

September 23, 2024

Via Email

To: Interested parties

RE: Dem-Con HZI Bioenergy, LLC – Shakopee Campus Project located in Louisville Township, Scott County, Minnesota

The Minnesota Pollution Control Agency (MPCA) has **approved** the Findings of Fact (FOF), Conclusions of Law, and Order for a Negative Declaration on the Need for an Environmental Impact Statement on the Dem-Con HZI Bioenergy, LLC - Shakopee Campus (Project). The FOF document concludes that this Project does not have the potential for significant environmental effects. The decision for a Negative Declaration completes the state environmental review process under Environmental Quality Board rules, Minn. R. ch. 4410. Final governmental decisions on permits or approvals for the project may now be made.

The MPCA appreciates comments submitted on the Environmental Assessment Worksheet (EAW). The comments were considered by MPCA staff during the environmental review process and responses to these comments are provided in the FOF.

Interested parties can review the FOF and the EAW documents at the following locations: the MPCA offices in St. Paul; the Hennepin County Library at 300 Nicollet Mall, Minneapolis. Interested parties can also view the documents on MPCA's website at <https://www.pca.state.mn.us/business-with-us/recently-completed-mpca-reviews>. Please contact the MPCA's St. Paul office at 651-757-2098 for copies of these documents.

State of Minnesota
Minnesota Pollution Control Agency

**In the Matter of the Decision
on the Need for an Environmental
Impact Statement for the Proposed
Dem-Con HZI Bioenergy, LLC
Louisville Township, Scott County, Minnesota**

**Findings of Fact
Conclusions of Law
and Order**

Introduction

Pursuant to Minn. R. ch. 4410, the Minnesota Pollution Control Agency (MPCA) staff prepared and distributed an Environmental Assessment Worksheet (EAW) for the proposed **Dem-Con Companies, LLC and Hitachi Zosen Inova U.S.A., LLC (DCHZI)** (Facility) in Louisville Township, Scott County, Minnesota. Based on the MPCA staff environmental review, the EAW, comments, and information received during the comment period, and other information in the record of the MPCA, the MPCA hereby makes the following Findings of Fact, Conclusions of Law, and Order.

Findings of Fact

Project description

1. DCHZI proposes to construct an anaerobic digestion Facility with a design capacity for two anaerobic digesters to process up to 75,419 short tons per year (tpy) of organic feedstock materials (Project) in Louisville Township, Scott County, Minnesota.
2. The Project will produce renewable natural gas (RNG) and biochar through anaerobic digestion and pyrolysis/gasification, creating an alternative to landfilling organic feedstock materials. The design capacity will be based on the limitation of the biochar process. A pipeline will be constructed to offload the RNG. Because the pipeline is a connected action to the Project, the MPCA will complete a separate EAW for the pipeline phase of the Project before construction of the pipeline.
3. DCHZI applied for a Title V Air Permit, and the application was deemed complete July 19, 2024. Additional permits as reflected in item 85 are required for the project.

Procedural history

4. 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 (Minn. R. 4410.0200, subp. 24). The MPCA is the RGU for this Project.
5. Minn. R. 4410.4300, subp. 1 requires preparation of an EAW for the Project because it is the construction of a new fuel conversion facility for the conversion of biomass sources to gaseous, liquid and/or solid fuels with a capacity to utilize more than 25,000 dry tons per year of input which exceeds the threshold identified in Minn. R. 4410.4300 subp. 5(A)(1).

6. 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 July 16, 2024, 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 Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington Counties, Minnesota, and other state-wide interested parties, on July 16, 2024.
 - The DCHZI application for permit coverage under the Title V Air Permit was open for public comment July 30, 2024 through August 29, 2024.
 - The MPCA conducted a public meeting on August 5, 2024.
7. During the 30-day comment period on the EAW ending on August 16, 2024, the MPCA received comments from Shakopee Mdewakanton Sioux Community, Metropolitan Council, Minnesota Department of Natural Resources, and 12 community members.
8. The list of comments received during the 30-day public comment period are included as Appendix A to these Findings. The MPCA prepared written responses to the comments received during the 30-day public comment period. These responses are included as Appendix B to these Findings.

Criteria for determining the potential for significant environmental effects

9. The MPCA shall base its decision on the need for an EIS on the information gathered during the EAW process and the comments received on the EAW (Minn. R. 4410.1700, subp. 3). The MPCA must order an EIS for projects that have the potential for significant environmental effects. (Minn. R. 4410.1700, subp. 1). In deciding whether a project has the potential for significant environmental effects, the MPCA must compare the impacts that may be reasonably expected to occur from the Project with the criteria set forth in Minn. R. 4410.1700, subp. 7. These criteria are:
 - A. Type, extent, and reversibility of environmental effects.
 - B. Cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project.
 - C. The extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project.
 - D. The extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

**The MPCA Findings with respect to each of these criteria
are set forth below**

A. Type, extent, and reversibility of environmental effects

10. The first criterion that the MPCA must consider when determining if a project has the potential for significant environmental effects is the “type, extent, and reversibility of environmental effects” Minn. R. 4410.1700, subp. 7(A). The MPCA Findings with respect to this criterion are set forth below.
11. The types of impacts that that the MPCA anticipates may reasonably be expected to occur from the Project include the following:
 - a. groundwater quantity/appropriation;
 - b. air quality; and
 - c. greenhouse gas emissions.
12. Written public comments received during the comment period raised additional issues, as follows:
 - d. impacts related to odor;
 - e. impacts related to land application of end products;
 - f. impacts related to flooding and water quality; and
 - g. impacts related to traffic.
13. With respect to the extent and reversibility of impacts that are reasonably expected to occur from the Project, the MPCA makes the following Findings.

a. Groundwater quantity/appropriation

14. The Minnesota Department of Natural Resources (DNR) is the permitting authority for appropriating waters of the state in Minnesota. The DNR Water Appropriation Permit allows for a reasonable use of water if the use does not negatively impact surrounding wells or other water resources.
15. DCHZI will apply for a DNR Water Appropriation Permit (WAP) for the Project that authorizes withdrawal of up to 8.8 million gallons per year. DCHZI does not expect pumping to be continuous as the Project will reuse water from the process. DNR will determine if an aquifer test is required during the WAP permit process.
16. DCHZI will install two water supply wells, one for domestic supply used by the digesters and a second for fire suppression.
17. The intended water usage for the Project operation is within the capacity of the groundwater supply based on other supply wells in the area.
18. The DNR Water Appropriation Permit ensures water resources are managed so that adequate supply is available for long-range seasonal requirements for domestic, agricultural, fish and wildlife, recreational, power, navigational, and water quality.
19. The DNR Water Appropriation Permit balances competing management objectives, including both the development and protection of water resources. Minn. Stat. § 103G.261 establishes domestic water use as the highest priority of the State’s water when supplies are limited. If a well interference arises, the DNR has a standard procedure for investigating the matter. If the DNR finds a commercial operator is causing interference, the operator must correct it.

