

July 7, 2008

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Wisconsin DNR WT/2
P.O. Box 7921
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Re: FMR Comments on Cedar Creek and Milwaukee River (Grafton-Thiensville Segment) PCB TMDL

Dear Valerie,

On behalf of Friends of Milwaukee's Rivers (FMR), we are submitting the following comments on the proposed TMDL for Cedar Creek and the Milwaukee River (North of Thiensville to Grafton), which addresses PCB contamination largely from Mercury Marine and Amcast Industrial. It is our understanding that this TMDL addresses in-stream sediment PCB contamination, external sources of PCBs, and fish tissue PCB contamination. It identifies the maximum allowable load of PCBs that will result in reducing fish tissue concentrations of PCBs and is designed to clean-up the river to an extent that it meets water quality standards. The report also includes proposed actions for reaching the goals for removing PCBs and associated monitoring efforts. We also understand that this TMDL, if approved by EPA, has ramifications on target levels for contaminated sediment clean-up of the associated Cedar Creek Superfund site involving the same responsible parties, even though the TMDL and Superfund boundaries don't perfectly overlap. That said FMR is in support of extending the Superfund boundaries to reach down to the Thiensville impoundment of the Milwaukee River, and to overlap with this proposed TMDL.

Comment: The proposed Sediment Concentration Threshold for PCBs is not protective enough of Cedar Creek and the Thiensville-Grafton segment of the Milwaukee River.

Based on *preliminary* research that FMR has done of other PCB TMDLs throughout North America, we feel that the proposed Cedar Creek sediment concentration threshold (SCT) for PCBs of 0.11 mg/kg (or ppm) is too high--or in other words, not protective enough of Cedar Creek, the wildlife that inhabit it, and the human populations that live adjacent to the Creek or eat the fish from Cedar Creek. While we realize that Cedar Creek currently is 1 of 3 waterbodies in the State with a "do not eat fish at any time" advisory, we have been contacted in the past from out of state fishermen and downstream fishermen that were not aware of this advisory, and have eaten fish likely contaminated with PCBs from Cedar Creek and the downstream portion of the Milwaukee River. Regardless of the advisory, people are eating these fish, and we feel that the proposed level of PCBs in Cedar Creek fish of 0.21 mg/kg (that the SCT was based on), is likewise too high and not protective enough of fish or human populations.

Ideally, the proposed Sediment Concentration Threshold for PCBs in Cedar Creek should be 0 mg/kg, especially since this contamination has a known source and identified responsible parties. While we understand that reaching a zero discharge level *may* not be possible for large areas of contamination such as the Fox River, we feel that a 0 mg/kg limit is an achievable target on Cedar Creek. Although, that said, our research has shown that other areas of the country have

much lower SCTs. The sediment objective for San Francisco Bay's PCB TMDL was 1 µg/kg or 0.001 mg/kg, which is several orders of magnitude below the proposed Cedar Creek SCT of 0.11 mg/kg. Likewise, in Ontario, SCT levels are established at 0.01 mg/kg for "no effect" on wildlife and 0.07 mg/kg or ppm for "low effect"—higher SCTs are considered to have higher impacts on water quality and wildlife (see <http://www.ene.gov.on.ca/envision/gp/B1-3.pdf>).

Comment: The proposed Fish Tissue Targets for PCBs for Cedar Creek and the Thiensville-Grafton segment of the Milwaukee River are not protective enough. Better Assumptions are needed for establishing fish tissue targets for PCBs for the proposed TMDL.

We feel that the proposed fish tissue target for PCBs in Cedar Creek fish of 0.21 mg/kg (that the SCT was based on), is likewise too high and not protective enough of fish or human populations. It is also much higher than the standard used in other areas of North America. The San Francisco Bay TMDL was backed out from a fish tissue target of 10 µg/kg wet weight for specific, regularly consumed fish (shiner surfperch and white croaker) or 0.01 mg/kg. This target is also vastly more protective than the proposed target for Cedar Creek of 0.21 mg/kg. The fish tissue target in San Francisco was based on increased cancer risk level of 1 in 100,000 assuming a mean body weight of 70 kg per person and a fish consumption rate of 0.032 kg/day (which was based on actual Bay fish consumption data). Likewise, Georgia has a fish tissue target for PCBs of 0.1 mg/kg, which is about half of the proposed fish tissue target for Cedar Creek and closer to the Fox River fish tissue goal of 0.14 mg/kg. Furthermore, the PCB Sediment Quality Guideline for Wisconsin is 0.06 mg/kg (although this guideline addresses benthic organisms and not fish). Given this, we feel that the proposed fish tissue target for Cedar Creek should be much lower than that proposed, and are confused that the DNR would use the proposed Fox River SCT and not their proposed fish tissue target. Why can Cedar Creek fish be more contaminated with PCBs than Fox River fish?

