Saginaw - Tittabawassee Rivers Contamination Community Advisory Group

Meeting Summary

Memorial Park, Freeland MI
Monday, September 17, 2018
6:00 PM – 8:00 PM
DRAFT

CAG Members Present
Ruth Averill
Charles Curtiss
James Krogsrud
Luis Mulford
Terry Miller
Mike Nusbaumer
Kevin Quiggle
David Sommers

CAG Members Absent
Peter Bagley
Pamela Binder
Merri DeSanto
David Fisher
Leonard Heinzman
Michael Kelly
Laura Ogar
Joel Tanner
Virginia Thibodeau
Bob Wiese

Ex-Officio Members Present
Todd Konechne, Dow Chemical
Mary Logan, USEPA
Joe Victory, Michigan DEQ

Support Staff Present
Doug Sarno, Facilitator
Diane Russell, USEPA
Janelle Pistro, Dow Chemical

CAG information, materials, recommendations, meeting summaries, and presentations provided at CAG meetings can be found at: http://www.saginawcag.org

David Sommers called the meeting to order at 6:00 PM. Agenda items included:

- CAG updates
- Project updates

CAG Updates

Dave Sommers noted that the project is moving downstream and that the CAG might want to hold some or all of the meetings in Thomas Township. The Township public safety building and library are both options but with some limitations as the library closes at 8. We could hold meetings in both locations but might cause some confusion. Ultimately, we will need to consider locations in Zilwaukee and Bay City but that is long-term. We could also consider Saginaw Township. There are not many residential properties on the Saginaw River.

The CAG discussed this and noted that it is not all that much further, but it is a function of the CAG to conduct outreach so it might make sense. The CAG does want to attract people from the Saginaw River area. It's a good idea and we should try to use it as a chance to get more folks to the meetings.

David will work with Thomas Township to set up the room for 2019. The CAG will also look at the potential to move to quarterly meetings beginning in 2019 in our November meeting.

Segment 4 and 5 Project Updates

Todd Konechne, Dow Chemical, presented the updates.

It has been a very wet season and that has affected progress.
We have completed 24 floodplain properties and hope to do 8 more this year. 12 of those properties were from segment four. We have completed 8 Bank Management Areas (BMAs) and there are three more to do this year. One Sediment Management Area (SMA) was planned for 2018 and it has been completed. What does not get done this year will be scheduled for next year.

A CAG member noted that we have heard very positive comments on the work that has been completed so far.

Tittabawassee River Segment 6/7 Proposed Cleanup Options

Mary Logan, USEPA, presented the options.

The Tittabawassee River cleanup is being conducted on the lower 24 miles of the river.

- Segments 6 and 7 are the final segments of the Tittabawassee River cleanup
- Segments 6 and 7 begin at river mile 17.7
- Segment 6 is 3 miles long

- Segment 7 is 3.7 miles long
- 7 BMAs and 3 SMAs are being proposed
- Work is scheduled to begin in 2019.

The properties along these segments include undeveloped lands, agriculture, and the Shiawassee National Wildlife Refuge (SNWR).

Key Findings include:
- As in the rest of the river, Dioxins/furans are key drivers of contamination
- Bank concentrations are generally lower than in previous upstream segments
- The Dioxins/furans are not evenly distributed
- The level of riverbank and sediment erosion varies
- EPA has identified specific areas that will require cleanup.

EPA is looking at the cleanup of 7 Bank Management Areas (BMAs):
- 4 BMA's in segment 6 and 3 BMA's in segment 7
- Range from 130 to 830 feet in length
- The 7 areas total just over half a mile in total
- The 3 deposits in segment 7 are adjacent to the Shiawassee National Wildlife Refuge
- One is on an island in the middle of the river

EPA is looking at cleanup of four Sediment Management Areas (SMAs):
- Range from 0.3 – 1 acre in size

Contaminated sediment deposits are potential sources of dioxins/furans to the overall river system If they eroded, which could lead to bioaccumulation in fish and downstream migration of contaminants.

BMA Cleanup Options
BMA technologies explored included stabilization and removal as was done in previous segments. Shaping and native vegetation are a key component.

Advantages to Stabilization include less disruption, less change to property and riverbank shape, improves habitat quality and is cost effective. Limitations are that contamination remains in place, more effort is required for short-term maintenance, and ongoing monitoring and possible maintenance is needed.

Advantages to removal is less uncertainty about long-term performance and provides flexibility to future use. Disadvantages are significant disruption, removes existing habitat, and changes riverbank shape, potential for unintended changes to other banks, and more costly and complex.

