

# Memorandum

TO: Hart-Miller Island Citizens Oversight Committee

FROM: Rebecca Kreatschman – MES

DATE: December 30, 2020

SUBJECT: Next meeting – January 19, 2021

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The next meeting of the Hart-Miller Island Citizens Oversight Committee (HMI COC) will be held virtually on Tuesday, January 19, 2021 via Microsoft Teams. A link and call-in number for meeting access will be sent out prior to the date.

Attached for your review is a copy of the minutes from the November 17, 2020 meeting.

**HART-MILLER ISLAND  
CITIZENS OVERSIGHT COMMITTEE MEETING  
6:30 PM  
November 17, 2020**

**ATTENDEES:**

Paul Brylske	Seventh District
Karen Wynn	Sixth District
Fran Taylor	NPPCCC
Sam Weaver	Sports Fishermen
Katrina Jones	MDOT MPA
Amanda Peñafiel	MDOT MPA
Dave Bibo	MDOT MPA
Dave Blazer	MDOT MPA
Brett Prochazka	DNR
Bruce Michael	DNR
Lien Vu	MES
Lincoln Tracy	MES
Rebecca Kraitschman	MES
Kenna Oseroff	MES
Dave Riter	Baltimore County EPS
Anna Gillmor	Maryland Geological Survey
Andrew Heyes	UMCES
Charlies Poukish	MDE
Jeff Carter	MDE

## **ACTION ITEMS**

- MDOT MPA will provide an update on the IGA at the January meeting.
- DNR will contact Mr. Joseph Walters with the North Point-Edgemere Volunteer Fire Department to discuss their emergency response plan.
- Mr. Brylske will provide an update on the HMI Friends group nonprofit status.
- HMI COC Members will vote to approve the January 2020 meeting summary at the January 2021 meeting.

## 1. OPENING REMARKS

### **Paul Brylske-Chairman**

- Mr. Brylske asked the HMI COC members for approval of the meeting minutes from the September 19, 2020 HMI COC meeting. All members approved.

## 2. YEAR 35 HMI EXTERIOR MONITORING REPORT

### **Anna Gillmor, MGS-Exterior Sediment Monitoring**

- Sampling for Year 35 exterior monitoring was conducted on September 30<sup>th</sup>, 2018. 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 and river flow preceding the sampling was presented. Typically, patterns show a wet spring and dry fall, but 2018 was an unusually wet year with high amounts of rain in the spring, summer, and fall. The Baltimore area received 72 inches of precipitation in 2018.
- Discharge for the monitoring period was presented:
  - Intermittent, very low flow discharges occurred from Spillway 007 for 140 days over a two year period, including Summer 2018 when sampling occurred. Permit conditions were met and pond levels were reduced.
  - Intermittent, very low flow discharges occurred from Spillway 008 for 117 days over a two year period, including Summer 2018 when sampling occurred. Permit conditions were met and pond levels were reduced.
  - Four periods of high-flow discharge occurred from Spillway 003 in May/June, July/August, September, and November to reduce pond level after high rainfall events.
- Sediment texture changed very little between sampling years. Composition ranged widely from very sandy to very muddy, with two-thirds of samples containing less than 10% sand.
- Sandy sediment samples were found in the northeastern areas of the exterior, and diminishes radially outward. The same area also contained slightly more clay than silt, and diminished outward in the HMI zone of influence.
- 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, 34 and 35 were shown. Sites with a Sigma value of 3 or greater are considered enriched. Sites in the Back River, Baltimore Harbor, and HMI zones of influence showed higher amounts of Pb, which was similar to results in Years 32 and 34. For Zn, only one station located in the HMI zone of influence had a Sigma level above 3 in Year 35. This was similar to Years 32 and 34 results.
- Sediment Conclusions:
  - Based on metal concentrations, the HMI zone of influence continued to be clearly distinguished from the Back River zone. Metals in sediments were detected above a 3 sigma level at one station for Zn and 7 stations for Pb in Year 35, a pattern similar to Years 32 and

34. 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. Based on sediment metals distributions, data may fluctuate slightly year to year, but with a largely stable range. Year 35 was a very wet year, and the systems held with no major alarm.

