

# Responsiveness Summary

## Eagle Mine LLC-Humboldt Mill – No. MI0058649

The National Pollutant Discharge Elimination System (NPDES) permit was issued on April 7, 2015 (copy attached). An NPDES permit may be contested within 60 days of issuance by filing a petition for Contested Case Hearing with the State Office of Administrative Hearings and Rules of the Michigan Department of Licensing and Regulatory Affairs. A petition may be obtained from the Internet at <http://www.deq.state.mi.us/documents/deq-oah-eqp0201.dot>.

Below is a summary of comments received during the public notice period and at the Public Hearing regarding the reissuance of the Eagle Mine LLC-Humboldt Mill NPDES permit. The Michigan Department of Environmental Quality (MDEQ), Water Resources Division (WRD), staff responses follow the comments and are bolded.

1. Comment: The draft permit does not have temperature limits or monitoring requirements. The only temperature data available ranged from 75 to 78 °F, which would be harmful to the receiving waters.

**Response: The wetlands are designated as warmwater and the Middle Branch Escanaba River (MBER) is designated as coldwater. The application indicated the maximum monthly average temperature of 32 °F for the winter and 50 °F for the summer. Both these maximum temperatures are below any of the temperature standards described in Rule 323.1075(1)(b) for coldwater streams and Rule 323.1075(3)(a) for warmwater streams. It should be noted that these temperature rules do not include any standards for wetlands; however, we conservatively assumed that the warmwater stream standards would apply to the wetlands.**

**The temperature rules do not explicitly state standards for daily maximum temperature. The application indicated the maximum daily temperature of 50 °F in the winter and 80 °F in the summer. These maximum temperatures have been evaluated to determine if they would exceed the temperature standards referenced above at the edge of the mixing zone. They are both found to not raise the temperature above the temperature standards within and at the edge of the mixing zone for both the wetlands and the MBER.**

**The source of the temperature data mentioned in public comment (75 to 78 °F) was not identified. We believe that temperature data came from the toxicity testing results. The temperatures reported in the toxicity testing were the temperatures of the test samples in the laboratory and not of the discharge.**

**Since neither the processes that generate the wastewater or the treatment of the wastewater would add minimal or no additional heat to the wastewater and considering the further dissipation of heat during the travel in the pipeline prior to discharge at Outfall 002, there should not be any concerns with temperature. Nevertheless, the draft permit has been revised to include continuous temperature monitoring requirements.**

2. Comment: Outfall 002 does not discharge to the wetland contiguous to the Middle Branch Escanaba River but to the Middle Branch Escanaba River from a pipe through a ditch.

**Response:** The discharge pipe ends at the wetland, which is considered the receiving water. The wetland is still considered the receiving water even if there is a ditch or drainage channel at the point of discharge from the wetland to the river.

3. The location of Outfall 002 is not clearly defined.

**Response:** The pipeline for Outfall 002 will discharge to an area upgradient of the wetland adjacent to the Middle Branch Escanaba River (MBER). Flow dissipation will be accomplished in an approximately 40-foot length rip-rap apron, which slopes down to the wetland fringe to promote a slow, gradual entry of water into the wetland. This design also intended to allow some natural infiltration into the sandy outfall and to limit or eliminate transport of sediment into and through the wetland. The distance from the wetland fringe to the bank of MBER is about 150 feet depending on stage of the river.

4. The fact sheet says that the Middle Branch Escanaba River is a warm-water stream.

**Response:** The fact sheet states the receiving water is the wetland contiguous to the Middle Branch Escanaba River and is protected for warm-water fish. The fact sheet does not provide any information on the Middle Branch Escanaba River which is protected for cold-water fish.

5. Water reuse should be considered before discharge to surface waters.

**Response:** The permittee has already evaluated water minimization and reuse/recycle. Some water will be reused in the process.

6. The fact sheet indicates that untreated water may be discharged, which will further degrade the river.

**Response:** Bypass of the treatment system is allowed only if the discharge has been determined to meet the requirements specified in the permit. The discharge limits are based on promulgated water quality standards which are sufficient to protect all surface waters.

7. Comment: Does the treatment plant have the capacity to treat 2.8 million gallons per day?

**Response:** The permittee has clarified and amended the application for a total maximum daily discharge volume of 1.4 million gallons from Outfalls 001 and 002. The treatment plant has the capacity to treat all the wastewater prior to discharge. The issued permit has been revised to authorize a combined total maximum of 1.4 million gallons per day from Outfalls 001 and 002.

