

MINUTES
MINING AND RECLAMATION ADVISORY BOARD (MRAB/BOARD)
January 20, 2022

VOTING MEMBERS OR ALTERNATES PRESENT:

Jack Chamberlin (Chamberlin Surveying and Consulting - Member)
John St. Clair (Citizens Advisory Council (CAC) – Member)
James Schmid (CAC – Member)
Thaddeus Stevens (CAC – Member)
Robert Hughes (Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR) – Member)
Patrick Stefano (PA Senate – Member)
Duane Feagley (PA Anthracite Council (PAC) – Alternate)
Kenneth King (State Industries, Inc. – Alternate)
Nicholas Troutman (PA Senate – Alternate)
Will Dando (Allegheny Strategy Partners – Alternate)
Rachael Gleason (PA Coal Alliance (PCA) - Alternate)
Glendon King (PA House - Alternate)
Emily Eyster (PA Senate – Alternate)
Lori Dayton (Specialty Granules, LLC/CAC - Alternate)

OTHER ATTENDEES

John Stefanko (DEP – Active and Abandoned Mine Operations (AAMO))
Amy Berrios (DEP – AAMO)
Dan Sammarco (DEP – Bureau of District Mining Operations (BDMO))
Bill Allen (DEP – Mining Programs)
Bruce Carl (DEP – Mining Programs)
Sharon Hill (DEP – Mining Programs)
Gregory Greenfield (DEP – Mining Programs)
Seth Pelepko (DEP – Mining Programs)
Eric Oliver (DEP – Mining Programs)
Geoffrey Lincoln (DEP – Mining Programs)
Kevin Bogdan (DEP – Mining Programs)
Michaela Plazek (DEP – Mining Programs)
Melanie Barber (DEP – Mining Programs)
Jennifer Gulden (DEP – Mining Programs)
Daniel E. Snowden, D.Ed. (DEP - Mining Programs/Board Liaison)
Brian Bradley (DEP – Bureau of Abandoned Mine Reclamation (BAMR))
Michael “Josh” Lookenbill (DEP – Bureau of Clean Water (BCW))
Manyi Liu (DEP – BCW)
Kristen Schlauderaff (DEP – BCW)
Thomas Barron (DEP – BCW)
Brian Chalfant (DEP – Policy)
Abbey Cadden (DEP – Policy)
Michelle Moses (DEP – Regulatory Counsel)
Christopher Minott (DEP – Regulatory Counsel)
Jeffery Painter (PA Game Commission) (Guest)
Daniel Ryan (PA Fish and Boat Commission) (Guest)
Josie Gaskey (PA Aggregate and Concrete Association (PACA)(Guest))
Patrick Gleason (Guest)

MEETING CALLED TO ORDER/INTRODUCTIONS

The meeting was called to order at approximately 10:00 a.m. Board members and DEP personnel introduced themselves.

APPROVAL OF MINUTES

The minutes from the last meeting were approved without changes. The motion was put forward by Ms. Gleason and seconded by Mr. Chamberlin.

CORRESPONDENCE

Ms. Emily Eyster announced an upcoming Senate vote which would affect the Board. HR 668 would add a member from the coal refuse industry to the MRAB.

Additionally, Darrel Lewis has retired, with Kenneth King taking his former position as Alternate.

COMMITTEE REPORTS

There were no Committee meetings since the Board last met.

DELIVERABLES

All items requested in the last meeting were provided within this meeting's materials.

PRESENTATIONS

Coal Mining Program Updates

Mr. Greenfield provided updates to the Board regarding the coal mining program:

- E-Initiatives: As of the day of the meeting, there were 152 Notice of Intent to Explore e-Permits submitted. Approximately 742 individual NPDES permits have been registered as electronic Discharge Monitoring Reports (e-DMRs). More tools for inspectors are expected to roll out.
- Trust Agreements/Bond Status: The Board was provided details on a variety of items regarding this topic:
 - Number and value of total agreements (between December 2015 and December 2021), total (i.e., bonds, fully-funded trusts and partially-funded trusts (including Alternative Bond System (ABS) sites).
 - The amount of partially funded trusts and total bonds have decreased since the last meeting, but fully funded trusts increased.
- Land Reclamation Financial Guarantees (LRFG): Mr. Greenfield provided details on the increase of LRFG permits and amount underwritten. The total underwritten amount as of December 2021 was \$47.3 million.
- Applications: Ms. Sharon Hill provided the Board with a detailed breakdown of application data, including the number of applications by each District Mining Office (DMO) and

revision and application type. All figures are available through the meeting materials on the website. This information reflects the entirety of 2021.

