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MITIGATION SOLUTIONS FOR STATE & LOCAL AGENCY PARTNERS

A Partnership with The Conservation Fund



The Conservation Fund has successfully completed over 350 projects representing over 355,000+ acres conserved and \$277M+ in mitigation solutions.

©Ivan LaBranca

As the United States prioritizes efforts to rehabilitate, enhance and modernize its energy and transportation infrastructure, state and federal regulators play a critical role in making permitting decisions that align with their own priorities to protect important natural resources. Compensatory mitigation may be required because of unavoidable impacts to natural resources and these negotiations can become contentious because it involves additional cost to the permit applicant and could potentially extend project schedules. Ideally, agencies can provide predictable mitigation solutions that are efficient and provide successful outcomes for natural resources.

Founded in 1985, The Conservation Fund is America's leader in acquiring land for conservation, with over 8.5 million acres protected for communities and the environment.

With a nationwide team of real estate and conservation specialists, we have more than 30 years of experience working in partnership with regulatory and resource management agencies, as well as project developers, to protect priority conservation lands and offset impacts from construction of a variety of infrastructure projects.

This is precisely the challenge that we can help solve. The Conservation Fund provides comprehensive mitigation solutions that support our partners' approved conservation strategies to offset project-related impacts to natural resources.

We are an independent non-profit that does not have a membership that can create conflicts of interest for our work on infrastructure mitigation projects. We can implement mitigation via a single real estate transaction or manage and disburse funds for multiple acquisitions, habitat restorations, or critical research needs.

We provide mitigation for energy and infrastructure projects, including:

 Oil & Natural Gas

 Electric Transmission

 Wind

 Solar

 Hydropower

 Transportation

Our teamwork has achieved numerous conservation benefits across the United States, including the protection and restoration of habitats for a variety of species:

- **Mammals:** Indiana, northern long-eared, little brown, tricolor, and gray bat species, ocelot, jaguarundi, grizzly bear
- **Birds:** general migratory birds and specific mitigation for bald and golden eagles, golden-cheeked warbler, red-cockaded woodpecker, red knot, whooping crane, piping plover
- **Fish:** Atlantic salmon, candy darter
- **Invertebrates:** American burying beetle, rusty patched bumblebee, Mitchell's satyr butterfly, Michigan Karner blue butterfly, freshwater mussels
- **Reptiles:** Eastern massasauga rattlesnake, timber rattlesnake, desert tortoise, gopher tortoise, indigo snake, Louisiana pine snake
- **Amphibians:** Illinois chorus frog



*Top to bottom: Ocelot, ©Seth Patterson/USFWS; Bald Eagle, ©John Sieber; Desert Tortoise, ©Desert Tortoise; ©Getty Images/istockphoto

Why The Conservation Fund for Mitigation Solutions?

- We deliver timely solutions focusing on the land and water conservation priorities of our federal, state and local partners in conservation
- We are an Accredited Land Trust, and our work is conducted in accordance with Land Trust Alliance Standards and Practices
- We are top-ranked 4-star rated by the independent Charity Navigator which recognizes our financial health, accountability and transparency
- We have deep expertise in real estate transactions and financing, with experts working throughout the United States
- Our long-standing relationships with the conservation community and agencies responsible for habitat and species management mean we are best positioned to deploy compensatory mitigation projects where they will have the most added value to broad conservation objectives



Left: © Ian Shive
Right: ©Ivan LaBianca

Our team can provide expertise and proven solutions to the full spectrum of mitigation services once a project has been granted legal and regulatory approval:

Planning

- Conduct full mitigation program management using science-based decision tools and mapping
- Provide strategic project guidance, on-the-ground knowledge, and effective collaboration

Implementation & Fund Administration

- Implement mitigation packages for regulatory compliance or voluntary stewardship
- Create mitigation accounts and manage disbursement of funds based on regulatory and conservation agency priorities

Acquisition

- Manage property and landowner identification and relations, including due diligence, negotiation, and acquisition
- Ensure that all aspects of property acquisition and protection meet mitigation criteria
- Provide interim property management, as well as identification and facilitation of transfer of properties to long-term stewards
- Evaluate project readiness and the capacity and sustainability of conservation partners to manage and permanently protect land

