practices installed, and educate 1,500 students about stormwater management.

\$197,421

Arundel Rivers Federation Camp Woodlands Stream and Outfall Restoration (MD)

Retrofit the existing stormwater outfall at Camp Woodlands by restoring an eroding gully and 1,350 feet of stream. Project will provide safe conveyance of storm flows and increase the ecological habitat and functions on the site to improve water quality in Broad Creek.

\$199,587

Arundel Rivers Federation

Living Shoreline and Oyster Reef Ball Restoration in the Turnbull Community (MD)

Stabilize 748 feet of shoreline through rock sills and oyster reef balls; reef balls will be placed along the bottom of rock sills and set with oyster spat to study oyster population success. Project will prevent 97 pounds of nitrogen, 56 pounds of phosphorus, and 144 tons of sediment from reaching the South River annually.

\$117,125

Baltimore Bird Club Empowering Communities

through Bird Outreach in Baltimore (MD)

Empower a community of Bird Buddy neighbors through information and tools in a set of birdfriendly focused workshops and outreach events to residents and businesses. Project will restore a 1-acre pollinator meadow, plant a community demonstration garden, reach 2,500 community members, and culminate in a Leakin Park Community Work Day to show that bird-friendly habitats are a vital part of Baltimore. *\$49,000*

RITORIES

Baltimore Tree Trust Trees for Public Health in the Harris Creek Watershed (MD)

Expand the urban tree canopy and remove impervious surfaces, focusing on planting trees along streets in neighborhoods identified as concrete-laden, with critically low tree coverage. Project will result in 275 newly planted street trees and the removal of 8,800 square feet of impervious surface.

\$200,000

Blue Water Baltimore

Engaging the People's Community Lutheran Church in Stormwater Best Practices (MD)

Treat 0.71 acres of impervious surface on the People's Community Lutheran Church parking lot. Project will construct a rain garden, install microbioretention, plant tree and native perennials, and build community awareness of stormwater management and best practices. *\$188,940*

Blue Water Baltimore

Green Infrastructure and Water Quality Monitoring in Gwynns Falls (MD)

Implement green infrastructure in Gwynns Falls, planting 700 new trees and constructing stormwater retrofits to treat 2 acres of impervious surfaces. Project will engage residents on local environmental issues and will link water quality monitoring data to restoration activities at 14 non-tidal locations while developing a plan to study pre- and post-pollution levels at large-scale restoration project sites. *\$200,000*

Carroll County Government, Bureau of Resource Management

Stormwater Retrofit Design at Woodsyde Estates (MD) Design the retrofit of two existing stormwater management facilities in the Woodsyde Estates subdivision to provide water quality treatment for 59 acres of drainage area and design a stabilization and restoration of 1,600 linear feet of steam within the South Branch of the Patapsco River. Project will improve water quality as well as provide protection of the downstream receiving stream. *\$50,000*

Central Baltimore Partnership Union Collective Green Infrastructure Master Plan (MD)

Develop a green infrastructure master plan and designs for a series of stormwater best management practices at Union Collective, a 10.5-acre, mostly impervious site with a curated assembly of independently owned, Baltimorebased businesses. Project will lead to stormwater practices that showcase the challenges of urban stormwater runoff and climate-related flooding and how green infrastructure can be used mitigate these challenges. *\$49,595*

Chesapeake Bay Foundation

Mountains to Bay Grazing Alliance: A Collaborative to Increase Rotational Grazing (MD, PA, VA, WV) Expand and strengthen a network of private and public partners to promote the adoption of rotational grazing systems that enhance soil health, protect and improve water quality, and contribute to farm economic viability. Project will include on-farm demonstrations, peer-to-peer dialog, establishment of local grazing groups, and development of outreach materials that highlight the economic and soil health benefits of grazing. *\$729,468*

Chesapeake Bay Trust Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale. \$1,200,000

Chesapeake Stormwater Network Chesapeake Stormwater Training and Engagement II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states. The project involves seven tasks that are described in more detail in the project narrative.

\$125,000

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed.

\$125,000

Church of the Redeemer

Implementing Stormwater Best Management Practices at Church of the Redeemer (MD)

Remove 14,000 square feet of asphalt, install two micro-bioretention practices and 2,415 square feet of pervious paving, and plant native landscaping at the Church of the Redeemer. Project will treat 0.84 acres of the 1.25-acre parking lot and serve to educate and inspire other communities to participate in stormwater best management practices. *\$169,458*

CityScape Engineering Developing a Privately Managed Upland Restoration Plan for Gwynns Falls (MD)

Perform a minimum of 16 green infrastructure audits and individual restoration site plans, providing a capital improvement planning tool for individual property owners, including anticipated costs for design, construction, and maintenance of best management practices with recommended funding mechanisms.

\$32,939

College of William and Mary, Virginia Institute of Marine Science

Engaging Students, Citizens, and Watermen in the Removal of Derelict Blue Crab Traps (MD, VA) Engage regional high schools in competition to develop a "Crab Trap App" for citizen scientists to use in derelict blue crab trap removal efforts in the Chesapeake Bay. Project will result in an easy to use app, provide economic and ecological benefits from the removal of derelict traps, and communicate the activity to the public through an online interactive map. \$60,000

College of William and Mary, Virginia Institute of Marine Science Farm Resiliency Education for At-Risk Coastal and Riparian Agricultural Lands (MD, VA)

Host a series of workshops to develop a strategy and work plan for managing farming landscapes, outline projects that could be undertaken for piloting practices, develop proposals for implementation, and target potential sites. Project will address farmlands at risk to rising sea levels and will bring together agricultural economists, experts on alternative cropping systems, and ecosystem specialists to provide expertise on how to transition vulnerable agricultural landscapes.

\$49,994

Epping Forest

Retrofitting Epping Forest's Community Clubhouse (MD)

Retrofit Epping Forest's community clubhouse drainage ditch by widening the ditch. Project will improve water quality in the adjacent Severn River and will address localized flooding and erosion problems. \$131.000

Friends of Eastern Neck

Increasing Outreach and Visitor Experience (MD) Expand outreach to the visiting public and local youth by providing several new programing and educational opportunities. Project will enrich visitor experience and increase the impact of the Friends organization.

\$2.000

Future Harvest - Chesapeake Alliance for Sustainable Agriculture

Supporting a CBFN Soil Health Summit Alongside Future Harvest Conference (MD)

Deliver a Chesapeake Soil Health Forum to engage regional agricultural conservation partners in advancing the use of soil health-promoting programs and practices in Chesapeake Bay watershed restoration efforts. \$10,278

Greater Grace World Outreach A Comprehensive Green Infrastructure Master Plan for Greater Grace (MD)

Develop a comprehensive green infrastructure master plan and 100 percent designs for the Greater Grace World Outreach campus. Design will move plans forward to reduce stormwater runoff from the 13.6-acre property, of which approximately 84 percent is impervious, and educate the 1,500-member congregation and students about the benefits of reducing runoff. \$49,289

Gunpowder Valley Conservancy Clear Creeks: Stormwater Implementation and Engagement in the Loch Raven Reservoir Watershed (MD)

Conduct behavior change strategies to increase implementation of stormwater best management practices in Baltimore County. Project will install 125 rain barrels, 30 rain gardens, 12 micro-bioretention practices, eight Bayscapes, 24 Bay-Wise certified vards, and 30 stream cleanup events resulting in the protection and improvement of 24 acres. \$200,000

Interfaith Partners for the Chesapeake One Water Partnership (MD, PA)

Replicate proven partnerships with secular and religious institutions, and engage new partners in strategic regions to scale up the engagement of the faith community in watershed restoration efforts in Maryland and Pennsylvania. Project will engage nonprofits, local governments, citizen stewardship groups, and faith-based institutions to enable 36 congregations to install green infrastructure with measurable impacts on local water quality. \$1,000,000

Low Impact Development Center

Supporting Community-Based Municipality Stormwater Retrofit Plans in Prince George's County (MD)

Create partnerships and provide capacity to the 12 municipalities within the Anacostia Watershed to assist in meeting National Pollutant Discharge Elimination System permit requirements. Project will engage elected officials, community leaders, citizens, staff, and businesses resulting in the planning, selection, and design of stormwater retrofit best management practices. \$146,100

Lower Shore Land Trust

Identifying Wetland Mitigation Zones for Protection and Restoration on the Eastern Shore (MD)

Identify Wetland Migration Zones in Somerset, Wicomico, Dorchester, and Worcester counties and reach out to landowners and county governments to obtain their cooperation to protect, restore, and manage these areas. Project will aid in the maintenance of important wetland habitat for American black duck and help meet Watershed Implementation Plan goals for the counties. \$49,830

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. \$67,737

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. \$191,000

Maryland Association of Soil Conservation Districts

Increasing Consistent Training for Local Soil Conservation Districts (MD)

Increase the planning, design, and technical assistance capacity of Maryland's soil conservation districts, which provide services in agricultural and urban landscapes through consistent training. Project will increase the capacity for conservation planning and implementation in order to increase conservation and reach Maryland's Phase III Watershed Implementation Plan goals. \$45,296

Maryland Black Mayors Maryland Black Mayors Advancing Stormwater Management

Meet with Maryland Black Mayor (MBM) municipality communities, implement best management practices on five homeowner properties per community, and conduct outreach and tours of project sites. Project will coordinate and advance the capacity of MBM municipalities to address stormwater runoff. \$200,000

Maryland Department of Agriculture Developing a Healthy Soils Program to Increase Soil

Health Practice Adoption and Engagement (MD) Engage 150 producers through outreach, education, and technical assistance to implement improved conservation tillage, expanded cover crop practices, application of precision nutrient management, and increased prescribed grazing practices. Project will expand Maryland's Healthy Soils Program with an Advisory Committee, establish and measure common baseline soil health metrics for participating producers, and inform the evolving national discussion of appropriate soil health metrics and tools. \$996,565

Nanticoke Watershed Alliance

Cambridge Residential Stewardship Initiative II (MD)

Work with local partners to install ten best management practices on residential lands in the Choptank River Watershed, complete a community needs survey and a stormwater financing feasibility study, and engage local decision makers in stormwater management. Project will reduce nutrient and sediment loads entering the Choptank River and increase future funding options for stormwater best management practice implementation.

\$109,871

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Park Trust Buddy Bison School Program (CA, DC, MD)

Provide out-of-class watershed education experiences to 2,680 students and 120 teachers at U.S. Forest Service sites and connect them with Forest Service and Bureau of Land Management educators in the Washington, D.C. metro and Southern California regions. Project will use public lands as outdoor classrooms for Science Technology Engineering and Math and provide opportunities to experience the benefits of outdoor recreation and learn about the importance of stewardship of public lands and waters. *\$128,186*

National Wildlife Federation Schoolyard Habitats: Watershed Public Charter School (MD)

Deploy the Schoolyard Habitats program at Watershed Public Charter School to remove 1,500 square feet of impervious surface, implement three micro-bioretention areas, and install two cisterns. Project will increase management of upland urban runoff by implementing green stormwater infrastructure practices that improve water quality while also creating native wildlife habitat and fostering outdoor learning experiences for students within Baltimore's Gwynns Falls watershed. *\$181,663*

Parks and People Foundation

Parks and People's Branches Internship Program (MD) Provide paid mentorship, leadership development, environmental education, and green career skills training for 50 Baltimore City public high school students to help develop career potential and improve their connections to their community. Project will complete restoration activities throughout west Baltimore, including invasive plant removal, tree planting, stream clean-ups, and stewardship of Maryland state and Baltimore city parks.

\$70,827

ReBUILD Metro

Growing Community Green Infrastructure Ownership and Urban Tree Canopy in Baltimore Neighborhoods (MD)

Facilitate community-determined green stormwater infrastructure projects to create 2.75 acres of long-term greenspace and improve urban tree canopy in the Olive, Broadway East, and Johnston Square neighborhoods of Baltimore. Project will build community consensus and ownership of stormwater projects and address future project pipelines, starting with lowest to greatest barriers to implementation. *\$199,990*

Ridge to Reefs

Implementing Targeted Nutrient Management in the Shenandoah Valley and Eastern Shore (MD, VA) Construct four denitrifying bioreactors and 3.6 acres of nontidal wetlands in priority watersheds with high nutrient loads in Maryland and Virginia. Project will improve farms environmental performance, treat legacy nutrients, and will benefit American black duck wintering habitat and eastern brook trout recovery. *\$199,787*

Shorerivers

Creating a Comprehensive Stormwater Plan and Implementation Strategy for Town of Chestertown (MD)

Complete a Comprehensive Stormwater Plan and Implementation Strategy and two-to-three fully engineered stormwater project designs for the Town of Chestertown, Maryland. Project will benefit water quality in the Middle Chester River Watershed, with secondary objectives of creating habitat, outreach, and education to a diverse group of stakeholders.

\$49,408

Shorerivers

Envision the Choptank: Expanding and Scaling-Up Regional Partnership (DE, MD)

Strengthen and expand the Envision the Choptank partnership by identifying specific locations for best management practices on agricultural lands, providing training and education on high impact restoration techniques, and expanding landowner partnerships and technical assistance offerings. Project will continue to build the partnership of 17 regional and state organizations while implementing 250 acres of best management practices in the Choptank watershed. **\$999,921**

Shorerivers

Implementing the Maryland Conservation Drainage Program on the Eastern Shore (MD)

Implement conservation drainage via 20 projects to treat agriculture runoff from approximately 400 acres. Project will support project costs not currently covered by state funding and leverage state funds 1:1 to cover project costs, allowing for greater outreach to educate farmers and state and federal agricultural service providers on the benefits of conservation drainage. **\$197,914**

Shorerivers

Reconnecting Floodplains and Stream Restoration in the Upper Sassafras (MD)

Produce a fully permitted stream and wetland restoration design that addresses an eroding 4,800 linear foot stretch of forested perennial stream in the headwaters of the Sassafras River. Project will result in designs for a stream that receives runoff from surrounding highways and a weigh station, as well as 370 acres of surrounding agricultural land. *\$47,025*

Shorerivers

Residential and Golf Course Best Management Practices in the Prospect Bay Community (MD)

Design and implement 10 residential River Friendly Yard practices and three golf course best management practices in the Prospect Bay Country Club Community. Project will result in direct reductions in nitrogen, phosphorus, and sediment draining from residential yards and the highly-fertilized golf course that will directly support Queen Anne's County Watershed Implementation Plan goals. \$192,619

St. Mary's River Watershed Association Oyster Reef Restoration in the St. Mary's River Shellfish Sanctuary (MD)

Construct and install 5 acres of three-dimensional reef structures and traditional oyster restoration structures in the St. Mary's River Shellfish Sanctuary. Project will engage 200 volunteers on site and an additional 600 Science Technology Engineering and Math and public school students. \$71,436

St. Vincent de Paul Roman Catholic Congregation Micro-Bioretention at St. Vincent de Paul Roman Catholic Church (MD)

Construct three micro-bioretention facilities in St. Vincent de Paul Roman Catholic Church's parking lot. Project will capture and treat stormwater and pollutants that run off from the parking lot into Jones Falls River and Baltimore Harbor. \$128,587

Stroud Water Research Center Soil Health Conservation, Engagement, and Technical Assistance (MD, PA, VA)

Partner with Cover Crop Coaching to increase access to technical expertise on soil health and increase adoption rates. Project will enable Cover Crop Coaching to direct farmer meetings, host train-the-trainer events, and increase outreach to landowners renting cropland to tenant farmers, help address the shortfall of technical expertise on soil health and will increase adoption rates of cover crops and no-till. \$199,976

Town of New Market

Converting a Fire Pond into a Step Pool Storm Conveyance in the Town of New Market (MD) Retrofit the Town of New Market's fire pond, converting the pond into a step pool storm conveyance system to mitigate future flood risk. Project will capture and treat runoff from 26 acres of land and will improve local water quality and nutrient and sediment loads. \$150.159

The Nature Conservancy

Accelerating Wetland Restoration Through Partnerships and Landowner Engagement (multiple states)

Accelerate water quality and black duck habitat improvements through strengthened partnerships to advance wetland and stream restoration in priority regions and identification of landowner priorities and constraints to guide restoration outreach and opportunities. Project will leverage existing partnerships and expertise and add needed capacity to further foster watershed-wide collaboration to restore, enhance and protect a network of habitats to improve water quality. \$965,852

Trout Unlimited Home Rivers Initiative Western Maryland Initiative: Restoring Eastern Brook Trout Habitat and Connectivity (MD)

Restore, reconnect, and enhance aquatic habitat within stronghold patches of eastern brook trout. Project will implement aquatic organism passage (AOP) barrier mitigation and riparian restoration in priority watersheds, deliver an AOP barrier mitigation plan to county roads department staff, and incorporate community and student volunteers into restoration and monitoring on public and private lands in western Maryland. \$192,540

University of Maryland Center for Environmental Science

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states) Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for non-tidal watershed areas and indicators for social, cultural, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project.

\$82,678

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds.

\$999.942

MASSACHUSETTS

Buzzards Bay Coalition

Bouchard Barge Horseshoe Mill Dam Removal (MA) Restore ecological functions of the Weweantic River and its estuary through removal of the inactive Horseshoe Mill Dam spillway in Wareham, Massachusetts. Project will result in a total of 3.4 miles of river habitat becoming unobstructed and 91 acres of wetland habitat being restored. \$686,388

Cape Cod Commercial Fishermen's Alliance Scaling Electronic Monitoring in New England's Groundfish Fishery (ME, MA, NH, RI)

Expand participation of electronic monitoring to 35 vessels for the New England groundfish fishery. Project will finalize innovations in technology and audit model protocols, scale up the implementation of electronic monitoring that improve accountability, strengthen partnerships among fishermen and the federal government, and lay the foundation for long-term industry investment in accountability. \$568,161

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. \$250,000

RIES

Gloucester Fishing Community Preservation Fund Developing a Strategic Plan in an Evolving Market for the Gloucester Permit Bank (MA)

Conduct focus groups and host a workshop to support the development of a strategic plan and develop educational materials to begin implementing the plan in Gloucester. Project will develop a strategic plan to guide the Gloucester Permit Bank investment actions in the next decade. \$31,500

Gulf of Maine Research Institute

Test Machine Learning Software for Dockside Monitoring, Seafood Monitoring, and Research (ME, MA, RI)

Test electronic monitoring and machine-learning applications in dockside monitoring, explore uses of the data collected from electronic monitoring, and educate stakeholders about machine analysis. Project will improve efficiency of the dockside monitoring program by developing algorithms to verify fish weights and counts, facilitate the use of electronic monitoring data by two new groups, and publish a report about transitioning from human to machine analysis of data.

\$170,112

Integrated Monitoring

Optimizing Machine Learning for Streamlining Reporting for the New England Groundfish Fishery (MA)

Continue to develop activity recognition and species recognition algorithms and combine them into an activity and species recognition algorithm, develop new machine learning algorithms to train smart cameras to improve image quality, and develop a web application version of electronic vessel trip reports for the New England groundfish fishery. Project will optimize machine learning and video recognition algorithms to improve and streamline reporting. *\$193,395*

Ipswich River Watershed Association Restore Cold-water and Diadromous Fish Habitat in Howlett Brook Watershed (MA)

Assess and improve fish passage in Howlett Brook, a tributary to the Ipswich River in northeastern Massachusetts, by prioritizing and removing barriers to passage for eastern brook trout and river herring. Project will complete conceptual designs for 12 barriers and 30 percent designs for another six barriers, assess the status of eastern brook trout populations, remove two high priority barriers, and open 8 miles of stream and 68 acres of historic pond spawning habitat for river herring. *\$163,577*

Legit Fish

Developing an Integrated Electronic Vessel Trip Reporting and Sector Management Tool (ME, MA, NH, RI)

Expand on a logistics and traceability system by developing an integrated electronic vessel trip reporting application and sector management system that will be integrated with dealer reporting. Project will increase the speed of data and decisionmaking capabilities for management in New England. \$471,557

Maine Coast Fishermen's Association Piloting Electronic Monitoring in the Northern Gulf of Maine Scallop Fleet (ME, MA, NH)

Develop and pilot an electronic monitoring program for the northern Gulf of Maine scallop fleet. Project will test the feasibility of electronic monitoring on small scallop vessels, which will demonstrate the amount and value of data that it can provide and test the use of video recognition software for video review.

\$108,009

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

Marine Mammal Alliance Nantucket Marine Mammal Rescue Nantucket (MA)

Hold a Provisional Stranding Agreement with the National Oceanic and Atmospheric Administration to establish a marine mammal rescue team on Nantucket Island, Massachusetts. Project will mitigate human interaction with marine mammals, respond to animals in distress, transport Code 1 animals to rehabilitation facilities, and collect data on animals.

\$33,812

Mystic River Watershed Association

Herring Monitoring in Horn Pond (MA) Engage public stewards, educate area youths, make on-the-ground improvements and document the herring run size at Horn Pond in Woburn, Massachusetts. Project will expand herring spawning ground by 102 acres, which will have a significant and lasting impact on herring populations.

\$35,000

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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National Wildlife Federation

Restore New England's Largest Saltmarsh for Resilience and Ecological Enhancement (MA) Build and enhance resilience of the 25,000-acre Great Marsh coastal habitat to help protect critical community infrastructure. Project will improve drainage of marsh pools, restore native vegetation, remove invasive species, and plant eel grass to reduce erosion and improve channel stabilization. \$1,248,986

New Bedford Port Authority

Utilizing Blockchain Technology to Improve Data Management and Analysis (MA)

Advance data management by engaging fishermen, sector leaders, conservationists, economists, scientists, and regulatory officials to use a central Marine Data Bank where stakeholders can verify, manage, share, and trade data with partners in New Bedford. Project will create a comprehensive understanding for stakeholders to advance sustainability and business planning, which will incentivize additional stakeholders in the fishing industry to input and access data.

\$231,590

Town of South Hadley

Upgrading the South Hadley Wastewater Treatment Plant Decreasing Nitrogen into Long Island Sound (MA)

Upgrade sensors and systems at the wastewater treatment plant, Chicopee, Massachusetts. Project will upgrade equipment that will provide the most up-to-date and accurate monitoring and management of dissolved oxygen and nitrogen levels at the plant and decrease nitrogen discharge to Long Island Sound. \$132,600

MICHIGAN

Alger Conservation District

Improving Fish Passage and Riparian Habitat for Brook Trout in Lake Superior Tributaries (MI)

Replace two culverts in the Slapneck Creek and Sucker river watershed to improve brook trout habitat quality and accessibility and prevent introductions of invasive species at riparian restoration sites. Project will reduce sedimentation by 18 tons per year, reconnect 9 miles of streams, and manage invasive species on 25 acres of restored habitat along two Lake Superior tributaries. *\$208,695*

American Bird Conservancy

Technical Assistance to Improve Forest Health for Priority Birds in Michigan's Upper Peninsula Improve forest health and management through Iandowner technical assistance in Michigan's Upper Peninsula. Project will engage 4,000 Iandowners to improve the management of 1,200 acres of working forests and enhance habitat for priority or at-risk bird species.

\$247,235

Brightmoor Alliance

Habitat Restoration and Public Engagement in Eliza Howell Park, Detroit (MI) Restore historic upland and wet prairie habitat

in Eliza Howell Park on Detroit's west side through vernal pond and wet-prairie ecosystem enhancement. Project will install strategically placed and designed pathways, no-mow delineators and arts, culture, and environmental education programs to activate the park and promote safe public use, and restore more than 16 acres of habitat, install 22 pathway and signage structures, and reach 3,000 community members. *\$300,000*

Cinnaire Lending

Using Stormwater Infrastructure to Reduce Flooding and Engage Community Members in Southeast Michigan

Install green infrastructure and create public green space with a stormwater retention capacity of 1,300,000 gallons annually on 2 acres of underutilized land in Detroit, Michigan. Project will create 58 jobs, plant 30 trees, remove more then 10,000 square feet of impervious surface, create 0.2 acres of public green space that will help mitigate neighborhood flooding, accelerate economic development, and engage 500 low-income seniors and community members in Detroit's Islandview neighborhood.

\$300,000

City of Royal Oak

Improving Resilience and Public Space with Green Stormwater Infrastructure in Normandy Oaks Park (MI)

Install green stormwater infrastructure, including three bioswales, a large retention pond, and soccer fields with a drainage and irrigation system that will capture and reuse the stored run-off, to enhance community resilience in Royal Oak, Michigan and capture stormwater from a newly constructed public park. Project will create 680,700 gallons of stormwater capacity and improve public access and engagement at an inclusive community park with diverse recreational opportunities. *\$228.347*

Conservation Resource Alliance Restoring Aquatic Connectivity and Habitat

Availability for Brook Trout in Northwest Michigan Improve stream crossings, restore connectivity, reduce sediment and nutrient loading, and increase the overall quality of habitat for brook trout and other species of conservation concern in four watersheds in Northwestern Michigan. Project will rectify eight aquatic passage barriers, open 16 miles of stream habitat and prevent 40,000 pounds of sediment from entering the watershed annually. *\$250,000*

Golden Lotus

Restoring Stream Habitat and Natural Floodplain Hydrology on the Pigeon River (MI)

Remove legacy sediments and improve riparian wetlands on Golden Lotus property above the Pigeon River's former Song of the Morning dam to create self-sustaining wildlife habitat and restore natural stream geomorphology. Project will install eight sediment runoff prevention structures, restore 2 acres of riparian and floodplain habitat, and 0.15 miles of stream habitat.

\$338,531

Grand Traverse Bay Watershed Reducing Stormwater Runoff with Bioswales and

Rain Gardens in Grand Traverse Bay (MI) Install green infrastructure at two locations in Elk Rapids Village on Grand Traverse Bay in Lake Michigan to reduce stormwater runoff into the lake. Project will add one million gallons of stormwater storage annually, reduce sources of water quality impairment typically found in stormwater (such as toxins, pathogens, nutrients and sediments), and enhance long-term partnerships to catalyze future installation efforts around the bay. *\$150,000*

Huron Pines Resource Conservation and Development Council

Removing Aquatic and Terrestrial Invasive Species to Restore Coastal Wetlands (MI)

Remove aquatic and terrestrial invasive plant species in priority coastal wetland habitat along the coastline of Northeast Michigan. Project will restore 450 acres of habitat benefiting several species of conservation concern, such as piping plover, Hine's emerald dragonfly, and eastern massasauga rattlesnake. *\$160,240*

International Wildlife Refuge Alliance Increasing Water Access at the Detroit River International Wildlife Refuge (MI)

Construct and install a handicap-accessible kayak launch on the Detroit River International Wildlife Refuge, near the new John D. Dingell Visitor Center. Project will provide access for visitors to experience a variety of outdoor recreational opportunities, including kayaking, hunting, and fishing. *\$12,862*

RIES

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National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Pheasants Forever

Restoring Biodiversity of Degraded Grasslands to Benefit Nesting Birds in Southeast Michigan

Convert invasive cool-season grass and intensive agriculture to diverse grassland habitats throughout southeast Michigan state game areas to restore biodiversity and improve habitat for nesting birds, native pollinators and other grassland dependent wildlife. Project will restore more than 200 acres and host two youth pollinator habitat workshops to engage 40 5th-grade students from the local area to learn about grasslands, diversity, pollinators, and wildlife habitat.

\$55,592

Saginaw Conservation District

Designing Nutrient Management Plans in the Saginaw Bay Watershed (MI)

Market and design nutrient management plans for local producers within the priority watersheds that drain into the Saginaw Bay. Project will reduce sedimentation, eutrophication, and algae blooms within the watershed.

\$300,000

Southwest Detroit Environmental Vision Enhancing Public Space by Expanding Green Stormwater Infrastructure in Detroit, Southeast Michigan

Create a network of green stormwater infrastructure installations to enhance public space, reduce urban flooding, and increase community resilience in the Southwest Detroit Eco-D Neighborhood. Project will plant 200 trees, add 260,000 gallons of stormwater storage with cisterns, green roofs, rain gardens and green walls, remove almost 3 acres of impervious surfaces, and engage 3,000 community members. \$300,000

Superior Watershed Partnership

Reduce Storm Related Impacts for Lake Superior Coastal Communities through Habitat Restoration (MI)

Implement green-gray infrastructure to restore and strengthen natural systems along the Lake Superior shoreline in Michigan. Project will protect public infrastructure, restore public access to the shoreline, and create contiguous coastal habitat for resident and migratory wildlife including birds, pollinators, native fish, and mammals. *\$2,500,000*

The Nature Conservancy

Increasing Biodiversity and Landscape Connectivity in the Oaks Opening Region of Southeast Michigan Restore the globally rare species and habitats of the Oak Openings region through invasive species removal and prescribed fire and connect people to nature in Wayne and Monroe counties in southeast Michigan. Project will restore 533 acres through improved vegetative structure and increased species diversity and engage 2,000 community members through enhanced public access, educational signage, and interpretive programming. *\$200,000*

Trout Unlimited Home Rivers Initiative Restoring Aquatic Connectivity In High-Quality Michigan Brook Trout Streams (MI)

Improve aquatic organism passage and habitat in western and northwestern Michigan cold-water streams to benefit brook trout and other native communities and help to restore natural stream ecosystem processes. Project will reconnect 35 miles of high-quality, cold-water habitat by upgrading six culverts.

\$298,886

Upper Peninsula Resource Conservation and Development Council

Controlling Phragmites Through Coastal Wetland Restoration and Landowner Stewardship (MI, WI) Restore 120 acres of coastal wetlands in the Upper Peninsula of Michigan and northeastern Wisconsin by treating invasive phragmites regrowth and other secondary invasive species that threaten the quality of previously restored habitats. Project will implement a landowner cost share program to encourage phragmites stewardship by private property owners. *\$150,000*

Washtenaw County

Green Stormwater Infrastructure to Mitigate Skate Park Runoff in Washtenaw, Southeast Michigan Design, construct, and maintain more than 8,000 square feet of green infrastructure including rain gardens, bioswales, and infiltration zones to accommodate runoff from a newly constructed skate park in Washtenaw County, Southeast Michigan. Project will infiltrate runoff with 195,430 gallon stormwater storage capacity and engage local community members in all aspects of design and implementation to increase resilience and enhance public greenspace. *\$76,061*

MINNESOTA

Chicago Soil and Water Conservation District Reducing Nutrient and Sediment Loading to Increase Water Quality in the Lower St. Croix Watershed (MN)

Provide technical assistance to landowners in the priority Lower St. Croix Watershed to improve local water quality by reducing nutrient and sediment loading from agricultural lands. Project will develop conservation plans and will increase enrollment in Farm Bill programs. *\$150,000*

Friends of Sherburne National Wildlife Refuge Friends of Sherburne NWR- Refuge Visitor Welcome Station (MN)

Enhance visitor experiences through improving access and information at the refuge. Project will include sidewalk and kiosk area, an updated and expanded interpretive signage, a message area and brochure rack, and ADA-compliant seating area. *\$14,360*

Lake County Soil and Water Conservation District Replacing Road Crossings to Restore Fish Passage in Hockamin Creek (MN)

Replace two road-stream crossings with open bottom structures to restore aquatic connectivity for native brook trout and other aquatic organisms on Hockamin Creek in Lake County, Minnesota. Project will increase brook trout abundance and distribution by restoring connectivity to 33 stream miles of highquality habitat in the upper reaches of Hockamin Creek and the West Branch of the Baptism River. \$390,000

Mower Soil and Water Conservation District Technical Assistance for Conservation and Profit in the Cedar and Root River Watersheds (MN)

Employ a conservation agronomist in the Cedar and Root River watersheds to leverage existing relationships with the agricultural industry to provide technical assistance, focusing on the link between profitability and conservation, to a new population of landowners. Project will increase knowledge among farmers on the positive links between profitability and conservation practices and increase whole-farm management assessments identifying water quality risks and mitigation of those risks.

\$292,544 National L Leadershi

National League of Cities Institute Leadership in Community Resilience Program III

(multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Wabasha Soil and Water Conservation District Engaging Wabasha County Landowners in Water Quality Planning and Habitat Improvement (MN) Engage Wabasha County landowners and others from the agricultural sector in best management practices and land stewardship that benefit water quality, fish, and wildlife. Project will improve water and habitat quality through whole farm planning efforts and public outreach education.

\$117,979

MISSISSIPPI

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states) Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Ducks Unlimited

Stewardship of Privately-Owned Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, KY, LA, MO, MS, TN)

Increase stewardship of privately owned bottomland hardwood forests in the Mississippi Alluvial Valley through outreach, technical assistance, and developing conservation plans to guide management of existing forests and improve habitat for waterfowl, forest-interior birds, and other forest-dependent wildlife. Project will reach 150 landowners with existing conservation easements, including properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program, with the goal for least half of these landowners to implement conservation activities that will enhance 2,000 acres of forested wetlands and restore hydrologic conditions on 450 acres to improve water quality. *\$153,047*

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Mississippi Forestry Association Restoring Longleaf Pine on Private Lands (MS)

Engage private landowners to restore and enhance longleaf pine forests in southern Mississippi to benefit birds such as northern bobwhite and Bachman's sparrow, and imperiled reptiles such as gopher tortoise and black pine snake. Project will reach 300 private landowners and manage 2,000 acres of longleaf habitat through plantings and prescribed burning, including with support of a veteran's fire crew. *\$300,000*

Mississippi River Trust

Forest Conservation and Wetlands Reserve Lands Management in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Protect 375 acres of bottomland hardwoods with working forest conservation easements and enhance an additional 1,000 acres of existing bottomland hardwood forests to improve wildlife habitat and serve as demonstration sites for landowners and foresters. Project will provide an inventory of more than 30,000 acres of bottomland hardwood forest established through the Natural Resources Conservation Service (NRCS) Wetland Reserve Program in Mississippi, providing landowners, land managers and NRCS with information needed to guide management treatments that enhance wildlife habitat at a landscape scale. *\$640,970*

Mississippi River Trust

Forests, Floodplains and Flow: Increasing Wetland Habitats, Habitat Complexity and Hydrologic Connections along the Lower Mississippi River (AR, LA, MS)

Work with private landowners to restore 1,000 acres of frequently flooded forests through the adoption of the Natural Resources Conservation Service Wetland Reserve Easements and restore flow and habitat complexity within priority Mississippi River secondary channels through ecological engineering with the U.S. Army Corps of Engineers. Project will benefit federally listed and at-risk birds, bears, fish and mussels and improve water quality in the Lower Mississippi River's active floodplain in Arkansas, Louisiana, and Mississippi. *\$250,595*

The Forest Stewards Guild

Engaging Private Forest Landowners and Enhancing Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, LA, MS)

Leverage the expertise and accomplishments of state lands managed by the Louisiana Department of Wildlife and Fisheries to promote and expand implementation of forest management practices that enhance wildlife habitat for forest interior birds, such as Kentucky warbler. Project will host a regional learning exchange and workshops to share best practices, perform strategic and targeted outreach to private forest landowners, prepare forest management plans for high-priority private landowners, and implement enhancement activities on 1,200 acres of private and state forest lands in Louisiana, Arkansas, and Mississippi. *\$133,212*

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The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments. *\$150,000*

The Longleaf Alliance

Red-cockaded Woodpecker Translocation Support for the Southern Range Translocation Cooperative: Years 17 and 18 (AL, FL, GA, MS)

Support recovery of the federally endangered red-cockaded woodpecker through translocation of birds from the Apalachicola National Forest to designated recovery properties in Florida, Georgia, and Mississippi selected by the Southern Range Translocation Cooperative. Project will translocate at least 20 birds to restored longleaf pine habitat that will be managed long-term. \$90,000

MISSOURI

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Ducks Unlimited

Stewardship of Privately-Owned Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, KY, LA, MO, MS, TN)

Increase stewardship of privately owned bottomland hardwood forests in the Mississippi Alluvial Valley to guide management of existing forests and improve habitat for waterfowl, forest-interior birds, and other forest-dependent wildlife. Project will reach 150 landowners with existing conservation easements, including properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program, with the goal for least half of these landowners to implement conservation activities that will enhance 2,000 acres of forested wetlands and restore hydrologic conditions on 450 acres. *\$153,047*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. **\$249.161**

MONTANA

Big Blackfoot Chapter of Trout Unlimited Westslope Cutthroat and Bull Trout Habitat Restoration in the Blackfoot River Watershed (MT) Restore an 8,000 foot reach of Nevada Creek to improve stream bank stability and instream and riparian habitat benefiting populations of westslope cutthroat trout and bull trout. Project will expand previously successful methods to construct the proper creek pattern, profile, and dimensions while incorporating a riparian revegetation and grazing management plan which will address bank erosion, instream complexity, and riparian area habitat connection.

\$49,000

Bitter Root Land Trust Watershed-scale Weed Management in the Bitterroot Valley, Montana

Increase active weed management on private land in Montana's Bitterroot Watershed to benefit critical habitat and corridors for elk, moose, whitetail deer, and mule deer. Project will expand on previously successful work to enhance current partnerships, cultivate new partners, expand capacity for collaborative weed management, increase weed management by 5,000 acres, and educate private landowners about weed identification and management strategies. *\$60,000*

Clark Fork Coalition

Water Transaction Development in the Clark Fork Basin (MT)

Identify, implement, and monitor water transactions in the Clark Fork basin of Montana. Project will improve streamflows and aquatic habitat conditions for native trout.

