



Binational Public Advisory Council (BPAC)

Approved Meeting Minutes

August 19, 2021- Virtual Meeting Via Zoom

Minutes Prepared by Natasha Pozega

Attending Members:

Paulette Duhaime	U.S. Co-Chair, Citizen at Large	Natasha Pozega	St. Clair River RAP Coordinator
John Timar	City of Sarnia	Sheri Faust	Friends of the St. Clair River (U.S)
Patty Troy	US Co-Vice Chair, Env. Sector	Melanie Foose	Michigan EGLE
Donna Blue	St. Clair Region Conservation Authority	Ted Briggs	Ministry of Environment, Conservation and Parks
Kris Lee	CAN Co-Chair, Wallaceburg Advisory Team for Cleaner Habitat	Naomi Williams	Walpole Island First Nation
John Jackson	CAN Env. Sector	Susan MacFarlane	Citizen at large
Vince Gagner	Bluewater Association for Safety, Environment, and Sustainability		

Guests:

Mike Moroney	St. Clair Region Conservation Authority	Judy Lindberg	Citizen
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Regrets:

April White	Environment and Climate Change Canada
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Actions Arising from the Minutes

- Natasha to re-circulate the St. Clair River BPAC Implementation Plan drafted by the University of Michigan School of Environment and Sustainability.
- Provide comments on Draft Report for BUI 9 by September 13, 2021
- Mark your calendars:
 - Michigan AOC's conference- **September 28th-30th** in Muskegon, MI. More details available [here](#).
 - CRIC Virtual Information Session #2 on Fish and Wildlife Populations in the St. Clair River- **October 20th from 7pm – 8pm**. More details at friendsofstclair.ca/symposium.
 - Binational Lake St. Clair Virtual Conference organized by the Four Agencies- **morning of November 9th**. More details at scrca.on.ca/conference/.

1.0 Call to Order, Introductions and Land Acknowledgement

Meeting called to order at 6:34pm.

Housekeeping:

- Notice to committee that the meeting would be recorded to assist with minutes production.
- Chair will ask for opposition to motions only.

2.0 Adoption, Additions or Corrections to Draft Agenda

Additions:

- Item 3.0 Sharon Bender Memorial (K. Lee)
- 12.i. BASES community notification system (V. Gagner)

MOTION to approve the agenda as revised.

Moved by Kris Lee and seconded by Paulette Duhaime.

CARRIED

3.0 Sharon Bender Memorial

The Chair and other members acknowledged the passing of former BPAC member Sharon Bender. Sharon was one of the first U.S. representatives of the committee and was a quiet force behind the scenes, never expecting accolades. She cared very much about the work the BPAC does, and always spoke with firmness and respect. Sharon will be deeply missed. The Co-Chairs will draft a send a letter of condolences from the BPAC to Sharon's family. There is a memorial service for Sharon on September 7th in Port Huron for anyone interested in attending.

4.0 Approval of May 4, 2021 Draft Minutes

MOTION to approve the minutes of the last meeting of the BPAC on May 4, 2021 as amended.

Moved by Patty Troy and seconded by Paulette Duhaime.

CARRIED

5.0 Addressing Contaminated Sediments in the St. Clair River – Mike Moroney, SCRCA

This presentation provided an update on the engineering and design plan to manage mercury-contaminated sediment in the St. Clair River. The last update to the BPAC was in June 2019. This presentation highlighted some background information on the efforts completed to address

mercury-contaminated sediment in the river, activities completed to date, sediment management objectives, sampling results, as well as the recommended remedial approach.

There are three remaining priority areas of mercury contaminated sediment, as well as two buried deposits in the St. Clair River. Priority areas are located at the Suncor Docks, Shell Docks, and Guthrie Park. The two buried deposits are located north and south of Guthrie Park. In 2019 and 2020, extensive data was collected as part of a pre-design investigation, leading to the development of the recommended approach. This data includes water velocity measurements, sediment collection from various depths, and a bathymetry survey to measure surface sediment elevations in targeted areas. The goals of this project are to promote local risk reduction, limit downstream transport of contaminated sediment, and mass removal/isolation of mercury contamination where feasible. The objective of achieve a surface weighted average concentration of less than 3mg/kg of mercury in the top 15cm of the sediment, to be protective of fish, was explained. Collected data indicates that this target has already been achieved and that there are no measurable risks presented to fish by mercury in the sediment. The recommended action is to apply an Erosion Resistant Cover in focused areas, within the three priority areas, to further reduce the mercury concentrations within the surface sediments in those areas, and to enhance erosion protection.