8. Comment: Most discharge should go through Outfall 002 and Outfall 001 should not exceed 500 gallons per minute to prevent adverse impacts to the wetland bank. Monitoring and control measures should be considered to assure water flowing eastward to the Middle Branch Escanaba River.

**Response:** The following modifications were made to the issued permit in response to this concern:

- a) The discharge through Outfall 001 is limited to 569 gallons per minute as an annual average
- b) Lundin will also be required to conduct a study to determine the appropriate flow limits and discharge location for long term protection of the wetland mitigation bank.

9. Comment: The Escanaba River watershed has numerous listing in Michigan's Integrated Report for water quality impairments and designated uses that are currently not being supported. Further degradation should not be allowed that would adversely affect water quality in the receiving waters.

**Response:** Staff reviewed the most recent Integrated Report to determine if any designated uses were impaired in streams that would likely receive effluent from the Humboldt Mill. Below is the analysis of this information following the river flow from the Middle Branch Escanaba River upstream of the outfalls downstream to the mouth of the Escanaba River:

**Assessment Unit ID (AUID) 040301100101-01 (Includes Brown Creek, Halfway Creek, Kipple Creek, Koops Creek, Middle Branch Escanaba River, and Second River) and 040301100105-01 (Includes Bell Creek and the Middle Branch Escanaba River)**  
The Fish Consumption designated use is listed as not supporting due to PCBs in the water column. A Total Maximum Daily Load (TMDL) was scheduled to be developed in 2014.

**AUID 040301100105-02 (Greenwood Reservoir)**  
The Fish Consumption designated use is not supporting due to mercury in the fish tissue. A TMDL was scheduled to be developed in 2014.

**AUID 040301100111-01 (Includes Bear Creek, Flopper Creek, and Middle Branch Escanaba River)**  
The Fish Consumption designated use is listed as not supporting due to PCBs in the water column. A TMDL was scheduled to be developed in 2014.

**AUID 040301100111-02 (Cataract Basin)**  
Nothing is listed as impaired.

**AUID 040301100304-02 (Boney Falls Reservoir)**  
Nothing is listed as impaired.

**AUID 040301100307-01 (Includes the Escanaba River, Indian Creek, and Mosquito Creek)**  
The Fish Consumption designated use is listed as not supporting due to PCBs in the water column. A TMDL was scheduled to be developed in 2014.

**AUID 040301100308-02 (Escanaba River from Interstate Road to mouth)**

**The Fish Consumption and Other Indigenous Aquatic Life and Wildlife designated uses are listed as not supporting due to PCBs and total mercury in the water column. A TMDL was scheduled to be developed in 2014.**

**Statewide TMDLs have been drafted for PCBs and mercury and have gone through a public comment period. The PCB TMDL has been submitted to USEPA and is currently being reviewed. The mercury TMDL is currently being revised based on public comments and is scheduled to be submitted to USEPA in 2015. Further information about these TMDLs can be found at the following link:**

**[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3686\\_3728-301290--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3686_3728-301290--,00.html)**

**Specific comments on the Mercury TMDL should be directed to Ms. Sylvia Heaton, Department of Environmental Quality, Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909 7958, or via e-mail at [heatons@michigan.gov](mailto:heatons@michigan.gov).**

**Specific comments on the PCBs TMDL should be directed to Ms. Marcy Knoll, Department of Environmental Quality, Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909 7958, or via e-mail at [knollm@michigan.gov](mailto:knollm@michigan.gov).**

**The discharges would have minimal or no adverse impact on designated uses because PCBs are not expected to be present in the discharges and total mercury is limited to 1.3 ng/l, which equals to the water quality standard.**

10. Comment: Do not authorize the discharge of radioactive water from the uranium mining and processing to the MBER.

**Response: Humboldt Mill processes copper and nickel ores only. Uranium is not being processed and the process wastewater generated is not radioactive. The uranium found at Eagle Mine was not associated with material being processed at Humboldt Mill.**

11. Comment: The MBER should be protected for cold-water fish. How would a discharge of a minimum 4 mg/l of dissolved oxygen (DO) be protective of the 7 mg/l DO standard for cold-water fish?

