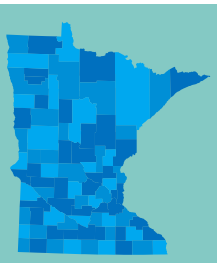
Pig's Eye Dump Task Force

February 2026

Pig's Eye Dump Task Force Report DRAFT

Task force recommendations to remediate and restore Pig's Eye Dump.

MINNESOTA POLLUTION CONTROL AGENCY



Legislative charge

Legal citation: MN Laws 2022, ch. 94, Sec. 2, subd. 10j

Appropriation language: $800,000 the second year is from the trust fund to the commissioner of the Pollution Control Agency to establish a Pig's Eye Landfill Task Force to coordinate efforts to remediate and restore the Pig's Eye Landfill Superfund site and address perfluoroalkyl and polyfluoroalkyl substances (PFAS) contamination of Battle Creek, Pig's Eye Lake, and nearby groundwater. The task force must be made up of at least the commissioner of the Pollution Control Agency, the commissioner of natural resources, the commissioner of health, a representative from the Metropolitan Council, a representative from the city of St. Paul, a representative from the city of South St. Paul, a representative from the city of Newport, a representative from Ramsey County, a representative from Dakota County, a representative from Washington County, and representatives from relevant federal agencies. The task force is subject to Minnesota Statutes, section 15.059, subdivision 6. The task force must submit an annual report to the chairs and ranking minority members of the legislative committees and divisions with jurisdiction over the environment and natural resources on the status of the task force's work. The final report is due February 15, 2026. The task force expires June 30, 2026. This appropriation is available until June 30, 2026.

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Executive summary

Background

Pig's Eye Dump, located in St. Paul, Minnesota, is the state's largest unpermitted dump. From 1956 to 1972, the 200-acre site received household and industrial waste before modern disposal regulations existed. Positioned within the Mississippi River floodplain near Battle Creek and Pig's Eye Lake, the site is surrounded by sensitive natural areas and critical infrastructure.

The large unlined waste deposit at the Pig's Eye Dump is an ongoing source of contamination, with contamination migrating beyond the waste footprint into groundwater, surface water and the bottom sediments in Pig's Eye Lake. Additionally, landfill gas consisting primarily of methane is being released into the atmosphere. Although there were cleanup efforts between 2000 and 2005, significant environmental concerns remain. The waste continues to be an uncontrolled source of contamination in the environment. The most significant contaminants of concern are per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane.

In 2022, the Minnesota Legislature established the Pig's Eye Dump Task Force, an MPCA-led multi-agency task force charged with developing a plan to remediate and restore Pig's Eye Dump. The Task Force was funded by an appropriation from the Environment and Natural Resources Trust Fund (ENRTF).

Pig's Eye Dump Task Force

From 2022 to 2026, the Pig's Eye Dump Task Force, comprising of state, federal, and local partners developed this plan to guide remediation and restoration of the site. Throughout this time, Task Force members built their understanding about the site history and neighborhood, contaminants of concern, and potential risk to human health and wildlife. The Task Force also reviewed similar case studies nationwide. While none of the other sites face Pig's Eye Dump's unique challenges, the case study examples demonstrated that comprehensive cleanup could reduce risks and restore land for ecological and public use. The Task Force explored remediation and restoration strategies, potential funding options, and incorporated public input into their decision-making to finalize recommendations for the site.

Community engagement

To assist Task Force members in developing the plan, the Pig's Eye Dump project team conducted public outreach to educate people about the dump and gather input on the public's vision for the future of the site. Throughout 2024 and 2025, the team connected with community members and stakeholders through meetings, surveys, tours, and attending public events. This input helped shape Task Force priorities, emphasizing health and safety of nearby communities, environmental restoration, and public access.

Remediation and restoration options

Several strategies were evaluated to reduce environmental and health risks. Future land uses considered included the site as a natural area, adding recreation opportunities, or limited commercial/industrial reuse.

Two remediation options emerged as most effective:

- **Dig and haul:** Remove all waste and transport it off-site for proper disposal.
- **Dig and line:** Excavate and rebuild a new modern, engineered landfill with a liner on the property to contain the waste.

Other options, such as covering waste in place or partial relocation on the property may reduce some risk but not as effectively.

Task Force recommendations

Remediation and restoration recommendations

- Pig's Eye Dump holds a large volume of uncontained waste directly adjacent to Battle Creek, Pig's Eye Lake, and is located in the Mississippi River floodplain. The preferred remediation options are the dig and haul and dig and line options because they are the options most protective of the environment.
- Remediation and restoration efforts should protect local communities, wildlife, and natural habitat and improve water quality.
- Remediation and restoration actions should be as consistent as possible with existing planning work including City of St. Paul plans, Great River Passage plan, and other relevant plans without excluding any remediation options the Task Force has recommended.
- The remediation and restoration options pursued needs to be implemented in a way that addresses aviation regulations and concerns related to the St. Paul Downtown Airport.
- Excavating all the waste and sending it to existing metro landfills would greatly impact the remaining waste capacity for the metro area. If the dig and haul remediation options is implemented, the impact to metro area waste disposal capacity and impact to potential community revenues should be considered
- If the dig and haul or dig and line remediation options are implemented, safety protocols should be strictly followed during excavation and transportation to protect nearby communities and construction workers from potential risks. It is not expected that waste will be able to be treated on the property however, recoverable hazardous materials should be segregated to the degree possible and sent to appropriate facilities for safe containment.
- Future use of the site should include as a safe and accessible natural area for passive recreation, such as walking trails and wildlife observation.
- The remediation and restoration plan should allow for future expansion and ongoing operation of the Metropolitan Water Resource Recovery Facility and the Pig's Eye Wood Recycling Center, as both facilities serve a public purpose and have an environmental benefit. Any future expansion will need to comply with applicable ordnances and regulations.
- The MPCA should complete a feasibility study of the remediation options, restoration options presented to the Task Force, including possible impacts to existing nearby facilities. The feasibility study analysis should prioritize the dig and haul no backfill and dig and line remediation options.

Funding recommendations

Remediation funding recommendation

- There is no one funding source that is able to provide the needed funding for remediation and restoration of Pig's Eye Dump. To be able to fund a remediation approach that is fully protective of the environment, a combination of existing and new funding sources should be pursued.
- Federal funding should be pursued where remediation and restoration efforts for Pig's Eye Dump is an eligible use.
- Federal funding should be pursued by creating a new funding structure. For example, a funding source that is similar to the Great Lakes Restoration Initiative or adjustments to the Mississippi River Restoration and Resilience Initiative proposal.
- State funding should be pursued, such as available funds in the MLCAT account and opportunities to bond for clean-up work.
- Voluntary public-private partnerships should be explored to fund remediation efforts. Private parties include haulers, industries and residents in the surrounding area who contributed waste to the facility would contribute funding.
- The Superfund responsible party identification process should not be utilized. Instead, a fee should be assessed on all waste disposal to cover/contribute to remediation expenses since haulers, industries and residents in the surrounding area all contributed waste.

Restoration funding recommendation

For restoration efforts, pursue other federal or state sources of funding such as (LCCMR, Lessard-Sams Outdoor Heritage Fund, etc.

Background of Pig's Eye Dump

Site history

Pig's Eye Dump is a closed unlined waste disposal site in St. Paul, Minnesota. From 1956 to 1972, the site operated as a dump without a permit and accepted municipal, commercial, and industrial waste. During this time, Pig's Eye Dump became the largest unpermitted dump in Minnesota, with a fill area spanning more than 200 acres. From 1977 to 1985, the Metropolitan Council Environmental Services (MCES) disposed of wastewater treatment sludge incinerator ash on 31 acres of the site under Minnesota Pollution Control Agency (MPCA) Permit SW-189. The MCES placed the ash on top of existing waste and covered the ash and waste with approximately two to three feet of soil.

Since the 1970's, multiple phases of environmental investigation have been carried out at the dump site, Battle Creek, and Pig's Eye Lake. In 1989, the MPCA placed Pig's Eye Dump on the State Superfund List. Groundwater, surface water, and sediment samples have shown the presence of contaminants including per- and polyfluoroalkyl substances (PFAS), 1,4 dioxane, metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs).

From approximately 2000 to 2005, initial cleanup actions were caried out at the site, including:

- Removal and disposal of over 200 drums of hazardous waste.
- Cleanup of contaminated surface soil in a battery disposal area next to Pig's Eye Lake via in-situ solidification and stabilization.
- Filling of areas where water was pooling on the landfill surface.
- Reshaping the side of the landfill near the eastern railroad drainage to reduce erosion and reduce the discharge of landfill leachate.
- Installing a two-foot soil cover over the dump's waste footprint.
- Removing and relocating waste to help stabilize the bank and shoreline along a portion of Battle Creek and Pig's Eye Lake.
- Installing an engineered "select fill" material in key areas between the waste and surface water to reduce metals and VOC contamination in landfill leachate from entering Battle Creek and Pig's Eye Lake.

These initial cleanup actions were an important first step that led to modest environmental improvements. However, additional work is still needed to address contamination from the Pig's Eye Dump. The previous cleanup work completed between 2000 and 2005 took place before PFAS and 1,4 dioxane were identified through sampling. In addition, recent evaluations have identified the need to better understand the volume of waste, groundwater flow patterns, and the contribution of contaminants from upstream contamination sources.

Pig's Eye neighborhood

Figure 1. Pig's Eye Dump with city and county boundaries.

Pig's Eye Dump and the surrounding area has several important shared uses, including diverse communities, businesses, and ongoing projects. The area is within the East Side River District, which is an area of the Mississippi River that has many shared uses, including Dakota homeland and sacred sites, industrial areas, parks and recreation, and natural habitats that serve as key bird migration routes. Current uses and projects directly on or adjacent to Pig's Eye Dump include the following:

City of St. Paul – Pig's Eye Park

Pig's Eye Park is located on the waste footprint of the Pig's Eye Dump and also includes areas to the south around Pig's Eye Lake. The area is a large, ecologically significant natural area managed by the City of St. Paul. Located adjacent to Pig's Eye Lake and surrounding portions of the Mississippi River backwaters, the park features trails, bird watching areas, and opportunities for nature observation. It provides important habitat for migratory birds and other wildlife, and is a popular destination for birders, especially during spring and fall migration seasons.

St. Paul Downtown Airport

The St. Paul Downtown Airport (Holman Field) is located just west of Pig's Eye Dump, across the Mississippi River. The airport is operated by the Metropolitan Airports Commission and serves general aviation, corporate, and military aircraft. Its proximity to the site means close coordination with the airport regulatory authorities will be necessary in both the design and implementations stages of future cleanup or restoration activities, especially activities that would result in topography changes, changes

in bird populations and bird habitat that could be a concern for aviation safety. Also, compliance with airport zoning restrictions during construction activities. The airport is a long-standing feature of the East Side River District and plays a role in regional transportation and economic activity.

Metropolitan Council Environmental Services Water Resource Recovery Plant

The Metropolitan Council Environmental Services Water Resources Recovery Plant is located directly southwest of the Pig's Eye Dump. It is the largest wastewater treatment facility in Minnesota and serves the Twin Cities metropolitan area, treating over 180 million gallons of wastewater per day. The plant plays a critical role in protecting water quality in the Mississippi River by treating residential, commercial, and industrial wastewater from across the region.

The U.S. Army Corps of Engineers and Ramsey County Habitat Restoration Project

The U.S. Army Corps of Engineers, in partnership with Ramsey County, has completed a habitat restoration project on Pig's Eye Lake. The project consisted of reusing dredged material to build islands within the lake with the goal of restoring backwater habitat and improving water quality (https://www.ramseycounty.us/residents/parks-recreation/planning-construction-restoration/pigs-eye-lake-island-building-project).

Canadian Pacific and Kansas City Southern Railway

A large railroad switching yard, owned and operated by Canadian Pacific and Kansas City Southern Railway, is located adjacent to the Pig's Eye Dump to the north and northeast. This facility is a critical part of the regional freight transportation network, serving as a hub for rail traffic moving through the Twin Cities and beyond. The yard supports significant industrial activity in the area and contributes to the region's economic infrastructure. Part of the previous remedial actions from 2000-2005 included waste removal from railroad property and grading along the waste interface with the railroad drainage ditch.