Restoration

- Design project-specific restoration programs to enable properties to meet ecological performance standards
- Identify and engage restoration contractors to implement restoration programs



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Susquehanna-Roseland Project

PPL Electric Utilities Corporation and Public Service Electric & Gas Company

Statute: Special Use Permit | Partner: National Park Service

©NPS

The Challenge

PPL Electric Utilities Corporation (PPL) and Public Service Electric and Gas Company (PSE&G) were the permit applicants constructing an electric reliability project known as the Susquehanna-Roseland Project. Among other resource crossings, approximately four miles of the Susquehanna-Roseland Project would cross three National Park Service Units in Pennsylvania and New Jersey: Delaware Water Gap National Recreation Area, the Middle Delaware National Scenic and Recreational River, and the Appalachian National Scenic Trail. The project entailed upgrading an existing 230 kV line to a 500 kV line to help ensure reliable delivery of power to markets in the Northeast.

Although the project would be constructed within the footprint of the existing transmission lines, new, taller towers would be needed to accommodate the higher voltage line. Through its analysis of the project, the National Park Service (NPS) determined the replacement of the original transmission towers would have significant impacts on the views and character of the three impacted National Park Service Units.



Cherry Valley National
Wildlife Refuge serves
as a migration flyway
for 20,000 migrating
raptors every fall

About The Conservation Fund

We make conservation work for America. By creating solutions that make environmental and economic sense, we are redefining conservation to demonstrate its essential role in our future prosperity. Top-ranked for efficiency and effectiveness, we have worked in all 50 states since 1985 to protect more than 9 million acres of land.

The Conservation Solution

By constructing the project in an existing transmission line corridor, PPL and PSE&G reduced impacts that would have otherwise resulted from routing the project through previously undisturbed areas. Recognizing that even with impact minimization efforts, the Susquehanna-Roseland Project would have unavoidable adverse impacts on NPS resources, PPL and PSE&G established the \$66 million Middle Delaware Mitigation Fund.

The Conservation Fund was engaged to administer this fund to preserve, restore, and enhance NPS scenic, cultural, and recreational resources, along with habitat for fish and wildlife and lands that help protect and improve water quality in the Delaware River and associated tributaries. In partnership with NPS and in coordination with PPL and PSE&G, The Conservation Fund administers the mitigation fund to facilitate stewardship, cultural resource protection, historic property restoration, and land acquisitions that will be managed for conservation and recreation purposes in perpetuity.

Outcome

Conservation: To date, The Conservation Fund has utilized the Middle Delaware Mitigation Fund to help add 1,992 acres of land to the Delaware Water Gap National Recreation Area, 166 acres to the Appalachian National Scenic Trail, and 1,291 acres to the Cherry Valley National Wildlife Refuge.

Economic: Electric reliability was bolstered for 61 million consumers spread across 13 states and Washington, D.C.



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©Mac Stone

Dalton Expansion Project

Transcontinental Gas Pipe Line Company, LLC

Statute: Endangered Species Act | Partner: U.S. Fish and Wildlife Service

The Challenge

Transcontinental Gas Pipe Line Company, LLC (Transco) designed the approximately 115-mile Dalton Expansion Project to transport natural gas from Transco's existing pipeline in Coweta County, Georgia to markets in north Georgia. Through consultation with the U.S. Fish and Wildlife Service (USFWS) and the Georgia Department of Natural Resources, it was determined that the project could impact habitat for federally listed Indiana, northern long-eared, and gray bats, as well as state and federally listed plant species including large-flowered skullcap, Georgia aster, and Piedmont barren strawberry.

Although Transco endeavored to avoid and minimize impacts to listed species to the maximum extent practicable, the project could not completely avoid impacts to habitat for these species. Transco then agreed to offset the impacts by establishing a fund that would be used to protect bats and listed plants within the vicinity of the Dalton Expansion Project.



©Ted Weber

The Conservation Solution

Following an agreement between USFWS and Transco, The Conservation Fund was engaged to administer the funds provided by Transco, and established the Georgia Bat Account. This account funds conservation projects to offset impacts to listed bat and plant species through: (1) acquisition and permanent protection of lands suitable as bat habitat; (2) white-nose syndrome research and treatments at bat winter roosts; and (3) plant safeguarding measures and plant salvage plans.