\$179,777

Flathead Land Trust

Protecting Productive Farmland and Wildlife Connectivity along the Flathead River (MT)

Implement a conservation easement on 155 acres of priority riparian wetland habitat and rich farmland on private lands along the Flathead River in northwest Montana. Project will connect two major ecosystems for grizzly bears, sustain water quality and riparian habitat function for bull trout and westslope cutthroat trout, and protect stopover habitat used by thousands of migratory birds. *\$25,000*

Future West

Promoting Safe Wildlife Passage Structures to Reduce Wildlife-Vehicle Collisions Across Montana

Increase the installation of safe wildlife passage structures on Montana roads and highways, significantly reducing wildlife-vehicle collisions and restoring habitat connectivity that has been degraded by expanding transportation systems. Project will increase awareness of connectivity problem and solutions, engage in on the-ground safe wildlife passage projects, and elevate statewide action from the upcoming Montana wildlife and transportation summit. *\$24,755*

Montana Department of Natural Resources and Conservation Support for Water Transfers

to Instream Flows FY20 (MT)

Assist organizations developing water transactions with review and coordination of project proposals. Project will efficiently process instream flow water right change applications to legally protect water from transactions for instream purposes. \$44,896

Montana Land Reliance

Conservation Easements on Private Lands in Central and Eastern Montana's Northern Great Plains

Permanently conserve 75,000 acres of private land in central and eastern Montana to benefit pronghorn, at-risk bird species and other grasslandand sagebrush-obligate wildlife. Project will complete five conservation easements and conserve 10 sage-grouse leks. *\$150,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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National Wildlife Federation

Mesic and Wet Meadow Restoration in Greater Sage-Grouse Habitat in Missouri-Milk River Grasslands (MT)

Restore mesic areas and wet meadows using beaver dam analogs and Zeedyk structures to enhance greater sage-grouse core habitat on public and private lands in north-central Montana in order to provide practical models and evidence-based guidance for replicating proven techniques in a new landscape. Project will result in 30 acres restored and 90 acres under improved management. *\$179,635*

National Wildlife Federation

Prioritizing Fence Modification and Removal Using Pronghorn Movement Data in the High Divide (MT) Increase landscape permeability for wildlife across the High Divide region of Montana through outreach with local landowners, GPS tracking of female pronghorn, and relocate fencing on migratory pathways throughout the region. Project will develop long-term relationships with landowners, identify fencing and specific barriers using land-use planning data in GIS, and eliminate movement barriers on identified pronghorn

migratory pathways. *\$83,005*

Petroleum County Conservation District Grassland Restoration and Grassland Bird Population Study in the Musselshell Plains, Montana

Restore cropland systems to managed grazing systems by reseeding cropland to grassland, improving water, fencing, and other grazing infrastructure as well as providing education and outreach on the significance of prairie ecosystems. Project will improve 31 miles of fencing, restore 1,500 acres of grassland and bring 5,000 acres under improved management. *\$200,000*

Ranchers Stewardship Alliance

Coordinating Conservation Efforts to Restore Connectivity of Migration Corridors in Montana Implement targeted habitat restoration and enhancement projects to benefit pronghorn, mule deer and elk in six counties in north-central Montana. Project will work with local non-profits, landowners and state and federal agencies to coordinate and implement projects that reduce fragmentation, restore connectivity, and enhance habitat quality for big game species on 1,500 acres of private land.

\$123,667

Ranchers Stewardship Alliance

Restoration and Management of Milk River Grasslands through Sustainable Ranching III (MT)

Use a diverse, community led partnership to implement restoration and enhanced management in Montana's Milk River Grasslands to improve populations of grassland passerines, pronghorn and greater Sage-Grouse. Project will result in 4,000 acres under improved management and 2,800 acres restored. *\$200,000*

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Rocky Mountain Bird Observatory Sustaining Capacity for Private Lands Grassland Conservation and Stewardship (MT, SD)

Build local capacity to implement on-the-ground habitat conservation projects by supporting two Private Lands Wildlife Biologists in two focal areas of the Northern Great Plains. Project will bolster partnerships, provide community outreach and education opportunities, and implement grassland habitat projects to restore 500 acres, conserve 1,000 acres and better manage 25,000 acres of private lands.

\$250,000

The Blackfoot Challenge

Landowner and Community Focused Connectivity Restoration to Reduce Human-Wildlife Conflict (MT)

Expand the landowner-led partnership supporting community-based activities to reduce conflict between people, livestock, and grizzly bears and other carnivores between the Northern Continental Divide and the Greater Yellowstone ecosystems. Project will assist species recovery efforts for wolves by sustaining and expanding permeable movement corridors through new and existing conservation practices. **\$200,000**

The Mule Deer Foundation

Coordination of Cross-Jurisdictional Habitat Improvement in Sagebrush Landscapes (CO, MT, WY)

Increase coordination of conservation partners in Montana, Wyoming, and Colorado for habitat work in the sagebrush landscape. Project will work with state agencies and other partners to increase awareness and opportunity across jurisdictional boundaries for habitat improvements such as modifying and removing fencing, protecting mesic habitats, and removing invasive cheatgrass and juniper.

\$200,000

The Nature Conservancy

Increasing the Scale and Pace of Sagebrush Restoration across Southwestern Montana

Promote a diverse partnership to increase the scale and pace of sagebrush habitat restoration, particularly in high-elevation mesic seeps and streams, by advancing on-the-ground projects through a sagebrush conservation coordinator. Project will build off previously successful work in Montana to restore and protect sagebrush habitat across the region's complex pattern of land ownership.

\$108,497

Trout Unlimited

Rattlesnake Creek Stream Restoration for Fish, Flood and Drought Resilience (MT)

Protect public safety, improve native fish habitat, restore natural floodplain processes, and enhance public recreation opportunities through improving fish passage, stream restoration, and water management. Project will result in more than 10 miles reconnected for native fish, 15 acres of wetland and floodplain restoration and preservation, 0.5 miles of stream habitat reconstruction, 45 acres of new open space, and 20 cubic feet per second of protected water rights for improved streamflow and stream temperatures. *\$315,540*

Trout Unlimited

Restoring, Reconnecting, and Protecting Instream Flow in the Upper Clark Fork Basin (MT)

Develop water right leases and water management transactions to augment stream flow and critical habitat for native trout species, including bull trout and westslope cutthroat trout, in the Clark Fork River basin, Blackfoot River, and Bitterroot River sub-basins. Project will reconnect key tributaries to their mainstems and restore chronically dewatered stream reaches where the likelihood of significant fisheries benefits have been identified and can be monitored to assure the delivery of water. *\$115,000*

The Trust for Public Land

Conservation of Kootenai Forestlands in the Cabinet-Yaak Linkage Area of Montana

Purchase a conservation easement on the 22,275acre Kootenai Forestlands property. Project will protect a critical watershed and forestland habitats in the Cabinet-Yaak Linkage Area, a key connection for grizzly bear, lynx, and bull trout. Project will prevent subdivision and development, ensure public access, and protect a major drinking water reservoir. *\$400,000*

U.S. Bureau of Land Management, Miles City Field Office

Woven Wire Fence Conversion to Wildlife-Friendly Standards on Public Lands in Eastern Montana

Modify existing fences within the Miles City Bureau of Land Management Field Office to wildlife friendly specifications in order to help a large number of big game mammals, including white-tailed deer, mule deer, pronghorn, elk, big horn sheep, and other ungulates move across the landscape. Project will convert 14 miles of fencing impeding ungulate movement through the landscape. *\$50,000*

U.S. Department of the Interior, U.S. Fish and Wildlife Service

Fence Modification and Habitat Enhancement for Big Game in Big Hole Valley, Montana

Modify fences and enhance habitat through conifer removal from sage-steppe, erosion control structures, and improved grazing management, that will improve wildlife passage and forage opportunities for pronghorn, elk, mule deer, and other species in Big Hole Valley, Montana. Project will improve 35 miles of fencing, restore more than 100 acres of habitat, and improve management on 5,000 acres. \$40,000

Western Landowners Alliance Enhancing Connectivity and Reducing Rancher/ Wildlife Conflicts in the Northern Rockies

(ID, MT, WY)

Coordinate a network of landowners across priority landscapes in the Northern Rockies around sustained efforts to reduce and mitigate conflicts with key wildlife species. Project will reduce humancarnivore and human-ungulate conflicts, implement new strategies to improve connectivity, and increase visibility of collaborative landowner efforts on behalf of regional wildlife.

\$231,660

Yaak Valley Forest Council Improving Habitat Connectivity and Quality for Cutthroat Trout in Meadow Creek (MT)

Perform 1.2 miles of road re-contouring and 4 miles of active decommissioning including removal of two culverts that are acting as barriers to fish passage in the South Fork of Meadow Creek, Yaak, Montana to reduce sediment loading into the habitat. Project will improve water quality a nd fish habitat connectivity in spawning habitat of genetically pure westslope cutthroat trout. \$33,500

Yellowstone to Yukon Conservation Initiative Reducing Human-Grizzly Bear Conflict in the Cabinet-Yaak Ecosystem (ID, MT, WA)

Reduce conflicts between humans and grizzly bears in the Cabinet-Yaak Ecosystem by improving waste management, providing community education, road closure and restoration, and securing grizzly bear habitat. Project will also restore private land parcels in a critical linkage zone for two imperiled grizzly bear populations through a partnership with federal and state agencies and local conservation groups. *\$208,871*

NEBRASKA

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Sandhills Prairie Refuge Association

Enhancing Communications Capacity at Sandhills Prairie Refuge Association (NE)

Increase communications capacity by developing a website to enhance outreach and programming capabilities. Project will increase community engagement on the refuge as well as acquire and maintain active members and volunteers. \$4,300

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

World Wildlife Fund

Updating Plowprint to Identify Grassland Restoration Opportunities (CO, IA, KS, NE, NM, OK) Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the bestavailable data to track rates of cropland conversion, monitor the status of previously converted lands, and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region.

\$61,628

NEVADA

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Eastern Nevada Landscape Coalition Sagebrush Habitat Restoration and Invasive Species Removal in White River Valley, Nevada

Improve sagebrush landscapes and increase weed management capacity in Nevada's White River Valley by improving wet meadows, treating and removing noxious weeds, conducting weed and bird inventories, and educating community members to benefit greater sage-grouse, songbirds, raptors, waterfowl, deer, elk, pronghorn and other wildlife. Project will raise the water table to improve and expand wet meadows and improve 500 acres of wildlife habitat. *\$59,150*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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Nevada Department of Wildlife Sagebrush Restoration for Mule Deer Wintering

Range in Nevada Post-fire restoration will establish pockets of

sagebrush within crucial mule deer winter range to act as seed sources for the rest of the surrounding areas and to provide cover and forage for all sagebrush obligate species in Nevada. Project will use a herbicide application, a 1-year chemical fallow, and a seeding treatment to restore 2,500 acres of public land. *\$158,239*

Outside Las Vegas Foundation, Get Outdoors Nevada Fostering Stewardship of Monarch Habitat in Urban

Communities (NV) Restore 14 acres of habitat for monarch butterflies and other local pollinators, owls, migratory birds,

and desert tortoise through 18 native habitat education programs, six field experiences, two community workshops, and six community service projects throughout the Las Vegas Valley watershed. Project will provide increased public access to native habitats and engage 830 community members. *\$34,654*

Rocky Mountain Elk Foundation

Protecting Sagebrush Habitat for Migratory Species in Nevada through a Conservation Easement Permanently protect 2,100 acres of private rangeland along the base of the Ruby Mountains in northern Nevada. Project will conserve habitat along a critical migratory corridor for the largest population of mule deer in Nevada and will serve as important sagebrush, grassland and riparian habitat for pronghorn, elk, Lahontan cutthroat trout, and several state species of conservation priority. *\$150,000*

The Nature Conservancy

Holistic Ranch Management to Benefit Sage-Grouse and Mule Deer on Public and Private Lands in Nevada

Manage a collaborative process to design a permittee-driven, outcome-based grazing alternative as part of the Bureau of Land Management's pilot program identifying areas for ongoing restoration, including invasives removal, fence modification and removal, wet meadow and riparian enhancement, and seeding of native plants. Project will specify the goals, strategies, and actions of a scientifically valid approach to holistic ranch management benefiting sage grouse and mule deer. *\$232,208*

Trout Unlimited Lahontan Cutthroat Trout Core Grant 2019 (CA, NV, OR)

Continue to address the needs identified in the Lahontan Cutthroat Trout (LCT) Business Plan by providing range-wide facilitation, genetic assessment and research to guide LCT management, validation of non-native trout eradication for LCT reintroduction projects, hatchery security, and a barrier assessment to secure a stream population of LCT.

\$603,373

U.S. Geological Survey

Trout and Drought: Quantifying Sensitivity of Lahontan Cutthroat Trout Streams (CA, NV, OR) Analyze field data to evaluate the sensitivity of extant and future populations of Lahontan Cutthroat Trout to temperature and drought conditions in critical streams range-wide. Project will produce results to will inform future recovery strategies. *\$121,354*

Walker Basin Conservancy

Establishment of Walker Basin Conservancy II (NV) Implement the Walker Basin Restoration Program, including negotiating water acquisitions and legal protection of water assets for the benefit of Walker Lake, and ensuring competent management and legal protection of program assets in perpetuity. Project will continue the water acquisition process, fulfill intensive restoration efforts, complete the "change of use" process for all water assets, convey titles for water assets from National Fish and Wildlife Foundation to Walker Basin Conservancy (WBC), and carry on development of WBC's infrastructure. \$4,629,541

NEW HAMPSHIRE

Androscoggin River Watershed Council Restore Fish Passage for Brook Trout in Stearns Brook, a Tributary to the Androscoggin River (NH) Restore spawning and rearing habitat for eastern brook trout in the headwaters of Stearns Brook, a tributary of the Androscoggin River in northeast New Hampshire, by removing two barriers to fish passage and reducing erosion and sedimentation from Success Pond Road. Project will install bridges at two stream crossings, restoring access to 14 miles of upstream and downstream cold-water habitat, and reconstruct half a mile of road to minimize erosion and sediment runoff. *\$119,000*

Belknap County Conservation District

Restore Eastern Brook Trout Streams Through Large Wood Additions in the New Hampshire Lakes Region Restore streams with native eastern brook trout populations in the Winnipesaukee and Saco Watersheds of New Hampshire's Lakes Region by using large wood to improve stream function, water quality and pool habitat. Project will partner with local communities and landowners to restore five priority stream demonstration sites totaling 7.7 miles that were selected by conservation partners and state and federal agencies. *\$192.764*

Cape Cod Commercial Fishermen's Alliance Scaling Electronic Monitoring in New England's Groundfish Fishery (ME, MA, NH, RI)

Expand participation of electronic monitoring to 35 vessels for the New England groundfish fishery. Project will finalize innovations in technology and audit model protocols, scale up the implementation of electronic monitoring that improve accountability, strengthen partnerships among fishermen and the federal government, and lay the foundation for long-term industry investment in accountability.

\$568,161

Integrated Monitoring

Optimizing Machine Learning for Streamlining Reporting for the New England Groundfish Fishery (NH)

Continue to develop activity recognition and species recognition algorithms and combine them into an activity and species recognition algorithm, develop new machine learning algorithms to train smart cameras to improve image quality, and develop a web application version of electronic vessel trip reports for the New England groundfish fishery. Project will optimize machine learning and video recognition algorithms to improve and streamline reporting.

\$193,395

Legit Fish

Developing an Integrated Electronic Vessel Trip Reporting and Sector Management Tool (ME, MA, NH, RI)

Expand on a logistics and traceability system by developing an integrated electronic vessel trip reporting application and sector management system that will be integrated with dealer reporting. Project will increase the speed of data and decision-making capabilities for management in New England.

\$471,557

Maine Coast Fishermen's Association Piloting Electronic Monitoring in the Northern Gulf of Maine Scallop Fleet (ME, MA, NH)

Develop and pilot an electronic monitoring program for the northern Gulf of Maine scallop fleet. Project will test the feasibility of electronic monitoring on small scallop vessels, which will demonstrate the amount and value of data that it can provide and test the use of video recognition software for video review. *\$108,009*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. **\$67,737**

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

New Hampshire Fish and Game Department Create Large-Scale Pollinator Habitat in Highway Rights-of-Way throughout New Hampshire

Identify opportunities to create pollinator habitat throughout the New Hampshire Department of Transportation's statewide network of rights-ofway. Project will create 13 demonstration sites to showcase the value of creating early successional habitat on rights-of-way that benefits high priority pollinators, including species of concern like monarch butterfly, yellow bumble bee, yellowbanded bumble bee, and American bumble bee. *\$50,184*

The Nature Conservancy

Tidal Crossing Replacements for a Resilient Coastal New Hampshire

Complete full engineering and design plans for four-to-five high-priority tidal crossings across New Hampshire's coastal zone. Project will work closely with local partners and coastal resources to design projects that will enhance resilience for coastal communities and ecosystems.

\$136,242

The Nature Conservancy

Validating For-Hire Vessel Trip Reports with Electronic Monitoring in New England (NH)

Evaluate the feasibility of electronic monitoring systems for validating the catch information reported on New England for-hire vessel trip reports to improve the accuracy and timeliness of information used for science and management of the fishery. Project will install electronic monitoring systems on up to two for-hire vessels. *\$79,712*

NEW JERSEY

American Littoral Society

Advancing Restoration of Horseshoe Crab and Shorebird Habitat in Cape May and Cumberland County (NJ)

Advance the conservation and restoration of bayshore beach habitat in the Delaware Bay for horseshoe crabs and shorebirds by utilizing strategies to reduce erosion and increase coastal resiliency to storms. Project will take place at six different sites identified as vulnerable areas, spanning 30 miles of shoreline along Cape May and Cumberland counties of New Jersey, with the goal of restoring and sustaining the ecological function of important coastal habitats.

\$250,000

American Littoral Society Applying Green Stormwater Infrastructure within

the Cohansey River Watershed II (NJ)

Install eight green stormwater infrastructure practices in the Cohansey River Watershed focusing on sub-watersheds of Indian Field Branch and Muddy Run in the City of Bridgeton, New Jersey. Project will restore water quality through green stormwater infrastructure installations and educate residents and students on their role in managing stormwater for improved water quality. *\$160,000*

American Littoral Society

Baycove Shorebird and Horseshoe Crab Habitat Restoration (NJ)

Install an overwash berm and construct an oyster reef at Baycove beach. Project will prevent further shoreline degradation and restore habitat for shorebirds and horseshoe crabs. *\$250,000*

American Littoral Society

Planning Ecologically Beneficial And Resilient Infrastructure at the Mouth of the Maurice River (NJ)

Design a hybrid living shoreline breakwater to minimize further erosion of a peninsula on the west side of the Maurice River and plan the protection and restoration of a second vulnerable location on the east side of the river. Project will develop engineered designs, construction methods, permits, and cost estimates in preparation for wetland restoration construction. *\$250,000*

Association of New Jersey Environmental Commissioners

Improving Stormwater Management for Riverfront Restoration in Phillipsburg, New Jersey

Plan and install green stormwater infrastructure to improve stormwater management and fish and wildlife habitat in Phillipsburg, New Jersey. Project will implement three green infrastructure projects to build on the current work to support the development of a riverfront restoration plan and expand community education on clean water, flooding, and related environmental issues. *\$153,019*

Center for Aquatic Sciences Discover the Delaware Watershed Youth Engagement Program (NJ, PA)

Engage 532 youth in grades six and eight and 35 of their teachers to build conservation experiences leading to stewardship of the Delaware River watershed. Project will provide student, administrators, and teachers with extensive knowledge of local waterways and urban sustainability, as well as an understanding of the importance of lakes, rivers, and streams to promote watershed restoration and conservation. *\$129,440*

Citizens United to Protect the Maurice River and Its Tributaries (CU Maurice River) Implementing Green Infrastructure to Protect the

Maurice River (NJ) Implement green infrastructure in Millville, New Jersey to engage the general public with principles of stormwater management and habitat restoration. Project will install a series of demonstration projects to promote infiltration and filtration of water, as well as create habitat to provide a model on the community benefits of green infrastructure. \$69,356

Delaware River Basin Commission Characterization of Algal Composition and Dissolved Oxygen in the Delaware Estuary (DE, NJ, PA)

Perform algal composition and dissolved oxygen characterization of Delaware Estuary to better understand existing and potential fish habitat quality. Project will inform the propagation of important species populations such as Atlantic sturgeon and striped bass and improve the eutrophication model of the entire tidal Delaware River and Bay. *\$88,854*

Delaware River Basin Commission Creating a Web-Based Habitat Model for the Upper Delaware River (NJ, NY, PA)

Enhance previously developed models for measuring habitat changes resulting from regulated flow and temperature mitigation efforts in the Upper Delaware River. Project will upgrade current models and provide an easily accessible, web-based system to accommodate new research, additional species, and expanded spatial domain. *\$128,750*

Delaware River Basin Commission

Reducing Microplastics in the Delaware Estuary (DE, NJ, PA)

Identify key sources of microplastics in the Delaware Estuary through monitoring and modelling efforts to ultimately execute targeted cleanup efforts on key source tributaries. Project will conduct studies to develop a more comprehensive understanding of microplastics in the Estuary and then use the results of these efforts to organize the removal of large amounts of plastic products from the waters of the basin to benefit fish, wildlife and habitats. **\$60,454**

Ducks Unlimited

Tidal Marsh Restoration at Supawna Meadows National Wildlife Refuge (NJ)

Advance wetland restoration planning at Supawna Meadows National Wildlife Refuge to enhance 430 acres of critical tidal marsh habitat. Project will complete restoration design plans and obtain permits to conduct restoration at the Refuge. *\$53,070*

Friends of Forsythe National Wildlife Refuge Enriching Environmental Education at Edwin B. Forsythe National Wildlife Refuge (NJ)

Enhance environmental education programming for the community and local youth. Project will coordinate volunteers to interpret and expand knowledge of refuge through hands-on outdoor experiences.

\$6,012

Groundwork Elizabeth

Restorative Experiences in Conserving the Passaic and Elizabeth Watersheds (NJ)

Carry out conservation work projects on public lands along the Passaic River and Elizabeth watersheds, which are connected urban watersheds. Project will engage 1,200 volunteers, restore 10 acres of wetland habitats, and improve 10 miles of riverbanks through invasive plant removal and introduction of native plant species. \$38,361

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

Musconetcong Watershed Association Floodplain Restoration and Monitoring at Beatty's Mill (NJ)

Restore floodplain at Beatty's Mill by removing of a 4-foot stone and rubble structure, followed by streambank stabilization and riparian restoration. Project will reduce total suspended solids, improve floodplain storage and infiltration, as well as improve water quality and aquatic habitat. \$96,400

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

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New Jersey Audubon Society

Creating and Enhancing Golden-winged Warbler, Northern Bobwhite and American Black Duck Habitat (NJ)

Improve and create habitat for three priority species in New Jersey: golden-winged warbler, northern bobwhite, and American black duck. Project will provide technical and financial assistance to private landowners enrolled in the Working Lands for Wildlife incentive program to continue work on landscape-scale conservation initiatives to rebuild and maintain healthy bird populations by advancing habitat creation and restoration. *\$217,351*

New Jersey Audubon Society

Native Ecosystem Restoration through Strategic Partnerships in Northern New Jersey

Restore a former wetland area that was historically ditched for agricultural purposes to its natural native ecosystem functionality. Project will be a model site for the community conservation education. *\$99,072*

New Jersey Audubon Society Restoring and Connecting Bog Turtle Habitat in the

Upper Salem River Watershed (NJ) Restore 50 acres of freshwater wetlands and

uplands with extant bog turtle populations in the Upper Salem River Watershed. Project will reach out to at least 200 landowners and farmers encouraging enrollment in conservation programs to benefit bog turtles, freshwater wetlands, and the watershed. *\$88,308*

North Jersey RCandD Area

Riparian and Habitat Restoration at Pequest Wildlife Management Area (NJ)

Enhance instream and wildlife habitat on 1.3 miles of stream within the Pequest River Wildlife Management Area, New Jersey. Project will restore important ecological function and resiliency to an area of regional significance, as well as improve outdoor recreational and educational opportunities within a 90-area wetland on protected public lands. Project results will be shared with conservation professionals and the public, serving as a model for a successful and collaborative restoration. *\$221,993*

Partnership for the Delaware Estuary Developing a Site-Based Decision Tool for Targeted Implementation of Living Shoreline Strategies (DE,

NJ) Refine and test a wetland decision support tool to prioritize sites for living shoreline construction in Delaware and New Jersey. Project will quantify sitespecific wetland conditions to develop a decision tool that will identify and prioritize intervention efforts to maximize conservation outcomes for living shorelines and resolve crucial data gaps to ensure living shoreline success. \$181,501

Pinelands Preservation Alliance

Delivering Green Stormwater Infrastructure through the South Jersey Landscape Makeover Program (NJ)

Expand the "South Jersey Landscape Makeover Program" in the Kirkwood Cohansey Cluster of the Delaware River Watershed Initiative. Project will bring together a team of local organizations to provide homeowners, landowners, and agricultural businesses rain garden rebates and funding to install green stormwater infrastructure for improved water quality in six main focus areas of the Kirkwood Cohansey Aquifer.

\$349,998

Pinelands Preservation Alliance

Reduction of Off-Road Vehicle Impacts to Protect Wildlife and Waterways in the Rancocas Watershed (NJ)

Reduce impacts of off-road vehicles to restore waterways and wetland and upland habitats in the Rancocas Watershed. Project will advance efforts of local conservation groups, municipalities, and state agencies to limit off-road vehicle access at key sites on public lands in Burlington County, New Jersey. \$63,150

Rutgers, The State University of New Jersey Implementing Green Stormwater Management Initiatives in the New Jersey Highlands

Improve and maintain water quality to support fish and wildlife in the New Jersey Highlands. Project will provide local municipalities with stormwater management plans to reduce flooding and improve water quality in the region. *\$175,363*

Rutgers, The State University of New Jersey Floodplain Habitat Design to Establish Green

Infrastructure Practices along Woodbridge River (NJ) Produce a floodplain restoration design and green infrastructure interventions that integrate ecological improvements to increase ecosystem function and reduce flood risk. Project will maximize resilience of communities within the Woodbridge River floodplain and improve habitat for wetland dependent species, including fish, breeding and migratory birds, and reptiles and amphibians. *\$175,023*

Rutgers, The State University of New Jersey Naturalizing Detention Basins to Enhance Habitat and Water Quality in Hamilton Township, New Jersey Improve the function of stormwater basins in Hamilton

Township, New Jersey. Project will contribute to the community's green infrastructure goals of enhancing wildlife habitat, improving groundwater recharge, and reducing pollutant loading to local waterways. *\$111,432*

South Jersey Land and Water Trust Improving Water Quality in the Muddy Run Watershed (NJ)

Implement green stormwater infrastructure in the Upper Muddy Run reach of the Maurice River watershed. Project will capture and infiltrate stormwater to reduce runoff, nonpoint source pollution and excess stormwater flows, install additional stream buffer plantings, and conduct landowner outreach to address water quality and water quantity concerns in the region. *\$149,981*

Sussex County Municipal Utilities Authority-Wallkill River Watershed Management Group Enhancing Green Infrastructure in the Upper Paulins Kill Watershed II (NJ)

Reduce the negative impacts of stormwater runoff from existing impervious surfaces on the surface waters, wetlands, and surrounding riparian floodplain areas, and ultimately improve the water quality of the Paulins Kill Watershed. Project will accelerate the construction of new green infrastructure projects on multiple public school properties in the Town of Newton with the support of local students (K - college) assisting through all aspects of project planning, construction, and maintenance.

\$238,023

The Nature Conservancy

Improving Spawning and Rearing Habitat for Alosines in the Delaware River Basin (DE, NJ, NY, PA) Advance a targeted in-depth assessment to improve aquatic connectivity for American shad and river herring in the Delaware River Basin. Project will evaluate barriers and habitats throughout the watershed to identify key sites for shad and river herring restoration, resulting in a "Restoration Road Map" which will provide recommendations on meeting funding needs and feasibility and opportunity for potential phasing projects. *\$175,101*

The Nature Conservancy

Improving Wildlife Habitat and Public Access in the Columbia Wildlife Management Area (NJ)

Restore the Paulins Kill channel and native floodplain forest after the removal of the Columbia Dam and a downstream remnant dam located in the Columbia Wildlife Management Area. Project will protect and enhance fish and wildlife habitat while providing compatible recreational and educational opportunities.

\$249,824

The Trust for Public Land Designing a Waterfront Schoolyard at Mastery High School (NJ)

Design an 11-acre waterfront schoolyard park, including 1,200 feet of riverfront at Mastery Schoolyard in Camden, New Jersey. Project will advance a plan to transform the currently fencedoff waterfront area into a learning landscape and destination for water access, resulting in a publicly accessible community space that provides new fish and wildlife habitat, reduces flooding, improves opportunities for recreation, and provides green job opportunities for the city. *\$125,000*

Trout Unlimited

Enhancing Aquatic Connectivity and Flood Resilience at Road Stream Crossings (NJ, PA)

Complete an assessment of road-stream crossings within priority eastern brook trout watersheds in the Delaware River basin of both Pennsylvania and New Jersey. Project will develop a prioritized road-stream crossing inventory to inform future cold-water habitat project selection, fill necessary knowledge gaps, and provide a baseline to monitor future projects to help improve eastern brook trout habitat connectivity and flood resilience throughout the Delaware River basin. *\$55,021*

Trout Unlimited

Lopatcong Creek Restoration (NJ)

Restore 2.4 miles of floodplain, riparian and habitat along Lopatcong Creek to address water quality degradation and a declining population of native eastern brook trout. Project will improve water quality, native eastern brook trout habitat, macroinvertebrate diversity, and recreational opportunities on protected public lands. *\$176,109*

University of Delaware

Examining the Effects of Modifications in the

Delaware River on Sturgeon Populations (DE, NJ, PA) Develop new bottom sediment maps for segments of the Delaware River using high-resolution, sidescan sonar imagery. Project will address areas of the Delaware River navigation channel that have recently been deepened, potentially impacting habitats for Atlantic and shortnose sturgeon. \$46,658

Wildlife Management Institute

Enhancing Forest Habitat in the Northern Delaware River Watershed (NJ, PA)

Implement forest management projects on protected private lands in the northern Delaware River watershed. Project will create healthy diverse forests which provide high quality forested habitat in multiple age classes, clean water, and public recreation. *\$249,917*

Wildlife Management Institute

Enhancing Forest Habitat in the Northern Delaware River Watershed- Phase II (NJ, PA)

Implement forest management plan activities on private lands in the northern Delaware River Watershed. Project will aid in the creation of young forest habitat, the enhancement of middle-aged and mature forest habitat, the control of native and exotic invasives, as well as expand partnerships to enhance work in northwest New Jersey *\$248.948*

NEW MEXICO

Eastern New Mexico University

Surveying Occupancy and Habitat Use of Rio Grande Cooter within the Pecos River Watershed (NM, TX)

Describe the occupancy and habitat use of Rio Grande cooter in the Pecos River and tributaries to support future conservation planning. Project will survey a 32 sites over two years at previously unexplored but assumed regions of species range to shed light on the occupancy and distribution of this poorly understood native aquatic species. *\$150,000*

Middle Rio Grande Conservancy District Developing a Water Leasing Pilot Program to Sustain Agriculture and Habitat in the Middle Rio Grande (NM)

Support development of a Rio Grande water leasing pilot program within the boundaries of the Middle Rio Grande Conservancy District. Project will develop processes and capacity necessary to implement a pilot leasing program, inventory water rights, support development of a water acquisition strategy, and conduct community outreach. *\$184,836*

National Audubon Society

Developing a Strategic Framework for Delivering Quality Southwestern Willow Fly Catcher Habitat (NM)

Leverage existing activities and technical capacity at Audubon New Mexico to maximize technical assistance for Natural Resources Conservation Service staff, landowners, and irrigation districts by hiring a field conservation professional. Project will provide a strategic framework for delivering quality southwestern willow fly catcher habitat and a strong foundation for improved conservation plans. *\$298,443*

RITORIES

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National Audubon Society

Program Development Support for Middle Rio Grande Native Water Leasing Pilot (NM)

Contribute to the design of a pilot water leasing program for native Rio Grande water rights within the boundaries of the Middle Rio Grande Conservancy District, to an inventory of water rights that may be candidates for voluntary water leasing under the pilot program, and to the characterization of potential environmental water delivery sites for riparian restoration activities benefiting the Rio Grande silvery minnow **\$627,339**

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Wildlife Refuge Association

Riparian Restoration on the Rio Hondo and Pecos River, Bitter Lake National Wildlife Refuge (NM) Remove invasives and restore riparian habitat on the Rio Hondo and Pecos River on Bitter Lake National Wildlife Refuge. Project will restore more than 20 miles of riparian habitat to benefit numerous native aquatic species, including Pecos gambusia, Pecos pupfish, and Rio Grande cooter. \$173,693

New Mexico Association of Conservation Districts Grassland Restoration for Improved Soil and Water Quality in the Delaware Basin Watershed (NM)

Improve aquatic health and function in the Black and Delaware Rivers by restoring upland grasslands and revegetating riparian zones with native species. Project will benefit water quality and maintain and enhance habitat for Texas hornshell mussel, Bell's vireo, and wintering grassland birds including Sprague's pipit and chestnut-collared longspur. \$485,000

New Mexico Association of Conservation Districts New Mexico Southeast Plains Pronghorn Grassland Habitat Restoration

Enhance over 500,000 acres of habitat for use by pronghorn in Chaves and Eddy counties, New Mexico through restoration of Chihuahuan Desert grassland and livestock fence modifications to facilitate pronghorn migration across ranches and pastures. Project will restore 5,930 acres of grassland habitat through mesquite brush control and install 15 miles of pronghorn-friendly fencing. *\$200,000*

Pheasants Forever

Grassland Habitat Restoration Benefiting the Lesser Prairie Chicken (CO, KS, NM, OK, TX)

Support staff working with the Natural Resources Conservation Service's Lesser Prairie Chicken Initiative as the initiative evolves over time and through any potential changes in the next Farm Bill. Project will restore grassland habitat throughout the full potential range of the lesser prairie chicken which includes parts of Texas, Oklahoma, New Mexico, Colorado, and Kansas. *\$198,367*

Rancho Santa Ana Botanic Garden Range-wide Genetic Diversity of Sneed Pincushion Cactus: Genetic Basis for Taxon Recognition (AZ, NM, TX)

Conduct a study to genetically characterize the federally endangered Sneed pincushion cactus, endemic to the Chihuahuan Desert mountains of southwestern Texas and southern New Mexico. Project will clarify the relationships among the isolated populations, determine whether distinct elements are present, provide needed insight for consultations and management decisions, and meet goals outlined in the Recovery Plan for Lee and Sneed pincushion cacti. *\$80,000*

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Rocky Mountain Youth Corps Rocky Mountain Youth Corps Workforce Development and Forest Restoration (NM)

Provide forestry training and chainsaw certifications to 48 under-served youths organized in six crews in order to remove overgrown forest fuels at two locations within the Questa Ranger District of the Carson National Forest. Project will enhance the professional qualifications of minority and under-served youths by providing them with training for the most recognized entry-level forestry certifications.

\$100,000

Rocky Mountain Bird Observatory Monitoring Wintering Grassland Birds in the Chihuahuan Desert: Phase 3 (NM, TX)

Apply a rigorous sampling protocol to estimate the density and/or occupancy of wintering grassland birds in the Chihuahuan Desert, including Sprague's pipit and chestnut-collared longspur. Project will implement a monitoring program developed in phases 1 and 2 over two winter seasons (2019-2020 and 2020-2021) in order to produce robust baseline estimates of wintering bird populations and evaluate the impact of ongoing grassland restoration investments. *\$300,000*

Talking Talons Youth Leadership Tijeras Creek Watershed Protection through Stewardship Education (NM)

Restore and protect the Tijeras Creek Watershed by providing watershed protection education through classroom sessions, field trips, teacher workshops and stewardship sessions. Project will remove invasive species such as Siberian elm and toadflax on 5 acres, plant 75 trees and engage 955 youth, teachers, and community members. *\$49,156*

Taos Land Trust Rio Fernando Wetlands and Riparian Habitat Restoration and Education (NM)

Restore 7 acres of riparian habitat and wetlands and remove 20 acres of noxious weeds and trees in the Rio Fernando de Taos watershed. Project will engage 250 youths and community members and six collaborative partners to remove 350 Russian olive trees and plant 500 native trees and shrubs, creating a public demonstration for wetlands and ecological restoration at the Rio Fernando Park. *\$30,000*

Texas A&M University-Kingsville

Native Seeds Development and Outreach for Grassland Restoration in the Trans-Pecos Region (NM, TX)

Develop ecotypic native seed sources for the Pecos River watershed and West Texas region to support successful grassland restoration. Project will address limitations to native grassland habitat restoration through outreach and technical assistance to landowners, energy operators, and related contractors reseeding in the watershed, by expanding an established native seed research and development program, and by collaborating with the commercial seed trade to expand seed source availability.

\$186,538

Texas A&M AgriLife Research

Genomics and Ecology of Desert Massasauga in the Pecos River Watershed (NM, TX)

Evaluate the genetic relationships among populations of desert massasauga, which has been petitioned for listing under the Endangered Species Act, and prairie massasauga, which has no federal listing status, in the Pecos River watershed. Project will conduct research to determine the taxonomic identity of desert massasauga populations in the Pecos River watershed to inform future conservation actions. *\$121,600*

World Wildlife Fund

Updating Plowprint to Identify Grassland Restoration Opportunities (CO, IA, KS, NE, NM, OK)

Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the bestavailable data to track rates of cropland conversion, monitor the status of previously converted lands, and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region. *\$61,628*

NEW YORK

Adelphi University

Bioextraction of "Gold Coast" Kelp in the Oyster Bay Complex (NY)

Analyze growth of and the potential for bioextraction of pollution by sugar kelp in Long Island's Gold Coast in the Oyster Bay Complex, New York. Project will aim to maximize the growth of kelp as a natural systems approach to bioextract pollution and enhance the marine environment in Long Island Sound and its harbors and embayments. \$103,917

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges. *\$469,482*

Buffalo Niagara Waterkeeper

Restoring an Urban Wetland along Cayuga Creek to Improve Habitat and Mitigate Flooding (NY)

Apply green infrastructure solutions by reconnecting Cayuga Creek to its historic floodplain, improving urban wetland habitat, mitigating flood volumes, controlling invasives, and strategically planting native trees within an undeveloped parcel located in the Town of Niagara, New York. Project will add 1.28 million gallons of stormwater storage annually, improve water quality, restore fish and wildlife habitat, and increase habitat resilience to future extreme weather events.

\$326,829

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Chesapeake Bay Trust

Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale.

\$1,200,000

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed. *\$125,000*

Cornell Cooperative Extension of Suffolk County Assessing and Removing Derelict Lobster Gear in Long Island Sound (CT, NY)

Remove 3,640 derelict lobster pots from Long Island Sound using a specialized grapple system. Project will implement a program with local lobster fishermen to remove abandoned gear to reduce debris in the sound and ghost fishing impacts to the depleted Southern New England lobster stock. \$133,697

Delaware River Basin Commission

Creating a Web-Based Habitat Model for the Upper Delaware River (NJ, NY, PA)

Enhance previously developed models for measuring habitat changes resulting from regulated flow and temperature mitigation efforts in the Upper Delaware River. Project will upgrade current models and provide an easily accessible, web-based system to accommodate new research, additional species, and expanded spatial domain. *\$128,750*

Friends of Hudson River Park

Hudson River Park Plastic Marine Debris Removal and Education Program (NY)

Restore 400 in-water acres of the Hudson River that are encompassed and maintained by Hudson River Park. Project will reach 900 community members through an established community volunteer marine debris cleanup program, which has developed a plastic marine debris curriculum that is offered among the Park's K-12 environmental education programs. \$40,472

Friends of Iroquois National Wildlife Refuge Fishing for the Future:

Recreational Access to Ringneck Marsh (NY)

Create an federally compliant fishing dock and improve water access for refuge visitors. Project will provide new and improved fishing opportunities for visitors and provide aquatic education opportunities for students.

