From:	Becca Nash
To:	Becca Nash
Subject:	FW: LCCMR Inquiry
Date:	Monday, June 10, 2024 2:37:39 PM
Attachments:	image001.png

From: Blasing, Nicole (MPCA) <nicole.blasing@state.mn.us>
Sent: Thursday, June 6, 2024 9:07 PM
To: Benke, David J (MPCA) <david.j.benke@state.mn.us>; Mike Campana <Mike.Campana@lccmr.mn.gov>
Cc: Becca Nash <becca.nash@lccmr.mn.gov>; Johnson, Tom (MPCA) <Tom.E.Johnson@state.mn.us>
Subject: RE: LCCMR Inquiry

Hi Mike,

I have included below the Municipal Division's determination on the two water/wastewater related proposals:

2025-088 Detroit Lakes Wastewater Chloride and Sulfate Treatment
Detroit Lakes has a population > 5,000, but their project is for a pilot study, not to install treatment. The results of the pilot study could benefit communities throughout the state, especially those with populations of < 5,000 that are facing new chloride and sulfate limits. For those reasons we believe that we should allow this proposal to move forward.

2025-245 Loretto Water Treatment Pilot Study
Loretto's population is < 5,000 and it is also for piloting the removal of iron, ammonia, and manganese concentrations in the drinking water supply. We believe that this proposal should be eligible as the results of the study would not only benefit Loretto, but could also benefit other small communities throughout the state that are facing the same challenges in their drinking water supply system.

Please let me know if I could provide you with any additional information.

Thank you,

Nicole Blasing, Director
Municipal Division
Ph. 218.316.3890

MINNESOTA POLLUTION CONTROL AGENCY

Our mission is to protect and improve the environment and human health

From: Benke, David J (MPCA) <david.j.benke@state.mn.us>
Sent: Thursday, June 6, 2024 12:44 PM
To: mike.campana@lccmr.mn.gov; Blasing, Nicole (MPCA) <nicole.blasing@state.mn.us>
Cc: Becca Nash <Becca.nash@lccmr.mn.gov>; Johnson, Tom (MPCA) <Tom.E.Johnson@state.mn.us>
Subject: RE: LCCMR Inquiry

Hi Mike:

On behalf of the Resource Management and Assistance Division here at the MPCA, I can address the solid and hazardous waste disposal facilities determinations you have, for the water questions I will leave those to Nicole.

For the Solid/Hazardous Waste disposal facility determinations for the projects:

I think the key to all of these determinations is the definition of disposal facility that can be found in MN Stat. 115A. 03, subd 10. "Disposal facility" means a waste facility permitted by the agency that is designed or operated for the purpose of disposing of waste on or in the land, together with any appurtenant facilities needed to process waste for disposal or transfer to another waste facility.

For the Anerobic Digester project 2025-306 Innovative Solution to Renewable Energy from Food Waste It is pretty clear that the Anerobic Digester Project is not a solid waste disposal facility the waste will be processed using technology that yields Renewable Natural Gas and Bio Char both products that would not be considered disposal.

For the railroad tie project 2025-303 Repurposed Railroad Tie Conversion to Biofuel Energy Source (haz waste/solid waste) it would also be converting the waste to fuel pellets which would be considered a product and not disposal.

And Finally for the 2025-192 Reduce Landfill Waste and Capture E-Waste capturing and recovering the valuable materials ie metals and plastics would also not be considered disposal as long as markets would accept the materials especially the plastics.

Contamination of the waste stream for processing can be a big issue at facilities. For all of the projects it might be good to ask how much material during the process would have to be landfilled or disposed of based on contamination, we look at successful recycling facilities as those recovering 85% of what they receive as marketable materials. It would also be good to verify that the projects had ready markets for those materials recovered.

I hope that helps. Let me know if you have any questions. Thanks, Dave

David J. Benke
Director

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"Our mission is to protect and improve the environment and human health."

