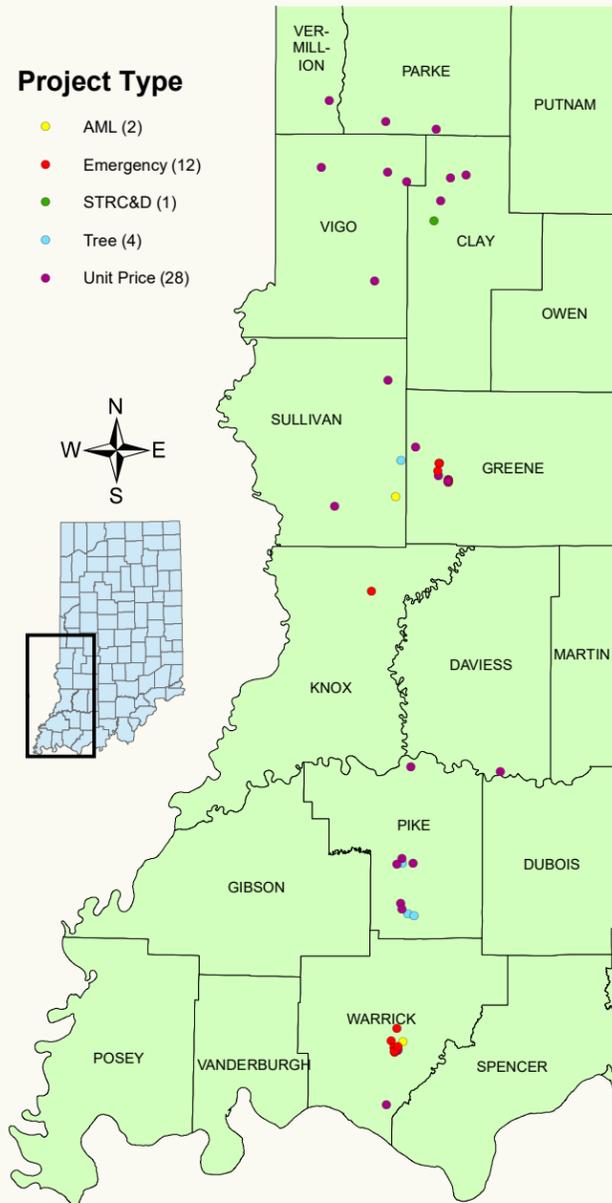


2019 Project Locations



Tree Plantings

Site	Name	Acres	# Trees
1803	Gambill Lake	57	45,900
1820	Buttermilk Highwalls	19.2	15,500
2007	Mark Luff	6.2	5,000
2115	Weigand	67	52,900

Staff News

Project Manager Nick Lorenzo retired from the Indiana AML in March 2019.

Project Manager Greg Ubelhor joined the Indiana AML in April 2019.

AML Technical Management Supervisor Mark Stacy retired from Indiana AML in May 2019.

GIS Inventory Specialist Steven Floreck resigned from Indiana AML to move out of state. His last day was June 28, 2019.

Staff Awards

Reclamationist of the Year:
Chris Hostetler, Chief Engineer

Outstanding Achievement:
Kit Turpin, Project Management Supervisor

25 Years of Service:
Nick Lorenzo, Project Manager

15 Years of Service:
Gayla Reedy, AML Secretary

10 Years of Service:
Chris Hostetler, Chief Engineer



2019 Indiana AML awards recipients with Marvin Ellis, assistant director (far right) and, from left to right: Kit Turpin, Chris Hostetler, and Gayla Reedy.

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2019

ABANDONED MINE LAND PROGRAM



Annual Accomplishments Report

Indiana AML Program Wins Regional Award

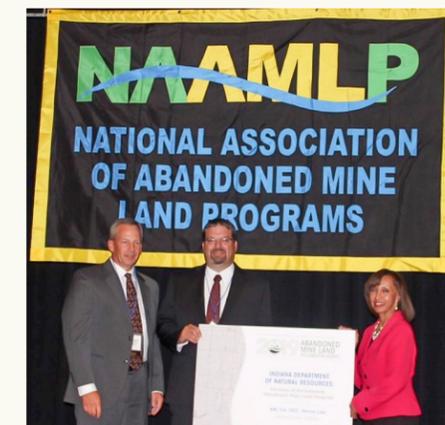
AML Site 1805, Narrow Lake, received the Office of Surface Mining, Reclamation and Enforcement's 2019 Mid-Continent Abandoned Mine Land Reclamation Award. The project addressed a dangerous highwall within Greene-Sullivan State Forest. The 3,850 foot highwall was immediately adjacent to the state forest office and posed a danger to employees and visitors.

The highwall was backfilled to a safe 4:1 slope using geomorphic design, which creates undulations in the landscape that mimic natural topography and inhibit erosion. During construction, the contractor was required to minimize noise due to the presence of recreational cabins at the south end of the site, which remained open to visitors throughout construction.

In addition to the removal of a significant safety hazard, the design also incorporated elements that enhanced available recreational opportunities at the site. Indiana AML worked closely with the DNR Division of Fish & Wildlife to design and construct fish habitat structures that were installed in the new lake. Additionally, areas were leveled for the construction of new cabins, a second boat ramp was added to the new lake, and a mile of new trails was constructed. These enhancements, in addition to the elimination of the safety hazard, were accomplished at a cost significantly less than the original cost estimate of the project, providing great value to Indiana residents.



The dangerous highwall was adjacent to the Greene-Sullivan State Forest office and posed a danger to employees and visitors.