\$3,500

Friends of the Upper Delaware River Enhancing the New York-Pennsylvania Joint Fisheries Investigation Plan (NY, PA)

Expand the New York-Pennsylvania Joint Fisheries Investigation Plan through integration of high definition stream survey data. Project will improve this regional plan to inform future fisheries management and restoration decisions in the Upper Delaware River Tailwaters. *\$249,998*

Friends of the Upper Delaware River Improving Trout Habitat and River Access in the Upper Delaware River Watershed (NY)

Implement four stream restoration and enhancement projects, install habitat improvement structures, provide stream bank stabilization and floodplain reconnection, and improve stream side fishing access with the construction of a publicly accessible boat launch. Project will improve water quality, improve trout spawning habitat, enhance flood mitigation, and create new public access points and recreational opportunities for fishing and boating. *\$249,998*

Friends of the Upper Delaware River Implementing Integrated Restoration Objectives in the Upper Delaware River (NY)

Implement five stream restoration and enhancement projects, including remnant dam removal, culvert replacement, installing habitat improvement structures, floodplain reconnection, and improvement of a stream side public park. Project will improve water quality and trout spawning habitat, expand fish passage, enhance flood mitigation, and create new public access points and recreational opportunities for hiking and birdwatching.

\$249,999

Friends of the Upper Delaware River Managing Invasive Knotweed for Habitat

Enhancement in the Upper Delaware River (NY, PA) Develop a collaborative and strategic management plan with demonstration sites in public, regionally significant areas of the Upper Delaware River Watershed to limit further spread of invasive knotweed to restore native riparian habitat. Project will include outreach efforts to streamside landowners to encourage invasives species management. \$249,994

Guardians of Flushing Bay Enhancing Community Education and Stewardship in Flushing Bay (NY)

Construct a living dock and develop the Flushing Waterways stewardship kit in Flushing Bay and Creek, Queens, New York. Project will engage environmental stewardship of Flushing Bay, an urban tidal embayment of Long Island Sound. \$48,250

Long Island Community Foundation Development and Delivery of the Long Island Sound Community Stewardship Fund (CT, NY)

Develop and deliver the Long Island Sound Stewardship Fund, a pooled competitive grant program of the Long Island Sound Funders Collaborative managed by the Long Island Community Foundation in the Long Island Sound Study boundaries of New York and Connecticut. Project will advance an existing and expanding partnership with the Long Island Sound Funders Collaborative and the U.S. Environmental Protection Agency around the common mission of restoring and protecting the health and living resources of Long Island Sound based upon the 2015 Comprehensive Conservation and Management Plan. **\$100,000**

Long Island Community Foundation Delivery of the Long Island Sound Community Stewardship Fund Program II (CT, NY)

Deliver the Long Island Sound Stewardship Fund of the Long Island Sound Funders Collaborative (LISFC) in the Long Island Sound Study boundaries of Connecticut and New York. Project will enhance the partnership between LISFC and the U.S. Environmental Protection Agency around the common mission of restoring and protecting the health and living resources of the Sound based upon the Long Island Sound Comprehensive Conservation and Management Plan. *\$100,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

National Audubon Society

Coastal Habitat Restoration Planning for Salt Marsh and Nesting Birds in Long Island Sound (CT, NY)

Assess and identify priority high salt marsh restoration sites along the coast of Long Island Sound in Connecticut and New York. Project will set the stage to restore salt marsh that buffers coastal communities from storms and provides habitat for nesting bird species such as salt marsh sparrow through effective coastal management planning. *\$50,498*

National Audubon Society Preventing Human Disturbance of A

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

UNITED STATES AND U.S. TERRITORIES

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. **\$249,161**

New England Interstate Water Pollution Control Commission

Developing a Management Plan for a Subwatershed of Long Island Sound in Westchester County (NY)

Update the Pine, Stephenson and Burling Brooks, and Larchmont Harbor subwatershed management plan in Westchester County, New York. Project will ensure that the causes and sources of non-point source pollution are identified, key stakeholders are involved in the planning, and restoration and protection strategies are developed that address local and Long Island Sound water quality problems. *\$100,000*

New York State Office of Parks, Recreation, and Historic Preservation

Restoring Habitat and Removing Invasives in Cayuga Lake Tributary Gorges II (NY)

Maintain and protect the ecology of three gorges and stream ecosystems in Ithaca and Trumansburg, New York by surveying and treating invasives. Project will restore 77 acres of habitat and protect 11.4 miles of tributaries of Cayuga Lake from pale swallowwort, Japanese knotweed, porcelainberry, and phragmites. *\$206,456*

Orange County Land Trust Lower Bashakill Restoration Project (NY)

Restore areas of open hay field on a permanently protected preserve in the floodplain of the Basher Kill in the Upper Delaware River Watershed. Project will restore 17 acres of floodplain forest and emergent wetland in areas of the property that are most hydrologically connected to existing wetlands, create 900 feet of riparian buffer along the Basher Kill, and include at least 50 local volunteers in restoration efforts. *\$54,722*

Pace University

Green Infrastructure and Coastal Resilience Planning in Long Island Sound Coastal Communities (NY)

Deliver a leadership education program for municipal officials focused on local land use planning to encourage the use of a combination of green infrastructure and coastal resilience practices in Westchester County, New York. Project will integrate innovative planning that provides the co-benefit of improving local water quality and enhancing community resilience to storms, floods and sea level rise. **\$46,521**

Rockaway Waterfront Alliance Marine Conservation Corps for the Long-term Stewardship of Jamaica Bay (NY)

Train 40 young people to restore 11.5 acres of a critical coastal environment to improve water quality and habitat for endangered and priority species. Project will engage local private and public partners and 600 volunteers through community stewardship efforts to plant 10,000 sprigs of grasses, remove 1,500 pounds of shoreline debris and invasive species along 11.5 acres, and monitor oyster reefs to monitor water quality. *\$40,436*

Salonga Wetland Advocates Network

Long Island Sound's Fresh Pond Festival (NY) Conduct a festival and shoreline cleanup in Fort Salonga, New York. Project will increase public awareness of and commitment to restoration and protection of the environment of Long Island Sound. \$5,700

Sullivan County

Improving Resiliency at the Town of Highland River Access Point (NY)

Reconstruct the Highland Access Point on the Upper Delaware River by restoring native plants and installing bioswales and pervious pavement. Project will replace the river access point with a more gently sloping and stabilized path, provide educational information about the on-site best management practices, and install facilities for temporary boat and bicycle storage. *\$250,000*

The Nature Conservancy

Delivery of the Septic Improvement Program in Long Island Sound Watershed Communities (CT, NY) Support delivery of the Suffolk County Septic Improvement Program by engaging and assisting homeowners with all elements of the program to foster installation of modern on-site septic systems and share lessons learned with Nassau and Westchester Counties in New York and with one local government in Connecticut. Project will expedite the installation of 40 advanced septic systems reducing nitrogen loads into Long Island Sound by 1,000 pounds annually. *\$175,000*

The Nature Conservancy

Improving Spawning and Rearing Habitat for Alosines in the Delaware River Basin (DE, NJ, NY, PA) Advance a targeted, in-depth assessment to improve aquatic connectivity for American shad and river herring in the Delaware River Basin. Project will evaluate barriers and habitats throughout the watershed to identify key sites for shad and river herring restoration, resulting in a "Restoration Road Map" which will provide recommendations on meeting funding needs and feasibility and opportunity for potential phasing projects.

\$175,101

The Nature Conservancy

Stream Restoration and Brook Trout Habitat Improvement in the Cohocton River (NY)

Improve two culverts, conduct streambank restoration on a key tributary, and increase river management capacity training and continuous water quality monitoring to inform strategic interventions in the watershed. Project will improve brook trout habitat and increase connectivity to and between already identified high-quality eastern brook trout habitat.

\$178,076

The Trust for Public Land Establishing Callicoon Riverside Park (NY)

The Callicoon Riverside Park project will protect and provide public access to 47.5 acres of forest and fields, including 4,000 feet of riverfront, along the Upper Delaware River in the hamlet of Callicoon, New York. Project will transform a dilapidated recreational vehicle park into a public park to protect important fish and wildlife habitat, enable floodplain and riverfront restoration, guarantee access, and create new recreational opportunities on the land and along the river. *\$187,526*

The Trust for Public Land

A Green New York City Playground for Public School 296Q and the Elmhurst Community (NY)

Deploy green infrastructure on a school playground at Public School 296Q in Elmhurst, Queens, New York. Project will enhance outdoor recreational green space and capture 1.5 million gallons of stormwater annually before it flows into Flushing Bay and Long Island Sound. *\$191,755*

The Whaling Museum Society Sound Effects: A Public Conservation Education Program – II (NY)

Design and host a public education series for 300 adults, families, and elementary school students with hands-on learning and conservation activities in Cold Spring Harbor, New York. Project will foster appreciation of Long Island Sound among a diverse range of people who will gain a stronger understanding of their impact on and need for stewardship of the Sound. *\$9,865*

Tioga County Soil and Water Conservation District of New York

Expanding Engagement in the Upper Susquehanna Coalition Buffer Program (NY, PA)

Expand and engage new partners and populations in the Upper Susquehanna Coalition Buffer Program. Project will build outreach opportunities and engage populations that have yet to be engaged in pilot projects incorporating riparian restoration, livestock exclusion, agricultural land retirement, green infrastructure, and natural stream corridor restoration. *\$200,000*

Tioga County Soil and Water Conservation District of New York

Sustainable Streamside Buffer Establishment in the Upper Susquehanna (NY)

Support the Upper Susquehanna Coalition Buffer Program to plant additional riparian buffer acreage and facilitate management on riparian buffer practice acres. Project will educate and manage riparian buffer stewards to evaluate and assess buffers throughout the watershed to determine plant survival and management needs and to facilitate management activities. *\$200,000*

Town of Brookhaven Managed Retreat and Ecological Restoration of

Southern Mastic Beach (NY)

Develop design plans for the restoration of coastal saltmarsh and scrub shrub habitat along southern Mastic Beach in New York. Project will prepare for restoration of a reclaimed floodplain to a healthy native salt marsh and maritime scrub-shrub/forest community to provide a buffer from future flooding for inland residential communities. *\$149,736*

Town of Brookhaven

Oyster Planting to Improve Water Quality in Long Island Sound (NY)

Plant 200,000 American oysters to assess their potential to remove nitrogen, phosphorus and carbon pollution from waters and repopulate a historical fishery in Port Jefferson Harbor, New York. Project will remove at least 130 pounds of nitrogen from the harbor, reduce abundance of harmful bacteria and algae, and improve water quality for fish, birds, and other organisms that live in Long Island Sound. **\$92,474**

Trout Unlimited

Implementing the Upper Delaware River Stream Corridor Management Plan II (NY)

Guide targeted instream and riparian restoration to increase habitat quality and diversity for thermal refuge, spawning, feeding, and cover for native and wild trout. Project will advance a fiber optics thermal technology study in the Upper Delaware River and develop a management plan to address priority sites, including a survey of 541 stream crossings, to inform final designs that will address strategic needs.

\$249,072

Trout Unlimited

Improving Trout Habitat Connectivity in the Town of Delhi (NY)

Remove and replace two antiquated culverts in the Town of Delhi, New York. Project will be designed to allow trout access to 3 miles of high-quality habitat. Project will additionally stabilize a streambank in the town that is causing excessive sedimentation. *\$249,758*

Trout Unlimited

Improving Aquatic Habitat Connectivity in the Towns of Deposit and Colchester (NY)

Replace a failing town culvert in the Town of Colchester and stabilize ecologically significant streambanks along a local road in the Town of Deposit. Project will support the goals of the Upper Delaware River Stream Corridor Management Plan in New York to restore habitat for high-quality trout streams.

\$239,509

University of Maryland Center for Environmental Science

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states) Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for non-tidal watershed areas and indicators for social, cultural, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project.

\$82,678

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds.

\$999,942

Village of Sea Cliff, New York Hempstead Harbor 2020 Water Quality Monitoring Program XII (NY)

Conduct water quality monitoring in Hempstead Harbor, Nassau County, New York. Project will inform management of Hempstead Harbor an embayment of Long Island Sound. *\$75,000*

NORTH CAROLINA

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

College of William and Mary

Full Life-cycle Conservation for Whimbrels on the Western Atlantic Flyway (multiple states)

Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring to serve as a metric of success, map critical whimbrel sites to focus onthe-ground management, and improve conditions within critical sites.

\$148,763

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states) Develop a methodological framework to use citizen

science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

National Audubon Society Increasing Landowner Engagement in Goldenwinged Warbler Conservation (NC)

Increase the capacity for private land biologists to assist with landowner engagement and recruitment into the Working Lands for Wildlife initiative. Project will increase landowner participation in conservation of the golden-winged warbler and strengthen the relationship between the Natural Resources Conservation Service and the National Audubon Society.

\$165,350

National Audubon Society

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Wildlife Federation

Longleaf Restoration on Private Lands in the North Carolina Sandhills III (NC)

Advance longleaf pine establishment, application of prescribed fire, and longleaf pine restoration on private lands, which will benefit longleaf pine and grassland adapted bird species, such as Bachman's sparrow and northern bobwhite. Project will engage 450 landowners through the North Carolina Sandhills Prescribed Burn Association including workshops, field days, and one-on-one relationship development, resulting in more than 8,500 acres of prescribed burning and 800 acres of longleaf pine planted on private lands.

\$290,000

North Carolina Coastal Federation Living Shorelines for North Carolina Coastal

Communities Construct living shorelines at two coastal locations to protect the entrance channels of harbors and historic shorelines of coastal North Carolina. Project will naturally stabilize and protect the eroding shorelines to maintain existing navigation channels, prevent flooding, and build fisheries habitats. \$1,038,538

The Forest Stewards Guild Managing Bottomland Hardwood Forests for Wildlife (NC, SC)

Enhance and maintain bottomland hardwood forests in the coastal plain of North and South Carolina to benefit migratory songbirds, such as prothonotary warbler and cerulean warbler. Project will create demonstration sites on U.S. Fish and Wildlife Service Refuges and engage private landowners through workshops and field days, resulting in forest management plans developed for 4,000 acres and 1,200 acres of bottomland hardwoods enhanced on public and private lands. *\$144,688*

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments.

\$150,000

The Nature Conservancy

Cape Fear Arch Longleaf Initiative IV (NC)

Restore and enhance longleaf pine and bottomland hardwood forest habitats in eastern North Carolina, benefiting birds such as red-cockaded woodpecker and Bachman's sparrow, and amphibians such as Carolina gopher frog. Project will plant 360 acres of longleaf pine and enhance more than 16,000 acres of existing longleaf pine habitat through prescribed burning and other treatments. Partners will continue to build public understanding and support for prescribed burning, reaching more than 10,000 citizens through two fire festivals. \$319,998

The Nature Conservancy Fire Mentoring Program (AL, FL, GA, NC)

Hire eight young adults to create mobile forestry technician crews that will assist U.S. Forest Service timber managers by performing 15,000 acres of prescribed burns and accelerating timber harvest of thousands of acres of planted, offsite pine plantations to replace with longleaf pine. Project will assist the Forest Service with recruiting quality. diverse candidates, and experienced fire technicians to meet capacity needs to carry out ecological prescribed burns to manage and restore longleaf pine.

\$118,500

The Nature Conservancy

Restoring Great Dismal Swamp to Improve Flood Resilience and Wetland Habitat (NC)

Restore forested wetlands within a portion of Great Dismal Swamp National Wildlife Refuge which were previously ditched and drained for logging roads to increase precipitation storage capacity and slow the runoff rate towards communities after storm events. Project will restore 12,000 acres and improve the hydrologic conditions supportive of the oncediverse wetlands while simultaneously improving the resilience of adjacent, low elevation, agricultural and residential areas to flooding. \$250,000

U.S. Department of Agriculture, U.S. Forest Service Croatan Ranger District Red-cockaded Woodpecker (RCW) Recovery Effort – Hurricane Florence (NC)

Install 150 artificial cavity inserts on the Croatan National Forest in North Carolina to replace the redcockaded woodpecker (RCW) cavity trees destroyed by Hurricane Florence and expand their availability in order to help stabilize the RCW population. Project will complete field assessments for the remaining known RCW clusters on the National Forest to determine the extent of damage and additional recovery needs. \$53,728

NORTH DAKOTA

Ducks Unlimited

Agricultural and Biological Technical Assistance for Landowners Using Healthy Soil Practices (ND) Increase biological support for healthy soil practices with a new agronomist position that will build soil health, enhance productivity of croplands and grasslands, and increase operational sustainability in North Dakota. Project will provide agricultural technical assistance for landowners interested in conservation programs that assist with grazing infrastructure on cropland acres. \$276,388

Ducks Unlimited

Refinement and Implementation of the Conservation Guidance Directory for Grassland Birds (ND, SD)

Enhance, promote, and apply Ducks Unlimited's Conservation Guidance Directory database to inform efforts to stem declines in the quality and quantity of grassland habitat in the core of grassland bird diversity in the Northern Great Plains. Project will refine and promote the use of this database tool for private lands biologists, producers, stakeholders, and funders through a web-based platform that sets priorities and develops habitat projects and will implement demonstration projects on a minimum of 8,500 acres. \$82.502

National Audubon Society

Technical Assistance for Conservation Ranchers in Eastern North and South Dakota

Create an Audubon range ecologist position to support bird-friendly land management practices in eastern North Dakota and South Dakota. Project will expand technical assistance and market connections to enrolled Audubon conservation ranchers. \$167,204

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. \$249.161

North Dakota Grazing Lands Coalition Providing Technical Capacity and Improved Management on Private Lands in North Dakota Expand capacity, education, and outreach programs focused on the conservation of North Dakota grasslands and the plant and wildlife species that are dependent on them, including grassland nesting passerines, pronghorn and greater sage-grouse. Project will result in 50,000 acres under improved management.

\$250,000

North Dakota Natural Resources Trust Providing Technical Assistance for Prairie Landowners to Benefit Declining Bird Species (ND)

Provide administrative support for two existing programs that assist producers with the infrastructure needed to transition idle grass to healthy grasslands utilized in their operations by planting native grasses and forbs in previously cropped acres, removing invasive trees from prairie, and reclaiming previously disturbed sites. Project will result in 15,000 acres under improved management and 2,000 acres restored. \$250,000

North Dakota Natural Resources Trust Technical and Financial Capacity Assistance for Working Grassland Habitat Conservation (ND, SD) Restore, enhance, and protect at least 7,500 acres of priority grassland habitat areas in the core of grassland bird diversity in the Northern Great Plains. Project will compare landscape changes and areas of highest threat of farmland conversion with species distribution models to identify the areas of greatest conservation need. \$79,500

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation. \$60.000

UNITED

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CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

City of Barberton

Deploying Smart Technology to Support Sustainable Living Along Barberton's Water Corridor (OH) Deploy remote sensors designed to monitor water levels for flood detection in targeted locations along the Tuscarawas River. Project will engage 100 engineering students to assist the communities in green infrastructure, public safety, and emergency management while also aiding citizens with early flood detection to mitigate negative impacts of flooding.

\$31,820

Cleveland Metroparks

Installing Green Infrastructure to Reduce Stormwater Runoff in Brookside Reservation (OH) Install and maintain four vegetated bioretention cells to manage surface runoff and sheet flows from a 3.2 acre impervious public parking lot adjacent to Big Creek in Brookside Reservation, Cleveland, Ohio. Project will reduce stormwater runoff into Big Creek, a tributary of the Cuyahoga River, by 2.5 million gallons per year and increase infiltration by 58 percent. \$137,500

Friends of the Ohio River Islands National Wildlife Refuge Building Capacity of the Friends of Ohio River Islands National Wildlife Refuge (OH)

Increase capacity and participation through an educational and inspiring outreach event. Project will include a set of smaller events designed to foster ongoing appreciation of the Friends group and the refuge to increase organization capacity. *\$6,080*

Madison SWCD

Supplying Landowner Resources to Create Northern Bobwhite Habitat and Improve Water Quality (OH) Provide technical assistance, lead outreach, and distribute educational materials to connect landowners with the resources they need to create northern bobwhite habitat, improve water quality, and conserve their natural resources. Project will create habitat conservation plans with recommended best management practices catered to local landowners to promote northern bobwhite quali habitat connectivity and improved water quality to aid the aquatic species in the creeks and rivers. \$73,950

National League of Cities Institute Leadership in Community Resilience Program III

(multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

National Wildlife Federation Building Capacity for Public Participation in Stormwater Management in Toledo (OH)

Establish native plant habitat and rain gardens in community spaces and at residences throughout the broader community. Project will reduce local flooding and stormwater overflows and improve water quality in the Western Lake Erie basin. The project also will engage 4,500 people to build a self-sustaining network of community members committed to environmental improvement. *\$29,359*

The Nature Conservancy

Conserving Rare Lakeplain Oak Openings Habitat through Invasive Species Management (OH)

Conduct invasive species removal and prescribed burns to enhance and maintain Lakeplain Oak Openings habitats in Northwestern Ohio. Project will reduce persistent or re-invading primary invasive species, control secondary invasive species that have colonized sites post-initial treatment, and improve vegetative structure, species diversity, and habitat quality over 2,400 acres. *\$269,000*

Western Reserve Land Conservancy Treating Invasive Species and Replanting Native Vegetation to Restore Bay Point Coastal Wetland (OH)

Improve more than 34 acres of coastal wetland habitat structure and quality, utilizing both invasive control and native species planting in the Bay Point coastal wetland in the Village of Marblehead in Ottawa County, Ohio. Project will design and implement a restoration plan to enhance and restore coastal wetlands benefiting priority migratory shorebirds and waterfowl. *\$100,000*

Western Reserve Land Conservancy Restoring the Urban Forest in Cleveland's Emerald Valley to Reduce Stormwater Runoff (OH)

Transform a former landfill into Emerald Valley park in Cleveland, Ohio to reduce stormwater runoff. Project will restore the urban forest with 1,000 native species trees and meadow habitat, install a green infrastructure project, and remove invasive species along the Big Creek. *\$187,000*

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OKLAHOMA

Cornell University Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

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Pheasants Forever

Grassland Conservation through the Implementation of the Audubon Conservation Ranching Program (OK)

Bring successful grassland stewardship programs through an Oklahoma state coordinator to positively impact multiple grassland obligate species and support the economic stability of rural communities through cattle production. Project will combine conservation technical assistance expertise with the Audubon's Conservation Ranching Program to deliver a one-stop-shop for grassland conservation and ranching stewardship. *\$299,320*

Pheasants Forever

Grassland Habitat Restoration Benefiting the Lesser Prairie Chicken (CO, KS, NM, OK, TX)

Support staff working with the Natural Resources Conservation Service's Lesser Prairie Chicken Initiative as the initiative evolves over time and through any potential changes in the next Farm Bill. Project will restore grassland habitat throughout the full potential range of the lesser prairie chicken which includes parts of Texas, Oklahoma, New Mexico, Colorado, and Kansas. *\$198.369*

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

World Wildlife Fund Updating Plowprint to Identify Grassland

Restoration Opportunities (CO, IA, KS, NE, NM, OK)

Update 'Plowprint' a geospatial data analysis tool used to evaluate landscape change metrics for the Great Plains ecoregion by using the bestavailable data to track rates of cropland conversion, monitor the status of previously converted lands, and identify remaining intact habitat. Project will use the updated analysis to identify and prioritize blocks of plowed land with restoration potential which will add efficiency to future conservation and restoration work in the region. *\$61,628*

OREGON

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Confederated Tribes of the Umatilla Indian Reservation Water Rights Accord FY20 (OR, WA)

Work with The Freshwater Trust, Trout Unlimited, and Washington Water Trust to support and develop water transactions. Project will improve habitat and water quality for native fish, including salmon and federally listed steelhead trout. *\$167.250*

Deschutes River Conservancy Deschutes Basin Streamflow Restoration (OR)

Restore streamflow in Oregon's Deschutes Basin through water transactions. Project will improve habitat and water quality for native fish, including salmon and federally listed steelhead trout. *\$225,000*

Ecology in Classrooms and Outdoors Restoring Wetlands and Educating Youth Within Willamette Basins Watersheds (OR)

Restore 23 acres of wetlands within Willamette Basins watersheds, located in the greater Portland urban area. Project will engage 560 students from high-need urban schools and 20 teachers, who will carry out on the ground wetland restoration and participate in classroom and field-based conservation education.

\$29,689

General Klamath Tribal Administration

Investigating Nutrient Loading from Wood River to Inform Water Quality Improvement Projects (OR) Collect and analyze flow and nutrient load data for major Wood River tributaries and canals to inform development of water quality improvement projects. Project will collect water samples and flow measurements biweekly at ten tributary stations during the 2019 sampling season (April 2019 – December 2019) and perform laboratory analyses at the Klamath Tribes' Sprague River Water Quality Lab. \$50,000

General Klamath Tribal Administration

Klamath Tribes Aquatics Program Base Support (OR)

Cover the salaries and fringe of 13 positions (11.25 FTE) within the Aquatics Program of the Klamath Tribes' Natural Resources Department during FY2020 and part of FY2021, in addition to purchasing a field vehicle. Project will enhance the Tribe's mission to monitor, restore, and enhance aquatic resources. \$1,000,000

MidCoast Watersheds Council

Barrier Removal in the North Creek Basin to Restore Fish Passage (OR)

Replace an undersized, failing culvert with an 50 foot spanning open bottom culvert that will allow full upstream access to 3.4 miles of Oregon Coast Coho salmon habitat, including 2.37 miles designated critical habitat, 5.4 miles of winter steelhead habitat, and 13 miles of sea-run cutthroat trout habitat. Project will provide juvenile rearing habitat, naturally recruited large woody debris, shade cover, and cold water refuge sites. *\$50,000*

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

UNITED STATES AND U.S. TERRITORIES

Oregon Water Resources Department Assisting Oregon Qualified Local Entities in Water Transactions (OR)

Provide assistance on water transactions for proposed streamflow restoration projects, including instream transfers, instream leases, and allocations of conserved water. Project will ensure the conditions specified in final orders are monitored and, when necessary, enforced through regulation to protect all instream flows.

\$80,000

Oregon Water Resources Department Sandy River Basin Watershed Council Floodplain Reconnection to Restore Wild Salmon

Habitat and Enhance Community Resilience (OR)

Restore 418 acres along 1 mile of floodplain and enhance instream habitat to bolster resilience from intensification of storms and streambank erosion. Project will restore conditions for threatened wild salmon and steelhead while increasing resiliency of surrounding community infrastructure. \$960,660

The Freshwater Trust

Innovate Transactions to Restore Flow in Oregon -FY20

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\$225,549

Tillamook Estuaries Partnership

Tillamook River Engineering and Design for Community Protection and Wetland Recovery (OR) Plan an emergency ingress and egress route and prepare to restore 73 acres of coastal wetland habitat in the Tillamook Bay estuary of Oregon. Project will complete the designs for restoration of critical habitat for recovery of the threatened Oregon Coast coho salmon and 17 other federal or state species of concern while maintaining a critical evacuation route for the community. \$92,238

Trout Unlimited

Comprehensive Watershed Restoration and Stream Reconnection in the Clearwater and Grande Ronde Watershed (ID, OR)

Restore habitat and stream connectivity projects in two Snake River watersheds through a combination of Aquatic Organism Passage restoration, wood installation, and floodplain reconnection projects. Project will restore natural hydrologic processes and increase resiliency for populations of trout, salmon, Pacific lamprey and other native fish species. Project will also improve access to 8 miles of habitat, restore water quality and habitat, and increase spawning success. \$58,500

Trout Unlimited

Lahontan Cutthroat Trout Core Grant 2019 (CA, NV, OR)

Continue to address the needs identified in the Lahontan Cutthroat Trout (LCT) Business Plan by providing range-wide facilitation, genetic assessment and research to guide LCT management, validation of non-native trout eradication for LCT reintroduction projects, staff support, hatchery security, and a barrier assessment to secure a stream population of LCT. \$603,373

Trout Unlimited

West Canal Water Quality Treatment Design (OR)

Improve water quality conditions in Upper Klamath Lake for the benefit of endangered Lost River and Shortnose sucker, Redband Rainbow Trout, and other native fish and aquatic species. Project will produce a design for separating nutrient rich irrigation tailwater in West Canal from Sevenmile Creek.

\$84,376

U.S. Geological Survey

Trout and Drought: Quantifying Sensitivity of Lahontan Cutthroat Trout Streams (CA, NV, OR)

Analyze field data to evaluate the sensitivity of extant and future populations of Lahontan Cutthroat Trout to temperature and drought conditions in critical streams range-wide. Project will produce results to will inform future recovery strategies. \$121,354

PENNSYLVANIA

Alliance for the Chesapeake Bay Expanding Forest Stewardship Networks Among Family Woodland Owners in Pennsylvania

Expand the Woodland Stewardship Network Program in central Pennsylvania to further demonstrate the value of stewardship networks for small and medium forest landowners by offering technical assistance to increase landscape-scale management. Project will increase the adoption of forest management plans that meet Natural Resource Conservation Service criteria on 3.000 acres and implement best management practices that increase populations of cerulean warbler, golden-winged warbler, and American woodcock. \$199,711

Alliance for the Chesapeake Bay

Nestle Agriculture and Dairy Conservation Initiative (MD, PA, VA)

Pilot the planning and implementation of agriculture conservation practices with six Nestle farmers to build a model to scale implementation to the entire 900 farms that supply milk to the company in the Chesapeake Bay Watershed. Project will lay the ground work for building a watershed-wide conservation program to support the farmers that supply to Nestle.

\$200,000

Alliance for the Chesapeake Bay Pennsylvania Lawn Conversion Program

Convert 60 pilot acres with urban forest planting and conservation landscaping best management practices. Project will develop a Lawn Conversion Program in Pennsylvania that can be carried and expanded by the commonwealth through the year 2025 through training practitioners, generating outreach materials, and starting an advisory committee to pilot implementation in south-central Pennsylvania.

\$199,942

Alliance for the Chesapeake Bay

Strengthening Watershed Initiatives and Increasing Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, identifying areas of common concern and need, and developing solutions to common challenges. \$500,000

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges \$469,482

Alliance for the Chesapeake Bay

Turkey Hill Clean Water Partnership: Building a Market-Driven Model for Conservation Action (PA)

Build on existing partnership with Turkey Hill Dairy and the Maryland and Virginia Milk Producers Cooperative Association to accelerate conservation planning and practice implementation. Project will provide farmers with technical and financial assistance necessary to meet Turkey Hill commitments for sustainable milk production. \$1,000,000

American Bird Conservancy

Restoring Dynamic Forest Structure for Priority Wildlife and Forest Health in the Pennsylvania Wilds

Expand forest planning and habitat management in the Pennsylvania Wilds of north central Pennsylvania to balance forest age classes and increase structural habitat complexity for the reproductive cycle of at-risk bird species, including golden-winged warbler, cerulean warbler, and wood thrush. Project will result in improved management of multiple 5,700-25,000 acre forest blocks using prescribed fire and invasive plant removal to restore 100 acres of young forest and 350 acres of mature forest. *\$175,000*

Berks Nature

Implementing Agricultural Best Management Practices in the Middle Schuylkill Cluster (PA)

Install whole farm agricultural best management practices on farms located in priority focus areas within the Middle Schuylkill Cluster geography of the Delaware River Watershed Initiative. Project will integrate best management practices as part of a larger watershed approach for addressing a critical agriculture restoration initiatives to improve on water quality in the Schuylkill River watershed, and ultimately, the Delaware River. *\$130,000*

Blair County Conservation District Lakemont Park Green Infrastructure and Urban Runoff Management (PA)

Construct green infrastructure in Lakemont Park, including three rain gardens, a vegetated permeable pavement lot, a rainwater harvesting system for stormwater re-use, and a riparian buffer. Project will manage upland urban runoff and will become part of the maintenance program for the park/ recreational area. \$195,000

Borough of Northumberland Detailing and Designing Green Infrastructure in Liberty Hollow Run (PA)

Conduct site analysis, design, and public outreach to create 12 design documents, three community program plans, and an outreach report for Liberty Hollow Run. Project will advance formal action plans for rain barrels, disconnected downspouts, and tree planting programs while ensuring high community participation. *\$50,000*

Brandywine Red Clay Alliance Expanding Stream Restoration in the Red Clay Creek (PA)

Restore 4,400 feet of the Upper East Branch Red Clay Creek and an unnamed tributary using stream bank stabilization with native grasses and wildflowers, in-stream structures, stream bank grading, and the addition of trees and shrubs to the riparian areas where needed. Project will reduce sediment, nitrogen, and phosphorous to the stream and improve water quality toward the goal of achieving unimpaired status for fish, wildlife and people.

\$249,555

Brodhead Watershed Association

Installing Green Stormwater Management Practices for the Restoration of Mill Creek (PA)

Install green stormwater management projects in the Village of Mountainhome to restore the water quality of Mill Creek, an important tributary of the Brodhead Creek, in Monroe County, Pennsylvania. Project will design green stormwater infrastructure practices with Monroe County Conservation District and provide three community workshops for homeowners on how to install similar projects on their properties.

\$53,337

Brandywine Red Clay Alliance Plum Run Stream Restoration Project: Phase II (PA)

Restore 2,001 feet of Plum Run, an impaired stream, using stream bank stabilization, in-stream structures, and a tree and shrub buffer to improve water quality. Project will launch Phase II of Plum Run Stream Restoration to address highly eroded stream banks, legacy sediment and nearby properties affecting this section of the stream. *\$150,000*

Brandywine Conservancy and Museum of Art Restoring the Red Clay Creek and White Clay Creek Watersheds (PA)

Restore water quality in the Delaware River Watershed by conducting landowner education and outreach while implementing agricultural best management practices using a whole-farm approach within the headwater reaches of the Red Clay Creek and White Clay Creek sub-watersheds. Project will build on prior successful projects in the Brandywine-Christina Delaware River Watershed Initiative Cluster, enhancing partnerships to implement best management practices to improve water quality.

\$200,000

Cameron County Conservation District Eliminating Erosion from an Unimproved Road and Restoring Connectivity in Upper Jerry Run, Pennsylvania

Restore aquatic connectivity and habitat for eastern brook trout through modification of a culvert barrier and elimination of erosion and sediment from an unimproved road along the Upper Jersey Run watershed in Cameron County, Pennsylvania. Project will address the major limiting factors in the watershed at one time, allowing for complete watershed-scale restoration, resulting in 6 miles of improved road, 1.25 miles of stream opened, and elimination of 140 tons of sediment runoff annually. *\$179,571*

Capital Resource Conservation and Development Area Council

Increasing Rotational Grazing and Crop Cover Practices through Farmer and Community Engagement (PA)

Support the adoption of cover crop grazing and other rotational grazing practices both on four study farms and an additional six-to-ten farms, transitioning land to rotational grazing. Project will result in 200 acres of best management practices and innovation in rotational grazing. *\$194,431*

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Center for Aquatic Sciences Discover the Delaware Watershed Youth Engagement Program (NJ, PA)

Engage 532 youth in grades six and eight and 35 of their teachers to build conservation experiences leading to stewardship of the Delaware River watershed. Project will provide student, administrators, and teachers with extensive knowledge of local waterways and urban sustainability, as well as an understanding of the importance of lakes, rivers, and streams to promote watershed restoration and conservation. *\$129,440*

Chesapeake Bay Foundation

Mountains to Bay Grazing Alliance: A Collaborative to Increase Rotational Grazing (MD, PA, VA, WV) Expand and strengthen a network of private and public partners to promote the adoption of rotational grazing systems that enhance soil health, protect and improve water quality, and contribute to farm economic viability. Project will include on-farm demonstrations, peer-to-peer dialog, establishment of local grazing groups, and development of outreach materials that highlight the economic and soil health benefits of grazing. *\$729,468*

Chesapeake Bay Trust Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale. *\$1,200,000*

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed. *\$125,000*

Chesapeake Stormwater Network Chesapeake Stormwater Training and Engagement II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states. *\$125,000*

City of Lancaster

Maximizing Water Quality Benefits on School Campuses in Lancaster (PA)

Create a master plan of urban nutrient management at 19 campuses owned and maintained by the School District of Lancaster and implement a pollinator garden, seeded meadow, no-mow zone, and a basin retrofit at Hamilton Elementary and a native meadow planted at Elizabeth R. Martin School. Project will determine how property maintenance and landscape techniques can be improved to maximize water quality benefits while balancing aesthetics, maintenance requirements, and needs of the school district. *\$176.000*

Clauser Environmental

Good Spring Creek Watershed Restoration Plan (PA)

Develop a watershed restoration plan for the Good Spring Creek Watershed in Schuylkill County, Pennsylvania. The plan will fill critical gaps in the identification and prioritization of projects scheduled to be the next phase of a regional watershed restoration and construction initiative. \$49,500

Cocalico Creek Watershed Association Cocalico Creek Watershed Farmer Engagement for Conservation (PA)

Assist seven townships in collaboration with their farm community to achieve significant water quality improvements for local streams through farmer meetings and farm visits. Project will increase planning and implementation of barnyard improvements, riparian forested buffers, and manure storage to manage agriculture runoff, maximizing designs and applications to funding from state and other agencies for project completion. *\$199,350*

Delaware River Basin Commission Characterization of Algal Composition and Dissolved Oxygen in the Delaware Estuary (DE, NJ, PA)

Perform algal composition and dissolved oxygen characterization of Delaware Estuary to better understand existing and potential fish habitat quality. Project will inform the propagation of important species populations such as Atlantic sturgeon and striped bass and improve the eutrophication model of the entire tidal Delaware River and Bay. *\$88,854*

Delaware River Basin Commission

Creating a Web-Based Habitat Model for the Upper Delaware River (NJ, NY, PA)

Enhance previously developed models for measuring habitat changes resulting from regulated flow and temperature mitigation efforts in the Upper Delaware River. Project will upgrade current models and provide an easily accessible, web-based system to accommodate new research, additional species, and expanded spatial domain. *\$128,750*

Delaware River Basin Commission Reducing Microplastics in the Delaware Estuary (DE. NJ. PA)

Identify key sources of microplastics in the Delaware Estuary through monitoring and modelling efforts to ultimately execute targeted cleanup efforts on key source tributaries. Project will conduct studies to develop a more comprehensive understanding of microplastics in the Estuary and then use the results of these efforts to organize the removal of large amounts of plastic products from the waters of the basin to benefit fish, wildlife, and habitats. **\$60,454**

Delaware River City Corporation

Streambank and Riparian Forest Restoration in the Pennypack Creek (PA)

Restore 600 linear feet of eroded streambank and the adjacent riparian forest to improve habitat for fish and wildlife along the Pennypack Creek near its confluence with the Delaware River in Northeast Philadelphia. Project will expand on current, local restoration efforts to remove invasive tree species and replace them with native canopy and understory trees, helping to create a varied and sustainable ecosystem while providing community access to the riverfront.