Although, FMR realizes that there is probably little to no fish consumption data for Cedar Creek largely because the public has been discouraged from eating any fish at all due to the PCB contamination, we still feel that the approach for determining the target was very lax. We understand that the 0.21 mg/kg standard was based on as estimated "1 meal per month" fish consumption advice for PCBs that has been used by Wisconsin to issue fish consumption advisories in the past according to the "Protocol for a Uniform Great Lakes Sport Fish Consumption Advisory" (Anderson *et al.* 1993); however, we feel that this standard is out of date and should be readdressed. FMR strongly encourages DNR to ensure that the assumptions used in the fish tissue target for Cedar Creek are based on current science and factor in actual fish consumption values for our area if possible and levels of risk. This has been established in other parts of the country of ensuring an decreased risk of 1 in 100,000 or 1 in 1,000,000 for eating contaminated fish—or another standard that DNR can show protects the most vulnerable populations in our area that eat fish in Cedar Creek and the downstream Milwaukee River for subsistence (much more frequently than one meal per month). Cedar Creek and Milwaukee River fish from the Thiensville-Grafton area are travelling to downstream portions of our watershed, where people eat fish much more frequently than one meal per month in many cases. The proposed fish tissue targets seem vastly higher than those being used in other areas of the

country, do not seem based on current scientific literature (other than a 1993 protocol), and should likewise be reduced significantly.

Comment: FMR is concerned about extrapolating Fox River PCB data and models for Cedar Creek and the Grafton-Thiensville portion of the Milwaukee River

We understand that the WDNR used the models developed for the Fox River clean-up area to estimate the risks posed by these TMDL targets for PCBs, and that the agency does not have funds to do a Cedar Creek specific model. The 0.11 mg/kg SCT was based on the work that has been done determining the Fox River threshold and the Fox SCT was designed to meet a fish tissue target of 0.14 mg/kg, which is more protective than the proposed Cedar Creek fish target. Thus, we understand that the WDNR feels that due to a certain margin of safety allowed under the TMDL process that using the Fox River model data is justified, and will meet the proposed fish tissue target of 0.21 mg/kg, which is significantly higher (as mentioned above) than the fish tissue standard for the Fox River.

We can not think of any other justification for this decrease in the fish tissue target for PCB removal other than an economic one? We are still unclear how the 0.21 target was chosen, instead of the more protective 0.14 from the Fox River (which many scientists think is also not protective enough of human health). Given that Cedar Creek is a vastly smaller watershed than the Fox River, we don't feel that using the Fox River model to estimate risk in this system is even appropriate. The cost requirements of removing PCBs in the Fox River system as opposed to the Cedar Creek system are vastly increased—as the area affected is much larger and PCBs more dilute. We acknowledge that Mercury Marine has already spent over \$8 Million dollars cleaning up the Ruck Pond, and that they are largely bearing the cost of the clean-up at this point, since Amcast Industrial has declared bankruptcy. However, since a TMDL is supposed to be driven by science and not economics, we don't feel that the economic argument should be weighed in here, if that indeed is coloring this analysis. Furthermore, 90% of the contaminated sediments are presently upstream of the Amcast discharge point—most being contained in the Columbia and Wire & Nail Ponds. We do acknowledge that cost is a factor and understand that cost will be considered as part of the Superfund remedial investigation and feasibility process. However, we would encourage WDNR to enact a stricter SCT and fish tissue target for this proposed TMDL, and to develop a model specific for Cedar Creek if there is enough data to do so. This is not recommended in an effort to delay this TMDL process, but to ensure that the eventual clean-up targets are adequate to protect water quality, wildlife, and human populations.

Comment: The proposed TMDL document does not adequately address potential PCB sources from Publicly Owned Treatment Works (POTWs).

The TMDL document notes that the Cedarburg Wastewater Treatment Facility is the only point source located within the impaired section of Cedar Creek, and they don't currently discharge PCBs into the Creek. The footnote mentions that the POTW does not discharge “detectable” limits of PCBs in their effluent, and thus are in compliance and do not have PCBs. It also notes that PCBs were not detected in the most recent effluent samples in December 2007. Likewise, the report notes that the Village of Jackson POTW had no PCBs detected in the biosolids and thus is not expected to generate PCBs.