The final draft of the engineering and design plan for this project is expected to be completed by December 2021. Mike will share the questions and comments raised by BPAC members with the Sediment Management Oversight Committee.

A copy of the slide deck as well as the recording of the community presentation held in June is available at stclairsediment.ca. Please forward any additional questions to Natasha Pozega and she will pass them along to Mike.

Presentation Q&A

Q: Have any studies been completed to look at mercury concentrations towards the centre of the river channel?

A: The focus was specific to the identified priority areas. Towards the middle of the river is the navigational channel which occasionally gets dredged. A study was conducted throughout the river to look for contaminated sediment, which showed that most are found along the shoreline where sediments tend to settle and not be disturbed.

Q: Who is the engineer on record for Parsons?

A: The Principle Project Manager with Parsons is Edward Glaza, and the Principle Scientist with Anchor QEA is Betsy Henry.

Q: Can you explain how the SWAC was calculated?

A: The surface weighted average concentration (SWAC) was calculated by preparing a grid pattern for each priority area. Samples were collected from several locations within each priority area. Each sample location had a mercury concentration associated with it, which was used to calculate the area associated with each sample location and averaged across the entire priority area weighted by the sample area that it represented. Closer samples represented a smaller area, while samples spaced farther from other samples represented a higher area. This method was used to try to calculate the exposure of fish that are swimming around in the area and being exposed to sediment throughout the area. The assumption is that the fish are moving and exposed to all areas. This approach has been used at other contamination sites, specifically those where the contaminants can bioaccumulate.

Sample locations for this principal design investigation were selected based on where historical data showed higher mercury concentrations. Efforts were made to re-sample sediment within 4m of the historical locations. Previous data was combined with more recent data to re-calculate the SWAC in each priority area.

Q: What was the highest concentration of mercury detected?

A: The highest values fluctuated between the different sample locations and ranged between 10 and 35 mg/kg.

Q: How many samples were collected in each of the priority areas?

Follow-up response: Between the three priority areas, there were 94 locations where samples were collected as part of the work in 2019 and 2020. Of these sample locations, 47% were located in Priority Area 1, 22% were located in Priority Area 2, and 31% were located in Priority Area 3.

Q: What happened to the contaminated sediment that was observed near the surface based on previous samples? Did it get carried further downstream?

A: This hypothesis that the contaminated sediment is being buried is based on the results of the 1m core samples that were collected. Contaminated sediments were still found but were typically at a deeper depth, below the biologically active layer where fish would source their food. There are also very little erosive forces along the priority areas based on the results of the sediment stability analysis.

With respect to sediment quality at locations further downstream, sediment samples were collected in the Walpole Island delta in 2005 and 2012 to measure mercury concentrations to see if mercury was being transported downstream. The work completed to date suggests that

mercury is not being transported downstream. Similar sediment sampling work will likely be completed again in 2022 through a separate initiative led by MECP and ECCC.

Q: How is the erosion resistant cover going to result in a reduction in the SWAC for each area if the elevated concentrations are still going to be present at depth?

A: The top 15cm is the critical point where the food source is located. By adding the erosion resistant cover to do those areas, a concentration value is lowered because the cover makes up the top 15cm. The higher levels of mercury become buried and are no longer part of the biologically active zone.

Q: A mention was made about selecting gravel size that could support fish habitat. Is that advisable given that below that gravel the sediment remains contaminated with mercury?

A: The Department of Fisheries and Oceans, the Ministry of the Environment, Conservation and Parks Species at Risk group, and the Ministry of Northern Development, Mines, Natural Resources and Forestry (formerly the Ministry of Natural Resources and Forestry) are involved in these discussions. No concerns have been raised yet, but this is being considered.

Q: Is there a projection on the lifespan of the erosion resistant cover? Will periodic monitoring be required? What will happen if water levels decrease?

Follow-up response: Based on what has been observed with water depths and water velocity in various locations of the St. Clair River, the consultant has advised that if water levels start to lower, they do not expect significant changes in areas closer to the shoreline where the erosion resistant cover would be located. Whether there will be periodic monitoring of the cover material is something that is still being considered as part of the design. BPAC's interest in monitoring of the cover will be brought back to the consultant and the Oversight Committee.

