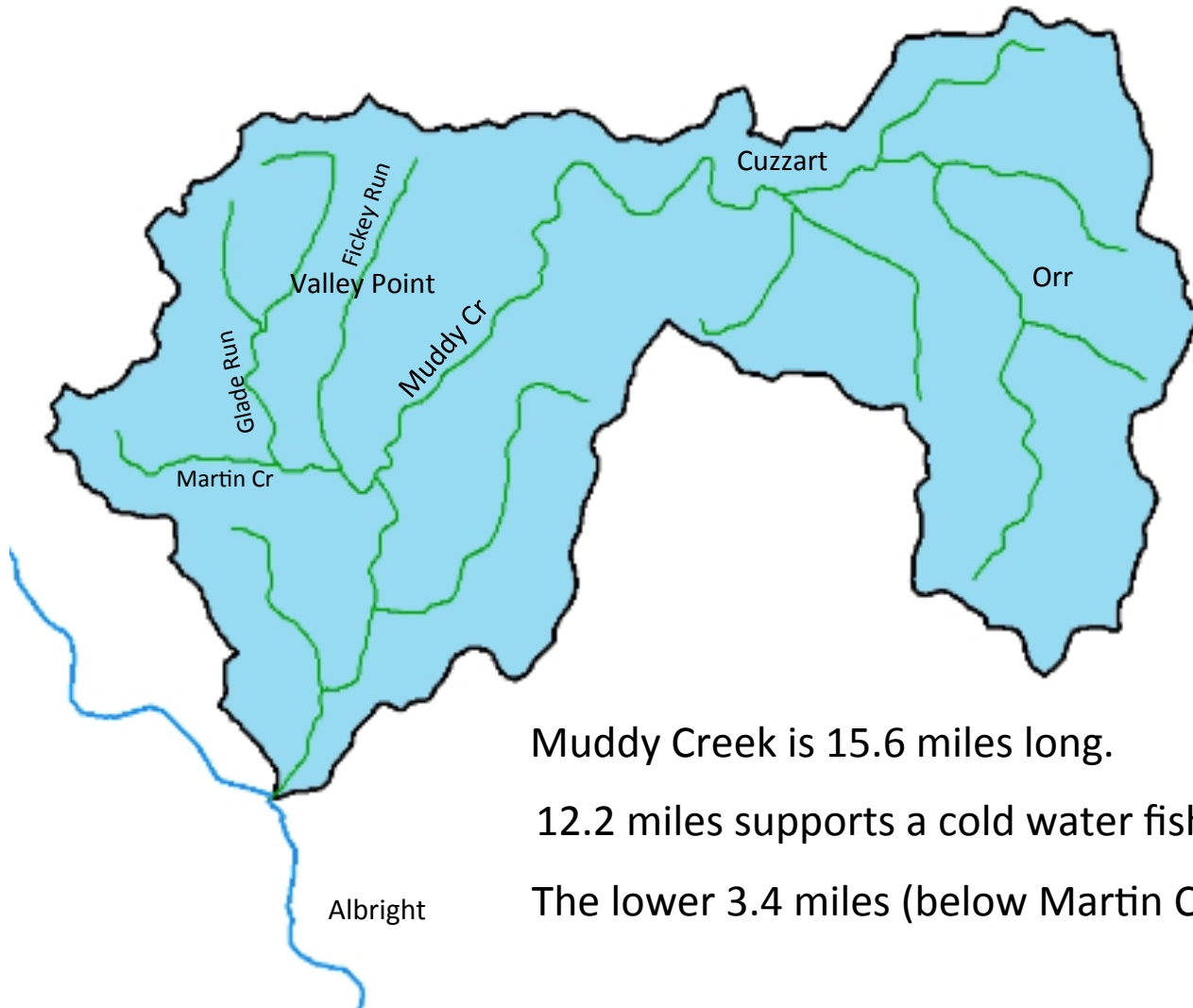


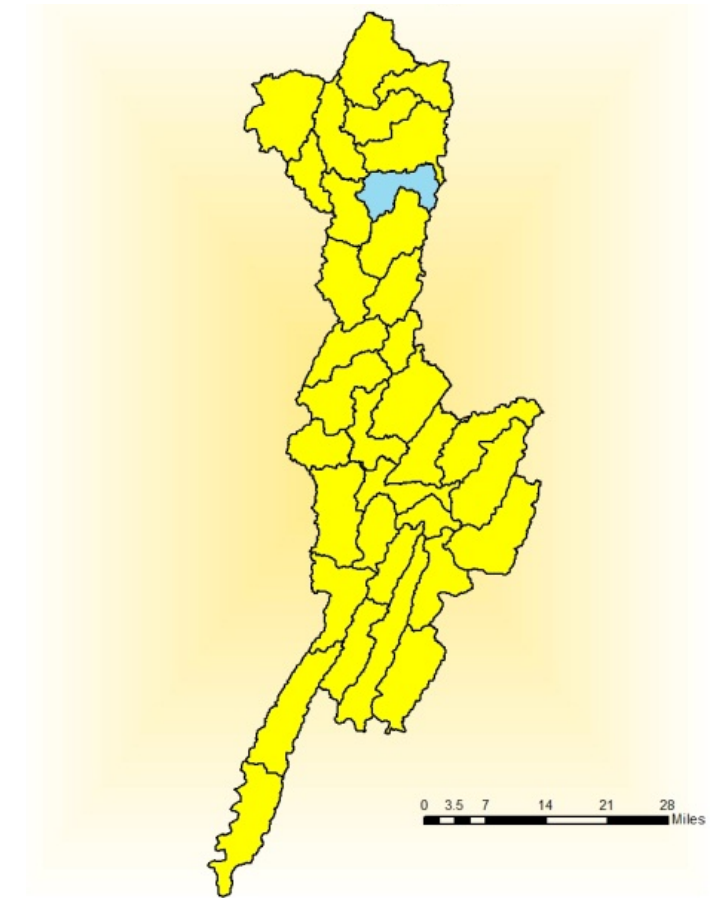
MUDDY CREEK



Muddy Creek is 15.6 miles long.

12.2 miles supports a cold water fishery.

The lower 3.4 miles (below Martin Creek) are severely degraded from the effects of AMD.

