

Minnesota 3M PFAS Settlement

Notes for Combined Priority 2 Work Group Meeting

Wednesday, July 19, 2023

9:00 a.m. – 12:00 p.m.

Hybrid Teams and in-person meeting

Combined work group members in attendance

- Aaron Betcher
- Amy Sigveland
- Dave Brummel
- Dave Schulenberg
- David Filipiak
- Howard Markus
- Ingrid Schneider-Sougstad
- James Kelly
- Jill Trescott
- Karie Blomquist
- Kevin Chapdelaine
- Kirk Koudelka
- Kristin Seaman
- Kristina Handt
- Melissa Kuskie
- Michael Madigan
- Monica Stiglich
- Randall Clary
- Ron Moorse
- Ryan Stempski
- Steve Dibb
- Steven Johnson
- Tony Manzara
- Victoria Reinhardt
- Zac Dockter

Presenters

- Debra Fleischer, Abt Associates
- Leland Moss, Abt Associates
- Andrew McFadden, Abt Associates
- Heather Hosterman, Abt Associates

Welcome

Debra Fleischer (Abt Associates) opened the work group meeting by walking through the hybrid meeting logistics, conducting roll call, and discussing the meeting agenda. Melissa Kuskie (Department of Natural Resources [DNR]) then provided opening remarks. She explained that the meeting would review existing information and data on PFAS contamination and how the Co-Trustees might consider that contamination at potential project sites, noting that the Co-Trustees look forward to robust discussion on this important topic. She also provided staffing updates – Jamie Wallerstedt has departed as the Remediation Division Director, Rebecca Place has joined the East Metro Unit as the 3M Settlement Coordinator, and Stacy Metz has joined as the new grants administrator for DNR and Priority 2 work. She also noted that Kirk Koudelka (Minnesota Pollution Control Agency [MPCA]) can join for the first half of the meeting and Liz Kaufenberg (also of MPCA)

would fill in for him during the second half of the meeting. Finally, she reported that the June special session materials are posted on the 3M Settlement website.

Feedback Summary

Leland Moss (Abt Associates) provided a summary of the feedback received at the June special session work group meeting. He explained that MPCA and DNR will summarize feedback received at the previous meeting and from emails and will provide responses at the following work group meeting.

First, Work Group members requested more information on fish, wildlife, and habitat impacts from PFAS. Although this topic was discussed at a high level during the June meeting, Leland noted that the information presented at this July meeting would provide a deeper dive into this topic.

Work Group members asked about fish tissue sampling in the East Metro water bodies. Leland said that there is no comprehensive report on all fish tissue sampling by the interagency sampling group, but links to data will be provided in the second feedback summary and response document, which will be sent out later this month.

Another question pertained to drinking water standards. Leland noted that these drinking water standards are available on the MDH website. More specific links are included in the June meeting materials and the feedback summary and response document.

At the first work group meeting, work group members asked about the 3M East Metro remedial actions. The 2007 Consent Order and 2018 Settlement Agreement were discussed in the June meeting, and additional remediation resource links were provided with the June meeting materials.

In the first meeting, there was confusion about the breakdown of the 2018 Settlement funds. Leland reminded work group members that the June meeting materials and the June feedback summary and response document discuss the breakdown of the \$850 million in Settlement funds, as well as the additional \$40 million for temporary treatment.

There was a discussion of investment planning and revenue from interest on the Settlement money at the first work group meeting. Leland indicated that \$720 million was available for projects and that the June special session covered how investments differ between the priorities and those investment strategies.

There was concern that the communication strategy was only going out through posts on the website. MPCA and DNR will develop a comprehensive communications plan for the Priority 2 RFP closer to the release date (currently scheduled for early 2024).

Finally, there was a request for examples of natural resource restoration efforts. Leland indicated that the focus of Priority 2 planning is to develop a process that identifies projects that would most effectively restore the natural resource injuries and service losses that have occurred because of the PFAS released by 3M. A link to example DNR grant programs was included in the June meeting materials. Projects will be required to contribute to meeting at least one of the Priority 2 goals. Future work group meetings will discuss the evaluation criteria as well as the development of the RFP.