20. Unauthorized pumping or use of the well or other water resources is subject to enforcement under Minn. Stat. § 103G. Upon completion of an investigation, a permit for water appropriation may be limited, amended, or denied in accordance with applicable laws and rules for the protection of the public interests and the sustainability of Minnesota's water resources.
21. Due to the DNR oversight and permitting of water appropriations, the MPCA does not expect significant adverse impacts to water appropriation. However, if the DNR determines there is well interference based on concerns or well interference claims, the operator must fix the causes of the interference. Thus, the impacts to water appropriations would then be reversed. The MPCA finds that any water appropriation impacts that may occur from the Project are reversible.
22. The MPCA finds that information presented in the EAW and other information in the environmental review record are adequate to assess potential impacts to the quantity of groundwater appropriation that are reasonably expected to occur from the Project.
23. The MPCA finds the Project, as proposed, does not have the potential for significant environmental effects based on the type, extent and reversibility of impacts related to groundwater appropriation, which are reasonably expected to occur.

b. Air quality

Air Permit

24. DCHZI is applying for and required to obtain a Part 70 permit (Title V permit) for their proposed facility under Minn. R. 7007.0200, subp. 4.
25. DCHZI will be permitted similar to a typical mass burn waste combustor and is considered a municipal waste combustion unit under the Clean Air Act. Consequently, thermal oxidizer, EQUI 8 and biochar chamber, EQUI 9 are subject to 40 C.F.R. pt. 60, subp. A.
26. The Project will have the potential to release criteria pollutant emissions of PM (8.04 tons per year (tpy)), PM₁₀ (6.84 tpy), PM_{2.5} (6.61 tpy), sulfur dioxide (SO₂) (10.53 tpy), nitrogen oxides (NOx) (52.58tpy), volatile organic compounds (VOCs) (1.20 tpy), and carbon monoxide (CO) (11.52 tpy).
27. The hazardous air pollutant (HAP) emissions from the Project are expected to be combustion HAPs including metals, volatile organics, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and hydrochloric acid.
28. The Project will operate as a minor Hazardous Air Pollutant (HAP) source after construction is complete.

Air dispersion modeling

29. DCHZI used a Source Impact Analysis (SIA) to determine if refined criteria pollutant air dispersion modeling was required. Modeling was required as discussed in the following findings and used to assess whether the Project will cause or contribute to an air quality violation.
30. The results of the modeling showed that CO emissions were below the Significant Impact Level (SIL). The ambient air quality background concentration (i.e., applicable ambient air quality design value for the project area) plus the pollutant's significant impact level (SIL) were less than 90% of CO's National Ambient Air Quality Standard (NAAQS). Thus, no refined air dispersion modeling was

required for CO. The SIA showed SO₂, PM₁₀, PM_{2.5}, and NO₂ emissions were above the SIL. Therefore, refined air dispersion modeling was conducted for SO₂, PM₁₀, PM_{2.5}, and NO₂.

31. DCHZI conducted refined air dispersion modeling of Project emissions for SO₂, PM₁₀, PM_{2.5}, and NO₂ using the American Meteorological Society/U.S. Environmental Protection Agency(EPA) Regulatory Model (AERMOD). AERMOD was developed by the American Meteorological Society and the EPA. The model evaluated the air quality impacts of the Project. AERMOD is a widely accepted air dispersion model, which uses conservative assumptions to predict air quality.
32. The Cumulative Impact Analysis accounts for as many SO₂, PM₁₀, PM_{2.5}, and NO₂ emitting sources as can be quantified in the area as well as a monitored background value. This analysis is referred to as a CIA.
33. All of the pollutants passed the CIA by modeling under the NAAQS and Minnesota Ambient Air Quality Standards (MAAQS).
34. Based on the CIA the Project will meet all NAAQS and MAAQS.

Air Emission Risk Analysis (AERA)

35. AERA was completed to evaluate and quantify potential human risks associated with emissions from the Project. The AERA includes both a quantitative analysis of potential impacts to human health using the risk assessment screening spreadsheet (RASS), and a qualitative analysis using information from DCHZI and the surrounding community.
36. The results of the AERA indicate that the calculated cumulative excess cancer risks and hazards are below the Minnesota Department of Health (MDH) risk management levels. The Project does not significantly change the risk and hazard levels.
37. DCHZI will meet the applicable 40 C.F.R. pt. 60, subp AAAA, emission standards and monitoring requirements for the biochar process. Continuous parametric monitoring on control equipment will be completed in accordance with final air permit requirements.
38. Mercury deposition was estimated for the Lower Sand Creek watershed to assess deposition to Louisville Swamp and the Shakopee-Minnesota River watershed to assess deposition to Gifford Lake. Results show that the hazard quotient for the subsistence and recreational fisher at Gifford Lake are 0.2 and 0.0 respectively and the hazard quotient for the subsistence and recreational fisher at Louisville Swamp are 0.1 and 0.0 respectively. Because all values are less than 1.0, the risks due to mercury are acceptable.
39. The MPCA finds that information presented in the EAW and other information in the environmental review record are adequate to assess potential impacts to the air quality that are reasonably expected to occur from the Project.
40. The MPCA finds the Project, as proposed, does not have the potential for significant environmental effects based on the type, extent and reversibility of impacts related to air quality, which are reasonably expected to occur.

c. Greenhouse gas (GHG) emissions

41. The MPCA considered GHG emission sources that are within the scope of the Project.

42. The Project will directly release GHG emissions, which can widely disperse within the atmosphere, and which vary both in terms of their global warming potential and their persistence in the atmosphere.
43. To provide a common unit of measure, the MPCA uses the individual global warming potential of methane and nitrous oxide to convert to carbon dioxide equivalency (CO₂e).
44. Using EPA emission factors, Scope 1 Construction Sources (Mobile Equipment), the Project will release 254.35 tons of CO₂e during construction over the course of two years. Further, the Project will save 37,814 tpy of CO₂e during operation via the anaerobic digestion process compared to landfilling. The Project will release 4,672 tpy of CO₂e during operation from Scope 1 Combustion Sources (stationary equipment) and Scope 2 Electricity (grid-based).
45. There are no Minnesota or National Ambient Air Quality Standards for GHGs.
46. Currently, there are no federal or Minnesota thresholds of GHG significance for determining impacts of GHG emissions from an individual project on global climate change.
47. In the absence of a threshold of GHG significance, the MPCA looks to existing regulation. Minn. R. 4410.4300, subp. 15(B), establishes a mandatory category requiring preparation of an EAW for stationary source facilities generating 100,000 tpy of GHGs. The purpose of an EAW is to assess environmental effects associated with a proposed project to aid in the determination of whether an EIS is needed. On the premise of GHG emissions, environmental review regulations establish 100,000 tpy as a “trigger” to prepare an EAW to aid in determining potential significant environmental effects. A reasonable conclusion is that the Project’s total GHG emissions below 100,000 tpy are not considered significant.
48. The MPCA finds that information presented in the EAW and other information in the environmental review record are adequate to assess potential greenhouse gas emission impacts that are reasonably expected to occur to and from the Project.
49. The MPCA finds the Project, as proposed, does not have the potential for significant environmental effects based on the type, extent and reversibility of impacts related to greenhouse gas emissions, which are reasonably expected to occur.

