

March 25, 2026

VIA E-FILING

Sasha Bergman
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

Honorable Megan McKenzie
Office of Administrative Hearings
600 North Robert Street
P.O. Box 64620
St. Paul, MN 55164-06204

RE: In the Matter of the Application of Midwater BESS, LLC for a Site Permit and Route Permit for the up to 150 MW Midwater Energy Storage Project and Associated 161 kV Transmission Line in Freeborn County, Minnesota

**MPUC Docket Nos. IP-7138/ESS-24-294; TL-24-295
CAH Docket Number: 25-2500-40799**

Dear Ms. Bergman and Judge McKenzie:

Enclosed please find the proposed Findings of Fact, Conclusions of Law, and Recommendations for the above-referenced matters, which has been electronically filed today through www.edockets.state.mn.us.

A copy of this filing is also being served upon the persons on the Official Service Lists of record.

Please let me know if you have any questions regarding this filing.

Sincerely,

FREDRIKSON & BYRON, P.A.

/s/ Jeremy P. Duehr

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JPD

**STATE OF MINNESOTA
COURT OF ADMINISTRATIVE HEARINGS**

FOR THE PUBLIC UTILITIES COMMISSION

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**MIDWATER BESS, LLC'S
PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

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CONCLUSIONS OF LAW, AND
RECOMMENDATIONS**

This matter was assigned to Administrative Law Judge Megan J. McKenzie to conduct a joint public hearing and prepare a report on the joint application (MPUC Docket Nos. IP-7138/ESS-24-294 and TL-24-295) (Application) of Midwater BESS, LLC (Applicant or Midwater) to construct and operate the up to 150-megawatt (MW) alternating current (AC) battery energy storage system and associated facilities (BESS Facility or BESS) and an approximately 2,668-foot long 161 kilovolt (kV) high voltage transmission line and associated facilities (the HVTL collectively with the BESS Facility are the Project) in the Shell Rock Township, Freeborn County, Minnesota. The Minnesota Public Utilities Commission (Commission) also requested the Judge provide a full report with findings of fact, conclusions of law, and recommendations regarding the Project following public hearings.¹

Public hearings on the Application were held on March 3, 2026 (in-person) and March 4, 2026 (remote-access). The factual record remained open until March 16, 2026.

Jeremy P. Duehr with Fredrikson & Byron P.A., and Mary Matze, Manager of Development for Spearmint Renewable Development Company, LLC (Spearmint) appeared on behalf of the Applicant.

Jim Sullivan, Environmental Review Manager appeared on behalf of Commission's Energy Infrastructure Permitting (PUC-EIP), formerly known as the Department of Commerce-Energy Environmental Review and Analysis (EERA).

Jacques Harvieux, Energy Facilities Planner, appeared on behalf of the Commission at the public hearings.

¹ Ex. PUC-2 (Completeness Order).

STATEMENT OF ISSUES

Has Midwater satisfied the criteria established in Minn. Stat. § 216E.03 Subd. 7(b) (2023) and Minn. R. Chapter 7850.4100 (2023) for a Site Permit for the proposed up to 150 MW AC BESS Facility?

Has Midwater satisfied the criteria established in Minn. Stat. § 216E.03 Subd. 7(b) (2023) and Minn. R. Chapter 7850.4100 (2023) for a Route Permit for the proposed HVTL facility?

SUMMARY OF RECOMMENDATIONS

Midwater has satisfied the applicable legal requirements, and the Commission should GRANT a Site Permit for the BESS Facility and GRANT a Route Permit for the HVTL, subject to the recommendations discussed below.

Based on the Application, proceedings, and other evidence in the record, the Administrative Law Judge makes the following findings:

FINDINGS OF FACT

I. Applicant

1. The Applicant is Midwater, a wholly owned indirect subsidiary of Spearmint.
2. Spearmint, through its affiliates, develops and installs battery storage facilities throughout the United States.²

II. Joint Site Permit Application and Related Procedural Background

3. The Applicant filed a Notice of Intent to Submit Site Permit Application Under the Alternative Permitting Process on September 23, 2024.³ The Notice of Intent addressed both the BESS Facility and HVTL.
4. On November 19, 2024, the Applicant filed a Joint Application for the Site and Route Permits.⁴
5. On November 21, 2024, the Applicant filed a Notice of Midwater BESS, LLC's Filing of a Joint Application for a Site Permit and Route Permit with the Minnesota Public Utilities Commission.⁵
6. On November 27, 2024, the Commission announced a Notice of Comment Period on the completeness of the Application. The initial comment period closed December 11, 2024, and the reply and supplemental comment periods closed on December 18, 2024, and

² Ex. App.-2 at § 1.1.2 (Joint Application to the Minnesota Public Utilities Commission for a Site Permit and Route Permit [Application]).

³ Ex. App.-1 (Notice of Intent to Submit Joint Site and Route Permit Application under Alternative Process).

⁴ Ex. App.-2 (Application).

⁵ Ex. App.-15 (Notice of Application).

January 6, 2025, respectively.⁶ With the exception of comments submitted by PUC-EIP staff and the Applicant described in the following paragraphs, no comments were submitted by members of the public or state agencies during this period.

7. On December 11, 2024, PUC-EIP staff submitted comments regarding Application completeness, environmental review, procedural requirements, and other issues. PUC-EIP staff recommended that the Commission accept the Application as substantially complete. Staff also recommended a full administrative law judge report for the public hearing but concluded that an advisory task force was not warranted.⁷
8. On December 18, 2024, the Applicant submitted reply comments regarding the completeness of its Application, a lack of need for an advisory task force, and the application review process.⁸
9. On January 21, 2025, the Commission accepted the Application as substantially complete and requested a full administrative law judge report with findings, conclusions, and recommendations for the Project's public hearing.⁹
10. On February 07, 2025, the Commission issued a Notice of Public Information and Environmental Assessment (EA) Scoping Meetings for the Project, announcing that the in-person meeting was scheduled for February 19, 2025 in Albert Lea, Minnesota, and that the online meeting would be held via Webex on February 20, 2025. Public comments were accepted through March 10, 2025.¹⁰
11. Scoping meetings were held on February 19 and 20, 2025.¹¹ There, members of the public were provided the opportunity to provide comments on the Project.
12. On February 25, 2025, the Commission issued sample energy storage system site and route permits.¹²
13. On March 7, 2025 the Minnesota Department of Natural Resources (DNR) submitted written comments on the Project.¹³ DNR also previously completed a Natural Heritage Review for the Project on June 4, 2024.¹⁴
14. On March 10, 2025, Minnesota Department of Transportation (MnDOT) submitted written comments on the Project.¹⁵

⁶ Ex. PUC-1 (Notice of Comment Period on Application Completeness).

⁷ Ex. EIP-1 (Completeness Comments and Recommendations).

⁸ Ex. App.-16 (Midwater Completeness Reply Comments).

⁹ Ex. PUC-2 (Completeness Order).

¹⁰ Ex. PUC-3 (Notice of Public Information and EA Scoping Meetings).

¹¹ Exs. EIP-12 (Scoping Meeting Transcript) and EIP-13 (Virtual Scoping Meeting Transcript).

¹² Exs. PUC-4 (Sample Site Permit and PUC-5 (Sample Route Permit).

¹³ Ex. EIP-4 (DNR Comment Letter).

¹⁴ Ex. EIP-3 (DNR Natural Heritage Review Letter).

¹⁵ Ex. EIP-6 (MnDOT Comment Letter).

15. By letter dated March 19, 2025, the Commission issued an authorization to initiate consultation with the State Historic Preservation Office (SHPO) under Minn. State. § 138.665. The Commission authorized Midwater to gather information to identify designated historic properties, and to work in coordination with other interested entities, including Tribal Nations and PUC-EIP, to assess the effects of proposed projects on designated historic properties as described in Minn. Stat. § 138.665. The authorization further requires, among other things, that Midwater, at the time that it submits its prehearing testimony prior to the public hearing on the Project, file a compliance filing informing the Commission of the status of consultation with SHPO demonstrating that consultation has occurred, whether the proposed project will affect designated properties, and if so, identify any permit terms and conditions agreed upon by the applicant and SHPO to avoid or mitigate any adverse effects on the designated or listed properties.¹⁶
16. On March 24, 2025, the Commission issued a Notice of Additional Public Information and Environmental Assessment Scoping Meetings for the Project, announcing that the in-person meeting was scheduled for April 7, 2025, in Glenville, Minnesota.¹⁷
17. On April 2, 2025, Midwater submitted a compliance filing pursuant to the Commission's March 19, 2025, authorization to initiate consultation with SHPO. The filing detailed consultation activities, including, but not limited to, field survey results, as well as findings and conclusions resulting from the consultation. SHPO determined that there is limited potential for cultural resources in the area to be impacted by the Project and that no known or suspected archaeological resources will be affected by the Project.¹⁸
18. On April 9, 2025, Shell Rock Township submitted a resolution to the Commission regarding the location of the Project. The resolution claimed the BESS would pose significant threats to the environment.¹⁹
19. On April 15, 2025, the Minnesota Pollution Control Agency (MPCA) indicated that MPCA staff had no comments on the Project.²⁰
20. On April 15, 2025, the Butler County, Iowa, Board of Supervisors filed a letter requesting the Commission consider the potential impacts of the Project due to its proximity to the Shell Rock River and requested the Commission deny the Application to reduce the risk of heavy metal contamination.²¹
21. On April 17, 2025, the Freeborn County Board of Commissioners filed a resolution opposing the Project due to potential risks to public health, safety, welfare, property and the environment.²²

¹⁶ Ex. PUC-6 (SHPO Authorization Letter).

¹⁷ Ex. PUC-7 (Notice of Additional Public Information and EA Scoping Meeting).

¹⁸ Ex. App.-17 (Confirmation of SHPO Consultation).

¹⁹ Ex. EIP-18 (Shell Rock Township Resolution).

²⁰ Ex. EIP-20 (MPCA Comment Letter).

²¹ Ex. EIP-19 (Butler County Comments).

²² Ex. EIP-21 (Freeborn County Resolution).

22. On April 18, 2025, the Shell Rock River Watershed District (SRRWD) submitted comments on the Project and specifically referenced two district rules. First, the SRRWD noted its stormwater facilities maintenance requirements. Second, the SRRWD requested Midwater meet its water quality treatment requirement by limiting stormwater pond discharges to 5.66 cubic feet per second per acre of treatment for a 1.25-inch rainfall event.²³
23. During the EA scoping period from February 7 to April 21, 2025, members of the public submitted over three hundred written comments regarding the Project²⁴, including a petition requesting that the Commission deny the Joint Application²⁵ and provided in-person comments at the three public hearings held during the EA scoping period.²⁶
24. On April 21, 2025, the International Union Operating Engineers Local 49 (IUOE Local 49) and North Central States Regional Council of Carpenters (NCSRC of Carpenters) submitted comments encouraging the Commission to adopt a scope for environmental review that is reasonable and not overly burdensome for the Applicant or [Commission].²⁷
25. On April 21, 2025, Midwater submitted reply comments addressing, in part, the Shell Rock Township Resolution and the Freeborn County Resolution's assertions that the Project will cause human and environmental impacts. Midwater asserted the claims made in the resolutions were untimely and pre-judge the potential Project impacts before the EA was prepared. Midwater maintained its commitment to continued engagement with the Township, County, landowners and stakeholders during the Commission's regulatory review process.²⁸
26. This matter was assigned to Administrative Law Judge Jessica A. Palmer-Denig. On May 1, 2025, Judge Palmer-Denig issued an Order for a prehearing conference to be held on May 28, 2025.²⁹
27. On May 5, 2025, PUC-EIP issued an Alternative Site Comment Letter indicating that the environmental assessment scoping process was complete and further that during the scoping process, PUC-EIP received no comments suggesting an alternative site for the proposed BESS Facility or an alternative route for the proposed HVTL. PUC-EIP, therefore, recommended that the Commission authorize PUC-EIP to include in the scoping decision for the EA only the proposed BESS site and HVTL route identified by the Midwater in its joint application.³⁰

²³ Ex. EIP-24 (SRRWD Comments).

²⁴ Exs. EIP-14, EIP-15, EIP-25, EIP-26, EIP-29 (Batch Public Comments); EIP-2 (Cary Williamson Comment); EIP-7 (Clark Ericksen Comment); EIP-11 (Dawn Kaasa Comment); EIP-5 (Brittany Clark Comment); EIP-8 (Lori Ericksen Comment); EIP-9 (Daniel Minear Comment); EIP-16 (John Forman Comment); EIP-17 (Mike Lee Comment). *See also* Lisa Holz Comments (Mar. 6, 2026) (eDockets No. [20253-216127-01](#)).

²⁵ Ex. EIP-10 (Citizen Petition).

²⁶ Exs. EIP-27 (Oral Comments); EIP-12 (Scoping Meeting Transcript); EIP-13 (Virtual Scoping Meeting Transcript).

²⁷ Ex. EIP-23 (IUOE Local 49 and NCSRC of Carpenters Comments Comments).

²⁸ Ex. App.19 (Scoping Reply Comments).

²⁹ Order for Prehearing Conference (May 1, 2025) (eDockets No. [20255-218448-01](#)).

³⁰ Ex. EIP-28 (Alternative Site Comment Letter).

28. On May 9, 2025 the Commission issued a notice of a May 22, 2025 meeting for the Commission to consider the actions it should take concerning site and route alternatives to be evaluated in the environmental assessment for the Project. It also considered what actions it should take concerning other procedural items.³¹
29. On May 27, 2025, Judge Jessica A. Palmer-Denig issued an Order canceling the May 28, 2025, prehearing conference and otherwise staying proceedings on this matter pending further direction from the Commission.³²
30. On June 2, 2025, the Commission issued an Order establishing a Citizens Advisory Task Force (Task Force), pursuant to Minn. R. 7850.3600 (2023), and requested the Task Force examine and make recommendations on: identification of viable sites and routes in close proximity to the ITC Midwest Glenworth Substation; identification of appropriate permit conditions to mitigate stormwater runoff; identification of appropriate permit conditions to mitigate local emergency response to Project emergencies; identification of appropriate permit conditions for setbacks from residences, schools and commercial properties; and to facilitate conversations with local governments regarding potential economic advantages from the Project.
31. On June 18, 2025, PUC-EIP issued an Advisory Task Force Establishment and Charge Order listing the governmental units from which the members of the Task Force will be solicited and reiterating the scope and nature of the Task Force's responsibilities as outlined in the Commission's June 2, 2025 Order establishing the Task Force.³³
32. On July 9, 2025, the Commission filed a notice of legislative changes indicating that on July 1, 2025, EERA moved to Commission to become the PUC-EIP. The Commission also indicated that matters like this one, which were initially filed prior to July 1, 2025 would continue to be reviewed under Minn. Stat. § 216E (2023) or Minn. Stat. § 216F (2023), as applicable. As noted, the alternative permitting procedures of Minn. Stat. § 216E.04 apply here.³⁴
33. On November 14, 2025, the Task Force submitted the final Midwater Energy Storage Project Advisory Task Force Report (Task Force Report).³⁵ The Task Force Report identified six general categories of potential mitigation measures that could be analyzed in the EA: Decommissioning and Project End-of-Life; Emergency Services; Fire Hazard and Thermal Events; Financial Liability; Water Resources; and Visual/Aesthetics/Noise. The Task Force Report did not identify any viable alternative sites or routes to be considered by the Commission in the EA. The Task Force Report noted that there was not unanimous agreement amongst the Task Force members as to all topics covered in the Task Force Report.

³¹ Ex. PUC-12 (Notice of Commission Meeting).

³² Order Canceling Prehearing Conference (May 27, 2025) (eDockets No. [20255-219255-01](#)).

³³ Ex. EIP-30 (Task Force Establishment and Charge Order).

³⁴ Ex. PUC-17 (Notice of Legislative Changes).

³⁵ Ex. EIP-32 (Task Force Report).

34. On December 1, 2025, and following completion of the Task Force Report, Judge Palmer-Denig issued a second Order for a prehearing conference to be held on December 17, 2025.³⁶
35. On December 3, 2025, PUC-EIP issued the Notice of EA Scoping Decision for the Project. The Notice of Scoping Decision set forth the scope of the EA and noted that no alternative sites or routes would be studied in the EA³⁷
36. On December 22, 2025, the Commission approved the scope of the environmental assessment as set forth in PUC-EIP's December 3, 2025 Notice of Scoping Decision.³⁸
37. On December 24, 2025, Judge Palmer-Denig issued the Scheduling Order for the Project.³⁹
38. On January 6, 2026, the matter was reassigned to Judge McKenzie.⁴⁰
39. On February 17, 2026, the Commission issued a Notice of Public Hearings and Availability of the Environmental Assessment for the Project. The Notice set an in-person hearing for March 3, 2026, to be held in Glenville, Minnesota, and a virtual hearing set for March 4, 2026.⁴¹
40. On February 27, 2026, Applicants submitted the Direct Testimony of Mary Matze on behalf of Midwater with accompanying Schedules A-C. The Direct Testimony addressed, among other things, the status of coordination with SHPO and MDA, Midwater's responses to recommendations included in the Task Force Report and comments on the BESS Draft Site Permit (DSP), included as an appendix to the EA.⁴²
41. The Applicant filed responses to public comments on March 25, 2026.⁴³

III. Description of the Proposed Project

42. The Applicant, Midwater, proposes to construct and operate a stand-alone BESS with an up to 150-MWAC BESS Facility and ancillary facilities, including: battery enclosures; an integrated battery management system; heat, smoke and gas detection and mitigation systems; supervisory control and data acquisition system; power conversion systems consisting of inverters and transformers; electrical feeder lines; stormwater ponds; storage and parking areas; access roads; fencing; and a substation for the BESS (the Project

³⁶ Second Order for Prehearing Conference (Dec. 1, 2025) (eDockets No. [202512-225360-01](#)).

³⁷ Ex. EIP-33 (Scoping Decision).

³⁸ Consent Agenda (Dec. 22, 2025) (eDockets No. [202512-226105-01](#)).

³⁹ Scheduling Order (Dec. 24, 2025) (eDockets. No. [202512-226199-01](#)).

⁴⁰ Reassignment Letter (Jan. 6, 2026) (eDockets No. [20261-226540-01](#)).

⁴¹ Ex. PUC-18 (Notice of Public Hearings and Availability of EA); *see also* Affidavit of Publication and Tear Sheet (_____, 2026) (eDockets No. *TBD*); EQB Monitor Notice – Public Hearings (Mar. 24, 2026) (eDockets No. [20263-229596-03](#)).

⁴² Ex. App.-21 (Direct Testimony of Mary Matze).

⁴³ Response to Public Comments (Mar. 25, 2026) (eDockets No. *TBD*).

Substation).⁴⁴Midwater may construct an operations and maintenance (O&M) facility at the site or may lease existing space nearby for an O&M facility.⁴⁵

43. Battery energy storage systems play a role in enabling a reliable, low-cost, and carbon-free electric grid by storing excess electricity during low demand and discharging the stored electricity during high demand. The BESS will help integrate more renewable energy, particularly wind and solar, by reducing the need to curtail wind and solar energy production during off-peak times (e.g., windy nights) and instead storing that electricity for daytime use. This shift also decreases reliance on fossil fuel generation and increases production tax benefits for renewable facilities. The BESS will also provide voltage and frequency regulation to maintain grid stability. The BESS can deliver stored energy more efficiently and at a lower cost than fossil fuel systems. The BESS will enhance grid resilience, supports storm recovery, and reduces energy waste. It will also provide indirect benefits to ratepayers by stabilizing the grid without requiring costly new transmission infrastructure.⁴⁶
44. Midwater also proposes to construct an approximately 2,668-foot long 161 kV HVTL and associated facilities to connect the BESS to the existing electrical grid. The HVTL will be located between the Project Substation and the point of interconnection to the electrical grid at the ITC Midwest Glenworth Substation.⁴⁷
45. The Project Area is comprised of 104.4 acres privately-owned agricultural land over three parcels, for which Midwater BESS has a lease to allow siting and construction of the Project.⁴⁸
46. Within the Project Area, the Proposed BESS Facility Development Area encompasses 16.6 acres, and will be disturbed and occupied by the BESS Facility, the Project Substation, the stormwater management ponds, proposed grading areas, access road connection to U.S. Highway 65, and parking and storage areas.⁴⁹ The fenced portion of the BESS Facility is currently planned to encompass 5.6-acres of the BESS Facility Development Area.⁵⁰
47. The proposed HVTL Facility Development Area encompasses an approximately 150-foot wide (75 feet on each side of the proposed HVTL centerline), 2,668-foot-long, route, comprising approximately 8.2 acres of the Project Area.⁵¹
48. The expected service life of the Project is approximately 30 years after which Midwater reserves the right to extend operations, consistent with necessary permits or permit amendments.⁵²

⁴⁴ Ex. App.-2 at § 1.0 (Application).

⁴⁵ Ex. App.-21 at 3 (Direct Testimony of Mary Matze).

⁴⁶ Ex. App.-2 at § 1.1, 15-16 (Application).

⁴⁷ Ex. App.-2 at § 1.0 and 5.1.1.2 (Application).

⁴⁸ Ex. App.-2 at § 1.0 (Application).

⁴⁹ Ex. App.-2 at § 1.0 (Application).

⁵⁰ Exs. App.-2 at § 5.1.1.1 and App.-3 at Figure 5 (Application-Figures).

⁵¹ Ex. App.-2 at § 1.0 (Application).

⁵² Ex. App.-2 at § 5.2.1.4 (Application).

49. The Applicant is pursuing a Generator Interconnection Agreement with Midcontinent Independent System Operator whereby the BESS will connect to the electrical grid at the ITC Midwest Glenworth Substation via the HVTL.⁵³ The BESS is designed to accommodate up to 150 MW of surplus energy that can be injected back into the electrical grid in times of need.⁵⁴
50. The Project Substation will occupy approximately one acre of the Project Area and will be located between the BESS and the ITC Midwest Glenworth Substation. The Project Substation will include transformer(s), switching and overcurrent protection and related equipment for connecting the BESS and the HVTL to the existing ITC Midwest Glenworth Substation in the northwest portion of the Project Area.⁵⁵ The Application contemplated that the Project Substation would be surrounded by a six-foot-tall chain link fence topped with one foot of barbed wire to comply with applicable electrical standards and codes.⁵⁶ In response to DNR comments and Task Force recommendations, Midwater indicated it would install a 10-ft tall chain link fence, with an additional 1-2 feet of barbed wire, comprised of non-reflective materials and incorporating opacity strips.⁵⁷
51. Electricity fed from the grid will travel from the existing 161 kV ITC Midwest Genworth Substation, via the HVTL Facility and Project Substation, to the BESS. The electricity will be stepped down from the 161 kV interconnection voltage at bi-directional transformer(s) located at the Project Substation. That electricity will then be delivered via underground 34.5 kV feeder lines from the Project Substation to the BESS system bi-directional inverters where the power will be converted from AC to direct current (DC). When energy is drawn from the BESS, the same inverters will convert the energy from DC to AC, then transmit it through the same 34.5 kV feeder lines to the Project Substation. At that point, the energy will be stepped up to 161 kV by the bi-directional transformer(s) and then conveyed to the ITC Midwest Genworth Substation via the HVTL Facility.⁵⁸
52. The BESS Facility will utilize a variety of lithium-ion chemistry, e.g., Lithium Iron Phosphate (LFP) or similar battery technology with an up to 150 MW AC storage capacity.⁵⁹ The BESS will be able to charge its batteries with energy supplied by the grid during periods of low demand, and feed electricity into the grid when energy demand is high and/or when supply is low.⁶⁰
53. Midwater intends to use LFP batteries due partially to the improved safety profile when compared to nickel manganese cobalt oxide (NMC) batteries. LFP batteries are more stable than NMC and have a lower risk of thermal runaway. LFP batteries contain gel-type electrolytes which are fully contained within each battery cell.⁶¹

⁵³ Ex. App.-2 at § 1.0 and 2.2.2 (Application).

