Support for Funding a Nonlethal Beaver Conflict Mitigation Program

The undersigned write to request new federal funding to help states, tribes, agencies, local governments, landowners, conservation organizations, and others invest in effective, nonlethal solutions to reduce property damage caused by beavers. Specifically, we request the establishment of a five-year pilot program that would provide $1 million in grant funding annually to mitigate beaver conflicts in communities across the United States.

Like humans, beavers survive by manipulating their environments. They fell trees for food and building materials, and construct dams to create ponds that offer protection from predators and serve as pantries to store food. These activities, however, sometimes damage property. Shade and ornamental trees can be destroyed, and impounded water can flood roads, bridges, railways, timber resources, and crops. This damage may cause local governments and property owners to incur significant repair costs.

Thousands of beavers are trapped, snared, and shot each year across the country in an effort to prevent such damage.[1] However, this killing is often unnecessary due to the availability of cost- effective, nonlethal devices that can successfully prevent such damage. For example, trees can be shielded by encircling them with wire mesh fencing or coating their trunks with a mixture of paint and sand that deters beavers from chewing.[2] Infrastructure and property can be protected from flooding by installing water flow control devices, which allow water to pass through the dam, thus maintaining acceptable water levels.[3] Fencing has also proven effective at preventing beavers from blocking culverts, which can damage roads.[4]

These measures are not only dependable, they can also be less expensive than lethal control. For example, a study in Virginia compared the costs of repairing road damage caused by beavers at 14 sites before and after the use of flow devices. The state transportation department saved hundreds of thousands of dollars per year when nonlethal measures were implemented.

Specifically, the "before" costs were more than $300,000 per year, which included preventive road maintenance, damage repairs, and lethal removal of beavers. By contrast, the cost of installing flow devices was less than $45,000 and maintenance costs thereafter were $277 per year.[5]

BEAVER INSTITUTE

Pond leveler

BEAVER INSTITUTE

Culvert-protective fencing

Similarly, a 20-year collaboration between the Town of Billerica, Massachusetts, and Beaver Solutions LLC found that, on average, the cost of trapping and dam breaching was $409 per beaver conflict site per year, while the cost of installing and maintaining flow devices was $229 per site per year. By investing in flow devices at sites where they were feasible, Billerica saved its taxpayers $7,740 per year.[6]

If $1 million in federal grant funding were made available annually for a five-year pilot program, it could help cover the costs of installing and maintaining mitigation measures in urban and rural areas experiencing beaver conflicts throughout the country—helping to not only protect property, but also save taxpayers and landowners the expense of repairs.

Replacing traps with nonlethal measures would also provide numerous ecological benefits. Beaver-created ecosystems provide habitat for a wide variety of fish, birds, amphibians, reptiles, insects, and mammals, including threatened and endangered wildlife,[7] and species designated by states as being in greatest need of conservation.[8] Beaver-dammed riparian areas are three times more resistant to fire than surrounding areas and can provide refuges for wildlife during and immediately after wildfires.[9] Beaver ponds mitigate the negative effects of climate change by providing deep pools with cooler water,[10] replenishing groundwater and aquifers,[11] and storing water to mitigate drought.[12] Beaver dams can also improve water quality by reducing sedimentation and removing toxins from streams.[13]

Further, restraining traps and snares used to capture and kill beavers can cause prolonged pain and unintentionally injure and kill nontarget animals.[14] They are also rarely, if ever, a long term- solution; beavers dispersing in search of suitable habitat can quickly recolonize trapped areas. By contrast, flow devices can provide long-term relief and typically last 10 years before they need to be replaced.[15]

Nonlethal measures to mitigate beaver conflicts are effective, cost-efficient, long-lasting, and ecologically beneficial. These devices can protect transportation infrastructure, buildings, agricultural lands, and other property. Despite these benefits, no federal programs currently exist to promote or facilitate the use of these techniques. For these reasons, we request and strongly support federal funding to assist local governments and communities with implementing conflict-mitigation projects as needed in beaver-occupied streams across the nation.