**Response: Staff modelled the proposed discharge from Outfall 002 to meet the cold-water DO water quality standard of 7 mg/l in the MBER. The results showed that the DO water quality standard would be met in the MBER. In this case the 4 mg/l DO limit is for the protection against nuisance conditions in the wetland.**

12. Comment: With respect to the wetland being protected for warm-water fish and the Middle Branch Escanaba River (MBER) being protected for cold-water fish, are there additional numeric or narrative standards that would have to be met if Outfall 002 was considered a direct discharge to the MBER?

**Response: The applicable water quality standards are different for warm versus cold water receiving streams. The proposed limits and requirements in the draft permit would be protective of both the wetland and the MBER. Some limits are more restrictive than**

**required to protect the MBER because of no dilution allowance in the wetland. For a direct discharge to MBER, the rules require that dilution be accounted for when calculating effluent limits.**

13. Comment: The processing of the draft permit did not follow the provisions of the Clean Water Act, the Memorandum of Agreement between the Environmental Protection Agency (EPA) and Michigan, and the EPA's Great Lakes Initiatives rule at 40 CFR Part 132, Appendix E (Great Lakes Water Quality Initiative Antidegradation Policy).

**Response: The MDEQ believes the draft permit has been processed consistent with all the rules and regulations applicable to the NPDES permit program. Please see response to comment # 17 on antidegradation below.**

14. Comment: Under treaty with the United States government, the Keweenaw Bay Indian Community (KBIC) retains rights, which include hunting, fishing, gathering, trapping, harvesting of wildlife and plants that should be protected.

**Response: The draft permit includes limits and requirements in compliance with the promulgated rules and water quality standards. These rules and standards have been reviewed by the EPA are sufficient to protect the designated uses, which are described below. We believe that protection of these designated uses protect the treaty rights that are relevant to this permit.**

**R 323.1100 Designated uses.**

**Rule 100. (1) At a minimum, all surface waters of the state are designated and protected for all of the following uses:**

- (a) Agriculture.**
- (b) Navigation.**
- (c) Industrial water supply.**
- (d) Warmwater fishery.**
- (e) Other indigenous aquatic life and wildlife.**
- (f) Partial body contact recreation.**
- (g) Fish consumption.**

**(2) All surface waters of the state are designated and protected for total body contact recreation from May 1 to October 31 in accordance with the provisions of R 323.1062. Total body contact recreation immediately downstream of wastewater discharges, areas of significant urban runoff, combined sewer overflows, and areas influenced by certain agricultural practices is contrary to prudent public health and safety practices, even though water quality standards may be met.**

**(3) If designated uses are interrupted due to uncontrollable circumstances during or following flood conditions, accidental spillages, or other emergencies, then notice shall be served upon entities affected by the interruption in accordance with procedures established by the department. Prompt corrective action shall be taken by the discharger to restore the designated uses.**

**(4) All inland lakes identified in the publication entitled "Coldwater Lakes of Michigan," as published in 1976 by the department of natural resources, are designated and protected for coldwater fisheries.**

**(5) All Great Lakes and their connecting waters, except for the entire Keweenaw waterway, including Portage lake, Houghton county, and Lake St. Clair, are designated and protected for coldwater fisheries.**

**(6) All lakes listed in the publication entitled "Designated Trout Lakes and Regulations," issued September 10, 1998, by the director of the department of natural resources under the authority of part 411 of 1994 PA 451, MCL 324.41101 et seq., are designated and protected for coldwater fisheries.**

**(7) All waters listed in the publication entitled "Designated Trout Streams for the State of Michigan," Director's Order No. DFI-101.97, by the director of the department of natural resources under the authority of section 48701(m) of 1994 PA 451, MCL 324.48701(m) are designated and protected for coldwater fisheries.**

**(8) All surface waters of the state that are identified in the publication "Public Water Supply Intakes in Michigan," dated December 9, 1999, are designated and protected as public water supply sources at the point of water intake and in such contiguous areas as the department may determine necessary for assured protection. In addition, all Michigan waters of the Great Lakes and connecting waters shall meet the human cancer and human noncancer values for drinking water established pursuant to R 323.1057(4). The requirement to meet the human cancer and human noncancer values for drinking water shall not apply to pollutant loadings from a tributary in an area where a tributary mixes with the Great Lake, connecting water, or a waterbody that has been designated for use as a public water supply source, unless a water intake was located in this area on April 2, 1999.**

**(9) Water quality of all surface waters of the state serving as migratory routes for anadromous salmonids shall be protected as necessary to assure that migration is not adversely affected.**