⁵⁴ Ex. App.-2 at § 1.1 (Application).

⁵⁵ Exs. App.-2 at § 5.1.1.2 and App.-3 at Figure 5 (Application-Figures).

⁵⁶ Ex. App.-2 at § 5.1.1.2 and 5.1.1.4 (Application).

⁵⁷ Ex. App.-21 at 23 (Direct Testimony of Mary Matze).

⁵⁸ Ex. App.-2 at § 5.1.1.2 (Application).

⁵⁹ Ex. App.-2 at § 5.1.1.1 (Application).

⁶⁰ Ex. App.-2 at § 1.1 (Application).

⁶¹ Ex. App.-21 at 6 (Direct Testimony of Mary Matze).

54. The Applicant has incorporated all reasonable safety precautions into the design of the proposed BESS. The storage cells (batteries) will be arranged in a modular system encased in standalone enclosures. The enclosures will be weatherproof and be equipped with an integrated enclosure management systems including: heating ventilation, and air conditioning equipment for thermal management, heat and smoke detection, gas detection and ventilation systems, deflagration venting, and automatic stop and response personnel alerts.⁶² The enclosures include leak-proof secondary containment in the bottom of each enclosure to prevent liquid, including coolant used to cool the enclosures, from leaking out of the enclosure.⁶³ Midwater will also conduct system-specific training for local fire departments and emergency response teams, implement state-wide 24/7 remote monitoring, and ensure adequate spacing between equipment, fencing, and other equipment.⁶⁴
55. The BESS Facility will be equipped with cell, module, rack, and system level monitoring points that produce real-time data that is fed into automatic control systems housed in the battery management system (BMS) as well as to the site controller, an off-site person charged with monitoring the system. A local technician will be at the BESS Facility on a daily basis during the work week.⁶⁵ The battery management system, local technicians and site controller ensure that the BESS Facility operates within the original equipment manufacturer's operating parameters. If any operating limit is exceeded or an alarm is triggered, the BMS will automatically send a fault signal to the whole battery string to disconnect from the inverter, or the rack contacts will open to disconnect individual racks. These systems are designed to identify operational malfunctions or other safety hazards immediately and prevent incidents from occurring or propagating. Detected faults, abnormal conditions, and gas detection will also be transmitted to remote operators and local technicians that can travel to the site to investigate and respond.⁶⁶
56. BESS Equipment will be designed and tested to industry standards, including, Underwriters Laboratory (UL) UL1973, UL9540, and Institute of Electrical and Electronics Engineers 1547. The BESS equipment will be certified and/or compliant with relevant safety standards, including National Fire Protection Association (NFPA) 68, NFPA 69, and NFPA 855. The Project will also comply with the applicable version of the International Fire Code (IFC), the National Electric Code (NFPA 70), and the practices recommended in NFPA 850 for Electric Generating plants and High Voltage Direct Current Converter Stations and IEEE 979 Guide for Substation Fire Protection.⁶⁷
57. BESS equipment will undergo UL 9540A "Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems" performed by a third-party recognized by the Occupational Safety and Health Administration's (OSHA) Nationally Recognized Testing Laboratory.⁶⁸ That testing will evaluate the BESS enclosure's

⁶² Ex. App.-2 at § 6.2.5.4 (Application).

⁶³ Ex. App.-21 at 6 (Direct Testimony of Mary Matze).

⁶⁴ Ex. App.-2 at § 6.2.5.4 (Application).

⁶⁵ Response to Public Comments at 7 (Mar. 25, 2026) (eDockets No. *TBD*).

⁶⁶ Ex. App.-2 at § 6.2.5.4 (Application); Response to Public Comments at 7 (Mar. 25, 2026) (eDockets No. *TBD*).

⁶⁷ Ex. App.-2 at § 6.2.5.4 (Application).

⁶⁸ Ex. App.-2 at § 6.2.5.4 (Application).

behavior during an initial thermal runaway event and ensures minimal fire propagation risk. These tests and reports provide an industry standard baseline and provide confidence as to the potential hazards posed by the specific batteries used to ensure that the appropriate safety features are incorporated based upon the results, as required by NFPA 855 and the IFC.⁶⁹

58. The proposed Project is expected to contribute to Minnesota's transition to a carbon-free electricity supply by allowing wind and solar projects to continue to produce clean energy when they would otherwise be curtailed due to low demand.⁷⁰

IV. Site Location and Characteristics

59. The Project is located adjacent to U.S. Highway 65 in Freeborn County, approximately 0.4 miles southeast of the City of Glenville and approximately 4.5 miles west of the city of Myrtle. Specifically, the Project is located in Shell Rock Township, Township 101N, Range 20W, Sections 7, 8 and 17.⁷¹
60. Midwater initially considered existing transmission interconnection feasibility, available capacity and low interconnection costs, as well as available land with a landowner willing to sell, lease or provide easements for the Project as factors in determining the Project's location. Four existing transmission lines ranging from 69 kV to 161 kV are located in the Project vicinity—all of which are associated with the ITC Midwest Glenworth Substation adjoining the western boundary of the Project Area. Midwater identified the ITC Midwest Glenworth Substation as having available capacity and low interconnection costs suitable for the interconnection of the BESS. Midwater then screened available land within the area of the ITC Midwest Glenworth Substation. Lands near the ITC Midwest Glenworth Substation were considered potentially suitable if they were: cleared and otherwise undeveloped; not currently encumbered by other easements (e.g., wind farms, pipelines); and contained minimal wetlands, streams, transmission lines, pipelines, roads, or other obstacles that would limit the buildable land or lead to irregularly shaped development areas. Midwater also screened the areas for geotechnical risks, habitat for endangered species, proximity to culturally sensitive areas, other potential environmental risks such as pollutants, steep slopes, flood zones, current land use conflicts, and a clear and uncontested title.⁷² The Project Area was identified based on these factors, with no alternative sites considered.⁷³
61. Midwater has secured land rights and obtained lease and purchase options for the development of the entire Project Area.⁷⁴ Midwater estimates that approximately 17 acres of the Project Area are necessary to accommodate the Proposed BESS Facility Development Area, but additional portions of the 104.4 acres may be utilized in the final design for a combination of permanent and temporary construction facilities, with a portion

⁶⁹ Ex. App.-2 at § 6.2.5.4 (Application).

⁷⁰ Ex. App.-2 at § 1.1 (Application).

⁷¹ Ex. App.-2 at § 2.2.1 (Application).

⁷² Ex. App.-21 at 4 (Direct Testimony of Mary Matze).

⁷³ Ex. App.-2 at § 3.3 (Application).

⁷⁴ Ex. App.-2 at § 1.0 (Application).

of these temporary areas remaining or being returned to the underlying landowners following the completion of construction.⁷⁵

62. The Project Area has rolling topography, ranging from 1,204 to 1,230 feet in elevation.⁷⁶ The region in which the Project is located is predominantly agricultural, with the exception of the City of Glenville and the City of Myrtle. Land within the Project Area, including the approximately 17 acres on which the BESS and HVTL facilities will be constructed, are currently enrolled in the voluntary Conservation Reserve Program.⁷⁷
63. Pursuant to Minn. Stat. §216E.04, subs. 2(9) and (3) (2023), and as specified in Minn. R. 7850. 3100 (2023), Midwater is not required to propose an alternative site or route. The Project Area was chosen based on its comparatively low environmental impacts, its proximity to the electrical grid and existing transmission facilities, the willingness of landowners to participate, and the available interconnection capacity. In light of these factors, the proposed Project Area was identified and no alternative sites were pursued or identified.⁷⁸

V. Project Schedule

64. Midwater anticipates that construction on the Project will begin as early as the second to third quarter of 2027, with a targeted completion date and commencement of commercial operation by the end of 2028.⁷⁹

VI. Summary of Public Comments

65. No members of the public submitted comments during the comment periods on application completeness.
66. The EA scoping comment period commenced on February 7, 2025, and was initially set to end on to March 10, but was later extended until April 21, 2025.⁸⁰ During the comment period, members of the public, as well as state, regional, and local government agencies and bodies submitted over 340 written comments.⁸¹ Additionally, members of the public provided comments at the three public hearings held during the scoping period.

1. State Agency Comments – Scoping Period

67. On March 10, 2025, the DNR submitted comments on the Project. DNR provided the following comments regarding potential impacts to the environment and wildlife and other recommendations that should be considered in scoping for the EA, including fence height, chloride free dust suppression, downward lighting and limiting blue hue, water

⁷⁵ Ex. App.-2 at § 2.2.2 (Application).

⁷⁶ Ex. App.-2 at § 6.5.4 (Application).

⁷⁷ Ex. App.-2 at §§ 1.0, 2.1, 2.2.1, and 6.5.4 (Application).

⁷⁸ Ex. App.-2 at § 3.3 (Application).

⁷⁹ Ex. EIP-34 at § 2.1.8 (EA).

⁸⁰ Exs. PUC-3 (Notice of Public Information and Scoping Meeting) and PUC-7 (Notice of Additional Public Information and EA Scoping Meeting).

⁸¹ See Paragraphs 18 through 24 above.

appropriations, wildlife friendly erosion control, vegetation management and avian flight diverters.⁸²

68. On March 10, 2025, MnDOT submitted comments on the Project and included standard comments and recommendations.⁸³ MnDOT requested that Midwater investigate access options from U.S. Highway 65 and design considerations regarding encroachment of MnDOT trunk highway (TH) right-of-way (ROW).⁸⁴
69. On April 15, 2025, MPCA indicated that MPCA staff had no comments on the Project.⁸⁵
70. On June 4, 2024, DNR submitted a Formal Natural Heritage Review for the Project identifying sensitive species that may be present within the vicinity of the Project Area and recommendations to avoid impacts to those sensitive species.⁸⁶ DNR noted sensitive sites in the vicinity of the Project and recommendations to avoid impacts to those sensitive sites.⁸⁷

2. Local / Regional Government Comments – Scoping Period

71. On April 8, 2025, the Shell Rock Township Board passed Resolution #2025-04-08-01. Citing potential adverse effects to the environment and public safety, the resolution expressed the Board’s “firm opposition to the establishment of the BESS system in Shell Rock Township” and further urged the development of “alternative solutions that do not jeopardize the health and safety of our township.”⁸⁸
72. On April 15, 2025, the Freeborn County Board of Commissioners passed Resolution 25-139 Opposing the Proposed Battery Energy Storage System (“BESS”) Near Glenville, MN as Currently Proposed Docket Nos. ESS 24-294 and TL 24-295. The resolution expressed concern over the Project’s scale and proximity to the community of Glenville, the Shell Rock River, and designated wildlife areas, as well as attendant risks to public health, safety, welfare, property, and the environment due to the potential for toxic emissions, noise, thermal runaway events, fire, and explosions, as well as associated challenges for emergency response and evacuation. The resolution suggested the site has exposure to severe weather that could damage the facility and increase the risk of environmental contamination.⁸⁹
73. On April 15, 2025, the Board of Supervisors of Butler County, Iowa submitted comments expressing concerns over potential pollution to the Shell Rock River resulting from the Project and requested that the Application be denied.⁹⁰

⁸² Ex. EIP-4 (DNR Comment Letter).

⁸³ Ex. EIP-6 (MnDOT Comment Letter).

⁸⁴ Ex. EIP-6 at 1 (MnDOT Comment Letter).

⁸⁵ Ex. EIP-20 (MPCA Comment Letter).

⁸⁶ Ex. EIP-3 (DNR Natural Heritage Review Letter).

⁸⁷ Ex. EIP-3 at 1-2 (DNR Natural Heritage Review Letter).

⁸⁸ Ex. EIP-18 at 2 (Shell Rock Township Board Resolution).

⁸⁹ Ex. EIP-21 (Freeborn County Board of Commissioners Resolution).

⁹⁰ Ex. EIP-19 (Butler County Board of Supervisors Comment).

74. On April 18, 2025, the SRRWD submitted comments on the Project referencing two SRRWD rules related to the maintenance and design of stormwater facilities, including retention ponds. SRRWD requested that any retention ponds be designed to limit discharge to 5.66 cubic feet per second, per acre of treatment, for a 1.25-inch rain event and also requested that the ponds be equipped with “skimmers to further treat water before it is discharged.”⁹¹

3. *Written Public Comments – Scoping Period*

75. Over 140 individuals and organizations, including the IUOE Local 49 and NCSRC of Carpenters Comments, submitted comments in support of the Project. Those comments emphasized BESS contributions to grid reliability and resiliency, energy cost control, economic development in Freeborn County, pollution reduction, and integration of renewable energy. Comments asked for a transparent administrative review process that ensures safety while providing community and statewide energy benefits.⁹²
76. On February 25, 2025, residents of the City of Glenville, Shell Rock, and the Freeman township area of Freeborn County submitted a petition to the Commission requesting the denial of Midwater’s Joint Application.⁹³
77. Members of the public raised public health and safety concerns, including Spearmint’s lack of experience operating BESS, potential risks from noise, thermal runaway, fire or explosion, proximity to the City of Glenville and area schools, and inadequacy of emergency response planning, equipment and water for a BESS fire, the costs of remediation in the event of an incident.⁹⁴
78. Members of the public raised concerns about potential Native American burials, potential adverse environmental impacts to the aquifer, floodplains, fish, wildlife, agricultural land and livestock and the Shell Rock River due to the release of toxic air emissions, glycol coolant, lithium iron phosphate batteries, off-gassing and contaminated runoff carrying heavy metals and other pollutants.⁹⁵ Other commenters questioned what procedures

⁹¹ Ex. EIP-24 (SRRWD Comment).

⁹² Exs. EIP-25 at 2-146 (Midwater Public Comment Batch 3); EIP-26 at 15 (Midwater Public Comment Batch 4); EIP-23 (IUOE Local 49 and NCSRC of Carpenters Comment Letter); EIP-16 (John Forman Comment Letter).

⁹³ Ex. EIP-10 (Citizen Petition).

⁹⁴ Exs. EIP-14 at 10, 12-19, 21-24, 27, 31-32, 34-37, 41, 44-51, 53-58, 61, 63, 66-80, 86-87, 89-108 (Midwater Public Comment Batch 1); EIP-15 at 4-17, 19-28, 30-57, 59-61, 63-64, and 66-82 (Midwater Public Comment Batch 2); EIP-26 at 3-4, 7-11, 14, and 16-17 (Midwater Public Comment Batch 4); EIP-29 at 2, 4-8, 30-34, 37-38, 45-111, 38-43, 112-116, 132-145 (Midwater Public Comment Batch 5); Lisa Holz Comments (Mar. 6, 2026) (eDockets No. [20253-216127-01](#)); EIP-7 (Clark Ericksen Comment); EIP-8 (Lori Ericksen Comment); EIP-2 (Cary Williamson Comment); EIP-17 (Mike Lee Comment).

⁹⁵ Exs. EIP-14 at 4-37, 39-41, 43-82, 84-87, 89-91, 93-101, 103-108 (Midwater Public Comment Batch 1); EIP-15 at 4-10, 12-18, 20-28, 30-82 (Midwater Public Comment Batch 2); EIP-26 at 2-3, 5-15, 16-17 (Midwater Public Comment Batch 4); EIP-29 at 7-28, 37-38 (Midwater Public Comment Batch 5); EIP-5 (Brittany Clark Comment); EIP-7 (Clark Ericksen Comment); EIP-2 (Cary Williamson Comment); EIP-17 (Mike Lee Comment); Lisa Holz Comments (Mar. 6, 2026) (eDockets No. [20253-216127-01](#)).

Midwater would use to dispose of spent batteries as well as its plans for decommissioning the BESS Facility at the conclusion of the Project.⁹⁶

79. Members of the public submitted comments regarding potential impacts of the Project to local property values, loss of students and school funds, while others generally questioned whether members of the community would be compensated for the placement of the Facility at the planned location.⁹⁷ One comment inquired whether the land for the Project was acquired via eminent domain or voluntary purchase.⁹⁸
80. Members of the community submitted a letter to Governor Walz and Lt. Governor Peggy Flanagan requesting the State institute a moratorium on the construction of BESS systems adjacent to waterbodies pending investigation of adverse health effects of BESS systems.⁹⁹
81. Comments also suggested a lack of adequate transparency and public outreach / involvement in the planning process for the Project.¹⁰⁰
82. Finally, other commenters expressed doubt regarding the benefits of the Project to the local community, the utility of the Project in achieving Minnesota's carbon free goals and its impact on energy rates, and the use of construction workers.¹⁰¹

4. February 19, 2025, Public Scoping Meeting

83. On February 19, 2025, an in person Informational and Environmental Assessment Scoping Meeting was held in Albert Lea, Minnesota.¹⁰²
84. Jacques Harvieux of the Public Utilities Commission and Jim Sullivan of the Department of Commerce presented.¹⁰³
85. Mary Matze, from Spearmint Energy, provided a presentation on the Project and responded to comments and questions from the public.
86. Commenters expressed concern about a release from the BESS contaminating drinking water.¹⁰⁴ One commenter stated that Mayo Clinic mapping shows that the state's highest concentration of non-Hodgkin's lymphoma includes areas in and near the City of Glenville.¹⁰⁵

⁹⁶ Ex. EIP-14 at 21 and 53 (Midwater Public Comment Batch 1).

⁹⁷ Exs. EIP-14 at 21, 33, 53, 61 (Midwater Public Comment Batch 1); and EIP-15 at 12, 15, 53 (Midwater Public Comment Batch 2).

⁹⁸ Ex. EIP-14 at 54 (Midwater Public Comment Batch 1).

⁹⁹ Ex. EIP-9 (Daniel Minear Comment).

¹⁰⁰ Exs. EIP-14 at 54, 58-59, 65, 102 (Midwater Public Comment Batch 1); EIP-15 at 35 (Midwater Public Comment Batch 2); EIP-29 at 2 (Midwater Public Comment Batch 5); EIP-19 (Butler County Comment); EIP-2 (Cary Williamson Comment).

¹⁰¹ Exs. EIP-14 at 25-26, 32, 77-80, and 103 (Midwater Public Comment Batch 1); EIP-11 (Dawn Kaasa Comment).

¹⁰² Ex. EIP-12 (Scoping Meeting Transcript).

¹⁰³ Ex. EIP-12 (Scoping Meeting Transcript).

¹⁰⁴ Ex. EIP-12 at 18-19; 31 (Scoping Meeting Transcript).

¹⁰⁵ Ex. EIP-12 at 18-19; 30-31 (Scoping Meeting Transcript).

87. Residents characterized the site as sensitive due to Conservation Reserve Program / Reinvest in Minnesota Reserve Program status, its setting within the Shell Rock River corridor, and wetlands and wildlife habitat present on the Project Area. Commenters also noted historic pollution of the river and risks for river pollution.¹⁰⁶
88. A neighbor expressed concerns over the apparent response plan for a fire at the BESS and the feasibility of extinguishing a battery fire.¹⁰⁷ Commenters were concerned about training and compensation for volunteer firefighters¹⁰⁸ and the proximity of the Project to a local school and the City of Glenville.¹⁰⁹ A neighbor planning to purchase property and construct a home near the Project is reconsidering those plans as a result of the Project.¹¹⁰
89. A representative from IUOE Local 49 represented that Spearmint had spoken with him about utilizing local union labor; the commenter requested that the EA include a discussion of labor considerations.¹¹¹ The NCSRC of Carpenters thanked Spearmint for committing to prevailing wage and local, trained professionals.¹¹² One commenter raised concerns that the Project would not utilize local union labor to construct and operate the Facility and the resulting lack of economic benefits to the community.¹¹³
90. Meeting participants criticized the location and timing of the meeting, comment periods and notice.¹¹⁴

5. February 20, 2025, Virtual Public Scoping Meeting

91. On February 20, 2025, an Informational and Environmental Assessment Scoping Meeting was held virtually.¹¹⁵
92. Mary Matze provided a presentation and summary of the Project design, timeline, and purpose. Jim Sullivan of the Department of Commerce, furthermore, provided an overview of the administrative process related to review of Midwater’s joint application.
93. Commissioner Kaasa also requested additional information on plans to respond to a thermal event or fire at the Facility.¹¹⁶
94. Phillip Johnson of the Albert Lea Economic Development Agency expressed support for the Project noting benefits of adding resources to the State’s renewable energy portfolio.¹¹⁷

¹⁰⁶ Ex. EIP-12 at 24-25, 40-43 (Scoping Meeting Transcript).

¹⁰⁷ Ex. EIP-12 at 23-24 (Scoping Meeting Transcript).

¹⁰⁸ Ex. EIP-12 at 22-23 (Scoping Meeting Transcript).

¹⁰⁹ Ex. EIP-12 at 20, 23 (Scoping Meeting Transcript).

¹¹⁰ Ex. EIP-12 at 21 (Scoping Meeting Transcript)

¹¹¹ Ex. EIP-12 at 33-34 (Scoping Meeting Transcript).

¹¹² Ex. EIP-12 at 34-35 (Scoping Meeting Transcript).

¹¹³ Ex. EIP-12 at 21-22 (Scoping Meeting Transcript).

¹¹⁴ Ex. EIP-12 at 20-21, 26, 36-38, 43-44 (Scoping Meeting Transcript).

¹¹⁵ Ex. EIP-13 (Virtual Scoping Meeting Transcript).

¹¹⁶ Ex. EIP-13 at 18, 20 (Virtual Scoping Meeting Transcript).

¹¹⁷ Ex. EIP-13 at 19 (Virtual Scoping Meeting Transcript).