\$150,000

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Delaware Riverkeeper Network

Returning American Eels for Ecological Restoration of the Schuylkill Watershed (PA)

Evaluate the ability of American Eels to control invasive crayfish and contribute to restoring ecological structure of Pickering Creek in Chester County, Pennsylvania. Project will first document current crayfish and fish assemblages in the Creek, and then transport eels to Pickering Creek and conduct quantitative surveys with continued monitoring efforts to assess the extent of change and the trajectory of restoration. *\$88,506*

Ducks Unlimited

John Heinz National Wildlife Refuge Tidal Marsh Restoration (PA)

Restore tidal connectivity to a 180-acre impoundment at John Heinz National Wildlife Refuge. Project will increase hydrologic connectivity, water quality, flood control, and habitat structure, complexity, and quality within the impoundment and adjacent Darby Creek. *\$86,000*

Ducks Unlimited

John Heinz National Wildlife Refuge Tidal Marsh Restoration to Restore Hydrological Function (PA) Restore 180 acres of tidal marsh habitat through the installation of a new water control structure and pump system on the U.S. Fish and Wildlife Service wetland impoundment at John Heinz National Wildlife Refuge in Pennsylvania. Project will restore tidal flows and improve management capabilities within the impounded wetland for flood control and benefits to wetland-dependent birds and wildlife. *\$283,783*

Friends of the Upper Delaware River Enhancing the New York-Pennsylvania Joint Fisheries Investigation Plan (NY, PA)

Expand the New York-Pennsylvania Joint Fisheries Investigation Plan through integration of high definition stream survey data. Project will improve this regional plan to inform future fisheries management and restoration decisions in the Upper Delaware River Tailwaters. *\$249,998*

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Friends of the Upper Delaware River Managing Invasive Knotweed for Habitat

Enhancement in the Upper Delaware River (NY, PA) Develop a collaborative and strategic management plan with demonstration sites in public, regionally significant areas of the Upper Delaware River Watershed to limit further spread of invasive knotweed to restore native riparian habitat. Project will include outreach efforts to streamside landowners to encourage invasives species management. \$249,994

Friends of the Wissahickon

Stormwater Management and Trail Restoration in Wissahickon Valley Park (PA)

Restore trails and control stormwater runoff at three sites of degraded trail corridors and actively eroding gullies in Wissahickon Valley Park, Philadelphia. Project will reduce sedimentation of the Wissahickon Creek and improve trail conditions for 1.3 million annual park visitors. *\$125,000*

Green Valleys Association of Southeastern PA Inc Enhancing Forested Riparian Buffers in the Schuylkill Highlands Focus Areas (PA)

Restore forested riparian buffers at five sites located within the Delaware River Watershed Initiative Schuylkill Highlands Cluster in northern Chester County and southern Berks County, Pennsylvania. Project will install and enhance riparian buffers to improve and maintain water quality in the region *\$19,554*

Interfaith Partners for the Chesapeake One Water Partnership (MD, PA)

Replicate proven partnerships with secular and religious institutions, and engage new partners in strategic regions to scale up the engagement of the faith community in watershed restoration efforts in Maryland and Pennsylvania. Project will engage nonprofits, local governments, citizen stewardship groups, and faith-based institutions to enable 36 congregations to install green infrastructure with measurable impacts on local water quality. *\$1,000,000*

Lancaster Farmland Trust

Accelerating Acquisition of Conservation and Manure Management Plans in Paradise Township (PA)

Collaborate with Paradise Township to accelerate the acquisition of conservation and manure management plans for local farms by utilizing successful outreach strategies to position farmers for the implementation of agricultural best management practices. Project will set the stage for large-scale nutrient and sediment reductions in the Pequea Creek Watershed and help fulfill the Town's commitment to achieve 100-percent conservation plan compliance.

\$49,606

Lancaster Farmland Trust Engaging the Plain Sect Community and Market for Clean Water (PA)

Increase adoption of farm conservation practices through engaging Plain Sect community leaders, creating learning farms to provide peer-to-peer understanding and enthusiasm for conservation, and implementing best management practices on farms. Project will engage market demand for sustainability via dairy supply chain players under increasing pressure from consumers to address sustainability and create replicable model that can scale more broadly across the watershed. *\$198,463*

Lititz Run Watershed Alliance

Updating the Lititz Run Watershed Action Plan and Watershed-Based Permit (PA)

Update the Lititz Run Watershed Action Plan and include a framework for a more comprehensive method of determining current water resource conditions in the watershed while incorporating local citizen and government input with the establishment of a watershed-based permit. Project will protect the Cold Water Fishery Existing Use classification achieved for Lititz Run, selfpropagating aquatic life observed, and improved water quality and flooding conditions. \$49,960

McKean County Conservation District Assessing and Modifying Road Stream Crossings in McKean County, Pennsylvania to Benefit Aquatic

Species Assess road stream crossings and dirt and gravel roads in McKean County, Pennsylvania, using Environmentally Sensitive Maintenance principles to identify high priority projects that will reduce stream sedimentation and improve aquatic connectivity and habitat for eastern brook trout, eastern hellbenders, and freshwater mussels and their host fish species. Project will rectify three fish barriers, open 8 miles of stream, and improve 5 miles of road in the Upper Allegheny watershed. \$200,000

National Audubon Society

Community Centered Conservation of Important Bird Habitats in Philadelphia (PA)

Convert vacant lots in targeted southwest Philadelphia communities into gardens, pocket parks, and pollinator corridors that will increase and improve habitats for birds, pollinators and other wildlife. Project will engage 1,050 volunteers to restore 7 acres through invasive plant removal and expanded native plantings, and restore 2 miles of riparian habitat to reduce erosion and improve water quality. *\$35,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

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National Wildlife Federation Train the Trainer: Increasing Efficiency of Agricultural Outreach (PA)

Host a webinar series and six messaging and communications training events for agricultural outreach professionals within the Chesapeake Bay Watershed in Pennsylvania. Project will increase the efficiency of agricultural outreach professionals by providing the tools and cultural frameworks needed to influence farmers to use water quality best management practices. \$49,447

Partnership for the Delaware Estuary Implementing Stormwater Management Practices in Lionville, Pennsylvania

Implement a large stormwater restoration initiative in the Pine Creek-Pickering focus area of the Schuylkill Highlands Cluster, one of the eight targeted geographies in the Delaware River Watershed Initiative (DRWI). Project will install three large rain gardens connected by vegetated swales to capture and infiltrate runoff before it reaches the stream, along with smaller rain gardens and a rainwater harvesting cisterns at three adjacent properties at the headwaters of Pine Creek. *\$200,008*

Partnership for the Delaware Estuary Planning and Implementation of a Living Shoreline at Bartram's Garden (PA)

Establish beds of freshwater mussels in an urban tidal living shoreline at Bartram's Garden in Philadelphia, Pennsylvania. Project will enhance local water quality and vegetation within the living shoreline, while providing erosion control services to conserve and retaining connections between coastal habitats and ecosystems to support local species. *\$125,000*

Pennypack Ecological Restoration Trust Implementing Green Stormwater Infrastructure and the Historic Preservation of Boileau Park (PA)

Implement green stormwater infrastructure in a ten acre multi-use park. Project will initiate a multiphased effort with partners from Upper Moreland Township and Temple University to enhance Boileau Park utilization by improving stormwater management. Project will be designed, constructed, maintained, and monitored to improve water quality in the Pennypack Creek, and ultimately for the Delaware River Watershed. *\$120,000*

Pennsylvania Department of Conservation and Natural Resources

Correctional Vocational Training: Increasing the Workforce for Buffer Planting and Maintenance (PA) Increase available private riparian forest buffer contractors available to conduct riparian forest buffer planting and maintenance through a correctional vocational training program, establishment of a workforce pipeline, and on-theground conservation projects. Project will increase the survivability rate of riparian forest buffers and expand buffer maintenance options to increase implementation of forested buffers. *\$50,000*

Pennsylvania Horticultural Society

Lower Delaware Watershed Habitat Restoration (PA)

Restore high-value habitat to three important sites within the lower Delaware watershed area by planting native trees, shrubs, and herbaceous plants and/or seed mixes in the inner northeastern suburbs of Philadelphia. Project will work with partners to restore 4.37 acres of riparian buffer, plant 690 trees and 360 shrubs, and contribute 900 hours of volunteer time toward watershed health. *\$26,038*

Pennsylvania Resources Council Implementing Green Stormwater Infrastructure at Drexel Gardens Park (PA)

Install five green stormwater infrastructure (GSI) projects in a public park located in Upper Darby Township. Project will remove 12,578 pound per year of sediment, 146 pounds per year of nitrogen, 33 pounds per year of phosphorus, and 2,436,920 gallons of water annually for fish, wildlife and people.

\$202,340

Pennsylvania State University

Chiques-Conoy-Conewago Regional Partnership: Outreach and Implementation with Priority Farmers (PA)

Accelerate improved agriculture management in the lower Susquehanna River region through the implementation of 75 acres of forested riparian buffers, 1,360 acres with soil health practices, and 7,500 feet of stream restoration. Project will improve existing restoration data and analysis tools to prioritize work based on aquatic habitat impairment and engage farmers in Lancaster, Lebanon, and Dauphin counties through a strategic team of outreach and technical assistance. *\$1,000,000*

Pittsburgh Parks Conservancy Using Goats in City Parks for Invasive Plant Management and Landscape Restoration (PA)

Use innovative methods to target invasive plants on 3 acres in the woodland of Frick Park as part of an integrated invasive plant management plan. Project will provide community members and students with educational programming focusing on the negative impact of invasives, volunteer training, and citizen science monitoring of plants and birds as well as develop and publish guidelines to assist city and park managers considering similar programs elsewhere. \$38,435

Pocono Heritage Land Trust

Watershed Restoration and Habitat Improvement in the Brodhead Creek Watershed (PA)

Improve habitat for fish and wildlife in up to six locations in the Brodhead Creek Watershed. Project will leverage public and private partnerships, combining the efforts of private fishing clubs, a regional water authority, a local university and volunteers to benefit fish, wildlife, and people in the greater Delaware River Watershed. *\$249,999*

Ruffed Grouse Society

Restoring Forest Habitat Complexity for Focal Bird Species in the Laurel Highlands of Pennsylvania Enhance habitat diversity for key bird species at multiple spatial scales on 5,000 acre blocks on State Game Land 42, Forbes State Forest, and private lands in the Laurel Highlands of Pennsylvania. Project will provide technical assistance and streamlined funding for family forest landowners to implement best management practices, including invasive plant removal and prescribed fire. Project will also result in 20,000 acres under improved management and monitoring of species response to the changes.

\$199,423

Schuylkill River Development Corporation Designing Bartram's Mile Fishing Pier (PA)

Develop shovel-ready design plans to rehabilitate an abandoned industrial pier into an accessible recreational site on the Schuylkill River in Philadelphia, a tributary of the Delaware River. Project will lead to shoreline improvements aimed to enhance water quality and wildlife habitat, as well as improve recreational opportunities and river access consistent with local conservation efforts. *\$50,000*

Solebury Township

Aquatic Habitat Restoration at Aquetong Spring Park (PA)

Restore and protect Aquetong Spring Park to improve water quality and aquatic habitat of Aquetong Creek. Project will implement a variety of conservation measures and best management practices to treat off-site stormwater, protect fragile soils with riparian buffers, reforest diseased canopy areas, install trout habitat structures, and monitor water quality, fish populations, and invasive species. *\$250,000*

Stroud Water Research Center

Accelerating and Converting Marginal Cropland to Forested Buffers (PA)

Convert near-stream marginal cropland to forested buffers, implement soil health best management practices and advanced nutrient management, and accelerate forested buffer implementation. Project will build on the Stroud Water Research Center's Farm Stewardship Program and adapt it for use by crop farmers to improve profitability and environmental performance. *\$199,528*

Stroud Water Research Center

Expanding Soil Health Through Partnership, Better Coordination, and Increased Practice Adoption (PA)

Expand soil health outreach to assist 75 farmers implement rotational grazing on more than 860 acres and 12,000 acres of new cover crops and/ or no-till practices. Project will reach an estimated 4,500 farmers through grazing advisors and farmerled, peer-to-peer soil health hubs throughout Pennsylvania, and will further employ applied research to develop a better understanding on the benefits of soil health practices to runoff, productivity and farm management. *\$999,318*

Stroud Water Research Center

Implementing Agricultural Best Management Practices in the Brandywine-Christina Focus Areas (PA) Implement agricultural best management practices and install at least 30 acres forested buffers with nine landowners in the Brandywine-Christina Focus Areas of the Delaware River Watershed Initiative Cluster. Project will pilot a cost-share program for soil health to enable producers to implement cover crop and no-till practices and work with over eight farms, totaling 400 acres, to support producer success.

\$249,325

Stroud Water Research Center

Installing Agricultural Best Management Practices in the Middle Schuylkill Focus Areas (PA) Install over 90 structural agricultural best management practices on over nine farms in the Middle Schuylkill focus areas of the Delaware River Watershed Initiative cluster. Project will install 35 acres of forested buffers, pilot a cost-share program for soil health transition to enable producers to try new or improved cover crops and no-till acres, and leverage funding for outreach and technical assistance.

\$249,638

Stroud Water Research Center Soil Health Conservation, Engagement, and Technical Assistance (MD, PA, VA)

Partner with Cover Crop Coaching to increase access to technical expertise on soil health and increase adoption rates. Project will enable Cover Crop Coaching to direct farmer meetings, host train-thetrainer events, and increase outreach to landowners renting cropland to tenant farmers. Project also will help address the shortfall of technical expertise on soil health and will increase adoption rates of cover crops and no-till. **\$199.976**

The Nature Conservancy

Accelerating Wetland Restoration Through Partnerships and Landowner Engagement (DE, MD, PA, VA)

Accelerate water quality and black duck habitat improvements through strengthened partnerships to advance wetland and stream restoration in priority regions and identification of landowner priorities and constraints to guide restoration outreach and opportunities. Project will leverage existing partnerships and expertise and add needed capacity to further foster watershed-wide collaboration to restore, enhance and protect a network of habitats to improve water quality. *\$965,852*

The Nature Conservancy

Advancing Innovative Stream Restoration Approaches in Cherry Creek (PA)

Expand restoration and monitoring activities at the Blakeslee property, located visibly and strategically near the center of the Delaware River Watershed Initiative Cherry Valley Focus Area of the Pocono Kittatinny Cluster of northeastern Pennsylvania. Project will improve water quality in Cherry Creek through the reduction of streambank erosion and restoration of stream function, and include water quality monitoring to evaluate the aggregated impacts of these efforts. *\$164,655*

The Nature Conservancy

Improving Spawning and Rearing Habitat for Alosines in the Delaware River Basin (DE, NJ, NY, PA)

Advance a targeted in-depth assessment to improve aquatic connectivity for American shad and river herring in the Delaware River Basin. Project will evaluate barriers and habitats throughout the watershed to identify key sites for shad and river herring restoration, resulting in a "Restoration Road Map" which will provide recommendations on meeting funding needs and feasibility and opportunity for potential phasing projects. *\$175,101*

The Nature Conservancy Stream Restoration in the Cherry Valley National

Wildlife Refuge – Blakeslee Property (PA)

Advance restoration and stream water quality monitoring efforts at the Blakeslee Farm Preserve near the center of Cherry Valley. Project will improve stream, riparian, and floodplain habitat in a highly visible reach of Cherry Creek, located strategically near the center of the Cherry Valley National Wildlife Refuge. *\$169,305*

Tioga County Soil and Water Conservation District of New York

Expanding Engagement in the Upper Susquehanna Coalition Buffer Program (NY, PA)

Expand and engage new partners and populations in the Upper Susquehanna Coalition Buffer Program. Project will build outreach opportunities and engage populations that have yet to be engaged in pilot projects incorporating riparian restoration, livestock exclusion, agricultural land retirement, green infrastructure, and natural stream corridor restoration.

\$200,000

UNITED STATES

AND

U.S.

Tioga County Conservation District of Pennsylvania Identifying and Designing Restoration in Tier II Eastern Brook Trout Patches (PA)

Identify, prioritize, design, and permit habitat restoration projects within two Tier II eastern brook trout patches, the Tioga River and Babb Creek. Project will enhance the ability of the Tioga County Conservation District to implement effective priority habitat restoration and sediment reduction projects, motivate individuals and local governments to implement projects, and increase benefits to water quality and eastern brook trout habitat. *\$37,640*

Trout Unlimited

Enhancing Aquatic Connectivity and Flood Resilience at Road Stream Crossings (NJ, PA)

Complete an assessment of road-stream crossings within priority eastern brook trout watersheds in the Delaware River basin of both Pennsylvania and New Jersey. Project will develop a prioritized road-stream crossing inventory to inform future cold-water habitat project selection, fill necessary knowledge gaps, and provide a baseline to monitor future projects to help improve eastern brook trout habitat connectivity and flood resilience throughout the Delaware River basin.

\$55,021

Trout Unlimited

Providing Technical Assistance to Enhance Habitat and Reconnect Strongholds for Eastern Brook Trout (PA) Provide technical assistance and facilitate a collaborative prioritization process to address nonpoint source sediment pollution, aquatic connectivity and instream habitat in resilient and stronghold eastern brook trout patches in four focal geographies of western Pennsylvania. Project will build capacity and perform a minimum of 300 culvert surveys, complete six partial designs for culvert modification, and six designs for dirt and gravel road improvements. \$144,100

University of Delaware

Examining the Effects of Modifications in the Delaware River on Sturgeon Populations (DE, NJ, PA)

Develop new bottom sediment maps for segments of the Delaware River using high-resolution, sidescan sonar imagery. Project will address areas of the Delaware River navigation channel that have recently been deepened, potentially impacting habitats for Atlantic and shortnose sturgeon. \$46,658

University of Maryland Environmental Finance Center

Continuing Momentum to Reduce Stormwater Pollution in the Oxford Region (PA)

Support the Oxford Regional Planning Committee in their efforts to address stormwater pollution in both the regulated and unregulated parts of municipalities. Project will develop a partner structure for program delivery and will translate pollution reduction goals to the local level while providing a sustainable financing strategy to support initiation and continued implementation of programming throughout the watershed. *\$49,950*

University of Maryland Center for Environmental Science

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states) Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for non-tidal watershed areas and indicators for social, cultural, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project.

\$82,678

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds.

\$999,942

West Middle School

Habitat Restoration at Wilson West Middle School (PA)

Restore habitat on the Wilson West Middle School property to support native fish and wildlife. Project will improve water quality and provide recreational opportunities to the community. *\$216,227*

West Norriton Township

Stream Restoration at Jeffersonville Golf Club (PA)

Restore eroded streambanks along 1,100 linear feet of stream at the Jeffersonville Golf Course in West Norriton Township to prevent erosion, reduce sediment transport and restore fish and wildlife habitat. Project will reduce slopes along the riparian corridor by establishing defined floodplain, as well as install a bioretention feature along Indian Creek to detain flows and improve groundwater recharge of small storm events.

\$158,946

Western Pennsylvania Conservancy

Fish Passage Improvement and Culvert Replacement in the Upper Sinnemahoning Creek Watershed (PA)

Replace four culverts at priority locations for native brook trout populations in the upper Sinnemahoning Creek watershed. Project will result in 4 miles of stream opened to fish passage and restored. \$136,466

Western Pennsylvania Conservancy

Riparian Restoration and Buffer Establishment in the Susquehanna River West Branch (PA)

Restore 20 acres of riparian habitat and expand local community riparian knowledge. Project will facilitate partner collaboration on reaching out to landowners with degraded riparian areas, leading to increased planting of new riparian acres and post planting establishment, monitoring, and stewardship development.

\$158,755

Wildlands Conservancy

Fish Passage Improvements and Stream Restoration in Bushkill Creek (PA)

Restore Bushkill Creek watershed through the removal of five derelict dams located in the watershed and near the confluence of the Delaware River. Project will remove these old dams to improve the water quality and health of the stream, and remove fish passage impediments to ultimately restore sustainable coldwater fish and aquatic species populations. *\$183,001*

Wildlands Conservancy

Habitat Enhancement of Bushkill Creek (PA)

Restore approximately 2 miles of High Quality Cold-water Fishery designated Bushkill Creek in Northampton County, Pennsylvania. Project will conduct instream channel corrections, banks stabilization plantings, and aquatic habitat improvements to support native brook trout populations.

\$98,006

Wildlife Management Institute

Enhancing Forest Habitat in the Northern Delaware River Watershed (NJ, PA)

Implement forest management projects on protected private lands in the northern Delaware River watershed. Project will create healthy diverse forests which provide high quality forested habitat in multiple age classes, clean water, and public recreation. *\$249,917*

Wildlife Management Institute Enhancing Forest Habitat in the Northern Delaware River Watershed- Phase II (NJ, PA)

Implement forest management plan activities on private lands in the northern Delaware River Watershed. Project will aid in the creation of young forest habitat, the enhancement of middle-aged and mature forest habitat, the control of native and exotic invasives, as well as expand partnerships to enhance work in northwest New Jersey \$248,948

Western Pennsylvania Conservancy Sampling of Previously Unassessed Streams for Presence of Eastern Brook Trout and other

Wild Trout (PA)

Assist the Pennsylvania Fish and Boat Commission with the Unassessed Waters Initiative by coordinating identification and sampling of priority streams, streamlining data collection and ensuring that data from contracted partners is entered into the state's database. Project will sample at least 1,000 streams statewide with a focus in western Pennsylvania. *\$80,000*

Western Pennsylvania Conservancy Unassessed Waters Initiative IV (PA)

Conduct 1,000 fish surveys on previously unassessed streams, coordinating priorities, data collection, and data management. Project will provide data on previously unassessed streams in order to ensure proper stream classification, which is vital to successfully protecting Pennsylvania's water resources. *\$50,000*

Wildlife Management Institute

Developing Long-Term Forest and Habitat Management Plans for Large Industrial Forest Blocks (PA, WV)

Develop detailed forest management plans to create landscape scale forest blocks in western Pennsylvania and West Virginia that create a mosaic of forest successional stages and riparian buffers that benefit multiple focal bird species including golden-winger warbler, cerulean warbler, blackthroated blue warbler, wood thrush, and American woodcock. Project will complete management plans for 67,000 acres in Pennsylvania and 163,000 acres in West Virginia recently acquired by Lyme Timber. *\$74,976*

Wissahickon Valley Watershed Association Wissahickon Headwaters Riparian Restoration (PA) Restore 1,775 linear feet of stream and adjacent floodplain in the Wissahickon Headwaters. Project will provide a stable steam dimension, pattern, and profile, reduce sedimentation, restore the connection between the stream and the floodplain, and improve hydraulic capacity of the floodplain. *\$249,970*

RHODE ISLAND

Cape Cod Commercial Fishermen's Alliance Scaling Electronic Monitoring in New England's Groundfish Fishery (ME, MA, NH, RI)

Expand participation of electronic monitoring to 35 vessels for the New England groundfish fishery. Project will finalize innovations in technology and audit model protocols, scale up the implementation of electronic monitoring that improve accountability, strengthen partnerships among fishermen and the federal government, and lay the foundation for long-term industry investment in accountability.

\$568,161

Gulf of Maine Research Institute Test Machine Learning Software for Dockside Monitoring Seafood Monitoring and Research

Monitoring, Seafood Monitoring, and Research (ME, MA, RI)

Test electronic monitoring and machine-learning applications in dockside monitoring, explore uses of the data collected from electronic monitoring, and educate stakeholders about machine analysis. Project will improve efficiency of the dockside monitoring program by developing algorithms to verify fish weights and counts, facilitate the use of electronic monitoring data by two new groups, and publish a report about transitioning from human to machine analysis of data. *\$170.112*

Integrated Monitoring

Optimizing Machine Learning for Streamlining Reporting for the New England Groundfish Fishery (RI) Continue to develop and combine activity recognition and species recognition algorithms, develop new machine learning algorithms to train smart cameras to improve image quality, and develop a web application version of electronic vessel trip reports for the New England groundfish fishery. Project will optimize machine learning and video recognition algorithms to improve and streamline reporting.

\$193,395

Legit Fish

Developing an Integrated Electronic Vessel Trip Reporting and Sector Management Tool (ME, MA, NH, RI)

Expand on a logistics and traceability system by developing an integrated electronic vessel trip reporting application and sector management system that will be integrated with dealer reporting. Project will increase the speed of data and decisionmaking capabilities for management in New England. \$471,557

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. **\$67,737**

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Rhode Island Coastal Resources Management Council

Rhode Island Shoreline Adaptation and Habitat Enhancement Project Inventory

Create a complete inventory of potential shoreline adaptation projects within areas of Rhode Island identified as vulnerable to coastal erosion, flooding, and storm surge. Project will complete designs and permit applications for a subset of projects and provide guidance for municipalities on shoreline adaptation implementation. *\$280,140*

The Nature Conservancy

Validating For-Hire Vessel Trip Reports with Electronic Monitoring in New England (RI)

Evaluate the feasibility of electronic monitoring systems for validating the catch information reported on New England for-hire vessel trip reports to improve the accuracy and timeliness of information used for science and management of the fishery. Project will install electronic monitoring systems on up to two for-hire vessels. *\$79,712*

SOUTH CAROLINA

Chesterfield County Soil and Water Conservation District Sandhills Longleaf Pine Conservation Partnership VII (SC)

Establish and enhance 1,600 acres of privately-owned longleaf pine habitat in the South Carolina Sandhills region to benefit bird species such as Bachman's sparrow, northern bobwhite, and wild turkey, and reptiles such as the southern hognose snake. Project will utilize a geospatial forest inventory database to identify high-priority properties for longleaf pine restoration and will work with willing landowners to plant longleaf pine and implement management practices, such as prescribed burning on existing longleaf forests to improve wildlife habitat. *\$250,000*

College of William and Mary Full Life-cycle Conservation for Whimbrels on the

Western Atlantic Flyway (multiple states) Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring, map critical whimbrel sites to focus on-the-ground management, and improve conditions within critical sites. *\$148,763*

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150.000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American oystercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. *\$191,000*

National Audubon Society Habitat Restoration of Crab Bank Island Seabird Sanctuary to Protect Coastal Shorelines (SC)

Restore Crab Bank Seabird Sanctuary, a critical nesting island in Charleston Harbor, South Carolina. Project will protect 1.5 miles of coastal property and provide 28 acres of suitable nesting habitat for the brown pelican, royal tern, black skimmer, American oystercatcher, and other seabird and shorebird species.

\$676,198

National Audubon Society

Pee Dee River-Winyah Bay Forest Restoration Partnership II (SC)

Improve and increase targeted outreach efforts and engage forest landowners in sustainable forestry, enhance habitat for at-risk species, and conserve and improve management of 7,000 acres of bottomland hardwood and longleaf pine forests in the Pee Dee River and Winyah Bay landscape in South Carolina. Project will develop management plans, enroll landowners in Tree Farm certification, and establish and enhance longleaf pine and bottomland hardwood habitats. *\$299,693*

National Audubon Society

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. **\$190,000**

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

The Forest Stewards Guild Managing Bottomland Hardwood Forests for Wildlife (NC, SC)

Enhance and maintain bottomland hardwood forests in the coastal plain of North and South Carolina to benefit migratory songbirds, such as prothonotary warbler and cerulean warbler. Project will create demonstration sites on U.S. Fish and Wildlife Service Refuges and engage private landowners through workshops and field days, resulting in forest management plans developed for 4,000 acres and 1,200 acres of bottomland hardwoods enhanced on public and private lands. *\$144,688*

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments.

\$150,000

The Longleaf Alliance

Red-cockaded Woodpecker Conservation Project on Public and Private Lands (SC)

Support recovery of the federally endangered red-cockaded woodpecker through translocation of birds from the Francis Marion National Forest to public lands and private forests enrolled in the Safe Harbor Program in South Carolina. Project will translocate at least 20 birds to restored longleaf pine habitat that will be managed long-term. *\$118,309*

The Nature Conservancy Protection of Groton Plantation in the Savannah River Watershed (SC)

Purchase a conservation easement on Groton Plantation, protecting 13,681 acres of high priority longleaf pine forest in South Carolina. Project will connect 125,000 acres of public and private protected lands in South Carolina and Georgia, create a 50-mile wildlife corridor, and provide habitat for rare plant and animal species including the endangered red-cockaded woodpecker and gopher tortoise. Project will also protect a major drinking water source for Savannah, Georgia and secure forestry-related jobs in the local rural economy. *\$500,000*

The Nature Conservancy

Sewee Longleaf Restoration and Enhancement II (SC) Restore, maintain, and protect more than 60,000 acres of longleaf pine habitat on public and private lands in the South Carolina coastal plain, north of Charleston, benefiting birds such as Bachman's sparrow, northern bobwhite and red-cockaded woodpecker, and imperiled amphibians such as the frosted flatwoods salamander and gopher frog. Project will deploy a seasonal fire crew to increase prescribed burning on public and private lands, expand private landowner engagement through a forest landowners association, and partner with local land trusts to protect working forests and longleaf pine habitat through voluntary conservation easements. \$286.000

SOUTH DAKOTA

Cheyenne River Sioux Tribe

Black-footed Ferret Conservation through Sylvatic Plague Management on Tribal Land in South Dakota Improve grassland connectivity with an easement and explore sylvatic plague management techniques for black-tailed prairie dogs in order to increase black-footed ferret populations on the Cheyenne River Sioux Reservation in north central South Dakota. Project will protect 1,200 acres from disease through a conservation easement on the project area. \$163,068

Ducks Unlimited

Refinement and Implementation of the Conservation Guidance Directory for Grassland Birds (ND, SD)

Enhance, promote and apply their Conservation Guidance Directory database to inform efforts to stem declines in the quality and quantity of grassland habitat in the core of grassland bird diversity in the Northern Great Plains. Project will refine and promote the use of this database tool for private lands biologists, producers, stakeholders, and funders through a web-based platform that sets priorities and develops habitat projects and will implement demonstration projects on a minimum of 8,500 acres.

\$82,502

National Audubon Society

Technical Assistance for Conservation Ranchers in Eastern North and South Dakota

Create an Audubon range ecologist position to support bird-friendly land management practices in eastern North Dakota and South Dakota. Project will expand technical assistance and market connections to enrolled Audubon conservation ranchers.

\$167,204

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

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North Dakota Natural Resources Trust

Technical and Financial Capacity Assistance for Working Grassland Habitat Conservation (ND, SD) Restore, enhance, and protect at least 7,500 acres of priority grassland habitat areas in the core of grassland bird diversity in the Northern Great Plains. Project will compare landscape changes and areas of highest threat of farmland conversion with species distribution models to identify the areas of greatest conservation need. *\$79,500*

Providing Technical Assistance for Conservation Easements in Priority Grassland Habitat (SD)

Pheasants Forever

Provide technical assistance for ranchers and landowners in western South Dakota who want to permanently protect their working lands through conservation easements, with a focus on intact, native grasslands that are contiguous with other grasslands of significance. Project will put 1,000 acres under conservation easements. *\$241,000*

Rocky Mountain Bird Observatory Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Rocky Mountain Bird Observatory Sustaining Capacity for Private Lands Grassland Conservation and Stewardship (MT, SD)

Build local capacity to implement on-the-ground habitat conservation projects by supporting two Private Lands Wildlife Biologists in two focal areas of the Northern Great Plains. Project will bolster partnerships, provide community outreach and education opportunities, and implement grassland habitat projects to restore 500 acres, conserve 1,000 acres, and better manage 25,000 acres of private lands. *\$250,000*

South Dakota Grassland Coalition

Enhancing South Dakota's Working Grasslands for Producers, Prairie Grouse and other Grassland Birds

Enhance prairie grouse and grassland bird habitat on working grasslands in South Dakota by educating producers about priority grassland bird species and their preferred habitat including instructing about how Holistic Management impacts this habitat and by installing improved grazing systems. Project will result in 3,000 acres restored and 300,000 acres under improved management. *\$250,000*

The Nature Conservancy

Using a Resilience Grass Bank to Inform Local Partners and Improve Sage-grouse Habitat (SD) Increase capacity by funding two positions to work

with South Dakota partners and ranchers to use a resilience grass bank, implement conservation practices, and conduct outreach and education about the role of management in restoring resilience and connectivity across more than 16,000 acres. Project will utilize the grass bank and ranch demonstrations to test, incentivize, and implement conservation practices that improve or restore riparian health, mesic wet meadows, and sage grouse brood rearing habitat on 200 acres. *\$300,000*

TENNESSEE

Amphibian and Reptile Conservancy Restoring Eastern Hellbender Habitat on Private Lands in Tennessee

Restore forested riparian buffers and implement additional conservation practices on private agricultural lands in Tennessee to improve habitat for the eastern hellbender, the largest species of aquatic salamander in North America. Project will restore 7 acres of riparian habitat through tree plantings, livestock exclusion fencing, and stream bank stabilization. **\$99,998**

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. *\$95,469*

Cumberland River Compact

Improving Water Quality through Soil Health (TN) Increase the number of farms and field grown nurseries implementing soil health best management practices within high priority Tennessee watersheds to restore water quality and wildlife habitat. Project will engage 500 farmers and growers through marketing, field days, and technical assistance and will implement practices such as no-till and cover crops on 450 acres, benefiting at-risk fish species such as the barrens darter and bird species such as Henslow's sparrow and prairie warbler. *\$249,843*

Ducks Unlimited

Stewardship of Privately-Owned Bottomland Hardwood Forests in the Lower Mississippi Alluvial Valley (AR, KY, LA, MO, MS, TN)

Increase stewardship of privately owned bottomland hardwood forests in the Mississippi Alluvial Valley through outreach, technical assistance, and developing conservation plans to guide management of existing forests and improve habitat for waterfowl, forestinterior birds, and other forest-dependent wildlife. Project will reach 150 landowners with existing conservation easements, including properties enrolled in the Natural Resources Conservation Service Wetland Reserve Program, with the goal for least half of these landowners to implement conservation activities that will enhance 2,000 acres of forested wetlands and restore hydrologic conditions on 450 acres to improve water quality. *\$153,047* Friends of Tennessee National Wildlife Refuge Implementing a Fishing Derby Program (TN)

Create a Special Adults Fishing Event Derby to provide fishing, angler games, hands-on aquatic stations, and lunch for adults who are physically or mentally impaired. Project will open doors for individuals whom are often under-served, provide a connection with the outdoors, and possibly inspire future conservationists.

\$4,996

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Tennessee Department of Agriculture Expanding Prescribed Fire Implementation on the Cumberland Plateau (TN)

Expand prescribed burning on public and private shortleaf pine forests in the Cumberland Plateau of Tennessee to benefit birds such as Bachman's sparrow, prairie warbler, and northern bobwhite. Project will support a prescribed fire strike team that will implement more than 2,000 acres of prescribed burning. *\$199,484*

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The Forest Stewards Guild

Increasing Prescribed Fire Delivery and Shortleaf Pine Ecosystem Restoration in the Cumberland Plateau (KY, TN)

Increase prescribed fire delivery and shortleaf pine ecosystem restoration in the Cumberland Plateau of Tennessee and Kentucky to benefit songbirds such as prairie warbler and pine warbler and game species such as wild turkey. Project will engage public and private landowners through outreach and technical assistance to restore and enhance more than 5,400 acres of shortleaf pine forests, including more than 4,000 acres of prescribed burning. *\$199,875*

The Nature Conservancy

Removing Sawpauh Mill Dam to Restore Fish Passage in Oostanaula Creek and Hiwassee River (TN)

Restore fish passage, improve, water quality, and create habitat for nearly 130 fish species by removing the debilitated Sawpauh Mill Dam located at the confluence of Oostanuala Creek and the Hiwassee River outside of Cleveland, Tennessee. Project will reconnect over 140 miles of the Oostanaula/Hiwassee system and build momentum for additional high-impact derelict-dam removals in the watershed. *\$62,985*

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TEXAS

American Bird Conservancy

Grassland and Riparian Habitat Restoration for Migratory Species like Pronghorn and Monarchs (TX) Implement at least 2,500 acres of grassland and riparian habitat restoration and enhancement projects that support birds, wildlife, and people in the Trans-Pecos region and South Texas. Project will restore habitats to benefit pronghorn, monarch butterflies, and other migratory species on privately owned land. \$77,713

Big Bend Soil and Water Conservation District Grassland Restoration on Working Lands in the Big

Bend Soil and Water Conservation District (TX) Restore native grassland habitat for use by pronghorn and migratory grassland birds in Brewster and Jeff Davis counties, Texas. Project will work with producers and landowners to install pronghorn-friendly fence and conduct brush management to control brush encroachment and conserve quality native grassland habitat. \$100,000

Borderlands Research Institute-Sul Ross State University

Marfa and Marathon Grassland Habitat Enhancement for Migratory Birds and Pronghorn II (TX)

Conduct brush management activities in the Marfa and Marathon grasslands of west Texas to improve grassland health and habitat for pronghorn and migratory grassland birds. Project will conduct brush management on 5,000 acres of brush-invaded grassland, monitor pronghorn and grassland bird response to treatments, and create regionspecific, science-driven resource management recommendations. *\$244,695*

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250,000*

Cornell University Measuring Bachman's Sparrow Response to

Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

Eastern New Mexico University Surveying Occupancy and Habitat Use of Rio Grande Cooter within the Pecos River Watershed (NM, TX)

Describe the occupancy and habitat use of Rio Grande cooter in the Pecos River and tributaries to support future conservation planning. Project will survey a 32 sites over two years at previously unexplored but assumed regions of species range to shed light on the occupancy and distribution of this poorly understood native aquatic species. *\$150,000*

Friends of Laguna Atascosa NWR

Improving Visitor Experience at Laguna Atascosa National Wildlife Refuge (TX)

Establish a safe and convenient visitor area with a kiosk and refuge map. Project will improve community experience at the refuge, inform visitors on wildlife conservation activities and help the Friends increase their capacity at the refuge. *\$5,136*

Friends of the Wildlife Corridor Lower Rio Grande Valley Elementary School Learning Landscapes (TX)

Guide middle school students in restoring a campus stormwater retention pond to improve water flowing into the Arroyo Colorado and creating 40 new outdoor gardens in public schools to develop stewardship of native habitat among regional youth and their teachers. Project will restore ten acres on 40 school campuses and will engage 4,280 students. *\$49,998*

Galveston Bay Foundation

Dollar Bay-Moses Lake Wetlands Restoration (TX) Restore degraded wetlands and protect vulnerable shorelines and communities within the Dollar Bay-Moses Lake complex in Galveston Bay, Texas. Project will restore 72 acres of intertidal marsh habitat to address the loss of habitat in Galveston Bay due to historical land surface subsidence and shoreline erosion.