Sincerely,

Allison Ludtke
Policy Advisor,
Government Affairs
Animal Welfare Institute
Washington, DC
allison@awionline.org

Zack Strong
Senior Staff Attorney,
Terrestrial Wildlife Program
Animal Welfare Institute
Bozeman, MT
zack@awionline.org

American River Conservancy
Coloma, CA

Animal Defenders International
Los Angeles, CA

Animal Legal Defense Fund
Cotati, CA

Arable Earth, LLC
Gunnison, CO

Arroyo Seco Foundation
Los Angeles, CA

Beaver & Wildlife Solutions
Chester, CT

Beaver Deceivers International
Grafton, VT

Beaver Institute, Inc.
Southampton, MA

Beaver Leavers, LLC
Harsens Island, MI

Beavers Forever
Sparks, NV

Beavers Work
Youngsville, NY

Born Free USA
Silver Spring, MD

Cahaba Riverkeeper
Birmingham, AL

Cascadia Wildlands
Eugene, OR

Catawba Riverkeeper Foundation
McAdenville, NC

Center for Biological Diversity
Minneapolis, MN

Center for Large Landscape Conservation Bozeman, MT

Central Oregon Bitterbrush Chapter-Great Old Broads for Wilderness
Bend, OR

Central Oregon LandWatch
Bend, OR

Christian Council of Delmarva
Wilmington, DE

Clark Fork Coalition
Missoula, MT

Coastal Plains Institute
Crawfordville, FL

Collier County Waterkeeper
Naples, FL

Colorado Headwaters
Salida, CO

Confederated Salish and Kootenai Tribes of the Flathead Reservation
Pablo, MT

Connecticut Wildlife Rehabilitators Association
Woodbridge, CT

Conservation Council for Hawaii
Honolulu, HI

Defenders of Wildlife
Washington, DC

Ecotone, LLC
Forest Hill, MD

Endangered Habitats League
Los Angeles, CA

Endangered Species Coalition
Washington, DC

Environmental Action Committee of West Marin
Point Reyes Station, CA

Environmental Protection Information Center
Arcata, CA

Environmental Stewardship
Bastrop, TX

FOUR PAWS USA
Boston, MA

Geomorphic Science Solutions
Ithaca, NY

Grande Ronde Model Watershed
Enterprise, OR

Great Lakes Wildlife Alliance
Madison, WI

Greater Hells Canyon Council
La Grande, OR

Greater Yellowstone Coalition
Bozeman, MT

Heartwood
Tell City, IN

HFF Nature Trust
Atlanta, GA

Howling For Wolves
Hopkins, MN

Hudson Valley Beaver Strategies
Cross River, NY

Human-Beaver Coexistence Fund
Oakton, VA

Humane Action Pittsburgh
Pittsburgh, PA

Humane Society Legislative Fund
Washington, DC

Illinois Beaver Alliance
Glenview, IL

Institute for Historical Ecology
Los Altos, CA

International Fund for Animal Welfare
Washington, DC

International Marine Mammal Project of Earth Island Institute
Berkeley, CA

Klamath Forest Alliance
Arcata, CA

Lake Pend Oreille Waterkeeper
Sandpoint, ID

Lightning Canyon Ranch San Antonio, TX

Methow Beaver Project
Twisp, WA

Midwest Beaver Management, LLC
Beecher, IL

Milwaukee Riverkeeper
Milwaukee, WI

MSPCA-Angell
Boston, MA

National Wildlife Federation
Missoula, MT

Natural Resources Defense Council
Bozeman, MT

New Hampshire Audubon
Concord, NH

North Bay Bear Collaborative
Occidental, CA

Northeast Oregon Ecosystems
Joseph, OR

Northern California Chapter of the Society for Environmental Toxicology and Chemistry
San Francisco, CA