**(10) Effluent discharges to wetlands that result in water quality that is inconsistent with that prescribed by these rules may be permitted after a use attainability analysis shows that designated uses are not and cannot be attained and shows that attainable uses will be protected.**

**(11) After completion of a comprehensive plan developed under R 323.1064(3), upon petition by a municipality or other person, and in conformance with the requirements of 40 C.F.R. §131.10 (1995), designation of uses, which are adopted by reference in R 323.1117, the department may determine that attainment of the dissolved oxygen standards of**

**R 323.1064(1) is not feasible and designate, by amendment to this rule, a limited warmwater fishery use subcategory of the warmwater fishery use or a limited coldwater fishery use subcategory of coldwater fishery use. For waters so designated, the dissolved oxygen standards specified in the provisions of R 323.1064(2) and all other applicable standards of these rules apply. For waters so designated, the dissolved oxygen standards specified in**

**R 323.1064(1) do not apply. Not less than 60 days before a municipality or other person files a petition pursuant to this subrule, a petitioner shall provide written notice to the department and the clerk of the municipalities in which the affected waters are located of the petitioner's intent to file a petition.**

15. Comment: The draft permit proposes increases of many limits in the current permit. The Clean Water Act prohibits less stringent limits in reissued or modified permits.

**Response:** The federal regulations include provisions to allow increases in limits if justified. Please also see response to comments #17 below regarding antibacksliding regulations.

16. Comment: Limits should be added for sulfate and total dissolved solids.

**Response:** A surface water quality standard has not been promulgated for sulfate. Total dissolved solids has been further evaluated and a monthly average limit of 500 mg/l and a daily maximum limit of 750 mg/l have been added to the draft permit.

17. Comment: The antidegradation demonstration is outdated, inadequate, and noncompliant with Rule 1098, 40 CFR Part 131.12, and Part 132, Appendix E. Social and economic developments will not be foregone if the proposed increase is not allowed. How do the proposed increases on discharge limits meet antibacksliding regulations?

**Response:** Staff of the WRD Permits Section evaluate antidegradation demonstrations based on Rule 98 of the Part 4 Rules. This rule has been determined by the EPA to be consistent with 40 CFR Part 131.12 and Part 132. These rules and regulations do not provide precise descriptions on social and economic benefits. Therefore, staff recognizes the review is subjective and open for interpretation. Based on our evaluation, the demonstration meets the requirements of the state rule and federal regulation on antidegradation.

This increased discharge is necessary in order for the facility to operate as originally intended. Their original flow numbers were determined to be insufficient and have been adjusted as part of this reissuance. Some of the social and economic benefits (employment increases; industrial, commercial, or residential growth; environmental or public health problem corrections; and economic or social benefits to the community) included in the demonstration would be foregone if the facility is unable to operate continuously.

The antibacksliding regulations do not apply to increases in concentration because the proposed increases are based on either revised water quality standards or a more representative hardness value for determining water quality standards.

In response to comments, Lundin provided additional clarification on this matter on January 27 and March 20, 2015. This information is presented in the following paragraphs.

**Antidegradation Demonstration –** In correspondence subsequent to our February 2014 application, Eagle provided an updated version of our antidegradation statement which was revised based on an economic and social study conducted in 2012 (published in 2013). I reviewed the statement and it remains accurate in terms of the economic benefits to Marquette County. The study found that the tax benefits to Humboldt and Michigamme Townships is more than \$40 million in severance taxes in addition to the other benefits discussed in our statement. Eagle's request for an increased discharge is primarily because actual data collection (post-cut-off-wall-completion, pre-milling activities) of inflows

**demonstrates that it is difficult to manage the inflows to the HTDF under the current limit. Economic benefits to the area would be forgone if Eagle continued to be limited to the existing discharge because natural inflows exceed the permitted outflow and the increase is required to properly manage the HTDF. The natural average annual inflows are estimated at nearly 750 gpm. Tailings water and volumetric displacement is a negligible portion (50-70 gpm) of the balance. As such, stopping milling operations is insufficient to compensate if the increase was not allowed.**

**Michigan's Antidegradation requirements obligate a permit applicant to describe social and economic benefits that would be foregone if the new or increased discharge was not permitted. In the case of an increased discharge (including increased flows), this analysis is not limited to a narrow inquiry as to whether a project or operation could continue without the increased discharge. Rather, subsection 4(a) of Rule 1098 specifically recognize factors such as employment reduction avoidance, efficiency increases, and environmental correction as recognized social and economic benefits, along with the more traditional measures of benefit such as employment increases and production increases. MACR 323.1098 (4)(a).**