Environmental Wood Supply

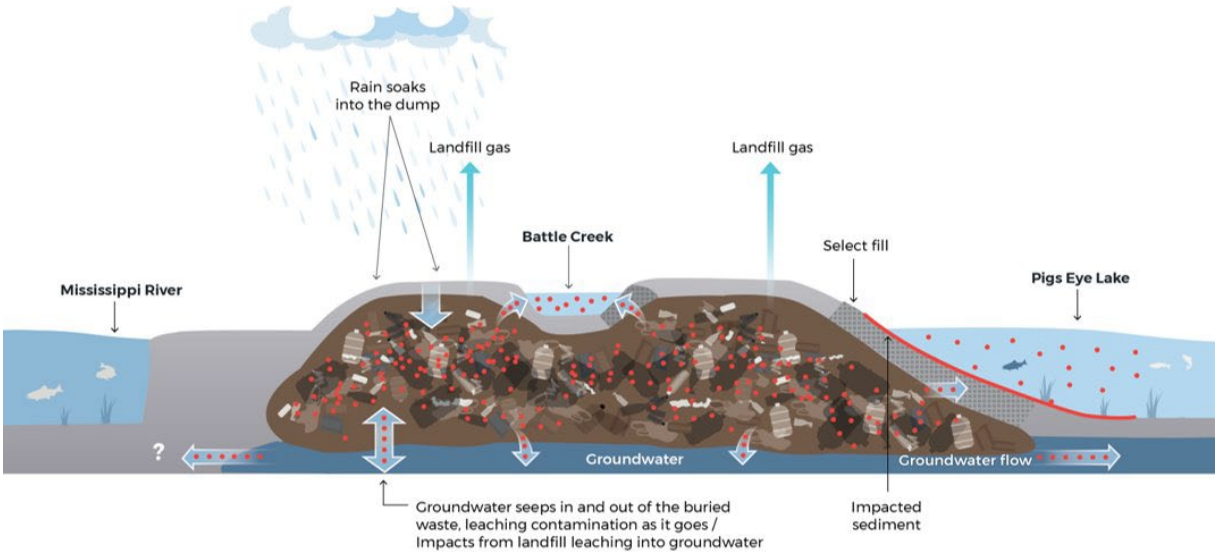
Environmental Wood Supply is located directly adjacent to the Pig's Eye Dump to the west. Environmental Wood Supply processes and recycles wood waste collected from city operations and public drop-offs. The site supports urban forestry and sustainability efforts by diverting wood debris from landfills and producing mulch and other reusable materials. Currently there is no data that shows the Pig's Eye Dump waste footprint extends beneath the Environmental Wood Supply facility.

Department of Natural Resources – Pig's Eye Island Heron Rookery Scientific and Natural Area

Located in the southern portion of Pig's Eye Lake, the Pig's Eye Island Heron Rookery is managed as a Scientific and Natural Area (SNA) by the Minnesota Department of Natural Resources (DNR). SNAs are set aside to protect rare and sensitive natural features, this site is particularly notable for its ecological significance within an urban environment. The area contains one of the largest urban heron and egret rookeries in the Midwest.

The contamination story

Figure 2. Contamination process at Pig's Eye Dump



Pig's Eye Dump is a large, unlined waste site unfortunately situated near water. Battle Creek enters the site from the north, flows through the center of the dump, and continues into Pig's Eye Lake south of the landfill before eventually entering the Mississippi River. Additionally, the Mississippi River is located about 800 feet west of the dump, which often causes the waste area to become saturated with floodwater and groundwater during flood events.

The large unlined waste deposit is an ongoing source of contamination, with pollutants migrating beyond the original waste footprint in both groundwater and surface water. Additionally, landfill gas consisting primarily of methane is being released into the atmosphere.

As rain and flood water seeps through the waste and groundwater infiltrates into the waste from below, contaminants are transferred into the water, creating landfill leachate. As the leachate moves out the bottom and sides of the unlined waste area, contaminants are released into groundwater. Some of the contaminated groundwater then flows into Battle Creek and Pig's Eye Lake. This allows the contaminants to spread into surface waters and the lakebed sediments of Pig's Eye Lake.

As is typical with unlined dumps of this era, there are a wide variety of contaminants. However, the primary contaminants of concern are PFAS and 1, 4 dioxane. Other contaminants detected include VOCs, SVOCs, cyanide, metals, and PCBs.

The initial cleanup efforts in the early 2000's attempted to reduce the spread of contaminants by installing an engineered "select fill" material in some areas between the waste and surface water. The select fill is permeable to allow leachate to flow through the fill material and contains organic matter that can absorb some contaminants. Monitoring data suggests the select fill material may be reducing some of the VOC and metals contamination, but it is less effective in absorbing the primary contaminants of concern, PFAS and 1,4 dioxane.

Contaminants of concern and scope of contamination

Since the initial clean up actions were implemented, monitoring has shown that some contaminants, specifically VOC's, SVOC's, and PCB's, are trending downward, falling below groundwater and surface water quality standards. Despite this decrease, there is still contamination at concerning levels.

Groundwater

Environmental monitoring shows that contaminated groundwater is moving from the landfill toward Battle Creek, Pig's Eye Lake, and the Mississippi River. In some areas of the landfill, the waste is perpetually in contact with groundwater while at other depths and locations waste is sitting in groundwater only during flood events. Monitoring has not yet fully identified how far PFAS and 1,4 dioxane contamination has spread.

Contaminant	*Explanation*	*Maximum Concentration (2025)*	*Health or Environmental Guidance*
PFAS	*Detected values are multiples times above standards*	*565,000 ng/L (PFOA)* *23,500 ng/L (PFOS)*	*0.0079 ng/L (PFOA)* *2.3 ng/L (PFOS)*
1,4 Dioxane	*Detected values are multiples times above standards*	*40 µg/L*	*1 µg/L*
VOCs	*Detected values are multiples times above standards*	*50 µg/L (Benzene)*	*2 µg/L (Benzene)*
SVOCs	*Detected values are multiples times above standards*	*3.28 µg/L Bis(2-chloroethyl) ether*	*0.3 µg/L Bis(2-chloroethyl) ether*

Note – Metals have been detected below health guidance values and PCBs are present below the laboratory method detection limits.

Surface water

The MPCA has developed site-specific water quality criteria (WQC) for application in a portion of Pool 2 of the Mississippi River, as the basis for remediation and other efforts to reduce PFAS contamination. The WQC address PFAS with Minnesota Department of Health (MDH) toxicological values and health-based guidance. The Pool 2 criteria is specific to Pool 2 water bodies and although not applicable to Battle Creek the Pool 2 criteria was utilized as a reference to provide context to detected PFAS concentrations.

Surface water monitoring in Battle creek upstream of the dump and within the landfill has detected PFAS compounds (PFHxS, PFOA and PFOS) at concentrations that exceed applicable MPCA water quality criteria. As water flows through the dump and eventually reaches Pig's Eye Lake, it picks up additional contaminants from the dump, resulting in additional PFAS contamination in both Battle Creek and Pig's Eye Lake. Pig's Eye Dump is a source of contamination in Battle Creek and Pig's Eye Lake, and there are upstream sources that also contribute contamination to Battle Creek and Pig's Eye Lake.

Contaminant	Explanation	Maximum Concentration (2025)	Health or Environmental Guidance
PFAS	*Detected values are multiples times above the Mississippi River Pool 2 criteria*	*1,300 ng/L (PFOA)* *274 ng/L (PFOS)*	*88 ng/L (PFOA)* *0.05 ng/g (PFOS)*

Note –

1. For PFOA and PFOS Pool 2/Class 2B WQC were used for reference
2. VOCs, SVOCs, and PCBs are present below the laboratory detection limits
3. Although 1,4-dioxane and select metals were detected, there are no WQC

Sediment

While there are no published Sediment Quality Targets (SQTs) for PFAS, several PFAS compounds were detected above laboratory reporting limits in both Pig's Eye Lake and Battle Creek bottom sediments. Similarly, although VOCs were detected, no SQTs exist for VOCs. Metals such as cadmium, copper, lead, and zinc were detected above the applicable Level I SQTs in Pig's Eye Lake. Additionally, copper was found exceeding the Level I SQT in one sediment sample collected from Battle Creek, and in 2025 select Polycyclic Aromatic Hydrocarbons (PAHs) were identified above Level I SQTs. Notably, 1,4-dioxane and PCBs, were not detected in any of the sediment samples collected from Battle Creek.

Contaminant	Explanation	Maximum Concentration (2025)	Health or Environmental Guidance
PFAS	*Several PFAS were detected in sediment samples collected from Battle Creek*	*120 µg/kg (PFOA)* *11 µg/kg (PFOS)*	*No published criteria*
SVOCs	*Several SVOCs were detected multiples times above the Level 2 Sediment Quality Targets*	*141 µg/kg (Acenaphthene)* *1,580 µg/kg (Benzo[a]anthracene)* *143 µg/kg (Dibenz[a,h]anthracene* *1,410 µg/kg (Phenanthrene)* *1,990 µg/kg (Pyrene)*	*89 µg/kg* *1,100 µg/kg* *140 µg/kg* *1,200 µg/kg* *1,500 µg/kg*
Metals	*Several metals detected above Level 1 Sediment Quality Targets*	*45.5 µg/kg (Lead)* *39.7 µg/kg (Copper)*	*36 µg/kg* *32 µg/kg*

Note –

1. 1,4 -dioxane, and PCBs were detected below the laboratory detection limits
2. VOCs were detected but there are no established criteria

Soil

Soil samples were collected at the landfill from both surface soil cover (0 to 2 feet) and beneath the soil cover.

PFAS compounds, specifically PFOA and PFOS, were consistently detected at levels exceeding both residential and industrial Soil Reference Values (SRVs) in both the surface soil cover and in the waste material underneath the cover.

Metals in shallow cover soil were mostly found on the eastern side of Battle Creek above residential SRVs, though all remained below the threshold for industrial SRVs. Also, metals were detected in deeper intervals below the cover soil above the SRVs in both sides of the landfill.

Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs) in both cover soil and deeper samples and were present but did not surpass residential SRVs.

Polychlorinated Biphenyls (PCBs) were not identified in the cover soil but were identified in select samples on the western side of Battle Creek landfill at concentrations above both residential and industrial SRVs.

Contaminant	*Explanation*	*Maximum Concentration*	*Health or Environmental Guidance*
PFAS	*Detected values are multiples times above the Industrial SRV*	*23.6 µg/kg (PFOA)* *305 µg/kg (PFOS)*	*0.86 µg/kg (PFOA)* *18 µg/kg (PFOS)*
SVOCs	*Detected values are multiple times above the Industrial SRV*	*11,100 µg/kg (1-methylnaphthalene)* *392,000 µg/kg (Benzo[a]pyrene)*	*260 µg/kg* *23,000 µg/kg*
Metals	*Detected values are multiple times above the Industrial SRV*	*28.4 µg/kg (Arsenic)* *45.6 µg/kg (Cadmium)* *1,290 µg/kg (Lead)*	*9 µg/kg* *23 µg/kg* *460 µg/kg*
PCBs	*Detected values are above the Industrial SRV*	*10,600 µg/kg (PCB-1248)* *10,700 µg/kg (PCB-1254)*	*10,000 µg/kg* *10,000 µg/kg*

Note –

1. 1,4 -dioxane is present below the laboratory detection limits
2. VOCs were detected below the residential SRVs.

Landfill gas

The waste material generates landfill gas, which consists of methane and other gases produced by decomposing waste. In some areas of the dump, methane was detected at high levels. Methane fractions ranged from 0 to 69.7% during March 2025 sampling, and from 0 to 73.0% during June 2025 sampling. Methane concentrations exceeded the lower explosive limit (LEL) for methane of 5% by volume at seven gas probes in March 2025 and ten gas probes in June 2025. In addition, all seven of the March 2025 exceedances and eight of ten exceedances in June 2025 exceeded the upper explosive limit (UEL) for methane of 15% by volume. Although the highest methane levels were observed in the waste area, elevated methane levels were also found along the landfill's western perimeter, indicating potential gas migration. No significant methane levels were detected along the landfill's eastern perimeter.