d. Written public comments on impacts related to odor

50. The Project will control odors indoors in a negative air pressure environment.
51. The Project will exchange air using an engineered air handling system inside the main building multiple times per hour.
52. Building exhaust from the receiving hall area will vent through an ultraviolet light source and activated carbon before venting into the atmosphere.
53. The dewatering process can generate ammonia. The Project will route ventilation from the area to a scrubber, ultraviolet light source, and activated carbon canister before venting into the atmosphere.
54. Building exhaust from the biochar processing area will be blended with the exhaust from the thermal oxidizer and vented through the cyclone, activated carbon injection, baghouse, exhaust cooler, and liquid scrubber before venting into the atmosphere.
55. No additional odors during construction or during operation are expected from the Project.
56. The MPCA finds that information presented in the EAW and other information in the environmental review record is adequate to address the concerns related to odors. The impacts on odors 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.

57. The MPCA finds that the Project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts related odors that are reasonably expected to occur from the Project.

e. Written public comments on impacts related to land application of end products

58. The Project has a specification for organic feedstock entering the facility. This specification was developed to address any issues with heavy metals and other contaminants.
59. All end products will meet the permitted end market specifications for their intended use (i.e., Class I compost, Class II compost, land application, etc.).
60. Specific to land application, the products would need to be approved by the Minnesota Department of Agriculture via a land application permit.
61. The MPCA finds that information presented in the EAW and other information in the environmental review record is adequate to address the concerns related to land application of end products. The impacts from land application of end products 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.
62. The MPCA finds that the Project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts related to land application of end products that are reasonably expected to occur from the Project.

f. Written public comments on impacts related to flooding

63. The Project is located outside the 100-yr and 500-yr flood zones.
64. Materials arriving at the Project will be stored inside, and material transfers will also occur inside or in enclosed areas/equipment, so the risk, if any, of materials entering the rivers is negligible.
65. Runoff from the site will also be directed to a stormwater pond and infiltration basin.
66. The MPCA finds that information presented in the EAW and other information in the environmental review record is adequate to address the concerns related to flooding. The impacts on flooding 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.
67. The MPCA finds that the Project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts related to flooding that are reasonably expected to occur from the Project.

g. Written public comments on impacts related to traffic

68. The Project will be adjacent to a major vehicle transportation corridor, U.S. Highway 169. Recent traffic improvements along the U.S. Highway 169 and County State Aid Highway (CSAH) 14 corridors have reduced traffic congestion.
69. DCHZI will build a new access road to the Site. The final location of the access road will be determined based on the Project's final design. The access will be a private haul road constructed to

accommodate the haul trucks. Construction-related traffic will use the right-in/right-out U.S. Highway 169 onto Red Rock Drive for Project access.

70. The peak hour traffic, a maximum of 50 vehicles per hour, generated at the Project will be Mondays through Fridays from 6 a.m. to 7 p.m. and on Saturdays following weekday holidays.
71. This is a conservative peak hour assumption as DCHZI does not expect the total daily trips to be greater than 50 (i.e., all vehicles for the day arrive in the same hour).
72. The MPCA finds that information presented in the EAW and other information in the environmental review record is adequate to address the concerns related to traffic. The impacts on traffic 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.
73. The MPCA finds that the Project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts related to traffic that are reasonably expected to occur from the Project.

B. Cumulative potential effects

74. The second criterion that the MPCA must consider when determining if a project has the potential for significant environmental effects is the “cumulative potential effects.” In making this determination, the MPCA must consider “whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effects; and the efforts of the proposer to minimize the contributions from the project.”
Minn. R. 4410.1700 subp.7(B). The MPCA findings with respect to this criterion are set forth below.
75. The EAW, public comments, and MPCA follow-up evaluation did disclose related or anticipated future projects that may interact with this Project in such a way as to result in significant cumulative potential environmental effects. Foreseeable future projects in the area include:
 - a. The expectation is to construct the Merriam Junction Trail project starting in 2024 with tree clearing and Minnesota River bridge construction; trail construction will begin in 2025. The permanent limit of the trail is just under one-half mile from the Site. The trail project was evaluated by Scott County in a 2023 EAW.
 - b. Dem-Con Landfill Expansion consists of ongoing construction phases directly north of the Site, including permitting a proposed municipal solid waste (MSW) Landfill Project. The MSW Landfill Project is a Phased Action and will be reviewed with an EIS at a later date because it is still in the early stages of development, and it is not possible to adequately address all its components currently. Cumulative potential effects related to the Project and the MSW Landfill Project will be evaluated in the EIS.
76. The EAW addressed the following areas for cumulative potential effects for the proposed Project:
 - air quality.

Air quality

77. Cumulative potential effects related to air quality were discussed in Part 17 and Part 21.c of the EAW. Findings 24 through 40 are incorporated herein as part of MPCA’s cumulative potential effects

evaluation for human health impacts to air quality, in that the air assessment through refined air dispersion modeling and AERA incorporated ambient background concentrations and nearby contributing emission sources in the same geographic region.

- 78. The impacts are below the PM₁₀ Cumulative Impacts Analysis for all days and locations that nearby source allowable emissions are showing modeled exceedances. Based on the CIA, DCHZI and the remainder of the Project will meet all NAAQS and MAAQS.
- 79. The results of the AERA indicate that the calculated cumulative excess cancer risks and hazards are below the MDH risk management levels. The Project does not significantly change the risk and hazard levels.
- 80. The MPCA finds the information presented in the EAW and other information in the environmental review record does not demonstrate that the Project has the potential for significant environmental effects to air quality based on significant cumulative potential effects because: the Project will obtain and comply with an MPCA Air Emissions Permit, will meet the NAAQS, and will not pose any acute inhalation health hazards or any sub-chronic or chronic multi-pathway health hazards to the public.
- 81. Therefore, the MPCA finds that the Project is not expected to contribute significantly to adverse cumulative potential effects on air quality.