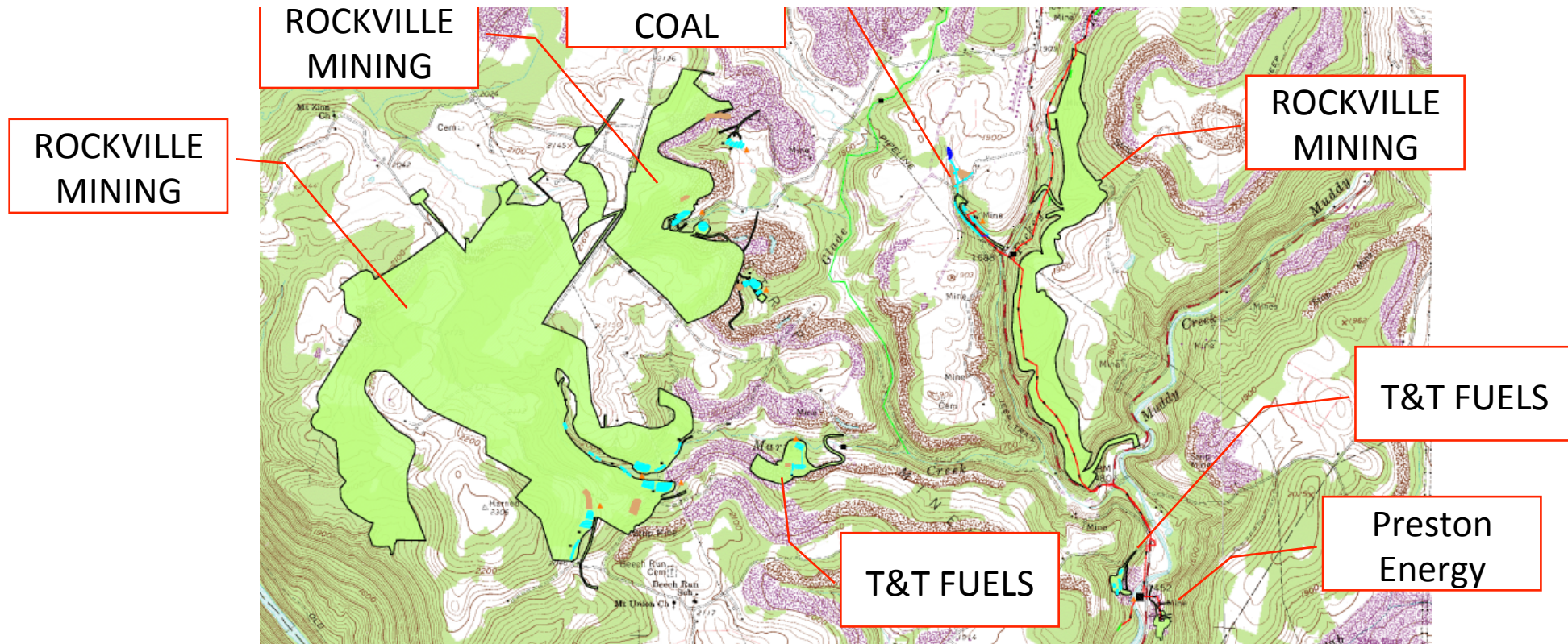


Cheat River Basin

BOND FORFEITURE SITES



There are 9 bond forfeiture sites in the Muddy Creek watershed that require water treatment, most are located in the headwaters of Martin Creek and its tributaries.



MUDDY CREEK TODAY



The Office of Special Reclamation (OSR) has been treating AMD in the Muddy Creek Watershed as early as 1995 when OSR inherited T&T Fuels following a devastating mine blowout.