95. Members of the public expressed concern that the Project Area is too close to the local high school, an anhydrous ammonia storage location, the Shell Rock River, and also regarding potential pollution impacts to the river given the area's sandy soils and also cited potential impacts to towns located downstream.¹¹⁸
96. Paul Hayes, a fire protection engineer, answered questions on behalf of Midwater regarding fire risk at BESS facilities and noted the steady decline in BESS fire event frequency, despite rapid growth in total operational facilities, due in large part to the evolution of codes governing battery storage facilities.¹¹⁹

6. April 7, 2025, Public Scoping Meeting

97. A supplemental in-person Scoping and Informational Meeting was held on April 7, 2025, in Glenville, Minnesota.¹²⁰
98. The meeting was attended by various members of the public, Jacques Harvieux of the Public Utilities Commission, and Jim Sullivan of the Department of Commerce.¹²¹
99. Mary Matze as well as Derek Post, an independent fire protection engineer with expertise in battery energy storage, fire risk modeling, and fire suppression presented and answered questions on behalf of Midwater.
100. Commenters noted concerns related to the proximity of the site to the Shell Rock River, and the presence of wetlands, hydric soils, permeable soils, groundwater contamination and flood risk, including the presence Federal Emergency Management Agency (FEMA)-mapped flood zones within the Project Area, stormwater pond adequacy, discharge of contaminants and the potential for downstream contamination that may result from flooding of the Facility.¹²² Commenters questioned why the facility could not be located at a different nearby substation located farther from the Shell Rock River and the City of Glenville.¹²³
101. Commenters raised concerns about BESS safety during power outages, snow events thermal events, including fire propagation and non-flame thermal incidents that could still cause hazardous off-gassing, prolonged emissions, emergency response, health impacts due to fire, noise and contaminants, emergency response, and potential evacuations or shelter-in-place orders¹²⁴ as well as the liability for the associated costs.¹²⁵ They questioned the standard response strategy of letting BESS fires burn out, suggesting that

¹¹⁸ Ex. EIP-13 at 20-21, 29 (Virtual Scoping Meeting Transcript).

¹¹⁹ Ex. EIP-13 at 25-26 (Virtual Scoping Meeting Transcript).

¹²⁰ Ex. EIP-13 at 25-26 (Virtual Scoping Meeting Transcript).

¹²¹ Ex. EIP-27 (Oral Comments).

¹²² Ex. EIP-27 at 47, 51-55, 58-59, 66-67, 75-76, 81-83, 109, 112-129 (Oral Comments).

¹²³ Ex. EIP-27 at 45, 95 (Oral Comments).

¹²⁴ Ex. EIP-27 at 67-68, 80, 92-93, 112-113, 116 (Oral Comments).

¹²⁵ Ex. EIP-27 at 96-97, 124-126 (Oral Comments).

longer burn times may increase airborne and deposited contaminants.¹²⁶ Commenters also asked for information related to battery disposal and end-of-life management.¹²⁷

102. Commenters asked questions regarding operational characteristics of the BESS, monitoring planned for the Project, and noise impacts.¹²⁸
103. Residents noted the proximity to wildlife management areas (WMAs) and a designated state water trail, urging consideration of cumulative effects on wildlife, canoeing, and county investments in tourism, parks, and trails.¹²⁹
104. One labor representative supported the Project's commitment to prevailing wages and local training pathways, citing socioeconomic benefits.¹³⁰
105. Others requested additional information regarding Midwater's tax obligations stemming from the Project and whether BESS would be tax-exempt generally.¹³¹ A commenter questioned the magnitude of local job creation given remote monitoring and limited onsite staffing.¹³²

7. Task Force Report

106. The Task Force held three separate meetings on July 24, August 22, and September 16, 2025. The meetings were attended by Task Force Members, as well as PUC staff, consulting staff, and a representative of the Applicant.
107. At the August 22 meeting, representatives from the DNR, MPCA, and Minnesota State Fire Marshall's office respectively provided additional information on the process for evaluating environmental impacts, stormwater designed requirements and retention pond function, and a comparison of BESS technology types and safety protocols.¹³³
108. The Task Force Report identified issues and impacts that should be studied by the PUC as part of the forthcoming Environmental Assessment. The issues identified by the Task Force mirrored those raised in the public scoping comments and included:
 - The potential financial burden on Freeborn County and the city of Glenville – and ultimately on the taxpayers – resulting from Project decommissioning and potentially required environmental remediation;
 - Ensuring emergency response planning, training, equipment, and evacuation (and specifically evacuation from the nearby Glenville-Emmons K-12 school) in the

¹²⁶ Ex. EIP-27 at 46, 62-63, 70-71, 101-104, 106-107, 116-117, 120 (Oral Comments).

¹²⁷ Ex. EIP-27 at 72-73 (Oral Comments).

¹²⁸ Ex. EIP-27 at 70-72, 90, 100, 120-123, 134 (Oral Comments).

¹²⁹ Ex. EIP-27 at 86, 126-127 (Oral Comments).

¹³⁰ Ex. EIP-27 at 61-62 (Oral Comments).

¹³¹ Ex. EIP-27 at 69, 97 (Oral Comments).

¹³² Ex. EIP-27 at 50-51 (Oral Comments).

¹³³ Ex. EIP-32 at A-6 (Task Force Report).

event of an emergency at the Project site, including fire or other thermal runaway events;

- Potential thermal and fire risks associated with the selected BESS technology;
- Impacts to water resources, including both impacts to the Shell Rock River and groundwater, as well as potential impacts to residential groundwater wells; and
- The noise and aesthetic impacts of the Project.¹³⁴

The Task Force also discussed the possibility of viable alternative sites away from the Shell Rock River and the associated state designated water trails and WMAs.¹³⁵ The Task Force expressed frustration over restrictions on what constitutes a viable alternative site and the absence of any requirement for the Applicant to identify alternative sites as part of the application.¹³⁶ The Task Force was similarly frustrated due to the apparent requirement that it evaluate whether a potentially viable alternative site was available or lease or purchase, noting that this requirement was beyond the Task Force's authority or expertise.¹³⁷ The Task Force ultimately identified two potential areas that should be discussed further – one area adjacent to the Glennville water treatment facility and another located adjacent to a nearby industrial park. The Task Force, however, could not ascertain whether these areas were available for sale or lease. As a result, the task force did not identify any viable site alternatives for study in the EA.¹³⁸

109. Finally, the Task Force recommended the following measures be implemented, either as permit conditions or otherwise, to mitigate potential impacts of the Project:

Decommissioning / financial liability: Applicant should be required to establish a fund and/or post a bond to pay for Project decommissioning and environmental remediation as needed;

Emergency Response: Applicant must create an emergency response plan to respond to reasonably foreseeable emergencies, provide a site plan to first responders, establish on-site safety protocols, designate and identify an individual that can be reliably contacted by emergency responders and/or the public in case of an emergency, post signage outside of the facility providing contact information for the Project management and local emergency response teams;

Fire Hazard and Thermal Events: Applicant must provide system-specific training for fire crews, calculate specific water volume needed to both cool BESS enclosures in the event of an emergency but also minimize runoff, procure equipment needed to ensure proper flow rate as needed, provide on-site and real-time monitoring (e.g. cameras),

¹³⁴ Ex. EIP-32 at A-8 to A-10 (Task Force Report).

¹³⁵ Ex. EIP-32 at A-12 to A-14 (Task Force Report).

¹³⁶ Ex. EIP-32 at A-6, & A-12 to A-13 (Task Force Report).

¹³⁷ Ex. EIP-32 at A-13 to A-14 (Task Force Report).

¹³⁸ Ex. EIP-32 at A-12 to A-14, & Appendix L (Task Force Report).

complete a feasibility study for using “dry hydrants” to pump water from the Shell Rock River in the event of a fire;

Water Resources: Require Applicant to construct a stormwater retention pond sufficient to retain runoff from a 1.5 inch storm event, provide regular maintenance of the pond, install biochar filters between the retention pond and the river, conduct a baseline water quality testing of the river and groundwater, and develop and implement an “enhanced monitoring plan” in the event of an incident; and

Visual / Aesthetics / Noise: Require Applicant to adhere to vegetative buffer requirements for BESS prescribed by County ordinance(s) (or draft ordinance(s)), utilize three rows of native buffers around BESS Facility, and conduct baseline noise testing.¹³⁹

8. *Comments received during the March 3 and 4, 2026 public hearings and associated comment period*

110. Members of the public expressed concerns about Project impacts to the Shell Rock River¹⁴⁰ and groundwater.¹⁴¹
111. Members of the public expressed concerns that a thermal runaway can disperse heavy-metal contamination over a wide area, potentially impacting two nearby schools, the City of Glenville, public health and safety, and the environment. They questioned whether local agencies have the staffing, expertise, or resources to manage such an event.¹⁴²
112. On March 15, 2026, The Albert Lea-Freeborn County Chamber of Commerce submitted a letter of support of the Project noting the capital investment that will generate tax revenue, jobs and local spending as well as positive energy impacts.¹⁴³

¹³⁹ Ex. EIP-32 at A-10 to A-12 (Task Force Report).

¹⁴⁰ In-Person Public Hearing Tr. at 28, 36, 54-56 (Mar. 3, 2026); City of Northwood Public Comment (Mar. 12, 2026) (eDockets No. [20263-229186-01](#)); David Irons Public Comment at 1-2 (Mar. 16, 2026) (eDockets No. [20263-229345-01](#)); Dawn Kaasa Public Comment at 1-2 (Mar. 13, 2026) (eDocket No. [20263-229222-01](#)); Dawn Knaack Public Comment (Mar. 17, 2026) (eDockets No. [20263-229367-01](#)); Joelle Mayers Public Comment at 1-2 (Mar. 16, 2026) (eDockets No. [20263-229294-01](#)); Tim Kaasa Public Comment (Mar. 17, 2026) (eDockets No. [20263-229369-01](#)); Karissa Studier Public Comment (Mar. 17, 2026) (eDockets No. [20263-229368-01](#)); Albert Lea – Freeborn County Chamber of Commerce Public Comment (Mar. 16, 2026) (eDockets No. [20263-229326-01](#)); Kelly Olson Public Comment (Mar. 16, 2026) (eDockets No. [20263-229327-01](#)); Michael Olson Public Comment (Mar. 16, 2026) (eDockets No. [20263-229329-01](#)); Tim Kaasa Photographs Public Comment (Mar. 16, 2026) (eDockets No. [20263-229342-01](#)); Rita Williamson Public Comment (Mar. 9, 2026) (eDockets No. [20263-229039-01](#)); M. Jones Public Comment (Mar. 6, 2026) (eDockets No. [20263-228993-01](#)).

¹⁴¹ In-Person Public Hearing Tr. at 30,38, 46 (Mar. 3, 2026). Dawn Kaasa Public Comment (Mar. 13, 2026) (eDocket No. [20263-229222-01](#)); Tim Kaasa Public Comment (Mar. 17, 2026) (eDockets No. [20263-229369-01](#));

¹⁴² In-Person Public Hearing Tr. At 38, 47, 57-59, 62-64 (Mar. 3, 2026); Dawn Kaasa Public Comment at 1-2 (Mar. 13, 2026) (eDocket No. [20263-229222-01](#)); Dawn Knaack Public Comment (Mar. 17, 2026) (eDockets No. [20263-229367-01](#)); Joelle Mayers Public Comment at 1-2 (Mar. 16, 2026).

¹⁴³ Albert Lea-Freeborn County Chamber of Commerce Comments, Mar. 15, 2026) (eDockets No. [20263-229326-01](#)).

9. State Agency Comments

i. PUC-EIP

113. PUC-EIP submitted comments with recommendations for updates to the Decommissioning Plan and proposed DSP conditions.¹⁴⁴
114. PUC-EIP recommended several modifications to the Decommissioning Plan. PUC-EIP noted where the Decommissioning Plan met its expectations and where the plan should be updated to reflect current guidance and Project parameters (not known at this time) just prior to construction.
115. Regarding site permit conditions, PUC-EIP staff supported Midwater's proposal to strike special conditions 5.6 and 5.7 and instead provide an emergency response condition that would serve to remove the dry hydrant condition 5.9 and incorporate the feasibility assessment into that consolidated condition. PUC-EIP also concurred with Midwater's proposed revisions to DSP condition 5.12 related to surface and groundwater monitoring.

ii. DNR

116. DNR submitted comments on the Project on March 16, 2026.¹⁴⁵
117. DNR requested revisions to DSP special condition 5.17 and the addition of that permit language as a special condition in the Draft Route Permit (DRP).
118. DNR proposed the addition of a special condition to both the DSP and DRP requiring compliance with Minnesota's Endangered Species Statute and associated rules, with recordkeeping requirements.
119. DNR offered comments on Midwaters Vegetation Management Plan and supported DSP condition 5.11 as written and requested the condition also be included in the DRP.
120. Finally, DNR expressed support for several of the proposed site conditions as stated in the DSP, including the modified fence design described in the EA and DSP special condition 5.16 as written, and the existing conditions regarding avian protection (DRP 5.3.16), lighting (DSP 5.1), and bio-netting (DSP 5.14) – though DNR further recommended that the bio-netting condition also be included in the DRP.

iii. Vegetation Management Plan Working Group

121. The Vegetation Management Planning Working Group provided comments on the Project's Vegetation management Plan.¹⁴⁶ It noted that The VMPWG does not recommend any action by the Commission at this time it provided detailed recommendations to ensure Midwater's VMP meets pre-construction compliance requirements.

¹⁴⁴ PUC-EIP Comments (Mar. 16, 2026) (eDockets No. [20263-229297-01](#)).

¹⁴⁵ DNR Comment Letter (Mar. 16, 2026) (eDockets No. [20263-229344-01](#)).

¹⁴⁶ VMPWG Comments (Mar. 16, 2026) (eDockets No. [20263-229306-01](#)).

10. U.S. Fish and Wildlife Service

122. The USFWS submitted comments on the Project on March 6, 2026 regarding identification of sensitive wildlife and avian species for project planning, tree clearing recommendations, avian best management practices, minimization of habitat fragmentation and preservation and enhancement of native plant communities.¹⁴⁷

SITE PERMIT

I. Site Permit Criteria

123. Energy storage systems with a nameplate capacity of 10,000 kilowatts (kW) or greater require a Site Permit from the Commission prior to construction pursuant to Minn. Stat. § 216E.03, subd. 1.¹⁴⁸ The BESS requires a site permit from the Commission.
124. Minn. Stat. §216E.03, subd. 2, provides that “[n]o person may construct a[n HVTL] without a route permit from the [C]ommission. A high-voltage transmission line may be constructed only along a route approved by the [C]ommission.” An HVTL is defined as “a conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 100 kilovolts or more and is greater than 1,500 feet in length” (Minn. Stat. §216E.01, subd. 4).¹⁴⁹ The HVTL requires a route permit from the Commission.
125. The BESS and HVTL are eligible for the alternative permitting process under Minn. Stat. § 216E.04, subds. 2(3) and 2(9) (2023) and Minn. R. 7850.3100 (2023).¹⁵⁰ The Applicant filed the Joint Application for Site and Route Permits under the alternative process established by the Commission in Minn. R. 7850.2800–7850.3900 (2023).¹⁵¹
126. On July 1, 2025, EERA unit staff moved to the Commission PUC-EIP unit as directed by state law (Laws of Minn. 2024, ch. 126, art. 7) and in response to permitting reform under Minnesota Statutes Chapter 216I (2024). Because the review of this Application began under and will continue under Minnesota Statutes Chapter 216E (2023), EERA staff initiated environmental review of this proposal prior to July 1, 2025, and continued to conduct environmental review duties for this joint Application under Chapter 216E (2023) as PUC-EIP staff.¹⁵²
127. The Power Plant Siting Act (PPSA), Minn. Stat. ch. 216E (2023), requires that site permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and

¹⁴⁷ USFWS Comment Letter (Mar. 10, 2026) (eDockets No. [20263-229075-01](#)).

¹⁴⁸ Ex. App.-2 at 7 (Application).

¹⁴⁹ Ex. App.-2 at 20 (Application).

¹⁵⁰ Ex. App.-2 at 7 (Application).

¹⁵¹ Ex. App.-1 (Notice of Intent to Submit a Joint Site Permit Application Under Alternative Review Process).

¹⁵² Ex. PUC-17 (Notice of Legislative Changes).

ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”¹⁵³

128. Under the PPSA, the Commission must be guided by the following responsibilities, procedures, and considerations:

- i. evaluation of research and investigations relating to the effects on land, water and air resources of large electric power facilities and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- ii. environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- iii. evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
- iv. evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;
- v. analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- vi. evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- vii. evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;
- viii. evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- ix. evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

¹⁵³ Minn. Stat. § 216E.03, subd. 7.

- x. evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;
- xi. evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved;
- xii. when appropriate, consideration of problems raised by other state and federal agencies and local entities;
- xiii. evaluation of the benefits of the proposed facility with respect to (i) the protection and enhancement of environmental quality, and (ii) the reliability of state and regional energy supplies;
- xiv. evaluation of the proposed facility's impact on socioeconomic factors; and
- xv. evaluation of the proposed facility's employment and economic impacts in the vicinity of the facility site and throughout Minnesota, including the quantity and quality of construction and permanent jobs and their compensation levels. The commission must consider a facility's local employment and economic impacts, and may reject or place conditions on a site or route permit based on the local employment and economic impacts.¹⁵⁴

129. In addition to the PPSA, the Commission is governed by Minn. R. 7850.4100, which mandates consideration of the following factors when determining whether to issue a permit for a large electric power generating plant:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;
- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;

¹⁵⁴ Minn. Stat. § 216E.03, subd. 7

- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;
- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.¹⁵⁵

130. There is sufficient evidence on the record for the Commission to assess the Project on the record using the criteria and factors set out above.

II. Application of the Siting Criteria to the Proposed Project

A. Human Settlement

131. Minnesota Rules Section 7850.4100(A) (2023) requires consideration of the Project's effects on human settlement, including displacement of residences and businesses, noise created during construction and by operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.

1. Displacement

132. The Project will have no significant impact on displacement because no landowners or residents will be displaced.¹⁵⁶

2. Noise

133. Noise can be defined as any undesired sound. It is measured in units of decibels on a logarithmic scale. The A-weighted scale (dBA) is used to duplicate the sensitivity of the human ear. A three dBA change in sound is barely detectable to average human hearing,

¹⁵⁵ Minn. R. 7850.4100.

¹⁵⁶ Ex. EIP-34 at § 4.10.1 (EA).

whereas a five dBA change is clearly noticeable. A 10 dBA change is perceived as a sound doubling in loudness.¹⁵⁷

134. In Minnesota, noise standards are based on noise area classifications (NAC) corresponding to the location of the listener, referred to as a receptor. NACs are assigned to areas based on the type of land use activity occurring at that location.¹⁵⁸
135. Noise standards are expressed as a range of permissible dBA over a one-hour period. L₁₀ may be exceeded 10 percent of the time, or six minutes per hour, while L₅₀ may be exceeded 50 percent of the time, or 30 minutes per hour. Standards vary between daytime and nighttime hours.¹⁵⁹
136. The proposed project is in a rural, agriculturally dominated area and is near a railroad and U.S. Highway 65. Potential noise impacts from the Project are associated with construction noise and operational noise. The primary noise receptors are the local residences.¹⁶⁰
137. The Project will create intermittent, temporary construction noise from heavy equipment, backing alarms, and related activities. Construction noise will be similar to that of existing farm operations and will vary day to day. Midwater plans to limit construction to daytime hours when practicable and ensure equipment is fitted with properly functioning mufflers and other noise-control devices. Noise will dissipate with distance and vary depending on equipment location and nearby receptors. Under an accident scenario, noise levels would be comparable to those experienced during construction. Noise during normal Project operation is anticipated to be minimal to negligible.¹⁶¹
138. The HVTL is expected to produce negligible noise impacts. Under normal conditions it should be inaudible, and during rainy or foggy periods, ambient noise is expected to exceed any corona-related noise. Nearby residences are not expected to experience noticeable noise impacts. As a result, no mitigation measures are proposed for the HVTL.¹⁶²
139. The BESS as designed and modeled using integrated BESS containers with an emitting sound power level of 87 dBA at the source, is predicted to comply with the 50 dBA nighttime noise limit for NAC-1 receptors without mitigation. If final equipment exceeds 87 dBA as a noise source, noise mitigation, such as noise walls, silencers, barriers, or operational limits, may be required, and an additional noise study would be conducted. Midwater will be required to comply with Minnesota noise regulations at all times.¹⁶³
140. Noise is recognized as a stressor that may disrupt breeding, foraging, or migration; cause avoidance of habitat; and affect sensitive or rare species. It can also interfere with nesting, mating, or denning, potentially displacing wildlife from critical habitats. The DNR does

¹⁵⁷ Ex. EIP-34 at § 4.3.2 (EA).

¹⁵⁸ Ex. EIP-34 at § 4.3.2 (EA).

¹⁵⁹ Ex. EIP-34 at § 4.3.2 (EA).

¹⁶⁰ Ex. EIP-34 at § 4.3.2 (EA).

¹⁶¹ Ex. EIP-34 at § 4.3.2 (EA).

¹⁶² Ex. EIP-34 at § 4.3.2 (EA).

¹⁶³ Ex. EIP-34 at § 4.3.2 (EA).

not anticipate impacts that are not already existing.¹⁶⁴ There are existing noise generators in the vicinity of the Project, especially the Union Pacific (UP) Railroad, a transportation route that is more than a century old, and currently features between 15 and 20 trips a day.¹⁶⁵ Neither the DNR nor the U.S. Fish and Wildlife Service (USFWS) expressed any concerns about noise impacts to wildlife or recommend any conditions or measures to reduce noise impacts on wildlife or surrounding habitat.¹⁶⁶ The EA determined that the impact intensity level is expected to be minimal for wildlife.¹⁶⁷ Minnesota noise regulations apply to protect human receptors, not wildlife or habitat.¹⁶⁸ The record does not support or necessitate additional mitigation, further consultation, study or assessment regarding potential noise impacts on wildlife.

141. The record demonstrates that Applicants have taken steps to avoid and minimize noise impacts. Further, Section 4.3.7 of the DSP requires Midwater to comply with noise standards established under Minnesota Minn. R. 7030.010 to 7030.0080, and to limit construction and maintenance activities to daytime hours to the extent practicable.¹⁶⁹
142. Section 5.3 of the DSP also requires that Midwater file a pre-construction noise modeling and impact assessment summarizing results from noise propagation modeling using the selected equipment and final layout prior to construction of the facility. This condition also requires the permittee to file an updated noise impact assessment prior to modifying the permitted facility.¹⁷⁰
143. Finally, Section 5.4 of the DSP requires Midwater to conduct postconstruction baseline noise testing after consulting with Commission staff on study methodology. This section also clarifies that the Project must operate in continuous compliance with MPCA noise standards and that the Permittee may be required to modify the design or operation of the facility as necessary to achieve and maintain compliance with those standards.¹⁷¹

3. Cultural Values

144. Cultural values can be defined as shared community beliefs or attitudes that define what is collectively important to the group. These values provide a framework for individuals and community thought and action. Infrastructure projects believed inconsistent with these values can deteriorate community character. Those found consistent with these values can strengthen it.

¹⁶⁴ Ex. EIP-32 at 87 (Task Force Report).

¹⁶⁵ Ex. EIP-34 at § 4.3.2 (EA).