**In this case, the increased flow authorization is needed to accommodate and manage natural inflows into the Humboldt TDF that historically flowed into downgradient riparian wetlands prior to the construction of the facility cut-off wall. Thus, the flow authorization will provide Eagle with the ability to compensate for and avoid the potential for any future negative impacts to riparian wetlands caused by changes in the glacial flow regime. The increased flow authorization will also allow Eagle to operate the WWTP more efficiently and effectively by avoiding the need to stop or modify WWTP operations to manage natural inflows. Avoiding disruptions in the WWTP operations would, in turn, avoid disruptions in mill production and avoid the potential for employment reductions. Eagle believes that all antidegradation requirements have been met.**

18. Comment: Monitoring of the discharge should be more frequent than proposed in the draft permit.

**Response: The monitoring frequency proposed in the draft permit is consistent with the guidance from the EPA.**

19. Comment: The change of not publishing public notice in a local newspaper is inconsistent with Michigan law.

**Response: This method of public notice meets the minimum requirements specified in the rules.**

20. Comment: The maximum authorized flow volume will have adverse impacts to the MBER during months of low flow.



**Response:** As issued, the permit authorizes 1.4 MGD, half of the amount in found in the public noticed draft permit. Additionally, a discharge quantity at or near the maximum authorized volume will only occur when there are significant inputs from storm water/snowmelt to the tailing disposal facility. The flow in MBER will also be increased during such events.

21. Comment: The fact sheet states that wetland contiguous to the MBER is protected for warm-water fish, other indigenous aquatic life, and wildlife. As of 2010, this wetland has not been assessed for cold-water or warm-water fish, or other designated uses including fisheries, recreation, and fish consumption.

**Response:** All surface waters are protected for warm or cold-water fish (depending on the designation of the waterbodies), other indigenous aquatic life and wildlife. Other designated uses including agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, partial body contact recreation, total body contact recreation (May through October), and fish consumption are applicable to wetlands.

22. Comment: The EPA Web site indicated non-compliant for 12 consecutive quarters (October 21, 2011, through October1, 2014), with serious reporting problems with this facility. Further, it is not clear whether the State or the EPA has the responsibility of oversight on this facility.

**Response:** The facility initiated discharge in August 2014, and has submitted all required discharge monitoring reports. It is not clear what caused the non-reporting status, but it is most likely due to some system errors. The State of Michigan has been and will continue to be the lead agency with respect to facility compliance.

23. Comment: This site has a long history of industrial activity that can be traced back to the mid-1800s. An historic iron ore beneficiation plant, the "Edison Magnetic Separator Works" was in operation by 1889, the adjacent Argyle Mine which dates to 1865, and before that the Edwards Mine. The potential environmental contaminations from these previous operations have not been addressed.

**Response:** The potential concerns resulting from previous industrial activities are beyond the scope of the NPDES permit. The EPA and the MDEQ are reviewing historic contamination on this site under appropriate legal authorities.

24. Comment: The EPA has been requested to assess this site for classifying as a Superfund Site.

**Response:** The EPA is in the process of making that determination and a decision is expected in the near future.

25. Comment: The impacts of Outfall 002 discharges to nearby shallow (20-40 feet) residential wells have not been assessed.

**Response: Outfall 002 will discharge to the wetland and flows to the MBER. No impacts to the residential wells are expected.**

26. Comment: The receiving water in the application for Outfall 002 is listed as “Middle Branch of the Escanaba River” and no mention of wetland.

**Response: The original application requested for the proposed discharge of Outfall 002 to the MBER. An amendment to the application was submitted on October 8, 2014, which requested to change the receiving water of Outfall 002 to a wetland contiguous to the MBER.**

27. Comment: The public notice says Outfalls 001 and 002 are identical.

**Response: The wastewaters proposed to be discharged through Outfall 002 are identical to wastewaters being discharged through Outfall 001. Otherwise they are two different outfalls discharging at different locations.**

28. Comment: The condition in the draft permit regarding the option to provide additional toxicity data for total cobalt and total lead due to a lack of assesses species should suggest the river requires additional protection – not additional metals.

