

Memorandum

TO: Hart-Miller Island Citizens Oversight Committee

FROM: Rebecca Kreatschman – MES

DATE: January 7, 2019

SUBJECT: Next meeting – January 15, 2019

The next meeting of the Hart-Miller Island Citizens Oversight Committee (HMI COC) will be held on Tuesday, January 15, 2019 at 6:30 pm at 2200 Broening Highway. **(Note: The snow date for this meeting is January 29, 2019.)** Please use the door on the side of the building and the conference room will be on the left. Parking is available adjacent to the building and also across the highway. The Maryland Department of Transportation Maryland Port Administration (MDOT MPA) will provide dinner at 6:00 pm. The agenda for the next meeting will be provided the week prior to the meeting date. **Please call Ms. Margie Hamby at (410) 385-4419 if you cannot make this meeting.**

Attached for your review is a copy of the summary from the November 13, 2018 meeting.

**HART-MILLER ISLAND
CITIZENS OVERSIGHT COMMITTEE MEETING
6:30 PM
November 13, 2018**

ATTENDEES:

Francis Taylor	NPPCCC
Paul Brylske	Seventh District
Dave Patro	GDCC
Karen Wynn	Sixth District
Dave Bibo	MDOT MPA
Holly Miller	MDOT MPA
Chris Correale	MDOT MPA
Kristen Keene	MDOT MPA
Kristen Fidler	MDOT MPA
Bruce Michael	DNR
Paul Shepherd	DNR
Anna Gillmor	DNR
Elizabeth Sylvia	DNR
Amanda Peñafiel	MES
Lincoln Tracy	MES
Rebecca Kreditschman	MES
David Riter	Baltimore County EPS
Sam Weaver	BRRC
Andrew Heyes	UMCES
Charlie Poukish	MDE
Patricia Brady	MDE
Jeff Carter	MDE

ACTION ITEMS

- MES will present results from the 2018 monitoring of the North Cell Test Strips.
- MES will present information on Birding at MPA facilities at the January 2019 meeting,
- MES will provide future meeting dates on all upcoming agendas.

1. OPENING REMARKS

Paul Brylske-Chairman

- Mr. Brylske asked the HMI COC members for approval of the meeting minutes from the September 18, 2018 HMI COC meeting. All members approved.
- Mr. Brylske thanked Mr. Taylor for his 14 years of service with the Dredged Material Management Program.

2. FRIENDS GROUP DISCUSSION

- Mr. Brylske suggested the first meeting for the HMI friends group take place during a month when the COC meeting is not held. The first meeting, which would serve as a planning meeting, is scheduled for February 12, 2019 at 6:30 PM, with the location to be determined. Our Lady of Mount Carmel High School and Weaver's Marina Yacht Club were suggested.
- The North Point State Park Annual Holiday Party will take place in the first week of December. There will be a table with outreach literature about HMI to spread the word about the HMI Friends Group.

3. YEAR 34 HMI EXTERIOR MONITORING REPORT

Anna Gillmor, MGS-Exterior Sediment Monitoring

- Sampling for Year 34 exterior monitoring was conducted in September 2017. Year 34 was the second year of reduced network biennial sampling. Fifteen sites were sampled and represented four areas of influence, including one reference site for the Susquehanna River, one site for the Baltimore Harbor, two sites for Back River, and the remaining eleven sites for HMI.
- A graph of rainfall was displayed. Precipitation at HMI tracked closely to BWI, except for a wet summer in 2017 at HMI.
- Four spillways discharged during the reporting period. The South Cell spillway discharged 40 million gallons cumulatively. In the North Cell, Spillway 007 discharged 90 million gallons, Spillway 008 discharged 110 million gallons, and Spillway 009 discharged 90 million gallons.
- Sediment texture changed very little between sampling years. The majority of samples were muddy sediments with two thirds of the samples containing less than 10 percent sand. For the muddy samples, the sediments contained slightly more clay than silt.
- Sandy sediment samples were found in the northern and eastern areas of the exterior. Sites in the southern portion of the HMI area of influence were muddier.
- Grain size results from Year 34 were similar to the preceding year with the same number of sampling sites, more focused when compared to previous years with more sampling sites, and captured the same range of grain sizes.
- Total metal concentrations were also measured. Grain size was normalized to compare the metal concentrations to background levels. Figures displaying Sigma levels for lead (Pb) and zinc (Zn) in

Years 32, 33, and 34 were shown. Sites with a Sigma value of 3 or greater are considered enriched. Two sites in Year 34, stations 19 and 34, were above the 3 Sigma level for Pb. Similar concentrations have been seen in Year 32 and previous years. Mr. Brylske asked what would cause this high level of Pb. Ms. Gillmor responded that there is nothing anomalous in particular to cause the elevated result but could be influenced by higher levels of Pb in Back River. Station 19 also had a >3 Sigma level for Zn. Zn results have been known to be influenced by the Baltimore Harbor.