- Regulatory Agenda: The final rulemaking for Coal Refuse Disposal was presented to the Board, which agreed with the Department's recommendation to present the final-form rule to the Environmental Quality Board (EQB).
- Non-Regulatory Agenda: The Liners and Caps Technical Guidance Document (TGD) received minor clarifications based on public comments and is being prepared as final. A Regulation, Legislation and Technical (RLT) Committee meeting was set up to review the final version. A joint meeting of the MRAB and Aggregate Advisory Board's RLT Committees was recommended to review the Engineering Manual. The Water Supply Replacement TGDs are being updated.
- Technical Items: The Non-mining related activities Standard Operating Procedure (SOP) is still in the development stage. A sediment pond SOP was created by the DEP and is on the website.
- Reclamation Fee Operations and Maintenance (O & M) Trust Accounts: The Board was shown the current information for the Reclamation Fee Account, including Coal Civil Penalties, LRFG Premiums for fiscal year 20-21.
- Application Fee Revenues: Mr. Greenfield provided revenue figures for the Surface Mining Conservation and Reclamation Act (SMCRA) and Clean Water Fund (CWF) for the fiscal years between 2012 to December 2021.
- Big Run Unsuitable for Mining (UFM): The Big Run UFM study has been completed and is currently under review.

Bond Rate Guidelines

Mr. Greenfield provided the Board with the preliminary Coal Bond Rates for 2022, in terms of grading costs. Using the lowest bid data, the grading costs on the currently received projects ranged from \$0.90 for grading up to 500 feet, and \$1.80 for grading over 500 feet. Select grading, grading and haul costs from 1000 feet to 1 mile remain unchanged. Revegetation costs increased to \$2,500.

Manganese (Mn) Water Quality Standards

Kristen Schlauderaff, Bureau of Clean Water, presented DEP's final-form rulemaking: Water Quality Standard for Manganese and Implementation. The rulemaking includes a recommendation to add a Human Health toxics criterion of 0.3 mg/L, which prompted discussion between the Board and DEP. The details of this discussion follow below; however, please note the following disclaimer:

This transcription of the final-form Manganese Water Quality Standard Rulemaking discussion was submitted by the Pennsylvania Coal Alliance as a partial alternative to the proposed minutes prepared by the Department for the January 20, 2022 MRAB quarterly meeting. At its April 7, 2022 meeting, the MRAB voted to adopt this transcription as an addition to the Department's January 20, 2022 meeting minutes. The accuracy of this transcription has not been verified by the Department.

Kristen Schlauderaff, Bureau of Clean Water, presented DEP's final-form rulemaking: Water Quality Standard for Manganese and Implementation. The rulemaking includes a recommendation to add a Human Health toxic criterion of 0.3 mg/L, which prompted discussion between the Board and DEP. Kristen was joined by Joshua Lookenbill, Acting Director of the Bureau of Clean Water and Michelle Moses, Regulatory Counsel, to answer questions.

Rachel Gleason, Alternate to Board Chairman David Osikowicz, mentioned the presentation indicated that DEP met with EPA during the development of the regulation, and asked who the toxicologists were at EPA that DEP met with, what additional literature citations did DEP receive from EPA, and when were those citations dated and published.

Ms. Schlauderaff indicated DEP met with several toxicologists but did not recall who they met with other than Joyce Donahue who is an EPA headquarters toxicologist. Ms. Schlauderaff shared that EPA provided several literature citations that she would share, some were published fairly recently, within the last year or two, and several others that were published within the last five or six years. Ms. Gleason encouraged the Department to rely on publications that are more recent and not more antiquated.

Ms. Gleason shared that during the comment period EPA asked the department for additional information on why it used modifying factor of three to develop the 0.3 mg/L toxicity standard, and asked what DEP provided EPA for the rationale? Ms. Schlauderaff did not recall a specific comment from EPA and indicated she would go back and review.

Ms. Gleason then asked if DEP acknowledges that the EPA does not recognize manganese as toxic under the Clean Water Act or under 40 CFR 401.15, toxic pollutants. Ms. Schlauderaff commented that EPA does not currently have a water quality standard recommendation for manganese, but that does not necessarily mean that EPA has taken a position on toxicity of manganese. Ms. Schlauderaff indicated DEP is aware that the EPA, particularly in the Safe Drinking Water Program, but also in the water programs in general, is currently reevaluating manganese toxicity.

Ms. Gleason responded by asking if DEP is aware that EPA chose not to regulate manganese with a national primary drinking water regulation because manganese is generally not considered to be toxic and instead the federal criterion for manganese is an SMCL (Secondary Maximum Contaminant Level), which is not based on toxic effects but rather intended to minimize laundry stains and objectionable tastes in beverages. Ms. Schlauderaff responded that yes, DEP is aware, and indicated EPA is currently reevaluating manganese, manganese data was collected as part of their unregulated contaminants rule in the fourth round, and that data has been received by EPA. Ms. Gleason asked for clarification that the reevaluation is for finished drinking water, or what a water treatment system would treat and finish for delivery to a customer, and Ms. Schlauderaff confirmed that the reevaluation is for finished drinking water and MCL's (Maximum Containment Levels) used to establish criteria. Ms. Gleason shared her

understanding that on the federal level SMCLs are not enforceable, but they are incorporated into Pennsylvania's regulations.