Cost per 100 feet
- Stabilization ~$52k
- Removal ~$160k

Fixed Costs
- ~Stabilization $66k
- ~Removal $116k

Total Costs
- Stabilization ~$2 million
- Removal ~$5.5 million

BMA Proposed Cleanup Approach
EPA is proposing that all BMAs will be stabilized, considerations included:
- Expect land owner and community acceptance
- Trade-offs related to short term effects
- Potential impact on adjacent areas
- Access and ability to assure ongoing O&M.

CAG: How did the levels of contamination compare to earlier segments?
EPA: The earlier segments had higher concentrations, and also the total volume of contamination was higher in earlier segments than we are seeing in segments 6 and 7.

SMA Cleanup Options
SMA technologies include Monitored Natural Recovery (MNR), capping, and removal.

MNR
Advantages—non-invasive, low implementation cost.
Disadvantages--contaminants remain in place, can be slower in reducing risks, requires long term monitoring.

Capping
Advantages—rapid risk reduction, less infrastructure and disruption, can improve habitat quality, cost effective.
Disadvantages—contaminants remain in place, long-term monitoring required and possible maintenance (Dow has been monitoring all caps so far and has not seen any impacts from flooding).

Removal
Advantages—remove contaminants from river, least uncertainty about long-term performance, rapid risk reduction.
Disadvantages—significant infrastructure and disruption during construction, residuals and resuspension, implementation more costly and complex.

Sediment Management Area 6-1

Alernative	Effectiveness	Implementability	Cost
Alt 1: MNR	Moderate to High	Easy to implement	$53,000
Alt 2: Cap	High	Moderately difficult to implement	$320,000 – 890,000
Alt 3: Removal	Moderate to High	Highly difficult to implement	$7,140,000 – 8,890,000
Alt 4: Cap and MNR	High	Easy to implement	$230,000 – 680,000
Alt 5: Removal and MNR	Moderate to High	Moderately difficult to implement	$3,140,000 – 3,510,000

Sediment Management Areas 7-1 through 7-3

Alt. 1: MNR	Low to Moderate	Easy to implement	$159,000
Alt. 2: Cap	High	Moderately difficult to implement	$1,340,000 – 4,650,000
Alt. 3: Removal	Low to High	Highly difficult to implement	$11,600,000 – 13,430,000

SMA 6-1

- Approx. 0.7 acres
- Contaminants buried about 2 to 7 feet
- Relatively stable area
- Access fairly easy
- Depth to remove contamination would be difficult
- Size could require phases work
- Some challenging water depths.

SMAs 7-1 7-2 7-3

- Adjacent or close to the Shiawassee National Wildlife Refuge
- Difficult to access (Refuge does not want disruption near habitat at this location)
- 7-1: ~0.5 acres, relatively stable, manageable water depths but access and staging could have major impact on SNWR and riverfront neighbors.
- 7-2: ~1.1 acres, in middle of river, mid-channel location makes difficult to access and safety concerns, depth of contamination challenging to remove, size could require phased work, access and staging could have major impact on SNWR and riverfront neighbors.
- 7-3: ~0.4 acres, in middle of river, mid-channel location makes difficult to access and safety concerns, depth of contamination manageable to remove, location could require phased work, access and staging could have major impact on SNWR and riverfront neighbors.

CAG: In 7-1,is contamination 7 feet below the sediment surface? Isn't it essentially buried?
EPA: Yes, and we think that area has been stable for some time.

CAG: Does the operation/ownership of the Sanford dam have any potential impact on the cleanup?
Dow: No, any impacts are short term on the level of the river and would not impact cleanup, we already coordinate with the dam operations.

There is no presumptive remedy, EPA considers effectiveness implementability and cost in the decision. The proposed plan provided the best balance of these three factors.

The public comment period will be for 45 days (30 days plus a 15 day extension).
Comment period will open October 3 and run through November 16.
The public meeting will be held on October 22.

CAG: Will there be information sent to libraries?
EPA: Yes on disc, and will also be available on line.

CAG: Could you make one hard copy available?
EPA: We could probably do one, but libraries don't want hard copies as they don't have the space.

The CAG will work with EPA to figure out the best way to get copies.

The CAG requested that EPA explore slightly shifting the comment period so that the planning November 19 CAG meeting would fall within that period and allow for the CAG to finalize its recommendations.

Terry Miller volunteered to be on the recommendations committee. We will send out an email to the full CAG to look for other volunteers.

CAG: When you are finished with the Tittabawassee, do you intend to continue on to the Saginaw River in the same manner and at the same speed?

EPA: There is far less contamination in the Saginaw River, but more study will be required. Likely to spend some time on further study before approaching the Saginaw. It is an industrial river with navigation, so we will need some time to understand it.

The New York Times reporters who were at the last CAG meeting did produce an article on the front page of the NYT, it was very extensive and focused on Peter Wright who is a former Dow attorney and nominated for an EPA position.

The meeting adjourned at 7:20 PM.

The next CAG meeting is Monday, November 19.