Feedback

There were no comments or questions from work group members at this time.

Work Group Charters

Leland Moss reviewed the work group charter, which was discussed at the first work group meeting, to see whether work group members had any additional feedback.

The mission of the work group is to provide feedback to MPCA and DNR on key Priority 2 planning and process documents to support the distribution of grant funds. Work group members should have received the meeting schedule by email. Meetings will be bimonthly, with the potential for additional meetings for special session topics as needed. These meetings are open to the public and time is reserved at the end of each meeting for public questions and comments.

Leland reviewed the work group responsibilities and expectations. The Co-Trustees expect engagement and feedback from the work group members during and/or after the meetings.

Leland also reviewed how DNR and MPCA will provide work group support, including developing materials, planning work group meetings, preparing and implementing a communications plan, and developing the final RFP for Priority 2.

Leland asked the work group whether there was any additional feedback or comments on the work group charter.

Feedback

There were no comments or questions from work group members.

Priority 2 Goal Revisions

Leland Moss gave an overview of the revised Priority 2 goals. He started the conversation by showing the draft goals developed in 2019 by the Co-Trustees and the work group. He then explained that as the Priority 2 process began, the Co-Trustees wanted to revisit these goals to make sure they made sense and were attainable. Review with several DNR and MPCA staff led to adjustments of the draft goals, which were presented at the first work group meeting. The draft goals were further updated based on feedback received during that meeting.

Leland discussed the revisions to each goal:

- **Goal 1: Resource and Habitat Restoration.** Goal 1 was initially broadened to include terrestrial habitat based on language in the Settlement. Work Group members did not suggest additional revisions; therefore, DNR and MPCA did not make any additional changes to this goal.
- **Goal 2: Recreational Fishing Improvement.** Goal 2 was reworked to ensure the goal is attainable within the financial and practical bounds of Priority 2 and to enhance the safe enjoyment of fishing in the area. Work Group members discussed this goal during the May Work Group meeting, but no additional revisions were made. One request was to ensure this goal is measurable. The September work group meeting will discuss criteria, which will incorporate measurable ways of evaluating submitted projects.
- **Goal 3: Recreation Improvement.** Work Group members discussed the equity and environmental justice language added to this goal during the May work group meeting. DNR and MPCA plan to evaluate and prioritize projects whose benefits would positively affect and/or involve underserved and underrepresented communities, including communities of color, Indigenous communities, residents with low income, and people with physical or mental disabilities. Accordingly, the equity and

environmental justice language was removed from the goal, as it should be an issue that cuts across all goals. Equity and environmental justice will be included as a criterion that will be used to evaluate all projects. When developing the criterion, rubric, and related RFP language, the Co-Trustees will use language consistent with other state programs. This criterion, along with the screening and evaluation criteria, will be part of a more in-depth discussion at the September work group meeting.

Feedback

One work group member noted that the explanation for removing equity and environmental justice from Goal 3 is sensible and they appreciated spending time on that explanation. They were glad that the criterion will be applied across all the work.

One work group member asked how underserved and underrepresented will be defined, as there are at least two definitions in MPCA documents. This work group member also encouraged DNR and MPCA to use “people-first” language (saying “people with low income” vs. “low-income residents”). Leland responded that this is still early in the process and that part of developing the criteria and the RFP will be clarifying these definitions. Melissa Kuskie (DNR) agreed that using “people-first” language was important feedback. The Co-Trustees will finalize these later and solicit feedback from work group members.

One work group member agreed with both comments above.

PFAS in the East Metro

Andrew McFadden (Abt Associates) covered PFAS contamination in the East Metro area. He provided an overview of wildlife study findings in the region and reviewed available PFAS contamination sampling data. He noted that this presentation would inform the next presentation about how to use the data in the context of Priority 2 project planning and review.

Available literature shows acute toxicity from PFAS in a variety of organisms and for various endpoints. PFAS releases result in injuries to vulnerable wildlife and lost recreational opportunities. As PFAS affects reproductive health, it can cause a reduction in wildlife populations, which can impact other recreational opportunities and experiences of nature. Priority 2 is meant to enhance these natural resources and services that have been lost, so understanding PFAS contamination in the East Metro area is important.

