

Raccoon Creek Watershed - Flint Run & Lake Milton Maintenance project (Jackson Area UPC)

*Generated by Non-Point Source Monitoring System
www.watersheddata.com*

Project Status: Complete: 6/30/2012 ODNR Project Number: UP-JK-11

Post-construction



*New steel slag bed discharge for Flint Run East at the acid source
Photo by Amy Mackey*

Post-construction



*New slag at Lake Milton
Photo by Amy Mackey*

Flint Run and Lake Milton located in Section 28 of Milton Township in Jackson County lie with the 12 digit HUC unit #050901010403. Both projects were originally constructed in 2006. The Lake Milton Project was not producing enough alkalinity to buffer the acidity in the valley (slag was exhausted). Both alkalinity concentration and flow had decreased from the bed. Valves at Lake Milton and between project components were faulty. Also there were acidic, barren areas of soil with no vegetation around the project area.

At Flint Run East the intake to the SAPS had become clogged as the intake pipe was too close to the pond edge and was covered by cat tails. The Flint Run East project was not producing enough alkalinity to buffer the acidity in the valley (slag was exhausted). The Flint Run East SLB discharged into a limestone channel and then flowed down to the acid source. Much of the alkalinity was wasted in the limestone channel before reaching the acid source.

To address these maintenance issues at Lake Milton the slag was replaced while 3 foot of old slag was removed. The clogged and crushed under drains were replaced and extended. The faulty valves controlling Lake Milton outflow and inflow to SLB were replaced. Bypro and seed in the

barren areas of soil around the project site was applied. A weir to measure flow in overflow channel and a Parshal flume to measure flow of the acid source in the valley were installed. At Flint Run East the SAPS intake pipe was installed away from vegetation and the edge of the pond, the slag was replaced while 3 foot of old slag was removed. Under drain pipes were extended and SLB discharge was piped down to acid source for more direct and immediate contact.

Designs were completed in-house by ODNR-DMRM. Maintenance construction started 11-3-11 and was complete 6-30-2012. E & R Excavating completed the maintenance construction, \$270,770. Figure 1 and 2 show the yearly acid and metal load reductions at Flint Run. Year 2011 data shows acid reduction at 32% and 24% for metals. Year 2012 data shows the initial results of the maintenance project with 100% acid reduction and 62% metals reduction. Figure 3 and 4 show the yearly acid and metal load reductions at Lake Milton. Year 2011 data shows acid reduction at 60% and 76% for metals. Year 2012 data shows the initial results of the maintenance project with 89% acid reduction and 68% metals reduction. Funding source for the project design and construction is ODNR-DMRM.

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Figure 1 Yearly acid load reductions at Flint run