Northwest Center for Alternatives to Pesticides
Rochester, WA

NY4WHALES
Yonkers, NY

Occidental Arts & Ecology Center WATER Institute
Occidental, CA

Orange County Coastkeeper
Huntington Beach, CA

Oregon Wild
Portland, OR

Potomac Valley Audubon Society
Shepherdstown, WV

Project Coyote
Larkspur, CA

Protect Our Wildlife
Stowe, VT

Resource Renewal Institute
Fairfax, CA

Russian Riverkeeper
Healdsburg, CA

San Luis Obispo County Beaver Brigade Atascadero, CA

Satilla Riverkeeper
Waycross, GA

Save Our Seashore
Inverness, CA

Sierra Wildlife Coalition
Tahoe City, CA

South Umpqua Rural Community Partnership
Tiller, OR

South Yuba River Citizens League
Nevada City, CA

Southern Plans Land Trust, Inc.
Lamar, CO

Superior Bio-Conservancy
River Hills, WI

Sustainable St. Helena
St. Helena, CA

Tennessee Riverkeeper
Decatur, AL

The Beaver Coalition
Jacksonville, OR

The Humane Society of the United States
Washington, DC

The Rewilding Institute
Albuquerque, NM

The Tulalip Tribes of Washington
Tulalip, WA

The Wetlands Conservancy
Bend, OR

Trap Free Montana
Hamilton, MT

Trap Free Montana Public Lands
Hamilton, MT

True Grass Farms
Valley Ford, CA

Tualatin Riverkeepers
Tualatin, OR

Turtle Island Restoration Network
Olema, CA

Umpqua Watersheds
Roseburg, OR

Upper Missouri Waterkeeper
Bozeman, MT

Washington Wildlife First
Seattle, WA

Waterkeeper Alliance
New York, NY

WaterWatch of Oregon
Portland, OR

Western Nebraska Resources Council
Chadron, NE

Western Watersheds Project
Hailey, ID

Wild Farm Alliance
Watsonville, CA

WildEarth Guardians
Santa Fe, NM

Wildlands Network
Salt Lake City, UT

Worth A Dam
Martinez, CA

Wynwood Wildlife Rehabilitation
Elizabethton, TN

Wyoming Untrapped
Jackson, WY

Wyoming Wildlife Advocates
Wilson, WY

Zero Waste California
San Francisco, CA

---

[1] *See, e.g.*, Program Data Report G- 2020, U.S. Department of Agriculture. Available at: https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/pdr/?file=PDR-G_Report&p=2020:INDEX:.

[2] Pollock, M.M., G.M. Lewallen, K. Woodruff, C.E. Jordan and J.M. Castro (Editors). 2017. The Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and Floodplains. Version 2.0. United States Fish and Wildlife Service, Portland, Oregon ("Beaver Restoration Guidebook"), 118. Available at: https://www.fws.gov/oregonfwo/Documents/BRGv.2.0_6.30.17_forpublicationcomp.pdf.

[3] *Id.* at 120-122.

[4] *Id.* at 122-125.

[5] Boyles, S.L. and B.A. Savitzky. 2008. An Analysis of the Efficacy and Comparative Costs of Using Flow Devices to Resolve Conflicts with North American Beavers Along Roadways in the Coastal Plain of Virginia. Proc. 23rd Vertebrate Pest Conf. (R.M. Timm and M.B. Madon, Editors). University of California, Davis, 37-52.

[6] Callahan, M., R. Berube, and I. Tourkantonis. 2019. Municipal Beaver Management: 20 Year Study in Billerica, MA. Association of Massachusetts Wetland Scientists No. 107, 16-19. Available at: https://www.beaverinstitute.org/wp-content/uploads/2019/02/Billerica-Beaver-Study-AMWS-2019.pdf.

[7] Beaver Restoration Guidebook, 13-19, 60, 146; *see also, e.g.*, National Marine Fisheries Service. 2016. Final ESA Recovery Plan for Oregon Coast Coho Salmon (Oncorhynchus kisutch), 3-28. Available at https://www.beaverinstitute.org/wp-content/uploads/2017/08/NMFS-ORCohoRecoveryPlan2016.pdf.

[8] *See, e.g.*, Idaho State Wildlife Action Plan 2015, Idaho Department of Fish and Game (2017) 244; Mississippi State Wildlife Action Plan 2015-2025, Mississippi Department of Wildlife, Fisheries, and Parks (2015) 187. Available at: https://idfg.idaho.gov/sites/default/files/state-wildlife-action-plan.pdf.

[9] Fairfax, E. and A. Whittle. 2020. Smokey the Beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western United States. Ecological Applications 30(8):e02225.

[10] Beaver Restoration Guidebook, 8-9, 38-39.

[11] *Id.* at 6.

