

**Saginaw-Tittabawassee Rivers Contamination CAG  
Full CAG Meeting  
Saginaw Valley State University Curtiss Hall  
Monday, September 15, 2014  
6:00 PM – 8:30 PM  
DRAFT**

**CAG Members Present**

Drummond Black  
Charles Curtiss  
Armando Falcon  
Stan Gorzinski  
Deborah Huntley  
Michael Kelly  
Jim Koski  
James Krogsrud  
Rachel Larimore  
Judith Lincoln  
Donna Mallonee  
William Marsrow  
Laura Ogar  
David Sommers  
Joel Tanner  
Bryce Wakeman  
Bob Wiese

**CAG Members Absent**

Jeffrey Bulls  
Leonard Heinzman  
Frank Kuszak

**Ex-Officio Members Present**

Todd Konechne, Dow Chemical  
Al Taylor, MDEQ  
Mary Logan, EPA

**Support and Agency Staff Present**

Cheryl Howe, MDEQ  
Janelle Pistro, Dow Chemical  
Diane Russell, US EPA  
Doug Sarno, facilitator

Doug Sarno called the meeting to order at 6:00 PM. Agenda items included:

- CAG Updates
- Institute New Members
- CAG comments to CSTAG
- Proposed Plan for Tittabawassee River Floodplain Cleanup

Copies of all meeting summaries and presentations are available at [www.saginawcag.com](http://www.saginawcag.com).

Materials and additional information on the Dow Chemical Site including all presentations from CAG meetings are also available at the EPA web site at <http://www.epa.gov/region5/cleanup/dowchemical/cag.htm>

## 1. CAG Updates

Stan Gorzinski and William Marsrow were approved as new members of the CAG with terms ending in June 2017. The CAG currently has 19 members, with the following terms:

### **Terms Ending June 2015**

Jeff Bulls  
Charles Curtiss  
Leonard Heinzman  
Michael Kelly  
Rachel Larimore  
Laura Ogar  
Joel Tanner

### **Terms Ending June 2016**

Armando Falcon  
James Krogsrud  
Frank Kuszak  
Judith Lincoln  
Donna Mallone  
David Sommers

### **Terms Ending June 2017**

Drummond Black  
Stan Gorzinski  
Deborah Huntley  
Jim Koski  
William Marsrow  
Bryce Wakeman  
Bob Weise

## 2. Possible CAG Input to CSTAG

Will meet in Saginaw on October 9, this is a national group of EPA and Army Corps staff that review Superfund contaminated sediment sites to provide advice and ensure consistency against national guidance. They have invited the CAG to provide feedback on five key issues. The CAG discussed possible input.

1. Progress and Schedule. CAG discussion included:
  - Activities have been on schedule.
  - The CAG gets great information on what is going on in the river.
  - There was a postcard that went out and provided a lot of information in a small package.
  - Last newsletter had a very good description of the schedule.
  - It's a long process, the CAG has come to grips with that fact, and what goes into the cleanup.
2. Current and Future Uses of the Rivers and Bay. CAG discussion included:
  - The CSTAG should see the comments on the floodplain soils project.
  - Landowner access and use on the floodplain is a major issue. Folks are concerned about everything, including the floodplain lands, need to ensure we are taking a holistic approach, not just focused on the river.
  - Cleanup needs to consider future use in addition to the current use.
3. Potential Impact of the Project on the Community. CAG discussion included:
  - Floodplain use.
  - Future use of the river.
  - Ultimate ability to remove fish and agriculture advisories.
  - Any restrictions that will be put on property as part of the cleanup, and associated compensation and impacts.
  - How people view federal and state involvement with their private property is an important issue.
  - In addition to that actual impacts, any miscommunication or misinformation can lead to very negative reactions.
4. EPA Information and Opportunities for Meaningful Stakeholder Involvement. CAG discussion included:
  - More press releases would be important, the news media is still a very effective way of communication here, the EPA stuff just does not go to enough people, need more effort to reach general public.
  - The EPA Newsletter is good but does not go to enough people.
  - Saginaw/Midland/Bay City News are very supportive, should develop a better relationship with them.
  - Folks who are not in the loop don't see the information about the project, don't know where to go for that information.

- The website is not automatically a source of information for many people, EPA needs to find ways to get more information into peoples hands.
- Consider creating an app.
- Public meetings are lightly attended, if its not directly impacting them, most folks don't really pay attention.
- As project gets more visible on the river, people will see more activity and ask more about the project, need more visible information, success stories would be good.
- It would be very useful to understand the level of broader community interest and knowledge about the project, does anyone really have a handle on that?

#### 5. Improvement to Site Management

- The CAG has found the site management to be a very responsive group.
- Reasonable approaches to cleanup, and has been explained well.
- Have worked closely with property owners.
- Not far enough down the road yet to know overall the impacts of how actual work is managed, just now getting outside of the Dow property.

CAG does not feel they need to present this information in person. Doug will summarize the information for the leadership team and they will prepare a letter to CSTAG. The CAG will provide a pdf for Mary Logan to share with the CSTAG.