Although POTWs are not original sources of PCBs, they do act as conduits for PCBs that have been inadvertently or deliberately introduced into sewer systems over the years. Not knowing what method is required for PCB testing at these plants, it is impossible for us to know whether or not past monitoring has been sufficient to adequately determine the sources of PCBs from these plants. Based on research in other areas of the country, it has been found that often POTWS are getting “non-detects” because they are only using a 0.5 ug/L detection limit, and thus there isn’t enough data to accurately estimate loading.

Thus we would recommend that (if not already doing so) POTWs use Method 1668A to measure PCB concentrations in their effluent. Although this test is expensive, it can achieve a pg/L detection limit as opposed to a 0.5 ug/L detection limit, and thus further verify that these plants are not a definitive source of PCBs. There is a clear relationship between treatment and PCBs concentrations, and these POTWs could still be a significant source of loading based on the industrial history of the area. The Delaware River PCB loading study (Available at <http://www.state.nj.us/drbc/regs/pcb-new.pdf>.) has compelling information in it that demonstrates that fish contamination in their area is not only due to “historic” sediment contamination, but is actively entering the waterways from treatment plants on a fairly regular basis. Given the small number of facilities discharging to Cedar Creek (and the fact that there are separate sewers and not combined sewers) this would seem to be a worthwhile and not overly expensive precaution. Likewise, we’d encourage that similar monitoring of other potential sources such as the Quarry pond, Wilshire stormwater basin, and nearby storm sewers be analyzed using the same test to ensure that they are not actively contributing PCBs to the rivers during dry or wet weather. It is unclear whether or not this analysis has been done.

Comment: WDNR should provide more meaningful opportunities fore public comment on proposed TMDLs

It is our understanding that a large part of any TMDL process is eliciting public opinion on proposed clean-up standards and getting community support behind a plan for cleaning up our waterways. FMR was very disappointed by the lack of meaningful public participation in the proposed Cedar Creek TMDL.

While FMR has been largely keeping updated of the process, it is clear that most of the attendees at the public hearing on June 5, 2008 at the Cedarburg Police Department have not been. FMR knew very little about this TMDL process until we were invited to the public meeting. We were also very heartened and affected by public comments from adjacent residents that have been largely unable to conduct erosion control efforts, streambank stabilization, to plant gardens, or even conduct routine maintenance on parts of their riparian properties due to the current PCB contamination in the creek and adjacent floodplains. While we understand that the DNR is not in charge of the Superfund efforts, DNR does have significant oversight and is leading the process to get this Creek clean. We feel, in retrospect, that there should have been much more than a single public hearing to elicit feedback from these owners as well as other stakeholders in this TMDL process. It is clear that many attendees were very frustrated. The information is so technical, that it took most of the meeting for participants to try to understand the process let alone provide meaningful comment. It is also our understanding from conversing with colleagues throughout the country that most TMDL efforts involve creation of technical advisory committees and much more collaboration with the local communities and stakeholders.

Furthermore, there was a noticeable absence of residents from the Grafton and Thiensville areas, which are downstream of Cedar Creek and also affected by this TMDL.

We likewise encourage DNR and EPA to look at innovative ways of cleaning up this PCB problem and implementing this TMDL (and subsequent Superfund efforts) so that residents don't have to wait several more decades before they can safely and fully use their properties.

Comment: FMR requests that the proposed TMDL consider recreational exposure to PCBs and risk to human health and safety posed by proposed PCB levels.

It was our understanding, as explained at the public meeting, that the WDNR did not consider recreational effects of the proposed TMDL because the State of Wisconsin doesn't currently have water quality standards for recreation (or at least for PCBs—there are standards for bacteria). This is of little consolation to the fishermen, paddlers, and residents that are using Cedar Creek and the downstream portion of the Milwaukee River for aquatic recreation. Indeed, the Thiensville Dam impoundment is often used for swimming, waterskiing, boating, and other recreational activities, as is the entire proposed Milwaukee River segment. I would argue that most people in the immediate areas of Cedarburg, Grafton, Thiensville, and Mequon have a much greater chance of coming into contact with PCBs through recreational exposure than from eating contaminated fish (downstream Milwaukee populations more likely affected by fish contamination). Thus, we would encourage DNR and EPA to consider recreational exposures in this TMDL analysis to ensure that proposed clean-up levels and loading levels are protective of human health and safety.

Thank you for consideration of these comments. Please feel free to call with any questions or comments at (414) 287-0207 ext. 29.

Sincerely,

Cheryl Nenn
Milwaukee Riverkeeper

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