¹⁶⁶ Ex. EIP-4 (DNR Comment Letter); DNR Comment Letter (Mar. 16, 2026) (eDockets No. [20263-229344-01](#)); USFWS Comment Letter (Mar. 10, 2026) (eDockets No. [20263-229075-01](#)).

¹⁶⁷ Ex. EIP-34 at § 4.7.7 (EA).

¹⁶⁸ Ex. EIP-34 at § 4.3.2 (EA).

¹⁶⁹ Ex. EIP-34 at § 4.3.2 (EA).

¹⁷⁰ Ex. EIP-34 at § 4.3.2 (EA).

¹⁷¹ Ex. EIP-34 at § 4.3.2 (EA).

145. Construction and operation of the Project is not anticipated to impact or alter the work life and leisure pursuits of residents or visitors in the Project Area or affect land use in such a way as to impact the underlying culture or community unity of the area.¹⁷²
146. The development of the Project may change the character of the immediate area, at least where it is visible. In addition, the Project represents a shift in energy infrastructure by introducing storage facilities to the landscape.¹⁷³
147. The value residents put on the character of the landscape within which they live is subjective, meaning its relative value depends upon the perception and psychological responses unique to individuals. Because of this, for some residents, project construction may change their perception of the immediate area's character thus potentially eroding their sense of place.¹⁷⁴
148. Because of the relatively small size of the Project and distance from homes, businesses and recreational resource, project impacts to cultural resources and activities are anticipated to be negligible to minimal and no mitigation is proposed or necessary.¹⁷⁵

4. Zoning and Land Use

149. Land use impacts are anticipated to be long-term and localized. Although energy storage systems were not specifically addressed in local planning documents or zoning codes at the time of the Midwater application, the proposed facility was generally consistent with local land use ordinances and the Freeborn County's Comprehensive Plan.¹⁷⁶
150. Construction of the BESS will alter current and future land use and land cover in the land control area. Constructing the Project will change land use at the site from agricultural to energy storage production for the expected 30-year life of the Project. After the Project's useful life, the land control area could be restored to agricultural or other planned land uses by implementing appropriate restoration measures. Impacts can be minimized.¹⁷⁷
151. The National Land Cover Database provides "spatial reference and descriptive data for characteristics of the land surface" nationwide. The predominant land uses within the Project Area, as classified by the U.S. Geological Survey (USGS), are hay/pasture (41.3%), herbaceous (19.2 %), and emergent herbaceous wetlands (19.4%). Smaller portions of the area consist of developed land, open water, crops, and wooded areas. The proposed BESS Facility Development Area is primarily hay/pasture (89.5%).¹⁷⁸
152. Though zoning and land use rules are superseded by a Commission permit decision, the Commission must be guided, in part, by consideration of impacts to local zoning and land

¹⁷² Ex. EIP-34 at § 4.3.3 (EA).

¹⁷³ Ex. EIP-34 at § 4.3.3 (EA).

¹⁷⁴ Ex. EIP-34 at § 4.3.3 (EA).

¹⁷⁵ Ex. EIP-34 at § 4.3.3 (EA).

¹⁷⁶ Ex. EIP-34 at § 4.3.4 (EA).

¹⁷⁷ Ex. EIP-34 at § 4.3.4 (EA).

¹⁷⁸ Ex. EIP-34 at § 4.3.4 (EA).

use in accordance with the legislative goal to “minimize human settlement and other land use conflicts.”¹⁷⁹

153. Midwater reviewed the Freeborn County Comprehensive Plan, which serves as a guide for land use decisions within the county. The Freeborn County Comprehensive Plan is closely tied to zoning and subdivision regulations and provides descriptions and intended purposes for various land use types. The Project Area is situated within the Agricultural District, which is designated to preserve and conserve land for agricultural purposes. As feasible, Midwater has designed the Project to align with the goals and policies outlined in the Freeborn County Comprehensive Plan.¹⁸⁰
154. Freeborn County has also adopted the 2016–2021 Comprehensive Water Plan. The Comprehensive Water Plan establishes priorities and actions related to water quality, water quantity, and land use conditions that affect land and water resources. Key resources and concerns addressed include aquifers, surface waters (lakes, shorelands, aquatic invasive species, and wetlands), soil and erosion, waste disposal and management (subsurface sewage treatment systems, feedlots, and solid waste), drainage, and municipal wastewater and stormwater.¹⁸¹
155. Midwater reviewed the general setbacks for the Agricultural Zoning District in effect, pursuant to Freeborn County Zoning Ordinance Section 42-107, at the time the Application was submitted. Midwater designed the Project to meet or exceed Freeborn County’s setback requirements as provided in Zoning Ordinance Section 42-107.¹⁸²
156. Freeborn County is currently undertaking the development and enactment of an ordinance to regulate siting and operation of Energy Storage Systems. Section 26-82 of the draft ordinance provides standards for siting, construction and operation.¹⁸³
157. Freeborn County’s draft ordinance sets detailed standards for commercial energy storage systems of 40 kW or more up to meeting the threshold for Commission permitting.¹⁸⁴ The draft ordinance includes required setbacks of 1,320 feet from dwellings (with waivers for owners/municipalities), 150 feet from road rights-of-way with fencing at least 100 feet from roads, 100 feet from wetlands and public drainage systems, and 30 feet from side and rear property lines. Freeborn County’s draft ordinance does not include setbacks from a river or stream. Installation within 200 feet of a dwelling is prohibited. The draft ordinance provides that setbacks apply to all components of an energy storage system, including converters, substations, transformers and inverters, but do not apply to roads, collector lines and fencing.¹⁸⁵ The BESS, as proposed, avoids wetlands and the battery enclosures are setback a minimum of 100-ft from adjacent wetlands and the Shell Rock River.¹⁸⁶ Battery

¹⁷⁹ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸⁰ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸¹ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸² Ex. App.-2 at 41 (Application).

¹⁸³ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸⁴ Ex. EIP-32, Appendix I (Task Force Report, Appendix I).

¹⁸⁵ Ex. EIP-32, Appendix I (Task Force Report, Appendix I).

¹⁸⁶ Response to Public Comments (Mar. 25, 2026) (eDockets No. *TBD*).

units and support structures may not exceed 12 feet in height, and stacking is prohibited unless approved. Aesthetic standards require structures to be white, gray, or similarly unobtrusive with matte finishes, plus a three-row vegetative buffer that reaches full height within two years. Additional requirements address fencing, stormwater, signage, waste handling, fire suppression and detection systems, PFAS prohibitions, decommissioning, and compliance with all applicable construction codes.¹⁸⁷

158. Shell Rock Township passed a resolution on April 8, 2025, that expressed its opposition to the establishment of a BESS system in Shell Rock Township. The resolution expresses the collective opinion, intent, and policy position of the township board's opposition to the Project and is not an ordinance or regulation.¹⁸⁸
159. The Project would convert approximately 28 acres of cultivated cropland to a BESS. As presented above, the Project, as proposed, presents potentially nonconforming actions with Freeborn County's proposed energy storage system ordinance.¹⁸⁹
160. As of March 25, 2026, Freeborn County has not adopted an energy storage system ordinance.¹⁹⁰
161. Conditions in the DSP will mitigate zoning impacts by helping ensure the Project is consistent, to the extent practicable, with Freeborn County's draft energy storage system ordinance. Section 4.3.22 requires Midwater to avoid damaging drain tile during all project phases and to repair or replace any tile affected over the facility's operational life. Section 5.11 requires Midwater to develop and implement a VMP to prevent soil erosion and promote soil health through perennial cover. Section 5.2 of the DSP, as revised by Midwater, requires Midwater to install a vegetative buffer between the BESS and U.S. Highway 65 ROW.¹⁹¹ Section 9.2 requires removal of all project infrastructure and restoration of the site to pre-project conditions to the extent feasible, consistent with the draft decommissioning plan in Appendix D to the Application.¹⁹²

5. *Property Values*

162. Project effects on property values within the local vicinity could occur.¹⁹³
163. Electrical generating facilities can impact property values. Often, negative effects result from impacts that extend beyond the Project location. Examples include emissions, noise, and visual impacts. Unlike fossil-fueled electric generating facilities, the Project would not generate emissions. Potential impacts from operational noise are possible but can be mitigated. Aesthetic impacts will occur, but because the Project is relatively low in height, especially when compared to a wind turbine or a smokestack, impacts are anticipated to be

¹⁸⁷ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸⁸ Ex. EIP-34 at § 4.3.4 (EA).

¹⁸⁹ Ex. EIP-34 at § 4.3.4 (EA).

¹⁹⁰ Response to Public Comments (Mar. 25, 2026) (eDockets No. *TBD*).

¹⁹¹ Ex. App.-21 (Direct Testimony of Mary Matze).

¹⁹² Ex. EIP-34 at § 4.3.4 (EA).

¹⁹³ Ex. EIP-34 at § 4.3.5 (EA).

minimal. The low facility profile, especially with the vegetative barrier surrounding the site, would further localize impacts.¹⁹⁴

164. Commission staff relied on a study, *The Impact of Utility-scale Battery Energy Storage System Projects on Property Values in California, Massachusetts, and New York*, for the Midwater project review that assessed property value impacts as a result of a BESS sited in a residential area that included the price metrics described above. Prior to this study, no research systematically evaluated how operational BESS facilities impact surrounding property prices. The study evaluated whether large battery energy storage systems (BESS) affect the value of nearby homes in California, Massachusetts, and New York during the shift toward clean energy.¹⁹⁵
165. The study measured the “true impact” of BESS facilities by using a hedonic difference-in-differences model to compare how home values changed over time for houses near 178 utility-scale BESS projects versus similar homes farther away.¹⁹⁶
166. The study found primarily that being close to an operating utility-scale BESS does not have a statistically meaningful effect on nearby home prices. This finding remains consistent after several additional tests, including examining individual projects, looking at how prices change over different time periods after a BESS becomes operational, and comparing neighborhoods with different income and demographic characteristics.¹⁹⁷
167. Impacts on the value of specific properties within the Project vicinity could occur. Considerations such as setbacks, benefits to the community, economic impact, noise, and screening could have an unpredictable range of influence over property value. The Project is screened to some extent from nearby residences by the topography, existing vegetation around the property¹⁹⁸, and the three-tiered vegetative barrier.¹⁹⁹
168. Impacts on property values can be mitigated by reducing aesthetic impacts and encumbrances to future land use. Here, the special condition found at section 5.2 of the DSP, as revised by Midwater, requires Midwater to install a vegetative buffer between the BESS and U.S. Highway 65 ROW.²⁰⁰
169. The record demonstrates that Applicants have taken steps to avoid and minimize impacts to property values. No additional mitigation is proposed.

6. *Transportation and Public Services*

170. Potential project effects to the electrical grid, roads and railroads, and other utilities are anticipated to be short-term, intermittent, and localized during construction. Project effects to water (wells and septic systems) are not expected to occur. Overall, construction-related

¹⁹⁴ Ex. EIP-34 at § 4.3.5 (EA).

¹⁹⁵ Ex. EIP-34 at § 4.3.5 (EA).

¹⁹⁶ Ex. EIP-34 at § 4.3.5 (EA).

¹⁹⁷ Ex. EIP-34 § 4.3.5 (EA).

¹⁹⁸ Ex. App.-21, Schedule B (Direct Testimony of Mary Matze, Schedule B - Draft Landscaping and Screening Plan).

¹⁹⁹ Ex. EIP-34 at § 4.3.5 (EA).

²⁰⁰ Ex. App.-21 at 25-26 (Direct Testimony of Mary

effects are expected to be minimal, and are associated with possible traffic delays. During operation, negligible traffic increases would occur for maintenance. Impacts are unavoidable but can be minimized.²⁰¹

171. The Project site is not serviced by city water supply or sanitary sewer; and there are no groundwater wells within the Project Area. Many nearby residents in the Project Area have private wells for domestic water needs and private septic systems of drain fields for domestic wastewater. Residents within the City of Glenville rely on municipal drinking water wells and a municipal wastewater treatment facility.²⁰²
172. The primary electric provider in the Project Area is the Freeborn Mower Electrical Cooperative. There are several high voltage transmission lines (greater than 100 kV) in the Project Area, which connect to the ITC Midwest Glenworth Substation. No additional overhead transmission lines are mapped within one mile of the Project. In addition to the high voltage transmission lines, there are lower voltage electric distribution lines throughout the Project Area.²⁰³
173. Minnesota Energy Resources provides natural gas service in the Project Area. There are no mapped pipelines within the Project Land Control Area.²⁰⁴
174. The major roadway accessing the Project Area is U.S. Highway 65 and runs parallel to the Project Area along the western boundary.²⁰⁵
175. The Glenville portion of the UP Railroad route parallels the west side of U.S. Highway 65 near the Project Area. This portion of the railroad is separated from the Project Area by U.S. Highway 65 and does not cross any portion of the site.²⁰⁶
176. The airport closest to the Project Area is the Albert Lea Municipal Airport, a public-use or general aviation facility, located approximately nine miles from Glenville, Minnesota.²⁰⁷
177. Large energy projects can adversely affect public services, such as buried utilities or roads. These effects are usually temporary, for example, road congestion associated with material deliveries. Project effects can be long-term if they change the area in a way that precludes or limits public services.²⁰⁸
178. If a water supply well is needed at the O&M facility as part of the Project, it will be installed following Minnesota Department of Health (MDH) guidelines and will be for potable water in the building.²⁰⁹In accordance with DSP special condition 5.12, as revised by Midwater,

²⁰¹ Ex. EIP-34 at § 4.3.6 (EA).

²⁰² Ex. EIP-34 at §§ 4.3.6 & 4.7.4 (EA).

²⁰³ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁴ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁵ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁶ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁷ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁸ Ex. EIP-34 at § 4.3.6 (EA).

²⁰⁹ Ex. App.-2 at 117 (Application).

monitoring wells will be installed to monitor and respond to any potential groundwater contamination from the BESS Facility.²¹⁰

179. During construction, workers and delivery trucks will use U.S. Highway 65 to access the Project site. Estimated truck traffic includes about five trips per day during site preparation, 15 per day during BESS installation, and three per day during the mechanical, electrical, and commissioning phase. Semi-truck deliveries will vary depending on construction schedules and equipment timelines. Overweight or oversized loads are not expected, but Midwater will obtain required state and local approvals if needed. For context, a two-lane rural highway has a functional capacity exceeding 5,000 average annual daily traffic. Although nearby residents may notice the additional vehicles, the modest increase is not expected to affect traffic operations. Slow-moving construction vehicles may cause brief delays on smaller roads, similar to agricultural planting or harvest periods, but such delays should be minimal and limited to the short construction delivery period.²¹¹
180. Construction is expected to involve an average workforce of 30 to 50 personnel, with a peak of up to 75 workers for limited periods. This workforce is anticipated to generate approximately 20 to 40 daily pickup or passenger vehicle trips, assuming limited ridesharing or carpooling.²¹²
181. No impacts on roads are anticipated during the operation; negligible traffic increases would occur for maintenance.²¹³
182. The Project will not affect the UP railroad during construction or operation. As a result, no mitigation is proposed.²¹⁴
183. Section 4.3.5 of the DSP (Appendix C) is a standard permit condition that requires the permittee to minimize disruptions to public utilities. Midwater, moreover, will coordinate with Gopher State One Call and conduct an ALTA survey to identify underground utilities, minimize conflicts, and ensure safety. Where impacts can't be avoided, Midwater will work with utility providers on protection or relocation measures, and all utilities will be clearly marked before construction.²¹⁵
184. The Project is not expected to affect existing utilities such as transmission lines or substations; therefore, no mitigation is proposed for these facilities.²¹⁶
185. Construction activities will not involve groundwater withdrawal or disturbance of the regional aquifer, and no impacts to regional water wells are anticipated.²¹⁷

²¹⁰ Ex. App.-21 at 28-29 (Direct Testimony of Mary Matze).

²¹¹ Ex. EIP-34 at § 4.3.6 (EA).

²¹² Ex. EIP-34 at § 4.3.6 (EA).

²¹³ Ex. EIP-34 at § 4.3.6 (EA).

²¹⁴ Ex. EIP-34 at § 4.3.6 (EA).

²¹⁵ Ex. EIP-34 at § 4.3.6 (EA).

²¹⁶ Ex. EIP-34 at § 4.3.6 (EA).

²¹⁷ Ex. EIP-34 at § 4.3.6 (EA).

186. A well construction permit from the MDH would be required if a well is installed at an O&M facility.²¹⁸
187. Changes or additions to driveways from U.S. Highway 65 will require permits from the MnDOT. MnDOT noted that access to the Project Area from low-traffic township or county roads is not possible and encourages Midwater to investigate utilizing or upgrading the existing access northwest of the proposed, new project access from U.S. Highway 65. Additionally, MnDOT noted that when Midwater requests access to the Project Area from U.S. Highway 65, the District 6 Development Review Committee may require Midwater to install temporary or permanent turn lanes to mitigate increased safety risks.²¹⁹
188. Section 4.3.19 of the DSP requires permittees to inform road authorities of roads that will be used during construction and acquire necessary permits and approvals for oversize and overweight loads. Permitted fencing and vegetative screening cannot interfere with road maintenance activities, and the least number of access roads shall be constructed.²²⁰
189. Potential traffic impacts can also be mitigated by using pilot vehicles for heavy-equipment transport, scheduling deliveries to avoid congestion, and deploying traffic-control barriers or warning devices as needed, while pre-construction photographs can document existing road conditions and require permittees to repair any damage to pre-construction standards.²²¹
190. Section 5.2 of the DSP, as revised by Midwater, requires Midwater to install a vegetative buffer between the BESS and U.S. Highway 65 ROW to mitigate visual impacts from the BESS for people travelling on U.S. Highway 65.²²²

7. Socioeconomic

191. The Project effect on socioeconomics is anticipated to be minimal to significant and positive. Effects associated with construction will, overall, be short term and minimal. Significant positive effects may occur for individuals. Impacts from operation will be long-term and significant. Adverse impacts are not anticipated.²²³
192. The applicant anticipates the Project will support approximately 75 jobs during the construction phase, and one to two long-term personnel during the operations phase. Indirect economic benefits will occur from additional local spending on lodging, goods and services and local sales tax.²²⁴
193. Project construction is likely to result in increased expenditures for lodging, food and fuel, transportation, and general supplies at local businesses during construction. The applicant

²¹⁸ Ex. EIP-34 at § 4.3.6 (EA).

²¹⁹ Ex. EIP-34 at § 4.3.6 (EA).

²²⁰ Ex. EIP-34 at § 4.3.6 (EA).

²²¹ Ex. EIP-34 at § 4.3.6 (EA).

²²² Ex. App.-21 (Direct Testimony of Mary Matze).

²²³ Ex. EIP-34 at § 4.3.7 (EA).

²²⁴ Ex. EIP-34 at § 4.3.7 (EA).

indicates that procurement of construction resources will give preference to women, veteran, and minority owned business contractors.²²⁵

194. Midwater expects general skilled labor to be available in Freeborn County or Minnesota to serve the basic infrastructure and site development needs, with specialized labor being required for certain aspects of the Project.²²⁶
195. The Project is expected to generate approximately \$19,700 in annual property tax revenue for Freeborn County over the 30-year lease term, totaling about \$788,000. In addition, Shell Rock Township is projected to receive approximately \$2,400 annually over the same 30-year period, for a total of about \$95,000.²²⁷
196. Lease and purchase payments paid to the landowners will offset potential financial losses associated with removing a portion of their land from agricultural production.²²⁸
197. The proposed project will affect approximately 17 acres of agricultural land currently enrolled in the Conservation Reserve Program (CRP) within the proposed Development Area during its operational life. This impact is not expected to be significant for land-based economies in the surrounding area, as the Freeborn County's total cropland base is approximately 332,702 acres, of which USDA Farm Service Agency records indicate that total acreage enrolled in the CRP in Freeborn is approximately 11,266 acres.²²⁹
198. The Project is expected to create positive short-term socioeconomic benefits from construction-related employment and spending, while long-term impacts from operation are anticipated to be minimal. Section 8.5 of the DSP requires quarterly reporting on efforts to hire Minnesota workers, consistent with Minn. Stat. § 216E.03, subd. 10(c). Section 8.6 requires the permittee and all contractors and subcontractors to pay at least the prevailing wage rate. These measures are expected to sufficiently address socioeconomic impacts, so no additional mitigation is proposed.²³⁰

8. *Environmental Justice*

199. The Project will not have disproportionately high and adverse human health or environmental effects on low-income, minority, or tribal populations.
200. Environmental justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”²³¹
201. To identify potential environmental justice concerns in the Project Area, the MPCA Environmental Justice tool was used to consider the composition of the affected area to

²²⁵ Ex. EIP-34 at § 4.3.7 (EA).

²²⁶ Ex. EIP-34 at § 4.3.7 (EA).

²²⁷ Ex. EIP-34 at § 4.3.7 (EA).

²²⁸ Ex. EIP-34 at § 4.3.7 (EA).

²²⁹ Ex. EIP-34 at § 4.3.7 (EA).

²³⁰ Ex. EIP-34 at § 4.3.7 (EA).

²³¹ Ex. EIP-34 at § 4.3.8 (EA).

determine whether low-income, minority or tribal populations are present and whether there may be disproportionately high and adverse human health or environmental effects on these populations.²³²

202. Low-income and minority populations are determined to be present in an area when the low-income percentage or minority group percentage exceeds 50 percent or is “meaningfully greater” than in the general population. In this analysis, a difference of 10 percentage points or more was used as the threshold to distinguish whether a “meaningfully greater” low-income or minority population resides in the region around the Project – including, but not limited to, Freeborn County generally and the City of Glenville.²³³
203. The Project will not create disproportionate or adverse impacts to low income or minority populations because the low-income or minority residents of the Project Area not a meaningfully greater segment than the State of Minnesota as a whole. Mitigation is not proposed.²³⁴

9. *Aesthetic Impacts*

204. For most people who pass through the Project Area on U.S. Highway 65 or the Shell Rock River, the Project effect on aesthetics under typical or atypical operating scenarios is expected to be negligible to minimal. For individuals with greater view exposure, such as people who live in the Project Area, the effect is anticipated to be minimal.²³⁵
205. The visible elements of the facility will consist of approximately 150 to 200 new BESS enclosures, a fenced area of approximately 16.6 acres, a Project Substation, up to four new transmission structures, new stormwater ponds, and potentially a new O&M building.²³⁶
206. The new 10-foot chain link fence will include neutral-colored, non-reflective opacity strips, and will be topped by barbed wire. Most components of the BESS will be finished in non-descript, neutral colors, with the majority standing at less than ten feet in height. BESS enclosures will have limited visibility from surrounding locations due to existing vegetative screening.²³⁷
207. The Project substation is anticipated to be less than 50 feet tall and will be located adjacent to the existing ITC Midwest Glenworth Substation.²³⁸
208. The Project will convert approximately 17 acres from agricultural use into a BESS Facility. Although the change will be noticeable, it is similar in appearance to existing electric substations in the Project Area.²³⁹

²³² Ex. EIP-34 at § 4.3.8 (EA).

