

May 27, 2026

## VIA E-FILING

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

**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:

On behalf of Midwater BESS, LLC, enclosed please find the Exceptions to Findings of Fact, Conclusions of Law, and Recommendations, with Attachment A for the above-referenced matters, which has been electronically filed today through [www.edockets.state.mn.us](http://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  
BEFORE THE  
PUBLIC UTILITIES COMMISSION**

Katie Sieben  
Hwikwon Ham  
Audrey C. Partridge  
Joseph K. Sullivan  
John A. Tuma

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

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## **INTRODUCTION & BACKGROUND**

On May 15, 2026, Administrative Law Judge (ALJ) McKenzie issued the Findings of Fact, Conclusions of Law, and Recommendations (Report) in the above captioned matter.<sup>1</sup> The ALJ ultimately recommended that the Minnesota Public Utilities Commission (MPUC or Commission) deny 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 (HTVL) and associated facilities (the HVTL collectively and BESS Facility are collectively referred to as the Project) in Shell Rock Township, Freeborn County, Minnesota.<sup>2</sup>

Applicant respectfully disagrees with the ALJ that the Environmental Assessment (EA) is inadequate and the Application for a site and route permit should be denied. As shown in greater detail below and in the following sections, the EA's analysis and conclusions that the Project's impacts will be minimal and the risk to water resources, including the Shell Rock River, is low are properly and sufficiently supported by evidence in the EA and in the record. Midwater's BESS Facility uses the same technology and is similarly situated near a river as another battery energy storage system project, which was recently approved by the Commission. Midwater should be granted a site and route permit for the Project on the basis of the EA's conclusions and to be consistent with past Commission decisions.

The Report's conclusions regarding the adequacy of the EA and its recommendations to deny the site and route permit rests on multiple errors and must be rejected. The Report primarily takes issue with the adequacy of the EA prepared for the Project, and specifically the EA's analysis of the impacts of a thermal runaway event at the BESS Facility and the potential impacts of such an event to the adjacent Shell Rock River and its watershed, groundwater, and nearby property values. Essentially, the Report erroneously concludes the EA did not adequately assess catastrophic events and the far-reaching downstream impacts of such events. The comments and concerns of catastrophic and far-reaching downstream impacts relied upon by the Report as the basis for its recommendations were primarily based on a different heavy metal-based battery chemistry, nickel manganese cobalt (NMC), that was discussed in the EA together with the more stable battery chemistry, lithium iron phosphate (LFP), that does not contain heavy metals, proposed by Midwater for the Project. Moreover, the standard to determine whether the EA was adequate is whether the EA and the record created at the public hearing address the issues and alternatives identified in the Scoping Decision. Neither watershed impacts nor the feasibility and cost of remediation in the event of a fire or thermal runaway event were specifically listed in the Scoping Decision as issues to be studied in the EA. Regardless, the EA's analyses of Midwater's proposed LFP BESS during normal operations and worst-case accident scenarios show the Project's impacts will be minimal, the risk to water resources, including the Shell Rock River, is low, the LFP batteries do not contain heavy metals, and both the EA and the draft site permit discuss and detail provisions related to detecting contamination and remediating, if necessary, after a thermal runaway event. In short, there is no indication in the EA that the catastrophic events, wide-spread

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<sup>1</sup> Findings of Fact, Conclusions of Law, and Recommendations (Report) (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>2</sup> Report at 5 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

heavy metal contamination, or far-reaching downstream impacts, that serve as the basis for the Report's EA inadequacy arguments, would even occur. The realistic, normal and worst-case scenario impacts will be properly mitigated by the provisions in the draft site permit.