Revisiting the presentation, Ms. Gleason pointed to the summary of economic impact assessments associated with the first regulatory scheme that included the City of Lancaster, Reading, PA American Water and a third party that provided the summary of impacts. Ms. Gleason asked who the third party was. Ms. Schlauderaff indicated the information that was provided was provided by the entities, i.e., Reading Water, Pennsylvania American Water and the City of Lancaster provided the information during the rulemaking process, and it was not something the Department developed or compiled. Ms. Gleason understood and shared her confusion with the asterisk on the slide, and Ms. Schlauderaff indicated DEP wanted to make it noted that they didn't develop the information, rather it was provided by the actual entities, much like the mining information that was submitted.

Ms. Gleason asked if DEP had any communication with the City of Lancaster or Reading Water Authority regarding their increased costs. Ms. Gleason shared that she found it odd that they would have increased costs since they don't have any mining-related activities near them and suggested perhaps there is some other kind of industrial activity that's not permitted that should be if they are projecting increased costs.

Ms. Schlauderaff shared DEP has not specifically reached out to the entities, but also pointed out that the regulations would apply to all NPDES (National Pollutant Discharge Elimination System) permits, not just from the mining industry, so any NPDES permit that would have manganese would be affected by these changes, and there are manganese effluent limitations in permits outside of mining. Ms. Schlauderaff said she is not entirely sure what they based their evaluation on and to keep in mind that it is not limited to the mining industry that discharges manganese.

Ms. Gleason then asked if manganese is regulated as a toxicity standard, will the current stormwater construction general permits, oil and gas E&S permits, and MS4 permits be withdrawn, especially PennDOT road project applicants, and then be forced to obtain NPDES permits because general permits may not authorize the discharge of toxic pollutants.

Ms. Schlauderaff said no, and shared that DEP has had conversations with their clean water staff regarding stormwater control, stormwater permits, and the Chapter 102 concern and it was indicated that those processes of how they determine who can apply for those permits and how they're used would not be affected. Currently, as that process works, if there is reason to believe the permittee does their environmental due diligence and identifies a problem that would be evaluated then DEP will work with that entity to get them the correct permit and determine if they need an individual permit, but DEP is not anticipating drastic changes in how those permits are implemented at this time.

MRAB member Mr. St. Clair stated that he finds it odd that DEP is not expecting any changes since breaking rock is not exclusive to coal mining but is exclusive to any type of extraction and/or any construction developments. Mr. St. Clair asked why there won't be an increase in cost or an increase in applying manganese standards for sedimentation pond associated with construction activities whenever the main genesis of manganese is from breaking rock. Mr. St. Clair requested additional explanation and stated you would expect to see manganese levels of 0.3 mg/L if there was breaking rock.

Ms. Schlauderaff indicated she doesn't want to speak specifically for the permitting program, but as she understands, it speaks to the analysis that is done upfront and the information that is required to be

evaluated and provided with a permit application. She continued to explain that individual permits have much more stringent requirements, and depending on the type of permit you're getting, there's a lot of information that has to be provided on the quality of the discharge, etc., which is generally not a part of these general permit processes as they don't have to do the extensive evaluation of the discharge. Ms. Schlauderaff shared that DEP did meet specifically with PennDOT to discuss the regulation and they did not express any particular concerns with this specific regulation outside of any normal concerns they would have for a very large project, and therefore are not anticipating any specific impacts as a result of the regulation.

Mr. St. Clair responded to Ms. Schlauderaff's explanation and asked if DEP will require of the general permits and individual permits to provide information indicating manganese is not present in discharges given knowing the genesis of manganese.

Ms. Schlauderaff explained that the information received from DEP's clean water permitting program is they are not envisioning any changes in how they evaluate or implement these permits. She continued by explaining if there is a very large project and the permittee is doing their environmental due diligence and identifies a problem, DEP will work with them and switch to an individual permit, but as a blanket process they're not intending to change how these permits are reviewed and how they're permitted.

Mr. St. Clair inquired about the summary of economic impact information provided by third parties for the first alternatives, specifically asking how they arrived at some of these numbers whenever both proposed regulatory alternatives provided protection at 0.3 mg/L where the water suppliers are intaking water, regardless of what other source or alternative location for a point of compliance they would still have a 0.3 mg/L intake water. Mr. St. Clair stated he is not certain why there would be any increased change of capital costs or treatment costs.

Ms. Schlauderaff explained, with respect to the water quality at the intake, some of the facilities and other facilities that didn't necessarily provide cost information but had indicated their source water contribution of manganese is very low, and some see their source water of manganese well below the 1mg/L which is currently in place and well below 0.3 mg/L. Therefore, if source water levels are allowed to increase, facilities may be challenged and have to deal with increased costs or additional treatment to remove manganese because it is above what they are currently receiving.

Mr. St. Clair responded, indicating he would find that unusual because if this rule were to go through, the stream could have 0.3 mg/L manganese and be compliant, therefore it is difficult to understand quite how if stream is 0.3 mg/L and the public water supply is 0.3 mg/L that there will be any change to their operations.

