

Beaver Run Unimproved Roads Best Management Practices

Design Features: conveyor belt diversions, additional culverts, raising the road profile, underdrain, grading, stream bank stabilization

Date of Installation: 2014-2016

Location: Beaver Run Reservoir and Coal Hollow Road

Client: Westmoreland Conservation District, Bell Township, Municipal Authority of Westmoreland County (MAWC)

Cost: \$70,000

Project Partners: Bell Township, Municipal Authority of Westmoreland County (MAWC), Westmoreland Conservation District,

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Site locations for around the Beaver Run Reservoir

Project Specifications

In 2014, the Westmoreland Conservation District received a DEP Growing Greener grant to improve sections of unpaved roads around the Beaver Run Reservoir in the Beaver Run Watershed. Roads improved were prioritized and based on their beneficial impact to adjacent streams within the area. Phase I of a two-part project on Coal Hollow Road in Bell Township was also completed with the grant funds left over.

Various Best Management Practices (BMPs) were installed to reduce erosion and sediment pollution to Beaver Run. These included conveyor belt diversions, additional culverts, raising the road profile, underdrain, grading, and stream bank stabilization.

Benefits/Performance Measures

The BMPs installed improved approximately three miles of road, which has reduced sedimentation to over 10 miles of Beaver Run. Sediment loading is reduced by over 100 tons per year, and the road improvements have helped with long-term maintenance costs.

The Coal Hollow Road project became a project showcase for Bell Township, and they received Dirt, Gravel, and Low Volume Road Program funds from the Westmoreland Conservation District in 2017 to complete Phase II of the road. This consisted of topping the road with Driving Surface Aggregate (DSA), which is a well-graded, unbound mixture of aggregate designed for use as a wearing course on unpaved roads. [Click here for more detailed information on DSA](#)

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A section of road around Beaver Run Reservoir before construction



The same section of road with conveyor belt diversions installed



Another section of road around Beaver Run Reservoir; the crosspipe was installed incorrectly and needed to be realigned to remove the 90 degree bends at the inlet and outlet of the pipe



The same crosspipe after being realigned

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A section of road around Beaver Run Reservoir before construction; note the berms on the side of the road that held water in the roadway



A similar section of road after underdrain was installed and the berms were removed

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Coal Hollow Road before construction; note the lack of headwall and overflow pipe



The same section a year after construction; a headwall and overflow pipe were installed along with a new crosspipe



The road profile was filled with shale; [Click here for more detailed information on road profiles](#)



The road after construction was completed; note how the road is no longer entrenched