The Report's conclusions and recommendations that the Commission deny the Site and Route Permit is not only unsupported by the EA, it is also inconsistent with a recent Commission decision to approve a site permit for a much larger battery energy storage system adjacent to much larger river system. For example, the Commission recently approved a site permit for the up to 600 MW Sherco South and West Energy Storage Project in the City of Becker, Sherburne County, Minnesota (Sherco BESS).<sup>3</sup> The Sherco BESS proposes using the same LFP battery technology proposed by Midwater for the BESS Facility.<sup>4</sup> Sherco BESS will use the Sungrow PowerTitan 2<sup>5</sup>, the same enclosure system evaluated in the plume study included in the EA.<sup>6</sup> The Sherco BESS is arguably located in a more ecologically sensitive area than the Midwater BESS Facility. That is the Sherco BESS is located within a Wild and Scenic River Overlay District and is adjacent to the Mississippi River, a State Water Trail.<sup>7</sup> The Midwater BESS Facility is not located in a Wild and Scenic Overlay District, but is located near the Shell Rock River, a State Water Trail. Regardless, the Midwater BESS Facility DSP contains site permit conditions, intended to reduce risks to adjacent surface waters and groundwater, that are not included in the Sherco BESS site permit.<sup>8</sup>

The Report also raises perceived deficiencies in the EA's discussion of alternative sites given the Citizen's Advisory Taks Force's discussion of the same<sup>9</sup> and further noted concerns regarding the Applicant's financial ability to fund clean-up and remediation in the event of contamination resulting from the Project.<sup>10</sup> These items were adequately addressed in the EA and in the record for this matter and are further discussed below.

### **STANDARD OF REVIEW**

Pursuant to Minn. R. 7850.3900, subp. 2, the Commission is required to determine whether the EA prepared pursuant to the alternative permitting process is adequate. "An EA is adequate if the EA

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<sup>3</sup> Oral Decision Granting a Site Permit Rendered on May 21, 2026. Written Order Pending. *See, In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for an up to 600 MW Battery Energy Storage System Site Permit for the Sherco South & West Battery Energy Storage Project in Sherburne County, Minnesota*, eDockets E002/ESS-25-319, Briefing Papers.

<sup>4</sup> *See, In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for an up to 600 MW Battery Energy Storage System Site Permit for the Sherco South & West Battery Energy Storage Project in Sherburne County, Minnesota*, eDockets E002/ESS-25-319, Application for a Site Permit at 13.

<sup>5</sup> *See, In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for an up to 600 MW Battery Energy Storage System Site Permit for the Sherco South & West Battery Energy Storage Project in Sherburne County, Minnesota*, eDockets E002/ESS-25-319, Application for a Site Permit at 13.

<sup>6</sup> Ex. EIP-34 at Appendix F – Fire Plume Simulation (EA, Appendix F – Fire Plum Simulation).

<sup>7</sup> *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for an up to 600 MW Battery Energy Storage System Site Permit for the Sherco South & West Battery Energy Storage Project in Sherburne County, Minnesota*, eDockets E002/ESS-25-319, Site Permit Application.

<sup>8</sup> *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for an up to 600 MW Battery Energy Storage System Site Permit for the Sherco South & West Battery Energy Storage Project in Sherburne County, Minnesota*, eDockets E002/ESS-25-319, Briefing Papers.

<sup>9</sup> Report at p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>10</sup> Report at p. 83 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

and the record created at the public hearing address the issues and alternatives identified in the Scoping Decision and includes the items required by Minnesota Rule[...]7850.3700, subp. 4.”<sup>11</sup>

## EXCEPTIONS

The following analysis begins by addressing several overarching and repeated themes in the ALJ Report, and primarily the Report’s conclusions as to the adequacy of the EA’s impact analysis. Next, the following will address specific findings of fact and conclusions of law set forth in the Report. Finally, proposed modifications to the Draft Site and Route Permits are discussed, and those changes recommended by PUC-EIP and supported by both the Applicant and ALJ are summarized.