- Recommendations:
  - The physical and chemical composition of the sediments exterior to the HMI facility have been monitored extensively since 1981.
  - There have been 10 monitoring events since the facility closed to new dredged material in 2009.
  - The spatial distribution of enriched metals concentrations has been largely consistent and non-increasing during these last three monitoring events, usually the smaller 15 station network.
  - During the 2018 monitoring year, anomalously high summer and fall precipitation fell, causing a dry discharge period from April to September from the Susquehanna River which was an order of magnitude higher than which was used for earlier modelling efforts. Still, no anomalies were observed in the levels of metals enrichment in the exterior sediment.
- Year 35 analysis also included groundwater monitoring at six wells, three in the North Cell and three in the South Cell, located along the perimeter of HMI. The purpose was to monitor the quality of groundwater flowing through the dike wall. Results from two samplings, June 2018 and December 2018, were included in the Year 35 report.
- North Cell wells:
  - Well 2A continues to show the least effects from operation activities, similar to previous years. Well 2A has the highest salinity and chloride, 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 and 6A have 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 is 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 two sampling events included in 2018. There is no evidence that metals are leaving the facility via groundwater flow. Metals concentrations are below EPA drinking water primary and secondary standards, except for iron (Fe) and manganese (Mn), which are secondary drinking water standards.
  - MGS agreed that the post closure monitoring has been adequate and that it is reasonable to discontinue exterior sediment monitoring.

- Mr. Brylske expressed concern to discontinue monitoring. Mr. Taylor asked Mr. Riter if Baltimore County had expectations for future monitoring of the site. Mr. Riter explained that it would most likely be considered a state issue but will let his office know of the citizen concerns. Ms. Peñafiel added that the facility has a very robust data set with 35 year's worth of data that has not shown any negative impacts to the surrounding environment caused by the operations of the facility. She added that MDOT MPA and MES can continue monitoring groundwater wells. Ms. Peñafiel reminded the group that the South Cell was removed from the new discharge permit issued by MDE because the site is showing that discharges from the South Cell of the facility were consistently reporting non-detect for the parameters in the permit. The North Cell is also trending in that direction. North Cell discharge permit parameters were also reduced under the new permit because monitoring is showing lower metal concentrations.
- Mr. Brylske suggested that monitoring on a smaller scale should continue. He also asked if complaints from the community would trigger monitoring in the future. Ms. Gillmor and Ms. Peñafiel explained that discharge monitoring will continue and all permit-required samples will be collected. Mr. Brylske added that his concern is in potential future issues of the quality of surrounding water that HMI does not influence, like contamination in the Back River and the Patapsco River. Mr. Tracy added that indefinite exterior monitoring may be a fiscal concern for the State. Mr. Brylske asked if there were cost effective options to continue sufficient, minimal monitoring. He also posed the question of if members should make a strong recommendation to the state or county to continue reasonable monitoring. Mr. Taylor suggested revisiting the adequate and considerable concerns of the discontinued exterior monitoring of the site by the Committee at another time.

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

- Mr. Heyes reiterated that 2018 was a very wet year and had a considerable impact on the water quality in the Chesapeake Bay.
- 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.
- For Hg, station 27, located at the mouth of Back River, showed higher levels of Hg. This could have been caused by the high levels of contaminated water in the Back River system.
- For MeHg, levels at two stations showed higher concentrations than seen in the past. These stations were located at the mouth of Back River and the Baltimore Inner Harbor.
- As concentrations showed slightly higher levels than normally seen, but not unlike other urban-influenced areas. Sampling stations with high concentrations were seen out of the mainstem and could be related to the increased amount of water coming from the Susquehanna River. There were also higher amounts of As in terrestrial sediments which could also be an effect from the increased rainfall.
- 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.
- Se concentrations were remarkably lower than previous years and no stations were of concern. Ag concentrations were also low and were not of any concern.
- Clams serve as an excellent indicator of what is potentially being consumed in the food web. As concentrations were relatively low in clams, which is opposite of what was seen in the sediments. The clams were large, and could have impacted results. Se, Ag, and Hg concentrations were also very low, compared to other years. MeHg concentrations were elevated at a few sites which were

located in the front of HMI. Pb and cadmium (Cd) concentrations were also below what was seen in past years.