Previous studies in the East Metro region have shown reduced hatching success in avian species and increased PFAS in blood. Recent studies have also demonstrated harm to potentially vulnerable species reliant on aquatic habitats. PFAS is readily dissolved in aqueous solutions, so a lot of injury occurs to aquatic dependent species and species in the water, such as the least darter, pugnose shiner, blue herons, Forster’s tern, mink, Little Brown bats, tree swallows, and spotted sandpiper. Areas with high concentrations of PFAS are a threat to fish and wildlife populations, especially reproductive success. There is a good understanding that there is harm that occurs from PFAS releases to the environment.

Andrew discussed the Project 1007 site as an example. This area is adjacent to two known source areas for 3M PFAS releases – the Oakdale disposal site and Washington County landfill. There are demonstrated adverse impacts to wildlife, particularly close to the source areas. The impacts decrease downstream with distance from the source area. High concentration areas have more species impacted and more demonstrable effects. The Co-Trustees can consider these types of impacts across the East Metro region where data is available.

When beginning to plan for Priority 2, the Co-Trustees analyzed which areas seemed to have natural resources and recreational services that were injured by PFAS, which informed which communities had been affected by PFAS and should be involved in Priority 2 planning. The data sources from this analysis included Project 1007 data, fish consumption advisories, natural resource damage assessment export reports, and ongoing MPCA assessments and sampling. There are a lot of ongoing studies, and this analysis was not an exhaustive search of every existing data point, but it gives an idea of the spatial distribution of PFAS injury.

Andrew showed a series of maps with individual PFAS data points that show where data are currently available for water, sediment, and tissue (usually fish tissue) by sampling year. Samples were collected during three time periods: 2005–2010, 2011–2019, and 2020–2022. General distribution patterns show that Pool 2 sampling on the Mississippi River to the south of Cottage Grove was conducted early on, while more recent sampling has been concentrated in the Project 1007 site. There are many data gaps, as most water bodies have not yet been sampled. There is a large area without many samples, so what PFAS contamination may or may not look like in this area is unknown. Existing data does not cover the whole East Metro region. Known source areas often have the most data.

Andrew discussed the PFOS thresholds against which the concentrations in the samples were compared. PFOS is the largest component released in the PFAS releases from 3M source areas. He presented two types of PFOS-specific threshold values: wildlife risk thresholds and human fish consumption risk thresholds. The human fish consumption thresholds are lower than the wildlife thresholds. There are three wildlife thresholds: (1) wildlife threshold for fish tissue that indicates injury to wildlife that consumes fish, (2) wildlife threshold for water quality that indicates direct injury to biota in water, and (3) wildlife threshold for sediment that indicates direct injury to biota in sediment and water in contact with sediment. MN Department of Health developed the human fish consumption thresholds to indicate unacceptable risk to human consumers of fish and focus on fish tissue and water quality. These human fish consumption and wildlife thresholds are subject to change.

Andrew explained that a hazard quotient can be used to compare threshold concentrations against sampling results. The hazard quotient is the exposure (or measured) concentration divided by the reference concentration (the relevant threshold). It indicates potential risk to either wildlife or human consumers of fish depending on which threshold is used for comparison. A hazard quotient of less than or equal to 1 means adverse effects are not likely to occur, while a hazard quotient greater than 1 indicates potential risk.

Andrew showed a set of three maps of PFAS risk for wildlife for water, sediment, and fish tissue data. The water and sediment data indicate that relatively few areas pose risks to wildlife through direct exposure to PFOS. However, the fish tissue data indicates that nearly every data point where fish tissue has been sampled poses a risk of injury to wildlife consumers of fish. It is important to reiterate that some areas have no data at all, so it is unknown whether wildlife in these areas would be at risk.

In the maps of PFAS risk for human fish consumption (water and fish tissue samples), nearly every sample exceeds the threshold value. Where PFOS is detected in the environment, there is an indication of risk to humans if they are consuming fish. These threshold values are much lower than the wildlife threshold values.