Wildlife and health impacts

PFAS and 1,4-dioxane are chemicals that once in the environment do not break down and can build up over time in plants and animals. This accumulation can result in greater negative impacts on the ecosystem.

Contaminants from the Pig's Eye Dump are a significant source of PFAS contamination in groundwater. As discussed previously, contaminated groundwater is migrating towards Battle Creek and Pig's Eye Lake, impacting these surface water bodies. Additionally, decades of contaminated surface water flowing from Battle Creek has led to sediment contamination in Battle Creek and Pig's Eye Lake.

Fish Consumption Advisory

The MDH has issued fish consumption guidance for Mississippi River Pool 2. This advisory was issued by MDH due to the presence of PFAS in fish tissue from Pool 2. Pig's Eye Lake is connected to the Mississippi River and is considered part of Mississippi River Pool 2 for fish management purposes.

Pig's Eye Island Heron Rookery Impacts

The Minnesota Department of Natural Resources has designated Pig's Eye Island Heron Rookery as a Scientific and Natural Area (SNA). The heron rookery near Pig's Eye Lake is one of the largest in the Upper Midwest and has been impacted by PFAS contamination. Studies by the U.S. Geological Survey found high levels of PFAS in Great Blue Heron eggs collected from the site. Blue Heron eggs collected in 1993 were found to contain PFOS concentrations averaging over 900 ng/g wet weight. Follow-up testing in 2010–2011 showed a 60% decline in PFAS levels but still at levels that can cause harm to bird development, reproduction, and immune systems.

Pig's Eye Dump Task Force

In 2022, the Minnesota Legislature directed the Minnesota Pollution Control Agency (MPCA) to establish a task force to coordinate efforts to remediate and restore the Pig's Eye Dump and address PFAS contamination in Battle Creek, Pig's Eye Lake, and groundwater. To support this effort, the Legislature appropriated $800,000 to the MPCA from the Environment and Natural Resources Trust Fund (ENRTF).

The authorizing legislation specified that the Task Force was to be made up of at least the commissioner of the Pollution Control Agency, the commissioner of Natural Resources, the commissioner of Health, a representative from the Metropolitan Council, a representative from the city of St. Paul, a representative from the city of South St. Paul, a representative from the city of Newport, a representative from Ramsey County, a representative from Dakota County, a representative from Washington County, and representatives from relevant federal agencies.

The Task Force was also directed to submit an annual report on the status of the Task Force work to the chairs and ranking minority members of the legislative committees and divisions with jurisdiction over the environment and natural resources. The final report is due February 15, 2026, the Task Force expires on June 30, 2026.

Additionally, remediation and restoration activities at the Pig's Eye Dump are governed by existing local, state and federal requirements. The Task Force work has taken this into account when forming its recommendations. Building upon Task Force recommendations, more detailed plans will be needed to comply with local, state and federal regulatory oversight and permitting processes.

Figure 3. Southern part of Pig's Eye Dump near Battle Creek and Pig's Eye Lake

Pig's Eye Dump Task Force work summary

Work plan development and approval

For the funds to be appropriated, the MPCA developed a project work plan for the Legislative-Citizen Commission on Minnesota Resources (LCCMR). LCCMR is the commission that makes funding recommendations to the Minnesota State Legislature for special environment and natural resource projects from the EENRTF.

The MPCA submitted its Pig's Eye Task Force work plan on August 12, 2022, and presented it to the LCCMR on August 16, 2022. The LCCMR approved the work plan the same day.

Task Force Representatives

The Task Force consists of the following representatives:

State Agency, Local Unit of Government, or Federal Agency	Representative
Minnesota Pollution Control Agency	Kirk Koudelka (Assistant Commissioner)
Minnesota Department of Natural Resources	Dan Scollan (Hydrologist)
Minnesota Department of Health	Dave Bell (Research Scientist)
Metropolitan Council	Sam Paske (Assistant General Manager)
City of St. Paul	Melanie McMahon (Executive Project Lead)
City of South St. Paul	Jimmy Francis (Mayor)

State Agency, Local Unit of Government, or Federal Agency	Representative
City of Newport	Bill Sumner (Councilmember)
Ramsey County	Victoria Reinhardt (Task Force Representative)
Dakota County	Dave Magnuson (Supervisor)
Washington County	Caleb Johnson (Senior Manager)
United States Army Corps of Engineers	Nathan Wallerstedt (Chief)

Timeline of Task Force work

The table below summarizes the timeline of Task Force events.

Milestones	Actual completion date
Contact federal, state, and local entities	February 15, 2023
Federal, state, and local entities select Task Force representatives	March 13, 2023
Submit 2023 annual report to the legislature	March 31, 2023
East Side River District Convening-stakeholder meeting	December 14, 2023
Task Force Meeting #1- introductions, review charter, goals, timelines.	September 25, 2023
Task Force Meeting #2- site history, contaminants of concern, remedial investigation update.	January 12, 2024
Task Force Meeting #3- Superfund process timeline, remediation options, feasibility of remedial strategies.	March 8, 2024
Art in The Hollow Event- share information, progress and how to get/stay involved with the Task Force.	June 1, 2024
Task Force Meeting #4- review remedial options, public engagement updates, Task Torce input on public engagement.	June 7, 2024
Task Force Meeting #5- engagement update, case studies presented.	July 18, 2024
Pollinator Festival- share information, progress and how to get/stay involved with the Task Force.	August 11, 2024
On the Road Again, South St. Paul- share information, progress and how to get/stay involved with the Task Force.	October 5, 2024
Pig's Eye Dump Walking Tour- Partnered with Pig's Eye Park Friends to host the public tour to discuss the site's future.	September 10, 2024
Virtual Community Meeting- Presentation and discussion about the site's future and community involvement.	September 12, 2024
In Person Community Meeting- a facilitated discussion on the future of the site.	September 16, 2024
Task Force Meeting #6- guest speakers from Doyne Park and Big Marsh, MPCA state funding overview.	September 23, 2024
Task Force Meeting #7- public engagement update/next steps, remediation vs. restoration goals, bring remediation and reuse strategies together.	December 6, 2024
Task Force Meeting #8- guest presentations: Cuyahoga National Park, Met Council, City of St. Paul, Ramsey County.	February 13, 2025
Community Survey	March 7, 2025
Submit 2024 annual report to the legislature	April, 2025
Task Force Meeting #9- review community survey results, discuss remedial options.	April 17, 2025
Stakeholder Meeting: CPKC Rail	May 2, 2023
Stakeholder Meeting: Prairie Island Indian Community	June 16, 2025

Milestones	Actual completion date
Task Force Meeting #10	June 24, 2025
Stakeholder Meeting: US Fish and Wildlife	July 23, 2025
Stakeholder Meeting: FAA and MAC	August 7, 2025
Task Force Meeting #11	August 21, 2025
Stakeholder Meeting: FAA, MnDOT, MAC	September 17, 2025
Task Force Meeting #12	October 10, 2025
Pop Up: University of Minnesota Research Afternoon at Pig's Eye Park	October 25, 2025
Task Force Meeting #13	December 2, 2025
Task Force Meeting #14	January 13, 2026
Legislative Report Submittal	February 2026

Figure 3. Task Force meeting phases

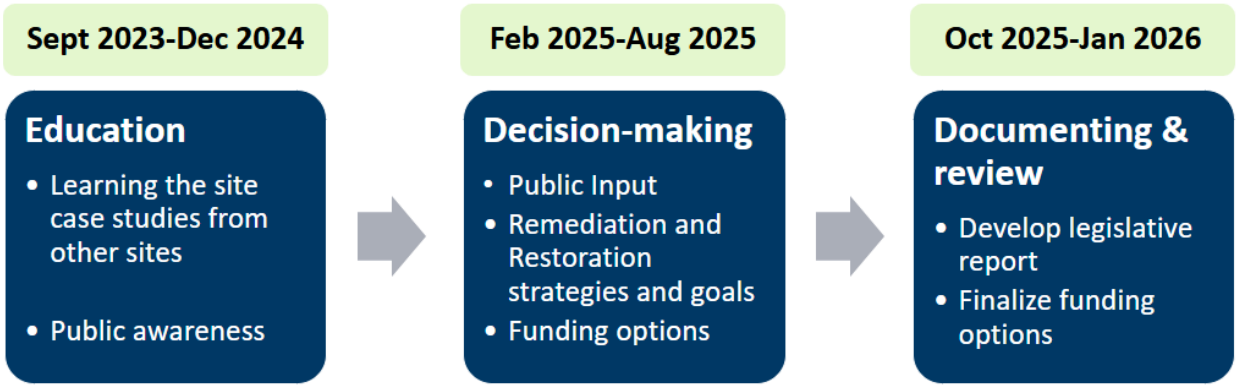


Figure 4 shows the three main phases of the Pig's Eye Task Force's work: Education, Decision-making, and Documenting & Review. The first phase of Task Force meetings was focused on building Task Force members' understanding of the site, reviewing case studies from projects with similar elements to the Pig's Eye Dump, and building public awareness of the project through various public engagement efforts. The second phase focused on exploring potential remediation and restoration strategies and goals, gathering and analyzing public input on the strategies, and exploring potential funding options. Finally, the last phase focused on finalizing recommendations and developing final report.

Detailed recaps of Task Force meeting held in 2024, 2025 and 2026:

Task Force meeting date	Topics covered	Outcomes/Discussion topics
January 12, 2024	• Site History/Background • Contaminants of Concern • Regulatory Framework • Remedial Investigation Update • Superfund Process/Timeline	• Site background • What contaminants are sampled • Considerations for nearby properties (fish hatchery, wastewater treatment plant, etc.) • Public access to Task Force meetings
March 8, 2024	• Superfund process timeline • Remediation options to address contamination • Feasibility of remediation strategies	• Leading with remediation vs. restoration • How to get the public involved (add a virtual option) • Infrastructure feasibility due to floodplain • Interest in possible future uses

Task Force meeting date	Topics covered	Outcomes/Discussion topics
June 7, 2024	• Re-cap of remedial options • Public engagement update • Task Force input on public engagement efforts	• Task Force priorities for engagement (remediation options and restoration future uses) • Interest in types of engagement activities (public meetings, individual small group meetings) • Stakeholders/community groups to reach out to
July 18, 2024	• Public engagement update • Case studies (Washington County Landfill, WDE Landfill Andover, Doyne Park Milwaukee, Cuyahoga Valley National Park, Puente Hills Landfill Park, Big Marsh Park Chicago)	• Interest in hearing funding opportunities and sources available • Considerations for neighboring properties • Uniqueness of Pig's Eye Dump site • Waste disposal and impact to Metro landfills
September 23, 2024	• Doyne Park guest speakers • Big Marsh guest speakers • MPCA state funding overview	• Discussion on other funding options that may be available for remediation or restoration (federal sources, lottery dollars, settlement funds, etc.) • How Pig's Eye Dump compares to case studies and specific challenges (floodplain, amount of waste, cost, etc.)
December 6, 2024	• Public engagement update and next steps • Remediation vs. restoration goals • Bringing remediation and reuse strategies together	• Task Force interest in getting public input on both remediation and restoration, not just future use. • Potential for federal dollars if backfill is needed • Concern for available space in permitted landfills and the cost • Utilizing legislative process to gather funding • Report development and including multiple options • Interest in hearing more input from the public on remediation and restoration options
February 13, 2025	• Presentations from Cuyahoga National Park, Met Council, City of St. Paul, Ramsey County	• Task Force discussion on community survey, discussion on remedial options and potential costs.
April 17, 2025	• Remediation options and cost estimates • Public engagement update and survey results	• Task Force discussion on remediation options and costs associated with each option • Discussion on survey results and public engagement
June 24, 2025	• Updated map of Pig's Eye Dump area • Information on sorting waste • Information on moving waste • Discussion on new landfill cover and dig and line remediation options	• Task Force discussion on sorting and moving waste and on the final remediation options
August 21, 2025	• Update on stakeholder conversations • Initial funding information provided	• Task Force members ranked their top remediation and restoration options • Task Force discussion on funding
October 10, 2025	• Reviewing and discussing draft recommendations for restoration and remediation and funding	• Task Force members reviewed draft recommendations, edited language, and brainstormed new potential recommendations.