From: Mike Campana <Mike.Campana@lccmr.mn.gov>
Sent: Wednesday, June 5, 2024 5:13 PM
To: Benke, David J (MPCA) <david.j.benke@state.mn.us>; Blasing, Nicole (MPCA) <nicole.blasing@state.mn.us>
Cc: Becca Nash <Becca.nash@lccmr.mn.gov>; Johnson, Tom (MPCA) <Tom.E.Johnson@state.mn.us>
Subject: RE: LCCMR Inquiry

Hi Dave and Nicole,

As Tom mentioned, we have a few proposals seeking funding from the LCCMR that we are trying to determine if the work proposed would be for:

- A solid waste disposal facility;
- A hazardous waste facility; or
- For the purposes of municipal water pollution control in municipalities with a population of 5,000 or more under the authority of chapters 115 and 116.

Any guidance you can provide based on your expertise will be helpful. The next LCCMR meeting will be the morning of June 10, so if there is any way you could respond before then, we would greatly appreciate it. I've tried to pull the relevant language, but the links will take you to the full proposal if needed:

- 2025-088 Detroit Lakes Wastewater Chloride and Sulfate Treatment

  "The City of Detroit Lakes would like to conduct a 12-month pilot trial of an innovative technology to remove chlorides and sulfates from the City's wastewater treatment plant effluent in order to comply with current and impending effluent limit requirements. This award-winning technology has been trialed by the US

Government for PFAS removal. This would be the first trial of the technology at a wastewater treatment facility (or dirty-water application). This novel technology uses a pretreatment/conditioning system prior to modified reverse-osmosis (RO) filtration to remove sulfate and chloride. The pretreatment system creates a zone of high turbulence causing the water to pass over a catalytically active surface multiple times. The catalytic action reduces scaling that foul RO systems, allowing for a smaller RO system that operates more efficiently. The RO system is modified to include coated membranes. This coating further reduces fouling and reduces backwash requirements."

"The pilot system will be supplied by Bauer Energy Design. The equipment to be procured includes a modified reverse osmosis system and a conditioning system which adds hydrogen peroxide."

- 2025-245 Loretto Water Treatment Pilot Study

  "The City of Loretto owns and operates a wellhouse with two public water system wells: Well 2 and Well 3 that supply drinking water to the city. Water is chemically treated at the wellhouse that serves Well 3 with chlorine (hypochlorite) and fluoride prior to distribution. Polyphosphate is also added for iron and manganese sequestration. The city is considering additional treatment for the removal of iron and manganese. After the completion of a feasibility study, it was determined that the goal of the water treatment facility would be to remove iron, ammonia, and manganese concentrations in the water supply. City engineers recommended a pilot study to study options for filtration. The study will look at conventional media filtration for iron and manganese removal and biological treatment of ammonia and iron."

  "A water treatment system with two vertical pressure filters is recommended by city engineers for preliminary design…Additional improvements to the existing facility are required to provide a robust and energy efficient solution that will position the city for the next thirty years of reliable water treatment. After preliminary water quality sampling, it was determined that a pilot study is needed before preliminary design engineering."

- 2025-303 Repurposed Railroad Tie Conversion to Biofuel Energy Source (haz waste/solid waste)

  "Each year, roughly 4-5 million railroad ties are removed from service on rail lines in the upper-midwest and stockpiled or disposed of in various ways…To avoid stockpiling, the primary avenue for disposal is shredding and incineration in co-fire power generation facilities. The problem resulting from this process is inefficient transportation and, therefore, inefficient use of a potentially robust renewable bio-fuel market."

  "Our proposed solution is to process the shredded ties into an energy dense, easily

transportable pellet product that can be used in any industrial power generation system. Our goal is to create a larger supply of this reused and readily available fuel source to help increase the amount of bio-fuel available to produce power."

