



## REGION 5

CHICAGO, IL 60604

REPLY TO THE ATTENTION OF:

W-15J

# Environmental Assessment

## **Fiscal Year 2023 Recycling Project, Shakopee Mdewakanton Sioux Community, MN**

### **Need for the Proposed Action**

The project will support the construction of the Water Reclamation System of the Shakopee Mdewakanton Sioux Community (SMSC) Organics Recycling Facility (ORF) in Shakopee, MN. This system will address the water reuse components at the newly constructed ORF, which diverts waste from landfills, protects water resources and promotes sustainable industrial development.

### **Alternatives Considered**

The Shakopee Mdewakanton Sioux Community determined five possible options.

- **Option 1 (Preferred Alternative): New Construction Alternatives** - The new construction alternative would involve designing and building a state-of-the-art facility at the proposed project site, providing a more robust solution for waste management, environmental sustainability, and community benefits. The new construction alternative offers several features:
  - **Increased Capacity:** The new ORF can be designed with a larger capacity to accommodate the projected increase in organic waste generated in the region. This ensures that the waste management needs of the community can be met effectively and efficiently.
  - **Advanced Technologies:** The new ORF can incorporate advanced technologies for waste processing, such as anaerobic digestion or other innovative methods, to optimize the conversion of organic waste into valuable resources. These technologies can improve efficiency, reduce processing times, and enhance overall waste management operations.
  - **Renewable Energy:** By integrating renewable energy systems into the design of the new facility, the ORF can use and/or generate clean and sustainable energy to power

its operations. This reduces reliance on external energy sources and contributes to the overall environmental sustainability of the facility.

- Comprehensive Reuse Programs: The new ORF can implement comprehensive reuse programs to maximize the recovery and utilization of valuable resources from organic waste. This may include the production and distribution of high-quality compost, utilization of biogas for energy generation, or other innovative reuse initiatives. These programs create a closed-loop system and contribute to a circular economy approach.
  - Enhanced Water and Energy Efficiency: The new facility can incorporate advanced water and energy efficiency measures, including optimized equipment, efficient lighting systems, water conservation techniques, and sustainable water management practices. By reducing water and energy consumption, the facility minimizes its environmental impact and operational costs.
  - Green Infrastructure Integration: The design of the new ORF can include the integration of green infrastructure elements, such as vegetative buffers, permeable surfaces, or stormwater management systems. These features help minimize the ecological footprint of the facility, improve stormwater management, enhance biodiversity, and create a more visually appealing environment.
- **Option 2: Optimum utilization of existing facility** - To achieve optimal utilization of the existing Organics Recycling Facility (ORF), the following strategies could be implemented, through retrofit updates and improvements.
    - Renewable Energy: Exploring opportunities for renewable energy production within the existing ORF may include installing solar, wind or using other renewable energy sources. Consideration of anaerobic digestion technology could convert organic waste into biogas, which can be utilized for heat or electricity generation.
    - Reuse Program Implementation: This would involve increasing the efficiency of and ability to facilitate water runoff collection, treatment, storing and reusing for other facility operations.
    - Water and Energy Efficiency Measures: Incorporating water and energy efficiency measures can include implementing technologies such as energy-efficient equipment, optimized lighting systems, and advanced water management techniques like rainwater harvesting or wastewater treatment and reuse.
    - Green Infrastructure: Integrating green infrastructure elements, such as green roofs or living walls, can improve insulation, reduce stormwater runoff, and provide additional habitat for wildlife. Establishing vegetative buffers around the facility can help mitigate noise, air, and visual impacts while promoting biodiversity and creating a more visually appealing environment.
  - **Option 3: Source Reduction:** Source reduction measures focus on minimizing the generation of organic waste at its source. The ORF could collaborate with businesses, households, and local communities to promote waste reduction practices, such as composting at home, reducing food waste, and encouraging sustainable consumption habits. A robust public information campaign would facilitate these efforts.

