



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Bureau Of District Mining Operations
Moshannon Office**



AMD Treatment Moshannon District Mining Operations

**Mining and Reclamation Advisory Board
April 24, 2014**

Primacy Bond Forfeiture ABS New Treatment Systems 2013 - 2014

- Avery Coal Company, Victoria. UNT to Clearfield Creek.
VFP Passive Treatment. \$475,993.
- Avery Coal Company, Pine Glen. Moshannon Creek.
Hydrated Lime Plant. \$461,886.
- Power Operating Company, Dugan 4. Moshannon Creek.
Rehab VFP and Limestone Bed Passive Trt. \$101,692
- Power Operating Company, Dugan 2. Moshannon Creek.
ALD and VFP Passive Treatment. \$373,053

Avery Victoria

Iron Laden Deep Mine Discharge

FLOW 65 GPM

pH 5.51

Acidity 39.4 mg/l

FE 29.2 mg/l

Mn 17.6 mg/l

SO4 540.0 mg/l



Avery Victoria 2010 SMCRA Grant Award to Clfd.CCD.



Bioreactor Underdrain

Avery Victoria Stream Channel Reconstruction



Avery Victoria Construction Completed 10/2013



Rehabilitation of Dugan 4 Treatment system

POWER LAKE PASSIVE TREATMENT SYSTEM (14663004)



FLOW 81 GPM
pH 3.3
Acidity 132 mg/l
FE 27 mg/l
Mn 17 mg/l
AL 3 mg/l
SO4 1244.0 mg/l

Dugan 4 “Power Lake”

2010 SMCRA Grant Award to Stream Restoration Inc.



Compost Replacement in VFP
Completed July 2013



Rehabilitation of the Power Lake Treatment System



Reconstruct Manganese Bed into a
Horizontal Flow Limestone Drain

Construction of Dugan 2 Treatment system

PROPOSED PASSIVE TREATMENT SYSTEM (14663003)



FLOW	69 GPM
pH	4.10
Acidity	117.1 mg/l
FE	22.1 mg/l
Mn	19.0 mg/l
AL	6.6 mg/l
SO4	342.8 mg/l

2010 SMCRA Grant Award to Stream Restoration Inc.



ALD and VFP
system.
Treats two separate
discharges

Dugan 2 Treatment System Completed July 2013



VFP and Wetland

Pine Glen Treatment System

FLOW 100 GPM
pH 3.5
Acidity 338 mg/l
FE 14 mg/l
Mn 77 mg/l
AL 33 mg/l
SO4 2245.0 mg/l



2010 SMCRA Grant Award to Stream Restoration Inc.

Placing the lime silo



Treatment system construction



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Anticipated Startup Date May 2014