²³³ Ex. EIP-34 at § 4.3.8 (EA).

²³⁴ Ex. EIP-34 at § 4.3.8, p. 63 (EA).

²³⁵ Ex. EIP-34 at § 4.3.1 (EA).

²³⁶ Ex. EIP-34 at § 4.3.1 (EA).

²³⁷ Ex. EIP-34 at § 4.3.1 (EA). *See also* Ex. App.-21 (Direct Testimony of Mary Matze).

²³⁸ Ex. EIP-34 at § 4.3.1 (EA).

²³⁹ Ex. EIP-34 at § 4.3.1 (EA).

209. Thirteen locations within a quarter mile of the Project Area may experience visual impacts, including seven residences, two roads, one railroad, one water trail, and two public lands. The seven residential locations would experience long-term exposure to the change in viewshed, while the remaining locations reflect short-term exposure opportunities.²⁴⁰
210. Exterior security lighting will be installed at the Project substation. Switch activated lights will be located at each BESS enclosure to allow for maintenance and repair. As cameras installed at the gates and along the fence line will be used, Midwater does not plan to install lighting at gates or along the fence line. Impacts to light-sensitive land uses are not anticipated given the rural project location and the minimal required lighting for operations.²⁴¹
211. Section 4.3.8 of the DSP requires Midwater to consider landowner input with respect to visual impacts and to use care to preserve the natural landscape.²⁴²
212. Section 5.1 is a special condition requiring the permittee to minimize lighting impacts by using shielded and downward facing light fixtures and using lights that minimize blue hue.²⁴³
213. The Task Force Report recommended and Section 5.2 of the DSP required planting three rows of vegetation around the entire BESS. However, existing rows of trees and shrubs provide substantial visual screening from U.S. Highway 65 to the southwest of the Project Area. Views of the Project Area from the Shell Rock River to the south and east are also partially to substantially screened by existing vegetation.²⁴⁴ Midwater proposed revisions to Section 5.2 of the DSP to only require vegetative screening between the BESS and U.S. Highway 65, where visual impacts may occur and could also be mitigated. Midwater's proposed revisions to Section 5.2 of the DSP are reasonable. Visual impacts from the BESS will be mitigated by Section 5.2 of the DSP, as revised by Midwater.

B. Public Health and Safety

214. Minnesota Rules Section 7850.4100(B) requires the Commission to consider the effects of the Project on public health and safety.

1. Public Safety and Emergency Services

215. Like any construction project, there are risks for injuries from falls, equipment and vehicle use, electrical accidents, etc. Public risks involve electrocution. Electrocution risks could also result from unauthorized entry into the fenced area.²⁴⁵

²⁴⁰ Ex. EIP-34 at § 4.3.1 (EA).

²⁴¹ Ex. EIP-34 at § 4.3.1 (EA).

²⁴² Ex. EIP-34 at § 4.3.1 (EA).

²⁴³ Ex. EIP-34 at § 4.3.1 (EA).

²⁴⁴ Ex. EIP-34 at § 4.3.1 (EA). *See also* Ex. App.-21 (Direct Testimony of Mary Matze).

²⁴⁵ Ex. EIP-34 at § 4.4.1 (EA).

216. Potential impacts from construction are anticipated to be minimal. Potential impacts during operation are anticipated to be moderate to significant. Impacts would be short- and long-term and can be minimized.²⁴⁶
217. The inflow of temporary construction personnel could increase demand for emergency and public health services. On the job injuries of construction workers requiring assistance due to slips, trips or falls, equipment use, or electrocution can create a demand for emergency, public health, or safety services that would not exist if the Project were not to be built. Although no road closures are anticipated during construction, any temporary closures could impede police, fire, and other rescue vehicles access to the site of an emergency.²⁴⁷
218. Construction is bound by federal and state OSHA requirements for worker safety, and must comply with local, state, and federal regulations regarding installation of the facilities and qualifications of workers. Established industry safety procedures will be followed during and after construction of the Project. Crews will be trained and briefed on safety issues, reducing the risk of injury. The Project will be fenced to prevent unauthorized access.²⁴⁸
219. Construction must comply with applicable local, state, and federal regulations when installing the BESS components and associated facilities. This includes standard construction-related health and safety practices. This generally includes safety orientation and training, as well as daily/weekly safety meetings.²⁴⁹
220. Electrical inspections will ensure proper installation of all components, and the Project will undergo routine inspection. Electrical work will be completed by trained technicians.²⁵⁰
221. The main safety hazard of a BESS during operation is battery failure leading to thermal runaway which has the potential to spread to nearby batteries and containers, quickly presenting an emergency. The movement of electrons and lithium ions within the battery cell produces electricity as well as heat. Lithium-ion batteries are designed to allow heat to dissipate from the cell to maintain a controlled reaction. Thermal runaway is a phenomenon when a battery cell generates heat at a greater rate than the heat can dissipate from the cell, resulting in a cascading chemical reaction which produces additional heat. Thermal runaway events can result in extremely high temperatures, smoke, fire, and potentially ejection of gas, shrapnel, and particulates.²⁵¹
222. While BESS are a relatively new technology, ongoing research is shaping industry standards that continue to reduce incident risk and address safety concerns. This is particularly present in the battery-type selected for the BESS.²⁵²
223. There are two major types of lithium-ion battery technology used in BESS facilities. The chemistry of NMC batteries allows them to charge and discharge at higher rates (referred

²⁴⁶ Ex. EIP-34 at § 4.4.1 (EA).

²⁴⁷ Ex. EIP-34 at § 4.4.1 (EA).

²⁴⁸ Ex. EIP-34 at § 4.4.1 (EA).

²⁴⁹ Ex. EIP-34 at § 4.4.1 (EA).

²⁵⁰ Ex. EIP-34 at § 4.4.1 (EA).

²⁵¹ Ex. EIP-34 at § 4.4.1 (EA).

²⁵² Ex. EIP-34 at § 4.4.1 (EA).

to as “energy density”) than LFP batteries. The ability to charge and discharge at high rates made them a popular choice in early BESS projects. However, compared to LFP batteries, the NMC batteries have a lower thermal runaway temperature, creating increased risks and requiring enhanced monitoring. In comparison, LFP batteries have a higher thermal runaway temperature, making them more stable and less prone to fire. As a result of the relative thermal stability compared to NMC technology as well as decreased costs as the LFP technology matured, the energy storage industry has more recently pivoted to LFP technology. The BESS will use LFP technology.²⁵³

224. BESS Equipment will be designed and tested to industry standards, including, UL1973, UL9540, and Institute of Electrical and Electronics Engineers 1547. The BESS equipment will be certified and/or compliant with relevant safety standards, including NFPA 68, NFPA 69, and NFPA 855. The Project will also comply with the applicable version of the IFC, the National Electric Code (NFPA 70), and the practices recommended in NFPA 850 for Electric Generating plants and High Voltage Direct Current Converter Stations and IEEE 979 Guide for Substation Fire Protection.²⁵⁴
225. Modern BESS containers include explosion prevention systems to remove flammable gases during a thermal runaway event and relieve pressure to limit gas levels within the containers from reaching levels that can be flammable or explosive. The containers are spaced to minimize the potential for fire to spread to other containers. The BESS equipment is monitored remotely, tracking cell voltage and temperature to identify and isolate potential issues before they occur. The facility will also install fire detection systems in the containers to recognize incidents and disconnect and isolate failed equipment.²⁵⁵
226. BESS equipment will undergo UL 9540A “Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems” performed by a third-party recognized by the OSHA’s Nationally Recognized Testing Laboratory.²⁵⁶ That testing will evaluate the BESS enclosure’s behavior during an initial thermal runaway event and ensures minimal fire propagation risk. These tests and reports provide an industry standard baseline and provide confidence as to the potential hazards posed by the specific batteries used to ensure that the appropriate safety features are incorporated based upon the results, as required by NFPA 855 and the IFC.²⁵⁷
227. There has been a steady decline in BESS fire event frequency, despite rapid growth in total operational facilities, due in large part to the evolution of codes governing battery storage facilities.²⁵⁸
228. Emergency response to fires or thermal runaway events at BESS facilities are characterized as accident scenarios and require specialized response and pose potentially significant environmental impacts. BESS fires present unique challenges to firefighters; unlike other

²⁵³ Ex. EIP-34 at § 4.4.1 (EA).

²⁵⁴ Ex. App.-2 at § 6.2.5.4 (Application).

²⁵⁵ Ex. EIP-34 at § 4.4.1 (EA).

²⁵⁶ Ex. App.-2 at § 6.2.5.4 (Application).

²⁵⁷ Ex. App.-2 at § 6.2.5.4 (Application).

²⁵⁸ Ex. EIP-13 at 25-26 (Virtual Scoping Meeting Transcript).

utilities or industrial sites, they do not have a single point of disconnect. Although separate parts of the system can be disconnected, the batteries will remain energized. During a thermal runaway event or fire, gases can build up inside battery containers, making it unsafe for first responders to approach or enter them. Because these fires may be difficult to put out, some batteries may continue to hold energy, and toxic gases may be present.²⁵⁹

229. Potential air quality impacts from a thermal runaway situation may present a community hazard; however, pre-construction air quality impact modeling as well as real-time situational air quality modeling support actions on the ground including, if needed, evacuation.²⁶⁰
230. Air pollutants of interest associated with BESS thermal runaway events include Carbon Monoxide, Carbon Dioxide, and Hydrogen Fluoride. Air quality modeling results indicate that greatest air quality impacts are localized to the Project site and are minimized to concentrations that are not harmful to human health or the environment.²⁶¹
231. Current industry guidance recommends that responders keep a safe distance, monitor the situation, and allow the fire to burn out naturally as the batteries release their stored energy. While each situation is unique, active thermal runaway scenarios can last hours to days. Under this scenario, environmental impacts are potentially significant in the short-term, but largely confined to the Project site, and reversible through emergency service response and related remediation activities, as needed.²⁶²
232. Midwater consulted with local emergency responders who requested that Midwater purchase hose nozzles and gas detectors that can be used by emergency responders when responding to an emergency at the site. Midwater has committed to purchasing hose nozzles and gas detectors for local emergency responders to use during emergencies and has proposed revisions to Section 8.11 of the DSP to reflect this request and commitment.²⁶³
233. NFPA standards require BESS facilities to prepare a hazard mitigation analysis (HMA) detailing the results of the equipment testing and the risks associated with the technology prior to installation of the BESS.²⁶⁴ Section 5.5 of the DSP requires Midwater to prepare an HMA and distribute it to emergency responders prior to the project's pre-construction meeting.
234. Section 4.3.7 of the DSP requires the permittee to take several public safety measures, including landowner educational materials, appropriate signs and gates, etc.²⁶⁵
235. Section 8.11 of the DSP is a standard condition that requires the permittee to file an Emergency Response Plan with the Commission and local first responders prior to

²⁵⁹ Ex. EIP-34 at § 4.4.1 (EA).

²⁶⁰ Ex. EIP-34 at § 4.4.1 (EA).

²⁶¹ Ex. EIP-34 at § 4.4.1 (EA).

²⁶² Ex. EIP-34 at § 4.4.1 (EA).

²⁶³ Response to Public Comments at 9-10 (Mar. 25, 2026) (eDockets No. *TBD*).

²⁶⁴ Ex. EIP-34 at § 4.4.1 (EA).

²⁶⁵ Ex. EIP-34 at § 4.4.1 (EA).

operation.²⁶⁶ As revised by Midwater, Section 8.11 of the DSP also requires Midwater to identify equipment needed by local emergency responders to respond to emergencies at the BESS, purchase the equipment (including gas detection equipment) and provide annual training to local emergency responders.

236. Section 8.12 requires disclosure of extraordinary events, such as fires, etc.²⁶⁷

237. Section 9.1 requires a decommissioning plan prior to construction and updated every five years. Periodic updates of the plan will address the developing information on end-of-life issues related to batteries.²⁶⁸

238. In addition to the permit conditions described above, the following special conditions in the DSP will be applicable to the Project and were developed, in part, through the Task Force process:

Section 5.8 requires Midwater to install on-site, continuous recording cameras that can be monitored remotely by both the facility management team and a third party, along with onsite meteorological monitoring equipment, capable of use in the event of an emergency.²⁶⁹

Section 8.3 requires that the Project site plan be provided to Freeborn County, Shell Rock Township, and local emergency responders that serve the area where the Project is located.²⁷⁰

239. Midwater will also coordinate with the Fire Authority Having Jurisdiction to ensure adequate water supply at the BESS in the event of a Fire in accordance with NFPA 855, 4.9.5.2 and NFPA 1142. Potential solutions that will be discussed with local emergency responders shall include providing a permanently filled frost-protected water tank at the Project site filled by water truck or an onsite water well over the course of days, shuttling water from the City of Glenville with existing Fire Department Equipment, and providing a back-up water truck for use by local emergency responders.²⁷¹

C. Land-based Economies

240. Minnesota Rules Section 7850.4100(C) requires the Commission to consider the effects of the Project on land-based economies, including agriculture, forestry, tourism, and mining.

241. A BESS can affect land-based economies (e.g., agriculture, forestry, tourism, mining, etc.) by precluding or limiting land use for other purposes. The Project has the potential to effect agriculture, and tourism and recreation.²⁷²

²⁶⁶ Ex. EIP-34 at § 4.4.1 (EA).

²⁶⁷ Ex. EIP-34 at § 4.4.1 (EA).

²⁶⁸ Ex. EIP-34 at § 4.4.1 (EA).

²⁶⁹ Ex. EIP-34 at § 4.4.1 (EA).

²⁷⁰ Ex. App.-21 at 30 (Direct Testimony of Mary Matze).

²⁷¹ Ex. App.-21 at 17-18 (Direct Testimony of Mary Matze).

²⁷² Ex. EIP-34 at § 4.5 (EA).

1. Agriculture

242. A loss of approximately 17 acres farmland in Freeborn County would occur for the life of the Project. Potential impacts are localized and unavoidable but can be minimized.²⁷³
243. From the U.S. Department of Agriculture’s 2022 Census of Agriculture, there are approximately 351,174 acres of farmland in Freeborn County, including 332,702 acres of cropland (94.7 percent).²⁷⁴
244. The removal of 17 acres relative to 332,702 acres of farmland in the county is insignificant. Midwater also indicates that the land could be returned to pre-construction use after the Project is decommissioned and the site is restored.²⁷⁵
245. Construction of the Project has the potential to damage agricultural soils through compaction or erosion if best management practices (BMPs) are not implemented to minimize damage.²⁷⁶
246. The DSP contains several conditions to mitigate or avoid agricultural and soil-related impacts:
- Section 4.3.9 requires protection and segregation of topsoil;
 - Section 4.3.10 requires measures to minimize soil compaction;
 - Section 4.3.11 requires the permittee to “implement erosion prevention and sediment control practices recommended by the [MPCA]” and to “obtain a [Construction Stormwater (CSW) Permit].” A CSW Permit requires both temporary and permanent stormwater controls to ensure that stormwater does not become a problem on or off-site;
 - Section 4.3.15 requires the Midwater to develop a VMP that defines how the land control area will be revegetated and monitored over the life of the Project. Appropriate seeding rates and timing of revegetation will stabilize soils and improve overall soil health;
 - Section 4.3.18 requires the permittee to take reasonable precautions against the spread of noxious weeds;
 - Section 4.3.23 requires that “site restoration and management” practices enhance “soil water retention and reduces storm water runoff and erosion”;

²⁷³ Ex. EIP-34 at § 4.5.1 (EA).

²⁷⁴ Ex. EIP-34 at § 4.5.1 (EA).

²⁷⁵ Ex. EIP-34 at § 4.5.1 (EA).

²⁷⁶ Ex. EIP-34 at § 4.5.1 (EA).

- Section 4.3.26 requires the permittee to fairly restore or compensate landowners for damages to crops, fences, drain tiles, etc. during construction; and
- Section 5.2 requires Midwater to plant a vegetative landscape buffer between the BESS and U.S. Highway 65 that includes three distinct rows of county approved plantings.²⁷⁷

247. Section 5.10 of the DSP originally provided for the development and implementation of an Agricultural Impact Mitigation Plan (AIMP).²⁷⁸ MDA has subsequently agreed that an AIMP is not necessary for the Project because it involves only a standalone BESS facility, rather than a combined solar and BESS project. Based on Midwater's coordination with MDA, Section 5.10 has been removed as a special condition from the DSP.²⁷⁹

2. *Tourism and Recreation*

248. Tourism in the Project Area is largely related to recreational activities including fishing, hunting, and boating. Activities in the Project Area are typically associated with the Shell Rock River State Water Trail and the Shell Rock WMA.²⁸⁰

249. The Freeborn County Trails snowmobile trail is present within the northwest corner of the Project Area. Project infrastructure near the snowmobile trail is the existing ITC Midwest Glenworth Substation and new transmission power line poles.²⁸¹

250. The presence of the HVTL is not expected to affect snowmobile trail use. Poles and associated support structures for the HVTL connecting the BESS to the ITC Midwest Glenworth Substation will be set back from the trail in accordance with state guidelines to ensure public safety. Trail markers and warning signage will be installed to help riders remain on the designated trail and to alert users to potential electrical hazards associated with unauthorized access to the HVTL or the ITC Midwest Glenworth Substation.²⁸²

251. Although the Shell Rock River Water Trail is located within the proposed BESS Project Area, no project infrastructure will obstruct or restrict public access to the water trail. Users traveling along the small segment of the trail near the Project Area may experience a slight increase in noise during BESS construction and operation. These effects will be temporary and limited to the immediate vicinity of the facility.²⁸³

252. During the construction phase, there may be temporary visual, auditory, and aesthetic impacts experienced by some visitors and nearby residents. Once construction is complete,

²⁷⁷ Ex. App.-21 at 25-26 (Direct Testimony of Mary Matze).

²⁷⁸ MDA Comment (Mar. 24, 2025) (eDockets No. [20263-229598-01](#)).

²⁷⁹ Ex. App.21 at 24 (Direct Testimony of Mary Matze).

²⁸⁰ Ex. EIP-34 at § 4.5.2 (EA).

²⁸¹ Ex. EIP-34 at § 4.5.2 (EA).

²⁸² Ex. EIP-34 at § 4.5.2 (EA).

²⁸³ Ex. EIP-34 at § 4.5.2 (EA).

normal operation of the BESS is not expected to disrupt recreational activities or reduce public use of the water trail.²⁸⁴

253. A BESS fire or thermal runaway event would most likely result in short-term, localized impacts to recreation and tourism. These impacts would differ from routine construction or operational effects in that they would be acute, episodic, and safety driven, rather than continuous or aesthetic.²⁸⁵
254. A thermal-runaway event could lead to temporary access restrictions, evacuations, or road closures, briefly limiting use of nearby recreational areas. Smoke, odors, or visible emergency activity could deter use of trails, wildlife areas, or river access points during the incident and immediate recovery. Depending on wind and duration, smoke could temporarily reduce air quality or visibility, discouraging activities like fishing, hunting, boating, or snowmobiling. These effects would be short-lived and localized to the site, with normal recreation expected to resume once the site is safe.²⁸⁶
255. Modern BESS facilities are designed with fire detection, suppression systems, and emergency response coordination to reduce both the likelihood and severity of thermal runaway events. Existing and proposed visual screening measures, additionally, can help reduce long-term perception-related concerns that sometimes influence recreational or tourism use.²⁸⁷
256. No public or private recreational lands or opportunities are located within or adjacent to the HVTL or BESS. Therefore, the proposed project is not anticipated to result in impacts on recreational resources, and no mitigation measures are proposed.²⁸⁸

C. Archaeological and Historic Resources

257. Minnesota Rules Section 7850.4100(D) requires the Commission consider the effects on archaeological and historic resources. Archaeological resources are locations where objects or other evidence of archaeological interest exist, and can include aboriginal mounds and earthworks, ancient burial grounds, prehistoric ruins, or historical remains. Historic resources are sites, buildings, structures, or other antiquities of state or national significance.
258. No historic or architectural resources have been previously inventoried within the Project Area. Two historic resources were identified adjacent to the Project boundary. Neither of these resources will be affected by the Project. An additional nine historic resources were identified within a one-mile buffer of the Project Area; however, none of these resources have been evaluated for listing in the National Register of Historic Places.²⁸⁹

²⁸⁴ Ex. EIP-34 at § 4.5.2 (EA).

²⁸⁵ Ex. EIP-34 at § 4.5.2 (EA).

²⁸⁶ Ex. EIP-34 at § 4.5.2 (EA).

²⁸⁷ Ex. EIP-34 at § 4.5.2 (EA).

²⁸⁸ Ex. EIP-34 at § 4.5.2 (EA).

²⁸⁹ Ex. EIP-34 at § 4.6 (EA).

259. Midwater conducted a Phase I Archaeological Reconnaissance Survey that included a site review with surficial excavation at the site to determine if archaeological resources were present within the Project Area. Midwater noted that there is a single previously recorded archaeological site, located approximately one half mile to the east of the Project.²⁹⁰
260. The Phase I Archaeological Reconnaissance Survey report was submitted to the SHPO for review on August 28, 2024. SHPO provided a letter dated October 22, 2024, indicating that based on the results of the survey, it agrees that there are no properties listed in the National or State Registers of Historic Places, or within the Historic Sites Network, that will be affected by this project. They also agree that there are no known or suspected archaeological resources that will be affected by the Project.²⁹¹
261. The potential for project construction-related impacts to archeological, cultural, and historic resources is negligible and unlikely. Still, Midwater will prepare an Unanticipated Discoveries Plan that outlines the steps they will take if previously unrecorded cultural resources or human remains are encountered during construction.²⁹²
262. Potential visual and landform impacts describe how a project may affect the appearance, visibility, or physical setting of archaeological, cultural, or historic sites. Visual impacts occur when construction or other changes alter how a site is seen or experienced, while landform impacts involve changes to terrain or topography that may disturb the site's natural context.²⁹³
263. Midwater maintains that the visual impact of the BESS would not be out of character with the existing ITC Midwest Glenworth Substation and related infrastructure, explaining that the enclosures are neutral in color, relatively low in height. The constructed portion of the Project Area will feature a three-tier vegetative buffer, providing additional visual screening between the BESS and U.S. Highway 65. Given the distance between the Project Area and archaeological, cultural, and historical resources, visual impacts are considered negligible. Project construction and operation-related impacts to the local landscape are not anticipated to affect or interfere with the visual character of identified resources.²⁹⁴
264. Ambient noise can affect the experience of archaeological, cultural, or historic resources. Modeling conducted by Midwater indicates that the facility will meet Minnesota's nighttime noise standards beyond 1,000 feet from the BESS. Because all identified resources are located outside this 1,000-foot area, they are not expected to be affected under typical or atypical operating conditions.²⁹⁵

²⁹⁰ Ex. EIP-34 at § 4.6 (EA).