- **Option 4: Non-structural and structural storm water system components:** The proposed ORF could implement non-structural and structural stormwater management components to effectively manage and treat stormwater runoff. This may include green infrastructure features, such as the installation of sediment basins, bioretention systems, or constructed wetlands to capture and treat stormwater before it enters natural water bodies.
- **Option 5: No-Action Alternative:** Under the No-Action Alternative, the existing ORF would continue operating without any modifications or improvements. The project goals and objectives were established with a focus on waste management, environmental sustainability, resource efficiency, and community benefits. The ORF's capacity may not be adequate to manage the projected increase in organic waste generated in the region. The existing facility's processing capabilities are limited, resulting in inefficiencies, longer processing times, and potential bottlenecks in waste management operations. This poses a challenge in meeting the efficient waste management objective.

The existing ORF does not incorporate renewable energy generation and fails to identify reuse programs that facilitate the recovery and utilization of valuable resources, such as water runoff or biogas. The absence of green infrastructure features, such as vegetative buffers, permeable surfaces, or stormwater management systems, limits the ORF's potential to minimize its ecological footprint.

## Affected Environment

Project impacts are not expected to affect environmental justice communities. The median income for a family is \$35,315. According to the EPA's Environmental Justice Screening and Mapping Tool (EJScreen), approximately 51 percent of the population located within a 1.0-mile radius of the Project is considered Low Income, and approximately 54 percent of the population located within a 1.0-mile radius of the Project is considered Minority or People of Color (EJScreen Data Source: U.S. Census Bureau, American Community Survey 2017-2021).

## Environmental Impacts

The following impaired waters are within one mile of the Project:

Impaired Water	Impairments	Impaired Use	Location
Minnesota River Carver Creek to RM 22	Mercury in fish tissue, Mercury in Water Column, Turbidity, Nutrients, PCB in fish tissue	Aquatic Life, Aquatic Consumption	1 mile downgradient, west of Project
Chaska Creek	Fecal Coliform	Aquatic Recreation	1 mile northwest

The Project, as proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts to surface water quality related to stormwater runoff, which are reasonably expected to occur. However, if they were to occur, SMSC must modify operations and management of the Project according to its Industrial Storm Water Permit. Therefore, the Minnesota Pollution Control Agency (MPCA) found impacts to surface water quality to be reversible.

The impacts on groundwater related to groundwater appropriation that are reasonably expected to occur from the proposed Project have been considered during the review process and methods to prevent significant adverse impacts have been developed. The Project, as it is proposed, is not anticipated to have the potential for significant environmental effects based on the type, extent, and reversibility of groundwater impacts related to water appropriation that are reasonably expected to occur from the Project. Any groundwater impacts related to groundwater appropriation that may occur from the Project are anticipated to be reversible.

The results of the refined air dispersion modeling and AERA concluded the Project will not adversely impact air quality, that the air emissions from the Project would meet the National Ambient Air Quality Standards (NAAQS) and would not pose any acute inhalation health hazards or any sub-chronic or chronic multi-pathway health hazards to the public. Furthermore, the proposed Project would not pose significant excess lifetime cancer risks to the public. The results presented in the AERA show that the health risks and hazards for the Project meet the thresholds set by the Minnesota Department of Health.

The information presented in the environmental review record is adequate to address the concerns related to air emissions. The Project, as it is proposed, is not anticipated to have the potential for significant environmental effects based on the type, extent, and reversibility of impacts related to air emissions that are reasonably expected to occur from the Project. The impacts related to air emissions that are reasonably expected to occur from the proposed Project have been considered during the review process and methods to prevent significant adverse impacts have been developed.

The Project is not expected to contribute significantly to adverse cumulative potential effects on odors nor effects on traffic. The Project, as proposed, does not have the potential for significant environmental effects based on the type, extent and reversibility of impacts related to emissions of greenhouse gasses, which are reasonably expected to occur.

Overall, construction operations will result in noise and dust. Contractor will use water to mitigate fugitive dust during excavation and grading. Construction activities will follow all ordinances to limit noise and dust.

## **Consultation**

A review was conducted to identify whether historic properties, as defined under National Historic Preservation Act, could potentially be affected by the undertaking within the project's area of potential effect (APE). The Minnesota State Historic Preservation Officer (SHPO) has concurred with the finding of no properties listed in the National or State registers of Historic places and no known or suspected archaeological properties in the area that will be affected by the project via letter dated July 21, 2021.

The current 100-year flood plain is shown as the blue line on Figure 5A and as the area designated AE on the FEMA FIRM Map Set included as Figures 6A, 6B & 6C. Because flooding of the Project area could have an impact on Gifford Lake water quality, and because Gifford Lake is part of the Minnesota River system and floodplain, the Project will avoid the 500-year floodplain. The 500-year floodplain is generally shown on Flood Insurance Study (FIS) at 728.0 feet NAVD88.