### **I. Watershed Impacts**

The Report cites to the Court of Appeals decision in *In re Enbridge Energy, Ltd. P’ship*, 930 N.W.2d 12 (Minn. Ct. App. 2019) for the proposition that potential surface water impacts must be evaluated on a watershed level in order for the EA to be adequate; “[t]he impact of a thermal runaway event on the watershed as a whole must be considered for the EA to be adequate.”<sup>12</sup> *Enbridge*, however, is distinguishable from this Project.

The *Enbridge* decision concerns the proposed relocation of Enbridge’s Line 3 pipeline.<sup>13</sup> The decision evaluates the adequacy of an Environmental Impact Statement (EIS) prepared pursuant to the Minnesota Environmental Policy Act (MEPA) analyzing the potential impacts of Line 3.<sup>14</sup> This is relevant because an EIS is subject to substantially different and more stringent analytical requirements than an EA under the alternative process. The *Enbridge* court notes that an EIS must address potentially significant issues raised in the scoping process, provide substantive responses to public comments, and must have been prepared in compliance with MEPA, including the procedural and substantive requirements found at Minn. R. 44100.0200 to 4410.6500.<sup>15</sup> By comparison, an EA need only “address the issues and alternatives identified in the Scoping Decision and include[] the items required by Minnesota Rule[...]7850.3700, subp. 4.”<sup>16</sup>

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<sup>11</sup> *In the Matter of the Application of Xcel Energy & Great River Energy for A Route Permit for the Sw. Twin Cities Chaska Area 115 Kv Transmission Line*, E-002/TL-12-401, 2013 WL 5671349, at \*8 (Minn. P.U.C. Oct. 15, 2013). *Accord. In the Matter of the Application of Regal Solar, LLC for A Certificate of Need for the Up to 100 Mw Regal Solar Project in Benton Cnty., Minnesota in the Matter of the Application of Regal Solar, LLC for A Site Permit for the Up to 100 Mw Regal Solar Project in Benton Cnty., Minnesota*, IP-7003/CN-19-223, 2021 WL 1661683, at \*3 (Minn. P.U.C. Apr. 26, 2021). The record created at the public hearing includes all exhibits included in the Final Exhibit List and accepted into the record by the ALJ at the public hearing. See Master Exhibit List (Apr. 15, 2026) (eDockets No. [20264-230477-01](#)).

<sup>12</sup> Report at p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>13</sup> *In re Enbridge Energy, Ltd. P’ship*, 930 N.W.2d at 17.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.* at 21 (citing MN R. 4410.2800, subp. 4).

<sup>16</sup> *In the Matter of the Application of Xcel Energy & Great River Energy for A Route Permit for the Sw. Twin Cities Chaska Area 115 Kv Transmission Line*, E-002/TL-12-401, 2013 WL 5671349, at \*8 (Minn. P.U.C. Oct. 15, 2013) (modifications added). *Accord. In the Matter of the Application of Regal Solar, LLC for A Certificate of Need for the Up to 100 Mw Regal Solar Project in Benton Cnty., Minnesota in the Matter of the Application of Regal Solar, LLC for A Site Permit for the Up to 100 Mw Regal Solar Project in Benton Cnty., Minnesota*, IP-7003/CN-19-223, 2021 WL 1661683, at \*3 (Minn. P.U.C. Apr. 26, 2021).

Second, the *Enbridge* decision does not hold that an environmental review, EIS or otherwise, must evaluate watershed level impacts whenever surface waters are implicated in order to be adequate. Instead, the EIS in *Enbridge* was inadequate because the EIS completely failed to discuss or analyze potential impacts of an oil spill to Lake Superior and the Lake Superior watershed despite the fact that these impacts were raised numerous times in public comments, and where the scoping decision specifically stated that those impacts would be analyzed in the EIS.<sup>17</sup>