\$1,049,000

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Highland SWCD

Highland Soil and Water Conservation District Grassland Restoration Program (TX)

Restore native grassland habitat for use by pronghorn and migratory grassland birds in Presidio and Jeff Davis Counties, Texas. Project will work with producers and landowners to conduct brush management to control brush encroachment and conserve quality native grassland habitat. *\$100,000*

Galveston Bay Foundation

Cultivating Community Capacity through Restoration and Citizen Science in Galveston Bay (TX)

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and Citizen Science in Galveston Bay (TX) Increase organizational capacity through a partnership between the Get Hip to Habitat education program and their citizen science Water Monitoring Team to more effectively serve students and residents around the Houston-Galveston region. Project will directly engage 800 students and 15 teachers in environmental education activities, restore 1.3 acres of wetland habitat, oversee 70 volunteers in monthly water quality monitoring, and inform over 4,000 residents of local water quality issues. \$37,207

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Pheasants Forever

Grassland Habitat Restoration Benefiting the Lesser Prairie Chicken (CO, KS, NM, OK, TX)

Support staff working with the Natural Resources Conservation Service's Lesser Prairie Chicken Initiative as the initiative evolves over time and through any potential changes in the next Farm Bill. Project will restore grassland habitat throughout the full potential range of the lesser prairie chicken which includes parts of Texas, Oklahoma, New Mexico, Colorado, and Kansas. *\$198,367*

Pheasants Forever

Habitat Restoration for Grassland Birds and Pollinators on Private Lands in Oklahoma and Texas Restore and enhance 1,000 acres of priority habitat on private lands to increase the quantity and quality of grassland habitat for bird and pollinator species of greatest conservation need. Project will work directly with private landowners to remove brush, reseed native grasses, and follow prescribed burning and grazing management practices. *\$75,000*

Rancho Santa Ana Botanic Garden

Range-wide Genetic Diversity of Sneed Pincushion Cactus: Genetic Basis for Taxon Recognition (AZ, NM, TX)

Conduct a study to genetically characterize the federally endangered Sneed pincushion cactus, endemic to the Chihuahuan Desert mountains of southwestern Texas and southern New Mexico. Project will clarify the relationships among the isolated populations, determine whether distinct elements are present, provide needed insight for consultations and management decisions, and meet goals outlined in the Recovery Plan for Lee and Sneed pincushion cacti.

\$80,000

Rocky Mountain Bird Observatory Developing a Monitoring Program for Wintering Grassland Birds in the Chihuahuan Desert (TX)

Develop a rigorous sampling protocol to estimate the density and occupancy of wintering grassland birds in the Chihuahuan Desert including Sprague's pipits and chestnut-collared longspurs. Project will survey reference sites to estimate density and occupancy of wintering grassland birds in these areas, and develop a regional sampling framework for wintering grassland birds in the Chihuahuan Desert. *\$125,000*

Rocky Mountain Bird Observatory Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Rocky Mountain Bird Observatory Monitoring Wintering Grassland Birds in the Chihuahuan Desert III (AZ, TX)

Apply a rigorous sampling protocol to estimate the density and/or occupancy of wintering grassland birds in the Chihuahuan Desert, including Sprague's pipit and chestnut-collared longspur. Project will implement a monitoring program developed in phases 1 and 2 over two winter seasons (2019-2020 and 2020-2021) in order to produce robust baseline estimates of wintering bird populations and evaluate the impact of ongoing grassland restoration investments.

\$300,000

Texas A&M AgriLife Research

Genomics and Ecology of Desert Massasauga in the Pecos River Watershed (NM, TX)

Evaluate the genetic relationships among populations of desert massasauga, which has been petitioned for listing under the Endangered Species Act, and prairie massasauga, which has no federal listing status, in the Pecos River watershed. Project will conduct research to determine the taxonomic identity of desert massasauga populations in the Pecos River watershed to inform future conservation actions. *\$121,600*

Texas A&M University-Corpus Christi Improving the iSnapper Mobile Application to Improve Recreational Red Snapper Fishery Reporting (TX)

Continue to develop and implement iSnapper, an electronic monitoring and reporting smart device application designed for private and for-hire recreational anglers to log catch and effort data in real-time, to improve the timeliness and quality of catch data in the red snapper fishery. Project will increase usage of the mobile application to 75 vessels and will monitor up to 218 trips. *\$272,378*

Texas A&M University-Kingsville Native Seeds Development and Outreach for Grassland Restoration in the Trans-Pecos Region (NM, TX)

Develop ecotypic native seed sources for the Pecos River watershed and west Texas region to support successful grassland restoration. Project will address limitations to native grassland habitat restoration through outreach and technical assistance to landowners, energy operators, and related contractors reseeding in the watershed, by expanding an established native seed research and development program, and by collaborating with the commercial seed trade to expand seed source availability.

\$186,538

Texas Rice Industry Coalition for the Environment Texas Coastal Plain Wetland Restoration for Migratory Birds on Private Lands

Create 1,000 acres of wetlands in the Texas coastal plain region by constructing levees and installing water control structures to benefit migratory and non-migratory wetland wildlife including shorebirds, wading birds, waterfowl and seabirds. Project will work on private lands with existing conservation easements and within wildlife refuge acquisition boundaries to meet the needs of the millions of birds that travel through the area every year. *\$56,500*

Texas State University

Restoration of Comanche Springs (TX)

Design a market to reduce groundwater pumping and develop a funding strategy to conserve groundwater to restore year-round flow to Comanche Springs. Project will restore the perennial flow and provide a refuge for threatened and endangered desert fish, including Pecos gambusia and Comanche Springs pupfish. \$98.607

Texas Water Trade

Scaling the Texas Environmental Water Market

Support the growth of conservation practitioners pursuing and executing environmental water transactions to protect the health of Texas' rivers, bays, and estuaries during future drought. Project will focus on using Texas' considerable science on environmental water needs and an assessment of current and future environmental flows shortages to identify priority basins and bays for transaction development, action plans for securing flows in those priority geographies, and 10-year targets for flows protection and restoration in those priority geographies to be achieved through market means. *\$500,000*

The Conservation Fund

Protection of Sabine Ranch for Incorporation into the McFaddin National Wildlife Refuge (TX)

Acquire 12,376 acres of Texas coastal prairie and marsh habitats within the McFaddin National Wildlife Refuge boundary. Project will protect water quality, shallow aquatic habitats, and emergent marshes that are essential for shorebirds and other migratory waterfowl. \$500,000

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments. *\$150,000*

The Trust for Public Land Alice Branch Creek Green Infrastructure (TX)

Transform Alice Branch Creek in Dallas, Texas from its currently degraded condition into a safe and attractive community asset. Project will remove invasive species on 3 acres, implement buffer strips of native plants on 0.25 miles along the creek, and engage 500 students and residents through volunteer days and educational sessions. *\$50,000*

Toyah Limpia SWCD

Central Trans-Pecos Native Grassland Restoration and Management Program (TX)

Restore native grassland habitat for use by pronghorn and migratory grassland birds in Reeves, Jeff Davis, Culberson, and Pecos Counties, Texas. Project will work with producers and landowners to conduct brush management to control brush encroachment and conserve quality native grassland habitat. *\$100,000*

UTAH

Mountain Island Ranch Wet Meadow Restoration on the Little Dolores and Colorado River (CO, UT)

Improve wet meadow habitat and forage along the Little Dolores River in Western Colorado to benefit Gunnison sage grouse, elk, mule deer, wild turkeys, and waterfowl; restore stream flows and improve water quality; improve soil health; and increase drought resilience. Project will install 170 beaver dam analogues and Zeedyk structures, remove invasive vegetation, and alter grazing patterns to restore 240 acres of wet meadow habitat. *\$125,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249.161*

Summit Land Conservancy

Placing Conservation Easements on Working Rangelands Containing Greater Sage-Grouse Habitat (UT)

Work with private landowners to place permanent conservation easements on working rangelands in Summit and Morgan counties that currently or could potentially contain greater sage grouse habitat, breeding ground, and migratory corridors. Project will conduct outreach, reduce financial barriers to landowners, assist in developing and finalizing easements, create sustainable land management plans to improve and enhance sage grouse habitat, and monitor each preserved property in perpetuity. **\$77,624**

Utah Division of Wildlife Resources Removing Invasive Pinyon Pine and Juniper to

Restore Sagebrush Habitat in Utah Enhance and restore sagebrush habitat in crucial mule deer and elk winter ranges across federal, state, and private lands in Miller Creek and Little Bear Valley in Utah. Project will remove invasive pinyon pine and Utah juniper through mechanical and manual cutting crews on 9,752 acres. \$200,000

U.S. Bureau of Land Management Noxious Weed Control in Sagebrush Habitats within Iron County, Utah

Sustain the health, diversity, and productivity of sagebrush habitat in Iron County, Utah by removing invasive species that have encroached into the area after fires disrupted the existing weed control program. Project will treat 500 acres for several noxious weed species to relieve pressure on native vegetation and benefit a wide range of sage-obligate species, including greater sage-grouse. *\$30,000*

West Box Elder Conservation District Removing Invasives and Improving Grazing

Management in the Grouse Creek Watershed, Utah Improve sagebrush habitat, riparian habitat, and range condition through improved grazing management and invasive removal throughout the Grouse Creek watershed of Utah. Project will collaborate with private and federal entities to complete habitat improvement by the mechanical removal of juniper, grass and forb seeding, and increase livestock distribution to benefit sage grouse, mule deer and other sage-dependent species. *\$162,792*

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VERMONT

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

NorthWoods Stewardship Center Engage Private Forest Landowners to Improve

Management of Forest Habitats for Wildlife (VT) Engage private forest landowners in northeastern Vermont by providing no-cost conservation management plans using the Vermont Conservation Design and other existing data to identify priority habitats and appropriate strategies to benefit multiple species. Project will create management plans for 50 landowners and restore 3,000 acres of mature forest habitat for black-throated blue warbler and 200 acres of young forest habitat for American woodcock. \$53,585

Rich Earth Institute

Advancing Deployment of the Nutrient Reclamation Project in the Long Island Sound Watershed II (VT)

Identify new sites to install innovative nutrient reclamation and recycling technology in Windham County, Vermont. Project will expand the number of sites committing to install a technology designed to reduce nitrogen entering the Connecticut River and ultimately Long Island Sound. *\$43,890*

Rich Earth Institute

Nutrient Reclamation in the Long Island Sound Watershed II (VT)

Install nutrient reclamation technology in Windham County and adjacent counties in Vermont. Project will divert 1,050 pounds of nitrogen annually from entering the Connecticut River and ultimately Long Island Sound. *\$80,000*

The Trust for Public Land Rolston Rest Acquisition (VT)

Acquire the 2,745-acre Rolston Rest property, the largest unprotected inholding within Vermont's Green Mountain National Forest. Project will safeguard habitat for black bear, northern river otter, bobcat, and Bicknell's thrush while protecting drinking water sources for local communities and increasing recreational access for hikers, crosscountry skiers, hunters, and anglers. *\$300,000*

Vermont Fish and Wildlife Department Restore Brook Trout Habitat with the Addition of Large Woody Material (VT)

Restore habitat for native eastern brook trout on and increase brook trout biomass by adding large woody material in tributaries of the Connecticut River watershed in northeastern Vermont. Project will improve brook trout habitat in 19 miles of stream by adding large woody material that will increase pool frequency and depth, increase cover, and retain organic material and fine sediment. *\$53,768*

VIRGINIA

Alliance for the Chesapeake Bay

Expand the RVA H20 Regional Partnership to Scale-Up Green Infrastructure in Richmond (VA)

Enhance the structure and function of the RVA H20 regional water management partnership to implement stormwater best management practices in Richmond. Project will bring together government agencies and local partners to implement green infrastructure, with a specific focus on public school sites and education.

\$999,963

Alliance for the Chesapeake Bay

Nestle Agriculture and Dairy Conservation Initiative (MD, PA, VA)

Pilot the planning and implementation of agriculture conservation practices with six Nestle farmers to build a model to scale implementation to the entire 900 farms that supply milk to the company in the Chesapeake Bay Watershed. Project will lay the ground work for building a watershed-wide conservation program to support the farmers that supply to Nestle. *\$200,000*

Alliance for the Chesapeake Bay Strengthening Watershed Initiatives and Increasing

Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, identifying areas of common concern and need, and developing solutions to common challenges. *\$500,000*

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges *\$469,482*

Alliance for the Shenandoah Valley

Scaling Up Agricultural Best Practices Through the Shenandoah Valley Conservation Collaborative (VA) Recruit 90 landowners and implement a combined 106 miles of livestock exclusion fencing and 490 acres of riparian buffers focusing restoration efforts on preserved parcels in the Shenandoah Valley. Project will leverage a regional backbone organization, existing partnerships, local government, and enhanced coordination with technical assistance and habitat restoration professionals to strengthen and accelerate the scale of best management practice implementation and aquatic habitat improvements. *\$996,620*

Canaan Valley Institute

Stream Corridor Restoration and Community Education in Wolf Creek Watershed (VA)

Establish warm-season grasses and forbes to improve upland habitat for birds and pollinators and stabilize streambanks and improve instream habitat conditions for freshwater fish, mussels, and hellbenders along Wolf Creek and Town Creek. Project will restore 3.6 acres of stream corridor and engage 600 community college students in planning, implementation, and monitoring and will impact over 3,000 people through outreach events. \$34,173

Chesapeake Bay Foundation

Eastern Oyster Restoration in the Western Branch of the Lynnhaven River (VA)

Establish 2.5 acres of new oyster reef, engage more than 100 volunteers in the construction and planting of reef balls, and place 5.5 million young oysters in the Western Branch of the Lynnhaven River. Project will be conducted in partnership with Lynnhaven River Now, continuing the re-establishment of Eastern Oyster in the Lynnhaven and building on the 2018 National Fish and Wildlife Foundation-funded restoration in the Eastern Branch. *\$200,000*

Chesapeake Bay Foundation

Expanding Green Infrastructure, Urban Stream, and Tree Canopy Restoration in Hopewell (VA)

Implement large-scale stream restoration and wetland enhancement on an eroding stream channel be, re-establish floodplain wetlands adjacent to the stream channel, plant 250 urban trees, and create "conservation corners" to install green features in residential areas with poorly draining soils. Project will engage more than 250 community volunteers and develop Meaningful Watershed Education Experiences for students to takes advantage of the large-scale stormwater management project proximity. *\$199.999*

Chesapeake Bay Trust

Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational levels throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale.

\$1,200,000

Chesapeake Stormwater Network Chesapeake Stormwater Training and Engagement

II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states. *\$125,000*

125,000

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement on four under-served target populations in the Chesapeake Bay watershed to accelerate the pace of local nutrient load reductions. Project will promote more widespread implementation of effective stormwater and restoration practices across the watershed. *\$125,000*

City of Norfolk

Lindenwood-Barraud Park Community Resilience Living Shoreline (VA)

Construct a hybrid living shoreline and riparian buffer expansion in Norfolk, Virginia along the Lafayette River. Project will improve the shoreline along a lower-income neighborhood and will support storm resilience, water quality, and habitat improvement goals. *\$1,202,500*

City of Norfolk Norfolk Green Infrastructure Plan Implementation (VA)

Expand and increase implementation of the City of Norfolk's Green Infrastructure Plan by supporting community tree planting, adoption of tree and rain barrels for installation on private property, construction of rain gardens in community spaces, and restoring wetland and riparian buffers. Project will support goals of improved water quality, reduced nuisance flooding, expanded wildlife habitat, and increased community volunteer capacity. *\$161,500*

College of William and Mary, Virginia Institute of Marine Science

Engaging students, citizens, and watermen in the removal of derelict blue crab traps (MD, VA)

Engage regional high schools in competition to develop a "Crab Trap App" for citizen scientists to use in derelict blue crab trap removal efforts in the Chesapeake Bay. Project will result in an easy to use app, provide economic and ecological benefits from the removal of derelict traps, and communicate the activity to the public through an online interactive map. **\$60,000**

College of William and Mary, Virginia Institute of Marine Science

Farm Resiliency Education for At-Risk Coastal and Riparian Agricultural Lands (MD, VA)

Host a series of workshops to develop a strategy and work plan for managing farming landscapes, outline projects that could be undertaken for piloting practices, develop proposals for implementation, and target potential sites. Project will address farmlands at risk to rising sea levels and will bring together agricultural economists, experts on alternative cropping systems, and ecosystem specialists to provide expertise on how to transition vulnerable agricultural landscapes. *\$49.994*

Cornell University

Measuring Bachman's Sparrow Response to Longleaf Pine Management (multiple states)

Develop a methodological framework to use citizen science and field collected data by project partners to evaluate and measure Bachman's sparrow response to habitat restoration and management efforts at scales relevant to the species' population. Project will estimate a region-wide baseline for occupancy and potentially evaluate trends in occupancy and relative abundance. \$95,469

College of William and Mary, Virginia Institute of Marine Science

Eastern Shore Barrier Island Stabilization and Marsh Construction Engineering Plans (VA)

Develop an engineering design plan for a 450-acre marsh restoration and expansion project along southern Cedar Island in Virginia and provide direct outreach to resiliency planning organizations and local citizens on the Eastern Shore. Project will prepare plans to enhance the resiliency of the barrier islands, back barrier marshes and lagoons, and mainland communities in the rural Eastern Shore.

\$249,707

Chesapeake Bay Foundation

Mountains to Bay Grazing Alliance: A Collaborative to Increase Rotational Grazing (MD, PA, VA, WV) Expand and strengthen a network of private and public partners to promote the adoption of rotational grazing systems that enhance soil health, protect and improve water quality, and contribute to farm economic viability. Project will include on-farm demonstrations, peer-to-peer dialog, establishment of local grazing groups, and development of outreach materials that highlight the economic and soil health benefits of grazing. *\$729,468*

Chesapeake Bay Foundation

Restoration of the Eastern Oyster in the Lynnhaven River (VA)

Establish 2.5 acres of new oyster reef, construct and plant 200 reef balls, and place 5.5 million young oysters in the Lynnhaven River. Project will be conducted in partnership with Lynnhaven River NOW oyster reef construction, enhancing the population of native eastern oysters, and engaging approximately 500 volunteers in a wide array of hands-on oyster restoration activities. *\$199,987*

College of William and Mary

Full Life-cycle Conservation for Whimbrels on the Western Atlantic Flyway (multiple states)

Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring to serve as a metric of success, map critical whimbrel sites to focus onthe-ground management, and improve conditions within critical sites.

\$148,763

Ecosystem Services

Prioritization of Restoration and Partnership in the Rivanna (VA)

Prioritize restoration work along the main stem of the Rivanna River Corridor from the confluence of the North Fork and South Fork to Moores Creek. Project will assess streambank erosion and riparian buffer parameters and rank areas marked high or very high for stabilization to maximize future implementation on the Rivanna, resulting in the largest results for available funding. \$49,936

Environmental Concern

From Design to Construction: Scaling-Up to Meet Demand for Living Shorelines on the Lower Bay (VA) Increase the capacity of the Elizabeth River Project

for in-house design and construction of living shorelines, rain gardens, wetlands, and other green infrastructure. Project will address a lack of available and affordable construction firms to meet an increasing demand for this work on the lower bay. *\$50,000*

Forest Landowners Association

Engaging Working Forest Landowners, Building Stakeholder Collaboration and Developing Solutions III (multiple states)

Engage large-acreage family forest owners in longleaf pine restoration and conservation of at-risk and listed species across the historical longleaf pine range, with a particular focus within areas impacted by Hurricanes Florence and Michael. Project will establish 120 acres of longleaf pine and produce collaborative, landscape-level solutions to longleaf restoration on large family-owned forestlands, including species-related regulatory predictability tools and market-based incentives. *\$150,000*

Friends of the Rappahannock Implementing Virginia's Phase III WIP Through the Rappahannock Roundtable (VA)

Install 10 miles of livestock fencing and stream restoration, 30 acres of urban forest/tree canopy, 300 acres of urban nutrient management plans, 5 acres of oyster reef restoration, and 15 living shoreline projects. Project will capitalize on the local and regional partnerships developed across the Rappahannock River Basin to accelerate the implementation of priority best management practices outlined in the Virginia Phase III Watershed Implementation Plan. *\$810,100*

Friends of the Rappahannock

Oyster, Shoreline, and Stream Restoration in the Rappahannock Tidal Tributaries (VA)

Restore Carter's Creek and Urbanna Creek through oyster restoration on the river bottom, living shorelines, and grasses to reduce shoreline erosion, and green infrastructure to address polluted stormwater runoff. Project will engage schools and community volunteers in restoration work, educating the community about the importance of water quality. *\$91,573*

Future Harvest - Chesapeake Alliance for Sustainable Agriculture Supporting a CBFN Soil Health Summit (VA)

Deliver a Chesapeake Soil Health Forum to engage regional agricultural conservation partners in advancing the use of soil health-promoting programs and practices in Chesapeake Bay watershed restoration efforts.

\$10,278

Headwaters Soil and Water Conservation District Increasing Manure Injection Opportunity (VA)

Partner with the most widespread custom manure applicator in Virginia, adding an injector unit into the applicator fleet. Project will increase the adoption of manure injection and provide farmers an individual farm experience with the cost-benefit of utilizing manure injection with minimum disturbance for farms implementing no-till management, resulting in positive nitrogen load and water quality impacts. *\$199,876*

James River Association

Building Adaptive Shorelines and Resilient Communities in the Lower James River (VA)

Implement three living shoreline management and green infrastructure projects on public land in the Hampton area to address community and habitat vulnerability to sea level rise. Project will strengthen natural systems to protect the Hampton Roads region from the impacts of flooding and storm events and enable communities to recover more quickly. *\$1,512,536*

James River Association

Formalizing and Growing the Middle and Upper James Riparian Partnership (VA)

Formalize an existing multi-party partnership structure designed to improve coordination and delivery of riparian conservation programs and practices in the middle and upper James River watershed. Project will utilize a consortium model to build individual organizational capacity of partners, coordinate project prioritization, and implement 200 acres of riparian buffers. *\$750,000*

James River Association

Improving Drainage in the Lakemont Neighborhood (VA)

Implement a hydronamic separator structure retrofit and extend a storm sewer to provide water quality treatment and enhance maintenance access. Project will intercept drainage and redirect flow through a new storm sewer while engaging and educating local residents through the design and implementation process.

\$199,959

Karl P. Martin

2019 Guy Bradley Award - State Winner

\$1000 was awarded to the 2019 Guy Bradley Award state level recipient, Lieutenant Karl P. Martin from the Virginia Department of Game and Inland Fisheries.

\$1,000

Living River Restoration Trust Long-Term Land Conservation and Buffer

Implementation on the Elizabeth River (VA) Evaluate 29 forest and wetland sites for long-term conservation, prioritize sites and plan for a corridor of high-value habitat, place 50 acres in permanent protection, and plant 1,500 square feet of riparian buffer. Project will build the capacity to conserve wetlands and forested riparian buffers in the Elizabeth River watershed, including establishing conservation of high-quality riparian corridors. \$48,500

Lynnhaven River Now

Restoration of the Eastern Oyster in the Lynnhaven River Western Branch (VA)

Construct a 3-acre oyster reef using crushed concrete substrate, the first alternative-substrate reef, in the Lynnhaven River, Project will support an overall goal of 60 acres reef habitat in the Lynnhaven River, in partnership with the Chesapeake Bay Foundation. \$200,000

Lynnhaven River Now

Restoring the Eastern Oyster in the Eastern and Western Branches of the Lynnhaven River (VA)

Restore there acres of oyster reef in the eastern and western branches of the Lynnhaven River. Project will support reaching the target of an additional 60 acres of oyster habitat target in the Lynnhaven, in partnership with the Chesapeake Bay Foundation, and builds on the 2018 National Fish and Wildlife Foundation-funded restoration in the Eastern Branch. \$200,000

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds.

\$67,737

Manomet

Implementing Best Management Practices to Benefit Shorebird Species (multiple states)

Implement best management practices to restore wet and dry sand habitats for red knots, whimbrel, American ovstercatcher, and other shorebirds along the Atlantic Coast. Project will involve a coastwide coordination of the American oystercatcher recovery initiative, a compilation of lessons learned, and advance work to reduce the impact of predation and human disturbance on populations of breeding shorebirds along the U.S. Atlantic coast. \$191,000

Middle Peninsula Planning District Commission Engaging Local Landowners in Living Shorelines and Shoreline Management (VA)

Target landowners with contiguous repetitive loss properties to create a 500- to 700-foot stretch of living shoreline and develop rural coastal flooding resiliency plans utilizing sand from other dredging projects. Project will improve coastal resiliency and mitigation efforts, while simultaneously improving water quality and managing shoreline erosion and marsh loss.

\$199,914

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. \$249,161

National Wildlife Federation

Accelerating Implementation through Information Sharing at the Choose Clean Water Conference (VA)

Bring together regional stakeholders and community members for a two-day educational and networking experience. Project will focus on enhancing and facilitating cross-sector relationships across the Chesapeake Bay watershed in order to encourage stronger restoration efforts. \$45,000

Northern Neck Planning District Commission Low Impact Stormwater Retrofit in Warsaw (VA)

Convert an abandoned and paved shopping center to a stormwater pond with green space, rain gardens, bioretention areas, walking trails, native plants and interpretive signage. Project will be a living and visible demonstration site that invites pedestrians into the downtown area and informs residents, students, and visitors of the positive impact of green infrastructure. \$200,000

Rappahannock Wildlife Refuge Friends Group Building a Fishing Pier at Point Creek (VA)

Build an accessible fishing pier at the Rappahannock River Valley National Wildlife Refuge. Project will provide a new opportunity for the community to participate in fishing and introduces them to the refuge and to the Friends organization. \$15,000

Ridge to Reefs

Implementing Targeted Nutrient Management in the Shenandoah Valley and Eastern Shore (MD, VA) Construct four denitrifying bioreactors and 3.6 acres of nontidal wetlands in priority watersheds with high nutrient loads in Maryland and Virginia. Project will improve farms environmental performance, treat legacy nutrients, and will benefit American black duck wintering habitat and eastern brook trout recovery. \$199,787

Science Museum of Virginia Foundation Stormwater Pollutant Mitigation and Green Infrastructure at the Science Museum of Virginia

Mitigate sewer overflow events by removing 3 acres of impervious surface, installing an advanced bioretention system, enhancing existing green stormwater infrastructure education and outreach, and developing a predictive model of future green site and stormwater management projects. Project will reduce nutrient and sediment loads discharging into the James River and will demonstrate effective stormwater management practices. \$200,000

Stroud Water Research Center Soil Health Conservation, Engagement, and Technical Assistance (MD, PA, VA)

Partner with Cover Crop Coaching to increase access to technical expertise on soil health and increase adoption rates. Project will enable Cover Crop Coaching to direct farmer meetings, host train-thetrainer events, and increase outreach to landowners renting cropland to tenant farmers. Project also will help address the shortfall of technical expertise on soil health and will increase adoption rates of cover crops and no-till. \$199,976

The Elizabeth River Project

Increase Collective Impact on the Elizabeth River through Strengthened Partnership (VA)

Reinvigorate the Elizabeth River Project partnership to further coordinated stormwater management and ecosystem restoration in Chesapeake, Norfolk, Portsmouth and Virginia Beach, Virginia. Project will establish a leadership roundtable and summit to formally adopt a new watershed action plan, explore regional financing options, and improve coordination of green infrastructure projects at a variety of scales.

\$750,000

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The Elizabeth River Project

Oyster Restoration and Education on the Elizabeth River (VA)

Deploy the latest technologies for creating oyster habitat in the Eastern Branch of the Elizabeth River to create 5 acres of robust habitat for the keystone species of the Chesapeake Bay, the native oyster. Project will add 86 cubic yards of material ranging from "oyster castles" to a new design for "oyster discs" that mimic natural reefs along with 50 cubic yards of oyster shell. *\$49,968*

The Elizabeth River Project River Stars: Maturing the Movement (VA)

Develop the first protocol in the Chesapeake Watershed for verifying residential best management practices and construct a living shoreline showcase on the Norfolk Southern corporate campus. Project will increase the capacity of the River Star Homes and River Star Businesses programs to reduce pollution, while developing important protocols and models for residential and industrial stewardship. *\$198,472*

The Longleaf Alliance

Coordinating Local Implementation Team Capacity and Landowner Technical Assistance and Outreach IV (multiple states)

Improve and sustain coordination and exchange of information among 17 multi-partner local implementation teams that organize, plan, and deliver conservation actions to restore and enhance the longleaf pine ecosystem. Project will support strategic on-the-ground restoration through conservation planning, as well as tracking and communication of longleaf pine restoration accomplishments. *\$150,000*

The Piedmont Environmental Council Reconnecting and Restoring Brook Trout Habitat (VA)

Replace restrictive culverts with improved streamsimulation road-stream crossings for full aquatic organism passage in Piedmont. Project will improve instream habitat by restoring riparian habitat, reconnecting 4 miles of stream, and removing two barriers to fish passage. *\$199,057*

The Piedmont Environmental Council

Restoring Stream Connectivity for Eastern Brook Trout in the Upper Rappahannock Watershed (VA) Improve native eastern brook trout habitat in Virginia's Upper Rappahannock watershed in partnership with the Virginia Department of Transportation by replacing culvert structures with fish friendly structures. Project will reconnect 2 miles of intact brook trout habitat and restore 200 linear feet of riparian habitat. *\$65,000*

Town of Colonial Beach Robin Grove Living Shoreline (VA)

Restore eroded shoreline along Monroe Bay by constructing a living shoreline with rock sills, sand fill, and wetland plantings to restore marsh habitat. Project will install oyster shell bag sills to maintain existing marsh fringe, partner with the Virginia Institute of Marine Science, and engage the community through volunteer installations of oyster bags.

\$197,804

\$200,000

Town of Woodstock Stormwater Management in Shenandoah Towns

(VA) Construct two biofiltration projects, incorporate permeable pavers into a retrofit of court square area, and foster broader adoption and better maintenance of stormwater facilities by the localities in the Shenandoah River Friendly Towns collaboration through a series of related outreach and training efforts. Project will demonstrate the benefits of green infrastructure in Shenandoah localities.

Trout Unlimited

Expanding Brook Trout Patch Size and Improving Water Quality in the North River Watershed (VA)

Restore 1 mile of instream habitat, install 7,000 feet of exclusion fencing, and establish 19 acres of riparian buffer in spring fed streams in the Mossy Creek and Briery Branch subwatersheds of Upper North River. Project will increase and expand eastern brook trout patches and improve water quality in the Shenandoah Valley while providing technical assistance to landowners working to implement restoration projects on their properties. *\$178,385*

Trout Unlimited

Providing Incentives to Improve Trout Habitat in the Upper South Branch of the Potomac River (VA) Provide outreach, technical assistance, and

incentives to private landowners in the Upper South Branch of the Potomac River in Virginia to improve riparian habitat, connect to large upland blocks of managed forest, and reconnect aquatic habitat to benefit eastern brook trout populations. Project will remove three fish passage barriers, open 3 miles of stream, restore 7 miles of riparian buffers with a minimum 35 foot width, and install 10 miles of cattle exclusion fencing.

\$181,197

University of Maryland Center for Environmental Science

Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states) Improve the Chesapeake Bay Report Card process

and product by engaging in new partnerships to develop ecosystem health indicators for non-tidal watershed areas and indicators for social, cultural, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project. *\$82,678*

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds. *\$999.942*

University of Tennessee (AgResearch)

Advancing Northern Bobwhite Management in the Longleaf Pine Range (AL, GA, LA, VA)

Develop northern bobwhite population goals for target sites within the longleaf pine range in Alabama, Georgia, Louisiana, and Virginia to support adaptive management. Project will engage local partners, including state wildlife agencies, to collect habitat and population data, and will produce predictive statistical models that relate population abundance to habitat structure, landscape characteristics, and management actions. *\$147,568*

University of Virginia

University of Virginia Conservation Interns and Conservation Scholars Support IV (VA)

Support senior undergraduate and professional school students at the University of Virginia for a ten-week period during the summer of 2019. Project will pair students with university faculty and National Fish and Wildlife Foundation staff to identify appropriate summer internship topics with the goal of increasing the professional capacity of highly educated individuals in the field of conservation.

\$100,000

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Valley Conservation Council

Land Conservation and Nutrient Management Planning in the Central Shenandoah Valley (VA)

Provide technical assistance to ten or more farm landowners with donated conservation easements through the creation of nutrient management or resource management plans. Project will permanently protect property and secure buffers/ livestock exclusion on 6-10 miles of streams and associated buffers.

\$199,055

Virginia Polytechnic Institute and State University Building Soil Health Through Collaboration,

Implementation, and Market Opportunities (VA) Pilot 45 producers with management control of 2,250 acres of cropland to create widespread adoption of cover crop, no-till, and enhanced nutrient management practices, increasing adoption to 20,000 acres post-pilot. Project will enhance the efforts of Virginia's Soil Health Coalition to expand awareness among both producers and consumers for the value of healthy soil practices and create increased partnerships that benefit soil health and water quality in priority regions in the Shenandoah Valley and the lower Eastern Shore. *\$1,000,000*

WASHINGTON

CDP North America

Scaling Green Infrastructure Investments in Cities II (multiple states)

Build capacity of communities in an additional 15 cities across the United States to help them implement sustainable infrastructure for storm water management, urban wildlife habitats, and tree canopy improvement. Project will perform targeted outreach to cities to increase knowledge of sustainable infrastructure financing, develop cities' use of online tools to document green infrastructure and habitat benefits, and facilitate knowledge sharing and capacity building across cities. *\$250.000*

Confederated Tribes of the Umatilla Indian Reservation Flow Restoration Development (OR. WA)

Work with The Freshwater Trust, Trout Unlimited, and Washington Water Trust to support and develop voluntary water transactions in the Umatilla, Walla Walla, Grande Ronde, and John Day sub-basins. *\$139,846*

Confederated Tribes of the Umatilla Indian Reservation Water Rights Accord FY20 (OR, WA)

Work with The Freshwater Trust, Trout Unlimited, and Washington Water Trust to support and develop water transactions. *\$167,250*

Conservation Northwest

Increasing Connectivity for Mule Deer, Canada Lynx and Sharptail Grouse in Okanogan Valley (WA) Reconnect habitat and increase public safety between the Cascade and Kettle mountain ranges. Project will conduct habitat restoration to benefit population recovery for Canada lynx, mule deer, and sharp-tailed grouse. Efforts will continue to develop a safe passage crossing for mule deer in an area where more than 300 mule deer are struck by vehicles annually. *\$220,000*

Farallon Institute

Integrating Seabird Data into Fisheries Management in Alaska II (AK, CA, WA) Evaluate how data from long-term seabird monitoring in Alaska may be used in fisheries management, with an emphasis on seabirds as samplers of young-of-the-year/juvenile age classes of commercial groundfish (e.g., pollock, sablefish, cod) that are difficult to sample by other means. Project will advance integration of data from seabird studies with fisheries science to improve ecosystem-based fisheries management and seabird conservation. *\$79,946*

Friends of Mid-Columbia River Wildlife Refuges Establishing an Educational Pollinator Garden (WA)

Establishing an Eudeational Pointatol Garden (WA) Establish a pollinator garden and exploration zones at McNary National Wildlife Refuge. Project will engage community members and students in planting and path building and will improve existing habitat, and enhance educational opportunities. *\$8,400*

Hood Canal Salmon Enhancement Group River Restoration Design to Reduce Flood Risk (WA)

Prepare project designs for integrated floodplain protection and restoration along the lower 3 miles of the Big Quilcene River. Project will reduce flood risk and improve salmon and shellfish habitat while enhancing water quality, recreational access, and economic vitality in the local community. *\$229,308*

Long Live the Kings

Increasing the Size and Survival of Returning Adult Chinook Salmon in North Puget Sound (WA)

Increase the number of hatchery fall Chinook salmon released from Glenwood Springs Hatchery in North Puget Sound and study the feasibility of increasing the survival and size of returning adult Chinook. Project will develop a transferable rearing template for increasing the size and survival of hatchery Chinook to benefit Southern Resident killer whales. *\$147,000*

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities. *\$249,161*

Nooksack Salmon Enhancement Association The Puget Sound Stewards Program (WA)

Restore 15 acres of riparian habitat to improve water quality and habitat for Chinook salmon, bull trout and steelhead salmon in Puget Sound and Whatcom County. Project will engage five local resource management partners and 2,500 volunteers to plant 5,000 trees and remove 6 acres of invasive vegetation. *\$29,946*

North Gulf Oceanic Society Use Genetic Prey Identification to Understand

Critical Salmon Stocks for Killer Whale Diet (AK, WA) Characterize the diet of Southern resident killer whales through genetic prey identification from fecal samples and prey remains and compare these samples to the diet of Alaska resident killer whales. Project will provide data to target specific salmon stocks and understand nutritional and foraging needs of the endangered whale population. *\$101,923*

Pheasants Forever

Conservation of Mule Deer Winter Range Habitat (WA)

Improve winter range habitat quality and migration corridors for mule deer in eastern Washington by implementing conservation and restoration projects that will promote robust and sustainable populations of mule deer. Project will restore 3,500 acres and reconnect 7.5 miles of a migration corridor. *\$137,360*

Quinault Indian Nation

Establish a Derelict Net Removal and Tracking Program for the Quinault Nation (WA)

Develop a program to reduce derelict nets from coastal riparian corridors and properly dispose of them to prevent their entry into the Olympic Coast National Marine Sanctuary. Project will inform fishermen and the community of the ecological effects of abandoned and lost derelict gear, conduct clean-ups, and develop a new gear tracking system to improve management. *\$69,338*

San Juan County Public Works

Protect Priority Southern Resident Killer Whale Foraging Habitat in the San Juan Islands (WA)

Incorporate broad stakeholder input into establishing a management approach to reducing vessel disturbance to Southern resident killer whales in critical habitat off the San Juan Islands. Project will integrate acoustics and whale behavior research with local stakeholder input to reach recommended options for management. *\$95,000*

Seattle Audubon

Improving Greenspace in Capitol Hill through Impairment Reduction (WA)

Work toward eliminating or significantly reducing herbicide and toxic rodenticide use at Cal Anderson Park. Project will engage and train 50 community volunteers as park stewards to maintain the park without herbicides and create a vegetation plan for a habitat corridor that would link approximately 60 acres of currently isolated pervious greenspace. \$40,000

Skagit County Public Works Restore Chinook Salmon Rearing Habitat (WA)

Replace a failing culvert under Cedar Grove Avenue with a 120-foot pedestrian bridge to restore fish passage within Ovenell Slough. Project will restore access to more than 1.5 acres of Chinook salmon rearing habitat to increase survivorship of outgoing smolts.