Cumulative effects – summary

- 82. Based on information on the Project obtained from air modeling reports and information on air quality presented in the EAW, and consideration of potential effects due to related or anticipated future projects, the MPCA does not expect significant cumulative effects from this Project.
- 83. The MPCA finds the Project, as proposed, does not have the potential for significant environmental effects related to cumulative potential effects that are reasonably expected to occur.

C. The extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority

- 84. The third criterion that the MPCA must consider when determining if a project has the potential for significant environmental effects is "the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project." Minn. R. 4410.1700, subp. 7(C). The MPCA findings with respect to this criterion are set forth below.
- 85. The following permits or approvals will be required for the Project:

Unit of Government	Permit or approval required
Minnesota Pollution Control Agency (MPCA)	NPDES/SDS (General Construction Stormwater Permit)
	Air Permit Applicability Determination
	Air Permit
	AST Notification for regulated tank, and indoor tank(s)
Minnesota Department of Agriculture (MDA)	Soil & Plant Amendment Product Registration

Unit of Government	Permit or approval required
Minnesota Department of Health (MDH)	Well Notification
Minnesota Department of Natural Resources (MDNR)	Well Construction Assessment
	Water Appropriation Permit
Metropolitan Council	Industrial Discharge Permit (Special Discharges)
Scott County	Amendment to Conditional Use Permit (CUP)
	Annual Solid Waste License
	Septic system, building permits, etc.
	Wetland Conservation Act
	Wetland Boundary/Type
	Wetland Replacement if needed

Below are numbered paragraphs describing each permit listed above, including special conditions.

86. **Construction Stormwater.** A National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (CSW permit) is required when a project disturbs one acre or more of soil. The CSW permit requires the use of best management practices to prevent erosion and to keep eroded sediment from leaving the construction site and requires projects that create one acre or more of new impervious surface to provide permanent treatment of stormwater runoff. The project proposer must have a stormwater pollution prevention plan that provides details of the specific measures to be implemented.
87. **Air Permit.** The Air Emission Permit for the facility would contain operational and emission limits, including requirements for the use of control equipment, that would help prevent or minimize the potential for significant environmental effects.
88. **Above Ground Storage Tank Registration Over 110 Gallons.** The Above Ground Storage Tank Registration General Permit requirements include notification, labeling, and secondary containment to prevent or minimize the potential for environmental impacts.
89. **MDA Soil & Plant Amendment Product Registration.** The objective of the Soil & Plant Amendment Program is to promote fair trade practices among businesses that offer these products and protect consumers through product content reviews. The Program also ensures accurate and meaningful product labeling is provided to the consumers.
90. **MDH Well Notification.** Prior to drilling a water-supply well, the Proposer must notify MDH and provide information about the well owner, property address, and the licensed contractor to construct the well along with a fee.
91. **DNR Well Construction Assessment.** The Preliminary Well Construction Assessment (PWCA) is a review of sensitive resources and potential water supply issues completed through analysis of historic resource and water appropriation data in the vicinity of a new proposed high capacity well site(s). The purpose of the PWCA is to provide the applicant with a determination of the potential need for additional testing (at the cost of the applicant) to assess impacts to surrounding resources

and users. The PWCA is not considered a Water Appropriations permit application, in which the exact specifications of a water use system are necessary in order to issue a permit.

92. **DNR Water Appropriation Permit.** The Water Appropriation Permit is required for all users withdrawing more than 10,000 gallons of water per day or one million gallons per year. The purpose of the permit program is to ensure water resources are managed so that adequate supply is provided to long-range seasonal requirements for domestic, agricultural, fish and wildlife, recreational, power, navigational, and quality control. The program exists to balance competing management objectives including both the development and protection of the water resources. Information on permitted water users and reported water use is used to evaluate impacts from pumping on surface and ground water resources. Water use data are also used for water supply planning and resolving water use conflicts and well interferences. The DNR administers this permit and requires monthly usage monitoring and annual reporting to ensure that surrounding communities' and industries' water supplies will not be affected by draw-down of the aquifer. Minn. Stat. § 103G.261 establishes domestic water use as the highest priority of the state's water when supplies are limited.
93. **County Conditional Use Permit.** The proposer is required to obtain all required building and conditional use permits required by local units of government to ensure compliance with local ordinances. The conditional use permit will address local zoning, environmental, regulatory, and other requirements that are needed to avoid adverse effects on adjacent land uses.
94. The above-listed permits include general and specific requirements for mitigation of environmental effects of the Project. The MPCA finds that the environmental effects of the Project are subject to mitigation, as explained in these Findings and the EAW, by ongoing public regulatory authority.

D. The extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the Project Proposer, including other EISs

95. The fourth criterion that the MPCA must consider is "the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs," Minn. R. 4410.1700, subp. 7(D). The MPCA Findings with respect to this criterion are set forth below.
96. Although not exhaustive, the MPCA reviewed the following documents as part of the environmental impact analysis for the proposed Project:
 - Data presented in the EAW.
 - Air Dispersion Modeling Report.
 - Permits and environmental review of similar projects.
97. The MPCA also relies on information provided by Dem-Con HZI Bioenergy, LLC, persons commenting on the EAW, staff experience, and other available information obtained by staff.
98. The environmental effects of the Project have been addressed by the design and permit development processes, and by ensuring conformance with regional and local plans. No elements of the Project pose the potential for significant environmental effects that are not addressed or mitigated by the requirements of the permits listed above or in the EAW.
99. Based on the environmental review, previous environmental studies by public agencies or the project proposer, and staff expertise and experience on similar projects, the MPCA finds that the

environmental effects of the Project that are reasonably expected to occur can be anticipated and controlled.

100. The MPCA adopts the rationale stated in the attached Response to Comments (Appendix B) as the basis for response to any issues not specifically addressed in these Findings.

Conclusions of Law

101. The MPCA has jurisdiction in determining the need for an EIS for this Project. The EAW, the permit development process, and the evidence in the record are adequate to support a reasoned decision regarding the potential significant environmental effects that are reasonably expected to occur from this Project.
102. The MPCA identified areas for potential significant environmental effects. The Project design and permits ensure Dem-Con HZI Bioenergy, LLC will take appropriate mitigation measures to address significant effects. The MPCA expects the Project to comply with all environmental rules, regulations, and standards.
103. Based on a comparison of the impacts that are reasonably expected to occur from the Project with the criteria established in Minn. R. 4410.1700 subp. 7, the Project does not have the potential for significant environmental effects.
104. An EIS is not required for the proposed Dem-Con HZI Bioenergy, LLC – Shakopee Campus Project.
105. Any Findings that might properly be termed conclusions and any conclusions that might properly be termed Findings are hereby adopted as such.