Task Force meeting date	Topics covered	Outcomes/Discussion topics
December 2, 2025	• Finalizing recommendations and report review	• Fill in after December
January 13, 2026	• Fill in after January	• Fill in after January

Case studies

During the education phase of the Task Force work, case studies of landfills and dumps that have been remediated or restored in Minnesota and across the United States were reviewed. The Task Force considered how each site was addressed, noting similarities and differences to Pig's Eye Dump, as well as associated costs and funding sources. A key takeaway from these examples is that no single case closely matches Pig's Eye Dump, given its size, the nature of the waste materials, and its proximity to water.

Washington County Landfill

The Washington County Landfill is a solid waste landfill located in Lake Elmo, Minnesota and is an example of reconstructing a new modern landfill with a bottom liner at the site of an old unlined dump. This unlined dump was operated by Washington and Ramsey County from 1969 to 1975. It was added to the U.S. Environmental Protection Agency (EPA) Superfund list in 1984 and was delisted in 1996 when it entered the MPCA's Closed Landfill Program. Similar to Pig's Eye Dump, this site's groundwater is impacted with VOC's, 1,4-dioxane, and PFAS. From 2009 to 2012, significant reconstruction activities occurred, including consolidating waste, installing a liner system beneath the waste, installing a new cover system on top of the waste, installing an active landfill gas extraction with landfill gas condensate management system, improving the leachate collection system, and improving surface water management.

- **Waste volume addressed:** 1,900,000 CY
- **Owner:** City of Lake Elmo/ State of Minnesota
- **Landfill reconstruction cost:** $24M over 3 years
- **Funding source:** State bond funding/3M Company

WDE Landfill

The WDE Landfill in Andover, Minnesota is an example of a hot spot removal of hazardous waste. This municipal solid waste landfill was operated between 1963 and 1983 and contained a permitted asphalt-lined hazardous waste pit. It was added to the EPA Superfund list in 1983 and was delisted in 1995 when it entered the MPCA Closed Landfill Program. The site's groundwater is impacted with 1,4-dioxane, vinyl chloride, and PFAS. Following earlier attempts at cleanup, in 2019 the hazardous waste disposal pit was excavated. The excavation of the 1.4-acre hazardous waste pit was performed inside a temporary structure to maintain control of hazardous vapors. Waste was transported by truck and by rail to multiple disposal facilities, some out of state.

- **Waste volume addressed:** 30,000 CY
- **Owner:** MPCA
- **Cost:** $22.3 M
- **Funding source**: State bond funding

Doyne Park

Doyne Park is an approximately 40-acre waste disposal site located in Milwaukee, Wisconsin. Remediation activities did not involve excavating the waste. The waste was left in place and the focus was toward repurposing the space for public use. The site was purchased by City of Milwaukee in the 1930s for disposal of demolition waste. The site operated until 1973 and was redeveloped as golf course in 1976. Environmental monitoring has identified minimal groundwater impacts. Remediation efforts included installing groundwater monitoring wells, a new clay landfill cap, and a landfill gas control system. The former dump site has been redeveloped into a multi-use recreation area including basketball courts, a soccer field, walking trails, and a playground.

- **Waste volume addressed:** 0
- **Owner:** City of Milwaukee
- **Funding source:** City of Milwaukee

Cuyahoga Valley National Park

Cuyahoga Valley National Park in Ohio was a former dump site remediated through excavating waste and transporting it to a permitted disposal facility. The site was previously the location of the Krejci Dump, which operated as a salvage yard and dump from mid-1940s to late 1970s. It was closed and designated a Superfund site in 1986 after initial EPA investigation identified around 5,000 leaking drums of waste. Groundwater impacts included PCBs, dioxin, PAHs, pesticides, benzene, and metals. A settlement with companies responsible for the contamination under Superfund law was reached in 2002. The cleanup activities began in 2005 with excavation of waste material and contaminated soil. The clean-up was funded and led by companies identified as the Superfund responsible parties. The site has since been restored and includes thriving meadows, and wetland habitat.

- **Waste volume addressed:** 375,000 tons
- **Owner:** National Park Service
- **Cost:** $50-$60 M
- **Funding source:** Superfund responsible parties

Puente Hills Landfill Park

The Puente Hills Landfill, once the largest landfill in the United States, operated from 1957 to 2013 in southeastern Los Angeles County. At its peak, it spanned 700 acres and rose over 500 feet high, accepting millions of tons of waste from the greater Los Angeles area. Since its closure, efforts have focused on reuse rather than remediation. The area has been redeveloped into Puente Hills Landfill Park. Reuse plans include habitat restoration, recreational trails, and environmental education. A gas-to-energy plant still operates on-site, converting landfill gas into electricity for thousands of homes. The first phase of the park, that will reclaim roughly 140 acres of the overall landfill for public use is expected to open in 2027. The long-range planning for phased development has been designed to account for future settlement of waste and landfill gas production.

- **Waste volume addressed**: 0
- **Owner:** Los Angeles County

Big Marsh Park

Big Marsh Park site in Chicago is a good example of community involvement in remediation and restoration activities. The Marsh Park site is located in an area that has been heavily industrialized since

the 1800s. The site was used for disposal of industrial waste from nearby steel mills. Chicago Park District acquired property in 2011, installed a soil cap and did limited contamination hot spot removal as restoration activities progressed. Many partners were involved in the restoration of the park including Friends of Big Marsh and REI Co-op. The site was restored with marsh wetlands, a mountain bike skills park, and biking and walking trails. The Ford Calumet Environmental Center was completed in 2021 as an educational center for history and ecology of the area.

- **Waste volume addressed:** 30,000 CY over 14 acres
- **Owner:** Chicago Park District
- **Funding source:** Chicago Park District

Summary of Local and Regional Land Use Planning

Metropolitan Council Area Plans

The Metropolitan Council Environmental Services shared information with the Task Force on the wastewater system in the Twin Cities and the role of the water recovery facility located next to the Pig's Eye Dump. The Metropolitan Council has plans to expand the water resources recovery plant in the future to accommodate growth and to enhance services to meet regulatory requirements which may involve expansion of the current facility. The timeline for any future expansion will be determined in part by changes in permit requirements.

City of St. Paul Area Plans

The City of St. Paul presented to the Task Force on the Great River Passage Long Range Plan, adopted by St Paul City Council in 2013. The plan outlines broad goals for the floodplain region where Pig's Eye Park is located, including expanding park access, creating buffers around natural areas, and strengthening connections to nearby lakes and rivers. For Pig's Eye Park specifically, the plan highlights potential improvements such as enhancing recreational access through trails, protecting natural resources, and offering nature-based recreation opportunities. Current efforts at the site focus on improving park access and signage, which were installed in 2024.

Ramsey County Area Plans

Ramsey County shared with the Task Force two area plans that are relevant to Pig's Eye Dump: the Battle Creek Regional Park Plan and the Pig's Eye Lake Plan Amendment. The Battle Creek Regional Park Plan was created to guide long-term development and vision for the park including opportunities for expansion and preservation. A primary goal of this plan is to improve connectivity and access to the park system, including connection to Pig's Eye Lake Park. This plan was developed through collecting issues and concerns from the local community and stakeholders to guide future park improvements.

The Pig's Eye Lake Plan Amendment is an update to the Battle Creek Regional Park Plan that focuses on restoring natural resources rather than expanding recreation. The central project involves building islands in the lake using dredged material to improve habitat for wildlife, stabilize shorelines, reduce erosion, and enhance water quality. The Pig's Eye Lake Island project is a collaboration among Ramsey County, the U.S. Army Corps of Engineers, and the Metropolitan Council. This plan includes the construction of seven islands to improve aquatic and terrestrial ecosystems. The island project, completed in 2024, involved the beneficial reuse of approximately 400,000 cubic yards of dredged river sand to create seven islands that will provide critical habitats for migratory birds and aquatic species.

The total project footprint is about 40 acres. The dredge material used it the project met MPCA soil reference value criteria at the time of placement.

Stakeholder and community engagement

The MPCA hosted a project website for the Task Force (https://www.pca.state.mn.us/local-sites-and-projects/st-paul-pigs-eye-dump-task-force), which included the site history, background of the Task Force, and information on the Task Force meetings. Task Force meetings were open to the public and recorded, meeting materials (agenda, recording, and notes) were posted to the project website. A project-specific email address (Pig's.Eye.Dump.Task.Force.Mailbox.MPCA@state.mn.us) was also created to ensure a consistent repository for public questions was available.

In 2024, the Pig's Eye Dump project team focused on raising public awareness of Pig's Eye Dump Task Force through attending pop-ups and hosting events to facilitate deeper stakeholder conversations. The team held pop-ups at three community events to share information about the site, the Task Force, and opportunities to attend meetings and get involved. In September 2024, Zan Associates (MPCA's contracted engagement/outreach contractor) and MPCA staff set up three stakeholder events to engage the public and targeted stakeholder groups. The three events included a walking tour of Pig's Eye Park/Dump coordinated with Pig's Eye Park Friends, an evening virtual presentation and discussion to allow for people to join after their workday was over, and an in-person coffee meeting at Swede Hollow Café on the Eastside of St. Paul. Overall, the project team interacted with over 300 people at these events. A summary of each event is below:

1. **Pop-ups (3)** – Project staff attended three community events throughout the year to share information on the site history, Task Force efforts, how to attend meetings, and other opportunities to stay involved. Pop-ups were hosted at the following events:
    a. Art in the Hollow in St. Paul's Swede Hollow neighborhood on June 1, 2024
    b. Wakan Tipi Pollinator Festival at Lake Phalen Park and Pavilion on August 11, 2024
    c. On the Road Again in South Saint Paul on October 5, 2024
2. **Pig's Eye Dump Tour** – Community tour of Pig's Eye Park and Dump site that was open to the public. The event partnered with Pig's Eye Park Friends to host the tour during their usually scheduled weekly walking time, with Pig's Eye Park Friends as tour guides.
3. **Virtual Community Meeting** – A virtual meeting was held at night for community members to join. The project team shared an overview and background information on Pig's Eye Dump, the Task Force, engagement plan, and discussed the future of the site and attendees' visions. Attendees shared that they would like to see increased accessibility and awareness of the park, a focus on biodiversity, and restoring the site as a wetland.
4. **In-person Community Coffee Discussion** – Provided background information on Pig's Eye Dump and facilitated a discussion on the future of the site. Attendees shared their visions for the dump at a neutral location away from the MPCA. Attendees shared that they would like to see the sites history preserved, opportunities for youth involvement, and full remediation and restoration of the site.

Community survey

To assist Task Force members in incorporating public input into the development of remediation and restoration plans, the Pig's Eye Dump project team developed a public outreach survey that launched in March 2025. The survey included a 10-minute video that outlined potential remediation and restoration

options along with the steps needed to achieve them. While the survey was open from March 4th to March 31st, it received 359 total responses with 134 open-ended responses. Below are key takeaways from community input the team received through the survey. The full public engagement report can be found in Appendix X.