Q: Has the erosion resistant approach been used elsewhere? Does it have a track record?

Follow-up response: An erosion resistant cover is similar to a CAP that was referenced as an option in the 2019 presentation. A sediment CAP implies that there will be a chemical isolation layer with an erosion resistant cover on top of that. In this case, because the surface sediments already meet the remediation objective of 3 mg/kg, there is no need for the chemical isolation layer, just the erosion resistant cover. The use of a CAP/Erosion Resistant Cover is quite common for sediment remediation projects.

Q: Are chlorinated hydrocarbons a concern in the river?

A: Work has been completed to identify contaminants in the river, which include chlorinated organics. Mercury was the only contaminant found to be of concern.

Q: Is there an estimate of the cost of implementation and how will those costs be divided among the parties.

A: This has not been determined at this time, but providing this information is one of the key deliverables of the consultant.

The following is a summary of the comments received during the presentation:

1. It would be helpful to show modeling that demonstrates how the ERC will provide erosion resistance.
2. It would be helpful to explain what happens to mercury in water. How it behaves.
3. There should be an on-going commitment to periodically check on the condition of the ERC – every 10, 20, 30 years.
4. The slides should be clearer in explaining why the mercury concentrations near the surface have decreased over time. That's why some are questioning if it decreased due to being washed away.
5. Don MacKay, Professor Emeritus, Trent University has done a lot of work involving mercury in water. He should be made aware of these findings. It may be of interest for research purposes.

6.0 Drinking Water Assessment- Canada – Natasha Pozega

A short presentation was provided to briefly summarize the details of the initial draft report. The presentation touched on the history of BUI 9- Restrictions on *Drinking Water Consumption or Taste and Odour Issues*, the delisting criteria, spill prevention and notification and spills frequency over time.

This BUI was designated as impaired under the 1991 Stage 1 RAP report due to frequent industrial and municipal spills to the St. Clair River causing closures of downstream water intakes as well taste and odour issues. Wallaceburg and Walpole Island First Nation source their drinking water from the St. Clair River. Other communities along the river are serviced by the Lambton Area Water Supply System (LAWSS), which draws water from Lake Huron upstream of the Sarnia industrialized zone. The delisting criteria for this BUI are that there will not be any treatment plant shutdowns due to exceedances of drinking water guideline for a two-year period. However, an assessment of the strength of spills prevention measures, and the effectiveness of downstream notification systems is also included in the report. The frequency of spills to the St. Clair River has greatly reduced since the 1990's and there has not been an intake closure at the Wallaceburg Water Treatment Plant since 2013. Given that the delisting criteria has been achieved, the assessment report recommends that the status of this BUI be redesignated from *impaired* to *not impaired*.

Members are kindly asked to review the initial draft report as written and provide comments to Natasha by September 13th, 2021. The report will be updated and presented again to the CRIC at their next meeting.

7.0 Life After Delisting- Paulette Duhaime

One of the actions identified in the May 4, 2021 minutes was to review the BPAC Implementation Plan drafted by the University of Michigan. This report identified one of the problems with the PAC is building capacity. We are losing members and want to find creative ways to increase capacity. Paulette would like to put together a list for potential educational speakers to present at BPAC meetings and brainstorm some creative ways to market the BPAC to attract new participants. A need was identified to start thinking about who will take on the responsibility of being the watchdog for the St. Clair River after the AOC is delisted. In the U.S., the Friends of St. Clair River will take on this responsibility.

Thoughts for consideration:

- What roles does the BPAC currently hold that the Friends of St. Clair River would need to continue?
- Efforts to build capacity may be better suited for the Friends groups (specifically in the U.S.).
- The Friends groups don't currently have a "relationship" with the Agencies.
- Consider conducting a gap analysis to see what additional "powers" the Friends groups would need in order to effectively carry on the responsibilities of the BPAC.
- A joint presentation by Michelle Selzer and Luca Cargnelli on the Lake Erie plans would be beneficial. A special meeting should be considered to allow enough time for quality discussion.
- Relationships could be strengthened between the Friends groups and the local municipalities.

8.0 Agency Updates

i. Ministry of Environment Conservation and Parks- Ted Briggs

No update.

ii. Environment and Climate Change Canada- April White

No update.

iii. Michigan Department of Environment, Great Lakes, and Energy- Melanie Foose

Only 2 impairments remain:

BUI 1- Still waiting on fish analysis from fish collected a few years ago.