Order

106. The Minnesota Pollution Control Agency determines there are no potential significant environmental effects reasonably expected to occur from the Dem-Con HZI Bioenergy, LLC – Shakopee Campus project and that there is no need for an Environmental Impact Statement.

September 18, 2024

Date signed

Katrina Kessler

This document has been electronically signed.

Katrina Kessler, Commissioner
Minnesota Pollution Control Agency

Minnesota Pollution Control Agency
Dem-Con HZI Bioenergy, LLC – Shakopee Campus
Environmental Assessment Worksheet

Appendix A

List of comment letters received

1. Don Nelson. Letter received July 17, 2024.
2. Nick Nelson. Letter received July 18, 2024.
3. Catherine Larsen-Abramson. Letter received July 18, 2024.
4. Mark Bray. Letter received July 22, 2024.
5. Joe Schmidt. Letter received July 23, 2024.
6. Carol Beverorh. Letter received July 24, 2024.
7. Andrea Hilgers. Letter received July 24, 2024.
8. Heather Thuringer. Letter received July 27, 2024.
9. Wayne Vaughn. Letter received July 30, 2024.
10. Dale Lutz. Letter received July 31, 2024.
11. Mark Bray. Letter received August 1, 2024.
12. Kim Dupre. Letter received August 14, 2024.
13. Natasha Hacker, Shakopee Mdewakanton Sioux Community. Letter received August 14, 2024.
14. Angela Torres, Metropolitan Council. Letter received August 15, 2024.
15. Melissa Collins, Minnesota Department of Natural Resources. Letter received August 15, 2024.

Appendix B

Responses to comments on the Environmental Assessment Worksheet (EAW)

Air quality

Comment 4-1: Commenter requests please, please ensure that the facility does not make air quality worse than presently. Often my area of Prior Lake/Shakopee has worse air quality than Eden Prairie/Edina. This is absurd. Air quality is very important to my health.

Response: The Project will obtain a Title V Air Permit. The draft air permit limits particulate matter, sulfur dioxide, nitrogen oxide, and several hazardous air pollutant emissions from the biochar process and combustion of the syngas. The draft permit also requires performance testing, and continuous monitoring for several pollutants from syngas combustion and biochar process. Emissions from this process will be controlled by a cyclone, activated carbon injection and fabric filter system, and liquid scrubber before venting to the atmosphere. A flare will control emissions from the anaerobic digesters when gas not suitable for the pipeline is created during startup, shutdowns, or malfunctions.

Comment 4-2: Commenter states that if it costs more for them to install technologies to remove pollutants, then they need to. If they cannot do this, then the facility should be limited and the amounts spread throughout the State to not negatively impact the air quality of an area unduly.

Response: Please see the response to comment 4-1.

Comment 4-3: Commenter states that they need to use all the technologies possible to capture pollution so the daily AQ does not get worse with the facility operating.

Response: Please see the response to comment 4-1.

Comment 4-4: Commenter states that since the waste is coming from Ramsey and Washington County, it should instead be put in an area between the two areas as we apparently have enough air quality worsening agents already in Scott County.

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 4-5: Commenter requests as a respiratory patient, with huge air quality issues, I implore you to not allow this plant to make air quality worse.

Response: Please see the response to comment 4-1.

Comment 8-5: Commenter notes that this proposal will be adding additional burdens to already compromised ... air quality...

Response: Please see the response to comment 4-1.

Comment 8-8: Commenter asks I know many people who already have compromised immune systems, and breathing problems. Would this make their lives better or worse?

Response: The Project will follow and obtain the permits and approvals listed on page 33 of the EAW.

Comment 11-4: Commenter states, we need to know that the ... air quality is not contaminated.

Response: Please see the response to comment 8-5.

Climate change

Comment 2-16: Commenter asks what impact on the other regional landfill facilities that are making landfill gas will this facility have?

Response: Diverting food waste from the landfills will decrease the amount of fugitive Greenhouse gas (GHG) emissions from landfills.

Comment 10-2: Commenter notes that while page 75 states that, for some reporting purposes, "Biogenic GHG emissions are allowed to be excluded as per MCPA guidance," slowing global warming requires reducing or delaying ALL greenhouse gas emissions, regardless of the source of the "carbon". Thus, this project is expected to release a total of about 34,000 tons of carbon dioxide GHG per year.

Response: Per the Environmental Quality Board's guidance, *"Unless released to the atmosphere as a result of permanent land use change, carbon dioxide (CO₂) emitted to the atmosphere from biomass combustion or ecosystem or animal respiration, is often rapidly removed from the atmosphere through subsequent photosynthesis and returned to storage in living biomass and soils."* The Project involves the generation of biogas from anaerobic digestion, and thus carbon neutrality is assumed for the Project's carbon footprint.

Comment 10-3: Commenter notes that the best way to "reduce GHG emissions" is to STOP EMITTING CO₂ GHG!

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 14-1: The Commenter requests that the EAW includes good discussion of climate impacts and associated risks. While staff agrees that the site is not in an area with a high heat island effect, mitigation measures like increased tree canopy cover would still help offset the impact of impervious surfaces. Staff encourages the project proposer to commit to exceeding minimum tree planting requirements.

Response: A landscape plan will be developed in accordance with the Scott County ordinances as part of the local permitting process.

Comment 14-2: Commenter requests that warmer winters can also increase frequency of freeze thaw cycles, and the project proposer could implement site design practices and a chloride management plan to reduce the need for salt use.

Response: The site design will incorporate best management practices for stormwater and will meet the requirements of the Industrial Stormwater Permit in addition to the Scott County stormwater requirements as part of the local permitting process.

Comment 14-4: Commenter states that Scope 3 emission should be considered for both the Construction and Operation phases; however, they are likely to be insignificant when compared to the overall reduction in GHG associated with the project.

Response: Comment noted.

Comment 14-5: Commenter recommends that the project proposer should also consider use of roof mounted solar to reduce need for offsite energy.

Response: Comment noted. This information will be passed along to DCHZI.

Groundwater

Comment 2-14: Commenter asks why is this being located in a space where it needs ground water when it could be located next to a gray water supply source such as the Met Council's Blue Lake wastewater treatment plant?

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 2-15: Commenter asks why is their gray water not being trucked over to this facility? We don't need to be using any more fresh groundwater for facilities like this. We need to force cooperation of existing parties.

Response: MPCA and DNR permitting processes for groundwater wells will be followed. Water will be reused on-site. Gray water cannot be used due to potential contaminants. The expected water use is 3.8 million gallons per year, equivalent to about 7.2 gallons per minute, less than a typical residential garden hose flow rate. Proposers submit projects to the MPCA, and the EAW evaluates the Project as proposed.