Although a majority of the treatment sites were constructed between 2004 and 2006.

OSR currently has:



- 9 active treatment sites
- 1 passive treatment system
- 3 yet to be constructed

OSR now has 10 NPDES outlets within the Muddy Creek watershed.

To date OSR has spent over \$3.4 M in construction cost and nearly \$10 M in O&M.

To meet the more stringent WQBELs OSR is scheduled to spend an additional \$1.5 M.

MUDDY CREEK TODAY



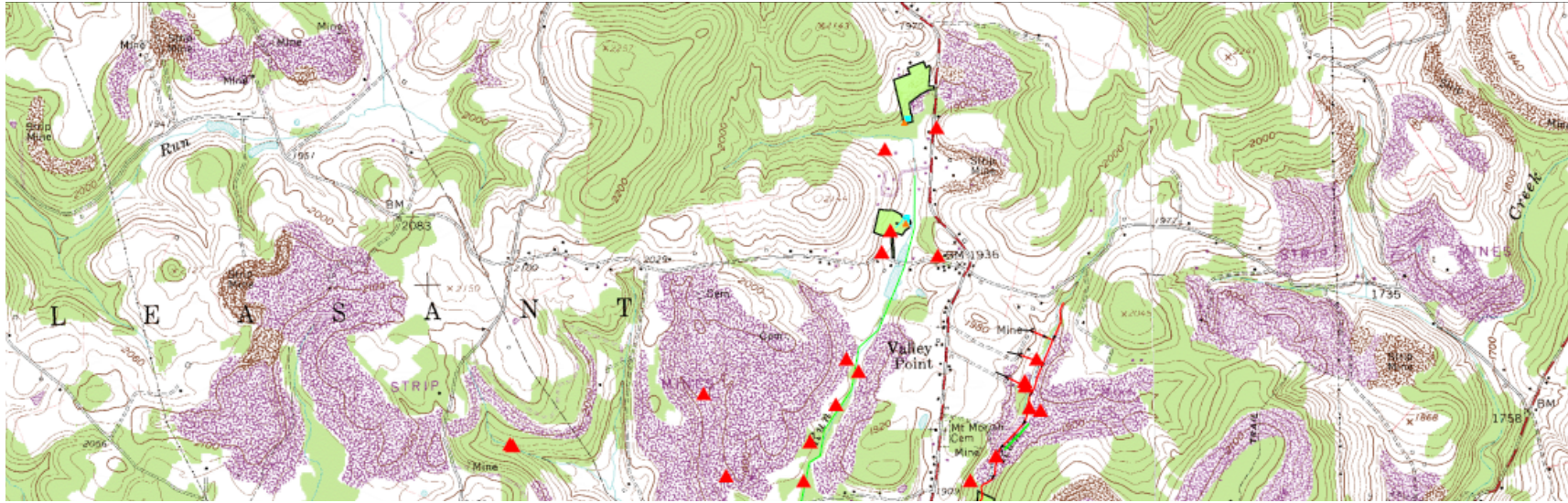
Yet Muddy Creek remains “DEAD”.



