

Turn-Key Wetland, Stream, and Upland Mitigation Services

Arkwright Wind Energy Project



This project involved compensatory wetland, stream, and adjacent area (upland) mitigation associated with federal and state permits for the 78.4 MW Arkwright Wind Energy Project. WLIP provided turn-key mitigation including site selection and acquisition, baseline surveys, engineering design, multi-agency coordination, permitting, construction oversight, and monitoring. The project included restoration and protection of a combined 100-acres at two mitigation sites in the Conewango Watershed.

STREAM MITIGATION

- ✓ 3,680 linear feet of stream restoration using nature-based, green infrastructure design
- ✓ Reduction of erosion and sedimentation to Cassadaga Creek, which hosts over a dozen federal and state listed freshwater mussel species

WETLAND MITIGATION

- ✓ 3.0 acres of forested wetland establishment
- ✓ 0.9 acres of palustrine wetland pothole complex establishment
- ✓ Partial removal of gravel dike obstructing flow of West Branch of Conewango Creek and disconnecting 533 acres of Class I wetland upstream from 1,231 acres downstream and replacement with a pedestrian bridge
- ✓ Closure of an active, permitted gravel mine located in the middle of the NYS-significant Mud Lake Hemlock-Hardwood Peat Swamp Community
- ✓ Protection of 60 acres of wetlands

UPLAND (ADJACENT AREA) MITIGATION

- ✓ 20 acres of invasive species management
- ✓ Green infrastructure landfill cover cap at former Town dump that was eroding and providing leachate to groundwater and Creek system
- ✓ Protection of over 30 acres of upland, including 10 acres of high quality hemlock forest



Regulatory Agencies

- USACE
- NYSDEC

Project Phase

- Construction

TURN-KEY MITIGATION SERVICES

- ✔ Site selection
- ✔ Site acquisition
- ✔ Baseline surveys & studies
- ✔ Engineering design
- ✔ Permitting
- ✔ Construction
- ✔ Monitoring & Reporting



We are featuring our work with WLIP to inform our global standards for biodiversity.

– Allison Poe, EDP Renewables

WLIP Project Team

- Empire Environmental Partners
- EcoStrategies Engineering and Surveying, PLLC
- FORECON, INC.
- Timber Realty
- CC Environment & Planning
- TRC
- Habitat by Design
- Deuel Archaeology
- Edgewood Environmental Consulting
- ROCK of Western NY



Bear tracks recorded during site visit.

Turn-Key Wetland, Stream, and Upland Mitigation Services

Cassadaga Wind Energy Project



This project involved compensatory wetland, stream, and upland mitigation associated with federal and state permits for the 126 MW Cassadaga Wind Energy Project. WLIP provided turn-key mitigation including site selection and acquisition, baseline surveys, engineering design, multi-agency coordination, permitting, construction oversight, and monitoring. The project included restoration and protection of 40-acres of land at two mitigation sites in the Conewango Watershed.

MITIGATION SUMMARY

- ✔ 2.9 acres of palustrine, scrub-shrub, and forested wetland establishment
- ✔ 14.0 acres of wetland rehabilitation involving conversion of a reed canary monoculture to a diverse native wetland meadow and scrub-shrub community
- ✔ 3.0 acres of wetland enhancement via tree plantings to establish a forested floodplain riparian buffer along Cassadaga Creek
- ✔ Protection of 33-acres including wetland establishment, rehabilitation, and enhancement areas
- ✔ Passive restoration and protection of 7.2 acres of heavily degraded lands at a second mitigation site, including fencing to exclude cattle from 1,435 linear feet of stream and 5.3 acres of wetlands

Regulatory Agencies

- USACE
- NYSDEC

Project Phase

- Post-Construction Monitoring

TURN-KEY MITIGATION SERVICES

- ✔ Site selection
- ✔ Site acquisition
- ✔ Baseline surveys & studies
- ✔ Engineering design
- ✔ Permitting
- ✔ Construction
- ✔ Monitoring & Reporting



WLIP Project Team

- Empire Environmental Partners
- EcoStrategies Engineering and Surveying, PLLC
- FORECON, INC.
- Timber Realty
- CC Environment & Planning
- Habitat by Design
- Deuel Archaeology
- Edgewood Environmental Consulting
- ROCK of Western NY