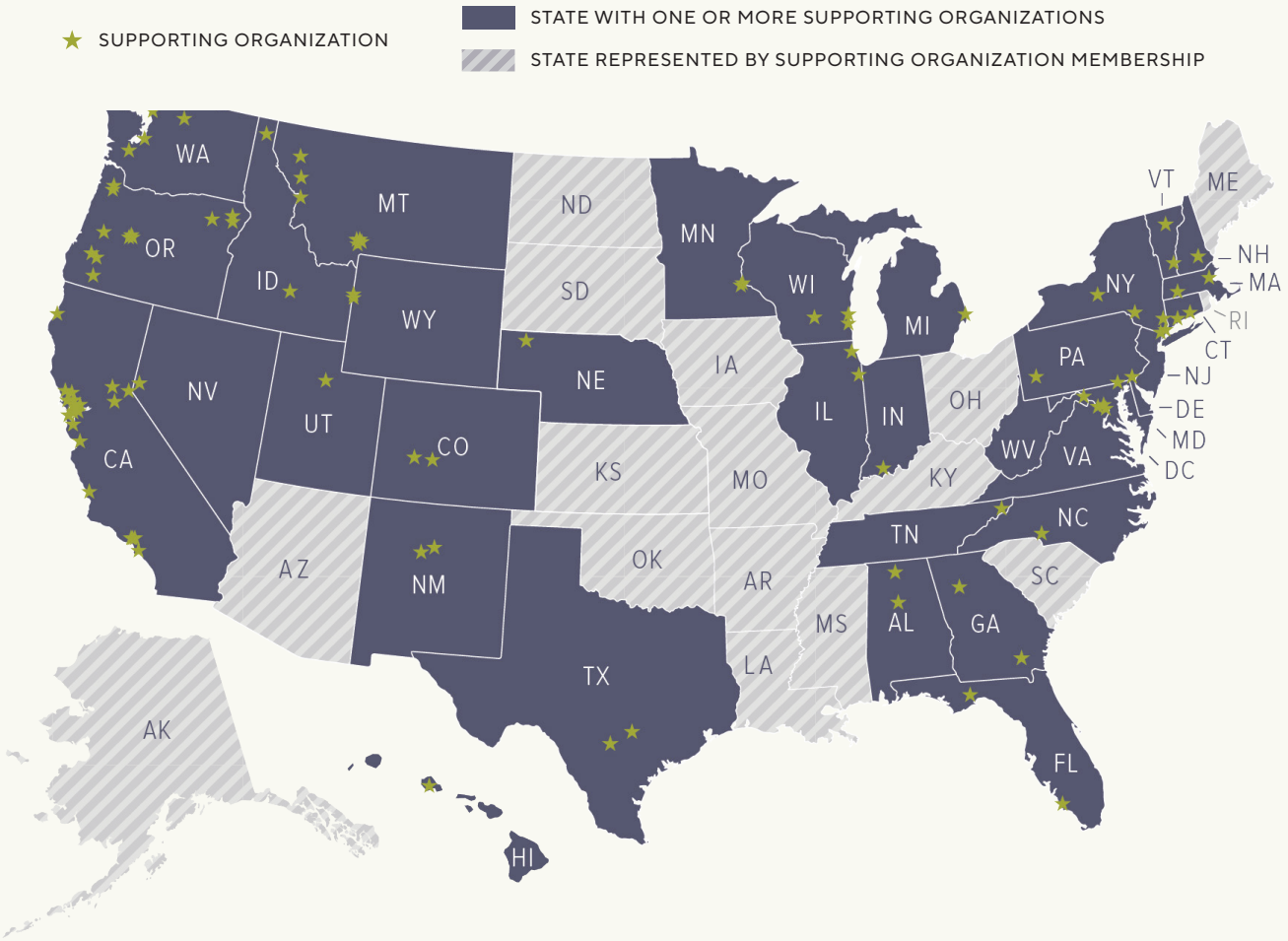
[12] Fairfax, E. and E.E. Small. 2018. Using remote sensing to assess the impact of beaver damming on riparian evapotranspiration in an arid landscape. Ecohydrology DOI:10.1002/eco.1993.

[13] Beaver Restoration Guidebook, 10.

[14] *See, e.g.*, Iossa, G. 2007. Mammal trapping: a review of animal welfare standards of killing and restraining traps. Animal Welfare 16:335-352.

[15] Callahan, M., R. Berube, and I. Tourkantonis. 2019. Municipal Beaver Management: 20 Year Study in Billerica, MA. Association of Massachusetts Wetland Scientists No. 107, 17. Available at: https://www.beaverinstitute.org/wp-content/uploads/2019/02/Billerica-Beaver-Study-AMWS-2019.pdf.

STATES REPRESENTED BY SUPPORTING ORGANIZATIONS



To view an interactive version of this map, go to **awionline.org/nonlethal-beaver-map**.