- **Conclusions:**
  - Concentrations of elements measured in sediment and clams for Year 35 did not deviate substantially from observed normal concentrations at most stations when compared to previous years.
  - A few exceptions were seen at some sites with elevated concentrations in sediments including Site 27 with elevated MeHg and extremely elevated Hg, which could have been influenced by Back River, Site 22 with elevated MeHg, and Sites 43, 44, 1, and 27 with slightly elevated As levels all on the south side of HMI in the nearfield zone.
  - Sites 15, 17, 34, 43, and 45 all showed elevated concentrations of MeHg, but only site 15 had concentrations significantly higher than previous years.
- Mr. Brylske asked Dr. Heyes if the As concentrations should be monitored because of the increases observed. Dr. Heyes suggested that long term groundwater and discharge monitoring should suffice, since these are the likely sources of As. He added that As levels in the Chesapeake Bay are higher when compared to other systems and it is not unusual to see high concentrations in these results.

### **Jeff Carter, MDE- HMI Benthic Community Monitoring**

- Benthic sampling metrics are dependent on the salinity of the water. Year 35 had a lot of rain, which caused the salinity in the Bay to be very low. Salinity during Year 35 sampling was in the Tidal Fresh range, which only happened one other time during exterior monitoring, in Year 23. The mean salinity was 5.96 ppt lower than the historical average.
- The Shannon-Wiener Diversity Index (SWDI) showed most sites were not at a concerning level. Results showed numbers slightly higher than Year 34 and generally show an upward trend.
- Mr. Carter explained Total Infaunal Abundance (TIA) trends were good with most stations falling within the ideal range of 2500-700.
- Pollution Indicative Taxa Abundance results showed a lower abundance in Year 35, which is ideal, except for sites in the Back River. The trend is downward, which is a positive sign.
- Pollution Sensitive Taxa Abundance were not a metric in Year 3 because the salinity was in a Tidal Fresh range. Data from previous years was displayed and showed an upward trend, which is ideal.
- Benthic Index of Biological Integrity (B-IBI) scores are calculated using the previous 4 metrics. Ideal scores are above a 3. All stations in Year 35 were at or above 3. Results are similar to Year 23, which was the other tidal fresh year. Although it had been 2 years since Year 34 sampling, B-IBI scores increased at 14 stations and remained the same at 1, when compared to Year 34.
- All stations exceeded the benchmark of a 3.0. fourteen stations were above their historic averages, and one stations was below the historic averages for B-IBI.
- Two stations set a new historic high-Nearfield stations MDE-15 and MDE 45. Reference stations MDE-13 and MDE-22 scored the highest possible score, a 5.0, which tied their historic high score set during Year 23. In Year 35, the B-IBI's increased again and there was no longer a trend of decreasing scores in related to distance from HMI. The use of tidal fresh metrics partially explains the continued improvement of the B-IBI's around HMI.
- In addition to using the yearly average salinity, the historical average was also used for calculations, which was in the low mesohaline salinity range. When used with the B-IBI scores, results were very similar to those of Year 34, and not as high when the yearly average was used. All stations, excluding the Back River stations, would have passed the B-IBI test criteria of a 3.0. The mean B-IBI score for all stations combined would have been insignificantly higher that Year 34 if the historic average was used.
- Total in faunal abundances were lower than usual at most stations, which was caused by the decrease in salinity.

- No major disturbances have been observed over the 35 years of monitoring. It is therefore reasonable to discontinue exterior sediment, clam tissue, and benthic community monitoring.