The EIS in *Enbridge* used modeling to assess the potential impacts of a spill at various points along the proposed and alternative routes.<sup>18</sup> According to the EIS, the “spill-modeling sites were chosen to represent a diversity of environmental conditions...*none of the sites are in the Lake Superior watershed.*”<sup>19</sup> The EIS lacked any discussion of those impacts even though “[t]hroughout the environmental-review process, environmental organizations and members of the public raised concerns about the impact of an oil spill on Lake Superior and its watershed...” and notwithstanding the fact that the scoping decision also stated, “[t]he EIS will consider potential impacts to the Lake Superior watershed...”<sup>20</sup> Given that omission, the court held:

[T]he commission acted in a manner arbitrary and capricious because it failed to consider a critical aspect of the analysis, as directed in the [scoping decision], and it acted contrary to the substantial evidence because the record reflects that neither the FEIS, nor the responses to comments, addressed the impact of an oil spill on the Lake Superior watershed....<sup>21</sup>

Unlike the EIS in *Enbridge*, and as described below, the EA does not ignore potential impacts to the Shell Rock River or its watershed. On the contrary, the EA Scoping Decision indicated the EA would study environmental impacts to “Water Resources (surface water, groundwater, wetlands)”.<sup>22</sup> The EA evaluated potential impacts of the Project to surface water, groundwater and wetlands.<sup>23</sup> The EA concluded that surface water impacts are likely to be “short term, of a small size, and localized.”<sup>24</sup> Given the inherently localized impacts, lack of a watershed-wide impact assessment was also reasonable and supported by the record. Finally, and although the Report takes issue with the adequacy of the EA’s analysis as it relates to impacts to the river’s watershed, the *Enbridge* decision does not state that a watershed level of analysis was required as the *Enbridge* EIS simply lacked any analysis of potential spills in the Lake Superior Watershed.

## II. BESS Enclosure Spacing

As mentioned above, the Report criticizes the adequacy of the EA’s analysis of potential impacts to the Shell Rock River and groundwater. At various points its discussion of these resources, the

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<sup>17</sup> *Id.* at 27

<sup>18</sup> *Id.*

<sup>19</sup> *Id.* (emphasis added)

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at 28 (modifications added).

<sup>22</sup> Ex. EIP-33 (Midwater EA Scoping Decision).

<sup>23</sup> Ex. EIP-34 at 82-94 (EA).

<sup>24</sup> Ex. EIP-34 at 991 (EA).

Report maintains that the EA's conclusion that impacts will be acute, localized, and/or short term are not supported by the record.<sup>25</sup>

As an initial matter, and in addition to the impact-specific analysis described later, the EA's general conclusion that impacts will be acute, localized, and/or short term is supported by the evidence in the EA, and the record generally, that the individual BESS enclosures will be spaced, in accordance with manufacturer specifications to meet the design and spacing requirements of UL 9540, UL 9540A, and NFPA 855<sup>26</sup>, in such a way as to dramatically reduce the opportunity for a fire at one enclosure to propagate to another. Specifically, the Plume Analysis attached as Appendix F to the EA modeled the extent of air pollution resulting from a "fully involved BESS cabinet fire" at the BESS Facility.<sup>27</sup> The Plume Analysis states:

The likelihood of more than one container becoming involved in a fire is extremely low. The proposed PT 2.0 BESS installation spacing is specified by the manufacturer and is supported by validated heat transfer modeling. In addition, available [large scale fire test] test data indicate that thermal runaway did not propagate from the initiating container to adjacent target containers at the manufacturer-specified separation distances. *No documented failures in the available BESS fire literature, nor anecdotal case reports, identify a credible mechanism by which thermal runaway would propagate beyond the initiating container under these conditions.* Accordingly, a single, fully involved BESS container is considered to represent the credible worst-case fire scenario for this analysis.<sup>28</sup>

In its March 25, 2025, response to comments received during the EA comment period, the Applicant further noted the critical role of enclosure spacing at the BESS Facility in limiting the scope and extent of a potential thermal event at the Facility.<sup>29</sup> Applicant requested the author of the Plume Study, Fire Risk Alliance (FRA) to confirm and elaborate on the safety mechanisms to prevent the spread of fire from one enclosure to another as evaluated in the EA (*See Attachment A*). In its analysis, FRA cited UL 9540A and NFPA 855 design standards identified and discussed in the EA and reiterated:

"The critical safeguard against fire spread beyond a single enclosure is the UL 9540A large-scale fire test requirement. Under the current standard, a BESS enclosure must demonstrate through full-scale testing that a thermal runaway event does not propagate to adjacent enclosures in order to receive a certified listing. This is not a design guideline or a performance objective. It is a mandatory test that must be passed before a BESS product can be certified and sold for installation. The BESS units specified for the Midwater project are required to hold this listing. In addition, NFPA 855 requires thermal runaway propagation protection systems, combustible concentration reduction systems, and minimum separation distances

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<sup>25</sup> Report at ¶¶ 209, 219, 233, 290 & p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>26</sup> Ex. EIP-34 at 91 (EA).

<sup>27</sup> Ex. EIP-34 at 242 (EA).

<sup>28</sup> Ex. EIP-34 at 271 (EA).

<sup>29</sup> Response to Hearing Comments at 8 (Mar. 25, 2026) (eDockets No. [20263-229642-01](#)).

between enclosures, all of which are specifically structured to prevent enclosure-to-enclosure fire spread even in the absence of fire department response.”

Accordingly, as noted in the EA, any potential impacts resulting from a thermal event – whether aerially deposited pollutants or contaminated runoff – will be limited to that which emanates from a single enclosure and as a result will implicate finite and limited pollutant volumes. Impacts from a thermal runaway event, therefore, will necessarily be acute and localized, rather than chronic and widespread. The EA’s conclusions were based on industry-specific design requirements, modelling of a realistic thermal runaway event scenario and were reasonable.

### III. Aerial Deposition

The Report notes at several points that the EA was required, but failed, to evaluate the potential impacts of aerially deposited soot on the Shell Rock River and watershed.<sup>30</sup>

The EA properly evaluated the potential impacts from soot resulting from a thermal runaway event. As noted above, the EA includes a detailed Plume Analysis investigating the extent and persistence of carbon monoxide, hydrogen fluoride, carbon dioxide plumes, and soot visibility plumes originating from a thermal runaway event at the BESS Facility.<sup>31</sup> The modeling assumed that the BESS enclosure at the location closest to the project boundary would experience a thermal runaway event.<sup>32</sup> The modeling, nonetheless, demonstrated that “that toxic gas concentrations and soot visibility impairments diminish rapidly with distance from the source, and hazardous exposure limits are not sustained at or beyond the site boundary for any modeled scenario.”<sup>33</sup> Moreover, the Plume Analysis determined that no heavy metals or other toxic particulates were identified; therefore, deposition was assumed to consist primarily of carbon-based soot (ash). FRA noted the exclusion of heavy metals from the plume analysis is based on LFP battery chemistry and confirmed by the peer-reviewed experimental data (*See Attachment A*).<sup>34</sup>

The Plume Analysis notes that while a specific atmospheric soot deposition analysis was not conducted, the modeled soot visibility impacts were sufficiently limited to conclude that deposition impacts would be minimal as well:

*Because the modeled soot cloud remained relatively low, localized and short-lived, soot accumulation is expected to be limited primarily to near-field ground contact close to the source, with residual surface soot present only within the immediate*

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<sup>30</sup> Report at ¶¶ 257 and 267 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>31</sup> Ex. EIP-34 at 242 (EA).

<sup>32</sup> Ex. EIP-34 at 242 (EA).

<sup>33</sup> Ex. EIP-34 at 305 (EA).