\$144,225

Skagit Fisheries Enhancement Group

Expanded Upper Skagit Knotweed Control (WA) Implement a strategic and thoughtful approach to controlling invasive knotweed and implement early detection for noxious weeds in the Upper Skagit watershed. Project will engage 80 volunteers to restore 5,230 acres through treating invasive knotweed and will further survey and map knotweed infestations on another 17,215 acres. *\$26,382*

The Whale Museum

Increase Capacity for Vessel Research and Boater Education to Benefit Killer Whales (WA)

Provide increased capacity for collection of vessel density and disturbance data for the Southern resident killer whale population in the Salish Sea. Project will educate boaters and increase compliance with current regulations and guidelines to reduce vessel disturbance. *\$65,581*

Trout Unlimited

Columbia Cascade Water Transactions (WA) Identify, prioritize and develop projects with willing water right holders in the Methow, Entiat, Yakima, and Wenatchee sub-basins of Washington to complete significant instream flow enhancements to priority streams and tributaries. Project will improve tributary in-stream habitat to benefit listed salmon and other native fish species. *\$280,125*

Trout Unlimited

Lake Sammamish Stewardship: Expanding the Vision for a Connected Watershed (WA)

Expand and diversify the current U.S. Fish and Wildlife Service's Lake Sammamish Urban Wildlife Refuge Partnership by leveraging resources to increase community reach and depth of engagement. Project will restore 3 acres through invasive species removal and will engage 6,000 community members through community work days, outreach events, and educational programming. *\$41,634*

Tulalip Tribes of Washington

Increase Southern Resident Killer Whales Prey Base by Increasing Chinook Salmon Stocks (WA)

Increase Snohomish River Basin hatchery production and evaluate salmon survivorship based on release strategies. Project will manage hatchery interventions for increased survivorship and size of Chinook salmon in areas important to Southern Resident killer whales, and monitoring for any genetic and ecological impacts to wild juvenile and adult salmonid stocks.

\$176,959

Washington Department of Ecology Development and Monitoring of Washington State's Water Right Acquisitions Program (WA)

Assist in the selection, assessment, and coordination of water right acquisitions in Washington State that will improve stream flows to benefit Endangered Species Act-listed species. Project will monitor and manage acquired water rights to ensure project completion and longterm flow improvement goals. *\$81,500*

Washington Department of Fish and Wildlife Leque Island Estuarine Marsh Habitat Restoration and Flood Protection (WA)

Remove a 2.4-mile long perimeter levee to restore tidal and riverine influence and improve coastal resiliency for Stanwood, Washington. Project will restore 250 acres of estuarine marsh and estuary rearing habitat for endangered chinook juvenile salmonid populations of the Stillaguamish and Skagit rivers while providing flood protecting to the surrounding community. *\$900,000*

Washington Water Trust

Stream Flow Restoration to Benefit Salmon, Steelhead and Trout in the Columbia Basin (WA)

Restore fish critical streams in the Columbia River Basin by implementing instream flow acquisitions to benefit Endangered Species Act-listed Chinook salmon and steelhead in the Yakima, Methow, Wenatchee, White Salmon, and Klickitat watersheds.

\$170,000

Washington Water Trust

S tream Flow Restoration to Benefit Salmon, Steelhead and Trout in the Columbia Basin-Okanogan (WA)

Increase access for Endangered Species Act-listed steelhead to cool water in the late summer as well as ensure passage of steelhead into high quality tributary habitats during the late spring spawning season. Project will focus on restoring flows to Salmon Creek and Loup Loup Creek, two tributaries that are critical to the Upper Columbia steelhead. Project includes close coordination with the Colville Tribes. *\$40,566*

Washington Water Trust

Stream Flow Restoration to Benefit Salmon, Steelhead and Trout in the Walla Walla Basin (WA) Secure flow in priority stream reaches during critical seasons for Endangered Species Act (ESA)-listed salmonids. Project will place special emphasis on the Touchet River, Mill Creek, and flow-limited portions of the Walla Walla River, where low summer flows and related high temperatures have impacted ESA-threatened bull trout and summer steelhead, as well as recently reintroduced spring Chinook.

\$103,875

Yellowstone to Yukon Conservation Initiative Reducing Human-Grizzly Bear Conflict in the Cabinet-Yaak Ecosystem (ID, MT, WA)

Reduce conflicts between humans and grizzly bears in the Cabinet-Yaak Ecosystem by improving waste management, providing community education, road closure and restoration, and securing grizzly bear habitat. Project will also restore private land parcels in a critical linkage zone for two imperiled grizzly bear populations through a partnership with federal and state agencies and local conservation groups. *\$208,871*

WEST VIRGINIA

Alliance for the Chesapeake Bay

Strengthening Watershed Initiatives and Increasing Capacity to Implement Watershed Restoration (multiple states)

Assist local watershed groups increase capacity to implement restoration projects at more efficient and effective levels by strengthening networks of individuals, communities, businesses, and governments around shared goals of advancing watershed protection and restoration. Project will organize nine Watershed Initiative tasks to offer information sharing activities, overarching objectives of peer-to-peer learning, areas of common concern and need, and solutions to common challenges. *\$500,000*

Alliance for the Chesapeake Bay

Supporting Watershed Initiatives, Networks, and Local Partners to Restore the Chesapeake Bay (multiple states)

Assist in building capacity to implement restoration projects at effective regional levels. Project will utilize six Watershed Initiative Tasks that will empower and build networks among watershed organizations, landowners, and local governments, with priorities including information sharing activities with objectives including peer-to-peer learning, identifying common needs, and developing solutions to challenges. *\$469.482*

Chesapeake Bay Foundation Mountains to Bay Grazing Alliance: A Collaborative to Increase Rotational Grazing (MD, PA, VA, WV)

Expand and strengthen a network of private and public partners to promote the adoption of rotational grazing systems that enhance soil health, protect and improve water quality, and contribute to farm economic viability. Project will include on-farm demonstrations, peer-to-peer dialog, establishment of local grazing groups, and development of outreach materials that highlight the economic and soil health benefits of grazing. *\$729,468*

Chesapeake Bay Trust

Chesapeake Bay Trust Capacity Building Initiative (multiple states)

Build capacity at the regional and organizational level throughout the Chesapeake Bay watershed. Project will focus on development and/or support of existing collaborative models necessary to advance watershed restoration at scale.

\$1,200,000

Chesapeake Stormwater Network Chesapeake Stormwater Training and Engagement

II (multiple states)

Increase the capacity of four target populations to accelerate the adoption of cost-effective stormwater practices that reduce sediment and nutrient loads to the Chesapeake Bay. Project will deliver education, research guidance, local inspector trainings, and a stormwater-focused website to staff at more than 500 small MS4 communities, stormwater managers in larger Phase 1 communities, local stormwater inspectors, and under-served stormwater managers in the headwater states.

\$125,000

Chesapeake Stormwater Network Chesapeake Bay Stormwater Training and Engagement III: (multiple states)

Focus stormwater training and engagement efforts on four critical and under-served target populations in the Chesapeake Bay watershed to accelerate the pace of nutrient load reductions. Project will promote implementation of effective stormwater and restoration practices across the watershed. *\$125,000*

Friends of the Ohio River Islands National Wildlife Refuge

Building Capacity of the Friends of Ohio River Islands National Wildlife Refuge (WV)

Increase capacity and participation through an educational and inspiring outreach event. Project will include a set of smaller events designed to increase organization capacity. **\$6,080**

Future Harvest Supporting a CBFN Soil Health Summit Alongside Future Harvest Conference (WV)

Deliver a Chesapeake Soil Health Forum to engage regional agricultural conservation partners in advancing the use of soil health-promoting programs and practices in Chesapeake Bay watershed restoration efforts. \$10,278

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249.161*

Trout Unlimited

Securing and Expanding Brook Trout Habitat in the Cacapon and Potomac South Branch (WV)

Strengthen and expand stronghold patches of brook trout by restoring in-stream and riparian habitat, mitigating barriers to aquatic organism passage, and increasing the number of agricultural producers implementing streamside best management practices. Project will restore riparian forest buffers and fish passage, recruit 200 volunteers to assist in environmental stewardship projects, and provide conservation planning and technical assistance to 30 new landowners. *\$192,934*

Trout Unlimited Home Rivers Initiative Potomac Brook Trout Patch Reconnection from Big Run to Judy Gap (WV)

Restore, reconnect, and meld two stronghold patches of eastern brook trout in the North Fork of the South Branch of the Potomac River. Project will expand existing patches to restore adjacent 50 square miles of stream habitat to improve water quality through riparian and in-stream restoration, aquatic organism passage barrier mitigation, and the installation of agricultural practices that meet the needs of the fish and the farms. *\$194,418*

University of Maryland Center for Environmental Science Increasing Stakeholder Engagement in the Chesapeake Bay Report Card (multiple states)

Improve the Chesapeake Bay Report Card process and product by engaging in new partnerships to develop ecosystem health indicators for non-tidal watershed areas and indicators for social, cultural, and economically relevant values identified by stakeholders. Project will refine the process of integrating new indicators via stakeholder engagement workshops, which require new regional partnerships and collaborations, a vital outcome of this project. *\$82,678*

University of Montana

Targeted Implementation in the Chesapeake Bay Watershed through Data Analysis and Partnership (multiple states)

Couple proprietary databases of farmer interests with advanced behavior change models and messaging approaches to improve effectiveness of agricultural conservation outreach programs in the Chesapeake Bay Watershed. Project will leverage watershed-wide data sets and coordination with local nonprofits, conservation organizations, and social scientists to increase adoption of targeted best management practices in priority subwatersheds. \$999,942

Wildlife Management Institute

Long-Term Forest and Habitat Management Plans for Large Industrial Forest Blocks (PA, WV) Develop detailed forest management plans to create

landscape scale forest blocks in western Pennsylvania and West Virginia that create a mosaic of forest successional stages and riparian buffers that benefit multiple focal bird species including golden-winger warbler, cerulean warbler, black-throated blue warbler, wood thrush, and American woodcock. Project will complete management plans for 67,000 acres in Pennsylvania and 163,000 acres in West Virginia recently acquired by Lyme Timber. \$74,976

WISCONSIN

City of Superior

Improving Stormwater Storage and Shoreline Stability to Reduce Runoff Impacts (WI)

Install green infrastructure and improve shoreline stability to a parking area, small craft launch and recreational areas on Barker's Island to mitigate runoff issues to waters draining into Lake Superior. Project will prevent two million gallons of stormwater runoff annually, reduce pollutant loading by decreasing the area of impervious surfaces, plant native vegetation and mitigate erosion along the Lake Superior shoreline. \$499,701

Door County Soil and Water **Conservation Department** Coordinating and Implementing Invasive Species

Control Efforts throughout Door Country (WI) Provide financial assistance to partners and landowners in Door County between Green Bay and Lake Michigan to manage and remove invasive species such as phragmites and Japanese knotweed on their property. Project will use a landscape scale approach for invasive species management to provide continued protection of 70 acres of ecologically important wetland and riparian ecosystems. \$139,011

Door County Soil and Water Conservation Department Implement Best Management Practices for Sediment Reduction (WI)

Implement best management practices to reduce or eliminate nonpoint and point-source pollution from cropland and livestock facilities. Project will reduce sediment and nutrient runoff and document stream health within the Keyes Creek and Larson Creek watersheds through water quality chemistry analysis and evaluation of aquatic macroinvertebrates. \$87,089

Ducks Unlimited

Restoring Hydrology Within Dunes Lake (WI)

Conduct hydraulic dredging of accumulated sediment in the 20-acre inner basin of the Dunes Lake hemimarsh to improve habitat structure and water quality in Door County, Wisconsin. Project will enhance and secure long-term aquatic connectivity to the wetland for Great Lakes migratory fish such as northern pike, restore access to more than 18 miles of streams, and control invasive cattails on 36 acres. \$703,412

Ducks Unlimited Restoring Priority Wetlands in Green Bay

through Invasive Species Control (WI)

Manage and maintain eight priority coastal marshes in Green Bay, Wisconsin through invasive species control efforts, thereby enabling native vegetation establishment. Project will treat and restore 300 acres and manage a larger footprint of 1,000 acres of priority coastal marshes. \$308,944

Friends of the St. Croix Wetland Management District

Waterfowl Hunting Blind Enhancement (WI) Install an access trail to a hunting blind to expand opportunities for mobility impaired and handicapped hunters. Project will provide opportunities to disabled hunters not currently available in western Wisconsin. \$15,000

Groundwork Milwaukee

Urban Waters Community Outreach (WI) Engage community members in education and outdoor activities to improve understanding of

how litter impacts in local waterways and affects community health and local economies. Project will engage 2,500 community members in outreach and also through the Green Team job training program. \$35,000

Harbor District

Installing Green Stormwater Infrastructure (WI)

Install two innovative green infrastructure practices adjacent to the Grand Trunk Wetland, a remnant 7.5-acre urban wetland in center of Milwaukee's industrial Harbor District. Project will create 60,000 square feet of stepped treatment pools, which provide both water quality and habitat benefits to the restored wetland and prevent more than 14 million gallons of stormwater runoff annually. \$429.000

Lakeshore Natural Resource Partnership Managing Invasive Species (WI)

Manage phragmites and Japanese knotweed in ecologically sensitive shoreline and coastal wetlands, inland waterways, and wetlands and roadside ditches in Manitowoc and Sheboygan counties, Wisconsin. Project will protect 42 miles of Lake Michigan shoreline and 93 miles of inland waterways by retreating up to 519 acres for invasive species and performing initial invasive treatments on up to 470 acres. \$375,000

Mequon Nature Preserve

Controlling Invasive Plant Species to Protect Restored Habitat at Mequon Nature Preserve (WI) Control and remove populations of non-native, plant species threatening the establishment of high-quality restored wetland, mesic prairie and shrub-carr habitats in the Meguon Nature Preserve, Wisconsin. Project will reduce the coverage of 19 target invasive plant species to less than 25 percent of the original population size and restore 214 acres of habitat. \$112,551

Milwaukee Public Library

Installing Green Infrastructure at Milwaukee Public Library Branches to Reduce Urban Runoff (WI) Construct green infrastructure improvements at five Milwaukee Public Library locations in the Lake Michigan shoreline city of Milwaukee to mitigate nonpoint source pollution. Project will treat and manage stormwater runoff from impervious surfaces to help reduce non-point source pollution and improve water quality, preventing nearly one million gallons of stormwater runoff from entering the Lake Michigan watershed annually. \$514,544

RIES

National League of Cities Institute

Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Natural Resources Foundation of Wisconsin Increase Ecological Health and Community Protection from Lake Michigan Dune and Beach Restoration (WI)

Develop engineering plans for constructing submerged sills and living shorelines that will increase coastal resiliency, restore terrestrial and aquatic habitats, improve the fisheries, and reduce vulnerability to extreme weather events. Project will respond to findings from a coastal assessment of southeastern Wisconsin's Lake Michigan shoreline which identified coastal areas of greatest vulnerability and resiliency opportunities. \$249,644

Upper Peninsula Resource Conservation and Development Council

Controlling Phragmites Through Coastal Wetland Restoration and Landowner Stewardship (MI, WI)

Restore 120 acres of coastal wetlands in the Upper Peninsula of Michigan and northeastern Wisconsin by treating invasive phragmites regrowth and other secondary invasive species that threaten the quality of previously restored habitats. Project will implement a landowner cost share program to encourage phragmites stewardship by private property owners.

\$150,000

Waukesha County Land Conservancy Habitat Restoration, Monitoring and Community Conservation in the Middle Fox River Watershed (WI)

Restore 100 acres of wildlife habitat, in-stream habitat, and river frontage while improving overall management practices on 1,100 acres Middle Fox River watershed. Project will engage 300 volunteers to improve water quality, habitat, and species diversity across eight protected preserves. *\$35,000*

WYOMING

Ducks Unlimited

Increasing Wildlife Resiliency and Productivity of Sagebrush Habitat on Working Ranches (CO, WY) Increase wildlife resilience and productivity of mesic and sagebrush habitats on working ranches in Colorado and Wyoming to benefit sage grouse populations. Project will expand wet meadow restoration into drier mesic landscapes, increase awareness of opportunities and partnerships between landowners and conservation districts, and communicate restoration techniques to conservation practitioners from local, state, and federal entities. *\$165,000*

Friends of the Teton River

Monitoring Streamflow Restoration and Ecological Response in the Teton Watershed (WY)

Conduct compliance monitoring in the Upper Teton Watershed for water transaction projects, using various flow monitoring methods, temperature monitoring, and a watershed-wide Yellowstone Cutthroat Trout population assessment. Project will maintain and strengthen water transaction compliance monitoring efforts in the watershed, while determining how hydrologic changes resulting from flow restoration efforts impact habitat, water quality, and ecological response in the trout fishery. *\$72,853*

Grand Teton National Park Foundation Large-scale Sagebrush and Grassland Restoration in Grand Teton National Park, Wyoming

Apply previously successful restoration practices to a large-scale sagebrush and grassland restoration in Grand Teton National Park to benefit elk, bison, pronghorn, mule deer, grizzly bears, wolves, and robust nesting bird populations. Project will improve visitor experience and restore 290 acres of habitat as verified by park biologists through monitoring the presence of greater sage-grouse and other species dependent on sagebrush habitat. *\$45,802*

Jackson Hole Land Trust

Enhancing Mule Deer Habitat Connectivity through a Conservation Easement in Wyoming

Permanently protect key wildlife habitat and enhance landscape-scale connectivity between the Upper Green River Basin and the Gros Ventre and Wyoming Mountain Ranges. Project will purchase a 280 acre conservation easement that will extinguish development rights and prohibit subdivision within a known migration corridor and a high-quality habitat stopover area for the Sublette mule deer herd.

\$100,000

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249.161*

Rocky Mountain Bird Observatory Increasing Landowner Participation in Restoring Sage-grouse and Sagebush Habitat in NE Wyoming

Build an informed and engaged stakeholder network to achieve healthy sagebrush habitat and viable sage-obligate bird populations, including the greater sage grouse, on working rangelands in northeast Wyoming. Project will disseminate information about healthy sagebrush ecosystems, providing technical assistance to landowners willing to enhance or restore sagebrush habitat and convert current barriers to wildlife friendly fencing. *\$209,802*

Rocky Mountain Bird Observatory Prioritizing Conservation Practices throughout

the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Sheridan County Weed and Pest Herbicide Treatment and Monitoring (WY)

Use herbicides to treat invasive ventenata and medusahead grasses and monitor the effectiveness of treatments in sagebrush habitat in Sheridan County, Wyoming to benefit a wide range of sageobligate species. Project will protect 2,000 acres of suitable habitat from future infestation. *\$75,000*

Sublette County Weed and Pest District

Cheatgrass Removal from Sagebrush Habitat (WY) Use presence and absence data to treat and remove invasive cheatgrass from sagebrush landscapes in Sublette County, Wyoming to benefit greater sage-grouse, elk, moose, mule deer, and pronghorn. Project will protect native perennial grasses and restore the natural fire cycles of the area by developing ten management plans and removing invasive species from 3,750 acres. *\$75,000*

The Mule Deer Foundation

ED STATES AND U.S. TERRITORIES

LIN

Coordination of Cross-Jurisdictional Habitat Improvement in Sagebrush Landscapes (CO, MT, WY) Increase coordination of conservation partners in Montana, Wyoming, and Colorado for habitat work in the sagebrush landscape. Project will work with state agencies and other partners to increase awareness and opportunity across jurisdictional boundaries for habitat improvements such as modifying and removing fencing, protecting mesic habitats, and removing invasive cheatgrass and juniper. *\$200.000*

The Mule Deer Foundation

Preservation, Protection and Restoration of Mule Deer Winter Range Habitat in Wyoming

Restore and enhance mule deer habitat in Wyoming. Project will implement 25,560 acres of invasive weed treatments, modify 55 miles of fences within big game migration corridors and crucial winter ranges, and conduct land restoration on 2,355 acres of public land to benefit the Platte Valley and Sublette herds. *\$913,000*

Thunder Basin Grasslands Prairie Ecosystem Association

Community-led Conservation Initiative in the Powder River-Thunder Basin Grasslands (WY) Develop and implement 17 habitat management

plans that will guide on-the-ground conservation for landowners participating in the Thunder Basin Grassland Prairie Ecosystem Association's Conservation Strategy and the Audubon Rockies's Conservation Ranching program. Project will result in improved management practices on 229,167 acres, implementation of restoration practices on 37,500 acres, and modification of 9.6 miles of existing fence to wildlife-friendly standards. *\$250,000*

Western Landowners Alliance

Enhancing Connectivity and Reducing Rancher/ Wildlife Conflicts in the Northern Rockies (ID, MT, WY)

Coordinate a network of landowners across priority landscapes in the Northern Rockies around sustained efforts to reduce and mitigate conflicts with key wildlife species. Project will reduce humancarnivore and human-ungulate conflicts, implement new strategies to improve connectivity, and increase visibility of collaborative landowner efforts on behalf of regional wildlife. *\$231,660*

\$231,660

Wyoming Game and Fish Department

Pasture Fence Conversion to Facilitate Pronghorn Migration Routes through Wyoming

Convert 12 miles of interior pasture fences in central Wyoming to wildlife-friendly standards to restore pronghorn migration routes that have been impacted by fence barriers. Project will use camera traps and collar data to identify crossing points used by wildlife and document the frequency and difficulty of movement prior to and following fence modification. *\$80,000*

Wyoming Stock Growers Land Trust Protecting the Agricultural and Wildlife Values in

Sublette County, Wyoming from Fragmentation Implement a conservation easement on 1,330 acres of productive agricultural lands and important mule deer, greater sage-grouse, moose, and elk habitat in Sublette County, Wyoming. Project will permanently conserve a portion of the "Hoback to Red Desert" mule deer migration corridor. \$206,287

U.S. TERRITORIES

PUERTO RICO

National League of Cities Institute Leadership in Community Resilience Program III (multiple states)

Expand the Leadership in Community Resilience program with a cohort of eight additional cities throughout the United States, providing additional technical assistance and peer learning to complete a local resilience project in each city. Project will make 16 staff site visits, complete eight local implementation or demonstration projects, host a national Resilient Cities Summit, and deliver new education and leadership training workshops for dozens of additional cities beyond the cohort. *\$249,161*

Gulf and Caribbean Fisheries Institute Managing Stony Coral Tissue Loss Disease Threat in the Caribbean (FL, PR, USVI)

Improve management capacity for disease detection, monitoring, and communications across the Caribbean. Project will host a workshop for Caribbean Marine Protected Area managers to train on early response options to the disease that is spreading from Florida to across the Caribbean. *\$63,800*

Para la Naturaleza

Reforestation and Habitat Enhancement of Hacienda La Esperanza Nature Reserve (PR)

Strengthen the natural resilience of Hacienda La Esperanza Nature Reserve and neighboring communities in Puerto Rico to protect from future storm and flooding events while enhancing fish and wildlife habitat. Project will engage in diverse forest restoration activities to promote the enhancement of floodplains, wetlands and coastal forests. *\$652,444*

University of Puerto Rico at Aguadilla Strengthen Resilience from Extreme Weather through Ecological Restoration of Sand Dunes (PR) Restore high-priority areas of storm-damaged coastal dunes along the north and west coasts of Puerto Rico. Project will use innovative sandtrapping devices, exclusion fences, and wooden boardwalks to promote the accumulation of sand and an increase in the vegetation cover on breached and eroded sites. *\$467,571*

The Ocean Foundation

Implementing Electronic Monitoring on Small Fishing Vessels (PR)

Test the feasibility of electronic monitoring by installing equipment on up to five small artisanal fisheries' vessels in Puerto Rico. Project will monitor up to 100 trips on small vessels and provide a potential opportunity to expand electronic monitoring on small scale fisheries in the Caribbean. *\$62,832*

UNITED STATES AND INTERNATIONAL FISCAL YEAR 2019 CONSERVATION INVESTMENTS

CANADA

College of William and Mary

Full Life-cycle Conservation for Whimbrels on the Western Atlantic Flyway (multiple states)

Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring to serve as a metric of success, map critical whimbrel sites to focus onthe-ground management, and improve conditions within critical sites.

\$148,763

INTERNATIONAL

AND

STATES

UNITED

National Audubon Society

Preventing Human Disturbance of Atlantic Flyway Shorebirds II (multiple states)

Complete the social and biological assessment of the types of disturbances that are the greatest threat to shorebirds and deliver sound guidelines for preventing disturbance, changing human behaviors that result in disturbance, and engaging communities. Project will work to manage people and their interactions with shorebirds such that shorebirds have access to the habitats they require at critical times of their life cycle, including breeding, migration stopover, and overwintering. *\$190,000*

Nature Conservancy of Canada

Protecting and Restoring Sage Grouse Habitat in Alberta and Saskatchewan

Improve the quality, quantity, and connectivity of greater sage-grouse habitat throughout the species' Canadian range by increasing the amount of grassland habitat protected and increasing grassland connectivity by restoring and maintaining large areas of contiguous habitat. Project will restore 130 acres of cultivated land in southeast Alberta and protect 475 acres of grassland through a conservation easement in southwest Saskatchewan. **\$60,000**

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation.

\$60,000

Saskatchewan Stock Growers Association

Providing Financial Incentives for Landowners to Reach Habitat Targets in Southwest Saskatchewan Provide financial incentives to producers who meet or exceed measureable and quantifiable habitat targets for six species at risk in southwest Saskatchewan. Project will result in 85,000 acres of native grasslands under improved management. *\$250,000*

The Whale Museum

Increase Capacity for Vessel Research and Boater Education to Benefit Killer Whales (WA) Provide increased capacity for collection of vessel density and disturbance data for the Southern resident killer whale population in the Salish Sea. Project will educate boaters and increase compliance with current regulations and guidelines to reduce vessel disturbance. \$65,581

Toronto and Region Conservation Authority Restoring Fish Passage and Valley Habitat for Brook Trout and Atlantic Salmon (Ontario, CA)

Remove a fish passage barrier on Centreville Creek in the headwaters of the Humber River to improve habitat quality and accessibility for brook trout and Atlantic salmon in Caledon, Ontario, Canada. Project will restore 3 acres of upstream habitat, open 4 miles of stream, install woody habitat, plant native vegetation and bioengineer the stream banks and floodplain to improve habitat quality. *\$88,873*

LATIN AMERICA AND THE CARIBBEAN

Asociación ProCosta

Increasing Hawksbill Sea Turtle Nesting Beach Productivity and Reducing Bycatch in El Salvador Reduce the threats of poaching and bycatch for hawksbill turtles in El Salvador. Project will monitor and secure over 600 anticipated nests and 50,000 hatchlings along the beaches of Los Cóbanos, Bahía de Jiquilisco, and Punta Amapala in El Salvador and conduct LED-equipped gillnet trials in Punta Amapala to assess bycatch reduction in the lobster gillnet fishery. *\$292,829*

BirdsCaribbean

Increasing Public Awareness of the Migratory Shorebirds of Guadeloupe

Work to achieve a sustainable shorebird harvest, while meeting the cultural and subsistence needs of people who use the shorebird resource on Guadeloupe. Project will include training for legal shorebird hunters and agency rangers on Guadeloupe, thus increasing their knowledge and understanding of the life history and conservation status of migratory shorebirds, resulting in greater compliance to regulations, including restrictions on species harvested, daily openings, and daily bag limits.

\$27,500

College of William and Mary

Full Life-cycle Conservation for Whimbrels on the Western Atlantic Flyway (multiple states)

Conserve and restore habitat and work to reduce harvest pressures on whimbrels throughout their full life-cycle. Project will improve collaboration and coordination by establishing a whimbrel working group, improve adaptive management by developing an age-structured population model, improve population monitoring to serve as a metric of success, map critical whimbrel sites to focus onthe-ground management, and improve conditions within critical sites. *\$148,763*

148,763

Gulf and Caribbean Fisheries Institute

Managing Stony Coral Tissue Loss Disease Threat in the Caribbean (FL)

Improve management capacity for disease detection, monitoring and communications across the Caribbean. Project will host a workshop for Caribbean Marine Protected Area managers to train on early response options to the disease that is spreading from Florida to across the Caribbean. \$63,800

Grupo de Ecologia y Conservacion de Islas Eradication of Invasive Mammals on Guadalupe Island, Mexico - II

Continue implementation of a four-year effort to control invasive mammals on Guadalupe Island, Mexico. Project implement the biosecurity plan and social attraction for Laysan and black-footed albatrosses, and will continue monitoring of albatrosses, murrelets, and storm-petrels while contributing to establishment of resilient, predatorfree habitat for nesting seabirds. *\$500,000*

93

Grupo de Ecologia y Conservacion de Islas Protecting Townsend's Shearwaters on Socorro Island, Mexico – VII

Conduct absence confirmation using camera traps and detection dogs on Socorro Island, Mexico, to confirm the results of a four-year effort to eradicate invasive mammals on the island. Project will result in 33,000 acres of suitable habitat for endemic species on Socorro Island and will hopefully contribute to in increased vocal activity, occupation of burrows and expansion of Townsend's shearwater colonies on the island. *\$180,000*

International Community Foundation International Community Foundation Stewardship Project

Raise the River coalition members endorse a statement of commitment to negotiating a stewardship component of future restoration or water purchase grants awarded that will be invested in the International Community Foundation Fund. \$640,000

Island Conservation

Improving Seabird Conservation in the Juan Fernandez Archipelago, Chile

Complete first phase of a feral livestock eradication on Alejandro Selkirk Island in Chile, as well as advanced-stage planning for eradication of other invasive mammals. Project will develop stakeholder capacity and support for eradications in the Juan Fernández Archipelago, protect single-island endemics on Alejandro Selkirk, and drive forward stakeholder readiness for conservation of pinkfooted shearwater on its breeding grounds on nearby Robinson Crusoe Island. *\$1,000,000*

Manomet

Developing an Atlantic Flyway Shorebird Health Assessment (multiple states)

Provide a flyway health assessment for the Atlantic Flyway Shorebird Initiative. Project will include completion of site assessments in North America, improvement of shorebird monitoring at sites through the International Shorebird Survey, and a meeting with the Western Hemisphere Shorebird Group to design the health assessment, which will include a method to provide population trend estimates for focal species and other shorebirds. *\$67,737*

Oikonos - Ecosystem Knowledge

Conservation of Pink-footed Shearwater in Chile - II Advance conservation efforts for the IUCN-listed Vulnerable pink-footed shearwater through direct actions to protect colonies on all three of their known breeding islands. Project will build national capacity for the Seabird Stranding Network, expand analyses of shearwaters and fishery overlap, innovate new outreach to fisherman towards adoption of mitigation gear in development, and continue community-focused education and stewardship efforts. \$320,000

Rocky Mountain Bird Observatory

Prioritizing Conservation Practices throughout the Full Migratory Range of the Baird's Sparrow (multiple states)

Prioritize on-the-ground management practices for the Baird's sparrow using a new analytical tool developed from data collected across the full migratory cycle of the Baird's sparrow to simulate different conservation actions and the resulting effects on the Baird's sparrow population. Project will determine the most effective conservation actions that can be taken to lessen Baird's sparrow population decline and then communicate these findings with project partners and landowners for implementation. *\$60,000*

The Ocean Foundation

Monitoring Hawksbill Sea Turtle Recovery Along the Pacific Coasts of Central and South America

Compile data from hawksbill sea turtle nesting beaches in the eastern Pacific Ocean to evaluate population recovery. Project will increase in-water monitoring sessions to accelerate data compilation on young life stage hawksbills in order to advance tag saturation in foraging grounds. *\$151,927*

World Wildlife Fund

Identifying Leatherback Sea Turtle Bycatch Priorities in Trinidad and the Guianas

Assess the threat of bycatch in the Trinidad and Guianas for the Northwest Atlantic leatherback sea turtle into a population-level context. Project will conduct population modeling to determine survivorship goals for the region and support a regional workshop to discuss a strategy for meeting these goals and for addressing this bycatch hotspot. *\$50,000*

GULF ENVIRONMENTAL BENEFIT FUND FISCAL YEAR 2019 PROJECT COMMITMENTS

In the wake of the 2010 Deepwater Horizon explosion and oil spill in the Gulf of Mexico, BP Exploration and Production, Inc. and Transocean Deepwater, Inc. each pled guilty to criminal violations of federal law. The plea agreements in those cases require BP and Transocean, among other things, to make certain monetary payments to NFWF that are designated to fund projects benefiting Gulf Coast natural resources injured as a result of the spill. NFWF has established the Gulf Environmental Benefit Fund to receive and administer these funds. Funding was committed to the following projects under the Gulf Environmental Benefit Fund during Fiscal Year 2019 in accordance with the terms of the plea agreements. Since its inception in 2013, NFWF has awarded approximately \$1.4 billion to projects in the Gulf States.

ALABAMA

Alabama Department of Conservation and Natural Resources, Marine Resources Division

Alabama Artificial Reef and Habitat Enhancement - Phase II

Enhance and expand the state's artificial reef program to improve habitats for reef fish and other species in Alabama's coastal waters. Phase II of the project aims to continue to increase connectivity between habitats used by fish in early and adult life through creation or enhancement of inshore, nearshore, and offshore reef habitats. *\$22,499,000*

Alabama Department of Conservation and Natural Resources, Marine Resources Division Enhanced Fisheries Monitoring in Alabama's

Marine Waters - Phase IV

Complete final year of monitoring recreationally and commercially important reef and estuarine species of interest in priority Alabama waters through fishery-independent (trawls, bottom long lines, vertical lines) and fishery-dependent surveys (recreational red snapper harvest, commercial blue crab harvest rates). Data will be used to improve ecosystem-based management capacilities, assess the recovery of reef fish stock in association with other fisheries restoration efforts, and improve and expand single-species stock assessments for managed fish species. Project will also incorporate habitat characterization through sides-scanning sonar, water quality monitoring, and acoustic tracking of tagged fish species. \$2,800,000

City of Foley

Bon Secour River Headwater Restoration - Phase I Complete engineering and design plans for creating wetlands to treat urban runoff impacting downstream fisheries and acquire 94 acres on which to construct the wetlands.

\$1,528,000

City of Mobile

Mobile Bay Shore Habitat Conservation and Acquisition Initiative - Phase II

Acquire, protect, and restore high-priority properties containing undeveloped intertidal habitat within three distinct areas of the City of Mobile (Dog River, Garrows Bend, and Three Mile Creek Watersheds). \$6,923,800

Mobile Bay National Estuary Program / Marine Environmental Sciences Consortium

Dauphin Island Causeway Shoreline Restoration Engineering and Design

Engineer and design breakwaters to enhance, protect, and improve resiliency of marsh and oyster habitat adjacent to the Dauphin Island Causeway for the purpose of stabilizing the existing shoreline and creating and enhancing wetland and coastal habitat. *\$250,000*

Mobile Bay National Estuary Program / Marine Environmental Sciences Consortium

Deer River Shoreline Stabilization - Phase I Complete engineering and design plans to stabilize and restore 5,600 feet of shoreline and enhance 275 acres of intertidal salt marsh at the mouth of Deer River. \$750,000

The Conservation Fund

Bon Secour National Wildlife Refuge Acquisitions - Phase II

Acquire and restore 236 acres of estuarine and forested shrub wetlands on Fort Morgan Peninsula for inclusion within the Bon Secour National Wildlife Refuge.

\$4,423,000

The Nature Conservancy

Grand Bay Acquisition (Amendment)

Expand the acquisition activities of the original project to include an additional 400 acres of priority coastal habitat within the Grand Bay Savanna Complex (Alabama Forever Wild). \$1,700,054

The Nature Conservancy

Lightning Point Acquisition and Restoration - Phase II Protect and restore a key stretch of coastal shoreline at the mount of Bayou La Batre River. This phase includes construction of 28 acres of coastal marsh and 1.5 miles of breakwaters to protect the shoreline. \$16,578,000

Town of Dauphin Island

Restoration of North Side of Dauphin Island - Phase I Complete engineering and design plans to fill borrow pits previously excavated for emergency barriers to restore beach and marsh habitat on the north side of Dauphin Island to enhance the barrier island's resilience to future storms. \$329,000

FLORIDA

Atlanta Botanical Garden

Restoration of Florida's Coastal Dune Lakes - Phase II Complete the restoration of wetland habitats on an additional 90 acres within Deer Lake State Park, part of Florida's unique coastal dune lakes system. \$399,776

Florida Department of Environmental Protection Restoration of Florida's Coastal Dune Lakes - Phase II Complete the restoration of wetland habitats on an additional 90 acres within Deer Lake State Park, part of Florida's unique coastal dune lakes system. \$2,103,224

Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute Enhanced Assessment of Gulf of Mexico Fisheries -Phase V (Amendment)

Improve marine fisheries data collection for enhancement of stock assessments and fisheries management of important species along the Florida Gulf Coast. Amendment will support an additional year of fieldwork and data processing and reporting associated with the final year of data collection. *\$2,000,000*

Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute Enhancement of Sea Turtle Stranding Response Capacity in Florida

Increase and enhance the collection of information on the causes of sea turtle mortality in Florida to inform the development of future management actions aimed at reducing mortality. The project involves establishing a dedicated sea turtle necropsy facility with appropriate staff for the 10-year project period. \$6,246,200

Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute Florida Gulf Environmental Benefit Fund Restoration Strategy – Submerged Habitat Assessment (Amendment)

Assess, map, and model natural and human stressors and limiting factors to submered aquatic vegetation recovery in Florida's Panhandle and Big Bend regions. Amendment will support assessment of immediate and long-term impacts of Hurricane Michael on seagrasses in affected project areas. *\$85,645*

National Audubon Society

Southwest Florida Wading Bird Nesting Island Enhancement

Engineer, design, and install near-shore breakwaters at five sites to protect nesting and foraging habitat for colonial waterbirds. These breakwaters will slow impacts from erosion. \$5,592,000

Sea Turtle Conservancy

Eliminating Light Pollution at Sea Turtle Nesting Beaches - Phase III

Increase sea turtle nesting success on Florida's southwest Gulf Coast beaches by solving artificial light problems on high priority properties that are known to disorient thousands of hatchlings per year. *\$5,000,000*

Sea Turtle Conservancy

Long-Term Sea Turtle Predation Management

Establish a long-term sea turtle nest predation management program with the goal of increasing nest survivorship and hatchling production by reducing predation rates on high-density nesting beaches.

\$4,000,000

The Nature Conservancy

Lake Wimico Acquisition and Management

Acquire an approximately 20,146-acre parcel for donation to the State of Florida to secure and protect a substantial portion of the forested watershed of coastal Apalachicola Bay. *\$10,724,368*

The Nature Conservancy

Pensacola East Bay Oyster Habitat Restoration - Phase II

Construct 33 oyster reefs along approximately 6.5 miles of the eastern shore of East and Blackwater bays in Santa Rosa County, building from design, permitting, and pre-restoration monitoring completed during Phase I. *\$15,166,000*

LOUISIANA

Louisiana Coastal Protection and Restoration Authority

Terrebonne Basin Barrier Island and Beach Nourishment Construction

Restore three critical barrier islands/headland within the Terrebonne Basin barrier shoreline system: West Belle Headland, Timbalier Island, and Trinity Island. The restoration of beach, dune, and marsh habitat in a highly eroded area of the Louisiana coast will bolster the comprehensive efforts to protect this fragile landscape. \$161,442,000

MISSISSIPPI

Mississippi Department of Environmental Quality Mississippi Coastal Restoration Plan - Phase II

Expand Mississippi's Gulf Coast Restoration Plan to include additional conservation goals, including those for Gulf Coast birds and water quality by collecting data to assist in improving recommendations for priority habitat restoration and protection projects.