- Sediment Conclusions:
 - Based on metal concentrations, the HMI zone of influence continued to be clearly distinguished from the Back River zone. Pb and Zn in sediments were detected above a 3 sigma level at two stations (both stations for Pb, one of the same stations also for Zn) in Year 34, which differs from Year 33, but is similar to Year 32. The lower enrichment levels and reduced spatial extent of the enrichment were attributed to the steps that the HMI facility took to minimize the loadings of these metals, including monitoring discharge.
- Year 34 analysis also included groundwater monitoring at six wells located along the perimeter of HMI. Results from three samplings were included in the Year 34 report.
- North Cell wells:
 - Well 2A continues to show least effects from operation activities, which is similar to previous years. Well 2A has the highest salinity, but generally lower metal concentrations. Active bacterial sulfate reduction is inferred. Mr. Brylske asked what happens during active bacterial sulfate reduction. Ms. Gillmor explained that is it when bacteria take the sulfate that was released when the material was oxidized and use it to metabolize organic matter. This can occur in environments that are isolated from the atmosphere. Well 2A is one of the deeper wells.
 - Wells 4A has exhibited some affects from HMI operations.
 - Well 6A has highest alkalinity, which is attributed from liming efforts, and pH. The decrease in chloride indicated rainwater mixing. Excess sulfate indicated exposure to oxidized sediments. Fluctuations in alkalinity, nitrogen (N), magnesium (Mg), and dissolved oxygen since June 2012 are present due to the end of that specific period of liming.
- South Cell wells:
 - Well 8A and well 10A exposed to oxidized sediments, leading to higher levels of excess sulfate. Since June 2012, minor fluctuations have also occurred in dissolved oxygen, but wells in the South Cell have been more stable overall.
 - Well 12A influenced by rainwater and freshwater lens.
- Groundwater Conclusions:
 - On average, metals concentrations in both the North and South Cell wells have shown stable or decreasing trends over the three events included in this monitoring year. There is no evidence that metals are leaving the facility via groundwater flow. Metals concentrations are below EPA drinking water secondary standards, except for iron (Fe) and manganese (Mn), which do not have primary drinking water standards.

Andrew Heyes, CBL-Trace Elements and Organic Contaminants in Sediments and Clams

- Mr. Heyes presented figures that displayed concentrations of trace elements and organic contaminants, including mercury (Hg), methylmercury (MeHg), arsenic (As), selenium (Se), and silver (Ag) at each of the 15 monitoring sites in sediments and clams. The figures also displayed mean and median trace elements and organic contaminant concentrations from 1998-2014 for comparison.
- In sediments, MeHg levels could be influenced by sediment composition. Most sites were at or below historic data while two sites had elevated levels. As levels were all at or below historic data.

Se levels were much lower when compared to previous years. Ag levels were all at or below previous years. Mr. Heyes described the salting out effect, which explains how metals drop out when moving from fresh water into salt water.

- Ag, Pb, and MeHg levels in clams were both low when compared to previous years. Hg concentrations in clams were within standard deviations at all sites, with most sites below the mean values. Se levels were at or below historic concentrations.
- Conclusions:
 - Concentrations of elements measured in sediment and clams for Year 34 were similar to results from previous sampling years with the exception of site 44 for Pb in clams and sediment and site 34 for MeHg in sediments.

Jeff Carter, MDE- HMI Benthic Community Monitoring

- Benthic sampling metrics are dependent on the salinity of the water. Salinity during Year 34 sampling was in the Low Mesohaline range, which is the historic range for the area.
- The Shannon-Wiener Diversity Index (SWDI) showed most sites were at or above the ideal value of 2.5. Mr. Carter explained Total Infaunal Abundance (TIA) trends and Pollution Indicative Taxa Abundance (PITA) trends are decreasing, which is ideal.
- Benthic Index of Biological Integrity (B-IBI) scores increased at 9 stations, remained consistent at 2 stations, and decreased at 4 stations when compared to Year 33.
- Back River/Hawk Cove station MDE-30 (2.50), Nearfield Stations MDE-01 (2.00), MDE-34 (1.00) and MDE-45 (1.50), and South Cell Exterior Monitoring station MDE-44 (2.00) failed to meet the benchmark criteria of 3.0.
- Nine stations were above the historic averages and six stations were below the historic averages for B-IBI. Three stations set a new historic low (Nearfield stations MDE-34 and MDE-45, and South Cell Exterior Monitoring stations MDE-44). One station set a new historic high (Back River/Hawk Cove station MDE-27). Mr. Carter explained that station MDE-44 is a newer station with less historic data to include.
- A trend of decreasing B-IBI scores was associated with stations in close proximity to HMI in Year 34. Nearfield stations were the only station type to have an average B-IBI score that failed to meet the benchmark score of 3.0.
- Conclusions:
 - The health of the benthic macroinvertebrate community around HMI generally improved after five consecutive years of decline.
 - The mean B-IBI increased for Nearfield, Reference, and Back River/Hawk Cove stations, while South Cell Exterior Monitoring stations remained the same.
 - TIA values were exceptionally high (due to sharp increases in pollution indicative oligochaete worms in the Naididae family). Naididae are considered indicators of organic enrichment. TIA metric values failed due to having too many organisms per square meter.
 - PITA metric scores increased due to the abundance of Naididae worms.
 - SWDI decreased due to low variety of species dominating the community. Ms. Gillmor asked why it would be bad to have too many species. Mr. Carter explained that having an abundance of species creates overcrowding in that area. Ms. Keene asked if the areas with high abundance were compared based on substrate type. Mr. Carter explained that they are not sure what is causing the high abundance but do not believe substrate type is the cause.