- People who took the survey are most comfortable with the future use of the site being restored as a natural area with the waste being fully removed and the excavated area not being backfilled. Examples include future uses such as lake/wetlands, wildlife sanctuary conservation area, wildlife viewing, pollinator habitat, and walking trails.
- People who took the survey are least comfortable with industrial or commercial future use and having most of the waste remain as it currently is.
- Of the 134 people who participated in the survey by providing specific comments
  - 46% mentioned a strong preference for restoring the site with a focus on restoring wildlife, habitat, and wetlands to a natural state.
  - 17% wanted to see a complete removal of the waste.
  - 10% were interested in passive recreation opportunities like walking trails, birdwatching, and kayaking.
  - Some comments also mentioned clean water being a top priority, wanting to see Native communities' input being considered, and the site being difficult to access.
  - A few comments shared a preference for keeping overall costs low, preference towards a more limited cleanup due to feasibility, or preference to leave the dump as is.
- The demographics of survey participants were not representative of the nearby neighborhood demographics.
  - 89% of survey respondents identified as White, which is much higher than the 29.5% White population in the surrounding neighborhood.
  - Over half of survey respondents (54%) reported being over 55 years old, whereas only 20.4% of the neighborhood's residents are in that age group.
- When comparing responses by age group:
  - The future uses that received the highest comfortability rating among all age groups were passive use park and natural area.
  - All age groups were least comfortable with industrial/commercial future use paired with targeted waste relocation and filter.

Tribal input on remediation and restoration options

The Pig's Eye Dump site is located on Dakota homeland and is a site of significance for the Dakota people. The project team reached out to Prairie Island Indian Community and Mille Lacs Band to share information about Pig's Eye Dump and receive feedback from their community.

Adjacent property outreach

The Pig's Eye Dump project team had multiple meetings with various stakeholders to discuss their involvement, concerns, and potential to collaborate on development of the Pig's Eye Dump site. Summaries of the meetings are included below.

Canadian Pacific Kansas City Southern Railway (CPKC)

The Pig's Eye Dump project team met with Canadian Pacific Kansas City Southern Railway (CPKC) to discuss the St. Paul Yard and proximity to Pig's Eye Dump. The team shared remediation options that were being considered by the Task Force and discussed the logistics of transporting waste by rail.

Metropolitan Council Environmental Services (MCES)

The MPCA met with Metropolitan Council Environmental Services (MCES) to discuss the Metropolitan Water Resource Recovery Facility and proximity to Pig's Eye Dump. Meeting attendees discussed facility needs and the potential to coordinate on remediation and reuse efforts at the Pig's Eye Dump.

U.S. Fish and Wildlife (USFW)

The team met with U.S Fish and Wildlife Service to share information on the Pig's Eye Dump project. They discussed the agency's priorities and how they have historically managed similar projects with various stakeholders.

Aviation Stakeholder Group

The Pig's Eye Dump is directly in the flight path of the St. Paul Downtown Airport. Remediation of the Pig's Eye Dump could involve a significant construction project extending over many years. Some remediation options would result in significant changes to the landscape and could have an impact on bird populations, all of which present aviation concerns.

The Pig's Eye Dump project team reached out to the FAA in April 2025 to begin conversations with aviation stakeholders. That outreach resulted in follow up meetings with aviation stakeholders including the Federal Aviation Administration (FAA), U.S. Fish & Wildlife (USFW), Metropolitan Airports Commission (MAC) and the Minnesota Department of Transportation (MnDOT).

The issues communicated by aviation stakeholders are issues related to aviation safety including:

- Airport zoning including height restrictions – There are height limitations in the Pig's Eye Dump area that will need to be addressed during the remediation design and project permitting process.
- Bird populations – There are concerns about an increase in bird populations, specifically large waterfowl that would create hazards for aircraft. New bird populations can be attracted during both the construction process and could also increase in response to changes in habitat from restoration projects.

Continued conversations with aviation stakeholders will be critical especially during the design and permitting stages of any future remediation and restoration effort.

Remediation and restoration options evaluated

Contamination sources and contamination impacts requiring remediation and restoration

Environmental impacts that need remediation include:

- Over 200 acres of waste in Pig's Eye Dump
- Groundwater

- Surface water in Pig's Eye Lake and Battle Creek
- Sediments in Pig's Eye Lake and Battle Creek
- Upstream sources contributing contamination to the area

A phased approach to the multiple remediation and restoration needs, is most beneficial approach. Addressing the source of contamination (waste material), first would allow for more effective remediation of groundwater, surface water, and sediments. Removing the source of contamination could also reduce the amount of groundwater remediation needed long-term. Additionally, remediation of the sediments in Pig's Eye Lake before addressing the sources of contamination that caused the sediments to be contaminated could result in future contamination of the remediated area. As a result, the Task Force focused on developing a remediation plan for the waste as the best first step.

Restoration options

Several restoration options were considered in conjunction with the remediation options. Restoration options considered by the Task Force included both active and passive recreational uses, future use as a natural area, and industrial/commercial uses.

Active recreational use

This option could include the development of active recreational facilities to expand public use of the area. Active recreation typically involves the construction of built amenities such as hiking and biking trails, sports fields, playgrounds, or other infrastructure for organized activities. These enhancements would provide structured opportunities for physical activity and community engagement.

The primary benefit of expanding active use is increased public access and enjoyment of the space through more dynamic and accessible facilities.

Passive recreation use

Future use for passive recreation would build on the area's current function, which primarily consists of walking trails. This option could focus on enhancing these passive recreational opportunities while maintaining a natural area focus.

Passive recreation would include minimal built infrastructure and would aim to preserve ecological features. Future improvements might include expanding trail networks, adding picnic areas, and birdwatching spots, that integrate with the existing landscape.

This approach supports an environmentally sensitive use of the area, balancing recreational access with conservation goals. The success of expanding passive recreation would depend on the effectiveness of remediation efforts and the future environmental condition.

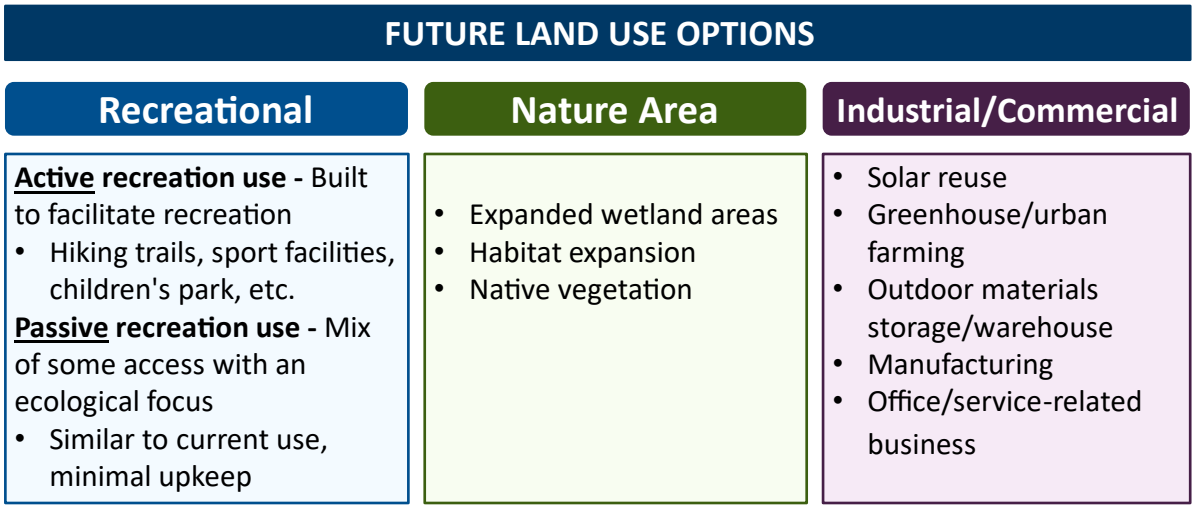
Natural area

Future use as a natural area would expand lake and wetland areas and would develop additional wildlife habitat. Focusing on development of a natural area could offer limited opportunities for passive recreation, examples include paddling activities and wildlife observation. The effectiveness of reuse as a natural area would depend on the success of the remediation efforts and the level of contamination that remains following remediation. Attracting additional wildlife where some level of contamination remains may be counterproductive.

Industrial/Commercial use

Future use of the area for industrial or commercial purposes is also an option. This includes solar reuse, greenhouse farming, outdoor material storage, warehouse uses, remanufacturing, and office/service-related businesses. Some industrial/commercial use would be limited by the location in the floodplain. Some future industrial uses may conflict with existing land use plans. The community engagement survey identified that expansion of industrial/commercial uses was the least preferred option for those that completed the survey.

Figure 4. Future land use options



Remediation options

The primary contamination issue that needs to be addressed at the Pig's Eye Dump is the generation of landfill leachate and release of landfill leachate into the environment. Landfill leachate is generated when precipitation, flood water, and groundwater come in contact with the waste allowing contaminants in the waste, primarily PFAS and 1,4 dioxane, to transfer into the water. The landfill leachate then moves beyond the waste footprint into the environment.

A secondary issue is the release of landfill gas into the environment. Landfill gas is generated as organic materials in the waste decompose over time. This decomposition process generates a gas containing methane (a potent greenhouse gas), carbon dioxide, and volatile contaminants released from the waste.

Additionally, there is concern with contamination identified in surface soils in some areas.

Remediation options evaluated by the Task Force focused on addressing the waste, which is the source of contamination. Addressing the waste will cut off the source of contamination into groundwater as well as Battle Creek and Pig's Eye Lake.

A range of remediation concepts were evaluated by the Task Force, including:

- **Targeted Waste Relocation and Filter:** Moving a limited amount of waste that is directly adjacent to Pig's Eye Lake and Battle Creek to create a space that would be backfilled with a filtering material designed to capture contaminants.
- **New cover:** Regrading and installing a new impermeable cover to prevent precipitation from percolating through the waste which is one of several ways landfill leachate is generated.

- **Dig and haul:** Excavating all the waste and transporting it to a permitted facility for disposal.
- **Dig and line:** On the property constructing a new modern landfill with modern landfill systems, including a bottom liner and impermeable cover to contain the waste at the current dump site.

Targeted Waste Relocation and Filter

This option involves creating a separation between the waste and the water. This would be done by excavating and relocating some of the waste material in areas where the waste is closest to surface water and installing filtering material designed to filter contaminants in the leachate coming out of the waste. This method would attempt to reduce contaminant concentrations in landfill leachate that is discharged into Battle Creek and Pig's Eye Lake but would not address the waste itself.

Figure 5. Targeted Waste Relocation and Filter concept drawing

Cost and timeframe

The estimated cost is approximately $30 Million (-50% to +100%) with a construction timeframe of approximately 5 years and a 30-year operation and maintenance (O&M) cost of approximately $6.0 Million (-50% to +100%). The O&M cost includes regular landfill maintenance such as mowing, maintenance of the filtering material, and routine environmental monitoring. This approach is generally lower in cost and allows for phased implementation.

Effectiveness

Overall effectiveness of this approach depends on the filtering material used and the ability to get leachate to flow through the material. Depending on the type of filter used, it may need to be replaced after once it can no longer effectively absorb contaminants. This approach does not clean up the groundwater itself; instead, it focuses on filtering contaminants from the leachate before it reaches Battle Creek and Pig's Eye Lake.