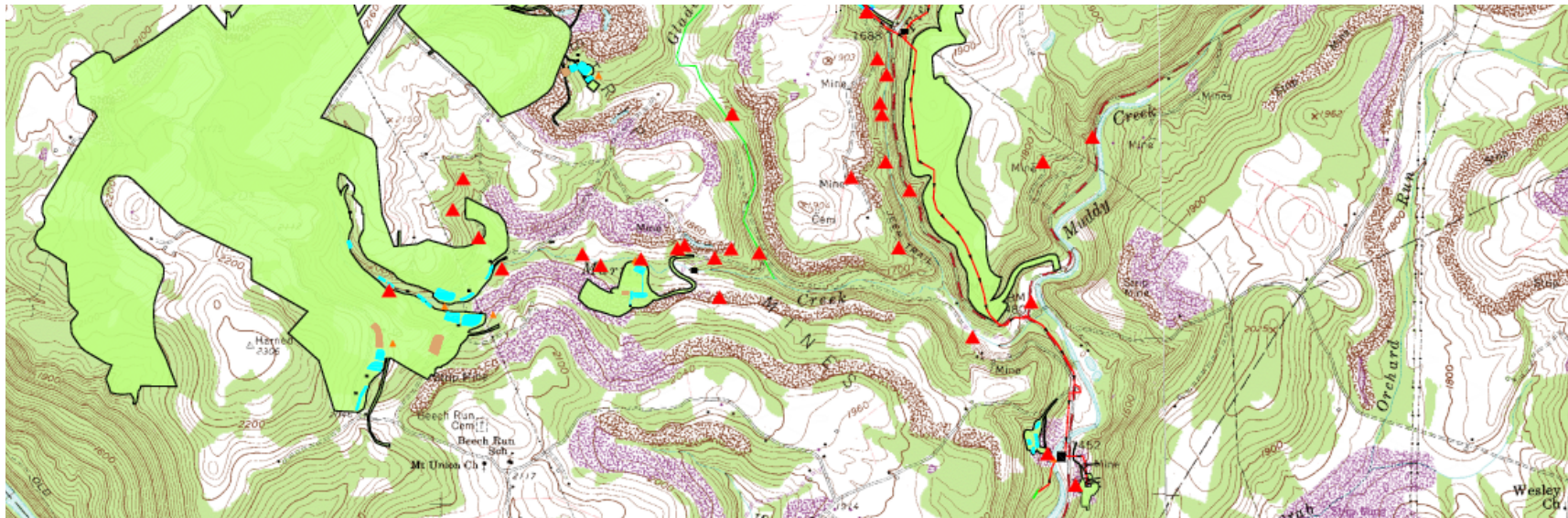
MUDDY CREEK TODAY



WHY?