²⁹¹ Exs. EIP-34 at § 4.6 (EA); App.-18 (Confirmation of SHPO Consultation); & App.-5 at (Application Appendix B).

²⁹² Ex. EIP-34 at § 4.6 (EA).

²⁹³ Ex. EIP-34 at § 4.6 (EA).

²⁹⁴ Ex. EIP-34 at § 4.6 (EA).

²⁹⁵ Ex. EIP-34 at § 4.6 (EA).

265. Potential visual and landform impacts from the Project are not likely to affect the appearance, visibility, or physical setting of archaeological, cultural, or historic sites. No mitigation is proposed.²⁹⁶

D. Natural Environment

266. Minnesota Rules Section 7850.4100(E) requires that the Commission consider the effects of the Project on the natural environment, including effects on air and water quality resources and flora and fauna.

1. Air Quality

267. Minimal intermittent air emissions are expected during construction of the Project. Air emissions associated with construction are highly dependent upon weather conditions and the specific activity occurring. For example, traveling to a construction site on a dry gravel road will result in more fugitive dust than traveling the same road when wet. Once operational, neither the BESS nor the transmission line will generate criteria pollutants or carbon dioxide.²⁹⁷

268. Motorized equipment will emit exhaust. This includes construction equipment and vehicles travelling to and from the Project. Exhaust emissions, primarily from diesel equipment, would vary according to the phase of construction.²⁹⁸

269. During the construction phase, exhaust emissions can be minimized by keeping vehicles and equipment in good working order and not running equipment unless necessary. In addition, watering exposed surfaces, covering disturbed areas, and reducing speed limits on-site are all standard construction practices to mitigate air quality impacts.²⁹⁹

270. All projects that involve movement of soil, or exposure of erodible surfaces, generate some type of fugitive dust emissions. The Project will generate fugitive dust from travel on unpaved roads, grading, and excavation.³⁰⁰

271. Midwater evaluated the potential dispersion and off-site impacts of air pollutants that could be emitted during a runaway thermal event.³⁰¹ The primary modeling objective was to assess the potential downwind extent of gases and soot related visibility reduction associated with a BESS cabinet fire. A conservative worst-case fire scenario was developed using established electrical-to-combustion energy conversion methods, published industry data, and alignment between modeled thermal impacts and observed enclosure damage. The modeling, moreover, conservatively evaluated the BESS cabinet closest to the facility property boundary.³⁰²

²⁹⁶ Ex. EIP-34 at § 4.6 (EA).

²⁹⁷ Ex. EIP-34 at § 4.7.1 (EA).

²⁹⁸ Ex. EIP-34 at § 4.7.1 (EA).

²⁹⁹ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁰ Ex. EIP-34 at § 4.7.1 (EA).

³⁰¹ Ex. EIP-34 at § 4.7.1 (EA).

³⁰² Ex. EIP-34 at § 4.7.1 (EA).

272. The calculated heat release rate, combustion product yields, and associated parameters were then used as inputs for the plume dispersion modeling performed using the Fire Dynamics Simulator (FDS), a computational fluid dynamics model developed and maintained by the National Institute of Standards and Technology. FDS is a widely accepted and extensively validated fire modeling tool used by regulatory agencies, researchers, and fire protection professionals, and is supported by a substantial body of peer-reviewed literature. Modeling scenarios evaluated a range of wind speeds, wind directions, and BESS cabinet configurations representative of outdoor, utility-scale installations, with conservative assumptions applied to reflect credible worst-case conditions.³⁰³
273. Modeling results indicate that the primary by-products of an event are the production of carbon monoxide, hydrogen fluoride, and carbon dioxide gases and carbon soot. Concentrations of these gases generated during the modeled fire scenario decrease rapidly with distance from the source. All concentrations remained below applicable Immediately Dangerous to Life or Health (IDLH) thresholds established by the National Institute for Occupational Safety and Health at the Project site boundary. Notably, carbon dioxide concentrations did not exceed the IDLH threshold beyond the immediate vicinity of the BESS cabinet, while hydrogen fluoride concentrations exhibited only brief exceedances of the 30 parts per million within the nearfield plume and did not extend to the site boundary.³⁰⁴
274. Modeling further indicates that reduced visibility due to soot was limited to the immediate plume region near the source and did not extend to the site boundary.³⁰⁵
275. Overall, the plume analysis demonstrates that potential impacts from toxic gases and smoke associated with a worst-case BESS fire scenario would be localized and would not result in offsite impacts or acute inhalation risks.³⁰⁶
276. Under the typical and atypical scenario, the facility is not likely to emit regulated air pollutants in amounts that require regulatory action; however, if emissions exceed regulatory levels, reporting practices are established through their operations and maintenance plans.³⁰⁷
277. Midwater is required by industry standards to design and install fire protection and hazard prevention practices. This includes conducting a rigorous hazard analysis, along with thorough mitigation planning that reduces the probability and consequence of a thermal runaway. In addition, system-level safety is established through integrated protective responses under failure conditions, as well as thermal runaway propagation testing that quantifies risk and feeds the cabinet spacing and related mitigation decisions.³⁰⁸

³⁰³ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁴ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁵ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁶ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁷ Ex. EIP-34 at § 4.7.1 (EA).

³⁰⁸ Ex. EIP-34 at § 4.7.1 (EA).

278. Section 5.5 the DSP, moreover, contains a special condition resulting from Task Force recommendations and specifically requires that Midwater distribute their Hazard Mitigation Analysis with emergency responders prior to the Project's pre-construction meeting.³⁰⁹
279. Midwater consulted with local emergency responders who requested that Midwater purchase hose nozzles and gas detectors that can be used by emergency responders when responding to an emergency at the site. Midwater has committed to purchasing hose nozzles and gas detectors for local emergency responders use in emergencies and has proposed revisions to Section 8.11 of the DSP to reflect this request and commitment.³¹⁰

2. Soils

280. Impacts on soil resources will occur during construction and decommissioning of the Project. The level of impact is expected to be minimal.³¹¹
281. Within the Project Area, soils are primarily sandy loams, with smaller extents of clay loam soils. When adequately drained, these soils are well suited to the existing agricultural uses.³¹²
282. Soil impacts would occur primarily during project construction and, to a lesser extent, during operation. Construction-related impacts would result mainly from grading and excavation for the substation, BESS, operations and maintenance facility, laydown yard, stormwater basins, and access roads. Given the rolling topography and existing agricultural land use, limited grading would be required. Temporary soil compaction could occur in undeveloped portions of the Project Area due to equipment use and installation of BESS module foundations.³¹³
283. During project operation, minor soil compaction could occur along access roads from routine maintenance vehicle use. These impacts are expected to be negligible and confined to the roadbeds.³¹⁴
284. Overall, the Project is expected to reduce long-term erosion potential by establishing permanent vegetative cover. Additional erosion control measures would include gravel surfacing the access roads and installation of culverts to manage and redirect surface water runoff.³¹⁵
285. Because construction would disturb more than one acre, the Project would require coverage under the MPCA Construction Stormwater General Permit (CSW Permit). Pursuant to the CSW Permit, Midwater would prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) and will be required to submit the SWPPP, along with a Notice of Intent, due to

³⁰⁹ Ex. EIP-34 at § 4.7.1 (EA).

³¹⁰ Response to Public Comments at 9-10 (Mar. 25, 2026) (eDockets No. *TBD*).

³¹¹ Ex. EIP-34 at § 4.7.2 (EA).

³¹² Ex. EIP-34 at § 4.7.1 (EA).

³¹³ Ex. EIP-34 at § 4.7.1 (EA).

³¹⁴ Ex. EIP-34 at § 4.7.1 (EA).

³¹⁵ Ex. EIP-34 at § 4.7.1 (EA).

the Shell Rock River being an impaired water.³¹⁶ The SWPPP would outline BMPs—such as erosion and sediment controls, revegetation, soil stabilization, and dust control—to limit erosion and protect nearby resources during construction and operation. Stormwater ponds will be designed and constructed to meet Minnesota Pollution Control Agency (MPCA) and the SRRWD requirements to collect and treat runoff during construction and operation. Permanent stormwater treatment areas on the site will be designed in accordance with Section 15 of the MPCA’s CSW Permit and to meet the SRRWD’s enhanced 1.25-inch water quality treatment standard. The site will also be subject to the special conditions related to impaired waters outlined in Section 23 of the MPCA’s CSW Permit.³¹⁷

286. The DSP includes a number of conditions to mitigate soil impacts, including Section 4.3.9 (requiring protection and segregation of topsoil), Section 4.3.11 (requiring the permittees to obtain an MPCA CSW Permit and implement BMPs for erosion prevention and sediment control), Section 4.3.23 (regarding site restoration and management practices to enhance soil water retention and reduce stormwater runoff and erosion) and 5.11 (requiring the development of a VMP describing how the land control area will be revegetated and monitored over the Project’s life, using appropriate seeding and timing to stabilize soils and improve soil health).³¹⁸

3. *Surface Water and Floodplains*

287. The Project is located in the Shell Rock River Watershed, a major watershed in the Mississippi River Basin. Two National Hydrography Dataset (NHD) watercourses and three NHD waterbodies are mapped within the Project Area; however, none occur within the proposed BESS Development Area or the proposed HVTL Development Area. The proposed BESS and HVTL will not impact any NHD watercourses or waterbodies. In addition, one DNR Public Waters Inventory (PWI) feature is present within the Project Area but will not be affected by the proposed BESS or HVTL.³¹⁹
288. FEMA Flood Insurance Maps and field verification at the Project Area confirmed the presence of 100- and 500-year floodplains within the Project Area. However, all Project infrastructure is sited completely outside of mapped FEMA flood zones. The Project will not impact FEMA-mapped floodplains.³²⁰
289. There are two waters listed by the MPCA as impaired waters within the Project Area, the Shell Rock River, and Salem Creek. The impairments include mercury, nutrient, dissolved oxygen, and turbidity (Shell Rock River) and fecal coliform (Salem Creek). The Shell Rock River is the receiving water for facility stormwater runoff.³²¹

³¹⁶ Ex. EIP-34 at 82 (EA). The Shell Rock River is impaired by mercury and elevated nutrient (phosphorus) levels from both regulated and non-regulated sources. Ex. EIP-34 at 35.

³¹⁷ Response to Public Comments at 9-10 (Mar. 25, 2026) (eDockets No. *TBD*).

³¹⁸ Ex. EIP-34 at § 4.7.1 (EA).

³¹⁹ Ex. EIP-34 at § 4.7.3 (EA).

³²⁰ Ex. EIP-34 at § 4.7.3 (EA).

³²¹ Ex. EIP-34 at § 4.7.3 (EA).

290. Construction activities could result in potential indirect impacts if sediment or fugitive dust from excavation, grading, vegetation removal, or construction traffic were to enter nearby surface waters. All pole structures and BESS Facility components have been located outside of the Shell Rock River watercourse, with BESS enclosures located more than 200 feet from the river, to prevent permanent water quality impacts to the river.³²²
291. Nonetheless, there is a potential for construction-related erosion and sedimentation, as an impaired segment of the Shell Rock River is approximately 26 feet from the edge of the proposed stormwater ponding areas located within the BESS Facility Development Area.³²³
292. Midwater will secure coverage under the CSW Permit. Pursuant to the CSW Permit, Midwater will prepare and submit a Notice of Intent, due to the Shell Rock River being an impaired water and a SWPPP that would outline BMPs—such as erosion and sediment controls, revegetation, soil stabilization, and dust control—to limit erosion and protect nearby resources during construction and operation.³²⁴ Stormwater ponds will be designed and constructed to meet MPCA and SRRWD requirements to collect and treat runoff during construction and operation.
293. To mitigate impacts from increased stormwater runoff volume resulting from the addition of impervious surfaces associated with the BESS (i.e., concrete pads for BESS cabinets and associated equipment), Midwater will construct two permanent stormwater detention basins, designed and sized in accordance with in accordance with Section 15 of the MPCA’s CSW Permit and upsized to accommodate anticipated stormwater volumes, through the SRRWD basin sizing criteria.³²⁵ The stormwater basins will be designed for the enhanced 1.25-inch water quality treatment standard of the SRRWD.³²⁶ The site will also be subject to the special conditions related to impaired waters outlined in Section 23 of the MPCA’s CSW Permit.³²⁷
294. The BESS enclosures include leak-proof secondary containment in the bottom of each enclosure to prevent liquid, including coolant used to cool the enclosures, from leaking out of the enclosure.³²⁸ LFP batteries contain gel-type electrolytes which are fully contained within each battery cell.³²⁹ The likelihood of electrolyte leakage from an LFP BESS is very low.³³⁰
295. Midwater will conduct ongoing surveillance of the BESS Facility to detect the presence of leaks or related failures, and will also conduct water quality testing of the detention basin

³²² Ex. EIP-34 at §§ 4.3.1 and 4.7.3 (EA).

³²³ Ex. EIP-34 at § 4.7.3 (EA).

³²⁴ Ex. EIP-34 at 82 (EA).

³²⁵ Ex. EIP-34 at § 4.7.3 (EA).

³²⁶ Ex. App.-21 at 19 (Direct Testimony of Mary Matze).

³²⁷ Response to Public Comments at 4-5 (Mar. 25, 2026) (eDockets No. *TBD*).

³²⁸ Ex. App.-21 at 6 (Direct Testimony of Mary Matze).

³²⁹ Ex. App.-21 at 6 (Direct Testimony of Mary Matze).

³³⁰ Ex. EIP-34 at § 4.7.4 (EA).

to determine if treatment is needed prior to discharging stormwater to the Shell Rock River.
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296. Potential impacts resulting from a significant but unlikely thermal runaway event include stormwater runoff carrying pollutants such as electrolytes, coolant, or BESS debris that could reach the Shell Rock River. The emergency response plan prepared for the Project will specify the appropriate ways for emergency responders to respond to a thermal runaway event. Water may be used to cool adjacent surfaces and structures, but should not be used directly on a burning battery or enclosure.³³² Fire-suppressant chemicals should not be utilized. Therefore, water runoff from emergency responses to thermal runaway events should not contain contaminants.³³³ Deposition of particulate matter, primarily consisting of carbon soot,³³⁴ or gases from the event could also affect surface water quality. Because thermal runaway incidents are typically short, long-term deposition impacts are unlikely, though still possible.³³⁵
297. Two standard conditions included in the DSP will further mitigate potential impacts to surface waters. Section 4.3.11 of the DSP requires the permittee to implement MPCA-recommended erosion and sediment control practices and obtain a CSW Permit, which mandates temporary and permanent stormwater controls. The section also requires appropriate grading for drainage and restoration of disturbed areas to pre-construction conditions. Midwater will prepare an MPCA-compliant SWPPP describing construction activities, erosion and sediment controls, BMPs, and permanent stormwater management throughout construction and operation. Implementing SWPPP protocols will minimize soil erosion during construction. Section 4.3.23 of the DSP requires that “site restoration and management” practices enhance “soil water retention and reduces storm water runoff and erosion.”³³⁶
298. Finally, Section 5.12 of DSP imposes a special condition requiring Midwater to prepare and file a Surface and Groundwater Monitoring Plan (SGMP). The SGMP must be designed to detect, evaluate, and respond to any potential impacts to surface water or groundwater resulting from construction, operation, or emergency events at the facility. The SGMP must be prepared in coordination with the MPCA (groundwater) and the SRRWD (surface water). The SGMP would require water quality sampling of the stormwater basin contents, as well as pollutant-based action limits prior to stormwater basin discharge.³³⁷

4. *Geology and Groundwater*

299. Surficial materials within the Project Area primarily consist of glacial drift composed of glacial till, characterized by a matrix of sand, silt, and clay with scattered pebbles, cobbles,

³³¹ Ex. EIP-34 at § 4.7.3 (EA).

³³² Response to Public Comments at 9 (Mar. 25, 2026) (eDockets No. *TBD*).

³³³ Response to Public Comments at 4-5 (Mar. 25, 2026) (eDockets No. *TBD*).

³³⁴ Ex. App.-21 at 8 (Direct Testimony of Mary Matze).

³³⁵ Ex. EIP-34 at § 4.7.3 (EA).

³³⁶ Ex. EIP-34 at § 4.7.3 (EA).

³³⁷ Ex. App.-21 at 28-29 (Direct Testimony of Mary Matze).

and occasional boulders. The thickness of glacial drift overlying bedrock in Freeborn County generally ranges from less than 50 feet to more than 200 feet.³³⁸

300. The Project Area is located within the South-Central Minnesota Groundwater Province, which is characterized by thick glacial sediments composed primarily of loam and clay loam overlying regionally extensive Paleozoic sandstone and carbonate bedrock aquifers.³³⁹
301. County Well Index well log data indicate that depth to bedrock within the Project Area ranges from approximately 120 to 240 feet, with bedrock depths generally increasing toward the eastern and southeastern portions of the Project Area.³⁴⁰
302. A desktop geotechnical evaluation was completed for the Project Area in January 2024. This evaluation included a review of USGS information on karst hazard potential, as well as University of Minnesota and DNR Ecological and Water Resources Division karst mapping. These sources indicate that sinkholes, shallow limestone formations, unconfined or shallow aquifers, and other karst conditions are not present within or near the Project Area. The mapping tool identifies the nearest mapped karst feature approximately 13 miles southeast of the Project Area. The potential for karst-related features within the Project Area is considered low.³⁴¹
303. A review of U.S. EPA Sole Source Aquifer (SSA) designations, the Minnesota Well Index (MWI), and University of Minnesota Natural Resources Research Institute wellhead protection mapping indicated that no EPA-designated SSAs occur within the Project Area. The Project Area is not located within a delineated MDH Wellhead Protection Area (WHPA). No public water-supply wells or WHPAs are present within the Project Area. The nearest WHPA is located north of the Project Area.³⁴²
304. A portion of the Glenville Drinking Water Supply Management Area (DWSMA) occurs in the northern portion of the Project Area. The BESS infrastructure is located outside of the DWSMA, though a segment of the HVTL is located within the DWSMA.³⁴³
305. According to the MDH MWI, no wells are located within the Project Area. Within one mile of the Project Area, 18 wells have been identified, including 16 active domestic wells, one active test well, and one sealed environmental borehole. These wells were drilled to depths ranging from approximately 15 to 160 feet, with an average depth to bedrock of approximately 84 feet below ground surface. The shallowest active domestic well identified in the MWI reaches 90 feet below ground surface.³⁴⁴

³³⁸ Ex. EIP-34 at § 4.7.4 (EA).

³³⁹ Ex. EIP-34 at § 4.7.4 (EA).

³⁴⁰ Ex. EIP-34 at § 4.7.4 (EA).

³⁴¹ Ex. EIP-34 at § 4.7.4 (EA).

³⁴² Ex. EIP-34 at § 4.7.4 (EA).

³⁴³ Ex. EIP-34 at § 4.7.4 (EA).

³⁴⁴ Ex. EIP-34 at § 4.7.4 & Table 14 (EA).

306. DNR depth-to-water-table mapping indicates shallow groundwater conditions across much of the Project Area, with depths generally ranging from 0 to 10 feet and localized areas of 10 to 20 feet.³⁴⁵
307. University of Minnesota surficial geology maps indicate that the subsurface Project Area geology is dominated by a sandy outwash, developed during the last glaciation. The groundwater sensitivity to pollutant impact is likely moderate to high in this location.³⁴⁶
308. The Glenville DWSMA is classified as having moderate to high vulnerability. However, given the absence of wells within the Project Area and the siting of project infrastructure outside of WHPA, no direct impacts to public or private groundwater supplies are anticipated.³⁴⁷
309. The surficial water table at the Project site is anticipated to be approximately 10 to 20 feet. The BESS design includes multiple engineered barriers that interrupt this pathway, including sealed enclosures, impermeable foundations, and controlled drainage. As a result, a complete exposure pathway to groundwater is not present under normal or reasonably foreseeable conditions.³⁴⁸
310. Under an accident scenario, an additional potential groundwater pollution source is the use of any fire suppression chemistry, although the emergency plan will specify that fire suppression chemistry should not be used at the BESS,³⁴⁹ or debris from the BESS.³⁵⁰
311. Midwater will use a LFP battery type that will be housed in factory-built, weather-resistant enclosures. Potential groundwater impacts were evaluated with consideration to the materials used in the BESS, the likelihood of release, and the design features intended to prevent migration of contaminants to soil and groundwater.³⁵¹
312. Each LFP battery cell using this design contains a small quantity of organic electrolytes sealed within a metal cell casing. The electrolyte is not stored in bulk and is contained within multiple layers of engineered barriers, including individual cells, battery modules, racks, and the exterior enclosure. Under typical operating conditions, electrolytes are not released.³⁵²
313. The likelihood of electrolyte leakage from an LFP BESS is very low. LFP chemistry is characterized by high thermal and chemical stability, with a significantly reduced risk of thermal runaway compared to other lithium-ion chemistries. Liquid electrolyte release

³⁴⁵ Ex. EIP-34 at § 4.7.4 & Table 14 (EA).

³⁴⁶ Ex. EIP-34 at § 4.7.4 (EA).

³⁴⁷ Ex. EIP-34 at § 4.7.4 (EA).

³⁴⁸ Ex. EIP-34 at § 4.7.4 (EA).

³⁴⁹ Response to Public Comments at 9 (Mar. 25, 2026) (eDockets No. *TBD*).

³⁵⁰ Ex. EIP-34 at § 4.7.4 (EA).

³⁵¹ Ex. EIP-34 at § 4.7.4 (EA).

³⁵² Ex. EIP-34 at § 4.7.4 (EA).

would generally only be expected under extreme conditions, such as severe mechanical damage or a major fire event.³⁵³

314. Any electrolyte release would be small in quantity at the individual cell level and would be contained within the BESS enclosure and secondary containment features, preventing contact with soil or infiltration of groundwater. As a result, electrolyte-related groundwater impacts are not anticipated.³⁵⁴
315. Midwater will use a closed-loop liquid cooling system with water-based fluids and glycol additives suited for Minnesota conditions. These non-flammable fluids are widely used in industrial HVAC systems. Coolant leaks are unlikely and typically stem from long-term wear or maintenance issues rather than sudden failure. Any release would be limited because the cooling system is fully contained within the BESS enclosure.³⁵⁵
316. The BESS enclosures are installed on engineered concrete pads with impermeable surfaces and are designed to prevent the release of fluids to underlying soils. The foundation depth will be installed at an estimated range of one to three feet below ground surface (depending on soil conditions) and would, therefore, not impact aquifer resources. In addition, secondary containment, drip pans, or sloped floors are incorporated to capture any incidental leaks. Routine inspection and monitoring allow for early detection and repair, further reducing the potential for environmental release.³⁵⁶
317. The BESS will be designed, installed, and operated in accordance with applicable standards, including UL 9540, UL 9540A, and NFPA 855, which address safety, containment, and failure scenarios. Combined with MPCA BMPS (groundwater), these standards minimize the potential for environmental releases.³⁵⁷ The standards, moreover, address thermal runaway behavior, fire propagation, and containment. These standards inform enclosure design, spacing, fire detection, and emergency response planning.³⁵⁸
318. Based on the inherent stability of LFP battery chemistry, the sealed nature of battery electrolyte, the low likelihood of coolant leaks, and the multiple layers of engineered containment, the proposed BESS is not expected to result in adverse impacts to groundwater. Potential releases are unlikely, limited in volume if they occur, and effectively mitigated by design and operational controls. Therefore, the Project is anticipated to pose a negligible risk to groundwater quality.³⁵⁹
319. For a thermal runaway event to create groundwater impacts, several conditions would need to occur: 1. Release of contaminants (electrolyte, degraded battery materials, or fire residues); 2. Failure of primary containment (battery cell, module, enclosure); 3. Failure of

³⁵³ Ex. EIP-34 at § 4.7.4(EA).