Ms. Schlauderaff clarified that right now manganese is applied at the point of discharge, and if that were to change and source water levels could increase a number of facilities indicated the manganese they see at their intake is very low if even present, and since their current treatment and operations and costs are all based on that quality of the raw water that they receive, changes higher than what they're typically use to treating may require additional treatment processes or chemicals, which is what DEP is hearing from the water systems. If this moves, even though it seems like it is moving in a lower direction, if the point of compliance is moved, they may be challenged with their treatment because they will still be receiving more manganese than they currently are receiving.

Mr. St. Clair stated that he thinks that is a fallacy because a lot of mine discharges have higher manganese concentrations and are currently discharging at 1 mg/L or 2 mg/L and they are still seeing their current low manganese concentrations.

Ms. Gleason added she doesn't know why Reading, or the City of Lancaster would think they would have any increased costs beyond what they have now if they aren't near any mining discharges, unless there's something near them that is discharging and hasn't been permitted, and agreed that the cost estimates are somewhat suspect. Ms. Gleason also pointed out that American Water operates in other states like West Virginia and Ohio who have their manganese standard at 2 mg/L, with only West Virginia having a potable water supply standard of 1 mg/L applied within five miles of their water withdrawal. American Water does operate in Ohio and West Virginia, therefore you would imagine they would have a better idea of what the cost would be since they have those experiences.

Ms. Gleason then asked, if during this process, did DEP's Bureau of Clean Water model or analyze any costs to the public water systems at 1 mg/L at the intake.

Ms. Schlauderaff indicated at the time of the advanced notice DEP had not developed a recommendation for toxic criterion, so some of the information received was assuming a 1 mg/L in stream water quality criteria. However, water systems are not required to supply this type of information to DEP therefore DEP did request economic information and information from water systems. DEP did not receive much information from them about either source water concentrations or the economic impact.

Ms. Gleason asked if Reading, the City of Lancaster, and Pa American Water were the only three that submitted any information, and Ms. Schlauderaff confirmed yes.

Ms. Gleason then asked if the Bureau of Clean Water or DEP reviewed any chemical treatment costs for treating mining discharges at 0.3 mg/L at the discharge, the feasibility of treating to that level, and if the same analysis was done for public water system backwashes that can't use passive systems and for publicly owned treatment works.

Ms. Schlauderaff shared that DEP is doing a lot of work evaluating implementation, has been working internally within their programs, and they went on the tour of the Saint Michael facility. Ms. Schlauderaff expressed that DEP has several ongoing projects and are doing their best to understand the treatments available, and if they are implementable, under what conditions, with different types of technologies, and at what cost. DEP expects to have that information, and as information comes in it will be incorporated into the rulemaking. Ms. Schlauderaff indicated there is a timeline on the rulemaking and as the rulemaking proceeds, DEP will continue to work on implementation issues and continue having conversations to try to advance that understanding.

Ms. Gleason then asked if the Bureau of Clean Water and DEP are looking at operations other than coal mining, like aggregates, limestone mining and again the treatment of filter backwash by public water systems and publicly owned treatment works. Ms. Gleason reiterated that the numbers from PA American Water, Reading and Lancaster are suspect, and she doesn't think DEP has a full picture of what a toxicity standard at 0.3 mg/L out of discharge will really do to more than just mining, to these public water systems and publicly owned treatment works.

Ms. Schlauderaff mentioned a lot of the focus and work DEP is doing is directed towards the mining aspect, however, DEP is initiating conversations with American Water Works Association which is a national organization for drinking water. DEP has been connected to the American Water Works Association's manganese subcommittee, who works on specifically manganese issues which relate to drinking water, and therefore are hoping to tap into those resources and knowledge to better understand manganese treatment for drinking water facilities.

MRAB Alternate Mr. Glendon King thanked Ms. Schlauderaff for bringing the presentation and important discussion to the Board and, as an alternate representing a member of the Board from the Legislature, stated he is seriously concerned about the process by which this regulation has proceeded. Mr. King shared he represents Representative Metzgar, who signed a letter at the proposed stage sent by the House Environmental Resources and Energy Committee to the Independent Regulatory Review Commission and the Environmental Quality Board, raising a number of significant issues. Mr. King continued, and asked if DEP recognizes that the final regulatory package they put together does not comply with ACT 40, which was passed by the House and Senate and signed by the Governor and, if yes, why does DEP, who is charged with administering the law, feel that it is okay to deviate from what was signed into law?

Ms. Moses explained that DEP does not agree with Mr. King's assessment of DEP's compliance with the law and stated Act 40 obligated the Environmental Quality Board to propose a regulation that moves the point of compliance for manganese consistent with section 96.3(d), and the regulation proposed included an option for moving the point of compliance. Ms. Moses shared the reason DEP had two alternatives in the rulemaking is because they felt that the General Assembly may have overlooked the need for the drinking water program to comply with the mandatory requirement of meeting 0.05 mg/L in finished water. Therefore, in anticipation of the possible impacts to that industry, the DEP and the EQB, with the EQB's approval, recommended two alternative points of compliance.

