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DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Mining Programs

# Revisions to Surface Water Protection – Underground Bituminous Coal Mining Operations

Water Resources Advisory Committee

July 21, 2022

Tom Wolf, Governor

Ramez Ziadeh, P.E., Acting Secretary

# Today's presentation

- Proposed revisions to the TGD for streams affected by underground bituminous mining
- Potential effects to streams and wetlands
- Act 54 report that documents effects and provides recommendations to program

# Background

- Technical Guidance Document 563-2000-655  
*Surface Water Protection – Underground Bituminous Coal Mining Operations*
- Versions: 1997, 2005
- Authority: 25 Pa. Code Chapters 86, 89, 93, 96 and 105; Clean Streams Law, 35 P.S. §§ 691.1 *et seq*, and Bituminous Mine Subsidence and Land Conservation Act, 52 P.S. §§ 1406.1 *et seq*.

# Background

- Streams and wetlands affected by subsidence resulting from underground bituminous coal mining (longwall panel, room and pillar mines)
- Detail to supplement the regulations
- Documentation, monitoring, mitigation, stream recovery demonstration, compliance procedures

# Purpose

- Protect and maintain the existing and designated uses of perennial and intermittent streams and to protect the functions and values of wetlands
- Provide direction to DMO staff who review underground mining applications, respond to reports of alleged impacts, and evaluate the progress of mining and surface effects

# Purpose

- Provide guidance to the regulated community regarding how to comply with existing regulatory requirements

# Purpose

- Longwall and room and pillar mines result in subsidence of the overlying rock layers
- Subsidence control plan
- Measures to maintain the value and foreseeable uses of streams and prevent material damage

# Stream and wetlands effects

- Flow loss, heaving, pooling
- Related mostly to longwall mines in Washington, Greene, Indiana counties



# Stream and wetlands effects



Unnamed Trib premining



Unnamed Trib postmining  
Heaving



# Stream and wetlands effects



Buffalo Ck premining



Buffalo Ck postmining  
Pooling effects

# Stream and wetlands effects

- Wetlands
  - Loss, mitigation, creation of new
  - No net loss of acres or function

# Revisions

- Process to revise began 2016 with BMP-DMO-stakeholder workgroup
- Not included in MRAB purview
- Litigation cases
- CAC interest/Act 54 report workgroup 2021
- Working draft

# Act 54 Report

- Under the Act 54 amendments to BMSLCA, DEP is required to compile data and report findings regarding the effects of underground mining on land, structures and water resources.
- A Report is prepared and presented to the Governor, General Assembly and the Citizens Advisory Council (CAC) every five years.

# Act 54 Report

- Current report underway is different than previous 5 reports.
- Raw data is online  
[www.dep.pa.gov/Business/Land/Mining/BureauofMiningPrograms/Act-54-Yearly-Data/Pages/default.aspx](http://www.dep.pa.gov/Business/Land/Mining/BureauofMiningPrograms/Act-54-Yearly-Data/Pages/default.aspx)
- Partnering with US OSMRE
- Includes data from calendar years 2018 to 2022

# Revisions to Stream Policy

- Biological protocol updated
- Stream monitoring protocol - remove control streams, allow for alternative methods (low gradient streams – USGS paper)
- Stream recovery process clarification
- Remove old implementation provisions
- Updates, clarification, restructuring

# Summary/Conclusion

- 6<sup>th</sup> Act 54 report in progress (Nov 2023)
- Working draft of TGD presented to CAC
- Draft for public comment in process





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