Responsiveness Summary

Deer Lake Area of Concern Draft Final Delisting Report

The Deer Lake Area of Concern (AOC) draft Final Delisting Report was on public notice from June 1 through June 30, 2014. The Michigan Department of Environmental Quality (MDEQ) and the U.S. Environmental Protection Agency (USEPA) held a public meeting in Ishpeming, Michigan on June 17, 2014. Below is a summary of comments received during the public notice period and at the public meeting regarding the draft Final Delisting Report and subsequent removal of Deer Lake from the list of AOCs. In preparing this summary, actual comment language may have been abbreviated, paraphrased, and/or edited for clarity. The MDEQs responses follow the bulleted comments. The MDEQ appreciates the time of those who responded during the public comment period.

1. **Comment** – Mercury levels in Deer Lake fish remain too high for fish consumption, and the downward mercury trend has not continued.

   Response – The draft Final Delisting Report is not intended as a Beneficial Use Impairment (BUI) Removal Recommendation. The Restrictions on Fish and Wildlife Consumption BUI was removed in March 2014, after a multi-year, multi-agency expert review. The data through 2012 does indicate a downward trend in pike. Since it is a trend, without more information we would be speculating if the trend will continue. As part of a separate assessment, the Michigan Department of Community Health (MDCH) has determined that mercury levels in pike and walleye have declined enough to allow for limited consumption. That being said, no fish may be taken from Deer Lake as the Michigan Department of Natural Resources (MDNR) has designated Deer Lake as a catch-and-release fishery only.

2. **Comments** –
   - Mercury levels have stabilized in Deer Lake fish higher than those in fish from reference lakes.
   - Deer Lake advisories are more stringent than other U.P. lakes.

   Response – The draft Final Delisting Report is not intended as a BUI Removal Recommendation. The Restrictions on Fish and Wildlife Consumption BUI was removed in March 2014, after a multi-year, multi-agency expert review. The trend of mercury in the Deer Lake AOC fish was compared to trends in other Great Lakes reference sites; the trend was not intended to compare the amount of mercury in fish tissue, but rather the general increase or decrease. We do not agree that the levels of mercury in Deer Lake fish have stabilized; instead that they exhibit a downward trend. The stringency of Deer Lake fish advisories was not a determining factor as to whether or not the Deer Lake AOC was exhibiting similar mercury trends to other Great Lakes reference sites. Deer Lake fish consumption advisories are similar to those for other lakes in the area. However, one cannot keep/consume these fish due to MDNR management restrictions on the lake.

3. **Comment** – How do mercury levels in Deer Lake fish compare to inland U.P. lakes?

   Response – Mercury levels in Deer Lake fish are comparable to the levels in other U.P. lakes.

4. **Comments** –
   - Lake Michigamme is a suitable control site for the Fish Consumption Beneficial Use Impairment (BUI).
   - The BUI Criteria does not specify what makes for a suitable control site. On what basis were all of the U.P. lakes unsuitable for Deer Lake comparison?

   Response – The draft Final Delisting Report is not intended as a BUI Removal Recommendation. The Restrictions on Fish and Wildlife Consumption BUI was removed in March 2014, after a multi-year, multi-agency expert review. There was a technical team that spent an extensive amount of time looking at reference sites, and in the end could not come to agreement on an appropriate reference site. It was then determined that a trend in fish tissue mercury concentrations was a better fit for the AOC. In particular, Lake Michigamme was ruled out as a control site, as the watershed is larger and dominated by wetlands more so than the Deer Lake watershed. Since wetlands are prime habitat for mercury methylation, bioaccumulation in the receiving waters is naturally higher for the same mercury inputs.

5. **Comments** –
   - People will assume the fish in Deer Lake are safe to eat.
   - Specific wording for the signage regarding Deer Lake fish should be available.
   - If mercury levels are not increasing, the signs should be removed.
   - A fish consumption advisory sign should be posted at the boat launch.

   Response – The MDEQ and the USEPA have been careful to clarify that although the fish tissue trend in pike and walleye indicate that the Deer Lake AOC is similar to other Great Lakes control sites, it does not mean that the fish are safe to eat without restriction. The MDCH has developed updated signs and informational materials for the surrounding area and placement around the lake. Not all species or size classes of fish in Deer Lake are safe to eat, so the signage will be retained. Additionally, the MDNR maintains the Deer Lake fishery as a catch-and-release only, with signage maintained at the boat launch.

6. **Comment** – Deer Lake fishery data should be made public.

   Response – The MDNR does make their fisheries reports available to the public, please contact the Baraga Operations Service Center at 906-353-6651 for the information.

7. **Comment** – A limited harvest of walleye should be allowed for Deer Lake since they appear to be prey-limited.

   Response – The MDNR maintains the Deer Lake fishery as catch-and-release only. All comments regarding the management of the lake's fishery will be considered prior to the MDNRs next management decision in 2017.

8. **Comment** – Mercury does not break down, and stopping the source is insufficient to deal with the contamination.

   Response – Some forms of mercury do have the potential to break down in the environment through methylation. In the case of the Deer Lake AOC, three approaches have been used to address the mercury: 1) reduce and eliminate controllable sources to the AOC, 2) reduce biotic uptake of mercury in sediments through reservoir management, and 3) use monitored natural recovery to allow clean sediment to deposit over a 30-year period.

   Major point sources (Partridge Creek, 21% contribution) have now been eliminated so there is significantly less mercury entering the Deer Lake AOC than when it was originally labeled an AOC. Deer Lake is maintained at a certain water depth using a bottom-draw dam. This allows for controls of lake stratification and oxygenation of sediments, which provides for reduced methylation and subsequently less potential biotic mercury uptake. Finally, surficial mercury contamination will be covered over time through natural deposition of clean sediments. Because these actions are complete and/or underway, the expectation is that the fish tissue mercury levels will continue to decline.

   Additionally, as part of the Lakewide Action and Management Plan (LAMP) for Lake Superior, mercury is listed as one of the nine critical pollutants on which the LAMP program will continue basin-wide work to reduce it in watersheds draining into Lake Superior.

9. **Comments** –
   - How will compliance be monitored after the AOC is delisted?
   - Will sediments be monitored or only lake levels?
   - Who will provide oversight for the monitoring?
   - Clear guidelines and oversight should be provided for the monitoring program.

   Response – Compliance with the Amended Consent Judgment (ACJ) between Cliffs Natural Resources and the MDEQ will be monitored through the Michigan's Water Resources Division. The ACJ includes a sampling routine for various media (water, sediment, and biota) at several locations in the AOC. Existing monitoring programs in the MDEQ-Water Resources Division and the MDNR, such as the Fish Contaminant Monitoring Program, surface water quality assessments, and fish surveys, evaluate lakes across the state on a rotational basis as a means to ensure water quality.

10. **Comment** – The draft Final Delisting Report should address whether Deer Lake can recover to natural (background) mercury concentrations.

    Response – We do not have enough background data to determine mercury concentrations in the Deer Lake impoundment prior to the draining of the lake and subsequent refilling. As local point sources are eliminated, there is reason to expect Deer Lake will naturally recover over time.