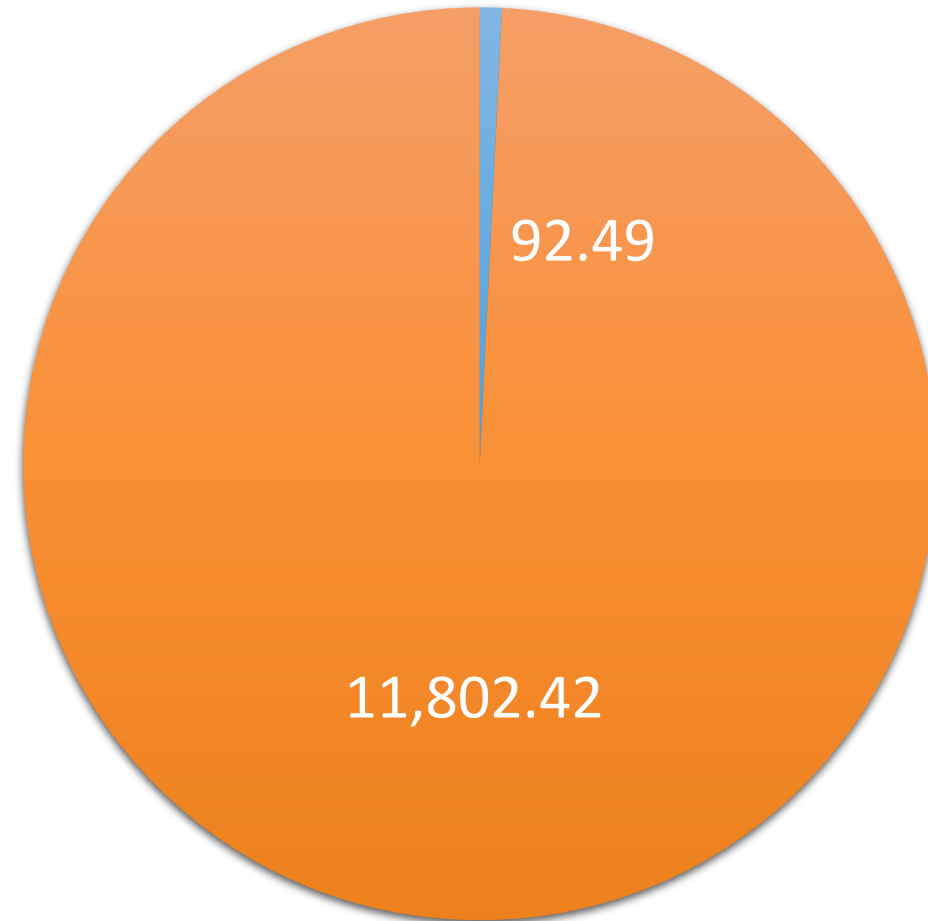


AN OVERWHELMING NUMBER OF PRE LAW AMD DISCHARGES



Contribution of