All photos : ©USFWS

Outcome

Conservation outcomes associated with the Georgia Bat Account include:

Bat Habitat Protection: With support from the Georgia Bat Account, the Georgia Department of Natural Resources has acquired and permanently protected three critical properties totaling approximately 1,100 acres, including habitat for the three affected bat species in north Georgia.

Plant Salvage Plan: Through a grant from the Georgia Bat Account, the State Botanical Garden of Georgia worked with Transco to relocate from the construction corridor multiple occurrences of large-flowered skullcap, Georgia aster, and Piedmont barren strawberry.

White-nose Syndrome Research: A Georgia Bat Account grant to Georgia State University Research Foundation and Kennesaw State Research and Service Foundation is supporting development and implementation of a multi-year integrated disease management system for the life-threatening white-nose syndrome for bats in north Georgia.

Economic: The Dalton Expansion Project transports approximately 448,000 dekatherms of natural gas per day, enough natural gas to meet the daily needs of about 2 million homes.

While established initially through the Dalton Expansion Project, the Georgia Bat Account continues to operate and is available as a mitigation option for use by other project developers, as directed by USFWS. To date, the Tennessee Valley Authority and the Georgia Department of Transportation have contributed funds to offset impacts to bat habitat from their projects. The aggregation of funds from multiple impacts offers the opportunity to provide landscape-scale mitigation for projects with smaller impacts.

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Flanagan South Pipeline Mitigation Fund Enbridge Pipeline LLC

Statutes: Migratory Bird Treaty Act and
Endangered Species Act | **Partner:** U.S. Fish and Wildlife Service

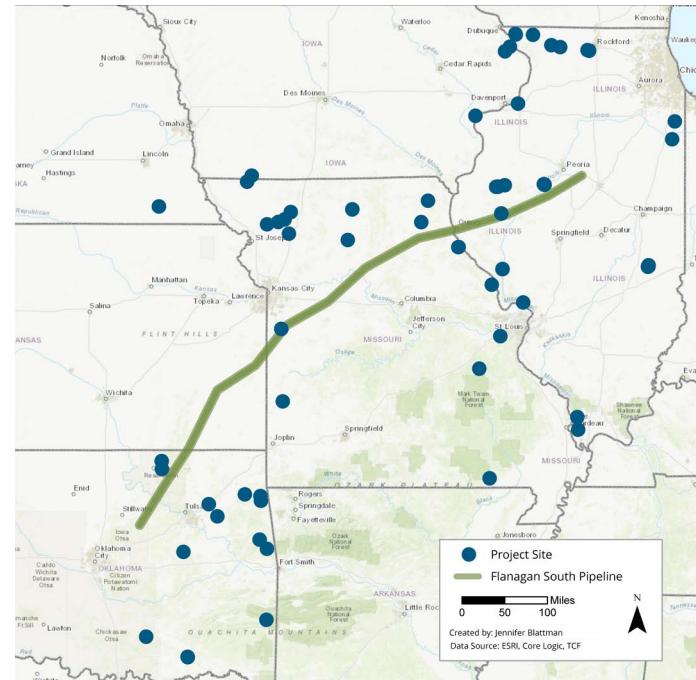
The Challenge

Enbridge Pipelines LLC (Enbridge) constructed the 593-mile Flanagan South Pipeline from Illinois to Oklahoma. To reduce environmental impacts, the pipeline followed the footprint of an existing pipeline. Nonetheless, its construction would impact habitat for Indiana bat and forest-dwelling migratory birds in the states of Illinois, Missouri, Kansas, and Oklahoma. In addition, impacts to American burying beetle occurred in Kansas and Oklahoma.

Due to the unavoidable impacts to approximately 2,800 acres of habitat for these species, Enbridge entered into a voluntary agreement with the U.S. Fish and Wildlife Service (USFWS) to mitigate for these impacts through the establishment of the Flanagan South Pipeline Mitigation Fund. This mitigation fund is managed by The Conservation Fund to protect and restore habitat for these high priority species.



Photo Collage: Indiana Bat ©Steve Orr; American Burying Beetle
©Mark Dumont; Cerulean Warbler ©USFWS



The Conservation Solution

The Conservation Fund conducted outreach with conservation partners in the four states to identify and protect properties of high conservation value that would benefit the species' habitat impacted by the Flanagan South Pipeline. The Fund identified properties that met the mitigation objectives outlined by the USFWS.