**Response: The current water quality standards for total cobalt and total lead were established using incomplete set of toxicological data and defined as tier II. Additional toxicity data would reduce the uncertainties and allow the development of water quality standards defined as tier I, which more accurately represents potential toxicity. The tier I water quality standards may be more or may be less restrictive than the tier II water quality standards.**

29. Comment: Why is total residual chlorine (TRC) limit added to the draft permit?

**Response: TRC limit is required if chlorine is used and discharged. This is consistent on all NPDES permits.**

30. Comment: Many limits have been significantly increased in loadings and/or concentrations.

**Response: All loading limits have been revised based on the increased maximum authorized flow. The changes in concentration limits are based on either revised water quality standards or revised hardness values used to calculate limits. The discharge hardness accurately represents the conditions organisms exposed to the discharge will experience.**

31. Comment: Pollutant limits cannot be set until all impaired waters have been assessed and TMDLs approved to address the nonattainments.

**Response: Limits are based on promulgated water quality standards. These standards are sufficient to protect all designated uses.. Response to comment 9 lists all downstream TMDLs. Mercury is the only substance addressed by a TMDL in this**

**discharge. The effluent limit for mercury is equal to the water quality standard, which is acceptable under any TMDL scenario.**

32. Comment: The discharge causes flooding of private properties.

**Response: The proposed new Outfall 002 and the flow limits in place for outfall 001 will provide relief of flooding. These limits have been discussed with the affected property owners.**

33. Comment: Do wetlands provide filtering and is that considered in developing limits and requirements in the draft permit? Will wells be installed to monitor the wetlands?

**Response: Wetlands do remove certain pollutants but this was not considered when developing the permit. The issued permit requires that water quality standards are achieved at the end of the discharge pipe. Monitoring wells are not necessary since the discharge will meet water quality standards.**

34. Comment: Why is Outfall 002 pipeline constructed if this is a draft permit? Why was it not public notice?

**Response: The permittee decided to assume the risk and went ahead with constructing Outfall 002. Discharge from Outfall 002 will not be authorized until the draft permit is issued and becomes effective. The permit for the construction did not require public notice.**

35. Comment: The permit should not be changed so the company can do whatever they want.

**Response: The requirements in permits can be changed to accommodate changes in facility operations as long as the discharges continue to be protective of the receiving waters and comply with the applicable rules and regulations.**

36. Comment: The higher hardness in the discharge will adversely impact the wetland and the MBER.

**Response: There are no promulgated water quality standards for hardness. The established water quality standards for some pollutants (lead, manganese, nickel, barium, beryllium, cadmium, chromium, copper, and zinc) are hardness dependent. Increasing the hardness will have the effect of decreasing the toxicity of these substances.**

37. Comment: The fact sheet only included discharge data from August and September of 2014. Future discharge data should be shared when they become available.

**Response: The monthly discharge monitoring data reported by permittees are public information and available upon request: [DEQFOIA@Michigan.gov](mailto:DEQFOIA@Michigan.gov). The MDEQ is in the late stages of developing a new database that will allow the public to directly access permitting documents and effluent data. It is expected to be functional this fall.**

38. Comment: Limits and/or monitoring requirements should be included for silver, uranium, vanadium, antimony, barium, beryllium, magnesium, tin, aluminum, boron, calcium, chromium, fluoride, iron, lithium, molybdenum, potassium, sodium, thallium, titanium, and strontium.

**Response: The draft permit includes limits for chromium and monitoring requirements for antimony, barium, born, fluoride, lithium, molybdenum, and strontium. Water quality standards have not been promulgated for uranium, magnesium, tin, aluminum, calcium, iron, potassium, sodium, and titanium. Magnesium, calcium, potassium, and sodium are related to total dissolved solids and total dissolved solids limits have been added to the draft permit. The available data on tin, aluminum, and titanium are below detection which represents no concerns. Calcium and iron are at very low concentrations which do not justify any discharge limits or monitoring requirements. There are no data on uranium and no reasons to expect any concerns with uranium (please also see response to comment #10 above). The information available on silver, vanadium, beryllium, and thallium indicate these pollutants are below detection levels. Therefore, there are neither reasonable potentials for these pollutants to exceed the water quality standards that would require discharge limits nor sufficient concerns to include monitoring requirements.**

Other comments unrelated to the NPDES permitting program were also received. They are not included in this summary since they cannot be addressed by this permit.

Prepared on April 6, 2015, by Alvin Lam, Permits Section, WRD, MDEQ