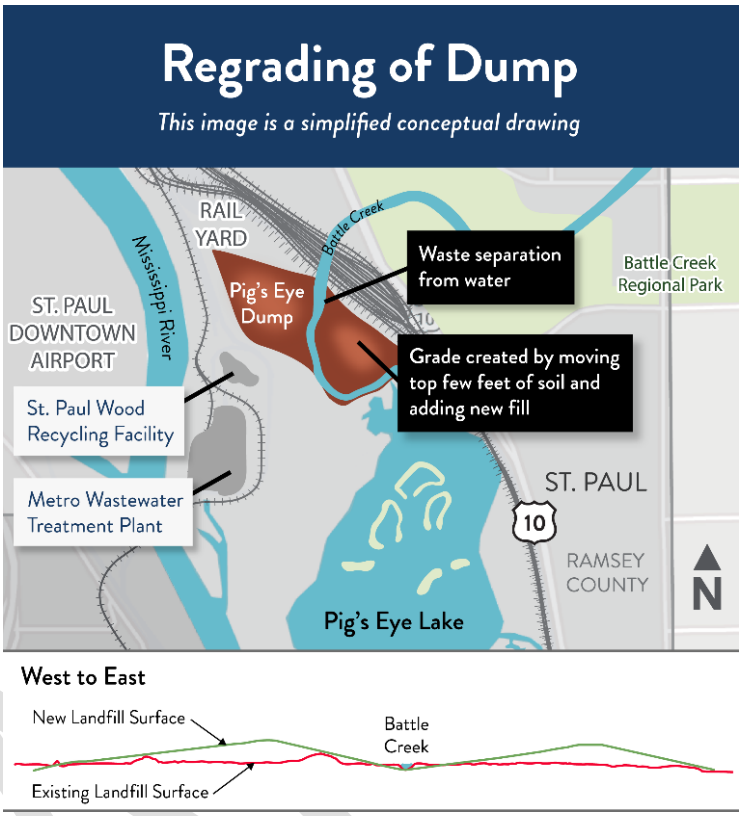
Future uses

This strategy would result in minor changes to the topography; overall the site would look similar to the current conditions. With this approach, future site use could remain similar to its current use, supporting passive recreation activities such as trails, bird-watching areas. Active recreation could include more developed facilities, such as sports fields or playgrounds, but these would be limited to account for environmental conditions at the site. Use as a natural area would be limited by the effectiveness of the remediation in reducing contaminant concentrations in Battle Creek and Pig's Eye Lake. This strategy is less suited for future industrial/commercial use due to potential need for future remedial activities. Limited industrial/commercial buildings could be considered but would need to be designed to be flood tolerant and account for the possible need for additional future remediation.

New cover

This option involves regrading the cover and installing an impermeable cap to prevent precipitation from percolating through the waste which is one way landfill leachate is generated. This option would involve regrading the landfill to a 5% grade to ensure proper surface drainage. The new cap would include several layers: topsoil, a soil drainage layer, a clay cap, and a geomembrane. This option would require reconsolidation of the existing waste and require obtaining additional clean fill to obtain necessary sloping grade.

Figure 6. New cover concept drawing



Cost and timeframe

The cost of implementing this new cap is estimated to be around $100 million (-50% to +100%) with a construction timeframe of 5 years, and a 30-year operation and maintenance cost of $6 million (-50% to +100%). The O&M cost includes regular landfill maintenance such as mowing and cap maintenance, pollinator habitat maintenance, and routine environmental monitoring.

Effectiveness

The new landfill cover would prevent future infiltration of precipitation on the land surface. However, As this option does not include waste excavation and installation of a bottom liner, landfill leachate would still be generated from groundwater intrusion into the waste, especially during flood events. Although there would be less leachate generated there would continue to be leaching of contaminants out the bottom of the waste.

Future uses

Restoration options for this strategy would be limited to activities that can be conducted on or around a landfill cap. This might include trails, picnic areas, and possibly some sports facilities. The presence of the landfill would limit the extent of recreational development. Future use as a natural area would focus on creating habitats on and around the landfill cap. This could include pollinator habitats and other types of vegetation that are compatible with landfill conditions. This strategy supports limited industrial and commercial uses, primarily those that are flood-tolerant and compatible with the presence of a landfill. Solar energy installations are a potential use for closed landfills.

Dig and haul options

These options involve excavating all the waste and transporting it to a permitted landfill facility for disposal. These options move the waste from the current unlined facility in an environmentally sensitive area to an existing permitted landfill facility. One of the options includes backfilling the excavated area

with clean fill material (dig and haul and backfill), with the second option the excavated area would not be backfilled (dig and haul no backfill).

Waste disposal considerations

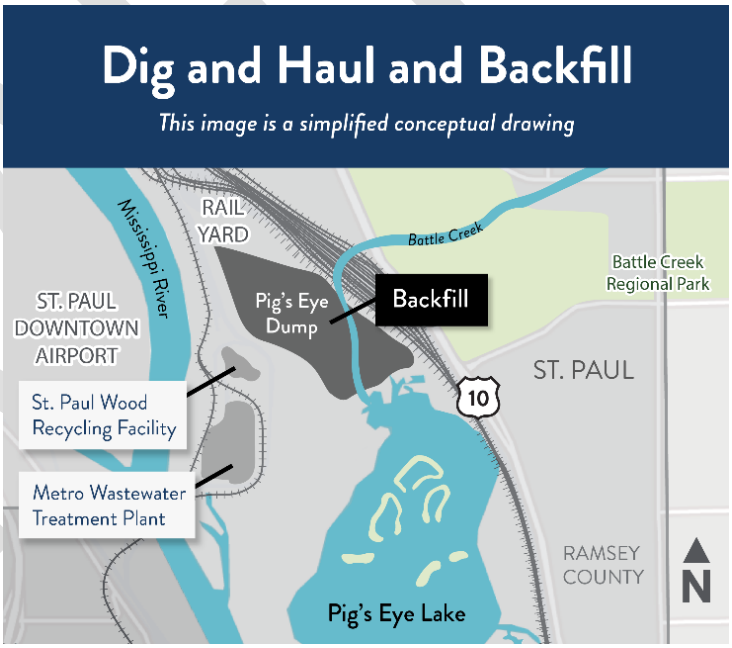
The 200-acre waste footprint at the Pig's Eye Dump represents a significant volume of waste (the current estimate is 4.5 million cubic yards). If the waste was moved to existing metro landfills, it would consume a portion of remaining metro area waste disposal capacity. The scope of the impact would need to be determined by collection of additional data to refine the estimated volume of waste in Pig's Eye Dump, as well as an analysis of remaining metro area landfill capacity. If the final disposal locations were existing metro area landfills, implementing the dig and haul option would have an impact on the larger waste disposal system in metro area.

Environmental monitoring has demonstrated that waste material at Pig's Eye contains elevated levels of PFAS. Although municipal and industrial landfills currently accept waste materials containing PFAS, as more is learned about how PFAS in landfill leachate impacts the environment, future regulations and policy decisions may constrain options for disposal of waste containing elevated levels of PFAS. This could impact both the cost and feasibility of the dig and haul options.

Dig and haul with backfill

This option involves digging up all the waste and hauling it to a landfill that would accept PFAS impacted waste, followed by backfilling the excavated area. With the waste excavated and transported offsite, this option would address the source of contamination from the site and would resolve future landfill leachate issues at the site. Excavated waste would best be moved using a combination of truck and rail transport. The Task Force evaluated transport by barge and determined it was not a viable alternative to truck and rail transport. Additionally, suitable clean fill sources would need to be identified for backfilling the excavated area making this option significantly more expensive due to the backfilling operation.

Figure 7. Dig and haul with backfill concept drawing



Cost and timeframe

The cost is estimated to be $830 million (-50% to +100%), with a construction timeframe of 10+ years, and a 30-year operation and maintenance cost of $6.0 million (-50% to +100%). The O&M cost includes regular maintenance of the backfilled area including such as mowing, pollinator habitat maintenance, and routine environmental monitoring. This approach is significantly higher in cost due to transportation and backfill cost.

Effectiveness

This option would remediate the source, eliminate landfill gas issues and eliminate future leaching of contaminants from the waste into the groundwater. This would also reduce the concentration of

contaminants discharging into Battle Creek and Pig's Eye Lake. The construction activities would need to consider neighboring properties, permitting requirements and the location of the site in a flood zone close to Pig's Eye Lake and St. Paul Downtown airport.

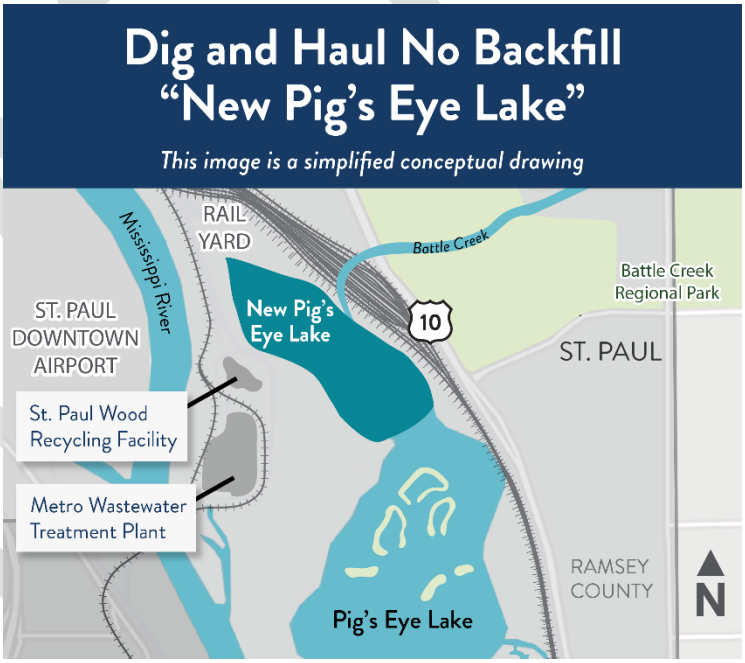
Future uses

The size of current wetland and Pig's Eye Lake would change depending on the amount of backfilling. This remediation option offers the widest range of potential future uses. Viable options for future use are determined by the amount of backfill. With sufficient backfill, the area could support many different industrial, recreational or natural area future uses. Both active and passive recreational facilities, would be possible including sports fields, playgrounds, and trails. The extent of natural area restoration would depend on the amount of backfill. More backfill would create upland habitats, while less backfill would allow for more wetland habitats. This strategy could include a diverse range of natural area restoration options. With adequate backfill, the area could support various industrial and commercial uses. This might include limited light industrial facilities, solar farms, warehouses, or commercial developments, and would need to be designed to be flood tolerant and account for environmental impacts.

Dig and haul without backfill

This option involves digging up all the waste and hauling it to a permitted landfill but without backfilling the site. With the waste excavated and transported offsite, this option would address the contamination source material and any future landfill leachate issues. The waste would best be moved using a combination of truck and rail transport. The remediation concept would enlarge the existing Pig's Eye Lake.

Figure 8. Dig and haul without backfill



Cost and timeframe

The cost is estimated to be $720 million (-50% to +100%), with a construction timeframe of 8 to 10 years, and a 30-year operation and maintenance cost of $1.5 million (-50% to +100%). This approach would cost less and take less time than the dig and backfill option due to not having to backfill the landfill. The O&M cost include environmental monitoring and limited maintenance of the new expanded wetland area which results in lower O&M costs than the dig and haul and backfill option.

Effectiveness

This option would remediate the source, eliminate landfill gas issues and eliminate future leaching of contaminants from the waste into the groundwater. This would reduce the concentration of contaminants in groundwater migrating into Battle Creek and Pig's Eye Lake. Similar to the dig and backfill option, the construction activities would need to be planned accordingly taking into consideration neighboring properties and permitting requirements given that the site is in a flood zone and close to Pig's Eye Lake and St. Paul Downtown airport. Additionally, expanding Pig's Eye Lake and wetland area could attract new wildlife and bird population to the area which could be a concern for aviation safety.

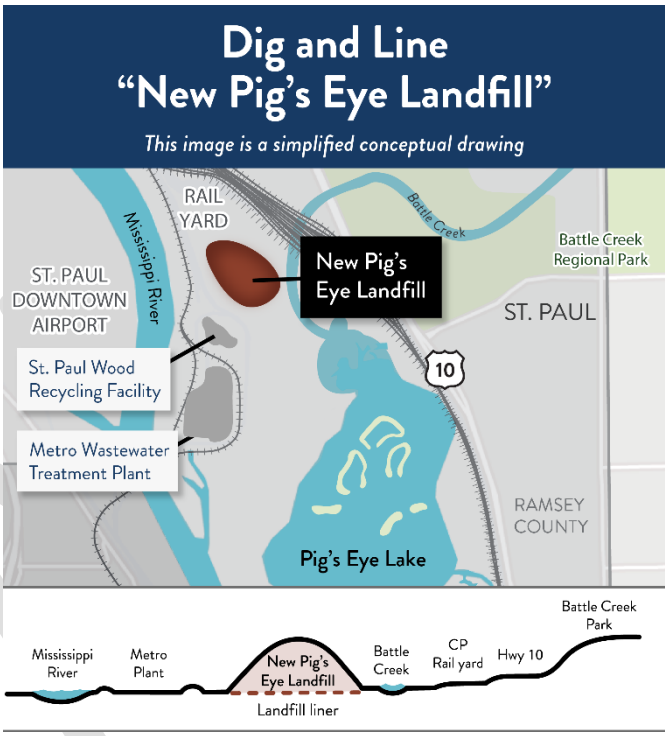
Future uses

The landscape would change significantly by expanding Pig's Eye Lake. This strategy offers limited recreational uses such as paddling activities and wildlife observation. This strategy would mainly focus on natural area restoration by expanding the current Pig's Eye Lake. With no backfill and the site expanding into a larger Pig's Eye Lake, the capacity for expanded future industrial/commercial use on the property would be limited.