The 2023 3M Mississippi River Site Characterization is an ongoing study conducted by MPCA. The interim report was submitted in April 2023. There are focused sampling efforts for 42 PFAS compounds in Pool 2, Pool 3, and

upper Pool 4. The study has initially found PFAS in all areas, with depositional areas the most concerning. MPCA is to develop a summary and release it in late 2023.

Andrew concluded that while contamination data is typically used to assess injury, it can also be relevant to Priority 2 project planning. Injury has already been established, and Priority 2 projects should aim to minimize advertently increasing the risk of injury.

Feedback

One work group member asked whether the maps presented in the slide show will be combined with other maps showing PFAS contamination from Priority 1 work, which they thought could help with the data gaps and provide guidance on Priority 2 work. Andrew responded that they would like to use all available data to populate these maps, but some existing data does not always merge well with the sampling data (e.g., fish consumption advisories are often polygon data rather than point data). Andrew noted that if anyone was aware of additional data, the Co-Trustees would be open to compiling any publicly available datasets.

One work group member asked why the Wildlife Risk Thresholds are not called Wildlife Fish Consumption Risk Thresholds, to be in parallel with the Human Fish Consumption Risk Thresholds, since both are about fish consumption. Andrew responded that the water threshold looks at injury and toxicity to biota in the water, as opposed to the injury caused by biota eating fish in the water. The threshold pertains to direct exposure resulting in acute or chronic toxicity. The fish tissue threshold does pertain to the risk to other biota from consuming fish, so similar language to the Human Fish Consumption Risk Thresholds could be used.

One work group member asked whether the Wildlife Risk Thresholds have been reassessed since the EPA Scientific Panel reduced the recommended safe water threshold for PFAS concentration in the drinking water standards. Another work group member noted that the wildlife numbers are from Canada's 2018 Federal Environmental Quality Guidelines (FEQG). Andrew responded that these threshold values are not static and can fluctuate given the understanding of the toxicity of these PFAS compounds in various organisms. The Co-Trustees want to be as responsive as possible to the ongoing toxicity work with these compounds and will be in close contact with experts at the state who understand the relevant thresholds and how to best understand what injury looks like.

One work group member asked whether the source of the tissue exceedances in the Mississippi and St. Croix Rivers is from contaminated water pumped from the contaminated Woodbury site. Andrew responded that there are other PFAS sources within the Mississippi and St. Croix Rivers beyond the large PFAS releases from the four 3M source areas, so injury attribution is challenging. He reiterated that the volume released from the 3M source areas was large and some injury is expected to be attributed to those, but wanted to make it clear that there are other potential source areas. The work group member noted that there is a suggestion that 3M is treating the water before it is being pumped into the river, but the PFAS concentration immediately downstream would suggest it is not being treated. Kirk Koudelka (MPDA) responded that the Cottage Grove site does have a National Pollutant Discharge Elimination System (NPDES) permit and a technology standard for the facility. Wastewater staff would have more details, but there is a permit requirement, and the site is using granular activated carbon (GAC) treatment. The work group member asked whether there would be monthly discharge reports. Kirk said the wastewater facility does have discharge reports and the wastewater program would know more.

One work group member noted that although there are risk thresholds for wildlife and people consuming fish, they have yet to see a threshold that defines or describes a risk threshold for the fish themselves, other than for least darter and pugnose shiner, and that the threshold for these two species seemed to be based on presence/absence data instead of physiological investigation. The work group members asked whether there was any data for impacts on the fish themselves. Another work group member noted that in Canada's FEQG for PFOS, fish tissue concentration expected to harm fish is 9.4 parts per million (ppm) (<https://www.canada.ca/content/dam/eccc/documents/pdf/pded/feqg-pfos/20180620-PFOS-EN.pdf>) and that this value is linked to EPA's draft aquatic life criteria (<https://www.epa.gov/system/files/documents/2022-04/pfoa-pfos-draft-factsheet-2022.pdf>). The draft EPA aquatic life criteria referenced above do have water column and fish tissue thresholds that would indicate the potential for direct harm to fish. Andrew responded that a range of fish tissue thresholds do exist, and the water specific Wildlife Risk Threshold presented is a proxy value for direct harm to aquatic organisms. While the Wildlife Risk Threshold for fish tissue included in the presentation is not a direct toxicity threshold that would indicate harm to fish, other thresholds are present in the literature (or other draft guidance documents) and are generally higher than the tissue value we used for this analysis.