³⁵⁴ Ex. EIP-34 at § 4.7.4 (EA).

³⁵⁵ Ex. EIP-34 at § 4.7.4 (EA).

³⁵⁶ Ex. EIP-34 at § 4.7.4 (EA).

³⁵⁷ Ex. EIP-34 at § 4.7.4 (EA).

³⁵⁸ Ex. EIP-34 at § 4.7.4 (EA).

³⁵⁹ Ex. EIP-34 at § 4.7.4 (EA).

secondary containment or site controls; 4. Infiltration of contaminants into soil; 5. Migration to the water table.³⁶⁰

320. The Midwater Facility is designed to interrupt pathways to groundwater through multiple engineered controls. Thermal runaway events are acute and short-term occurrences rather than chronic sources of contamination. As a result, even in a worst-case scenario, the duration of potential exposure is limited. Groundwater impacts generally require sustained or repeated releases over time, which is not characteristic of thermal runaway events.³⁶¹
321. Solid battery materials (e.g., cathode and anode components) are not readily mobilized by water and would remain within the enclosure or on the impermeable surface.³⁶²
322. Fire suppression water represents a more credible liquid release scenario than electrolyte itself. Water used during an emergency response could entrain combustion byproducts, particulate matter, or trace metals. Site design features, including two stormwater detention basins, are intended to manage runoff and prevent uncontrolled discharge to soil.³⁶³
323. Emergency response procedures typically include isolation, containment, and proper disposal of firefighting runoff where practicable. In Minnesota, any significant release would be managed in coordination with local fire departments and in compliance with MPCA spill reporting and remediation requirements. Spill prevention and emergency response plans will also be implemented to address both routine operations and rare emergency events. Any release with the potential to impact soil or groundwater would be promptly reported and remediated in accordance with MPCA and MDH requirements.³⁶⁴
324. While a thermal runaway event represents a credible worst-case safety scenario, it is unlikely to result in adverse groundwater impacts. Liquid releases associated with thermal runaway are limited in volume, infrequent, and secondary to gas release and heat generation. Multiple engineered barriers, impermeable foundations, and emergency response measures substantially reduce the potential for contaminants to reach groundwater. Therefore, even under thermal runaway conditions, the risk to groundwater quality is expected to be low and localized, with no long-term impacts anticipated.³⁶⁵
325. Section 5.12 of DSP, as revised by Midwater, imposes a special condition requiring Midwater to prepare and file a SGMP. The SGMP must be designed to detect, evaluate, and respond to any potential impacts to surface water or groundwater resulting from construction, operation, or emergency events at the facility. The SGMP must be prepared in coordination with the Minnesota Pollution Control Agency (groundwater) and the SRRWD (surface water). The SGMP would identify groundwater monitoring locations, stormwater basin sampling points, sampling parameters, methods, and frequencies needed

³⁶⁰ Ex. EIP-34 at § 4.7.4(EA).

³⁶¹ Ex. EIP-34 at § 4.7.4 (EA).

³⁶² Ex. EIP-34 at § 4.7.4 (EA).

³⁶³ Ex. EIP-34 at § 4.7.4 (EA).

³⁶⁴ Ex. EIP-34 at § 4.7.4 (EA).

³⁶⁵ Ex. EIP-34 at § 4.7.4 (EA).

to detect potential impacts. Pollutant concentration action levels would be established in coordination with the SRRWD.³⁶⁶

5. Wetlands

326. Midwater conducted a desktop review of historical aerial photography to identify wetlands and watercourses within the Project Area in accordance with Minnesota Board of Water and Soil Resources and U.S. Army Corps of Engineers (USACE), following guidance for off-site wetland determinations.³⁶⁷
327. Desktop mapping identified 26 wetlands within the Project Area based on National Wetlands Inventory (NWI) data. Wetland delineation field investigations were conducted within the Project Area on April 29 and 30, 2024. Field delineations identified seven wetlands and one pond totaling approximately 28.48 acres. Most of the delineated features were classified as freshwater emergent or riverine wetlands.³⁶⁸
328. Three potential wetland areas identified during the desktop review were determined in the field to lack one or more of the three required wetland parameters and therefore were not classified as wetlands. Field delineation results also confirmed the presence and extent of NWI-mapped wetlands identified during the initial desktop assessment within the Project Area.³⁶⁹
329. Several NWI and field-delineated wetlands are present within the proposed BESS Development Area; however, BESS construction is not expected to result in direct or unavoidable wetland impacts. No wetland impacts subject to DNR, USFWS, USACE, or local permitting are anticipated, and no loss of Wetland Conservation Act (WCA) regulated wetlands is expected. The BESS has been designed to avoid alterations to wetland boundaries, hydrology, or functions.³⁷⁰
330. The HVTL is designed to avoid and minimize impacts to water resources to the extent practicable. All pole structures are sited outside delineated wetlands, though a small portion of the line will cross the edge of one wetland. Construction may cause temporary, minor, and reversible wetland impacts, which will be minimized through BMPs, including erosion and sediment controls, with all temporarily disturbed areas restored. Any permanent impacts exceeding de minimis thresholds will be mitigated in accordance with state and federal requirements.³⁷¹
331. Project wetland impacts that result from typical, atypical, or accidental scenarios are similar to those experienced by surface waters discussed previously. No additional actions

³⁶⁶ Ex. App.-21 at 28-29 (Direct Testimony of Mary Matze).

³⁶⁷ Ex. EIP-34 at § 4.7.5(EA).

³⁶⁸ Ex. EIP-34 at § 4.7.5 (EA).

³⁶⁹ Ex. EIP-34 at § 4.7.5 (EA).

³⁷⁰ Ex. EIP-34 at § 4.7.5 (EA).

³⁷¹ Ex. EIP-34 at § 4.7.5 (EA).

beyond those discussed in the Surface Water and Floodplain section above are required to address project wetland impacts.³⁷²

332. The Project has been sited to avoid delineated wetlands. BMPs identified in the SWWP will minimize potential for sediment to reach offsite wetlands during construction. Additionally, Section 4.3.13 for the DSP generally prohibits placement of the BESS or associated facilities in public waters and public waters wetlands. The permit condition does allow for electric collector or feeder lines to cross or be placed in public waters or public waters wetlands subject to permits and approvals by the DNR and the United States Army Corps of Engineers, and local units of government as implementers of the WCA.³⁷³

6. *Vegetation*

333. Present-day land use in the subsection is dominated by agriculture, with increasing urban development in the northern portion. Agricultural lands include cultivated cropland and hay/pasture, with corn, soybeans, and harvested vegetables representing the primary crops in Freeborn County.³⁷⁴
334. Facility construction will eliminate vegetative cover and create impermeable surfaces with the access road and the developed area of the facility. Midwater estimates that approximately 17.7 acres will be converted from CRP land for the life of the facility. Removal of vegetative cover exposes soils and could result in soil erosion. Temporary or permanent removal of vegetation also has the potential to affect wildlife habitat.³⁷⁵
335. Construction activities could introduce or spread invasive species and noxious weeds and the early phases of site restoration and seeding of native species can result in populations of non-native and invasive species on site.³⁷⁶
336. Following construction, Midwater plans to establish native vegetation over the remainder of the site outside the fenced area using native prairie seed mixes that include both native grasses and wildflowers will be used at the facility. Once established, vegetation would be maintained using best practice guidance for establishing and maintaining the re-vegetated areas.³⁷⁷
337. Several DSP sections address vegetation impacts, including: Section 4.3.8 (minimizing tree removal), Section 4.3.17 (requiring BMPs to prevent invasive species and an Invasive Species Management Plan before construction), Section 4.3.18 (requiring reasonable precautions to prevent spreading noxious weeds during construction), Section 5.11 (requiring a VMP for revegetation and monitoring with appropriate seeding and timing);

³⁷² Ex. EIP-34 at § 4.7.5(EA).

³⁷³ Ex. EIP-34 at § 4.7.5 (EA).

³⁷⁴ Ex. EIP-34 at § 4.7.6 (EA).

³⁷⁵ Ex. EIP-34 at § 4.7.6 (EA).

³⁷⁶ Ex. EIP-34 at § 4.7.6 (EA).

³⁷⁷ Ex. EIP-34 at § 4.7.6 (EA).

and Section 5.13 (requiring a tree-replacement plan developed with the DNR and Freeborn County).³⁷⁸

7. *Wildlife Habitat*

338. Smooth brome and Kentucky bluegrass are the predominant vegetation types within the Project Area. These grasses represent temporary or managed cover types that provide limited seasonal habitat value and support a relatively small assemblage of generalist wildlife species.³⁷⁹
339. Mammals expected to utilize the Project Area include common, wide-ranging species such as raccoon, coyote, red fox, gray fox, striped skunk, thirteen-lined ground squirrel, and white-tailed deer.³⁸⁰
340. Avian species associated with agricultural settings may also be present, including American crow, eastern bluebird, mourning dove, ring-necked pheasant, wild turkey, various small passerine species, and common raptors such as red-tailed hawks. Following crop harvest, agricultural fields may provide short-term foraging opportunities for common waterfowl, including Canada goose and mallard.³⁸¹
341. A site reconnaissance conducted by Midwater in spring of 2024 evaluated available habitat within the Project Area and vicinity for threatened and endangered species identified in the IPaC and DNR Conservation Explorer tools. The reconnaissance identified minimally suitable nesting habitat for the listed avian species within the Project Area. Forested habitats are minimal, reducing suitability for tree-dependent migratory birds such as bald eagle and red-headed woodpecker.³⁸²
342. The Project will involve minimal or no tree clearing, and existing nesting habitat within shelterbelts and field edges will remain intact. Although some open water and wetland features are present within the Project Area, wetlands will not be utilized for the BESS or high-voltage transmission line facilities. As a result, wetland- or water-dependent bird species are unlikely to be impacted. Overall, the Project Area provides limited suitable habitat for migratory birds, and few, if any, Birds of Conservation Concern are expected to regularly use the area for nesting, foraging, or roosting. No waterfowl feeding and resting areas, as defined by the DNR, are located within one mile of the Project Area.³⁸³
343. The DSP includes several measures to reduce wildlife impacts. Section 4.3.23 requires restoration practices that support native vegetation and habitat for birds and pollinators. Section 8.13 requires quarterly reporting of any wildlife injuries or fatalities. Section 5.14 requires wildlife-friendly erosion control. Additional mitigation measures include checking open trenches and removing trapped wildlife before backfilling, and restricting

³⁷⁸ Ex. EIP-34 at § 4.7.6 (EA).

³⁷⁹ Ex. EIP-34 at § 4.7.7 (EA).

³⁸⁰ Ex. EIP-34 at § 4.7.7 (EA).

³⁸¹ Ex. EIP-34 at § 4.7.7 (EA).

³⁸² Ex. EIP-34 at § 4.7.7 (EA).

³⁸³ Ex. EIP-34 at § 4.7.7 (EA).

mowing from April 15 to August 15 once vegetation is established to support ground-nesting habitat.³⁸⁴

8. *Climate Change*

344. Climate change refers to any significant change in measures of climate lasting for an extended period. Greenhouse gases (GHG) are gaseous emissions that trap heat in the atmosphere and contribute to climate change. These emissions occur from natural processes and human activities. The most common GHGs emitted from human activities include carbon dioxide, methane, and nitrous oxide.³⁸⁵
345. Project construction will result in short-term GHG emissions from the use of diesel- and gasoline powered construction equipment and vehicles. Midwater prepared estimates of construction- and operations-related emissions based on comparable projects in Minnesota and experience developing BESS projects nationwide.³⁸⁶ Specifically, Midwater's GHG emission analysis estimates that the Project will result in 775.6 tons of CO₂ emitted as a result of construction activities and 5.6 tons resulting from operations during the life of the Project.³⁸⁷
346. Historical data for Freeborn County indicate that average annual temperatures and precipitation have increased over time, and climate models further project continued warming and increases in precipitation through mid-century. These projections are relevant given the Project's anticipated 30-year operational life.³⁸⁸
347. Midwater indicates that it will select enclosures and design foundations to withstand the current and anticipated temperature fluctuations and will install a temperature modulation system such as liquid and/or air cooling or natural convection in the enclosures to regulate heat and optimize battery performance. The BESS enclosures selected for the Project are designed to withstand wind, flood, blizzard, and hail events. Final design will include a safety factor for snow and wind loads for components and equipment pads.³⁸⁹
348. Flood risk was evaluated using third-party flood modeling tools and preliminary hydraulic modeling conducted as part of the Project's engineering design. These analyses indicate a low risk of flooding within the Project Area.³⁹⁰
349. The preliminary site plan includes two stormwater drainage basins to reduce stormwater runoff from the site. Final site design will ensure the site will meet state and county requirements for reducing runoff and treating stormwater. Final site design may employ swales and berms to prevent flooding and route water to stormwater basins.³⁹¹

³⁸⁴ Ex. EIP-34 at § 4.7.7 (EA).

³⁸⁵ Ex. EIP-34 at § 4.7.7 (EA).

³⁸⁶ Ex. EIP-34 at § 4.7.7 (EA).

³⁸⁷ Ex. App.-11 (Application, Appendix H).

³⁸⁸ Ex. EIP-34 at § 4.7.7 (EA).

³⁸⁹ Ex. EIP-34 at § 4.7.7 (EA).

³⁹⁰ Ex. EIP-34 at § 4.7.7 (EA).

³⁹¹ Ex. EIP-34 at § 4.7.7 (EA).

350. By increasing the efficiency and reliability of renewable energy utilization, the Project supports Minnesota’s climate goals, reduces reliance on higher-emission generation resources, and minimizes the need for additional transmission infrastructure.³⁹²
351. Emission related mitigations, outlined in the discussion on Air Quality above, will reduce emissions during construction. Strategies to reduce emissions include keeping vehicles in good working order, which will reduce the amount GHG emissions from diesel or gasoline.³⁹³

E. Rare and Unique Natural Resources

352. Minnesota Rules Section 7850.4100(F) requires that the Commission consider the effects of the Project on rare and unique natural resources.
353. The USFWS Information for Planning and Consultation (IPaC) portal was reviewed to identify federally listed threatened and endangered species, candidate species, and designated critical habitat that may occur within or near the Project Area.³⁹⁴
354. The IPaC review identified one federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), and one federally proposed endangered species, the tricolored bat (*Perimyotis subflavus*), as having potential to occur in the Project vicinity. Suitable habitat for both bat species generally consists of forested areas in proximity to water sources. According to the DNR and the USFWS, no known northern long-eared bat or tricolored bat maternity roost trees or hibernacula are documented in Freeborn County; however, these species may still occur within or near the Project Area.³⁹⁵
355. Habitat suitability for tree-dependent species, including bald eagle, is minimal, and few migratory bird species that rely on forested areas are expected to occur within the Project Area; however, a bald eagle has been observed within the Project Area.³⁹⁶
356. The DNR reports two bald eagle nests near the Project Area, and many public comments note their presence. No impacts to federally listed species are expected during construction or operation. The northern long-eared bat Rangewide Determination Key was completed through USFWS IPaC, and no further consultation is required unless the Project changes. Impacts to bald eagles are not anticipated from the Project as there is no suitable nesting habitat within the Project site.³⁹⁷ Construction activity may temporarily disturb bald eagles, but such effects are short-term. The USFWS National Bald Eagle Management Guidelines outline measures to avoid disturbance and determine when an incidental take permit is needed.³⁹⁸

³⁹² Ex. EIP-34 at § 4.7.7(EA).

³⁹³ Ex. EIP-34 at § 4.7.7 (EA).

³⁹⁴ Ex. EIP-34 at § 4.7.8 (EA).

³⁹⁵ Ex. EIP-34 at § 4.7.8 (EA).

³⁹⁶ Ex. EIP-34 at § 4.7.8 (EA).

³⁹⁷ Ex. App.-2 at 132 (Application).

³⁹⁸ Ex. EIP-34 at § 4.7.8 (EA).

357. The DNR Natural Heritage Review Team identified two state-listed species within portions of the Project Areas, the edible valerian a state-listed threatened plant species, and the suckermouth minnow, a state-listed species of special concern.³⁹⁹
358. The DNR's formal response to the Natural Heritage Information System request did not identify edible valerian or suckermouth minnow in the vicinity of the Project Area. Due to the absence of suitable habitat, as well as the design of the Project to avoid potentially suitable habitat, no impacts or mitigation measures are anticipated for these species.⁴⁰⁰
359. One area of new construction is proposed within a highway ROW for site access; this area can be evaluated for the presence of edible valerian prior to construction, if necessary.⁴⁰¹
360. Erosion and sediment control measures outlined in the SWPPP will also reduce any potential impacts to the suckermouth minnow.⁴⁰²
361. No native prairie occurs within the Project Area that would restrict development. Accordingly, no impacts are anticipated, and no mitigation measures are proposed.⁴⁰³
362. The Minnesota Wildlife Action Plan and associated Wildlife Action Network were also reviewed. The closest mapped Wildlife Action Network area is located approximately 1.8 miles southeast of the Project Area. Aquatic resources within the Project Area are limited and do not overlap with the Proposed BESS for HVTL Development Areas. No large block habitats occur within or adjacent to the Project Area, which is surrounded primarily by agricultural lands and small woodlots.⁴⁰⁴
363. A review of public conservation and recreation lands found none within the Project Area or within a quarter-mile buffer. The Project Area includes approximately 104.4 acres of privately owned land, with approximately 53.4 acres currently or formerly enrolled in the CRP. One county conservation easement and the Shell Rock State Wildlife Management Area are located within a quarter-mile of the Project Area, but no direct impacts are anticipated.⁴⁰⁵
364. The Project has been sited and designed to avoid high-value biological resources. With implementation of recommended avoidance measures and BMPs, no significant impacts to rare species, native plant communities, or other sensitive ecological resources are anticipated.⁴⁰⁶
365. Two NHD watercourses, three NHD waterbodies, and one DNR PWI feature occur within the Project Area but will be avoided by project infrastructure. Best management practices

³⁹⁹ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁰ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰¹ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰² Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰³ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁴ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁵ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁶ Ex. EIP-34 at § 4.7.8(EA).

along with implementation of the SWPPP, will be used to prevent or minimize indirect impacts to surrounding natural resources during construction and operation.⁴⁰⁷

366. Other high-value ecological resources in the vicinity of the Project Area will not be affected as the Project will use setbacks, erosion control measures, and other protective practices. MBS Sites of Biodiversity Significance and DNR Regionally Significant Ecological Areas located southwest of the Project Area will remain unaffected due to project siting, separation by the Shell Rock River, and the implementation of BMPs. Because no native prairie occurs within the Project Area, no impacts are anticipated, and no mitigation measures are proposed.⁴⁰⁸

F. Energy Efficiency

367. Minnesota Rules Section 7850.4100(G) requires the Commission to consider the application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity.
368. The batteries used in the facility will lose the ability to store and deliver energy, through a process sometimes referred to as “derating” or “degradation,” which results in diminished capacity and efficiency, shorter operational life, and a decline in performance over time. To maintain the facility’s capacity and accreditation, BESS facilities anticipate replacing degraded batteries with new batteries periodically over the course of the facility’s operating life. This periodic replacement is referred to as “augmentation.”⁴⁰⁹
369. Midwater indicates the type and frequency of augmentation will depend upon final design. The final design of the Project has accommodated the use of future augmentation units and so the initial build of BESS enclosures will not match that of the Project design. Midwater indicates the Project site will be designed and constructed to accommodate future BESS augmentations within the fenced area in order to maintain the BESS Facility’s rated capacity.⁴¹⁰

G. Use of Existing Boundaries

370. Minnesota Rules Section 7850.4100(H) requires the Commission to consider whether the Project uses or parallels existing ROWs, survey lines, natural division lines, and agricultural field boundaries. This factor applies specifically to routing permit applications.
371. The proposed HVTL is routed parallel to existing electrical line and road ROWs.⁴¹¹

⁴⁰⁷ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁸ Ex. EIP-34 at § 4.7.8 (EA).

⁴⁰⁹ Ex. EIP-34 at § 2.1.5 (EA).

⁴¹⁰ Ex. EIP-34 at § 2.1.5 (EA) & Ex. App.-2 at § 5.1.1.1 (Application).

⁴¹¹ Exs. EIP-34 § 1.2, & Figure 1 (EA); App.-3 at Figure 2 (Application- Figures).

H. Use of Existing Generating Sites

372. Minnesota Rules Section 7850.4100(I) requires the Commission to consider whether the Project uses existing large electric power generating plant sites. The Project does not use existing large electric power generating plant sites, so this factor does not apply.

I. Use of Existing Electrical Transmission Systems

373. Minnesota Rules Section 7850.4100(H) requires the Commission to consider whether the Project uses existing transportation, pipeline, and electrical transmission systems or ROWs.

374. The BESS will connect to the grid via the existing ITC Midwest Glenworth Substation.⁴¹²

J. Electrical System Reliability

375. Minnesota Rules Section 7850.4100(K) requires the Commission to consider impacts of the Project on electrical system reliability.

376. The BESS is expected to enhance grid resilience during extreme weather events by providing stored energy when generation or transmission systems are disrupted. BESS facilities have demonstrated this capability during recent extreme weather events in other regions of the United States.⁴¹³

K. Costs of constructing, operating, and maintaining the facility

377. Minnesota Rules Section 7850.4100(L) requires the Commission to consider the cost of constructing, operating, and maintain the facility which are dependent on design and route.

378. Midwater estimates that Planning and State Permitting, Acquisition and “Downstream” Permits for the BESS and HVTL Facility combined will cost approximately \$8,200,000.⁴¹⁴

379. Midwater estimates that BESS Facility, design, procurement, and construction of the BESS Facility will cost approximately \$202,300,000.⁴¹⁵

380. Midwater estimates that BESS Facility operation and decommissioning will cost approximately \$246,000,000 and \$1,215,643, respectively.⁴¹⁶

381. Midwater estimates that design, procurement and construction of the HVTL Facility will cost approximately \$625,000, while operation and decommissioning of the same will cost \$60,000 and \$127,184, respectively.⁴¹⁷

⁴¹² Exs. EIP-34 at § 2.1.2 (EA) & App.-2 at § 5.1.1.1 (Application).

⁴¹³ Ex. EIP-34 at § 4.8 (EA).