Dig and line

This option involves building a new, state-of-the-art landfill on the property, featuring a well-engineered cap, liner, and leachate collection system. The waste would be excavated and stacked to form a steep, cone-shaped mound, resulting in the waste footprint being smaller and the top of the landfill being much higher. The new landfill would include an impermeable bottom liner and landfill cover, a leachate collection system, a landfill gas system and a storm water management system. This remediation option keeps the waste on the property conserving the available space at existing landfills and does not incur the financial and environmental cost of transporting large volumes of waste.

Figure 9. Dig and line concept drawing



Cost and timeframe

The estimated cost is around $570 million (-50% to +100%), with a construction timeframe of about 10 years, and a 30-year operation and maintenance cost of $45 million (-50% to +100%). The O&M cost includes operation of the leachate collection and treatment system, landfill gas management, landfill cap maintenance and routine environmental sampling.

Effectiveness

This strategy relies on the impermeable cap and bottom liner and a leachate collection system to contain and control leachate and a landfill gas system to address landfill gas. While the footprint of the waste area is reduced, the overall height of the waste mound would increase noticeably. The remediation option preserves existing landfill capacity. However, this approach also poses significant challenges, such as the difficulty of building a landfill in a floodplain, its location within the flight path of the St. Paul Downtown airport, and the need for long-term operation and maintenance.

Future uses

Restoration options for this strategy would be limited to activities that can be conducted on or around a landfill. This might include recreation facilities including trails, picnic areas, and possibly some sports facilities. The presence of the landfill would limit the extent of recreational possibilities. Natural area restoration would focus on creating habitats on and around the landfill cap. This could include pollinator habitats and other types of vegetation that are compatible with landfill conditions. The adjacent areas could be restored to wetlands or uplands, depending on the amount of backfill. This strategy supports

limited industrial and commercial uses, primarily those that are flood-tolerant and compatible with the presence of a landfill. Solar energy installations are a common use for closed landfills.

Additional technologies

The Task Force also considered other technologies to address the waste material. These included In-situ stabilization, gasification, pyrolysis, incineration and aerobic digestion. The options below were discussed but eliminated because of limited effectiveness in treating the contaminants, cost and ability to implement the technology with the Pig's Eye waste. Waste disposal at the Pig's Eye Dump occurred between 1956 and 1972. Since the time of waste disposal, the organic portion of the waste has degraded. Additionally, the waste has been subjected to multiple flooding events and ongoing groundwater intrusion. These factors limit the ability to effectively implement these technologies.

In-situ stabilization

In-situ stabilization (ISS) for treating waste involves mixing the contaminated waste directly in place with stabilizing agents. This process does not destroy contaminants in the waste but immobilizes them, significantly reducing their potential to leach into groundwater and surface water. The contaminants remain on-site, requiring long-term monitoring to ensure stabilization is permanent and effective. Also, achieving uniform distribution of stabilizing agents throughout a large, heterogeneous volume of a landfill would be difficult and expensive. ISS is highly effective for inorganic contaminants like heavy metals, transforming them into insoluble, low-leachable forms within a durable cementitious matrix. For organic contaminants, effectiveness varies, being best for non-volatile types that are physically encapsulated, while volatile compounds may off-gas. For emerging contaminants like PFAS, traditional binders are insufficient; effectiveness relies on specialized amendments like powdered activated carbon or organoclays that adsorb and immobilize the PFAS compounds, significantly reducing their migration.

Pyrolysis

Pyrolysis is a treatment technology that involves heating contaminated material, typically between 300°C and 700°C inside a sealed reactor, in an oxygen-free environment to break down and destroy the contamination. This technology presents significant technical and financial hurdles. There is a possibility that contaminants may not be fully destroyed, and the process can generate hazardous air emissions while consuming substantial amounts of energy. Additionally, the wide range of waste types and elevated moisture levels present considerable difficulties, making it necessary to sort and dry the waste beforehand. Excessive moisture significantly lowers efficiency, raises energy requirements, and reduces the overall treatment efficiency.

Gasification

Gasification is similar to pyrolysis, heating contaminated material to break down and destroy contaminants. Unlike pyrolysis, it is done at higher temperatures typically between 700°C and 1400°C in the presence of a controlled amount of an oxidant, such as oxygen or steam. Similar to pyrolysis, this technology is still in development and there is risk of incomplete destruction, potential for hazardous air emissions, and the technology requiring significant energy consumption. Likewise, as with pyrolysis, the wide variety of waste types and the presence of high moisture levels present significant obstacles, necessitating both sorting and drying of the material. Excess moisture greatly reduces process efficiency, increases energy requirements, and diminishes the treatment efficiency.

Incineration

Incineration is a high-temperature chemical decomposition process used to break down and destroy contaminants. This process relies on combustion, which requires both heat and oxygen. Heat is applied directly to contaminated solids (such as soil, sediment, spent adsorbents, and solid waste) or liquids (including water, wastewater, leachate, and chemical solutions). The resulting vaporized combustion products can be captured using techniques like precipitation or wet scrubbing and may undergo further oxidation at elevated temperatures. Incineration is more viable on waste that contains organic matter and combustible material. Most of the organic matter and combustible material in the Pig's Eye waste has since decomposed after decades in the dump.

PFAS compounds are notoriously resistant to breakdown due to the strong electronegativity of fluorine and the inherent chemical stability of fluorinated molecules. Incomplete combustion can lead to the formation of smaller PFAS derivatives or products of incomplete combustion (PICs), some of which may not be well studied. Per USEPA (2024), despite its challenges, incineration remains one of the few technologies with the potential to destroy PFAS, although the specific conditions required for complete destruction are still being researched.

Anaerobic digestion (AD)

Anaerobic digestion (AD) is a biological process in which microorganisms break down organic materials in the absence of oxygen. While a valuable technology for processing organic waste. AD is unsuitable for treating waste within old, closed landfills because the most readily digestible organic matter has already decomposed naturally over many years. The remaining aged waste is largely recalcitrant and heterogeneous, offering minimal potential for biogas production. Furthermore, implementing the precise environmental controls (optimal temperature, pH, and nutrient balance) necessary for an effective in situ AD process within a large, unmanaged landfill mass is logistically tough, making it hard to implement. Additionally, AD is not an effective method for the destruction of PFAS in waste material.

Specifically for remediating PFAS impacts, the extremely strong carbon-fluorine bond in PFAS is highly resistant to microbial breakdown. Anaerobic microbes, even with long residence times, are not capable of breaking the strong carbon-fluorine bonds in perfluorinated compounds like PFOA and PFOS. Studies show significant variation in how different PFAS are affected. The fate of all PFAS and their precursors in AD is not fully understood. Unknown precursors may transform into more stable PFAS during the digestion process.

Waste sorting

Excavating and attempting to sort waste from a closed landfill is a complex and often problematic process known as landfill mining. While there may be a desire to recover resources or better prepare waste for advanced treatment like incineration or gasification, the reality of working with decades-old, degraded waste presents significant and costly challenges. The waste is significantly degraded and is not a uniform material but a complex, compacted mixture of household garbage, construction debris, soil, and potentially hazardous materials. The potential to encounter hazardous materials, including asbestos, further complicates the logistics and cost of a waste sorting process. Additionally, many potentially recyclable materials are too degraded and contaminated with other waste and landfill leachate to be economically viable for recycling.

The markets for low-grade, contaminated, and co-mingled materials recovered from landfills are often limited and uncertain. This makes it difficult to find reliable buyers and secure funding for such projects. Landfill mining is almost always economically unfeasible if the only goal is resource recovery. The high costs of excavation, sorting, and processing far exceed the potential revenue from selling low-quality

recovered materials. Projects are typically only justified if they also provide benefits like reclaiming valuable land space.

Funding options

It would be difficult to utilize one single funding source that would meet the funding need for remediation options that fully address the source of contamination into the environment. A diversified funding strategy will be needed to fully fund the preferred remediation and restoration options. A diverse funding strategy could include funding from existing federal, state and local sources and/or funding from a new source that would address the Pig's Eye Dump and perhaps other historic dump sites.

State funding

Metropolitan Landfill Contingency Action Trust Fund (MLCAT)

There is existing state funding available from the Metropolitan Landfill Contingency Action Trust Fund (MLCAT), but it is insufficient to cover remediation costs for remediation options that are fully protective of the environment.

The MLCAT Fund was established by the Minnesota Legislature in 1999 to address environmental issues at mixed municipal solid waste landfills in the metropolitan area. It was created to manage costs associated with the long-term care of landfills. MLCAT is funded by a 25% share of the Metropolitan Solid Waste Landfill Fee on waste disposed of at metro landfills. As of November 2025, the balance in the MLCAT account was $63 million. Annual revenue and interest into the fund is approximately $2 million.

The purpose of the MLCAT Account is to ensure that long-term care of eligible closed landfills is adequately funded. The following are the seven landfills that are MLCAT-eligible:

- Pig's Eye Dump
- Four closed, demolition landfills that accepted small quantities of MMSW prior to being permitted as demolition landfills: Vadnais Heights Demolition Landfill (Ramsey County), Rosemount Demolition Landfill (Dakota County), Herbst and Sons Demolition Landfill (Hennepin County), and Begin Demolition Landfill (Hennepin County).
- Two open sanitary landfills will be eligible for the MLCAT Account after 30 years of post-closure: Burnsville Sanitary Landfill (Dakota County) and Pine Bend Sanitary Landfill (Dakota County).

State Superfund

The Pig's Eye Dump is a site in the state Superfund Program. In 1983, the State enacted the Minnesota Environmental Response and Liability Act (MERLA), Minn. Stat. 115B, establishing the State Superfund Program. This law provides broad state authority to respond to releases or threatened releases of hazardous substances, pollutants or contaminants that endanger public health, welfare, or the environment.

Superfund law uses a "polluter pays" model to manage and clean up contaminated sites. This principle is expressed as Superfund joint and several liability which allows the government to hold any one responsible party liable for the entire cost of cleaning up a contaminated site, regardless of how much pollution they contributed. This legal framework can be powerful for advancing environmental cleanups. However, when applied to former dump sites where there is a lengthy list of potentially responsible

parties, it can result in a cascade of litigation involving the many parties who contributed waste to the dump site. Additionally, responsible parties who are pursued by regulatory authorities and pay for cleanup actions can file lawsuits against other smaller parties who contributed to the dump requesting them to share in covering the expenses. Overall, while joint and several liability ensures that someone is held accountable for environmental harm, it can be a blunt tool in the context of dump sites and is often less effective for dump sites like Pig's Eye Dump where there may be hundreds or thousands of responsible parties.

Minn. Stat. § 116.155 establishes a state Remediation Fund which provides funding to investigate and remediate releases or threatened releases of hazardous substances, pollutants or contaminants, and agricultural chemicals. The state can access money appropriated from the Remediation Fund to accomplish investigation and cleanup of hazardous substance releases at sites when pursuing responsible parties for the environmental cleanup is not a viable option (e.g. responsible party no longer exists or cannot be found). The Remediation Fund is needed to fund ongoing remediation work at a number of sites across Minnesota and does not have the capacity to fully fund a large-scale project.

State bond funding

State bonding is the process by which the state sells bonds to fund capital projects that serve a public purpose, such as environmental cleanup projects. Most of the state's bonding activity is financed through General Obligation (GO) bonds.