"Activity 1: Design and installation of equipment
Activity Budget: $2,995,000
Activity Description: This stage of the process would define production rates, engage equipment vendors, purchase the equipment, and perform all engineering design for installation. This stage would include designs for product testing needs.
Activity Milestones:
Equipment selected.
Equipment purchased.
Equipment installed.
Equipment commissioned and ready for use."

- 2025-306 Innovative Solution to Renewable Energy from Food Waste

  "A partnership supporting the State climate and renewable energy goals by diverting organic materials from landfills and producing renewable natural gas (RNG) through anaerobic digestion and sequestering carbon into biochar."

  "The proposed anaerobic digester will cost approximately $100M to design/construct and require $35M in state and federal grand funding to be economically viable. This recycling facility project will divert organic materials from landfills and produce valuable recycled products. The $10M requested will leverage state dollars against federal and private funding, maximizing benefits to Minnesota."

  "The project's anaerobic digester will process 75k tons of organic waste annually, increasing organics processing by more than 60% from the 114k tons of source-separated organics collected state-wide in 2022. The project will also create 170k MMBtu of RNG, generating 10,000 tons of biochar and reduce CO2e by 30k tons per year, or 900k tons of CO2e over the life of the project."

  "The proposed DC/HZI anaerobic digestion and biochar system will process organic materials, producing RNG and biochar, while preventing GHG emissions. MPCA permitting is in progress for operation as a recycling facility making recycled products (RNG and biochar). It is not a waste disposal facility. All permitting activities are on schedule; the project will be "shovel ready" when funding is awarded. R&E will provide organic materials, collected from Ramsey and Washington county residents, as feedstock for the digestor, to be located in Scott County."

- 2025-192 Reduce Landfill Waste and Capture E-Waste

  "The project would include building a fully functional recycling facility in order to capture E-Waste from reaching our landfills through community education and free drop off sites statewide."

> "My proposed solution is to build a facility to handle tons of electronic waste and recycle, shred and separate the precious metals plastic and harmful components inside electronics. I propose to build E-Waste drop off sites all over the state of Minnesota that would be located by heavily traveled routes that consumers frequent on a regular basis making it easy to dispose of unwanted old or out of date electronics."

Please don't hesitate to get back to me if you have any questions. And thank you again for any guidance you can provide.

Have a wonderful evening!

Mike

Mike Campana
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From: Johnson, Tom (MPCA) <Tom.E.Johnson@state.mn.us>
Sent: Tuesday, June 4, 2024 1:48 PM
To: Mike Campana <Mike.Campana@lccmr.mn.gov>
Cc: Benke, David J (MPCA) <david.j.benke@state.mn.us>; Blasing, Nicole (MPCA) <nicole.blasing@state.mn.us>
Subject: RE: LCCMR Inquiry

Hi Mike,

Thanks for the quick call just now and I apologize again for missing your inquiry in the shuffle as we wrapped up end of session activities. I'm connecting you with Dave Benke and Nicole Blasing, who are Division directors of RMAD and Municipal divisions respectively at MPCA.

Dave and Nicole – Mike at LCCMR is looking for MPCA to take a high level look at a couple LCCMR proposals to hopefully determine at a glance whether those proposals are fundable by the LCCMR or if the activities are prohibited by 116P.08. It sounds like a couple proposals are related to solid waste and hazardous waste, and a couple are potentially related to municipal water pollution control. Here's the statutory language which prohibits ENRTF monies from being spent in certain situations related to these activities:

Subd. 2.**Exceptions.**
Money from the trust fund may not be spent for:
(1) purposes of environmental compensation and liability under chapter 115B and response actions under chapter 115C;
(2) purposes of municipal water pollution control in municipalities with a population of 5,000 or more under the authority of chapters 115 and 116;
(3) costs associated with the decommissioning of nuclear power plants;
(4) hazardous waste disposal facilities;
(5) solid waste disposal facilities;
(6) projects or purposes inconsistent with the strategic plan; or
(7) acquiring property by eminent domain, unless the owner requests that the owner's property be acquired by eminent domain.

Thanks!

Tom