### **3. Plans for Tittabawassee River Floodplain Soils Cleanup**

Mary Logan, USEPA, provided the presentation.

#### **Background**

This proposal deals with the 8 year floodplain on the lower 21 miles on the Tittabawassee River. Dioxins and furans are the main contaminants of concern.

EPA's plan will protect everyone who comes into contact with the soils in the floodplain regardless of the use.

Cleanup of floodplain soils will proceed segment by segment from segment 2 down to segment 7 with each segment expected to take one to two years. The channel and bank work will be done concurrently with the floodplain soils and coordinated to be completed at roughly the same time.

#### **Property Evaluations**

Property-by-property evaluations will be performed to determine if cleanup is necessary. The total area covers 4,500 acres, with over 700 property parcels and over 600 different owners. Larger properties will likely be sub-divided for the assessment. Over 500 parcels have dwellings.

Approximately 50% of the floodplain is forested, 75% is natural, and 18% agriculture. Only about 5% is maintained residential.

If cleanup is needed, owners will be provided the opportunity for input on the schedule. Cleanup of individual properties should be relatively quick, a matter of weeks and folks will be able to stay in their homes. Most plants and trees will need to be removed, and properties will be replanted. EPA recognizes that removing trees will not be popular, and will look for opportunities to work around trees where possible.

Cleanups will be voluntary, but EPA will work hard to get a high participation rate. Once complete, owners will get a completion letter from EPA. There is a step-wise process of how decisions will be made with opportunities for property owner input.

### **Proposed Cleanup**

The proposed cleanup alternative will be done to the following levels:

- For maintained residential areas: all contamination at levels greater than 250 ppt will be dug up and hauled away.
- For all other land uses: all contamination at levels greater than 2,000 ppt will be either dug up or covered with clean material or a combination of the two.

### **Cleanup Levels**

EPA's cleanup levels are designed to be protective for all age groups. Key factors considered in the cleanup levels include

- Local climate
- Where people spend time and how they use the floodplain
- The amount of exposure people get from hose dust vs. soil
- Studies on the amount of dioxin that is taken up into the body.

### **Cleanup Elements**

- Property by property evaluations will be conducted to identify specific floodplain areas requiring cleanup.
- Temporary access roads and staging areas will be constructed and put back to natural conditions following cleanup.
- Excavated soil may be taken to local landfill or an approved Dow disposal facility.

### **Future Land Use Changes**

Selections made at this time do not mean that people cannot change the use of their property in the future. If another land use is to be changed to maintained residential, it would require additional assessment and possibly cleanup.

### **Ensuring Protectiveness**

- EPA is required to ensure ongoing protectiveness of remedies.
- Monitoring of future floodplain land use will be conducted.
- All Superfund sites with residual contamination are subject to an ongoing five year review process.

- Institutional Control Implementation and Assurance Plan will also be put in place to help ensure long-term protectiveness.

### **Institutional Controls**

- Administrative and legal tools to help minimize exposure
- Typically supplemental to engineering controls
- Often used in “layers”
- Used on a large proportion of Superfund sites (80-85 %)
- Government controls include regulations, permits
- Proprietary controls include property restrictions
- Enforcement tools that prohibit activities
- Information Controls include fish advisories and educational materials
- There is a lot of guidance on the EPA website including a citizens guide.

EPA evaluates alternatives against effectiveness, implementability, and cost. All alternatives reviewed will be effective but the proposed solution provides the best balance across the criteria. There will be short-term effects for construction including a fair amount of truck traffic. Community and worker safety will also be a key concern. EPA will look to incorporate green approaches to implementation wherever possible. Implementation will require landowner agreements. Will also have seasonal and physical constraints and need to be careful not to change flood patterns.

Total cost is preliminarily estimated at \$10 million. Estimates cannot be more precise until the project is much further along with the property-by-property assessments.

The public comment period runs through October 14, with a public meeting on September 24. The public can submit comments in writing and by email.

EPA will review comments and finalize the plan, and Dow will begin the project and Segment 2 work next year.

**CAG Question:** Why would agriculture be grouped with other uses given the high level of exposure? The 2000 ppt is the most stringent of all the uses in the other land category so that would be the most flexible. These numbers are based on direct exposure pathways only.

**CAG Question:** In 2012, EPA came up with a measure of 50 ppt as the maximum, why are you using a number 5 times higher instead of the 50 ppt? The 50 ppt was not a standard, but rather a screening level with regard to safety, and it was assumed that future site-specific numbers would be developed. For example, the 50 ppt assumed no snow days, and did not take into account the specific conditions we have here.

**CAG Question:** Does the State agree with this number? Yes, and we used the same EPA guidance. The 250 ppt is basically the 50 ppt number adjusted for the site-specific conditions on the Tittabawassee.

**CAG Question:** What does site-specific mean? EPA is required to take the exact conditions of the site into account in making its cleanup assessments, things like weather, soils, land use, etc. EPA used 5 years of climate data, snow cover data, the bioavailability studies from the floodplain soils, house dust studies from the University of Michigan.