Chief Engineer Chris Hostetler and Director Steve Weinzapfel accept the award.

2019 Project Summary

Project Type	Total	Funds Applied
AML	2	\$2,414,167.60
Emergency	12	\$65,951.86
STRC&D	1	\$18,297.94
Tree Planting	4	\$53,935.00
Unit Price Contract	28	\$189,775.88
Grand Total	47	\$2,742,128.28

These figures represent all Abandoned Mine Land reclamation projects that received funds in 2019.

AML Projects

Site: 510, Bucktown Highwalls

Location: Jefferson Township, Sullivan County

Cost: \$993,025.82

Dates: 1/24/2019 - 10/8/2019

Problem Description: The site, located within Greene-Sullivan State Forest, contained three safety hazards created during mining at the site between 1946 and 1947: a dangerous highwall, a dangerous embankment, and a vertical opening into underground mine workings. The highwall was 2,508 feet in length and was in an unstable condition. The dangerous embankment was located at the north end of the site and was immediately adjacent to a public roadway. The vertical opening was located on the western end of the site. All three mine hazards posed a danger to visitors to the site.

Reclamation: The highwall and embankment were backfilled to a 4:1 slope. The vertical opening was excavated to a stable base, filled and graded. The site was graded to improve drainage, and all disturbed areas were revegetated.



The highwall was unstable and eroding.



The highwall was backfilled to a stable slope. Large boulders were clustered together as an aesthetic enhancement to the new landscape.

Other AML Projects

Site	Name
2295	Crosstown Grouting

Emergency Projects

Site: 3109, Black Diamond Shaft

Location: Widner Township, Knox County

Cost: \$21,716.98

Dates: 12/18/2019 - 12/20/2019

Problem Description: A previously filled mine shaft opened up approximately 3 miles north of Bicknell, Indiana. The opening was 15 feet wide and 20 feet deep, and was 30 feet from a gravel drive.

Reclamation: The opening was excavated to a stable base, during which 70 cubic yards of trash and 200 cubic yards of soil were excavated from the shaft. The shaft was backfilled with 200 tons of riprap, 20 tons of #2 aggregate and 60 tons of #53 aggregate. Three feet of soil was placed over the filled shaft and graded, and all disturbed areas were seeded and mulched.



The dangerous shaft was near a gravel drive.

Other Emergency Projects

Site	Name
3098	Riordan Subsidence
3099	Gould Subsidence
3100	James Phillips Subsidence
3101	Loge School Subsidence
3102	Knapp Subsidence
3103	Parkview Drive Subsidence
3104	Halstead Subsidence
3105	Bradley Funeral Home Shaft
3106	Roberts Subsidence
3107	Gentry Subsidence #2
3108	Secrest Subsidence

Unit Price Contract Projects

Site: 2311, Haas Von Borehole

Location: Anderson Township, Warrick County

Cost: \$5,886.99

Dates: 12/20/2018 - 3/21/2019

Problem Description: Two boreholes were reported to Indiana AML by the property owner. The first borehole was 60 feet deep and approximately 15 inches wide, and the second borehole was 50 feet deep and 15 inches wide.

Reclamation: The fillable volume of the boreholes turned out to be much larger than expected. Nine cubic yards of flowable fill was injected into the boreholes in December 2018 and another 8 cubic yards of flowable fill was injected into the first borehole in February 2019 in unsuccessful attempts to fill the boreholes. Indiana AML coordinated with the Office of Surface Mining, Reclamation and Enforcement to explore the boreholes with a camera and discovered fractured bedrock at depth. In March 2019, the boreholes were filled with 10 tons of stone for each borehole, and a bentonite cap was installed in each borehole.



Indiana AML worked with OSMRE to visually analyze the boreholes using a downhole camera.

Sycamore Trails RC&D

Site: 273, Chinook

Location: Posey Township, Clay County

Cost: \$18,297.94

Dates: 6/10/2019 - 8/10/2019

Problem Description: Erosion of cover emplaced during a previous reclamation project had exposed approximately 7,500 square feet of coarse coal refuse adjacent to a pit lake at the site.

Reclamation: A drainage way 150 feet in length with a 3-foot-wide flat bottom was installed at the site. The drainage area consisted of 6 inches of #53 stone topped with 18 inches of riprap. Berms were built to divert water from the top of the slope to the drainage way. Lime was incorporated into the slope, and a 6-inch layer of cover material was emplaced on the slope and graded. Finally, fertilizer was applied to the slope, and seed matings were installed on it.

Other UPC Projects

Site	Name
738*	Turner #2
837*	Allen Subsidence
882*	Snow Hill
898*	Enos Wetland
939*	Litherland Dam Failure
979*	Enos East Wetland
996*	Ted Tedeschi Subsidence
1354*	Ernie Hisle
1803*	Gambill Lake
2049*	Justin McNeely Openings
2074*	Ruth Melhiser Opening
2083*	Sugar Ridge Area 2
2115*	Weigand
2179*	Larry Cox Shaft
2200*	Wilson Subsidence
2254*	Phillips Subsidence
2305	Collie Pond
2310	Hendrickson Subsidence
2312	Zion Hill Subsidence
2313	Templeton Subsidence
2314	Salty Subsidence
2315	Melva Lou Subsidence
2316	Rozina Subsidence
2317	Broshears Subsidence
2318	Montgomery Shaft
2320	Robison Subsidence
2323	Benell Subsidence



Before (top) and after (bottom) photographs of the RC&D maintenance project at the Chinook AML site.