One work group member asked why the Co-Trustees are using Canadian guidelines. Andrew responded that Canada has been leading the development of wildlife risk thresholds. The Co-Trustees reviewed a variety of thresholds, and the Canadian guidelines seemed the most relevant to the analysis performed and represented existing and state-of-the-art toxicity literature.

One work group member noted that the differences in units can be confusing, and asked whether the same denominator can be used every time. Another work group member agreed with this comment. Andrew responded that the units in the presentation are in parts per billion (ppb), but the ensuing discussions had brought in other threshold values with different units. Andrew agreed that whenever data are presented, the Co-Trustees need to be thoughtful about communicating and standardizing units. Melissa Kuskie (DNR) mentioned that the human fish consumption risk map uses the hazard quotient, which is unitless. The threshold values were provided for context, but the Co-Trustees may want to focus more on the hazard quotient. Being up-front about how these thresholds compare directly to EPA guidance is also important.

One work group member asked whether there were any plans for filling in the data gaps identified, and indicated that efforts to direct people to non-impacted water bodies for recreation should not be based on educated guesses. Melissa Kuskie (DNR) responded that there is ongoing data collection, but it is not specific to Priority 2. The agency and the governor's budget include a doubling of money for sampling, and a large segment of that is for PFAS.

One work group member noted that the fish tissue data map shows where fish are sampled, but not necessarily where those fish spend most of their time and where they collected most of the PFOS. Andrew confirmed that the sample data uses coordinates for where the sample was collected, but fish are mobile, which is an important consideration when looking at the data and considering injury to fish.

One work group member asked for clarification on the maps in the presentation and the correlation between levels of PFOS in water and in fish tissue, and why the presenter indicated that the tissue values told a different story from the water values. Andrew responded that for the human fish consumption risk thresholds, there are exceedances across the board of both thresholds (water and tissue), so the two maps are telling the same story.

What is different is the wildlife risk threshold values, where the fish tissue results exceed the tissue threshold of 4.6 ppb in several areas throughout the East Metro. In contrast the sediment and water (wildlife threshold) maps show more-localized exceedances, generally near the 3M facilities and source areas.

One work group member asked whether the cost per test is one of the reasons data is lacking. Andrew replied that he could not speak directly to funding, but that PFAS analyses on a cost per sample basis can be expensive, especially if running the full suite of PFAS analytes. Andrew was not aware of the current state of up-and-coming analytical techniques, and noted that the EPA and laboratories have their own standard methods. Summer Streets (MPCA) added that in her experience, the current analytical costs are going up, as there is huge demand for PFAS analysis, and all their contract labs are backlogged. Andrew agreed, and Rebecca Higgins (MPCA) noted that the recent backlog at labs has dramatically increased in the past 12 months because of anticipated orders from EPA. Other states are becoming interested in sampling other media types, and samples are getting backlogged for final data sets. Even high-quality labs are experiencing significant delays in receipt of results because of the demand.

One work group member asked whether any funding from Priority 1 is being used for testing in Priority 2. Kirk Koudelka (MPCA) responded that anything specific to Priority 2 will be funded by Priority 2.

Public Comments and Questions

There were no public comments or questions at this time.

Considering PFAS in Proposed Project Evaluations

Heather Hosterman (Abt Associates) presented on considering PFAS contamination in Priority 2 project evaluation. Priority 2 funding is intended to compensate for injuries to natural resources and services, so there is a need to prioritize projects that do not result in additional PFAS injuries and to avoid projects that would increase the risk of potential human health impacts through fish consumption. There are some projects where PFAS levels are not a concern, such as habitat protection or trail building; but there are other project types – such as habitat restoration and recreational fishing – where PFAS is a concern. Habitat restoration projects can draw additional wildlife to contaminated areas because of increased ecological services, and recreational fishing projects can enhance access to contaminated areas and increase fish consumption.