Comment 8-2: Commenter notes that this proposal will be adding additional burdens to already compromised water tables...

Response: The Project will follow all necessary permitting regarding water (DNR Water Appropriations Permit) and air. Please see the response to comment 2-15.

Comment 8-3: Commenter notes that this proposal will be adding additional burdens to already compromised ... Jordan aquifer...

Response: Please see the response to comment 8-2.

Comment 8-4: Commenter notes that this proposal will be adding additional burdens to already compromised ... waterways...

Response: Please see the response to comment 8-2.

Comment 11-5: Commenter states, we need to know that the water quality ... is not contaminated.

Response: Please see the response to comment 8-2.

Comment 15-1: Commenter notes that the applicant intends to apply for a MNDNR Water Appropriation Permit given the expected water consumption will exceed the no permit water appropriation limit of 10,000 gallons per day or 1 million gallons per year.

Response: Comment noted. This information will be passed along to DCHZI.

Land application

Comment 2-17: Commenter notes that it is true that per, pfas and other heavy metals don't get added during the process however we are talking about a concentrating of these items and then spreading them onto local fields where they will become concentrated over time and when we get heavy rains they will flow into the Minnesota River.

Response: PFAS, heavy metals, and other contaminants do not get added during the process. All end products will meet the permitted end market specifications for their intended use (i.e. Class I compost, Class II compost, land application, etc.).

Comment 2-20: Commenter states that because of the heavy metal content there would need to be safeguards put into place to ensure that no product ever grown on the lands that the biochar is spread on ever making it back into the human food chain via direct or indirect consumption of the product grown on that land. Meaning it can't be used for livestock feed and we need to make sure that it's impossible for it to enter the Minnesota river because of the use for drinking water down river and eventually shrimp and fishing when you get to the gulf. This is an especially massive concern with the level of vegetable crops grown in the region as well as the corn being used for livestock feed either before or after the ethanol process. I am just saying that there is a massive risk of these heavy metals getting concentrated and entering the human food stream.

Response: Please see the response to comment 2-17.

Comment 12-8: Commenter states that I have great concerns over heavy metals being present in the digestate ("Heavy metals present in the Feedstock will be present in the end products produced regardless of digestion process", Appendix D p. A2) that will then be distributed and depending on the plants/crops grown on the land receiving the digestate, could enter our food supply, whether that is being bagged and sold to homeowners or spread on farm fields growing corn that is fed to our livestock.

Response: The facility has a specification for organic feedstock entering the facility. This specification was developed to address any acceptance issues with heavy metals and other contaminants. All end products will meet the permitted end market specifications for their intended use (i.e. Class I compost, Class II compost, land application, etc.). Specific to land application, the products would need to be approved by the Minnesota Department of Agriculture via a land application permit.

Odor

Comment 2-11: Commenter asks anybody that has ever been near an anaerobic digester knows that they stink from the materials entering and leaving the plant. How is this going to be dealt with?

Response: DCHZI does not expect odors to be emitted from the digesters because they are enclosed. Solid digestate will exit the digesters indoors. The Project will control odors indoors in a negative air pressure environment. The Project will exchange air using an engineered air handling system inside the main building multiple times per hour. Building exhaust from the receiving hall area will vent through an ultraviolet light source and activated carbon before venting into the atmosphere. The dewatering process can generate ammonia. The Project will route ventilation from the area to a scrubber, ultraviolet light source, and activated carbon canister before venting into the atmosphere. Building exhaust from the biochar processing area will be blended with the exhaust from the thermal oxidizer and vented through the cyclone, activated carbon injection, baghouse, exhaust cooler, and liquid scrubber before venting into the atmosphere.

Comment 12-4: Commenter states that odors will be a huge concern during a time of year when people will be wanting to spend time outdoors.

Response: The processing operations, and digestate storage, are all done in an enclosed building under negative pressure, so odors are not expected to be a concern based on the other HZI facilities in

operation with the same design. In addition, the digestate will be processed into biochar, not composted. Biochar has no odor.

Comment 12-5: Commenter states that Nature Energy (Denmark Company) has a website where they allow citizens to sign up for "alerts" when their facility will be omitting odors that people will find objectionable.

Response: Comment noted. This will be passed on to DCHZI.

Comment 12-6: Commenter states that odors can travel a long way, especially if the wind is in the right direction, and that will directly affect the quality of life of those living in and visiting Shakopee.

Response: Please see the response to comment 12-4.

Comment 12-7: Commenter states that other digesters have been shutdown due to offensive odors.

Response: Please see the response to comment 12-4.

Traffic

Comment 7-1: Commenter states that there are already way way too many garbage vehicles driving 41 and 169.

Response: Around 22 vehicles are expected to arrive daily at the Project, or approximately 4 vehicles per hour of operation. This amount of traffic is not expected to increase congestion along 169. No additional waste is being generated and vehicles are already hauling the same materials within the metro.

Comment 8-6: Commenter asks why would we accept tons of waste from other metro Counties, potentially bring unknown contaminants from their County's soil and water, to ours, degrading our roads, bridges, and airways with their haulers driving miles ACROSS the metro to this proposed site?

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 8-7: Commenter asks At what cost? We already have too many haulers entering this area.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Wastewater

Comment 11-2: Commenter states that clearly cleaner water rather than septic systems which unlikely can handle the volume.

Response: The septic system will be designed to handle the sewage from the on-site restrooms. Any excess process water will be disposed of off-site at a WWTP.

Comment 12-11: Commenter states that as we saw in WI - wastewater treatment plants that use digesters have far more stringent regulations, testing, and oversight, while the regional/on-farm co-digesters (manure & other wastes) were utilizing manure as a substrate and mixing in other "hard to

dispose of" materials to avoid the regulation, testing, and oversight of such toxic materials (see Digestate Sampling Reg Comparison attached).

Response: A discharge permit will be obtained from MCES for treatment of any excess process water. The process water will be sampled in accordance with the discharge permit prior to delivery to the MCES WWTP. Please see the response to comment 12-8.

Comment 14-3: The EAW describes a leachate collection system which conveys drainage water from the land basin storage areas and pumps it to a holding tank. This leachate will then be periodically transferred to trucks to be hauled to a nearby wastewater treatment facility. It is anticipated that this facility would be the Council's Blue Lake Water Resource Reclamation Facility (WRRF) located in Shakopee. The EAW also cites that Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) materials may be present in the leachate. Prior to initiating the hauling of this material to the Blue Lake WRRF, or any other Met Council WRRF's, a representative sample should be submitted to the Met Council's Industrial Waste Department for evaluation and determination of whether this material will be allowed for direct discharge into the WRRF receiving stream, or if pre-treatment of the material will be required.

