

## Thompson, Matthew A - DNR

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**From:** Thompson, Matthew A - DNR  
**Sent:** Thursday, August 13, 2020 5:13 PM  
**To:** Patrick Peckham; Kevin Fabel  
**Cc:** Rozeboom, David B - DNR  
**Subject:** Parks Committee Sediment Sampling Dialogue  
**Attachments:** Sediment Sampling July2020.pdf

Pat and Kevin-

Thanks for taking time to discuss the proposal to sample sediment in Wisconsin River near the Wauleco project site this week. Local media coverage regarding the August 3<sup>rd</sup>, 2020, parks committee vote included a comment that concerned members of the public, as well as those of us representing the Department of Natural Resources (DNR).

The statement that the DNR would not allow a sample of the sediment is incorrect. The DNR strongly supports sediment sampling at response action sites throughout the state as well as at sites where contaminated sediment may pose a risk to human health and the environment. While state statute says that a permit is required when material is removed from a navigable waterway, the intent of such statute is not to dissuade sediment sampling from occurring. I understand that Mr. Fabel was referencing Wis. Stats. Ch. 30.20 when offer guidance to representatives of the City- this chapter is best applied to dredging activities, rather than sediment sampling. If the City or its designee decided to sample the sediment a permit would likely not be required and in this case, the DNR would support such activities.

If questions regarding DNR procedures or more general field questions come up please contact me or another DNR representative. It is important to me that you get help navigating our rules and regulations if needed.

Best regards,  
Matt

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### Matt Thompson

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## Jamie Polley

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**From:** Kevin Fabel  
**Sent:** Monday, July 27, 2020 9:30 AM  
**To:** Jamie Polley  
**Cc:** Patrick Peckham; Eric Lindman  
**Subject:** Testing of Wisconsin River Sediment

Jamie,

Alderman Peckham asked if I would comment on the idea of testing the sediment of the Wisconsin River as it will be discussed by his Committee on August 3<sup>rd</sup>.

My comments on the matter are as follows:

It is my understanding that at the previous meeting, an initial discussion of taking a grab sample of surface Wisconsin River water and testing it for Pentachlorophenol morphed into a discussion of testing sediments in the river bed, not only for Penta, but for other historical industrial pollutants as well. My comments below will discuss several points as it relates to this topic.

The first point is whether or not it is legal to do such an activity. Sediment testing, because it would be occurring in the Wisconsin River would be prohibited by the State of Wisconsin. The Wisconsin River, being a public navigable waterway, is considered a "Water of the State" and "owned" by the State Of Wisconsin even though it is within city limits. Any activities conducted in the river or on the bed of such river must be allowed by statute or permitted by the state in order to be allowed and not illegal. Disturbing the river bed to conduct sampling in the river would be considered one of these prohibited activities.

Disturbing the river bed is prohibited for a number of reasons, the first being the health of river ecosystems. Many insects, crustaceans, other invertebrates, fish and amphibians depend on the top layer of river bed to lay eggs and for their young to develop and the also rely on the cover (weeds, stumps, brush and rocks) found in/on the river bed to hide from predators and/or to hunt for food. Sampling of the river bed has the potential to disrupt this sensitive layer with the amount of harm being proportional to the amount of sampling and disruption.

The second concern would be the quality of the river water in the immediate area as it relates to swimmable/fishable criterion such as water clarity and dissolved oxygen levels. River bed sampling would be very disruptive to the sediment of the river and greatly decrease water clarity by "muddying the water" in the immediate sampling area with release of particulate matter or total suspended solids (TSS) and would also release materials from the bottom containing biological oxygen demand (BOD). TSS and BOD are highly regulated pollutants by WDNR in order to protect water quality. High TSS levels impede a fish's ability to find prey to eat and BOD causes microorganisms in the river to consume that material, while at the same time, using available dissolved oxygen in the river while doing so. This reduction in available oxygen in the river water leads to low water dissolved oxygen levels which could stress fish in the area and kill other organisms which cannot easily move from areas of low water dissolved oxygen levels to areas of higher dissolved oxygen.

A third concern would be the potential increased harm to humans using the river downstream of the sampling event. Any remaining pollutants from industrial use of the river occurring 50-100 years ago have either long since been washed into the Mississippi River and ultimately the Gulf of Mexico, have been bio-degraded by naturally occurring microorganisms in the river ecosystem, or have had clean sediment deposited on top of them for a period of up to 50 years. These naturally occurring remedial activities have removed, remediated and effectively capped any pollutants of concern such that they are not a threat to human health. In addition to this, the flowing river and sediment have come

to steady state with sediment remaining in the sediment layer with water flowing over the top not disrupting sediments in place. As an additional protection, the water column of up to 20' in some areas where sampling is being discussed also provides a barrier separating people from any historical pollutants. A sampling event would disrupt the historical sediments, removing the natural barriers in place and sending potential pollutants into the river and potentially exposing people and wildlife downstream. Because the natural barriers in place effectively prevent any exposures and harm to the public, this newly created exposure and liability would be the responsibility and liability of the entity doing the sampling and not the polluter as the level of potential harm to the public would be highly exacerbated by the sampling and not the original polluter.

Lastly, even if sampling could be conducted without all of the previous concerns listed above, what could possibly be done if historical pollutants were discovered? Any attempts to remove historical pollutants from a swath of river bed would be extremely harmful to the environment, extremely difficult and costly, dangerous to people in and around the river downstream of the clean-up and incomplete and mostly ineffective at removing the pollutants in the sediments. This "clean-up" would ultimately be much more damaging to the environment than the initial pollutants locked in the river's sediments themselves.

In light of these discussion points, it would be my personal recommendation to discontinue perusing sampling of the sediments of the Wisconsin River for a number of reasons discussed above.

Thank you for your consideration,

Kevin Fabel  
City of Wausau Environmental Engineer