Heather provided project activity examples that are PFAS sensitive:

- Aquatic, wetland, or nearshore habitat restoration
- Aquatic connectivity, such as dam removal or fish passage
- Bird nesting platforms for birds that consume fish
- Fish or bivalve stocking
- Island construction/enhancement
- Fishing pier/access point construction or improvement in contaminated areas

Many project activities are not PFAS sensitive and do not increase exposure risk; these include:

- Trail improvements
- Communications projects
- Habitat protection

- Shoreline erosion prevention
- Invasive species management.

These activities could be supported without considering PFAS contaminated status of the project sites.

Remediation in the area has been ongoing for years and will continue to be a focus moving forward. However, even if the release of PFAS is stopped, the secondary sources of PFAS, such as sediment where PFAS has been stored for decades, will continue until it is removed, because PFAS do not break down in the environment.

Heather then discussed the options for considering PFAS in Priority 2 planning; these options were developed through conversations with Agency staff and the Co-Trustees.

- Option 1 limits projects to activities that do not increase PFAS-related risks. This option would only support project activity types that would not increase PFAS-related risk of natural resource injuries or fish consumption related human health impacts. It would not consider projects that contain aquatic, nearshore, or wetland habitats or increase fishing access. The advantages to this option are that it simplifies screening and evaluation, and projects would move forward quickly. The disadvantages are that it is not consistent with the Settlement language (which states that Priority 2 grant spending should enhance aquatic resources, wildlife habitat, and outdoor recreational opportunities), and excludes important activities that would directly address harms done by PFAS.
- Option 2 requires projects that include PFAS-sensitive activities to have PFAS levels below established thresholds. For projects with PFAS-sensitive activities, PFAS data would be collected if none is currently available. The RFP would likely be phased, with only those that pass screening receiving an invite to submit full proposals. Either the state could conduct project-focused sampling by hiring a contractor, or the project proposers could request sampling funds and conduct work. The advantages to this option are that it helps ensure the projects don't increase PFAS injury, and the phased approach can save communities' time. The disadvantages are that it adds complexity cost and time (up to 1 year) and delays project approval and implementation.
- Option 3 allows projects with PFAS-sensitive activities to move forward if they are outside specific high-risk areas (e.g., Raleigh Creek, Eagle Point Lake, Horseshoe Lake). Under this option, all habitat restoration activities would be allowed to move forward if they are outside of known high-risk areas. This list will be refined in the future. The advantages to this option are that it simplifies the screening and evaluation process and the highest risk areas excluded. The disadvantages to this option are that some risk of PFAS collateral injury from projects will still exist, especially for fish-eating wildlife.
- Option 4 would include PFAS contamination status in the project evaluation process for projects with PFAS-sensitive activities; this would be assessed qualitatively. The Co-Trustees are still considering how best to assess these activities qualitatively, but generally projects in areas with PFAS contamination below established thresholds would be evaluated more favorably, whereas projects in areas with unknown PFAS levels or PFAS levels exceeding risk thresholds would be evaluated less favorably. The advantages of this option are that it simplifies project screening and evaluation, rewards projects that minimize harm, and can be combined with Option 3 to exclude the highest-risk areas. The disadvantages of this option are that a qualitative assessment of risk means that some risk of injury will still exist for projects without PFAS data.

Heather noted that proposing these options is the first step in the process, and these options will inform the development of the screening and development criteria, which will be discussed at the September work group meeting. She also indicated that the Co-Trustees recommend Option 4, as it provides the right balance of reducing complexity, cost, and time while focusing on funding projects that will benefit natural resources and people. The Co-Trustees believe that Option 3 could also be good, particularly when combined with Option 4. However, Co-Trustees felt that Option 1 is too restrictive and not consistent with the Settlement, and Option 2 adds substantial complexity and time to the planning process. Neither is recommended. Heather requested input on these options from work group members.

Heather concluded with a key question that has arisen regarding Priority 2 and recreational fishing projects. The fish consumption data is concerning, as fish consumption poses risk to humans in all sampled areas. However, fish consumption advisories are often ignored when they are posted. The Co-Trustees want to understand whether implementing recreational fishing projects in the East Metro area is something that the Work Group is interested in considering in Priority 2, even though it could increase the risk of health impacts to humans who consume fish. Heather posed a few questions for work group input: should Priority 2 fund any recreational fishing projects involving human use? Should Priority 2 require projects to incorporate risk communication and, if so, would this sufficiently mitigate the risk?