SUPPORTERS BY STATE

ALABAMA

1. Cahaba Riverkeeper
2. Tennessee Riverkeeper

CALIFORNIA

3. American River Conservancy
4. Animal Defenders International
5. Animal Legal Defense Fund
6. Arroyo Seco Foundation
7. Endangered Habitats League
8. Environmental Action Committee of West Marin
9. Environmental Protection Information Center
10. Institute for Historical Ecology
11. International Marine Mammal Project of Earth Island Institute
12. Klamath Forest Alliance
13. North Bay Bear Collaborative
14. Northern California Chapter of the Society for Environmental Toxicology and Chemistry
15. Occidental Arts & Ecology Center WATER Institute
16. Orange County Coastkeeper
17. Project Coyote
18. Resource Renewal Institute
19. Russian Riverkeeper
20. San Luis Obispo County Beaver Brigade
21. Save Our Seashore
22. Sierra Wildlife Coalition
23. South Yuba River Citizens League
24. Sustainable St. Helena
25. True Grass Farms
26. Turtle Island Restoration Network
27. Wild Farm Alliance
28. Worth A Dam
29. Zero Waste California

COLORADO

30. Arable Earth, LLC
31. Colorado Headwaters

CONNECTICUT

32. Beaver & Wildlife Solutions
33. Connecticut Wildlife Rehabilitators Association

DELAWARE

34. Christian Council of Delmarva

DISTRICT OF COLUMBIA

35. Animal Welfare Institute
36. Defenders of Wildlife
37. Endangered Species Coalition
38. Humane Society Legislative Fund
39. International Fund for Animal Welfare
40. The Humane Society of the United States

FLORIDA

41. Coastal Plains Institute
42. Collier County Waterkeeper

GEORGIA

43. HFF Nature Trust
44. Satilla Riverkeeper

HAWAII

45. Conservation Council for Hawaii

IDAHO

46. Lake Pend Oreille Waterkeeper
47. Western Watersheds Project

ILLINOIS

48. Illinois Beaver Alliance
49. Midwest Beaver Management, LLC

INDIANA

50. Heartwood

MARYLAND

51. Born Free USA
52. Ecotone, LLC

MASSACHUSETTS

53. Beaver Institute, Inc.
54. FOUR PAWS USA
55. MSPCA-Angell

MICHIGAN

56. Beaver Leavers, LLC

MINNESOTA

57. Center for Biological Diversity
58. Howling For Wolves

MONTANA

59. Center for Large Landscape Conservation
60. Clark Fork Coalition
61. Confederated Salish and Kootenai Tribes of the Flathead Reservation
62. Greater Yellowstone Coalition
63. National Wildlife Federation
64. Natural Resources Defense Council
65. Trap Free Montana
66. Trap Free Montana Public Lands
67. Upper Missouri Waterkeeper

NEBRASKA

68. Western Nebraska Resources Council

NEVADA

69. Beavers Forever

NEW HAMPSHIRE

70. New Hampshire Audubon

NEW MEXICO

71. The Rewilding Institute
72. WildEarth Guardians

NEW YORK

73. Beavers Work
74. Geomorphic Science Solutions
75. Hudson Valley Beaver Strategies
76. NY4WHALES
77. Waterkeeper Alliance

NORTH CAROLINA

78. Catawba Riverkeeper Foundation

OREGON

79. Cascadia Wildlands
80. Central Oregon BitterBrush Chapter-Great Old Broads for Wilderness
81. Central Oregon LandWatch
82. Grande Ronde Model Watershed
83. Greater Hells Canyon Council
84. Northeast Oregon Ecosystems
85. Oregon Wild
86. South Umpqua Rural Community Partnership
87. The Beaver Coalition
88. The Wetlands Conservancy
89. Tualatin Riverkeepers
90. Umpqua Watersheds
91. WaterWatch of Oregon

PENNSYLVANIA

92. Humane Action Pittsburgh

TENNESSEE

93. Wynwood Wildlife Rehab

TEXAS

94. Environmental Stewardship
95. Lightning Canyon Ranch

UTAH

96. Wildlands Network

VERMONT

97. Beaver Deceivers International
98. Protect Our Wildlife

VIRGINIA

99. Human-Beaver Coexistence Fund

WASHINGTON

100. Methow Beaver Project
101. Northwest Center for Alternatives to Pesticides
102. The Tulalip Tribes of Washington
103. Washington Wildlife First

WEST VIRGINIA

104. Potomac Valley Audubon Society

WISCONSIN

105. Great Lakes Wildlife Alliance
106. Milwaukee Riverkeeper
107. Superior Bio-Conservancy

WYOMING

108. Wyoming Untrapped
109. Wyoming Wildlife Advocates