AMD to Martin Creek by Bond Forfeiture Sites

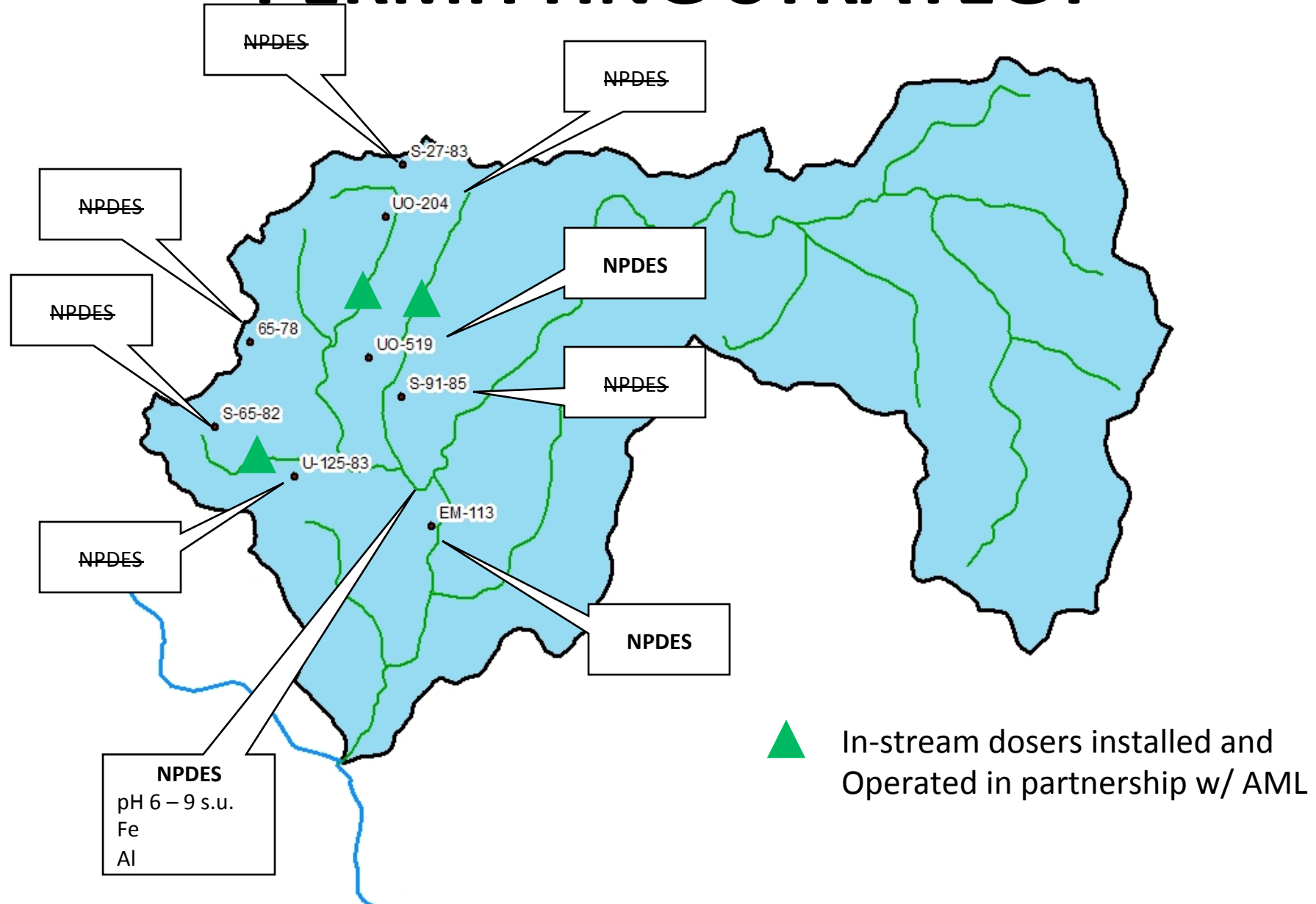
Acid Loading (lbs/day)