Mr. Glendon King thanked Ms. Moses for her response, indicated he also has comments on the two alternative points of compliance that he will address, and asked Ms. Moses if it is clear that DEP disputes that it was the clear intent of ACT 40 to maintain the 1 mg/L standard and placed the point of compliance at the potable water supply withdrawal point.

Ms. Moses indicated the General Assembly was silent on what to do about the criteria, and therefore there was no direction in Act 40 regarding the specific water quality criterion. Further, Ms. Moses shared DEP has obligations under the federal Clean Water Act to review standards on a regular basis, the manganese standard had not been reviewed for a number of decades, and DEP believed it was their obligation to take on a review of the manganese literature at the same time DEP was evaluating the movement of the point of compliance. However, Ms. Moses indicated the decision to review the criterion was not driven by Act 40.

Mr. Glendon King stated he understands the perspective of Ms. Moses but thinks the intent of the General Assembly and the law as clearly written and as signed by Governor Wolf, and through appointed Secretary McDonald, to both the DEP and the EQB, was indisputably clear about where the point of compliance should be, and thinks DEP has a responsibility to comply with the clear language of the law.

Ms. Moses added the Commonwealth Documents Law requires the EQB propose a rule, and because of the obligations in the Commonwealth Documents Law and the Regulatory Review Act, those laws contemplate that there will be a process that takes place, and that it is not automatic that a proposed rule results in a final rule.

Mr. Glendon King states he doesn't think the statement from Ms. Moses addresses the main point of complying with the clear text of the statute as it is written.

Mr. Glendon King continued his questioning by asking about the way DEP submitted that proposed regulation with the two alternative regulations within the one submitted regulatory package. He indicated it is his opinion that submittal clearly violates both the text and the spirit of the Regulatory Review Act, the purpose of which is to allow the public to weigh in on a single proposed regulation, not guess which path DEP and the EQB may ultimately take. He further stated the Independent Regulatory Review Commission echoed these concerns in their comments and asked the EQB to explain as part of its final package why this proposal meets the Regulatory Review Act's definition of a proposed regulation, which is a document that is intended for promulgation as a regulation, and noted the regulation that DEP proposed with the two alternatives could not be promulgated as a final regulation, so it does not meet that definition. Mr. Glendon King then asked if DEP is aware of any other regulatory package that has ever been proposed with two alternatives or more contained within the same regulatory package.

Ms. Moses stated she couldn't answer the question and she doesn't know for sure. She explained she believes the Public Utility Commission sometimes uses an Annex A and an Annex B for certain rules, but she has not done an exhaustive analysis of that point of view. She expressed that she does think that in entire rulemakings all options may have been addressed through preambles, but DEP has moved away from that because they have been driven through law to identify options through an annex.

Mr. Glendon King expressed that he thinks it is telling that there aren't any examples that can be pointed to and that this is not the process that was contemplated by the Regulatory Review Act. Mr. Glendon King then asked what DEP's response will be to the Independent Regulatory Review Commission's comment as to how the regulation that was proposed, the package proposed, meets that definition under the Regulatory Review Act as a proposed regulation because it cannot be promulgated the way it was proposed as a final regulation and changes had to be made, so it could not have been promulgated the way they wrote it as proposed regulation.

Ms. Moses explained that most of DEP's regulations are modified between proposed and final rulemaking, and the idea is that whatever DEP puts out for people to comment on is clear, and the intent is clear, except that the public has the ability to provide useful comments to inform the agency before the EQB makes its final recommendation.

Mr. Glendon King stated that is a different question, and observed that whether or not a regulation can be promulgated is different than whether or not changes can be made. He states the point of the Regulatory Review Act is that one proposed regulatory package is submitted that can be promulgated as a final regulation, and that was not done in this case.

Ms. Moses said she thinks we're just going to have to disagree on what we think the law provides.

Mr. Glendon King asked if DEP responded to that point that the IRRC raised, and Ms. Moses said it will be addressed in the comment response document.

Ms. Gleason the asked if, since the Bureau of Clean Water doesn't have any professional experience in treating discharges from mining operations or discharges from legacy mining operations, did the Bureau of Clean Water meet with the Office of Surface Mining to discuss whether 0.3 mg/L standard could reasonably be met at discharges for mining operations and did the Bureau Clean Water review treatability at 0.3 mg/L at passive systems and at high discharge flow rates.

Ms. Schlauderaff stated the Bureau of Clean Water has been in contact with the Office of Surface Mining, specifically Brent Means and some other individuals who worked with the Office. She explained the Office of Surface Mining has been part of discussions and the evaluations that DEP is doing. DEP is also getting assistance from outside sources that includes passive treatment systems, types of active treatment, large volumes and high flow, particularly with underground mines.

Ms. Gleason asked if DEP is getting that information from the Office of Surface Mining or from private contractors.

Ms. Schlauderaff replied they have been in contact with a number of individuals, DEP is getting information at the federal level, and is working with outside independent consultants and also those in academia.

Ms. Gleason asked if DEP contracted with anyone.

Ms. Schlauderaff indicated yes, DEP does have some contracts that they are currently working on and have in place to try to obtain some of this information.