Group Discussion

- Mr. Brylske asked if the reduction in sampling sites could have had an impact on Year 34 results or amount of information collected. Ms. Gillmor responded that having fewer sites does not give less information since each zone of influence is still represented. Mr. Brylske then asked if Ms. Gillmor

had any thoughts on the impact of changes to the monitoring events throughout the years. Mr. Heyes mentioned that the monitoring process was created before HMI was established and was set up to detect relevant problems that could show a negative impact to the surrounding environment. Although the sampling process has changed slightly regarding frequency and number of sampling stations, the parameters that are monitored have stayed consistent.

- Mr. Michael asked when the next sampling event would occur. Ms. Gillmor explained that the next sampling event occurred in September 2018 and will provide data for the Year 35 report.
- Mr. Brylske asked if 2018 would be the final sampling event. Ms. Gillmor explained that Year 35 would be the final report and that there were no plans to continue exterior monitoring. Mr. Brylske expressed his concern for the future of HMI without exterior monitoring providing data that would excuse HMI as the source of any issues that arise in the area that is also influenced by Back River and the Baltimore Harbor. He suggested continued monitoring with limited sites and decreased frequency. Ms. Miller explained there are no plans to continue monitoring. The 35 years of monitoring reports give MDOT MPA confidence that HMI is not adversely impacting the surrounding environment.
- Mr. Bibo shared that HMI was previously accused as being the cause of catfish mortality in a fisherman's traps before the Department of Natural Resources (DNR) discovered that solvents coming from the Aberdeen Proving Grounds were responsible.
- Ms. Peñafiel passed around the 5-year post-closure monitoring schedule. The schedule was developed with MDE, MDOT MPA and MES representatives and includes 5 years of post-closure monitoring with full monitoring through 2012 and biennial monitoring starting in 2014. Ms. Miller added that with no changes in operations, HMI's impact to the environment should not change. Mr. Brylske added that there could be a change in areas of influence like Back River or the Baltimore Harbor, that could impact the area around HMI and cause an issue. Ms. Miller explained that past data would be used to refute any claims that HMI is responsible for the issue.
- Mr. Taylor asked if DNR would be willing to look into continuing exterior monitoring at HMI since they will assume ownership in the future. Mr. Michael explained that DNR would look into it after reviewing Year 35 results and taking the committees concerns into consideration. Mr. Patro suggested a tapering effect for sampling frequency in future monitoring plans.

4. NORTH CELL UPDATE

Lincoln Tracy– MES

- MES Operations is currently focusing efforts on liming the perimeter trenches for discharge.
- Spillways 007 and 008 have been opened intermittently for discharge since the last meeting.
- Spillway 009 pH has been rising due to liming the Spillway 008 trench, but is not prepared to be open for discharge at this time.
- Cell elevation has increased by one tenth of a foot since the last meeting, due to frequent rain events. Mr. Taylor asked how many gallons were in the North Cell. The North Cell pond elevation as of November 13, 2018 was 39.1. This equates to roughly 149 million gallons.
- Deep pool excavation is on hold until the area can be drained of water and left to dry.

5. DNR UPDATES

Paul Shepherd – DNR

- DNR staff winterized the DNR facility by completing the following tasks:
 - Bulletin boards, HMI interpretive signs, trash free bag boxes, and the HMI sign were taken down
 - Locks were winterized.

- Restrooms, ranger station, campsites, bike shed, beach, and refrigerators were cleaned.
- Interpretive signs were cleaned and covered with protective canvas.
- Flags were taken down and stored properly.
- Observation tower was secured and locked.
- Bicycle inventory and repairs were completed.
- Seasonal evaluations and MES billing were completed.
- All three boats were pulled from the water.
- The Loblolly Pine tree interpretive sign was placed along the blue trail and area closed signs were placed at boardwalk entrance and HMI campsites.
- Quarterly water sample test was completed.
- The DNR HMI website was updated to reflect current hours of operation, directions to site, updated pet policy, colored trail map, and Duty Ranger phone number.
- Visitation totals for the 2018 season include:
 - 67,470 total visitors,
 - 3,468 patron contacts,
 - 1,028 bikers,
 - 967 impromptu program attendees,
 - 241 campers,
 - 216 hikers.

6. FINAL REMARKS

Kristen Fidler and Dave Bibo – MDOT MPA

- Ms. Fidler announced that HMI COC applications for reappointment are currently under review by the Governor's Appointment office. Updates will be given as they are received.
- Sam Weaver is the new Sport Fishermen representative.
- The next HMI COC meeting will be January 15, 2019.
- Tim Carney with MES will be presenting on Birds of HMI.
- MES will provide future meeting dates on all upcoming agendas.

Meeting adjourned-7:45pm