

Raccoon Creek Watershed - Lake Morrow

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Project Status: completed 9/8/2014 ODNR Project Number: JK-ML-62

Pre-construction



Lake Morrow pre-construction
Photo by Sarah Landers

Post-construction

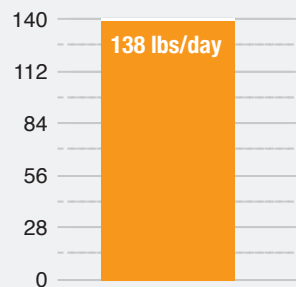


Lake Morrow post construction
Photo by Sarah Landers

Lake Morrow is located in Section 16 of Milton Township in Jackson County and lies within the 12 digit HUC unit #050901010403. It discharges into Flint Run a tributary to Little Raccoon Creek. The Flint Run sub watershed is affected by abandoned strip mine drainage and associated unreclaimed coal refuse piles. This area was the coal washing and loading facility for the Broken Aro mine. The site is very complex hydrologically, the site consists of large buried slurry impoundments and surface mining pits around the rim of the main valley. The Lake Morrow AMD Reclamation Project involves reclaiming the strip lake and adjacent spoil piles resulting from underground and surface mining that occurred from 1943-1975. AMD was generated from lake water seeping through the mine spoil embankment and leaching out metals and acid into Flint Run. The treatment of Lake Morrow was designed to drain the lake, create positive drainage and bypass the spoil embankment. Design was completed in-house by ODNR-DMRM. Construction started in July 2013 and was complete in September 2014. Environmental Remediation Contractor (ERC) completed construction, 9-8-2014, at a cost of \$667,006. Funding source for the design is ODNR-DMRM and construction is ODNR-DMRM and OSM. Prior to construction, Lake Morrow site, FR0110, showed acid and metal loadings to be 138 lbs/day of acid and 17 lbs/day of metals (Figure 1).

SITE: FR0110

Pre treatment acid load



Pre treatment metal load



Data derived using the Mean Annual Load Method (Stoertz, 2004).

Figure 1. Estimated acid and metal loadings prior to treatment

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