Ms. Gleason asked if the contracts are available for review, and stated she briefly looked on the Treasury site and didn't find anything that the Bureau of Clean Water or DEP issued on this and asked if they went through a different process.

Ms. Schlauderaff deferred to Josh or Michelle, and Ms. Gleason was asked to repeat the question.

Ms. Gleason again asked if the contracts are available for whoever DEP contracted with to look at data as far as effluent discharges and meeting 0.3 mg/L at passive systems and high discharge flow rates. She stated she looked on the Treasury site where most of the contracts are publicly available and didn't see anything there, and therefore is curious if it went through a different process, and if the contracts can be shared with the Board.

Ms. Moses stated she will look; she hasn't been asked those questions and doesn't know.

Ms. Gleason understood, and commented she is curious to know who is providing information, what their level of expertise is, and what kind of experience they have with treating mining discharges. She indicated she is also curious about the conversations with OSM regarding again treating at .3 mg/L and treating with passive systems at high discharge flow rates.

Ms. Gleason inquired as to whether DEP or the Bureau of Clean Water assessed the cost DEP would incur if the DEP were to treat at 0.3 mg/L at the ABS sites that it's legally responsible to address and reminded DEP that there was a lawsuit in early 2000s filed by the Federation of Sportsmen and Penn Future that sued the Department for the liability of these sites. She explained the sites are post SMCRA

sites, post 1977, that were forfeited and currently the DEP is responsible for treating a number of those sites yet does not treat the current 2 mg/L standard. She again asked if DEP assessed what it would take to treat those sites at 0.3 mg/L if they were to issue themselves and the NPDES permits as they are legally required.

Ms. Schlauderaff stated the Bureau of Clean Water has had discussions with the Mining Program and evaluations of permits and impacts are ongoing.

Ms. Gleason stated she would encourage more evaluation prior to final regulation

Mr. Lookenbill suggested the timeline be taken into consideration and remarked DEP did get appealed by the Legislature to move faster. He indicated DEP is moving fast and they are continuing to build the plane as they fly it, so to speak.

Ms. Gleason clarified the appeal from the Legislature wasn't for moving faster it was for inaction and noted the Legislature did lose in court on the mandamus based on standing. Ms. Gleason then asked if the Department is in violation of the Clean Water Act law for not issuing NPDES permits for ABS sites and not treating at those sites to water quality standards.

Mr. Lookenbill responded and indicated at this time, no, they are not in violation.

Ms. Gleason asked if DEP or the Bureau of Clean Water has assessed what the impact will be on existing trust funds if a 0.3 mg/L is applied to NPDES permits for those trusts, and what the impact will be on the funding that's been established for those trusts. Will the trusts run out of money faster? Will they risk being forfeited and the Department would be responsible for them.

Mr. Lookenbill stated the trusts are part of the ongoing evaluation.

Ms. Gleason continued, and asked if the trusts are forfeited, and there is an increased cost to treat at 0.3 mg/L, has DEP determined the cost to the Department to take over those forfeited trusts.

Mr. Lookenbill shared the evaluation at this point doesn't indicate that more bonds will be forfeited.

Ms. Gleason inquired if the Department plans to issue NPDES permits to watershed groups and Good Samaritan projects that work to clean up our impaired waters, and stated she finds it odd that if manganese is actually toxic and active operations have to treat to 0.3 mg/L that other sites don't have to treat at all to the toxicity standard.

Mr. Lookenbill stated that is something DEP will have to look into.

Mr. St. Clair questioned the Department's exact rationale for the modifying factor of 3, indicated if you follow the literature 1 mg/L is considered to be the toxic standard based on what has been put forth, and asked specifically why the 3 modifying factor is necessary, or necessary in at least the Department's evaluation.

Ms. Gleason added that she recalled EPA asking for the same information during the proposed comment period.

Ms. Schlauderaff followed-up on the EPA comments on the proposed rulemaking and shared they did not comment on the modifying factor of 3 but did have three comments on the proposed amendments, one of which was with respect to bio-accumulation factors related to fish consumption, stated DEP used

a bio-accumulation factor of 1, and EPA asked for clarification on why DEP chose that number. The only other comments EPA provided, Ms. Schlauderaff indicated, were about the point of compliance, how the criteria would be applied, and how DEP would ensure full protection of use.

With respect to the use of the modifying factor, Ms. Schlauderaff asserted it is still recommended by EPA, the IRIS data was published in 1995, and manganese was re-reviewed by the agency in 2003 incorporating newer science and still recommending the modifying factor. She shared DEP spoke to EPA and EPA has reviewed DEP's toxicology analysis and rationale document for the criterion and were generally supportive of DEP's approach.

Mr. St. Clair stated DEP is using almost 20-year-old data to say that the modifying factor applies when there's newer studies out there, and asked DEP to take a look at newer studies to see if the modifying factor is still required.

Mr. St. Clair asked if DEP has looked at other states, in particular at West Virginia, where they have a five-mile rule, and whether there has been any increased operation costs to public water supply operators to treat at those locations. Mr. St. Clair also asked if there have been any studies indicating negative health effects from having a standard of 1 mg/L at the point of intake as opposed to the .3 mg/L.