Feedback

One work group member asked whether projects that convince fisherpeople in polluted areas to become birdwatchers would be considered. Heather said that type of communication/human behavior project would be one the Co-Trustees would be interested in seeing. Another work group member noted this could be reframed as a communication and community engagement project. Heather responded that this would be consistent with Priority 2 and the non-PFAS sensitive projects, and agreed that communication around recreational fishing would be a good project.

One work group member asked whether livestock or pets fit under Priority 2. Heather said they do not, as Priority 2 is focused on wildlife and natural resources.

One work group member noted that they appreciated the focus of preventing unintended consequences and referenced Project 1007.

One work group member asked whether DNR and MPCA are aware that U.S. Army Corps of Engineers contractors have been moving dredge material from lower Pool 2 into Pigs Eye Lake to create islands to combat wind fetch, and expressed concern that PFAS from lower Pool 2 could be introduced where it may not previously have existed. Melissa Kuskie (DNR) responded that DNR and MPCA are aware of this, and Joel Stiras (DNR) responded that the sand being transported has been tested for contaminants and is virtually inert.

One work group member expressed concern with the recommendation to move forward with Option 4, noting that while people thought Project 1007 was well intentioned, it contributed to the release of PFAS. They felt that the idea that the Co-Trustees would consider any project that would risk spreading PFAS is unfathomable. This work group member suggested that if the only reason Option 1 is not being considered is because it is not consistent with Settlement language, then the Settlement language should be revisited. The work group member supports Option 1 and would have a hard time supporting any of the other options.

One work group member said they struggled with the concept that fishing in southern Washington County may have to be written off entirely. They felt uncomfortable not knowing the long-term plan to fix these affected areas. They acknowledged that this wouldn't be part of the Settlement process, but felt that a long-term plan should be clear to the public, with the grant program as a solution in the shorter term. The work group member noted that consumption advisories are ignored, and the public isn't going to accept projects that seem to put a temporary band-aid on the problem. They will want assurance that in the long-term other actions will be taken, and the Co-Trustees should be aware of how the public is going to perceive these.

One work group member asked whether there was an option that identified projects that mitigate existing PFAS threats to wildlife and fish, particularly in areas of high sensitivity. They asked whether this was included in one of the other options, and felt that these projects should be a priority. Melissa Kuskie (DNR) noted that if there were a project that could reasonably mitigate some of the PFAS threats within the confines of the criteria and the funding available, it would be considered. Remediation is very expensive and is not consistent with the Settlement, but is still very valuable. The work group member felt that if there were a project in an area of sensitivity that would make an impact, it would be worth looking at.

One work group member asked whether signs and communication were already going up with DNR efforts in high-risk areas to protect human consumption, and another work group member added that signs have never been a primary means of communication for fish consumption advisories because people must be at the right place and the right time to see them. DNR and MDH prefer to direct people to their website because it's more efficient. The Agencies distribute print materials as well. Signage is hard to maintain and make consistent.

One work group member asked whether there was data on the percentage of fishers who fish for subsistence versus recreation. The work group member followed up and referenced Schroeder et al. (2005), which found fishing for food was a very low motivation. Another work group member noted that there is creel survey data for Pool 2 and the St. Croix River, although the Pool 2 data is old. The survey only addresses angler catch and harvest versus angler catch and release.

One work group member expressed their support for Options 3 and 4. They felt that each site is unique, so each proposal will be unique, and project proposals should not be eliminated solely based on current PFAS status without giving the opportunity for applicants to justify the benefits to habitats and/or humans. They felt that using the spread of PFAS as part of the review criteria was an acceptable approach. Melissa Kuskie (DNR) noted that some projects may score well because they don't increase PFAS risk, but they may not do much else. Other projects may be PFAS sensitive but could be fantastic for restoration. Heather reiterated that Option 4 does not mean that the Co-Trustees will move forward with projects that increase injury.