The state constitution and state statutes require bond funded projects to be publicly owned and used for the governmental program identified by the Legislature. This means there must continue to be a public ownership interest (fee ownership or a qualifying long-term lease or easement) in the site, and the sites must be operated in compliance with the government program. These conditions apply for a time period equal to 125% of the useful life of the improved project, which typically is 37.5 years. The requirements would attach to parcels when bonds are first spent on the property and remain in place for 37.5 years from the last date when GO bond funds were used.

State brownfield funding

Brownfield funding programs exist to encourage clean up and redevelopment of contaminated properties so they can safely return to productive use. The Metropolitan Council, Hennepin County, Ramsey County, Dakota County, Minnesota Department of Employment and Economic Development, and EPA all have brownfield grant programs. These programs aim to protect public health and the environment, revitalize communities, and stimulate private investment by offsetting some of the cost of environmental cleanup. Unlike Superfund programs, brownfield funds are meant for redevelopment projects, not long-term remediation of major dump sites. Entities who are responsible parties under Superfund law are not eligible for brownfield funding.

Minnesota's brownfield grant programs are competitive, funds are awarded to projects that clearly advance redevelopment, housing, and economic goals while ensuring environmental protection. Priority is typically given to projects that:

- Create or retain jobs, increase the local tax base, or provide affordable housing.
- Leverage significant private investment or local matching funds.
- Are shovel-ready, with a clear redevelopment plan and timeline.
- Are located in distressed or high-need areas where cleanup would have strong community impact.

Brownfield programs typically exclude:

- Sites already being addressed under state or federal Superfund programs.
- Projects without a redevelopment component.
- Properties where a responsible party is already obligated to perform the cleanup.

Creation of a new state funding source for dump cleanups

The creation of a new, dedicated funding source for legacy dumps could provide funding.

One example is creation of the MPCA Closed Landfill Program. As an alternative to attempting to utilize federal and state Superfund authorities for landfills, where there may be hundreds or thousands of responsible parties, the Legislature created the Closed Landfill Program and a revenue source to fund long term care of 114 permitted closed landfills in Minnesota. One model to generate revenue to address historic dumps would be to assess a similar tax or fee on solid waste management or disposal activities.

Federal funding

Federal funding opportunities for the remediation and restoration of the Pig's Eye Dump site are limited. Pig's Eye is not a federally designated Superfund site.

Federal congressional community project funding

The Congressional "community project" funding process allows members of Congress to request funding for specific local initiatives. Projects must have a connection to an existing federal program and align with the federal program guidelines. Congress determines which federal programs are eligible for the community project process, such as clean water or drinking water infrastructure. Superfund and brownfields programs have not been designated as eligible programs in the past. Additionally, the process is subject to the broader appropriations cycle in Congress. No community project funds were awarded in the previous fiscal year due to a lack of a formal appropriations bill. When funds are available, awards generally are in the $1 million to $20 million range.

The U.S. Army Corps of Engineers (USACE) Civil Works Program Projects

The U.S. Army Corps of Engineers (USACE) Civil Works Program is responsible for planning, building, operating, and maintaining the nation's water-related infrastructure. Its mission areas include ports and waterways, flood risk management, and aquatic ecosystem restoration. The program also supports water supply, hydropower, recreation, and environmental stewardship. Projects under this program typically require cost-sharing agreements with local sponsors, who contribute financially and provide necessary land access and long-term operation and maintenance commitments.

Examples of possible USACE Civil Works Projects at the Pig's Eye Dump could include:

1. **Beneficial use of dredge material –** Some of the remediation options will require fill material. Fill material could be provided through a beneficial use of dredge material project that utilizes material dredged in Pool 2. Fill material could also be used for some restoration projects. One example of this is the completed Pig's Eye Lake Island Building Project.
2. **Aquatic ecosystem restoration projects –** Aquatic Habitat Ecosystem Restoration projects under Section 206 of the Water Resources Development Act supports the restoration of degraded aquatic habitats such as wetlands, rivers, and lakes. The program provides an efficient path for smaller-scale aquatic ecosystem restoration projects that provide meaningful environmental

benefits. The maximum federal limit is $15 million per project and there is no need for any specific authorization from Congress to pursue this program. Examples of possible projects include stream and wetland restoration and channel modifications. Funding under this program may be available to support wetland restoration and realignment of Battle Creek.

Additionally, funding may be available through the Specifically Authorized Project process. These projects require Congressional approval for both conducting feasibility studies and construction. There is no funding limit for these projects. These can be large projects that span multiple mission areas such as flood risk management, ecosystem restoration and navigation. This program allows the Corps of Engineers to address large-scale projects such as basin-wide flooding issues or ecosystem restoration on an entire river system. Although this funding process takes longer than other programs it may be an option for funding multiple initiatives at the Pig's Eye such as Pig's Eye Lake ecological restoration and shoreline stabilization, wetland restoration, flooding mitigation and realignment of Battle Creek.

Mississippi River Restoration and Resilience Initiative (MRRRI)

Mississippi River Resilience and Restoration Initiative (MRRRI) is a federal proposal to coordinate efforts on conservation and environmental restoration along the entire Mississippi river corridor and open up grant opportunities for state and local governments, tribes, and nonprofit organizations.

MRRRI follows the successful model of the Great Lakes Restoration Initiative (GLRI) to ensure coordinated and sustained federal investments to restore the Mississippi River and protect it as a healthy working river.

The current proposal excludes projects focused on the cleanup of legacy contaminants that are defined as "hazardous substances" under federal Superfund. The MRRRI's design is intended to avoid duplication with point source cleanup programs like Superfund, focusing instead on nonpoint source pollution, habitat restoration, and water quality enhancements. While Pig's Eye Dump's proximity to the Mississippi River may make it geographically relevant, it does not currently meet the MRRRI program eligibility requirements. Although currently not eligible one possible next step would be necessary to work with the MRRRI author to determine if it makes sense to include the Pig's Eye Dump. A case to expand the scope to include dumps since although they are geographically a point source of contamination in practice, they are the result of past collective societal actions more characteristic of non-point sources.

Other funding

Public private partnerships

A public-private partnership model can offer an alternative to the traditional Superfund responsible party process. One public private partnership success story is the St. Louis River Area of Concern (AOC) project under the Great Lakes Legacy Act (GLLA) and Great Lakes Restoration Initiative (GLRI). The St. Louis River AOC projects are voluntary, cooperative partnerships between the EPA, states, local governments, and other non-federal partners (industries or port authorities). The partners share cleanup costs through negotiated agreements. This approach avoids the sometimes adversarial and time-consuming nature of Superfund enforcement, allowing projects to proceed faster and focus on achieving environmental restoration goals rather than liability resolution. The AOC projects could serve as a model for future cleanup at Pig's Eye Dump.

Local parks and recreational funding programs

Cities, counties and Met Council operate programs to fund park and recreation projects and programs. These programs could be used to fund portions of the project that advances their entities' parks and recreational goals.

Restoration only funding

While full-scale remediation of contaminated sites like Pig's Eye Dump may fall outside the scope of certain funding programs, there are still several options that focus exclusively on restoration.

Environment and Natural Resources Trust Fund

The Legislative-Citizen Commission on Minnesota Resources (LCCMR) administers the Environment and Natural Resources Trust Fund (ENRTF). Approximately $100 million per funding cycle is available for projects that aim to preserve and enhance Minnesota's unique natural resources. Although LCCMR explicitly calls out remediation of contaminated sites as ineligible for funding, restoration projects that protect or restore wildlife habitat, air and water quality, and ecologically sensitive lands may be eligible.

Lessard-Sams Outdoor Heritage Council (LSOHC)

Similarly, the Lessard-Sams Outdoor Heritage Council (LSOHC) oversees funding for projects under the Outdoor Heritage Fund, which supports efforts to protect, restore, and enhance wetlands, prairies, forests, and habitat for fish, game, and wildlife. While each funding round includes a specific vision and focus that may limit eligibility in a given year, approximately $150 million is available per cycle. Restoration-focused initiatives that improve habitat connectivity, native vegetation, or water quality in the Pig's Eye area could be candidates, especially if aligned with broader conservation goals.

Task Force recommendations

Remediation and restoration recommendations

- Pig's Eye Dump holds a large volume of uncontained waste directly adjacent to Battle Creek, Pig's Eye Lake, and is located in the Mississippi River floodplain. The preferred remediation options are the dig and haul and dig and line options because they are the options most protective of the environment.
- Remediation and restoration efforts should protect local communities, wildlife, and natural habitat and improve water quality.
- Remediation and restoration actions should be as consistent as possible with existing planning work including City of St. Paul plans, Great River Passage plan, and other relevant plans without excluding any remediation options the Task Force has recommended.
- The remediation and restoration options pursued needs to be implemented in a way that addresses aviation regulations and concerns related to the St. Paul Downtown Airport.
- Excavating all the waste and sending it to existing metro landfills would greatly impact the remaining waste capacity for the metro area. If the dig and haul remediation options is implemented, the impact to metro area waste disposal capacity and impact to potential community revenues should be considered
- If the dig and haul or dig and line remediation options are implemented, safety protocols should be strictly followed during excavation and transportation to protect nearby communities and

construction workers from potential risks. It is not expected that waste will be able to be treated on the property however, recoverable hazardous materials should be segregated to the degree possible and sent to appropriate facilities for safe containment.

- Future use of the site should include as a safe and accessible natural area for passive recreation, such as walking trails and wildlife observation.
- The remediation and restoration plan should allow for future expansion and ongoing operation of the Metropolitan Water Resource Recovery Facility and the Pig's Eye Wood Recycling Center, as both facilities serve a public purpose and have an environmental benefit. Any future expansion will need to comply with applicable ordnances and regulations.
- The MPCA should complete a feasibility study of the remediation options, restoration options presented to the Task Force, including possible impacts to existing nearby facilities. The feasibility study analysis should prioritize the dig and haul no backfill and dig and line remediation options.

Funding recommendations

Remediation funding recommendation

- There is no one funding source that is able to provide the needed funding for remediation and restoration of Pig's Eye Dump. To be able to fund a remediation approach that is fully protective of the environment, a combination of existing and new funding sources should be pursued.
- Federal funding should be pursued where remediation and restoration efforts for Pig's Eye Dump is an eligible use.
- Federal funding should be pursued by creating a new funding structure. For example, a funding source that is similar to the Great Lakes Restoration Initiative or adjustments to the Mississippi River Restoration and Resilience Initiative proposal.
- State funding should be pursued, such as available funds in the MLCAT account and opportunities to bond for clean-up work. [This is a new addition not discussed at the last Task Force Meeting]
- Voluntary public-private partnerships should be explored to fund remediation efforts. Private parties include haulers, industries and residents in the surrounding area who contributed waste to the facility would contribute funding.
- The Superfund responsible party identification process should not be utilized. Instead, a fee should be assessed on all waste disposal to cover/contribute to remediation expenses since haulers, industries and residents in the surrounding area all contributed waste.

Restoration funding recommendation

For restoration efforts, pursue other federal or state sources of funding such as (LCCMR, Lessard-Sams Outdoor Heritage Fund, etc.

Appendices

Public engagement

- Trivia Board
- Flyer
- Event Summaries
- Public Engagement Final Summary

Communications

- GovDelivery
- Social Media

Task Force Meeting Summaries

- 9/25/23 Meeting #1 Summary
- 1/12/24 Meeting #2 Summary
- 3/08/24 Meeting #3 Summary
- 6/07/24 Meeting #4 Summary
- 7/18/24 Meeting #5 Summary
- 9/23/24 Meeting #6 Summary
- 12/6/24 Meeting #7 Summary
- 2/13/25 Meeting #8 Summary
- 4/17/25 Meeting #9 Summary
- 6/24/25 Meeting #10 Summary
- 8/21/25 Meeting #11 Summary
- 10/10/25 Meeting #12 Summary

Task Force Meeting Presentations

- Presentations from each meeting

Annual Reports

Three annual legislative reports were completed in March of 2023, 2024, and 2025. These reports are available through the Minnesota Legislative Reference Library: Mandated Reports - Minnesota Legislative Reference Library