



THE ABOVE PHOTOGRAPH SHOWS THE CURRENT STATUS OF THE SUCCESSFUL PASSIVE WETLAND TREATMENT SYSTEM

Total Maximum Daily Load (TMDL)

By Joey O'Quinn

A 2.6 mile long segment of Gin Creek and a 3.3 mile long segment of Stone Creek, Powell River tributaries in Lee County, were listed as impaired on the 2002 303(d) list for violations of Virginia's general water quality standard. The sources of the impairments were a combination of impacts from abandoned mine lands and acid mine drainage (AMD).

A TMDL for the watersheds was developed in 2006 that identified pollution reduction needs; and a TMDL implementation plan was cooperatively completed in 2008 that identified some of the best management practices needed to improve water quality. DMME, DEQ, DCR, local coal companies, and local stakeholders worked together to develop the plan.

Since the segments were listed, over 230 acres of mined land have been reclaimed in the watersheds and a successful treatment project at the

AMD discharge site in Ely Creek, using a passive wetland treatment system, completed. The AMD project involved several partners including the USACOE, TVA, DMME, and Lee County.

Recently completed benthic assessments indicate that both Gin Creek and Stone Creek are fully supporting biological health and meet the state's general water quality standard. The state has recently removed the streams from Virginia's 303(d) list. The recovery of the two streams is a direct result of both TMDL BMP implementation and cooperative restoration efforts.

**VA DEPT OF MINERALS AND ENERGY
DIVISION OF MINED LAND RECLAMATION
WATER QUALITY NEWS LETTER**

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TMDL implementation by the Department of Mines, Minerals, and Energy (DMME) and other watershed stakeholders has contributed to biological recovery of Gin Creek and Stone Creek in Lee County.

NOVEMBER 2014

The below photograph, taken in 2001, shows an acidic mine discharge into Ely Creek, a tributary of Stone Creek.