Another work group member noted that they originally thought Options 3 and 4 would disallow projects that do not have anything to do with PFAS, but this is not the case. Trail building to improve public access, for example, would be acceptable because it would help achieve Goal 3. The work group member understands that the Co-Trustees will weigh the benefits of projects that address some aspect of PFAS. Another work group member added that they felt the reference threshold should be zero because the science is constantly changing. They do not want to cut out projects that would have benefits, but feel that those benefits shouldn't be at the expense of today's thresholds that could change and create issues with spreading. Heather said that if the Co-Trustees decide to go down the route of Options 3 and 4, this discussion can be revisited. The criteria on how to evaluate these projects will be discussed. The criteria can be conservative, and the balance will be established between

being careful of additional injury and allowing projects to move forward if they do have a lot of benefits, even if the risk is unknown or data is not available.

One work group member expressed confusion over Option 1. They asked whether there were PFAS-related risks other than spreading. Heather explained that if there are activities that are not PFAS sensitive and do not increase injury, those could move forward regardless of where they are located. Under Option 1, activities that could increase PFAS-related risks would not be funded.

One work group member felt it would be good to spread a wider net of project possibilities. They suggested holding off on making decisions on projects that lack data, while moving forward on projects that are acceptable. Heather noted that this would be a hybrid of Options 2 and 4 but more similar to Option 2. Another work group member said that as there is only \$20 million available, it should not be spent collecting data. Heather responded that it sounded like they were leaning away from Option 2.

One work group member asked who will be on the panel approving projects. During Priority 1 discussions, work group members were not privy to this information until after the Agency had approved grants/projects, and the work group member wondered whether this would be the same for Priority 2. Heather reminded work group members that Co-Trustees will be evaluating the projects.

One work group member asked whether the Co-Trustees would consider the idea of creating some criteria that would give points to potential projects that would focus on remediation and are low cost but show a good return on investment. They felt this would help with public perception. Heather responded that the Co-Trustees could discuss incorporating this into the criteria or the RFP process.

One agency staffer noted that fish passage at dams is more nuanced than simply exposing fish to contaminated areas. Paddlefish try to get past Lock and Dam #2 every year to access spawning habitat, and their exposure to PFAS levels is debatable when they are already downstream of point source pollution. Increasing access past Lock and Dam #2 would be beneficial. Heather noted that this is an example of where Option 4 is helpful because the expertise and knowledge could be used to qualitatively assess the project.

One work group member expressed support for Option 3 and noted that it has the best balance between criteria that are straightforward from an applicant perspective and preventing additional harm. They felt Option 4 is complicated from an application perspective and would be a “maybe” for them. They would keep PFAS-sensitive activities outside of high-risk areas and possibly evaluate projects qualitatively.

One work group member noted they would prefer not to spend Settlement money in high-risk areas because they should be remediated by the responsible party. There is a need to use limited funds to improve public participation and opportunities for wildlife to thrive, but not in areas where a lot of work needs to be done to get back to a baseline.

One work group member felt that any project, not just fishing projects, should have a required communication piece that talks about PFAS contamination. Another work group member agreed, and Heather said the Co-Trustees can think about how to include communications in all projects. Another work group member added that the communication aspect should be about awareness of PFAS in general, not necessarily related to fish consumption. Heather added that while signs are not the most effective, projects could use social media and targeted communications to make sure the right audiences see it.



One work group member asked about the geographic region for Priority 2. The Settlement specifies the East Metro and areas downstream of the Mississippi and St. Croix Rivers. The Co-Trustees would prefer projects that are closer to the source areas, but boundaries can expand. The work group member noted that if there is significant aversion to fishing in areas that have PFAS, there may be options for engaging the public to use areas outside of those zones where there is less likelihood of PFAS. The work group member also said there should be a geographic definition by the time the RFP comes out.

Next Steps

Heather Hosterman covered the next steps for Priority 2. Before the next meeting, the Co-Trustees will share the content from the July meeting; engage Subgroup members, including via one-on-one meetings; and develop draft evaluation criteria and RFP scope and language. Heather reviewed the schedule for the remaining work group meetings.

Feedback

There were no comments or questions from work group members at this time.

Public Comments and Questions

There were no public comments or questions at this time.