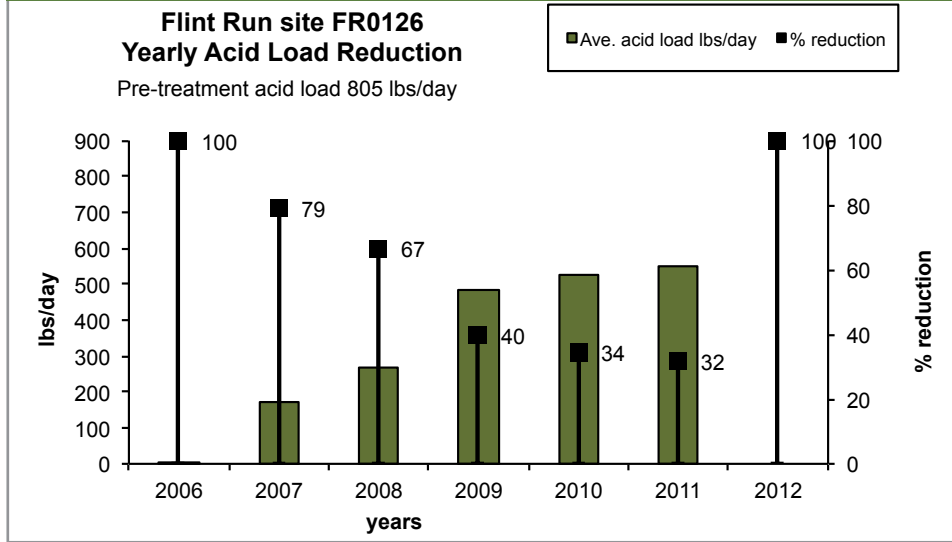
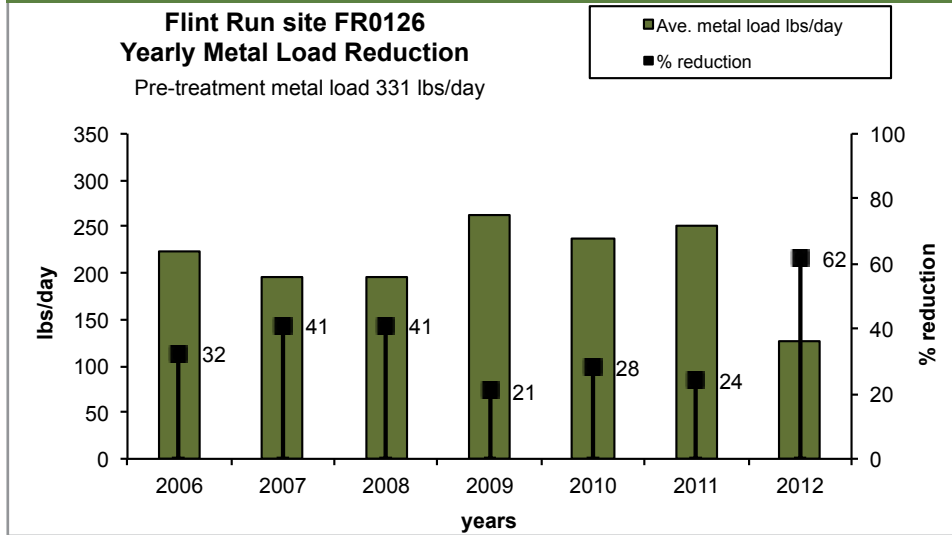


Figure 2. Yearly metal load reductions at Flint run



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Figure 3 Yearly acid load reductions at Lake Milton

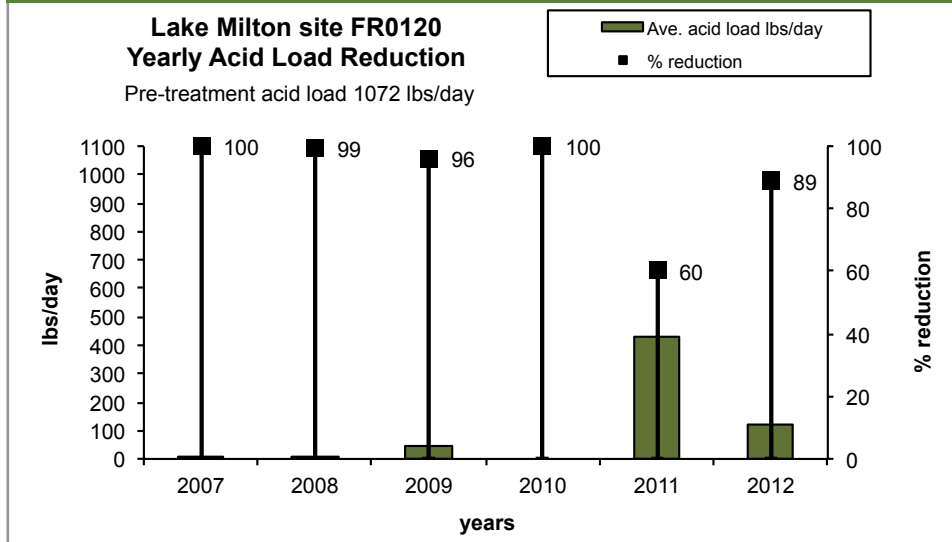


Figure 4. Yearly metal load reductions at Lake Milton