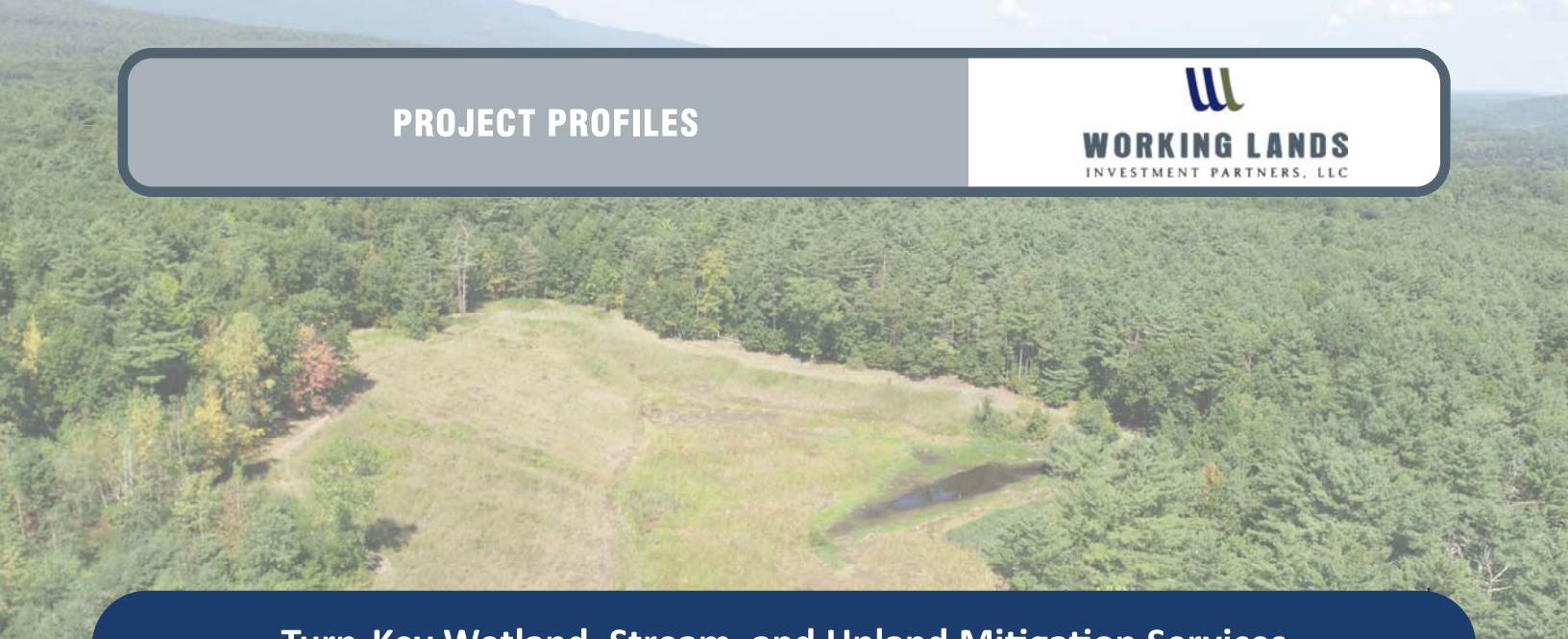


Girl Scout field trip to project site to learn about stream, wetland, and upland restoration.



WLIP achieved permit compliance when others couldn't. I have consistently recommended WLIP to industry partners.

– Pat McCarthy, RWE



Turn-Key Wetland, Stream, and Upland Mitigation Services

CSX Transportation Catskill Second Mainline Track Project



This project involved compensatory wetland, stream, and upland mitigation associated with federal and state permits for the CSX Transportation Catskill Second Mainline Track Project. WLIP provided turn-key mitigation including site selection and acquisition, baseline surveys, engineering design, multi-agency coordination, permitting, construction oversight, and monitoring. The project included restoration of an abandoned, un-reclaimed shale mine in the Middle Hudson Watershed.

The NYSDEC held a statewide meeting of its mine managers at this project site in 2018, where it was touted as an aspirational example of what could be accomplished at mines post-closure. NYSDEC also nominated this mitigation project for two national awards in 2019: the Interstate Mining Compact Commission National Reclamation Award and the National Association of State Land Reclamationists' Reclamation Award.

Regulatory Agencies

- USACE
- NYSDEC

Project Phase

- Complete – final sign-off in process
- Post Construction Monitoring & Adaptive Management completed in 2022

MITIGATION SUMMARY

- ✓ 1.9 acres of palustrine and scrub-shrub wetland establishment
- ✓ 5.1 acres of upland buffer restoration
- ✓ Restoration of abandoned shale mine
- ✓ Protection of 12.2-acres on 87-acre site

TURN-KEY MITIGATION SERVICES

- ✔ Site selection
- ✔ Site acquisition
- ✔ Baseline surveys & studies
- ✔ Engineering design
- ✔ Permitting
- ✔ Construction
- ✔ Monitoring & Reporting



I nominated WLIP and their project for two national awards. They met all the criteria and then some.

– Jami June, NYSDEC



Pre-construction former mine site.

WLIP Project Team

- Empire Environmental Partners
- Applied Ecological Services
- TRC Companies, Inc.
- CC Environment & Planning
- Habitat by Design
- Floyd Dart