The Project regrading will result in all paved and operational areas at an elevation of 731.0 feet NAVD88 or greater (3 feet above the 500-year floodplain). In addition, the stormwater overflow will be at 728.5 feet NAVD88.

Wetlands near the Project site are shown on Figure 15. A Wetlands Delineation Report (Attachment P) was completed for the Project site by Bolton & Menk, Inc., dated February 19, 2020. The Wetlands Delineation Report did not identify any direct or indirect impacts to aquatic resources (wetlands, lakes, tributary, etc.). Therefore, it is not anticipated that the Project will physically affect or alter wetlands or have environmental effects on existing wetlands.

A state-level environmental assessment worksheet (EAW) was submitted to the MPCA on February 5, 2021, and went through internal reviews before released for a 30-day public review period. An EAW is a brief document designed to provide the basic facts necessary for the Responsible Governmental Unit (RGU) to determine whether an Environmental Impact Statement (EIS) is required for a proposed project or to initiate the scoping process for an EIS in the State of Minnesota (Minn. R. 4410.0200, subp. 24). For the state-level EAW, the MPCA served as the RGU.

Pursuant to Minn. R. 4410.1000, subp. 3(C), on February 5, 2021, SMSC submitted a discretionary (voluntary) draft EAW to the MPCA. Subsequently, an EAW on the Project was prepared by MPCA staff for publication. The MPCA provided public notice of the Project as follows:

- The Environmental Quality Board (EQB) published the notice of availability of the EAW for public comment in the EQB Monitor on February 21, 2023, as required by Minn. R. 4410.1500.
- The EAW was available for review on the MPCA website at:  
<https://mpca.commentinput.com/comment/search>.
- The MPCA provided a news release to media in Scott and Carver County, Minnesota, and other state-wide interested parties, on February 21, 2023.

During the 30-day comment period on the EAW, which concluded on March 23, 2023, the MPCA received comments from Scott County, the Metropolitan Council, and the Minnesota Department of Natural Resources.

On March 28, 2023, the MPCA requested and was granted approval from the EQB for a 15-day extension of the decision-making process on the need for an EIS for the Project in accordance with Minn. R. 4410.1700, subp. 2(B).

On April 18, 2023, the MPCA approved the Findings of Fact, Conclusions of Law, and Order for a Negative Declaration (FOF) on the need for an Environmental Impact Statement for the Shakopee Mdewakanton Sioux Community Organics Recycling Facility.

## **Mitigation**

The CSW Permit will require SMSC to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to prevent erosion and control sediment using best management practices (BMPs) to mitigate stormwater impacts. The CSW Permit will require additional BMPs to protect downstream impaired waters. Additionally, an Industrial Stormwater Permit (ISW) is anticipated to manage all precipitation up to the volume from the 100-year flood design (the required design per MN Statute is a 25-year, 24-hour event).

SMSC will obtain an MPCA National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Construction Stormwater Permit (CSW Permit) prior to construction of the Project. The Project will include construction and operation of one contact water reclamation building and two stormwater basins. The stormwater basins will serve as permanent stormwater management BMPs that provide stormwater quality and quantity control to mitigate the increased stormwater volume created by the Project.

The Covered Aerated Static Pile (CASP) composting process is designed to minimize, capture, and treat odors. SMSC will implement additional odor suppression technology including the installation of portable odor mitigation fogging units, and the contact water and stormwater pond will have an aeration system to further minimize odors. These are expected to mitigate odors from the Project.

All applicable State and local construction codes and best management practices designed to minimize harm related to construction activities will be applied to this project and maintained until construction is complete and all disturbed areas are stabilized.

#### **Additional Documents**

- Shakopee Mdewakanton Sioux Community (SMSC) Project – Work Plan
- SMSC Project - Environmental Information Document, July 2023
- Environmental Assessment Worksheet – Minnesota Pollution Control Agency, February 13, 2023
- Minnesota State Historic Preservation Officer Determination Letter, July 21, 2021
- U.S. Fish and Wildlife Service, August 8, 2022

2/14/2024

X Steve Marquardt

Signed by: STEVE MARQUARDT

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