Outcome

The Fund has protected, and in some cases restored, a total of 14,751 acres of land. These lands have been protected and restored using the \$21 million Flanagan South Pipeline Mitigation Fund plus complementary funding from partners, including state and federal land conservation programs and private foundations.

Sodalis Nature Preserve

One of the most significant conservation outcomes achieved from the Flanagan South Mitigation Fund was protection and restoration efforts at the largest hibernaculum for Indiana bats in the US. The former limestone mine located in Hannibal, Missouri has a 17-mile network of passages that provide important hibernating habitat for an estimated 200,000 federally endangered Indiana bats (representing approximately one third of the entire Indiana bat population).

The Conservation Fund secured the entire property, which includes remnants of the underground mine system plus 185 surface acres. Restoration efforts included removal of buildings and other facilities associated with the mining operation (e.g., a railroad siding) on 2.5 acres, removal of trash and former mine debris, and installation of bat-friendly gates at all 34 openings to the mine. Trees were replanted on the surface area formerly occupied by the mining operation. The Conservation Fund purchased the property in partnership with the City of Hannibal creating the Sodalis Nature Preserve. The Iowa Natural Heritage Foundation holds a conservation easement on the property and a long-term stewardship fund was created for management of the property and maintenance of the bat-friendly gates.



©Steve Orr

“ Hannibal residents have embraced the new park. Everyday there are children, senior citizens, dogs, stroller and bicycles on the trail, using it for exercise and education. The whole endeavor has been a win-win situation for the city of Hannibal.”

—James Hark, Mayor of Hannibal, MO

Today, the Preserve is the second largest park in Hannibal. The creation of Sodalis Nature Preserve has not only protected important habitat for Indiana bats; it has increased opportunities for outdoor recreation in the City of Hannibal. The City has extended a paved hike/bike-handicapped accessible trail along Bear Creek to the Preserve and this paved trail now connects to nearly 6-miles of unpaved trails within the Preserve that are open to low impact, non-motorized use. The Sodalis Nature Preserve also provides a hands-on outdoor laboratory for Hannibal students of all ages to observe and study bats. The City of Hannibal and the USFWS coordinate monitoring and management of bat populations in the mine to ensure the property will forever remain a nature preserve.

The City of Hannibal also anticipates increases in tourism and resonating effects on the local economy as a result of the new park and bat habitat.

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BrightSource Energy, Inc.

Ivanpah Solar Electric Generating System

Statute: Endangered Species Act | Partner: Bureau of Land Management

The Challenge

The demand for solar power in the U.S. is higher than ever. To meet growing demand, BrightSource Energy aimed to build one of the world's largest solar energy plants at that time. The scale of this 377MW plant required 4,500 acres, all located on Bureau of Land Management (BLM) land in southern California's Ivanpah Valley. While it may be hard to imagine that this harsh desert landscape provides important wildlife habitat, the valley is home to the desert tortoise, a federal and state-listed endangered species. BrightSource turned to The Conservation Fund when it needed help finding solutions to minimize the plant's impact on the habitat of the desert tortoise.

The Conservation Solution

The Conservation Fund engaged early with the company as well as federal land and resource management agencies to identify potential solutions to effectively offset impacts to the desert tortoise habitat. Together with BLM, The Conservation Fund identified grazing lands that provided important desert tortoise habitat in the immediate vicinity of the BrightSource project. The Conservation Fund planned and executed a program to purchase and retire grazing rights on BLM land on behalf of BrightSource. The grazing rights were transferred to BLM, along with a stewardship fund, also provided by BrightSource.

Outcome

Conservation: The Conservation Fund was able to permanently protect over 120,000 acres of desert tortoise habitat using the mitigation funds provided by BrightSource.

Economic: California generates enough solar energy to power over 4.7 million homes, more than any other state. The electricity generated by the plants in the Ivanpah complex serves more than 140,000 homes in California during the peak hours of the day.



"The desert tortoise community is eager to learn from the wealth of data we're gathering about this important species. We're pleased to support this important research, learn more about the species, and determine additional ways to help the Ivanpah Valley desert tortoise population once again flourish."

—Kristin Hunter, Communications Manager - BrightSource

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