⁴¹⁴ Ex. EIP-34 , Appendix D at 1 (EA, Appendix D).

⁴¹⁵ Ex. EIP-34 , Appendix D at 1 (EA, Appendix D).

⁴¹⁶ Ex. EIP-34 , Appendix D at 1 (EA, Appendix D).

⁴¹⁷ Ex. EIP-34 , Appendix D at 1 (EA, Appendix D).

L. Unavoidable Impacts

382. Minnesota Rules Section 7850.4100(M) requires the Commission consider unavoidable adverse human and natural environmental effects.
383. Even with mitigation strategies, certain environmental effects can only partially be mitigated, or, in some cases, not at all. In these situations, the resulting impacts cannot be avoided.⁴¹⁸
384. Unavoidable adverse effects associated with construction of the Project (in some instances a specific phase of construction) would last through construction and include: fugitive dust, noise disturbance to nearby residents and recreationalists, visual disturbance to nearby residents and recreationalists, soil compaction and erosion, vegetative clearing, disturbance and temporary displacement of wildlife, as well as direct impacts to wildlife, inadvertently struck or crushed, minor amounts of marginal habitat loss, possible traffic delays.⁴¹⁹
385. Unavoidable adverse impacts associated with the operation would last as long as the life of the Project, and include: visual impacts of the Project, loss of land for agricultural purposes, injury or death of birds and mammals from fencing.⁴²⁰

M. Irreversible and Irrecoverable Commitments of Resources.

386. Minnesota Rules Section 7850.4100(N) requires the Commission to consider irreversible and irretrievable commitments of resources.
387. Resource commitments are irreversible when it is impossible or very difficult to redirect that resource to a different future use. An irretrievable commitment of resources means the resource is not recoverable for later use by future generations.⁴²¹
388. Irreversible and irretrievable resource commitments are primarily related to project construction, including the use of water, aggregate, hydrocarbons, steel, concrete, wood, and other consumable resources. Some commitments, like fossil fuel use, are irretrievable. Some resource commitments, such as water use, are irreversible. Others may be partially recyclable, for example, the raw materials used to construct batteries and enclosures would be an irretrievable commitment of resources, excluding those materials that may be recycled at the end of useful life. The commitment of labor and fiscal resources to develop, construct, and operate the Project is considered irretrievable.⁴²²

III. Site Permit Conditions

389. The Commission's Energy Storage System Sample Site Permit and Sample Route Permit include a number of proposed permit conditions, many of which have been discussed

⁴¹⁸ Ex. EIP-34 at § 4.8(EA).

⁴¹⁹ Ex. EIP-34 at § 4.8 (EA).

⁴²⁰ Ex. EIP-34 at § 4.8 (EA).

⁴²¹ Ex. EIP-34 at § 4.9 (EA).

⁴²² Ex. EIP-34 at § 4.9 (EA).

above. The conditions apply to site preparation, construction, cleanup, restoration, operation, maintenance, decommissioning, and other aspects of the Project.⁴²³

390. The EA, DSP and DRP prepared by PUC-EIP include various recommendations and potential site and route permit conditions specific to the BESS and the HVTL.⁴²⁴ Midwater responded to PUC-EIPs recommendations and proposed permit conditions in the Direct Testimony of Mary Matze,⁴²⁵ as well as in its written response to public comments.⁴²⁶
391. With the above-referenced response to the DSP and DRP, the record in this matter supports the inclusion of the conditions identified in Midwater’s direct testimony and written response to public hearing comments, as detailed in the paragraphs that follow.
392. Midwater proposed that Section 5.2 of the DSP be amended to only require a vegetative screening buffer between the BESS fence and US highway 65 where visual mitigation would be necessary for visual screening.⁴²⁷ The language is as follows:

5.2 Tiered Vegetative Buffer

The Permittee shall include a vegetative landscape buffer ~~surrounding~~ **between** the security fence of the BESS **and US Highway 65 to mitigate visual impacts to occupants of cars travelling on US Highway 65**. The vegetative buffer shall consist of three (3) distinct rows of plantings designed to provide year-round screening. The Permittee shall coordinate with the Freeborn County Office of Environmental Services to complete the following:

- Determine that plant species are compatible, native or locally appropriate species;
- Planting layout details; and,
- Vegetative buffer maintenance plan details.

Additionally, the Permittee shall ensure that the vegetative buffer is consistent with ITC Midwest standards for transmission line clearances.

393. Midwater proposed replacing DSP Sections 5.6 and 5.7⁴²⁸ with a modified emergency response plan provision consistent with other permit conditions adopted by the Commission.⁴²⁹ Midwater also proposed the deletion of DSP 5.9 and committed to coordinating with local emergency responders to identify and provide a solution for adequate water availability pursuant to a revised DSP 8.11.⁴³⁰ PUC-EIP supported the

⁴²³ Ex. EIP-34, Appendix C (EA, Appendix C – Draft Site and Route Permits).

⁴²⁴ Ex. EIP-34, Appendix C (EA, Appendix C – Draft Site and Route Permits).

⁴²⁵ Ex. App.-21 (Direct Testimony of Mary Matze).

⁴²⁶ Response to Public Comments (Mar. 25, 2026) (eDockets No. *TBD*).

⁴²⁷ Ex. App.-21 at 12 (Direct Testimony of Mary Matze).

⁴²⁸ Ex. App.-21 at 13 (Direct Testimony of Mary Matze).

⁴²⁹ Ex. App.-21 at 10-11 (Direct Testimony of Mary Matze); Response to Public Comments at 9-10 (Mar. 25, 2026) (eDockets No. *TBD*).

⁴³⁰ Ex. App.-21 at 10-11 (Direct Testimony of Mary Matze).

deletions of Sections 5.6, 5.7 and 5.9 and the addition of permit language requiring the emergency response plan to identify equipment gaps for responding to emergencies, acquiring the equipment and providing training for the specialized equipment at Midwater's expense.⁴³¹ Midwater continued to coordinate and determined it is more appropriate to incorporate its proposed emergency language (shown in [red](#)) provided in direct testimony⁴³² and the requests of local emergency responders (shown in [blue](#)) into DSP condition 8.11.⁴³³

8.11 Emergency Response Plan

The Permittee shall prepare an Emergency Response Plan (ERP) in consultation with the emergency responders having jurisdiction over the Project prior to construction. The plan developed shall have a process for (1) identifying any specialized equipment gaps, such as hose nozzles and emergency event gas monitoring equipment, for responding to emergencies at the BESS; (2) acquiring the equipment at permittee's expense; and (3) providing any training for the specialized equipment at the Permittee's expense. The plan shall also indicate that the annual training of emergency service personnel with site operators must be done at the Permittee's expense. The Permittee shall file the ERP, along with any comments from emergency responders to the Commission at least 14 days prior to the pre-construction meeting and a revised ERP, if any, at least 14 days prior to the pre-operation meeting. At least 14 days prior to the pre-operation meeting the Permittee shall file with the Commission an affidavit of the distribution of the ERP to emergency responders and Public Safety Answering Points (PSAP) with jurisdiction over the Project. The Permittee shall obtain and register the Project address or other location indicators acceptable to the emergency responders and PSAP having jurisdiction over the Project.

394. Midwater proposed to removal of DSP Section 5.11 to align the DSP with Minnesota Department of Agriculture comments and recommendations and the site permit issued by the Commission for another standalone BESS project in Olmsted County, Minnesota. The Minnesota Department of Agriculture agreed that DSP Section 5.11 is not necessary in the DSP.⁴³⁴

395. Midwater proposed revisions to the sampling and reporting schedule for emergency responding in DSP Section 5.12.⁴³⁵ PUC-EIP supported Midwaters proposed changes to DSP Section 5.12. Midwater's proposed revisions to DSP Section 5.12 are:

5.12 Surface and Groundwater Monitoring

⁴³¹ PUC-EIP Comments (Mar. 16, 2026) (eDockets No. [20263-229297-01](#)).

⁴³² Ex. App.-21 at 10-11 (Direct Testimony of Mary Matze).

⁴³³ Response to Public Comments at 9-10 (Mar. 25, 2026) (eDockets No. *TBD*).

⁴³⁴ MDA Comment (Mar. 24, 2025) (eDockets No. [20263-229598-01](#)).

⁴³⁵ Ex. App.-21 at 13 (Direct Testimony of Mary Matze).

At least 14 days prior to the pre-construction meeting, the Permittee shall file a SGMP. The SGMP shall be designed to detect, evaluate, and respond to any potential impacts to surface water or groundwater resulting from construction, operation, or emergency events at the facility. The SGMP must be prepared in coordination with the Minnesota Pollution Control Agency and the Shell Rock River Watershed District. The SGMP must identify groundwater monitoring locations, stormwater basin sampling points, sampling parameters, methods, and frequencies needed to detect potential impacts. Pollutant concentration action levels must be established in coordination with the SRRWD. The SGMP must include procedures for baseline, routine, and event-based monitoring, as well as defined response actions if action levels are exceeded. Monitoring results must be reported annually to the SRRWD and the Commission; ~~results must be reported~~ **samples must be collected after within 24 hours upon** an emergency event at the BESS facility **in accordance with the plan. The Permittee shall, within thirty days of the emergency event, file 16 the results of samples collected after an emergency event with the report required under Section 8.12 of this permit.** The plan may be modified as needed based on monitoring results, site conditions, or regulatory requirements.

396. Midwater proposed the revision of DSP Section 5.13 to allow tree replacement to occur as part of the required Visual Screening Plan. Midwater's proposed revisions are:

5.13 Tree Replacement Plan

In the event that tree removal is required for construction and operation of the BESS, the permittee, in coordination with the MDNR and Freeborn County, will develop a tree replacement plan to replace any trees that are removed for the construction of the project and file the plan with the Commission at least 14 days before the preconstruction meeting. Replacement trees may be planted on public lands with the permission of the public entity/owner. Replacement trees can be planted **as part of the required Visual Screening Plan or may be planted** on public lands with the permission of the public entity/owner.

397. Midwater proposed the revision of DSP Section 8.3 to require the submission of the site plan to Freeborn County, Shell Rock Township and local emergency responders serving the area in which the Project will be located. Midwater proposed the following revisions.

8.3 Site Plan

At least 14 days prior to the pre-construction meeting, the Permittee shall file with the Commission, and provide the ~~counties~~ **county, township and local emergency responders serving the area** where the Project will be constructed with a Site Plan that includes specifications and drawings for site preparation and grading; specifications and locations of the energy storage system and associated facilities; and procedures for cleanup and restoration. The documentation shall include maps depicting the Designated Site, energy storage system, and associated facilities layout in relation to that approved by this site permit.

398. DNR requested DSP special condition 5.17 be revised to: *The Permittee shall utilize non-chloride products for onsite dust control during construction.*⁴³⁶ MDNR also requested the addition of this language as a special condition in the DRP. Midwater is amenable to the revision of 5.17 and the addition of this language as a special condition in the DRP.⁴³⁷
399. DNR proposed the addition of a special condition to both the DSP and DRP requiring compliance with Minnesota’s Endangered Species Statute and associated rules, with recordkeeping requirements. MDNR proposed the following permit condition, which was supported by Midwater:
- The Permittee will comply with applicable Minnesota Department of Natural Resources requirements related to state-listed endangered and threatened species in accordance with Minnesota’s Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134). The Permittee shall keep records of compliance with this section and provide them upon the request of EIP staff.
400. DNR also requested DSP conditions 5.11 and 5.14 also be incorporated into the DRP.⁴³⁸ Midwater supports the DNR’s request.⁴³⁹

IV. Notice

401. Minnesota statutes and rules require Applicant to provide certain notice to the public and local governments before and during the Application process.⁴⁴⁰
402. Applicant provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.⁴⁴¹
403. Minnesota statutes and rules also require the Commission and PUC-EIP to provide certain notice to the public throughout the Site and Route Permit processes.⁴⁴²
404. The Commission and PUC-EIP provided the notice in satisfaction of Minnesota statutes and rules.⁴⁴³

⁴³⁶ DNR Comment Letter (Mar. 16, 2026) (eDockets No. [20263-229344-01](#)).

⁴³⁷ Response to Public Comments at 12 (Mar. 25, 2026) (eDockets No. *TBD*).

⁴³⁸ DNR Comment Letter (Mar. 16, 2026) (eDockets No. [20263-229344-01](#)).

⁴³⁹ Response to Public Comments at 12 (Mar. 25, 2026) (eDockets No. *TBD*).

⁴⁴⁰ Minn. Stat. § 216E.03, subds. 3a, 4; Minn. R. 7850.2100, subps. 2, 4.

⁴⁴¹ Exs. App.-1 (Notice of Intent to Submit Joint Site and Route Permit Application under Alternative Process); App.-15 (Notice of Application).

⁴⁴² Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.3700, subps. 2, 3, and 6.

⁴⁴³ Exs. PUC-3 (Notice of Public Information and EA Scoping Meetings); PUC-18 (Notice of Public Hearings and Availability of EA); EQB Monitor Notice – Scoping Meetings (Mar. 24, 2026) (eDockets No. [20263-229596-01](#)) EQB Monitor Notice – Additional Scoping Meeting (Mar. 24, 2026) (eDockets No. [20263-229596-02](#)) EQB Monitor Notice – Public Hearings (Mar. 24, 2026) (eDockets No. [20263-229596-03](#))

V. Environmental Review

405. The EA process is the alternative environmental review approved for energy storage systems and high voltage transmission lines. The Commission is required to determine the completeness of the EA. An EA is complete if it and the record address the issues and alternatives identified in the Scoping Decision.⁴⁴⁴
406. The evidence in the record demonstrates that the EA is adequate because the EA and the record created at the public hearing and during the subsequent comment period address the issues and alternatives raised in the Scoping Decision.
407. Any of the foregoing Findings more properly designated Conclusions of Law are hereby adopted as such.

Based on the foregoing Findings of Fact and the record in this proceeding, the Administrative Law Judge recommends that the Commission make the following:

CONCLUSIONS OF LAW

1. Any of the foregoing findings of fact more properly designated as conclusions of law are hereby adopted as such. Any of the conclusions of law which are more properly designated findings of fact are hereby adopted as such.
2. The Commission has jurisdiction over the Applications pursuant to Minn. Stat. § 216B.243.
3. Midwater, PUC-EIP, and the Commission provided all required notices for the Site Permits proceedings.
4. The Commission has the authority under Minn. Stat. § 216E.03 to place conditions on Site Permits.
5. The DRP and DSP, with the revised permit conditions as set forth above, contains a number of important mitigation measures, other reasonable conditions, and sample special conditions, permissible under Minn. R. 7850.4000 and related laws.
6. The record in this proceeding demonstrates that Midwater has satisfied the criteria for the issuance of a Site Permit for a BESS Facility and a Route Permit for the HVTL, as set forth in Minn. Stat. § 216E.03 and Minn. R. 7850.4000 and all other applicable legal requirements.
7. The Project does not present the potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act or the Minnesota Environmental Policy Act.

⁴⁴⁴ Minn. R. 4410.4400, subp. 6; Minn. R. 7850.3900, subp. 2.

Based on the findings of fact and conclusions of law contained herein and the entire record of this proceeding, the Administrative Law Judge hereby makes the following

RECOMMENDATIONS

1. The Commission should grant Midwater BESS, LLC a site permit for the BESS Facility because required legal criteria have been met.

2. The Commission should grant Midwater BESS, LLC a route permit for the HVTL because required legal criteria have been met.

3. The conditions in the Draft Site and Route Permits, as amended and addressed herein, should be incorporated into the final site and route permits.

Dated on _____

Judge Megan McKenzie

NOTICE REGARDING EXCEPTIONS

Notice is hereby given that exceptions to this Report, if any, by any party adversely affected must be filed under the time frames established in the Scheduling Order of December 24, 2025, unless otherwise directed by the Commission. Exceptions should be specific and stated and numbered separately. Oral argument before a majority of the Commission will be permitted pursuant to Minn. R. 7829.2700, subp. 3. The Commission will make the final determination of the matter after the expiration of the period for filing exceptions, or after oral argument, if an oral argument is held.

The Commission may, at its own discretion, accept, modify, or reject the Administrative Law Judge's recommendations. The recommendations of the Administrative Law Judge have no legal effect unless expressly adopted by the Commission as its final order

**In the Matter of the Application of Midwater
BESS, LLC for a Site Permit and Route
Permit for the up to 150 MW Midwater
Energy Storage Project and Associated 161 kV
Transmission Line in Freeborn County,
Minnesota**

CERTIFICATE OF SERVICE

**MPUC Docket Nos. IP-7138/ESS-24-294;
TL-24-295
CAH Docket Number: 25-2500-40799**

Breann L. Jurek certifies that on the 25th day of March, 2026, she e-filed on behalf of Midwater BESS, LLC, a true and correct copy of the proposed Findings of Fact, Conclusions of Law, and Recommendations with the Minnesota Public Utilities Commission via eDockets (www.edockets.state.mn.us). Said document was also served as designated on the Official Service Lists on file with the Minnesota Public Utilities Commission and as attached hereto.

Executed on: March 25, 2026

Signed: /s/ Breann L. Jurek

Fredrikson & Byron, P.A.
60 South Sixth Street
Suite 1500
Minneapolis, MN 55402

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
1	Sasha	Bergman	sasha.bergman@state.mn.us		Public Utilities Commission	121 7th Pl E Ste 350 St. Paul MN, 55101 United States	Electronic Service		Yes	24-294Official CC Service List
2	Thomas	Brett	tbrett@fredlaw.com		Fredrikson & Byron, P.A.	60 South Sixth Street, Suite 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-294Official CC Service List
3	Mike	Bull	mike.bull@state.mn.us		Public Utilities Commission	121 7th Place East, Suite 350 St. Paul MN, 55101 United States	Electronic Service		Yes	24-294Official CC Service List
4	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		Yes	24-294Official CC Service List
5	Jeremy	Duehr	jduehr@fredlaw.com		Fredrikson & Byron, P.A.	60 S Sixth St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	24-294Official CC Service List
6	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	24-294Official CC Service List
7	Eric	Hansen	eric.hansen@westwoodps.com		Westwood Professional Services	7699 Anagram Drive Eden Prairie MN, 55344 United States	Electronic Service		No	24-294Official CC Service List
8	Breann	Jurek	bjurek@fredlaw.com		Fredrikson & Byron PA	60 S Sixth St Ste 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-294Official CC Service List
9	Richard	Kolodziejcki	rkolodziejcki@ncsrcc.org		North Central States Regional Council of Carpenters	700 Olive St St. Paul MN, 55130 United States	Electronic Service		No	24-294Official CC Service List
10	Stacy	Kotch Egstad	stacy.kotch@state.mn.us		MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd. St. Paul MN, 55155 United States	Electronic Service		No	24-294Official CC Service List

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
11	Molly	Leisen	mleisen@fredlaw.com	Fredrikson & Byron P.A.		60 South Sixth Street Suite 1500 Minneapolis MN, 55402 United States	Electronic Service		No	24-294Official CC Service List
12	Mary	Matze	mmatze@spearmintenergy.com	Spearmint Energy		2916 N. Miami Ave., Suite 830 Miami FL, 33127 United States	Electronic Service		No	24-294Official CC Service List
13	Megan	McKenzie	megan.mckenzie@state.mn.us		Office of Administrative Hearings	PO Box 64620 St Paul MN, 55164 United States	Electronic Service		Yes	24-294Official CC Service List
14	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	24-294Official CC Service List
15	Peter	Rood	prood@spearmintenergy.com	Spearmint Energy		2916 N. Miami Ave., Suite 830 Miami FL, 33127 United States	Electronic Service		No	24-294Official CC Service List
16	Nathaniel	Runke	nrunke@local49.org			611 28th St. NW Rochester MN, 55901 United States	Electronic Service		No	24-294Official CC Service List
17	Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates		7400 Lyndale Ave S Ste 190 Richfield MN, 55423 United States	Electronic Service		Yes	24-294Official CC Service List

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1	Sasha	Bergman	sasha.bergman@state.mn.us		Public Utilities Commission	121 7th Pl E Ste 350 St. Paul MN, 55101 United States	Electronic Service		Yes	24-295Official CC Service List
2	Tom	Brett	tbrett@fredlaw.com		Fredrikson and Byron, P.A.	60 South 6th St #1500 Minneapolis MN, 55108 United States	Electronic Service		No	24-295Official CC Service List
3	Mike	Bull	mike.bull@state.mn.us		Public Utilities Commission	121 7th Place East, Suite 350 St. Paul MN, 55101 United States	Electronic Service		Yes	24-295Official CC Service List
4	Generic	Commerce Attorneys	commerce.attorneys@ag.state.mn.us		Office of the Attorney General - Department of Commerce	445 Minnesota Street Suite 1400 St. Paul MN, 55101 United States	Electronic Service		Yes	24-295Official CC Service List
5	MP Regulatory	Compliance	mpregulatorycompliance@mnpower.com	Minnesota Power		30 W Superior St. Duluth MN, 55802 United States	Electronic Service		No	24-295Official CC Service List
6	Martin	Donovan	martin.donovan@state.mn.us		Department of Natural Resources	500 Lafayette Road St Paul MN, 55155 United States	Electronic Service		No	24-295Official CC Service List
7	Jeremy	Duehr	jduehr@fredlaw.com		Fredrikson & Byron, P.A.	60 S Sixth St Ste 1500 Minneapolis MN, 55402-4400 United States	Electronic Service		No	24-295Official CC Service List
8	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	24-295Official CC Service List
9	Richard	Kolodziejski	rkolodziejski@ncsrcc.org		North Central States Regional Council of Carpenters	700 Olive St St. Paul MN, 55130 United States	Electronic Service		No	24-295Official CC Service List
10	Stacy	Kotch Egstad	stacy.kotch@state.mn.us		MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd. St. Paul MN, 55155 United States	Electronic Service		No	24-295Official CC Service List
11	Discovery	Manager	discoverymanager@mnpower.com	Minnesota Power		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	24-295Official CC Service List

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12	Mary	Matze	mmatze@spearmintenergy.com	Spearmint Energy		2916 N. Miami Ave., Suite 830 Miami FL, 33127 United States	Electronic Service		No	24-295Official CC Service List
13	Megan	McKenzie	megan.mckenzie@state.mn.us		Office of Administrative Hearings	PO Box 64620 St Paul MN, 55164 United States	Electronic Service		Yes	24-295Official CC Service List
14	Marcus	Raines	mraines@ncsrcc.org	Millwrights Local 548		730 Olive St St. Paul MN, 55130 United States	Electronic Service		No	24-295Official CC Service List
15	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	24-295Official CC Service List
16	Nathaniel	Runke	nrunke@local49.org			611 28th St. NW Rochester MN, 55901 United States	Electronic Service		No	24-295Official CC Service List
17	Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates		7400 Lyndale Ave S Ste 190 Richfield MN, 55423 United States	Electronic Service		Yes	24-295Official CC Service List
18	Claire	Vatalaro	cvatalaro@allete.com	Allete		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	24-295Official CC Service List