\$1,514,100

Mississippi Department of Environmental Quality Reef Fish Assessment for Mississippi Coastal and Nearshore Gulf Waters - Phase II

Perform an assessment of reef fish in coastal Mississippi and nearshore Gulf of Mexico waters through biological, environmental, and fisherydependent components that will provide necessary data resolution for reducing scientific uncertainty of factors influencing red snapper and reef fish population structures.

\$2,340,000

Mississippi Department of Environmental Quality Utilization of Dredge Material for Marsh Restoration in Coastal Mississippi - Phase II Use dredge material in the sustainable restoration and creation of marsh habitat. The effort will enhance overall ecosystem function and the ecological integrity and sustainability of priority bays and estuaries of the Mississippi Gulf Coast. \$23,624,000

Mississippi Department of Marine Resources Mississippi Offshore Artificial Reef and Habitat Enhancement Project

Create artificial reefs in Mississippi waters to provide habitat to marine fishes in offshore areas to bolster populations.

\$2,663,000

TEXAS

City of Port Aransas

Port Aransas Nature Preserve Debris Removal

Restore essential coastal wetland habitat at the Leonabelle Turnbull Birding Center within the Port Aransas Nature Preserve, which suffered damage from Hurricane Harvey. *\$100,000*

Coastal Bend Bays and Estuaries Program Nueces Bay Rookery Islands Restoration (Amendment)

Restore three rookery islands in Nueces Bay to provide additional nesting habitat for populations of colonial water birds such as black skimmers, roseate spoonbills, and egrets. Amendment to cover unanticipated expenses for the final restoration plan.

\$694,613

Galveston Bay Foundation

Dollar Bay-Moses Lake Shoreline Enhancement and Restoration - Phase III

Restore an additional 72 acres of intertidal marsh complex and create up to 0.35 acres of habitat suitable for oyster growth within the Dollar Bay-Moses Lake complex in Galveston Bay. *\$2,291,000*

Galveston Bay Foundation

Follets Island Land Acquisition and Conservation Program - Phase II

Acquire and permanently conserve an additional 410 acres of pristine coastal dune and wetland landscape on Follets Island, a Texas barrier island south of Galveston Island. As part of the Follets Island Conservation Initiative, the property will be transferred to and managed by the Texas Parks and Wildlife Department.

\$2,288,700

Jefferson County

Hydrologic Restoration of the Salt Bayou Watershed (Amendment)

Build two freshwater siphons that will restore freshwater flow to 18,000 acres of wetlands within the Salt Bayou Watershed, the largest contiguous estuarine marsh complex in Texas. Amendment to cover higher than anticipated construction costs. *\$686,400*

Texas Parks and Wildlife Department

Candy Abshier Wildlife Management Area Shoreline Protection and Marsh Creation (Amendment) Protect coastal habitats within the Candy Abshier Wildlife Management Area by constructing a breakwater structure to protect shoreline from futher erosion. Amendment to cover higher than anticipated construction costs due to a more substantial design. \$800,000

Texas Parks and Wildlife Foundation

Powderhorn Ranch Land Acquisition (Amendment) Acquire, preserve, and manage Powderhorn Ranch. The property is ecologically important for birds, fish, shellfish, and plants. Amendment to cover property closing costs associated with conveying property to Texas Parks and Wildlife Department. *\$160,000*

The Nature Conservancy

Bahia Grande Coastal Corridor Acquisitions - Phase III

Acquire and permanently protect 575 acres of coastal habitat, including 3.7 miles of shoreline along the Vadia Ancha/Bahia Grande estuary in south Texas. Property will be added to the Laguna Atascosa National Wildlife Refuge. \$6,100,000

The Nature Conservancy

South Padre Island Land Acquisitions - Phase II

Acquire 3,200 acres of pristine barrier island and sea turtle nesting habitat on South Padre Island. Property will be added to the Laguna Atascosa National Wildlife Refuge. \$8,100,000

IMPACT-DIRECTED ENVIRONMENTAL ACCOUNTS (IDEA) FISCAL YEAR 2019 PROJECT COMMITMENTS

NFWF's IDEA department serves as a manager and trustee for funds arising from legal and regulatory actions involving natural resources and the environment. These funds originate primarily from court orders, settlements of legal cases, regulatory permits, licenses, and conservation and mitigation plans.

ALABAMA

Alabama Coastal Foundation

Sea Turtle Lighting Retrofit Pilot Project (AL)

Implement a lighting retrofit pilot project to darken beach areas in order to prevent the disorientation of sea turtles. Project will monitor and report on the light reduction. *\$78.000*

Federal Criminal Case U.S. v. Gulf Coast Asphalt Company, LLC

ALASKA

Island Trails Network

Marine Mammal Entanglement Prevention and Habitat Restoration in Southwest Alaska

Reduce entanglement and mortality of whales, Steller sea lions, and other marine mammals and increase awareness of the impact of entangling debris. Project will engage volunteers from the general public and the commercial fishing industry in efforts to remove derelict fishing gear from prioritized locations in the Kodiak archipelago including Kodiak, Afognak, Shuyak, and minor outlying islands.

\$87,156

Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

Manomet

Predators and Avian Nest Survival in the Arctic National Wildlife Refuge Coastal Plain Prior to Oil and Gas Development (AK)

Measure and inform mitigation of expected impacts of oil and gas development on shorebird nest survival in the Arctic National Wildlife Refuge coastal plain. Project will establish baselines for nest success prior to development taking place so that current natural conditions are documented and mitigation measures can be designed appropriately to offset impacts. \$99,396

Federal Criminal Case U.S. v. BP Exploration (Alaska) Inc.

Tanana Valley Watershed Association Living Alongside Salmon Homes Pamphlet Distribution to Streamside Homeowners (AK)

Distribute "Living Alongside Salmon Homes - How to Be a Salmon Friendly Landowner" pamphlet to 2,000 streamside landowners along the Chena River in Fairbanks North Star Borough, Alaska. Project will provide awareness that the Chena River supports the second largest Chinook salmon run in the Yukon River and an understanding of how actions impact water quality and habitat for fish and wildlife. *\$4,887* State Civil Case

University of Alaska Anchorage

Alaska Native Science and Engineering Program Northern Fur Seal Research in the Exclusive Economic Zone

Partner with the National Oceanic and Atmospheric Administration and the Tribes on St. Paul and St. George to support conservation and research of the northern fur seal that reside in the waters of the United States Arctic and sub-Arctic in the Exclusive Economic Zone. Project will involve students in seal research, harvest surveys, harvest monitoring, and tissue sampling. *\$20,000*

Federal Criminal Case U.S. v. Herm. Dauelsberg GMBH & Co. KG

University of Alaska Fairbanks

Teshekpuk Lake Observatory Landscape and Ecosystem Studies (AK)

Establish a transdisciplinary research network to foster development of the Teshekpuk Lake Observatory, located on the North Slope of Alaska, to better understand climate and land use change pressure and help resource managers refine their fish and wildlife management plans for the Arctic. *\$149,919*

Federal Criminal Case U.S. v. BP Exploration (Alaska) Inc.

Wildlife Conservation Society

Assessing Migratory Shorebird Use of the Qupaluk East Asian-Australasian Flyway Network Site, National Petroleum Reserve-Alaska

As part of a collaborative study taking place in northern Alaska, assess shorebird community composition, abundance, and productivity at Qupaluk, a critical migratory bird flyway site on the Arctic Coastal Plain. Project will inform future conservation and management planning that supports both wildlife and Alaska Native subsistence needs.

\$110,320 Federal Criminal Case U.S. v. BP Exploration (Alaska) Inc.

ARIZONA

Ecosystems Research Institute

San Juan River Habitat Assessment (AZ)

Assess and monitor habitats in the San Juan River to help meet the goals and objectives of the San Juan River Basin Recovery Implementation Program. \$6,114 Mitigation

CALIFORNIA

Audubon California

Lake Isabella Willow Flycatcher Restoration (CA) Continue to restore 1,150 acres of Southwestern willow flycatcher habitat to compensate for impacts of long-term operations of the Lake Isabella reservoir, in cooperation with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service. *\$90,505*

Mitigation

California Department of Fish and Wildlife California Department of Fish and Wildlife Endowment - Topaz Solar Farm Perform long-term management of mitigation land in San Luis Obispo County, California. \$266,621 Mitigation

California Department of Fish and Wildlife California Department of Fish and Wildlife

Endowment - Wister Pond Water Source Purchase water from Imperial Irrigation District to benefit Wister Pond in San Diego County, California. \$22,224 Mitigation

California Department of Fish and Wildlife

California Department of Fish and Wildlife Endowment - Wister Pond Operation and Maintenance

Conduct long-term operation and maintenance of Wister Pond in San Diego County, California. \$17,802 Mitigation

California Department of Fish and Wildlife - Office of Spill Prevention and Response

McGrath Lake Administrative Costs (CA) Facilitate Trustee Council involvement in ongoing work at McGrath Lake. Project will cover administrative fees relating to the participation of

the McGrath Lake Trustee Council, including travel to attend meetings and related costs from 2019 to 2021.

\$25,000

Federal Civil Case

United States of America, et al. v. Berry Petroleum Company

California Department of Parks and Recreation

McGrath Lake Restoration Activities - Year 7 (CA) Continue restoration activities at McGrath Lake. Project will fund staff time and materials for dune restoration work and western snowy plover and California least tern monitoring and management activities in 2019.

\$75,000

Federal Civil Case

United States of America, et al. v. Berry Petroleum Company

California Department of Parks and Recreation California State Parks Endowment – Morro Shoulderband Snail Habitat Management

Perform long-term management of mitigation land in San Luis Obispo County, California.

\$23,180 Mitigation

California State Coastal Conservancy

San Francisco Bay Creosote Piling Removal and Pacific Herring Restoration Project (CA)

Complete a subtidal habitat and Pacific herring restoration pilot project in the San Francisco Bay involving the removal of derelict creosote pilings and restoration of native eelgrass and oyster habitat for the benefit of Pacific herring and other aquatic resources.

\$300,000

Federal Criminal Cases (multiple prosecutions)

California State University - Stanislaus

Surveys for Tipton Kangaroo Rats and Blunt-Nosed Leopard Lizards on Unit 15 of Kern National Wildlife Refuge (CA)

Determine the presence of listed species, including Tipton kangaroo rat and blunt-nosed leopard lizard, in Unit 15 of Kern National Wildlife Refuge.

\$5,476 Mitigation

California State University - Stanislaus Tipton Kangaroo Rat Monitoring and Shrub Association Study on Unit 15 of Kern National Wildlife Refuge (CA)

Conduct Tipton kangaroo rat monitoring and a Tipton kangaroo rat shrub association study in Unit 15 of Kern National Wildlife Refuge to enhance management and conservation strategies for Tipton kangaroo rat and fulfill monitoring obligations. \$544

Mitigation

California Trout

Hidden Valley Ranch Fish Screen and Cold Water Exchange Project (CA)

Submit a Water Code Section 1707 petition to the State Water Board, relocate a fish screen to the river, replace a section of an earthen conveyance ditch, and install an exchange pipeline. Project will benefit listed coho salmon in the Shasta River. \$89,634

Mitigation

Canon Station

Muzzy Ranch Conservation Bank Credit Purchase for the Bay Area Habitat Conservation Plan (CA) Purchase 643.5 credit acres from the Muzzy Ranch Conservation Bank for the benefit of the Pacific Gas and Electric Company Bay Area Operations & Maintenance Habitat Conservation Plan. Project will compensate for the loss of: 3.5 acres of Conservancy fairy shrimp, delta green ground beetle, vernal pool tadpole shrimp, and California tiger salamander breeding habitat; 40 acres of vernal pool fairy shrimp habitat, delta green ground beetle; and 600 acres of California tiger salamander upland habitat, and delta green ground beetle. \$6,065,850

Mitigation

Channel Islands Restoration

Habitat Restoration for Grassland-Dependent Birds in the San Marcos Foothills Preserve (CA)

Restore up to 45 acres of native perennial grassland that supports insects, small, medium, and large mammals, reptiles, birds of prey, and song birds. Project will use approximately 350 sheep to graze about 3 acres per day for approximately 15 days. \$64.539

State Civil Case

City of Roseville

Reason Farms Project Mitigation Property Usage Rights Purchase Option Deposit (CA)

Payment of purchase option deposit for acquisition of mitigation property usage rights for a proposed National Fish and Wildlife Foundation Sacramento District California In-Lieu Fee Program wetlands mitigation project entitled, "Reason Farms Restoration Project, American River Aquatic Resource Service Area" in Placer County, California \$945

Mitigation

Coastal San Luis Resource Conservation District Big Coreopsis Hill Dune Protected Area Management (CA)

Perform habitat restoration in the Coreopsis Hill Dune Protected Area to maintain viable landscapes; reverse species and ecological process declines; recover threatened species and ecological communities; and control emerging threats. Project will control perennial veldtgrass and iceplants and address data gaps within the Coreopsis Hill Dune Protected Area. \$100,320

State Civil Case

Coastal San Luis Resource Conservation District Nipomo Lupine Dune Protected Area Management (CA)

Perform habitat restoration in a portion of the Nipomo Lupine Dune Protected Area to maintain viable landscapes; reverse species and ecological process declines; recover threatened species and ecological communities; and control emerging threats. Project will control perennial veldtgrass and protect and enhance the naturally occurring populations of Nipomo lupine. \$466.660

State Civil Case

Corvus Ecological Consulting

2019 Raven Studies in Mojave National Preserve, Ivanpah Critical Habitat Unit, and Piute-Fenner Critical Habitat Unit (CA)

Conduct research on the interaction between desert tortoises and common ravens in the Mojave National Preserve, Ivanpah Critical Habitat Unit, and Piute-Fenner Critical Habitat Unit.

\$143,526 Mitigation

Desert Tortoise Preserve Committee

Renewable Energy Action Team Endowment -Manzana Wind (CA)

Perform long-term management of mitigation land in Kern County. California. \$11,227 Mitigation

Dwayne N. Oberhoff

Morro Shoulderband Snail Surveys on Butte Parcel, San Luis Obispo County (CA)

Conduct eight surveys for the endangered Morro shoulderband snail on the Butte Parcel located in San Luis Obispo County, California.

\$1,840

Mitigation

(IDEA)

TS

EcoVision Partners

Development of Morro Shoulderband Survey Methodology and Form (CA)

Develop a survey methodology to estimate species presence and relative abundance for the endangered Morro shoulderband snail on conserved lands in Los Osos, an unincorporated community of San Luis Obispo County, California. *\$21,455 Mitigation*

Fagundes Agribusiness

California Department of Fish and Wildlife Initial and Capital - Cross Creek West (CA) Perform short-term management of mitigation land in Kings County, California. \$13,570 Mitigation

Fletcher Ranch Road Properties

California Department of Fish and Wildlife Endowment - Mountain House Conservation Bank Perform long-term management of mitigation land in Alameda County, California. \$7,855 Mitigation

Full Frame Productions

California Endangered Species and Habitats Educational Video Projects

Produce a series of educational and outreach videos that feature collaborative efforts to protect California endangered species and habitats. Project will focus on the California tiger salamander, Western snowy plover, San Joaquin kit fox, and coho salmon.

\$1,573

Federal Criminal Case U.S. v. Wildlife Management, LLC

Great Basin Institute

California Condor Recovery and Tracking within the Hopper Mountain Complex

Continue to support U.S. Fish and Wildlife Service biologists in the management of the free flying population of California condors in the Central District. Project will engage interns in tracking this population of condors throughout its range. *\$69,982*

Federal Criminal Case U.S. v. Wal-Mart, Inc.

Habitat Restoration Sciences

San Diego County Endowment - Greenhills Ranch (CA) Perform long-term management of mitigation land in San Diego County, California. \$20,416 Mitigation

Habitat Restoration Sciences

California Department of Fish and Wildlife Endowment - JAL Preserve

Perform long-term management of mitigation land in San Diego County, California. \$15,486 Mitigation

Habitat Restoration Sciences

San Diego County Endowment - Jacumba Solar Open Space Preserve (CA) Perform long-term management of mitigation land in San Diego County, California. \$7,606

Mitigation

Institute for Wildlife Studies

Non-lead Ammunition Outreach and Education (CA) Implement a program to provide non-lead outreach and education to hunters within the southern California region, focusing on the Tehachapi and Transverse Ranges. Project will help reduce the amount of poisonous lead fragments available to California condors.

\$84,000 Mitigation

J&D Basile

California Department of Fish and Wildlife Initial and Capital - Cross Creek East Perform short-term management of mitigation land

in Tulare and Kings Counties, California. \$19,120 Mitigation

Koopmann Family Trust

California Department of Fish and Wildlife Endowment - Koopmann Preserve Perform long-term management of mitigation land in Alameda County, California. \$12,604

Mitigation

Los Cerritos Wetlands Land Trust Zedler Marsh Enhancement Project (CA)

Improve and enhance the coastal salt marsh ecosystem at Zedler Marsh of the Los Cerritos Wetlands in Long Beach, California, through the planting of native vegetation and removal of nonnative plant material. Project will be achieved through the use of community-based restoration programs, with the goal of improving habitat for two special status species, the Belding's Savannah sparrow and the Least Bell's Vireo, both of which use Zedler Marsh as breeding and nesting habitat. **\$96,965**

State Civil Case

Mendocino County Resource Conservation District California Department of Fish and Wildlife Endowment - Willits Bypass

nuowinent - wints Bypass

Perform long-term management of mitigation land in Mendocino County, California. *\$540,069*

Mitigation

Mid Klamath Watershed Council

Horse Creek Wood Loading and Floodplain Relief Implementation Project: Phase I (CA)

Install a minimum of 15 wood structures within a mile and a half reach of Horse Creek. Project will improve instream summer rearing habitat and generate better spawning gravel conditions for Klamath Basin coho salmon, Chinook salmon, Pacific lamprey, and steelhead.

\$113,623 Mitigation

Mojave Desert Land Trust

California Department of Fish and Wildlife - Renewable Energy Action Team Endowment -Hidden Valley

Perform long-term management of mitigation land in San Bernardino and Imperial Counties, California. *\$78,086 Mitigation*

Mojave Environmental Holdings

California Department of Fish and Wildlife Endowment - Cuddeback-Kramer Preserve (RE Cinco and RE Rosamond One and Two) Perform long-term management of mitigation land in San Bernardino County, California. \$44,752 Mitigation

National Audubon Society

Eelgrass and Waterbird Survey of Richardson Bay -Informing Conservation Planning (CA)

Conduct an eelgrass survey of Richardson Bay and drone-based aerial surveys of rafting waterbirds. Project will support a mooring feasibility study which aims to balance the needs of the community with the natural resources of the bay, in particular, eelgrass and the Pacific herring, and waterbirds that depend on it.

\$37,323

Federal Criminal Cases (multiple prosecutions)

National Park Service

California Department of Fish and Wildlife - Renewable Energy Action Team Endowment -Mojave Milkweed

Perform long-term management of mitigation land in San Bernardino County, California. *\$2,702 Mitigation*

Pacific Gas and Electric Company

Acquisition of Gabany Preserve Property - Sonoma County, CA

Acquire 53.31 acres of conservation lands in Sonoma County, California to compensate for the loss of 49.97 acres of California tiger salamander habitat and 49.97 acres of Santa Rosa sunshine habitat. \$4,987,179

Mitigation

Pacific Gas and Electric Company King Ranch Mitigation (CA)

Pay conservation easement, long-term endowment, escrow costs, and interim management costs associated with the fulfillment of mitigation requirements under Pacific Gas and Electric Company Bay Area Operations and Maintenance Habitat Conservation Plan. \$4,766,360

,54,766,360 Mitigation

Pacific Gas and Electric Company Gabany Preserve Bank Development (CA)

Pay development fees to pursue California conservation bank certification of the Gabany Preserve property. \$11,203 Mitigation

Pacific Gas and Electric Company San Bruno Mountain West Peak Restoration and Monitoring (CA)

Restore 5 acres of native grasslands at San Bruno Mountain State and County Park. Project will support the Pacific Gas and Electric Company Bay Area Operations and Maintenance Habitat Conservation Plan goal for the Mission blue butterfly.

\$130,073 Mitigation

Peter C. and Anita C. Frusetta Revocable Living Trust / Robert and Jamie Frusetta Mendota Wetland Restoration Project Right of

Entry and Conservation Easement Purchase Option Deposit (CA)

Payment of purchase option deposit for right of entry and conservation easement for a proposed National Fish and Wildlife Foundation Sacramento District California In-Lieu Fee Program wetlands mitigation project entitled, "Mendota Wetland Restoration Project, Kings River Aquatic Resource Service Area" in Fresno County, California. \$50,000 Mitigation

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Placer Land Trust

Mitigation Services for Reason Farms Restoration Project (CA)

Provide technical assistance in the development of a Project Development Plan for a proposed National Fish and Wildlife Foundation Sacramento District California In-Lieu Fee Program wetlands mitigation project entitled, "Reason Farms Restoration Project, American River Service Area" in Placer County, California.

- \$20,000
- Mitigation

Point Millerton Ranch

California Department of Fish and Wildlife Endowment - Point Millerton aka Tract 4870 Perform long-term management of mitigation land in Madera County, California.

\$12,018 Mitigation

Prunuske Chatham, Inc.

Herndon and Reedley College Tree Replanting - San Joaquin Valley Habitat Conservation Plan (CA) Plant over 3,000 trees for the fulfillment of the Master Streambed Alteration Agreement in the San Joaquin Valley Habitat Conservation Plan. \$94,701

Mitigation

Riverside Corona Resource Conservation District Coldwater Post-Fire Restoration Project (CA)

Hold and maintain a unique population of rescued wild coastal rainbow trout at a California Department of Fish and Wildlife hatchery until postfire conditions in Coldwater Creek are stable enough for re-introduction. Project will develop a long-term management plan that will focus on tasks needed to recover the habitat from the Holy fire, as well as perform adaptive management actions in the creek, such as replanting of trees, removal of debris dams from burned trees, and water quality monitorning. *\$39,145*

State Civil Case

Robert L. Sloan

Morro Shoulderband Snail Surveys on Four Parcels, San Luis Obispo (CA)

Conduct 20 surveys for the endangered Morro shoulderband snail at four locations in San Luis Obispo County, California. *\$4,600*

Mitigation

Salmon River Restoration Council Salmon River Coho Rearing Habitat Enhancement Project (CA)

Improve critical coho salmon rearing habitat by increasing cover, pool depth, and habitat complexity through manual modifications and addition of small and large wood and brush bundles. Project will increase in-stream cover within prioritized offchannel pools and ponds, as well as in and at the confluence of coldwater tributaries.

\$16,799 Mitigation

San Francisco State University

Population Genetics of Suisun Thistle Used to Inform Best Management Practices of an Endangered Resource From the San Francisco Bay Estuary (CA)

Investigate the genetic diversity of the endangered Suisun thistle and the potential of hybridization with the introduced European invasive bull thistle in marshes of the San Francisco Bay estuary. Project will analize DNA and genetics and result in two peer-reviewed publications that will directly inform impending restoration efforts.

\$32,656 Federal Criminal Case

(multiple prosecutions)

Santa Paula Creek Mitigation Bank

California Department of Fish and Wildlife Endowment - Santa Paula Creek Mitigation Bank Perform long-term management of mitigation land in Ventura County, California. \$4,056

Mitigation

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Scott River Water Trust

Spencer Ranch Permanent Water Dedication Project (CA)

Finalize a permanent water dedication agreement with the Spencer Ranch of Etna, California. Project will enhance stream conditions within the French Creek system and mainstem Scott River for the benefit of coho salmon, Chinook salmon, and steelhead trout.

\$189,132 Mitigation

Scott River Watershed Council

Addressing a Limiting Factor For Coho Salmon By Improving Spawning Conditions in a Key Tributary of the Scott Watershed (CA)

Improve coho salmon spawning and rearing in a key tributary of the Scott River, Siskiyou County, characterized by poor spawning substrate. Project will provide immediate benefit to the Scott salmonid population, specifically coho salmon, and will monitor salmonid utilization of the restoration features and evaluate gravel placement longevity. *\$74,255*

Mitigation

Solano County, Parks and Recreation Division

Enhancing Public Use and Restoring Habitats at Belden's Landing, the Gateway to Suisun Marsh (CA)

Improve Belden's Landing to be a more diversified, family-friendly destination by restoring the marsh, initiating development of a boardwalk interpretive trail, and improving existing facilities. Project will include participation of local students to encourage stewardship of the area wetlands.

\$92,915

Federal Criminal Case (multiple prosecutions)

Sundance Biology

2019 Raven Monitoring, Removal, and Management in Chemehuevi Critical Habitat Unit

(CA)

Conduct research on the interaction between desert tortoises and common ravens in the Chemehuevi Critical Habitat Unit. \$106,678 Mitigation

Sundance Biology

2019 Raven Monitoring, Removal, and Management in Fremont-Kramer Critical Habitat Unit (CA)

Conduct research on the interaction between desert tortoises and common ravens in the Fremont-Kramer Critical Habitat Unit. \$197,979 Mitigation

Sundance Biology

2019 Raven Monitoring, Removal, and Management in Joshua Tree National Park and Pinto Mountains Critical Habitat Unit (CA) Conduct research on the interaction between desert tortoises and common ravens in Joshua Tree National Park and the Pinto Mountains Critical Habitat Unit. \$131,220

Mitiaation

Sundance Biology

2019 Raven Monitoring, Removal, and Management in Ord-Rodman Critical Habitat Unit (CA)

Conduct research on the interaction between desert tortoises and common ravens in the Ord-Rodman Critical Habitat Unit. \$155,118

Mitigation

Sundance Biology

2019 Raven Monitoring, Removal, and Management in Superior-Cronese Critical Habitat Unit and Fort Irwin's Southeast Conservation Area (CA)

Conduct research on the interaction between desert tortoises and common ravens in the Superior-Cronese Critical Habitat Unit and Fort Irwin's Southeast Conservation Area. \$162,920 Mitigation

The Land Conservancy of San Luis Obispo County Dune Protected Area Black Lake Ecological Area (CA)

Restore habitat in the Black Lake Ecological Area Dune Protected Area. Project will control perennial veldtgrass, reintroduce Nipomo lupine, control European beachgrass, and monitor the foregoing control and eradication of invasive species. \$422,967

State Civil Case

The Land Conservancy of San Luis Obispo County Dune Protected Area Management Guadalupe Nipomo Dunes National Wildlife Refuge/Chevron Successional Dune (CA)

Restore habitat in the Guadalupe Nipomo Dunes National Wildlife Refuge/Chevron Successional Dune Protected Area. Project will control European beachgrass, enhance Myrtle Pond, control highway iceplant and sea fig, conduct feral pig control, and monitor the foregoing control and eradication of invasive species.

\$400,750 State Civil Case

The Land Conservancy of San Luis Obispo County Dune Protected Area Management Point Sal (CA)

Restore habitat in the Point Sal Dune Protected Area. Project will eradicate jubatagrass, stabilize erosion on the Point Sal Reserve Trail system, and monitor the foregoing tasks. *\$173,775 State Civil Case*

The Land Conservancy of San Luis Obispo County

Evaluating Effectiveness of Nipomo Lupine Recovery Management within the Phillips 66 Refinery and State Parks Lease Occurrences (CA)

Monitor subpopulations of federally endangered Nipomo lupine to evaluate current management methods. Project will provide crucial information to implement adaptive management framework for the future management needs of Nipomo lupine. *\$39,521* State Civil Case

The Land Conservancy of San Luis Obispo County Wetland Habitat Restoration Within the Guadalupe-Nipomo Dunes National Wildlife Refuge (CA)

Restore 4.66 acres of native coastal scrub and wetland habitat surrounding two ponds on the Guadalupe-Nipomo Dunes National Wildlife Refuge for the benefit of the federal endangered and state threatened La Graciosa thistle and federal threatened and state species of special concern California red-legged frog. Project will include invasive species removal and outplantings of La Graciosa thistle from neighboring occurrences. *\$24,412*

State Civil Case

The Land Conservancy of San Luis Obispo County Kathleen's Canyon Overlook Interpretive Opportunities and Visitor Service Amenities (CA)

Construct and install a conservation park at Kathleen's Canyon Overlook in the Lower Black Lake Canyon Wetland Preserve, San Luis Obispo County, California. Project will provide free public access to the underserved communities of the Santa Maria River Valley for educational, social, and health purposes while showcasing the special natural resources unique to the conservation property and Central Coast region. *\$100,000*

State Civil Case

MPACT-DIRECTED

ENVIRONMENTAL

ACCOUNTS

(IDEA)

The Living Desert

Raven Relief Outreach Program to Benefit Desert Tortoises (CA)

Conduct public education and outreach to reduce trash and water subsidies to ravens. Project will engage key public user groups in restoration, outreach, education, and citizen science with the goal of changing human behavior to reduce raven subsidies.

\$118,588 Mitigation

(IDEA)

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MPACT

The Restoration Trust

Wetland Management of Bordoni Ranch (CA) Perform long-term land management of Bordoni Ranch Mitigation Area in Solano County, California. \$9,736 Mitigation

Thomas K. Moss

California Department of Fish and Wildlife **Endowment - Pletz Residence** Perform long-term management of mitigation land in Monterey County, California. \$3,140

Mitigation

Transition Habitat Conservancy

California Department of Fish and Wildlife -Renewable Energy Action Team Endowment -Fremont-Kramer Perform long-term management of mitigation land in San Bernardino County, California.

\$107,538

Mitigation

Travis Belt

Morro Shoulderband Snail Surveys (CA)

Conduct surveys for Morro shoulderband snail at two locations in San Luis Obispo County, California. Project will characterize Morro shoulderband snail presence and use of already conserved lands within the range of the species to assist in achieving goals identified in the recovery plan for Morro shoulderband snail and four plants from western San Luis Obispo County, California. \$3,025

Mitigation

Truckee Donner Land Trust

Long-Term Land Management Fund for the Truckee Meadows Restoration Project (CA)

Establish a long-term land management fund to be held by the Truckee Donner Land Trust in trust for the perpetual management and protection of the National Fish and Wildlife Foundation's Sacramento District California In-Lieu Fee Program wetlands mitigation project site for the "Truckee Meadows Restoration Project" in Nevada County, California. \$31,415 Mitigation

Truckee River Watershed Council

Dry Creek Meadow and Stream Restoration (CA) Restore and enhance 30 acres of mountain meadow habitat, 3,900 feet of perennial stream, and 500 feet of intermittent and ephemeral streams in an important headwater system. Project will address degradation at four meadow and stream locations. \$80,696 State Civil Case

Ducks Unlimited

Lower Cosumnes River Floodplain Restoration (CA) Restore wetlands as mitigation for losses of seasonal wetland habitat authorized by the United States Army Corps of Engineers in the hydrologic unit code of 180400. \$180,837 Mitigation

United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, National Wildlife Research Center Raven Management for Desert Tortoise Protection (CA)

Conduct wildlife damage management activities to control ravens for the protection of the federallylisted desert tortoise in the Mojave and Colorado Deserts located within California.

\$81,700 Mitigation

United States Fish and Wildlife Service - Kern National Wildlife Refuge

Kern National Wildlife Refuge Unit 15 Supply Procurement (CA)

Procure supplies for endangered species monitoring and habitat improvement in Unit 15 at Kern National Wildlife Refuge.

\$7,528 Mitigation

United States Fish and Wildlife Service - Region 2 United States Fish and Wildlife Service Southwest Region 2 Endowment - Houston Toad Captive Breeding Long-Term Support (CA)

Perform captive breeding program activities for the federally endangered Houston toad.

\$30,000 Mitigation

Ventana Wildlife Society

California Condor Central - An Online Database to Enhance Condor Recovery

Complete the development of a centralized database to enhance California condor recovery efforts. Project will expand the database to encompass the southern California condor flock and will facilitate condor monitoring as well as field site data collection consistency to benefit condor research.

\$40.200 Federal Criminal Case U.S. v. Wal-Mart, Inc.

Ventura County Watershed Protection District

Arundo Free Watershed Campaign Project (CA) Re-treat non-native vegetation to help restore a riparian corridor and benefit all life stages of steelhead in the San Antonio Creek watershed in Ventura County, California.

\$36,414 Federal Criminal Case U.S. v. Wal-Mart, Inc.

West Virginia University Research Corporation

California Condor Flight Response in a Variable Meteorological and Topographic Environment: Phase I

Record movements of California condors to understand how their flight behavior responds to variations in topography and weather.

\$60,000 Mitigation

Westervelt Ecological Services

California Department of Fish and Wildlife Endowment - Dutchman Creek Conservation Bank Perform long-term management of mitigation land in Merced County, California. \$14,405 Mitigation

Westervelt Ecological Services

California Department of Fish and Wildlife Initial and Capital - Alkali Flats Mitigation Site Perform short-term management of mitigation land in Kern County, California. \$14,385 Mitigation

Westervelt Ecological Services

California Department of Fish and Wildlife Initial and Capital - CD Hillman Perform short-term management of mitigation land in Kern County, California. \$30.180 Mitigation

MPACT-DIRECTED ENVIRONMENTAL ACCOUNTS (IDEA)

Westervelt Ecological Services

California Department of Fish and Wildlife Initial and Capital - Cottonwood Creek Perform short-term management of mitigation land in Tulare County, California. *\$24,365*

Mitigation

Westervelt Ecological Services

California Department of Fish and Wildlife Endowment - Maxwell Planned Unit Development Perform long-term management of mitigation land in Colusa County, California. \$7,852.28 Mitigation

Westervelt Ecological Services

Cosumnes Floodplain Mitigation Bank 0.11 Credit Purchase (CA)

Purchase 0.11 Floodplain Mosaic Wetland Credit from the Westervelt Ecological Services Cosumnes Floodplain Mitigation Bank.

\$16,258

Mitigation

Westervelt Ecological Services

Reason Farms Restoration Project Planning and Design (CA)

Provide technical assistance in the development of a Project Development Plan for the National Fish and Wildlife Foundation's Sacramento District California In-Lieu Fee Program wetlands mitigation project entitled, "Reason Farms Restoration Project, American River Aquatic Resource Service Area" in Placer County, California.

\$138,640 Mitigation

Westervelt Ecological Services

Pacific Gas and Electric Company's Giant Garter Snake Credit Purchase from Grasslands Mitigation Bank (CA)

Purchase Giant Garter Snake credits from the Westervelt Ecological Services Grasslands Mitigation Bank in Merced County, California. \$16,500 Mitigation

Westervelt Ecological Services

United States Fish and Wildlife Service Endowment - Ferrari Ranch (CA) Perform long-term management of mitigation land in Solano County, California. \$33,010.47 Mitigation

Westervelt Ecological Services

United States Fish and Wildlife Service Endowment - Pacific Gas and Electric Company Palermo (CA) Perform long-term management of mitigation land in Butte, Yuba and Sutter Counties, California. \$6,113.73 Mitigation

WRA

Ahwahnee Meadow Restoration Project Technical Studies (CA)

Provide technical assistance in the development of a Project Development Plan for the National Fish and Wildlife Foundation's Sacramento District California In-Lieu Fee Program wetlands mitigation project entitled, "Ahwahnee Meadow Restoration Project, Merced/Tuolumne Rivers Aquatic Resource Service Area" in Mariposa County, California. *\$11,729*

Mitigation

Yurok Tribe

Lower Bear Creek Stream and Floodplain Habitat Enhancement Project: Phase I (CA)

Construct wood jams in lower Bear Creek to provide immediate and long-term benefits to natal and non-natal coho salmon populations. Project will enhance rearing habitat in key mainstem corridor sites and directly benefit coho salmon by facilitating formation and maintenance of productive winter rearing habitats.

\$98,643 Mitigation

COLORADO

Ecosystems Research Institute

San Juan River Habitat Assessment (CO)

Assess and monitor habitats in the San Juan River to help meet the goals and objectives of the San Juan River Basin Recovery Implementation Program. *\$6,114*

Mitigation

Integrated Aqua Systems

Palisade High School Fish Hatchery - Payment 1 (CO)

Payment of expenses of Integrated Aqua Systems supporting the Palisade High School Fish Hatchery project.

\$7,591.46 Mitigation

CONNECTICUT

Connecticut Fund for the Environment

Long Island Sound Ecosystem Health Report Card (CT)

Coordinate, distribute, and publicize the regional Long Island Sound Report Card over a three-year budget cycle. *\$9,000*

Federal Criminal Case US v. ODFJELL ASIA II

Northeast States for Coordinated Air Use Management

VOC and Other Air Quality Aircraft Measurements over Connecticut and Long Island Sound (CT)

Conduct aircraft flights over Long Island Sound and coastal Connecticut to collect atmospheric measurements of volatile organic compounds (VOCs), including formaldehyde and other air toxics, affecting Connecticut. Project will gather improved information on VOCs entering Connecticut and will aid state air quality planners in designing effective programs to reduce the environmental and public health harms associated with VOC pollution, including ground-level ozone formation, organic particulate matter, and air toxics.

\$12,750 Federal Criminal Case U.S. v. SCP Management, LLC

FLORIDA

Callaway Marine Technologies Florida Disease Response Coral Rescue

Support field work and collect up to 3,000 corals as part of a comprehensive effort to rescue healthy corals ahead of the disease boundary. Project will place corals in land base aquaria to preserve genetic diversity and later serve as a source for propagation for future restoration activities.

\$353,670

Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

Conservation Fisheries

Okaloosa Darter Collection, Propagation, and Reintroduction (FL)

Conduct activities for the collection, propagation, and reintroduction of the federally threatened Okaloosa darter.

\$19,000 Mitigation

Environmental Resource Management Solutions College Pond Conceptual Design (FL)

Create an alternative conceptual design for an offchannel impoundment as part of a larger project for Okaloosa darter conservation.

\$9,000 Mitigation

Environmental Resource Management Solutions Restoration Phase of State Road 123 Enforcement

Action (FL) Conduct restoration of State Road 123 enforcement action for Okaloosa darter conservation.

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\$149,500

Mitigation

Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute Florida Coral Rescue Project Phase II

Rescue healthy corals ahead of an advancing disease boundary in the Lower Florida Keys and Marquesas and place them into land-based aquaria to prevent them from becoming diseased. Project will preserve genetic diversity and serve as source stock for propagation and future restoration activities. *\$294,246*

Federal Criminal Case

U.S. v. Princess Cruise Lines, LTD.