Ms. Schlauderaff shared the Department has reviewed numerous studies and studies were submitted as part of the comment period, particularly physiologically based pharmacokinetic models, and review of those studies did not change the Department's position. The Department noted some concerns with some of the studies, Ms. Schlauderaff said they lack sufficient validation at this point as there has been very limited publications that have not been independently reviewed and validated so it did not change the Department's recommendation. She continued, and indicated DEP did review other state's water quality standards and their implementation, and in addressing West Virginia, asserted they have not reviewed or updated their standard to include newer science and have not reviewed their criterion for some time, therefore their standard does not include current information that is known about toxicity of manganese.

Ms. Schlauderaff mentioned, with respect to information on cost or health effects, that information is generally not required to be collected as part of water quality standards and implementation of standards, and facilities are not required to supply that type of information. She indicated she is not aware of any states that require the collection of community health effects data and, although she isn't certain, suspects West Virginia has not conducted such an analysis or collected such data.

Ms. Gleason stated West Virginia did change their regulations under the Obama Administration, and EPA approved moving their point of compliance for their potable water supply standard to within 5 miles of the point of withdrawal. She indicated she doesn't know if they looked at toxicity at that time, but EPA did approve the change in West Virginia. Ms. Gleason then asked if DEP is aware of any other states that have a toxicity standard for manganese, what those standards are, and where is the point of compliance.

Ms. Schlauderaff responded there are some other states that have adopted standards that are more stringent than what Pennsylvania is considering. She shared there a few states that have adopted the drinking water SMCL of 0.05 milligrams per liter as a criterion, however, generally speaking a lot of states do not have criteria for manganese and there can be a number of reasons for that, including not

all states require standards for manganese and if manganese is not expected to be present in discharges and is not otherwise an issue, a state would have no reason to develop criteria.

Ms. Gleason asked what states have adopted the SMCL and where that point of compliance is, and if those states have industries with NPDES permits, where does the standard apply on their permit.

Ms. Schlauderaff indicated that while DEP reviews other state's standards, they do not conduct an exhaustive review of how many permits they have and how they are implemented. She explained some states have criteria that is implemented like in West Virginia, at a point of withdrawal, but in Pennsylvania, potable water supply is a statewide criterion, therefore the criteria applies everywhere unless that use has been removed. In addition, Ms. Schlauderaff said some states only apply the potable water supply use on a waterbody by waterbody basis and therefore the criterion would apply to those water bodies; there are different ways states implement, and DEP did not conduct an exhaustive search.

Ms. Gleason added, for informational purposes, Illinois, Indiana and Kentucky all apply their potable water supply standard at the intake. Ohio is within 500 yards of water intake and West Virginia is within five-miles upstream of their intake.

Ms. Schlauderaff stated while Ohio, Kentucky and Indiana have potable water supply criteria DEP could not find manganese criteria for potable water supply use, therefore while they do apply their potable water supply criteria at the point of withdrawal, they don't have criteria for manganese.

Mr. Feagley, with the Pennsylvania Anthracite Council, asked if DEP is aware of any place in the United States where they're currently treating to a 0.3 mg/L standard.

Ms. Schlauderaff explained DEP has been talking with facilities and entities who work in this arena, and in the states there are not a lot of regulatory requirements that force these kind of limitations, therefore there isn't a need for technology. Ms. Schlauderaff shared some of the entities DEP has been working with do have international experience in other countries where they have very stringent limits, well below anything in the U.S., and they have seen success with treatments at very low levels and DEP is getting that information.

Mr. Lookenbill added the ability to treat below 0.3mg/L at certain discharges across the state is anecdotal, it just happens that the water chemistry and the treatment that's been implemented was able to remove a significant amount below 0.3 mg/L concentration of manganese.

Mr. Feagley asked if the answer to his question was no, there are not any sites in the United States that are treating to 0.3 mg/L.

Mr. Lookenbill clarified there are sites treating with an effluent that results in concentrations below 0.3 mg/L, but they aren't specifically trying to do that, but they are otherwise able to get below 0.3 mg/L.

Mr. Feagley asked if a list of those sites is available to at least call and talk to and investigate, find out how they're doing it.

Mr. Lookenbill said DEP can provide examples of sites, and reiterated those sites are part of the ongoing evaluation that DEP is doing.

Mr. Feagley continued and asked about the international sites that are treating with some success. He expressed concern as some of his members are telling him that treating to 0.3 mg/L is going to be impossible and asked what level of success.

Mr. Lookenbill stated there are examples of complete success for fairly large discharges.

Mr. Feagley requested to review the data, and Ms. Gleason added she would be curious to look at data on discharges above 50 gallons per minute. Mr. Feagley reiterated his members are telling him 0.3 mg/L is impossible and if the Department decides to enforce this rule at a 0.3 mg/L, they're done.

Ms. Schlauderaff explained the idea is to share the work they are doing, but because of the timeline of the rulemaking, DEP cannot speak to when they will be able to provide the information or when they will have reports available. She stated DEP does intend to share information with industry, but when may not quite match up with the rulemaking going final.