Response: Please see the response to comment 12-11.

Miscellaneous

Comment 1-1: Commenter states much needed project. Support 100%

Response: Comment noted.

Comment 2-1: Commenter states I am writing to voice my strong objection to this project moving forward until many more details are provided.

Response: MPCA determined that the EAW was complete and accurate with sufficient detail to make a decision on the need for an EIS.

Comment 2-2: Commenter states that Dem Con has been a landfill for over 50 years now Hennepin County requires our haulers to charge us for organic hauling it has to go somewhere and Dem Con doesn't have any problems. I do want to make a commitment now every sanitation company has 4 trucks.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 2-3: Commenter asks as you are well aware there is already a digester project in Le Sueur that could potentially be used to process these same materials. What is MPCA's experience level with that facility? Did it meet or exceed all MPCA standards for air, water, waste streams, etc? What was the environmental impact of that facility?

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 2-4: Commenter asks what specific technologies are being used?

Response: Anaerobic digestion and gasification/pyrolysis.

Comment 2-5: Commenter asks what are these technologies experience level at this scale not lab scale?

Response: HZI has over 100 facilities globally that have been in operation for 20+ years. HZI will be the operators of the Project and have extensive operational experience.

Comment 2-6: Commenter asks who will be managing this very fragile biological process?

Response: Please see the response to comment 2-5.

Comment 2-7: Commenter asks what is their experience level at this scale?

Response: Please see the response to comment 2-5.

Comment 2-8: Commenter asks what are the plans for maintaining a stable biology with the mixed input stream?

Response: HZI will manage this Facility's process similar to their existing facilities which use mixed input streams.

Comment 2-9: Commenter asks has MPCA audited technologies and management team's sites for compliance levels acceptable at this location in Minnesota?

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 2-10: Commenter asks if this area is very prone to high water levels when the Minnesota River floods what precautions are being implemented to ensure that none of these materials ever enter the already over polluted Minnesota and then Mississippi Rivers?

Response: The Project is outside of the 100-yr and 500-yr flood zones. Materials arriving to site will be stored inside, and material transfers will also occur inside or in enclosed areas/equipment, so the risk, if any, of materials entering the rivers is negligible. Runoff from the site will also be directed to a stormwater pond and infiltration basin.

Comment 2-12: Commenter notes that this type of system with mixed and unstable input is very prone to system upset. What is the plan for when that happens and it takes months to get the system back up and running again.

Response: HZI has extensive experience with these types of inputs and will manage them accordingly to avoid system upsets. Please see the response to comment 2-5.

Comment 2-13: Commenter asks what is the plan for the liquid digestate?

Response: Most of the liquid digestate waste stream will be recirculated back into the system with incoming feedstock to the digesters. DCHZI will truck the rest of the digestate not recirculated to a local wastewater treatment plant (WWTP).

Comment 2-18: Commenter requests MPCA to think about the long term effects of this project.

Response: The EAW evaluates potential short- and long-term environmental impacts of a project to determine if an environmental impact statement should be ordered for the Project.

Comment 2-19: Commenter states that the lack of a viable long term contract for the very widespread distribution of the biochar is a huge concern.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 2-21: Commenter states that from 2008 to 2012 I owned an anaerobic digestion company and know how the process works and how fragile it is maintain especially with this waste stream.

Response: Comment noted.

Comment 2-22: Commenter states I know several facilities of this nature were in the works in the Ohio area in the 2010 to 2012 time frame. What is the operational history of those facilities?

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 3-1: Commenter notes that building any waste management facility is controversial but this proposed build is much needed. We desperately need to reduce landfill with carbon reduction methods. I support this.

Response: Comment noted.

Comment 5-1: Dem Con has been a landfill for over 50 years now Hennepin County requires our haulers to charge us for organic hauling it has to go somewhere and Dem Con doesn't have any problems. I do want to make a commitment now every sanitation company has 4 trucks going down the road there pickup day.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 6-1: Commenter asks if this is to be used primarily by Ramsey and Washington County they can surely find a site in one of those counties. Why haul the waste to Scott County? Keep the waste where it was made.

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 7-2: Commenter states to build it somewhere else.

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 8-1: Commenter states not in my backyard. I am against building this anaerobic digester in Scott County.

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 8-9: Commenter states that this location is just steps or miles from our own backyards, our waterways, our schoolyards, our businesses. There is a possibility that things will not go as planned or estimated, as they state.

Response: DCHZI will follow their Standard Operation Procedures (SOP's) for processes and equipment and their emergency response plan for any unplanned incidents.

Comment 8-10: Commenter states or even recognize in the hauling and processing of this waste, what negative health and environmental outcomes to those living and working near this location might incur.

Response: Please see the response to comment 2-18.

Comment 8-11: Commenter notes resulting in untimely assessments, delayed mitigation, and harmful long term consequences.

Response: Please see the response to comment 2-18.

Comment 8-12: Commenter notes Please do not proceed. Not in my backyard.

Response: Comment noted.

Comment 9-1: Commenter states I am supportive of using digestors for this purpose.

Response: Comment noted.

Comment 9-2: Commenter suggests I would hope that we can get a collection process for organic materials in Scott County too.

Response: The Metropolitan Solid Waste Policy Plan requires communities over 5,000 to provide organics curbside collection by 2030. Counties will be working to provide increased collection opportunities as a result. Comment passed on to DCHZI.

Comment 10-1: Commenter states that I believe this project shows that the Solid Waste Management policy team should broaden their thinking and scope to simply "Waste Management." I feel the plan presented is not "complete," because some key opportunities are not discussed.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 10-4: Commenter notes "As the articles below show, CO₂ can be captured and ""utilized"" to produce multiple useful products, including construction aggregate for concrete, concrete curative, and ""electrofuels"" like methanol, ethanol, and sustainable aviation fuel (SAF). The anaerobic digester plan could, for example, include capturing and using the CO₂ with demolition concrete from the adjacent Dem-Con landfill to produce construction aggregate for sale. Fulfilling the Promise of Carbon Capture and Utilization <https://www.bcg.com/publications/2024/four-applications-of-carbon-capture-and-utilization> Carbon dioxide mineralization in recycled concrete aggregates can contribute immediately to carbon-neutrality (See, e.g., Fig. 1)

<https://www.sciencedirect.com/science/article/pii/S0921344922002798> This CO₂ mineralization would help compensate for the CO₂ emissions from the limestone (CaCO₃) that will be mined at the site by Bryan Rock Products Inc. The limestone will almost certainly be cooked in a kiln to produce lime (CaO) for cement, thus releasing the carbon that has been sequestered in the mineral (CaCO₃ => CaO + CO₂)."