Loyola University

Okaloosa Darter Research Project (FL)

Relocate imperiled Okaloosa darters from a site scheduled for bridge construction. Project will monitor their movement back into the site following completion of construction. \$25,647 Mitigation

Mote Marine Laboratory Florida Disease Response Coral Rescue

Provide one year of housing and care to coral colonies collected from the Lower Keys. Project will prepare the tanks for receipt of corals, provide water quality and light control, and provide general care. *\$27,873* Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

Nova Southeastern University

Florida Disease Response Coral Rescue

Utilize a land-based system to provide housing and care for up to 700 rescue corals, depending upon size and species. Project will maintain these corals for one year, after which they may be utilized for restoration activities, transferred to a long-term maintenance facility, or remain in current housing. *\$125,161*

Federal Criminal Case

U.S. v. Princess Cruise Lines, LTD.

Socialize With Education Empowerment Trust Yourself

Community Restoration of Deadman's Island (FL) Purchase plants and transpiration costs required for the continued maintenance and repair efforts on Deadman's Island.

\$6,400

Federal Criminal Case

U.S. v. Briese Schiffahrts GmbH & Co. KG

The Florida Aquarium

Florida Disease Response Coral Rescue

Construct an aquarium culture system and provide skilled husbandry for up to 100 coral colonies rescued from the Lower Keys in a bio-secure facility located in Apollo Beach, Florida for a period of one year. Project will provide coral with refined temperature control, excellent water quality, optimal lighting conditions that replicate natural seasonal cycles, and access to veterinary care. *\$53,392* Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

University of Miami

Florida Disease Response Coral Rescue Provide one year of housing and care at the

University of Miami for up to 750 coral colonies. Project will prepare the tanks for receipt of corals, provide water quality and light control, and provide general care. *\$106,175 Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.*

HAWAII

Conservation Metrics

2018 Automated Acoustic Surveys for Hawaiian Seabirds on Lanai, Hawaii

Conduct the 2018 analysis of remote acoustic monitoring for the threatened Newell's shearwater, endangered Hawaiian petrel, and endangered bandrumped storm petrel on the island of Lanai. *\$10,728*

Mitigation

Conservation Metrics

2019 Automated Acoustic Surveys for Hawaiian Seabirds on Lanai (HI)

Conduct the 2019 analysis of remote acoustic monitoring for the threatened Newell's shearwater, endangered Hawaiian petrel, and endangered bandrumped storm petrel on the island of Lanai. *\$11,529* Mitiagrice

Mitigation

Hallux Ecosystem Restoration

Equipment Purchase for Hono o Na Pali Seabird Project (HI)

Purchase equipment in support of the Hono o Na Pali Seabird Project on the island of Kauai.

\$31,692 Mitigation

Hallux Ecosystem Restoration

Interim Cat Predator Control for Honopu Seabird Initiative (HI)

Purchase equipment in support of the Honopu Seabird Initiative on the island of Kauai. \$24,117 Mitigation

Pulama Lanai

Kaheawa Wind Power Mitigation Lanai Hawaiian Petrel Protection Project II

Expand ecosystem-level Hawaiian petrel colony management on the island of Lanai to improve reproductive success in areas that are currently under-protected from mammalian predators. \$46,019

Mitigation

University of Hawaii

Derelict Fishing Gear Removal from Shallow Coral Reef Environments within Papahanaumokuakea

Execute a large-scale derelict fishing gear removal effort from the remote islands and atolls within the Papahanaumokuakea Marine National Monument. Project will reduce the impacts of derelict fishing gear to critical habitats for more than 7,000 marine and avian species and dispose over 80 metric tons of removed derelict fishing gear.

\$199,892

Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

University of Hawaii

2019 Monitoring of Endangered Seabirds on Lanai

Monitor and manage work on the Seabird Recovery. Project will support the Lanai Hawaiian petrel colony in coordination with the landowners' efforts to do landscape-level predator control.

\$52,574 Mitigation

Federal U.S. v. F

LOUISIANA

Louisiana State University Agricultural Center BTEX and H2S Emission Effects on Water and Soil Environment

Document level of benzene, toluene, ethylbenzene, xylenes, and hydrogen sulfide in soils and waterways in southwest Louisiana.

\$19,001 Federal Criminal Case U.S. v. Pelican Refining Company, LLC

MARYLAND

St. Vincent de Paul Roman Catholic Congregation Micro-Bioretention at St. Vincent de Paul Roman Catholic Church (MD)

Construct three micro-bioretention facilities in St. Vincent de Paul Roman Catholic Church's parking lot. Project will capture and treat stormwater and pollutants that run off from the parking lot into Jones Falls River and Baltimore Harbor.

\$128,587

Federal Criminal Case U.S. v. Hachiuma Steamship, Co. LTD

MASSACHUSETTS

Center for Coastal Studies

Removal and Interception of Derelict Fishing Gear from Cape Cod Bay Right Whale Critical Habitat (MA) Conduct side-scan sonar surveys to identify targets and work with lobstermen and other fishermen to recover, inventory, and dispose properly of derelict fishing in the Cape Cod Bay Right Whale Critical Habitat. Project will continue the successful partnership with the lobster industry and will augment collaboration with commercial shellfishermen and mobile gear fishing vessels to intercept ghost gear before the gear can negatively impact marine resources and habitat. *\$223,027* Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

Center for Coastal Studies

Personnel and Equipment Support for Response to Entangled Whales and Sea Turtles Off Southern New England (MA)

Enhance emergency response to entangled whales, including North Atlantic right, humpback, fin and minke whales, and sea turtles off southern New England. Project will augment on-call response personnel and upgrade response and safety equipment for disentangling whales and sea turtles in several critical habitats, including Cape Cod Bay, Stellwagen Bank, and the Great South Channel. *\$80,799*

Federal Criminal Case

U.S. v. Princess Cruise Lines, LTD.

MONTANA

River Design Group

McGregor Meadows Waterfowl Production Area Post-construction Monitoring and Wetland Delineation (MT)

Conduct post-construction monitoring and wetland delineation in McGregor Meadows Waterfowl Production Area, as part of Kerr Mitigation Project. *\$17,302*

Mitigation

River Design Group

Swan River National Wildlife Refuge Wetland Restoration Restore the Swan River National Wildlife Refuge wetlands. \$13,395 Mitigation

NEW HAMPSHIRE

Center for Coastal Studies

Personnel and Equipment Support for Response to Entangled Whales and Sea Turtles Off Southern New England

Enhance emergency response to entangled whales, including North Atlantic right, humpback, fin and minke whales, and sea turtles off southern New England. Project will augment on-call response personnel and upgrade response and safety equipment for disentangling whales and sea turtles in several critical habitats, including Cape Cod Bay, Stellwagen Bank, and the Great South Channel. *\$80,799 Federal Criminal Case*

U.S. v. Princess Cruise Lines, LTD.

NEW JERSEY

Northeast States for Coordinated Air Use Management

VOC and Other Air Quality Aircraft Measurements over Connecticut and Long Island Sound (NJ) Conduct aircraft flights over Long Island Sound and coastal Connecticut to collect atmospheric measurements of volatile organic compounds, including formaldehyde and other air toxics, affecting Connecticut. Project will gather improved information on volatile organic compounds entering Connecticut and will aid state air quality planners in designing effective programs to reduce the environmental and public health harms associated with volatile organic compounds pollution, including ground-level ozone formation, organic particulate matter, and air toxics.

\$12,750 Federal Criminal Case U.S. v. SCP Management, LLC

NEW MEXICO

Aquaneering

Z-Habitats (NM)

Assess effects of temperature on endangered larval fish survival and development in the San Juan River. \$51,065 Mitigation

Ecosystems Research Institute

San Juan River Habitat Assessment (NM)

Assess and monitor habitats in the San Juan River to help meet the goals and objectives of the San Juan River Basin Recovery Implementation Program. \$6,114 Mitigation

Ecosystems Research Institute

San Juan River Habitat Assessment – II (NM) Assess important habitats for endangered fishes in the San Juan River. \$139,637 Mitigation

Keller-Bliesner Engineering

Secondary Channel Habitat Maintenance for Native Fishes in the San Juan River (NM) Perform habitat maintenance on secondary channels in the San Juan River for native fishes. \$7,337 Mitigation

Public Service Company of New Mexico

Hogback Fish Weir Maintenance (NM) Maintain the Hogback fish weir on behalf of the San Juan River Recovery Implementation Program. \$24,647 Mitigation

IMPACT-DIRECTED ENVIRONMENTAL ACCOUNTS (IDEA)

Reid Enterprises

Endangered Fishes Transport - San Juan River (NM) Purchase flat bed trailer for use at the United States Fish and Wildlife Service's Southwestern Native Aquatic Resources Recovery Center to transport endangered fishes for stocking into the San Juan River. \$10,773 Mitigation

U.S. Department of the Interior, U.S. Fish and Wildlife Service

Staff Biologist for San Juan River Recovery Actions (NM) Contribute towards a San Juan River Recovery Implementation Program staff biologist to conduct Recovery Actions. \$133,384

Mitigation

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NEW YORK

Bike New York

Recycle-A-Bicycle Community Education and Stewardship Program (NY)

Conduct the Recycle-a-Bike program hosting a series of integrated transportation and environmental programs and community service projects in Long Island City, Western Queens, and North Brooklyn, New York. Project will facilitate the public's access to and enjoyment of natural resources on bikes and improve the cycling community's understanding of transportation and water pollution. *\$37,182*

Other

Bronx River Alliance

Combating Invasive Plants: Restoring the Bronx River's Native Habitat (NY)

Combat invasive plants and replant native plants engaging volunteers from a newly created Riparian Invasive Plant Patrol along the shoreline of the lower Bronx River, Bronx, New York. Project will restore healthy, functioning riparian habitat. *\$76,725 Other*

Bronx River Alliance Project WASTE (Waterway and Street Trash

Elimination) (NY)

Involve the community in ongoing trash cleanup, identifying types of trash, and working with students to develop and conduct awareness campaigns around the problem of floatable trash pollution in the Bronx River, Bronx, New York. Project will increase understanding and personal and community action to reduce the persistent and growing problem of trash along the 23 miles of the Bronx River.

\$35,456 Other

Brooklyn Public Library

Greenpoint Library Environmental Education Center (NY)

Rebuild the Greenpoint Library to be a state-of-theart "green" building and to create an Environmental Education Center in Greenpoint, New York. Project will be a hub for community-based environmental programs, exhibits, and information. *\$14,400*

Other

City Parks Foundation

City Parks Foundation's Coastal Classroom Program at Coney Island Creek (NY)

Implement coastal ecology program at Coney Island Creek for 70 youth. Project will result in 2,900 pounds of floatables being collected, as well as 70 youth and 360 community members increasing understanding and appreciation of Coney Island Creek.

\$30,000 Other

City Parks Foundation

Greening Greenpoint: An Urban Forestry Plan (NY) Implement a full inventory of trees and associated canopy cover, develop a comprehensive urban forestry plan on the neighborhood scale, and implement the plan, which will plant new trees and protect existing trees to maintain and increase canopy cover and reduce the amount of impervious surface. Project will plant 500 new trees that will capture 787,500 gallons of stormwater annually, sequester 13,000 pounds of carbon dioxide, install 325 tree guards around existing trees, remove up to 25,000 square feet of impervious concrete, and reduce local air pollution. *\$98,350*

Other

Other

Connecticut Fund for the Environment Adding the Bronx River to the Unified Water Study (NY)

Facilitate adding a 37th embayment and 21st monitoring group to the Unified Water Study: Long Island Sound Embayment Research project. Project will follow standard operating procedures to collect comparable data on the environmental health of each location, to be published and disseminated to stakeholders and decision-makers in order to drive improvements to the health of the Sound. *\$51,187*

Connecticut Fund for the Environment

Long Island Sound Ecosystem Health Report Card (NY)

Coordinate, distribute, and the publicize the regional Long Island Sound Report Card over a three year budget cycle. *\$9,000*

Federal Criminal Case US v. ODFJELL ASIA II

Council on the Environment d/b/a GrowNYC Public Training to Install New York City Rain Barrels and Rainwater Harvesting to Improve Community Water Quality

Deliver workshops to teach the public about how to install and maintain rain barrels provided by the New York City Department of Environmental Protection at rain barrel giveaways and install rainwater harvesting systems in public greenspace in West Harlem, New York. Project will increase successful public use of rain barrels and demonstrate the value of rainwater harvesting to reduce stormwater from streets, sidewalks, and roofs into local waterways. *\$56.000*

Other

Council on the Environment d/b/a GrowNYC Lentol Garden Renovation (NY)

Renovate Lentol Garden, a community garden in Greenpoint, in order to restore a declining garden to a vibrant neighborhood gathering spot, spur neighborhood involvement, participation from community-based organizations, and the growth of a wide variety of plants. Project will reactivate several dark and shady areas of the garden, replace mature plants inadvertently destroyed by pest control efforts several years ago, and will create several new and flexible areas for groups of outside visitors, work with young people, community meetings, and other events.

\$30,000 Other

Electric Power Research Institute

Eel Passage Research Center – II (NY)

Continue to develop and manage the Eel Passage Research Center to help determine effective ways to help migrating adult eels pass hydroelectric facilities.

\$1,250,000 Mitigation

Friends of WHEELS

A Clean Green Air Corridor for Washington Heights (NY)

Create a clean air corridor in and around the Washington Heights Expeditionary Learning School, Manhattan, New York. Project will model the elements and impact of clean air corridors for wider-use in the neighborhood.

\$35,000 Other

Gowanus Canal Conservancy

Improving Canal Water Quality through Green Infrastructure Restoration (NY)

Manage 96,000 square feet of green infrastructure in the Gowanus Watershed. Project will engage 720 volunteers and 720 students in stewardship activities and 4-6 high school apprentices in green job training in order to increase awareness about water quality and other environmental issues in Gowanus.

\$102,328

Federal Criminal Case U.S. v. A&L Cesspool Service Corporation

Horticultural Society of New York

Community Stewardship and Education at a New Native Pollinator and Bird Garden (NY)

Build a native plant garden and install trees at the Denny Farrell Riverbank State Park, Manhattan, New York. Project will transform an unused strip of park and plant new trees creating .06 acres of pollinator, bird-friendly greenspace for community education and stewardship.

\$80,003 Other

Horticultural Society of New York McGolrick Park Environmental Education Stewardship Project (NY)

Enhance and maintain two native plant areas of McGolrick Park, the Urban Oasis Garden and the Native Pollinator Sanctuary, in the primary garden area. \$17,500 Other

Lenape/Bloemendael District Management Association

Planting and Stewarding Street Trees to Improve Environmental Quality in the Manhattan Valley Neighborhood (NY)

Plant 25 new trees in empty street treepits and train 50 community stewards to care for the trees in the Manhattan Valley neighborhood, Manhattan, New York.

\$76,000 Other

National Audubon Society

Audubon New York's For the Birds! Environmental Education Program

Deliver hands-on environmental education programing to students grades 6 through 8 at I.S 303 Herbert S. Eisenberg School. Project will cultivate new audiences by delivering five bird watching classes to students and offering three community bird walks to I.S. 303 students, faculty, and their families.

\$76,560

Other

National Audubon Society

For the Birds! An Environmental Education Program (NY)

Deliver youth and adult environmental education programs and hands-on stewardship activities for 350 people to learn about birds in Greenpoint, Brooklyn, New York. Project will provide an opportunity for residents to interact with natural resources in local parks and create direct connections to the natural world in their community.

\$63,892 Other

National Wildlife Federation Greenpoint Eco-Schools: Creating a Legacy of

Sustainability (NY)

Reduce water use, energy use, and solid waste at four public schools using the Eco-Schools USA model to build environmental awareness, leadership, and stewardship among more than 1,800 students, 125 staff, and thousands of community residents. Project will reduce solid waste by 25 percent, water use by at least 5 percent, and energy use by at least 10 percent, providing measurable environmental benefits to the community. **\$109,250**

Other

Natural Areas Conservancy Planning and Coordination for Coastal Forest Habitat Management in Bronx Park (NY)

Develop a management plan for 170 acres of coastal maritime forest in the Bronx Park in New York. Project will contribute to targeted restoration and management of coastal maritime forest in an important urban Long Island Sound watershed. *\$99,810*

Other

Neighbors Allied for Good Growth Strengthening Our Common Ground: Lead in Soils

in Greenpoint (NY)

Provide Greenpoint residents with education on lead in soil. Project will promote and facilitate practices for avoiding lead exposure, thus expanding the network of environmental stewards and improving public health. \$10,000

Other

New York City Audubon Society

Community Wildlife Conservation in New York City (NY)

Work with community partners to create diverse teams to conduct wildlife monitoring and coastal habitat enhancement projects in Jamaica Bay, Pelham Bay Park, Calvert Vaux Park, and Manhattan, New York. Project will enhance the capacity for environmental stewardship at a local level by engaging New York City residents, including minority and immigrant community members, directly in hands-on conservation. *\$60,120*

\$60,120 Other

New York City Department of Parks and Recreation

Expansion of Coney Island Creek Shorekeepers, Brooklyn (NY)

Expand current coalition of volunteers who receive specialized training and resources to care for street trees and natural areas. Project will involve the public in debris clean-up and monitoring projects in the salt marsh and upland coastal maritime community.

\$60,000 Other

Newtown Creek Alliance

Newtown Creek Urban Ecology Education NC U³ Project (NY)

Deliver an urban environmental education curriculum focused on the ecology of Newtown Creek to students and support local stewardship projects in concert with schools in Long Island City, Queens, New York. Project will increase knowledge and awareness of Newtown Creek, a nearby community waterway, and its natural resources. \$32,924

Other

Newtown Creek Alliance Gateway to Greenpoint (NY)

Create a community-driven plan for the development of a 13,000 square foot city-owned parcel at the corner of Greenpoint and Kingsland Avenues in Greenpoint, Brooklyn. Project will result in a site plan that generates public space and environmental benefit and will allow New York City Department of Environmental Protection to move forward in developing the parcel.

\$4,253 Other

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Newtown Creek Alliance Newtown Creek SAMPLES Project – II (NY)

Collect a season's worth of water quality sampling, which will provide vital information about the conditions of surface waters in Greenpoint's Newtown Creek. Project will share and distill information with the Greenpoint community through social media and a series of educational canoe trips on Newtown Creek and create a project booklet to summarize key findings and outline ways in which Greenpoint residents can help improve local water quality conditions. *\$6,324*

Other

Northeast States for Coordinated Air Use Management

VOC and Other Air Quality Aircraft Measurements over Connecticut and Long Island Sound (NY) Conduct aircraft flights over Long Island Sound and coastal Connecticut to collect atmospheric measurements of volatile organic compounds, including formaldehyde and other air toxics, affecting Connecticut. This project will gather improved information on volatile organic compounds entering Connecticut and will aid state air quality planners in designing effective programs to reduce the environmental and public health harms associated with pollution, including ground-level ozone formation, organic particulate matter, and air toxics. \$12,750 Federal Criminal Case U.S. v. SCP Management, LLC

Open Space Alliance For North Brooklyn Greenpoint Citizens Club (NY)

Increase outreach and education programming at 61 Franklin St. Community Garden. Project will engage elementary aged students 5-9 years old in an in-depth program called Greenpoint Citizens Club and adult community members in education workshops, a speaker and film series, as well as community service action days with the goal of multiplying the positive impact of the garden's current sustainability practices through an educated body of neighbors. **\$27,000**

Other

Open Space Alliance For North Brooklyn The Kosciuszko Bridge Design Project (NY)

Develop a design plan to turn a four-acre former industrial site into a multi-use parkland and develop a sustainability strategy for leveraging private and public resources to create a financially sustainable business model for the park. Project will inform future development of the former industrial space into a public park to increase access to open space, improve air quality and biodiversity, and enhance overall quality of life in Greenpoint, New York. *\$166,775 Other*

Open Space Alliance For North Brooklyn Ziemia: McGolrick Park Restoration (NY)

Revitalize McGolrick Park by restoring a section of the park by turning it into a native plant meadow and a woodland floor. Project will plant native species that will become a natural ecological extension of previously funded projects in the park. \$30,000 Other

PS 110K PTA PS110 Garden Renovation (NY)

Renovate the playground on Monitor Street next to PS110 by adding several planters containing native trees and vines, raised beds for agricultural development, and special seating on which students can gather and play. Project will improve the quality of life and education for the students and teachers of PS110, create a public garden for the Greenpoint community, and create natural habitat for pollinators.

\$8,003 Other

Rockaway Waterfront Alliance

Marine Conservation Corps Youth Service-Learning Program for a Healthy and Trash Free Jamaica Bay and Rockaway Peninsula (NY)

Deliver an education and service learning program for youth ages 14 to 18 focused on marine conservation projects and involve community members in environmental stewardship in and around Jamaica Bay and the Rockaway Peninsula, New York. Project will restore 11.5 acres of degraded shoreline and collect 1,500 pounds of marine debris while increasing awareness and appreciation of coastal resources in the community. *\$35,035 Other*

Sustainable South Bronx

Improving Stormwater Management through Green Infrastructure at Concrete Plant Park (NY) Deliver green infrastructure improvements, offer green employment, and educate and engage the local community in park greening at Concrete Plant Park, Bronx, New York. Project will reduce the amount of stormwater flowing into the Bronx River and involve community members in hands-on activities to improve their local environment.

\$53,538 Other

The Bronx is Blooming

Youth Leadership for Community Stewardship in Bronx Parks (NY)

Train local youth to lead park restoration projects in the Bronx, New York. Project will catalyze youth leadership to engage their communites in a culture of lasting civic engagement through stewardship of natural resources in public parks in order to improve public health and the local environment. *\$36,661*

Other

The Research Foundation for the State University of New York

Restoration of the Upper St. Lawrence River Muskellunge Population (NY)

Update and expand the current capacity for culture at the Aquatic Research Lab at the Thousand Islands Biological Station in support of the Muskellunge population recovery effort.

\$106,043

Mitigation

The Trust for Public Land

A Green New York City Playground for Public School 58 and the Maspeth Community (NY)

Deploy green infrastructure on a school playground at Public School 58 in Maspeth, Queens, New York. Project will enhance outdoor recreational space and capture 800,000 gallons of stormwater annually before it flows into Newtown Creek. \$46,000

Other

Trout Unlimited

Trout in the Classroom Journey of Water to the Hudson River for West Harlem Schools (NY)

Deliver environmental program for 180 students in three schools surrounding the North River Wastewater Treatment Plant in West Harlem, New York. Project will involve students in the classroom and field in a year-long study of the role they play as stewards of New York City waterways. *\$15,273 Other*

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United States Fish and Wildlife Service - New York Field Office

St. Lawrence Fish Enhancement, Mitigation and Research Fund Miscellaneous Expenses (NY) Support fish enhancement, mitigation, and research

projects in the St. Lawrence River.

\$249,500

Mitigation

Various Recipients

Barnett Marsh Wetland Restoration Project (NY) Pay expenses of the Barnett Marsh Wetland Restoration Project. \$49,505 Mitigation

Various Recipients

Chippewa Creek Wetland Restoration Project (NY) Pay expenses of the Chippewa Creek Wetland Restoration Project. \$53,214 Mitigation

Various Recipients

Goose Bay Wetland Enhancement Project (NY) Pay expenses of the Goose Bay Wetlands Enhancement Project \$110 Mitigation

Various Recipients

Otter Creek Wetland Enhancement Project (NY) Creation of channeling/spawning pool to enhance Northern pike spawning and nursery habitat. \$110 Mitigation

Various Recipients

Restoration of the Upper St. Lawrence River Muskellunge Population: Equipment Purchase (NY)

Update and expand the current capacity for culture at the Aquatic Research Lab at the Thousand Islands Biological Station in support of the Muskellunge population recovery effort through the purchase of equipment.

\$17,695

Mitigation

Village Community Boathouse

Improving Water-Access at the Public Dock on Pier 40 Hudson River Park (NY)

Hire a marine contractor to remove and replace anchoring pipes to re-secure a public dock at Pier 40, Hudson River Park, Manhattan, New York. Project will support continued on-the-water public access to the Hudson River.

\$18,000 Other

Wildlife Conservation Society

New York Aquarium Urban Naturalist Initiative Train high school students as researchers and advocates to engage 650 community members in scientific data collection, clean-up efforts, and recreation along Coney Island Creek. Project will provide 10 students from Rachel Carson High School with a seven-month Youth Naturalist internship with the Wildlife Conservation Society's New York Aguarium, in which youth will work with science and education experts from the New York Seascape research program to generate original scientific research on species habitats in the Creek, design an installation to present their data at their school, participate in a citywide youth science symposium at the New York Aquarium, and engage 650 local community members in public engagement events at the Creek and the New York Aguarium. \$99,940 Other

NORTH CAROLINA

Cape Fear River Watch

Improving Access to Historical Spawning Habitat in the Cape Fear River: Lock and Dam 1 (NC) Implement modifications to the existing lock and dam fish passage to increase passage of striped bass to historical spawning areas and help accomplish Fishery Management Plan goals of a sustainable harvest and a self-sustaining striped bass population

in the Cape Fear River. *\$200.000*

Federal Criminal Case

U.S. v. Duke Energy Carolinas; U.S. v. Duke Energy Progress

Carolina Marine Structures

Great Dismal Swamp National Wildlife Refuge Water Control Structures (NC)

Install water control structures on the Great Dismal Swamp National Wildlife Refuge. *\$48,000*

Other

Conserving Carolina

Mountain Bogs National Wildlife Refuge and Management (NC)

Bring 115 acres of bog property into conservation and improve wetland hydrology on at least 15 acres. Properties will ultimately become part of the Mountain Bogs National Wildlife Refuge and will support the recovery of four federally-listed species – mountain sweet pitcher plant, bunched arrowhead, swamp pink, and bog turtle.

\$273,873

Federal Criminal Case

U.S. v. Duke Energy Carolinas; U.S. v. Duke Energy Progress

North Carolina Wildlife Resources Commission Long Ridge Tract Acquisition

Aquire the Long Ridge Tract in Pender County, North Carolina. Project will protect 812 acres of woodlands within the Cape Fear River drainage basin.

\$374,879

Federal Criminal Case

U.S. v. Duke Energy Carolinas; U.S. v. Duke Energy Progress

North Carolina Wildlife Resources Commission Yadkin River Conservation Corridor

Purchase fee simple of approximately 4,730 acres along the Yadkin River in North Carolina. Project will protect part or all of 11 Significant Natural Heritage areas and nearly 76 miles of shoreline, and prevent incompatible uses by maintaining the property in the Game Land program.

\$1,550,000

Federal Criminal Case U.S. v. Duke Energy Carolinas; U.S. v. Duke Energy Progress

Pine View Forestry

Great Dismal Swamp National Wildlife Refuge Pine Thinning (NC)

Cutting of trees and woody vegetation and lopping and scattering of the resulting slashing on approximately 409 acres at Great Dismal Swamp National Wildlife Refuge.

\$18,183 Other

Cleveland Museum of Natural History

Lake Erie Allegheny Partnership Fund Biodiversity Vision Project (OH)

Pay expenses for graphic design, photography, website programming, and printing to support the Lake Erie Allegheny Partnership Fund Biodiversity Vision Project.

\$10,308 Other

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OREGON

Curry County Soil and Water Conservation District Bagley Creek Restoration Conceptual Design (OR) Develop alternative project scopes for the restoration of lower Bagley Creek using geographic information systems, aerial imagery, and field

reconnaissance. Project will aid in the recovery of coho salmon within the Elk River watershed.

Federal Criminal Case (multiple prosecutions)

Curry County Soil and Water Conservation District Elk Mainstem Streambank Restoration Design (OR) Restore 1,300 feet of eroding streambank and riparian habitat on the Elk River mainstem channel and protect valuable agricultural land. Project will develop alternative conceptual designs for different ownership scenarios and proceed to a construction design based on the outcome of the sale of the property and Stakeholder input.

\$16,604 Federal Criminal Case (multiple prosecutions)

Curry County Soil and Water Conservation District Elk River Coho Salmon Recovery Comprehensive Monitoring Plan (OR)

Collect baseline monitoring information to enhance understanding of coho salmon population dynamics and limiting factors affecting population growth. Project will inform future project implementation and adaptive management techniques to successfully aid in the recovery of the wild Elk River coho salmon population.

\$49,620 Federal Criminal Case (multiple prosecutions)

Curry County Soil and Water Conservation District Puhl Ranch Watershed Enhancement (OR)

Work with landowners to develop, design, and implement a suite of restoration activities that enhance riparian and instream habitat along 8,825 feet of the Elk River mainstem and create 3.7 acres of backwater winter rearing habitat for coho salmon. Project will include the development of conceptual designs and plans; topographic surveying; finalizing the designs and plans with the landowner, agency, and archaeological feedback; preparing removal-fill permits; project implementation; and monitoring and maintenance. *\$85,273*

Federal Criminal Case (multiple prosecutions)

Lower Nehalem Watershed Council Punchbowl Creek Large Wood Enhancement Project (OR)

Project (OR) Place 15 complex, large wood structures along

a one-mile channel reach. Project will improve channel conditions and increase fish abundance, biomass, species diversity and richness, and survival for juvenile salmonids.

\$55,000 Federal Criminal Case

(multiple prosecutions)

Siuslaw Watershed Council

Siuslaw Coho Partnership Effectiveness Monitoring (OR)

Monitor the effectiveness of the 2019-2021 habitat restoration projects using juvenile Coho Rapid Bioassessments to assess distribution and abundance and the Aquatic Habitat Inventory method for physical habitat surveys. Project will examine if stragetic investments in the restoration of key habitat-forming watershed processes will further improve the Oregon Coast coho salmon population. *\$32,223* Federal Criminal Case

(multiple prosecutions)

Siuslaw Watershed Council

Upper Indian Helicopter Large Wood Aquatic Habitat Enhancement (OR)

Place large wood in key locations along approximately 10 miles of stream within the Siuslaw watershed. Project will create refuges for juvenile salmon. \$168,410 Federal Criminal Case (multiple prosecutions)

PENNSYLVANIA

Magnolia Mitigation

Enhancement and Protection of Bog Turtle and Bat Habitats (PA) Enhance and protect bog turtle and bat habitats in

Oley Township. *\$141,500*

Mitigation

Various Recipients

Pennsylvania Wetlands Replacement

Conduct wetland restorations on private lands, particularly in the Pocono Mountains region. *\$58,328 Mitigation*

PUERTO RICO

The Ocean Foundation

Derelict Fishing Trap Removal and Effective Management Planning in Puerto Rico

Conduct a comprehensive removal effort of abandoned fishing traps in Puerto Rico and document the scale of unauthorized trap fishing in the territory. Project will couple a large-scale derelict gear removal effort with an assessment of illegal trap fishing in collaboration with local and federal agencies and the fishing sector to improve compliance with trap fishing regulations and help transition to legal gear. **\$100,000**

Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

RHODE ISLAND

Center for Coastal Studies

Personnel and Equipment Support for Response to Entangled Whales and Sea Turtles Off Southern New England (RI)

Enhance emergency response to entangled whales, including North Atlantic right, humpback, fin and minke whales, and sea turtles off southern New England. Project will augment on-call response personnel and upgrade response and safety equipment for disentangling whales and sea turtles in several critical habitats, including Cape Cod Bay, Stellwagen Bank, and the Great South Channel. *\$80,799*

Federal Criminal Case U.S. v. Princess Cruise Lines, LTD.

Northeast States for Coordinated Air Use Management

VOC and Other Air Quality Aircraft Measurements over Connecticut and Long Island Sound (RI)

Conduct aircraft flights over Long Island Sound and coastal Connecticut to collect atmospheric measurements of volatile organic compounds, including formaldehyde and other air toxics, affecting Connecticut. This project will gather improved information on volatile organic compounds entering Connecticut and will aid state air quality planners in designing effective programs to reduce the environmental and public health harms associated with volatile organic compounds pollution, including ground-level ozone formation, organic particulate matter, and air toxics. **\$12,750**

Federal Criminal Case U.S. v. SCP Management, LLC

TEXAS

Tom Smith Land Acquisition Consulting

Land Acquisition Support for Columbia Bottomlands (TX) Provide support in developing land acquisition

opportunities for bottomland hardwood habitat in the Texas Mid-Coast Refuge Complex. \$81,010 Mitigation

UTAH

Ecosystems Research Institute

San Juan River Habitat Assessment (UT)

Assess and monitor habitats in the San Juan River to help meet the goals and objectives of the San Juan River Basin Recovery Implementation Program.

\$6,114 Mitigation

Utah Division of Wildlife Resources Mercury and Selenium Monitoring in Colorado Pikeminnow in the San Juan River (UT)

Monitor mercury and selenium concentrations in relation to the total length of Colorado Pikeminnow in the San Juan River. Project will, in concert with laboratory studies elsewhere, be used to evaluate the risks mercury and selenium pose for Colorado Pikeminnow in the San Juan River. This sampling will occur as part of the Four Corners Power Plant Biological Opinion.

\$204,587 Mitigation

VIRGINIA

Carolina Marine Structures Great Dismal Swamp National Wildlife Refuge Water Control Structures (VA) Install water control structures on the Great Dismal Swamp National Wildlife Refuge. \$48,000 Other

Pine View Forestry

Great Dismal Swamp National Wildlife Refuge Pine Thinning (VA)

Cutting of trees and woody vegetation and lopping and scattering of the resulting slashing on approximately 409 acres at Great Dismal Swamp National Wildlife Refuge. *\$18.183*

Other

WEST VIRGINIA

Allstar Ecology

Spruce Mountain Bat Mitigation (WV) Pay expenses related to bat mitigation on Spruce Mountain, West Virginia. \$40,446 Mitigation

Allstar Ecology

Spruce Mountain Vernal Pool Creation (WV)

Pay expenses related to conservation plan implementation on Spruce Mountain, West Virginia. *\$8,480*

Mitigation

The Nature Conservancy

Columbia Pipeline Endowment for Multi-Species Habitat Conservation Plan (WV)

Pay expenses related to implementation of Columbia Pipeline's Multi-Species Habitat Conservation Plan. \$120,000

Mitigation

The Wetland Trust

Columbia Pipeline Conservation Easement Payment (WV)

Pay expenses related to Columbia Pipeline conservation easement under Multi-Species Habitat Conservation Plan.

\$53,008 Mitigation

WISCONSIN

University of Wisconsin - Madison Signal Processing and Deep Learning Digital Images for Wood Species Identification (WI)

Conduct research that will advance the accuracy and algorithmic underpinnings of the machine vision wood identification system called the Xylotron. Project will include field testing as part of the evaluation of the enhanced system. *\$18,459*

Federal Criminal Case U.S. v. Lumber Liquidators, Inc.

WYOMING

Conservation Science Global

Assessing Risk to Golden Eagles From Turbine Development (WY)

Conduct modeling risk of wind energy development to Golden Eagles to develop site-specific models that can predict risk to Golden Eagles and other raptors from turbines. Project will utilize telemetry data from Golden Eagles trapped in Wyoming as input to spatially explicit risk models built on resource selection functions. *\$27,600 Federal Criminal Case U.S. v. PacifiCorp Energy*

HawkWatch International

HawkWatch International Eagle Vehicle Strike Mitigation Project (WY)

Conduct demonstration of mammal roadkill relocation as a golden eagle mortality reduction strategy in western Wyoming through intensive quantification of factors driving mortality events and before-after-control impact experimental design. Project will achieve short-term conservation of at least 11 eagles and may conceivably lead to longterm conservation of 50-100 eagles per year. *\$195,243 Mitigation*

Rocky Mountain Elk Foundation Terry Creek Conservation Easement (WY)

Protect 480 acres of essential golden eagle habitat at the intersection of the Laramie Plains with Sheep Mountain and the Snowy Range Mountains through a conservation easement. Project will protect key forage habitat in close proximity to a known nest location for golden eagles and along a known migration corridor for golden eagles. *\$125,500*

Mitigation

Teton Raptor Center

Enhancing Wyoming Golden Eagle Rescue and Rehabilitation Network

Ensure the continued success of the Wyoming Golden Eagle Rescue and Rehabilitation Network through adding additional partners, refresher courses, and continued education. Project will leverage established protocols and contribute what has been learned over the past three years to enhance the success of the program.

\$35,498 Mitigation

University of Wyoming

Wyoming Golden Eagle Monitoring Plan Expansion Support aerial nest inventories to double the size of the study area for a collaborative raptor monitoring plan to include the full range of the golden eagle in Wyoming. Project will add substantial value to an ongoing, inter-agency effort to design a monitoring program that can provide robust data on trends and drivers of population change for golden eagles and ferruginous hawks at a statewide scale in Wyoming. \$160,271 Mitigation

WildFish Engineering

Green River Canal Fish Screen (WY) Install fish screen in the Green River Canal. \$59,692 Mitigation

NATIONWIDE

Northeast Environmental Enforcement Project Advanced Environmental Crimes Training Program -Northeast Environmental Enforcement Project Develop and administer advanced environmental crimes training program courses that provide classroom and practical instruction for advanced investigation techniques applicable to the investigation of environmental crimes.

\$81,300 Federal Criminal Case U.S. v. Wal-Mart Inc.

The Midwest Environmental Enforcement Association

Advanced Environmental Crimes Training Program -Midwest Environmental Enforcement Association Develop and administer advanced environmental crimes training program courses that provide classroom and practical instruction for advanced investigation techniques applicable to the investigation of environmental crimes. \$323,500 Federal Criminal Case

U.S. v. Wal-Mart Inc.

Western States Hazardous Waste Project Advanced Environmental Crimes Training Program -

Western States Hazardous Waste Project Develop and administer advanced environmental crimes training program courses that provide classroom and practical instruction for advanced investigation techniques applicable to the investigation of environmental crimes. \$82,667 Federal Criminal Case

U.S. v. Wal-Mart Inc.

INTERNATIONAL - PERU

Amazon Conservation Association

Protecting and Restoring Rosewood in Amazonian Peru

Plant 5,000 seedlings of Rosewood trees at the Los Amigos Conservation Concession and Biological Station in Amazonian Peru and maintain them for two years to the point of self-sufficiency. \$5,000 Federal Criminal Case U.S. v. Young Living Essential Oils

INTERNATIONAL - RUSSIA

Wildlife Conservation Society

Conservation of Wild Amur Tigers and Leopards in Russia

Address tiger and leopard conservation in the Russian Far East through a suite of complementary activities. Project will result in improved antipoaching systems and a potential increase in tiger and leopard numbers associated with lowered mortality rates, and improve local attitudes toward tigers and leopards in Russia.

\$12,000

Federal Criminal Case U.S. v. Lumber Liquidators, Inc.

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ON THE COVERS: Reddish egret along the Gulf of Mexico (front) and California sea lions in Monterey Bay, California (back)

PHOTO CREDITS: Peter Brannon (cover, reddish egret), Jeff Waldorff (p. 2, black skimmers), Tony Bynum (inside cover, dall sheep; p. 3, mountain goat), Ralph Pace (back cover, sea lions)



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