Mr. Feagley stated his understanding is the rule is going to go final and then DEP is going to share the information. He asserted his preference would be to have the information before the rule goes final as it isn't reasonable to provide technical assistance after a rule goes final.

Ms. Schlauderaff expressed her understanding, wished the timing was different, and indicated not all permits are going to all be opened the day that this regulation would be adopted if approved.

Mr. Feagley recognized permittees will have to adapt when they renew their permit that is in a TMDL and therefore may have a few years to prepare but expressed disappointment with the Department advancing the rulemaking.

Mr. Lookenbill added the Department did not initiate the rulemaking and they are using their resources the best they can to provide the information that they have as part of the development of the rulemaking.

Mr. Feagley recognized the Department did not initiate the regulation, it was done by the Legislature, and pointed out the Department ignored the spirit and intent of the law and stated the Legislature didn't misunderstand anything; they were clear about what they wanted.

Ms. Moses disagreed with the legal characterization and stated there are multiple laws that DEP is managing, not just Act 40.

Ms. Gleason stated Act 40 included closing the loophole on solar photovoltaic credits for AEPS and that regulation was done very quickly. She also remarked the timeline was started much later than what it probably should have been and thinks there is not adequate information on the feasibility of reaching 0.3 mg/L at the discharge prior to the regulation going final.

Ms. Moses shared it is important to recognize that when the Department proposes a rulemaking, it isn't as simple as developing an annex and moving it to the Environmental Quality Board. She explained there are many questions on the regulatory analysis form that require the department to do research to figure out how to respond to this new program, therefore it is not as simple as just writing the annex and putting it forward. DEP has to fill in a lot of that information, and in this case, DEP had a lot of research to do, even as they were proposing the rule.

Ms. Gleason asked if the Department would consider allowing the proposed final regulations to expire and instead work with industry to address the challenges of treating manganese.

Ms. Moses stated the question is not one for the team to respond to. Ms. Gleason reiterated the proposed final regulation doesn't comply with Act 40, and Ms. Moses disagreed, stating that conversation would be held at a higher level, and pointed out to some extent the gate is open and DEP has a lot of information out there in public eye that can be used in many ways.

Ms. Gleason thanked Ms. Schlauderaff for her patience and made a motion asking the Department to not proceed with the final proposed regulation. Ms. Gleason requested the Department work with the coal industry and aggregate industry and other affected public and private entities to understand the challenges of treating manganese and develop solutions to treat manganese at legacy AMD sites. She indicated Mr. Allen recently mentioned taking votes is not what advisory boards do anymore, but because the Department asked the Water Resources Advisory Committee in November for a vote, she indicated it's appropriate.

Mr. Chamberlain seconded.

Ms. Moses explained DEP asked the Water Resource Advisory Committee to make a recommendation because they holistically review DEP's water program, therefore they sit in a position to be able to see what DEP is doing overall. She pointed to the MRAB discussions about mining and water quality and indicated none of what is being worked on is presented to WRAC or will be going to WRAC for a recommendation. She stated she isn't certain where the lines are drawn when it comes to water quality, but wanted to provide understanding for why DEP asked WRAC for a vote.

Ms. Gleason expressed that there isn't anybody on WRAC with mining industry background, rather they are all Secretary appointees. Ms. Moses suggested Gary Meritt, who is on WRAC, represents mining and Ms. Gleason shared her thinking is his experience is with power plants.

Ms. Gleason stated she doesn't think WRAC really understands mining or effluent discharges, and the mining space will be most impacted by this regulation going forward at 0.3 mg/L, and toxic, which she questions.

The Board proceeded to vote on the motion to disagree with the DEP's recommendation to advance the rulemaking to the EQB for consideration and encouraged DEP work with industry members to develop an alternative solution. The motion passed with 8 yea, 1 abstention, and 1 nay.

Updates from BAMR

Mr. Bradley updated the Board on the most recent current projects by BAMR, as well as the Abandoned Mine Lands (AML) projects that are currently being constructed/reclaimed and, the future projects the Bureau is advancing through the design phase. A complete list of the projects was provided in the Board's meeting materials. For 2020, there were 161 projects covering 521 acres with a cost of \$34.1 million. Currently for 2021, there are 54 completed projects with a \$16.1 million dollar cost. There are 60 active projects with a cost of \$122 million, and 71 future projects with an expected cost in excess of \$97 million.

Updates from the District Mining Offices

Mr. Sammarco updated the Board on the current status of vacancies and workloads in the District Mining Offices. Several vacancies within the DMOs have been filled.

February Deliverables

There were no deliverables requested from the BMP for the next meeting.

OPEN TIME

Adjournment/Next Meeting

The Board adjourned its meeting at approximately 12:35 p.m. The Board will meet again on April 7, 2022 at 10:00 a.m. at the Rachel Carson State Office Building, Delaware Conference Room, 16th Floor, 400 Market St, Harrisburg, PA 17101. The meeting will also be available through Microsoft Teams.