**CAG Comment:** Many of the studies you reference were funded by Dow so this makes the environmental community nervous.

**CAG Question:** What role did cost play in setting the 250 ppt number? It was not a factor at all.

**CAG Question:** Then why would you not just use the safer 50 ppt number? We talked to a lot of homeowners about tradeoffs. Just slapping a single number on all land uses would increase the impacts due to a lot more construction and removal of many more trees. We would need to have a very good reason to do that, it would require us to cleanup a lot more acres with a lot more impacts to property owners and the environment.

**CAG Question:** If a property was at 240 ppt, does that mean it would not be cleaned up? When the contamination levels are very close to the cleanup level, then that presents more of a challenge obviously. For example, how do you compare 249 ppt vs. 251 ppt? We will need to develop a clear and consistent process to determine if we are reliably below the cleanup level.

**CAG Question:** Can you address the 2000 ppt for agricultural, is there a state standard? There is no state standard for agricultural use. The state standard for industrial use is 990 ppt without taking site-specific information into account. The biggest site specific factor is snow cover when the contamination would not be accessible. The young child scenario is the most sensitive receptor and drove the numbers in this case.

**CAG Question:** What about dust? We looked at all of the possible exposures.

**CAG Question:** What about the bioavailability of food-chain, uptake by farm animals, and folks eating meat, eggs, and produce? We only looked at direct exposure, not the food chain. The State has work closely with the Department of Agriculture on this issue. Survey of the crops on the floodplain has been done and shown that the items being grown do not take up much dioxin. There are still some data gaps that do need to be filled over time. We will explore agricultural advisories as needed.

**CAG Question:** How are you going to determine where and how much soil to address? We will have to decide how many samples on specific properties will be required. A detailed process will be developed to make these determinations. We will generally look at 6 inch lifts to go to the needed depth without removing too much clean soil. All of these details still have to be developed as we do our remedial design.

**CAG Question:** Will this affect the levels in the Bay? No, dioxins are not really in place in the water, it does not go into the water column easily, tends to stick to the sediments.

**CAG Question:** What about keeping silt from flowing back into the water? Properties be monitored to ensure that covers remain in place. Covers are unlikely to be used in wetlands.

**CAG Question:** What type of soils will be used for replacement? We will have to look for suitable soils to replace what has been removed, Dow will be tasked with getting the right soils.

**CAG Question:** How is the 8 year floodplain determined? The original line was taken from the 2004 flood. Looked at chemistry in the soil and determined that the contaminated soils are largely in this area.

**CAG Question:** Taking decades to return mature trees is really not a popular approach, the vast majority of people live there because they like living in these natural areas. Isn't this going to present a problem? We know, but we have to get to a place where we are protective. People will have the right to refuse.

**CAG Question:** What percentage do we expect to exceed the 2000 ppt? We don't really know, about 1% of land exceeds 5000 ppt but we will have to do a full evaluation before we know for sure.

**CAG Question:** Are the trees being removed to get to the soil under the tree or for the convenience of doing the construction? For a single tree, we could possibly work around it, but in a forested area there is no real practical way to get to the soil without removing trees.

**CAG Question:** Proprietary controls, this includes deed restrictions and this needs to be voluntary. What happens to those folks who do not allow EPA to do a cleanup, what happens to their property? If a physical cleanup is voluntary than the legal restrictions would likely be also. We would like to get most landowners to agree to keep natural lands natural. Deeds are considered informational by EPA. EPA would provide a letter that this property does require a cleanup.

**CAG Question:** What if I am downstream from someone that has a lot of contamination, what about the risk of re-contamination? We don't believe that properties are seeing contaminated runoff from neighboring properties. Contamination occurs from the sediments during flooding, and that contamination is being removed from the sediments as part of the ongoing cleanup. However, we plan to do additional sampling to make sure that this is the case.

**CAG Question:** What is the upper limit of concentrations in the floodplain? Something in the area of 23,500 ppt.

**CAG Question:** What will the confirmation letter say? Something like EPA evaluated your property compared to the cleanup levels and this is the condition.

**CAG Question:** Could you leave trees with a conservation easement? That is already taking into account with the two cleanup levels.

**CAG Question:** If for convenience using this one level, is agriculture driving the level? No, looked at everyone who would use it. A small child in occasional use was the most stringent number.

**CAG Question:** Could there be some room to take into account very specific conditions on a piece of property where the risk assumptions clearly do not apply? This was talked about but not chosen at this time.

**CAG Comment:** People need a clearer frame of reference for the most exposed individual compared with other exposures that would have resulted in a higher number. It is not immediately obvious what the “other uses” number actually represents.

**CAG Comment:** There is not enough information for an average homeowner to understand what having an institutional control on their property means to them, this should be in our recommendation.

**CAG Comment:** What about the sampling process, we want to be updated on that process and other issues that are clarified over time.

**CAG Comment:** The timeline may not be completely clear for folks, property owners may be several years away from even being assessed.

**CAG Question:** How long would EPA be required to monitor use? In perpetuity.

**Public Question:** Does EPA have information from other sites where property owners refuse cleanup? No.

**Public Question:** What types of revegetation would be used? That is to be worked out during design.

The meeting was adjourned at 8:30 p.m.