BUI 9- Still waiting on the facility response plan for DTE to incorporate into the draft report. It needs to be completed, then updated and signed by EPA.

iv. U.S. Environmental Protection Agency

No update.

9.0 Committee Reports

i. Statewide Public Advisory Council- Patty Troy, Paulette Duhaime

- SPAC last met on June 17, 2021
- Talked about the federal grant to EGLE for the AOC program which expires in March.
- PAC support grants expire in February. May have 2-3 year grants for the next round.
- Discussion about the Michigan Clean Water Plan. Infrastructure plan is currently making its way through congress which may provide support to the Clean Water Plan, which mainly relates to water infrastructure (lead service line replacements, etc.).
- GLRI appropriated \$14 million towards AOC program
- Heard reports about two University of Michigan Projects underway:
 - Action Plans for Life After Delisting
 - Equity and Environmental Justice in the GLRI
- Note made of the several habitat projects being conducted in the Detroit River and the PCB hotspot clean-up in the Clinton River.
- AOC conference Sept 29th and 30th in Muskegon, MI. Sheri, Paulette, and Patty will be attending. Others are invited to join as well.
- Next meeting of the SPAC will immediately follow the conference.

ii. Friends of the St. Clair River (Canada)- Kris Lee

- Theodore Too- a replica of Theodore Tugboat for the 1990's Halifax-based cartoon is coming to Mooretown and Sarnia. Friends is a silver sponsor and will be attending the event with a booth.
- Signage project is underway to update existing signs and add new signs along the river.
- Proposed to water treatment facility at the mouth of Lake Huron to naturalize grass space on their property.
- Friends sponsored the Sombra Family Fishing Day in July with a kayak. \$50,000 was raised at this event to support the Sombra Optimist Club. This provided an opportunity to talk to the community about the Friends of St. Clair River, educate youth, and bring together the community.

iii. Friends of the St. Clair River (USA)- Sheri Faust

- Friends of St. Clair River is hiring in their education and restoration departments.
- Taking on a gypsy/LLD moth project aerial suppression program.
- Fundraiser lighthouse climb at night for the Sturgeon Moon (August full moon).
- Hosting a public drinking water virtual workshop on Tuesday, October 19th to answer public questions about the drinking water supply featuring a line-up of speakers who are involved in drinking water protection.

iv. Canadian RAP Implementation Committee- Kris Lee

Last meeting on June 8, 2021:

- Mike Moroney presented on the Sediment Management Design Plan
 - Natasha Pozega presented the draft Drinking Water Report
 - April White presented the draft report on Fish and Wildlife Populations
 - Binational Poster project that Natasha and Sheri had been developing is complete- it can be viewed here: <https://friendsofstclair.ca/wp-content/uploads/2021/08/Final-Poster-2000px.jpg>
 - BUI 4- Fish Tumours and Other Deformities was redesignated to not impaired in June. Natasha to update and circulate the binational chart
 - A new Canada-Ontario Agreement was signed in June. You can access the report here: <https://www.canada.ca/en/environment-climate-change/services/great-lakes-protection/canada-ontario-agreement-water-quality-ecosystem.html>
 - For 2021 the AOC symposium has been converted to a 3-part virtual series. The second session will discuss fish and wildlife populations in the St. Clair River. This event is scheduled for October 20th from 7pm-8pm. Please register here: friendsofstclair.ca/symposium.
- v. **Four Agency Managers Work Group- Melanie Foose**
- Mark your calendars for the Binational Lake St Clair Virtual Conference to be held the morning of November 9th. More information can be found here: scrc.on.ca/conference/.
 - Mike Moroney presented on the Sediment Management Design Plan
 - Next meeting will be in the fall on a date to be determined.

12.0 Other Business

12.i. BASES community notification system (V. Gagner)

- Vince walked-through the process for signing up to receive industry notification in Sarnia-Lambton. You can sign-up for community notifications and choose which companies to subscribe to here: <https://member.everbridge.net/892807736721815/login>

13.0 Next Meeting Date and Adjournment

Will be at the call of the U.S. Co-Chair.

MOTION to adjourn.

Moved by Patty Troy.

CARRIED

Meeting adjourned at 9:17pm.