### 3. DNR UPDATE

#### **Brett Prochazka–DNR**

- Mr. Prochazka shared that many Maryland State Parks have seen an increase in visitation this season, including HMI. HMI visitation increased by 12,000 from 2019, and Gunpowder State Park saw an increase of millions more than 2019. He added that visitors shared with staff their appreciation that state parks remained open during the COVID-19 pandemic.
- In response to a previous action item, Mr. Prochazka explained the budget impacts for 2021. The current IGA between MDOT MPA, MES, and DNR expires this year, but staffing will not be limited, and the park will keep the same hours of operation next season. Due to COVID-19 and restrictions implemented by Governor Hogan, programming was limited in the 2020 season. DNR hopes to host more activities next season, with the help of Ranger Robin Reid, who helped plan and conduct previous naturalist programs.
- As discussed at previous meetings, Mr. Prochazka explained the park’s emergency response plan. The HMI emergency response plan is included in the Gunpowder State Park emergency response plan. If the need is severe, the visitor would be taken to the ranger station where they could be air lifted by medivac, or taken to the pier to meet first responders from the local fire department. Mr. Taylor added that location identification in case of emergency is also important, visitors in need of help can quickly and correctly relay their location to staff. Mr. Taylor asked Mr. Prochazka to contact the local fire department.
- An update on the erosion at Hawk Cove was given. Two to three campsites are salvageable but will need some work to restore them. Due to inclement weather, sand has filled the sites. The remaining sites will be relocated near the Ranger station, where popular sites are already placed, adding 6-7 new locations. The new campsites will have better access to the park amenities.

### 4. HMI FRIENDS GROUP

#### **Paul Brylske–Chairman**

- Mr. Brylske updated the group on the progress of the submission of the 501(3)c non-profit status for the HMI Friends Group and that he expects to hear back from the state’s office soon. The group has a tax ID, bylaws, and have created an executive board. Mr. Brylske will serve as President, Mr. Weaver will serve as Vice President, and Ms. Wynn will serve as Secretary, and Mr. Tony Carrelli will also be involved. The group will meet to fill out the executive board, access the structure of the group, and reconnect with the Advisory Council. They will also work with the Johns Hopkins School of Business for strategic planning assistance. The group also intends to reach out to DNR and HMI to offer support in areas of need next summer. Mr. Brylske hopes the group can share an official announcement in January 2021.
- Mr. Brylske asked Mr. Michael if he had any suggestions. Mr. Michael explained that with visitation up, the group may have more people interested in participating in the Friends group.

### 5. HMI NORTH CELL UPDATES

#### **Operations-Lincoln Tracy–MES**

- HMI saw about 10 inches of rain from September 15<sup>th</sup>-November 15<sup>th</sup> and the pond elevation is slightly elevated at 38.35 feet, which is approximately 194 million gallons of water added to the North Cell. The target elevation for the North Cell pond is 37.5 feet.

- MES Operations is continuing maintenance on the dikes, trails and roads. Maintenance on the runoff trenches along the 18-foot road also occurred.
- MES Operations is continuing efforts to lime the perimeter trenches in the North Cell for discharge. Discharge occurred from Spillways 007 and 009. Spillway 008 remained closed due to moving the perimeter trench further into the cell due to slope issues caused by previous storms.
- Mr. Brylske asked MDOT MPA if any updates on the North Cell Design Plan were available. Ms. Peñafiel explained that there are no new updates since the one given at the last meeting.

## 6. DMMP MEETING REMARKS

### **Lien Vu – MES**

- The annual Dredged Material Management Program (DMMP) meeting was held on November 6<sup>th</sup> and information was shared through a website which can currently be accessed at <https://maryland-dmmp.com/>. The website shows information about the meeting and the DMCF sites, including HMI. Information on the DMMP committees can also be found on the website, including meeting dates. Links to virtual meetings, like the HMI COC will be included on the website and provide access by those who are interested in attending.
- Mr. Brylske attended the annual DMMP meeting and appreciated the feedback shared by Ms. Fidler to the group.

## 7. FINAL REMARKS

### **Dave Bibo – MDOT MPA**

- Mr. Brylske asked Mr. Bibo if an update was available on the new IGA. Ms. Peñafiel explained that the Legal office currently has the IGA, and MDOT MPA is hoping to have it signed by all parties at the DMMP executive meeting on December 15<sup>th</sup>. An update will be provided at the next HMI COC meeting.
- Mr. Bibo thanked the Principal Investigators for attending the meeting and sharing their presentations.
- Mr. Bibo reiterated that the site has received extensive monitoring over the years before, during, and after construction. The Principal Investigators use their data collected from the sampling events to make recommendations about the future of monitoring. He assured the group that their concerns will be discussed.
- 2021 meetings are as follows:
  - January 19, 2021
  - April 20, 2021
  - May 18, 2021: Site Tour (Tentative)
  - July 20, 2021
  - September 21, 2021: Site Tour (Tentative)
  - October 19, 2021

Meeting adjourned-8:00pm