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 10-5: Commenter states that the CO₂ from the plant's flare and stacks could be captured, for example, using the Chart Industries' Cryogenic Carbon Capture technology described in the article below. Chart Industries also supplies cryogenic transport trailers for hauling the liquid CO₂ produced by truck to a point of use. Cryogenic Carbon Capture <https://www.chartindustries.com/Products/Carbon->

Capture As part of the cryogenic capture process, the gas cooling also condenses the water vapor that was released in the combustion or gasification process. This water could be used in place of much of the well water currently required by the plan. If we assume, for example, that each carbon atom in the biomass in the anaerobic digester is accompanied by at least 2 hydrogen atoms, 34,000 tons per year of CO₂ would be accompanied by the release of about 3.3 million gallons of water per year. Page 52 says, "The expected water consumption for the Project will be about 3.8 million gallons per year, with the potential for 8.8 million gallons per year in the worst-case scenario." Substituting pure condensed water vapor for precious aquifer water would support the MPP goal of conserving natural resources.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 10-6: Commenter states that I am working with my state representative on a bill to have the legislature fund a design study for building a state-owned facility that would combine captured CO₂ with "green hydrogen" to produce sustainable aviation fuel (SAF) for the MSP airport. This SAF would displace fossil fuels. The "green hydrogen" would be produced from water electrolyzers using dedicated low-carbon renewable energy, like wind and solar (plus storage). An example of a commercial system is shown in the article below. Infinium's Project Pathfinder is World's First Fully Operational eFuels Facility <https://www.infiniumco.com/news/infiniums-project-pathfinder-is-worlds-first-fully-operational-efuels-facility> Including technologies like those described above in the Dem-Con HZI Bioenergy plan can move Minnesota closer to being a "circular economy."

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 11-1: Commenter states that MPCA the Scott County promoting it is their vote to change the comprehensive plan when multiple mayors were against the change, and the county board did it fairly rapidly; the county board also exempted the water going to the Met Council Treatment because the township chair said the developers didn't want the cost even though over the course of the plant, it will cost a quarter of a billion dollars.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 11-3: Commenter notes that the owner of the plant in the video you posted said at the Capitol that they can add 35 tons more per year up to 400 tons from the original 75 tons.

Response: The Project is being designed to process 75,000 tons of organics per year through 2 digester units, each of which can process 37,500 tons.

Comment 12-1: Commenter states that I view your proposal of a digester in a location near the Renaissance Festival and Sever's Festival grounds, both within 5 miles of heavily populated areas in Shakopee (where my inlaws live on the southwest side of town) to be short-sighted.

Response: Proposers submit projects to the Minnesota Pollution Control Agency (MPCA) and the EAW evaluates the Project as proposed.

Comment 12-2: Commenter states that while I realize that MN and WI differ in their oversight and permitting....I have heard enough about "scope creep" (see Michigan EGLE attachment) to know that

when you accept a variety of wastes that differ week by week -- you can't get a consistent end product and initial plans in handling digestate will have to be constantly reviewed and revised.

Response: Hitachi Zosen Inova (HZI) has extensive operational experience with operating anaerobic digesters with variable feedstock in the United States and around the world. HZI will be the operator of the facility and will use this experience to ensure that the facility is operating in accordance with all permit requirements and meeting end market specifications.

Comment 12-3: Commenter states that farmers in St. Croix County were hesitant to sign up to receive the digestate since they weren't sure of its efficacy due to the variety of inputs into the digester -- they could buy commercial fertilizer and get a known product with consistent results and be more assured of profitability than "rolling the dice" with digestate!

Response: DCHZI is not producing digestate for agricultural use. DCHZI is processing all digestate in the biochar process to produce biochar. The end products of the Project are RNG and biochar.

Comment 12-9: Commenter states that overall -- the enormous monies being thrown at this technology is concerning (see Jim Duffy's letter attached - former Branch Chief of the California Low Carbon Fuel Standard) and makes me wonder if we are chasing credits rather than testing for public health and safety.

Response: Comment is beyond the scope of the EAW because the information on this issue would not inform a reasoned decision about the potential for or significance of the environmental effects of the Project under Minn. R. 4410.1700.

Comment 12-10: Commenter states that there doesn't seem to be much "real world" follow up testing to validate the public's health and safety of these digesters.

Response: The air permit for this facility is a Title V (Part 70) permit. These permits expire and a permittee must renew their permit every five years. For each issuance, data and requirements are reviewed and updated as necessary for the facility.

Comment 12-12: Commenter states that in the end - public health and safety needs to be a greater priority over creating biogas and chasing credits. Quality of life for neighbors and businesses should not be negatively impacted.

Response: Per Minnesota Rules chapter 4410.1000 subp. 1, *"The EAW is a brief document prepared in in worksheet format which is designed to rapidly assess the environmental effects which may be associated with a proposed project. The EAW serves primarily to:*

A. aid in the determination of whether an EIS is needed for a proposed project; and

B. serve as a basis to begin the scoping process for an EIS."

Comment 12-13: Commenter notes that attached is also Dr. Sarah D'Onofrio's Myth vs. Fact Sheet on digesters/co-digesters.

Response: Comment noted.

Comment 13-1: Commenter supports the DCHZI project as an innovative solution to providing renewable energy from food waste. The proposed project will process food waste and organics from Ramsey and Washington counties into renewable natural gas (RNG) through anaerobic digestion. The project will also use pyrolysis/gasification to create a marketable biochar which can be used as a soil amendment and sequesters carbon helping to meet the state climate change initiatives.

Response: Comment noted.

Comment 13-2: Commenter specifically notes that, the DCHZI digester will process up to 50,000 tons of organic waste from Ramsey and Washington counties creating 200,000 MMBtu of RNG per year, 10,000 tons of biochar, and reducing over 30,000 tons per year of CO₂ equivalent. This emission reduction from the proposed digester is equivalent to removing 6,147 passenger vehicles from the road each year (Greenhouse Gas Equivalencies Calculator | US EPA).

Response: Comment noted.

Comment 13-3: Commenter states that the Dakota people have long considered their relationship with the earth as a kinship. Following the tradition of planning seven generations ahead, the SMSC intends to protect and preserve the environment for future generations. This project is complementary to the SMSCs Dakota Prairie Compost Facility currently under construction and will assist the metro region in reaching the 75% recycling goal by 2030. We support the waste management hierarchy and view the waste stream as a resource stream working to recover maximum value from discarded materials. The proposed project provides the infrastructure necessary to help meet these goals and is a critical step toward developing a sustainable waste management strategy protective of Minnesota's environment and natural resources.

Response: Comment noted.