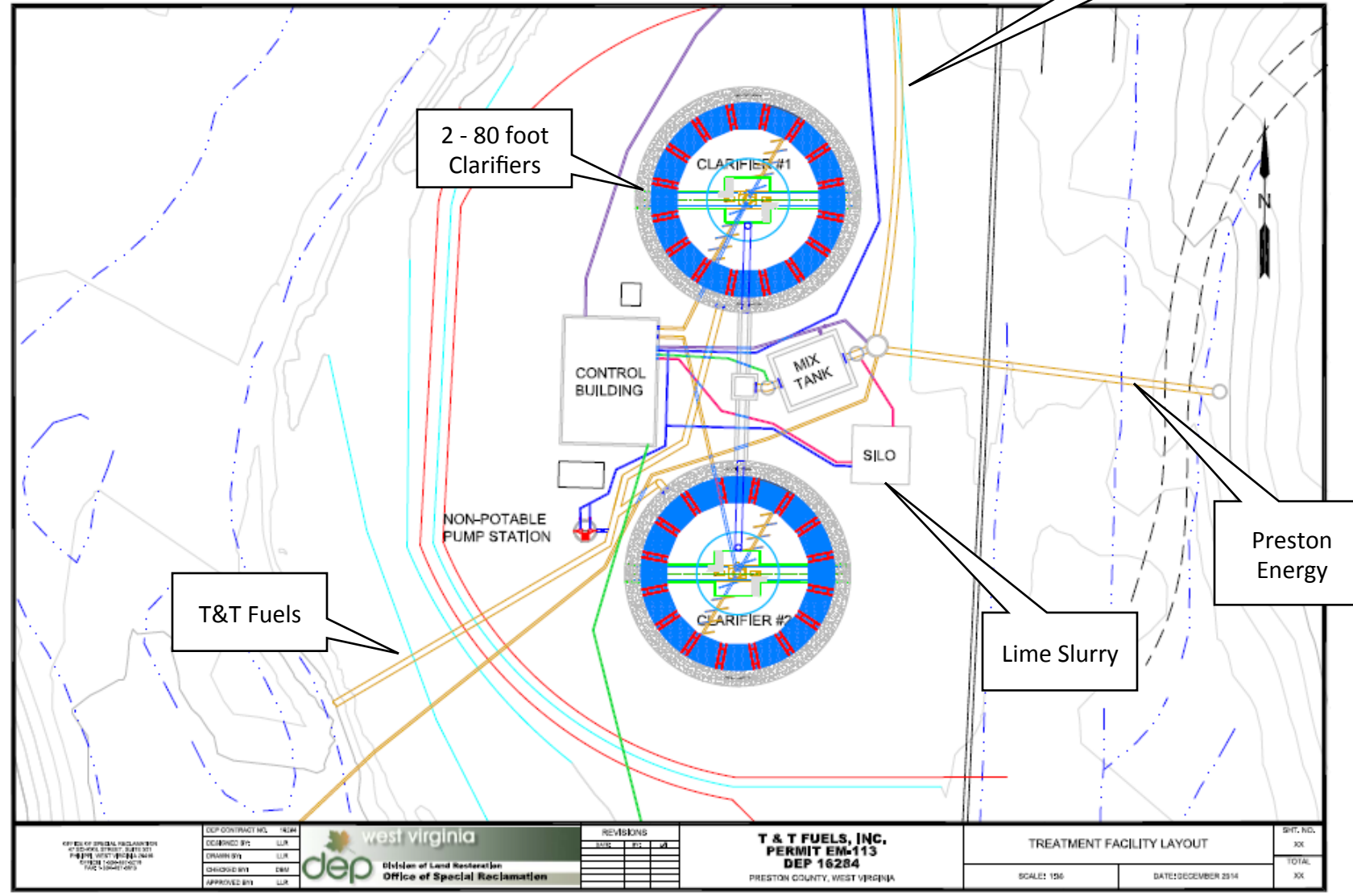
Spec Rec Average Totals

Martin Creek Without Spec Rec Contributions

PERMITTING STRATEGY



T&T Combined Treatment Facility



VARIANCE

7.2.d.8.2. A variance pursuant to 46 CSR 6, Section 5.1, based on human-caused conditions which prohibit the full attainment of any designated use and cannot be immediately remedied, shall apply to WV DEP Division of Land Restoration's Office of Special Reclamation's discharges into Martin Creek of Preston County and its tributaries, including Glade Run, Fickey Run, and their unnamed tributaries. The following existing conditions will serve as instream interim criteria while this variance is in place: pH range of 3.2-9.0, 10 mg/L total iron, and 15 mg/L dissolved aluminum. Alternative restoration measures, as described in the variance application submitted by WV DEP Division of Land Restoration's Office of Special Reclamation, shall be used to achieve significant improvements to existing conditions in these waters during the variance period. Conditions will be evaluated during each triennial review throughout the variance period. This variance shall remain in effect until action by the Secretary to revise the variance or until July 1, 2025, whichever comes first.

Watershed Scale Approaches to AMD Remediation: Martin Creek and Sandy Creek Project: WV 342

The purpose of this study is to provide the West Virginia Department of Environmental Protection (WVDEP) – Office of Special Reclamation (OSR) with data to guide future management decisions on the placement of dosers to treat Martin Creek and Sandy Creek on a watershed level.