<sup>34</sup> FRA Memo (Attachment A) at 1. The Midwater BESS installation will use lithium iron phosphate (LFP) cells, in which the cathode electrode is composed of lithium, iron, and phosphate. The cathode is the primary source of metallic particles when a battery cell fails and undergoes thermal runaway. Because the LFP cathode contains no nickel, cobalt, or manganese, it cannot release those metals during a fire event. Additionally, data on the materials released by LFP cells, modules, and units must be gathered to receive a listing in compliance with UL 9540A. General data for LFP cells demonstrates that the main components released as a gas or aerosol include only carbon monoxide, carbon dioxide, hydrogen, and smaller amounts of hydrocarbons.

*impact area. Beyond this region, atmospheric mixing and dispersion are expected to rapidly dilute and dissipate the soot concentration.*<sup>35</sup>

Combined, these portions of the Plume Analysis support the EA's conclusion that deposition impacts beyond the Project boundary are unlikely, let alone to the Shell Rock River or the larger watershed. Moreover, any deposition of materials will be primarily carbon-based, will not contain heavy metals, and therefore are unlikely to cause harm to people or the environment. As a result, watershed-level impact analysis of the soot deposition similarly is unwarranted.<sup>36</sup>

#### **IV. Surface water and runoff Impacts**

At various points, the Report takes issue with the EA's conclusions as to the potential impact of runoff following a thermal runaway event – including stormwater runoff, runoff resulting from firefighting activities, and liquid releases from the batteries and enclosures – on the Shell Rock River, including criticizing the EA's determination that associated contamination impacts would be acute, localized, and/or short term.<sup>37</sup>

Applicant respectfully disagrees that the EA's fails to adequately analyze or address runoff impacts to the Shell Rock River. The EA properly notes that firefighting activities associated with a thermal runaway event may involve using water to cool adjacent equipment and prevent fire spread.<sup>38</sup> The Project's Emergency Response Plan (ERP) will direct firefighters on the proper use of water when responding to an event, which will include cooling adjacent surfaces, but will not include the direct application of water onto a battery experiencing a thermal runaway event. While the EA notes that in an accident scenario, contaminants including "fire suppressant chemistry or chemistry related to electrolytes and coolant" could become entrained in stormwater runoff, it emphasizes that the facility "will include two stormwater detention basins, *sized to accommodate anticipated stormwater volumes, through the Shell Rock River Watershed District basin sizing criteria*, which will be included in the facility NPDES permit and SWPPP."<sup>39</sup> Furthermore, the EA's groundwater analysis, described in more detail below, states that the retention basins are designed to accommodate and manage anticipated firefighting water runoff in addition to stormwater runoff.<sup>40</sup> This analysis is equally applicable to the potential for surface water (Shell Rock River and wetland) impacts resulting from firefighting water runoff. That is to say, the mechanism by which the stormwater basins mitigate harm to either surface or groundwater is the same; the stormwater basins retain all runoff water from the developed portions of the site and prevent uncontrolled discharges to surface or groundwater prior to water quality sampling and remediation to the extent necessary or required under the site permit and applicable law.

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<sup>35</sup> Ex. EIP-34 at 302 (emphasis added) (EA).

<sup>36</sup> Ex. EIP-34 at 94 (EA).

<sup>37</sup> Report at ¶¶ 209, 219, 220, 233-34, 267, 295, 297, 299 & p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>38</sup> Ex. EIP-34 at 90 (EA).

<sup>39</sup> Ex. EIP-34 at 93-94 (emphasis added) (EA).

<sup>40</sup> Ex. EIP-34 at 100. *See also* Section V, *infra* (EA).

Specifically, Section 5.12 of the Draft Site Permit (DSP), requires water quality monitoring of the stormwater retention basins following an emergency event, and also mandates the development of specific pollutant-based action limits prior to stormwater basin discharge.<sup>41</sup>

Here, the EA specifically discusses runoff impacts to adjacent surface waters following a thermal runaway event. The EA further describes stormwater retention basins designed to accommodate and detain that runoff, followed by required monitoring and pollutant-based remediation action to ensure any contamination does not reach adjacent surface waters. Combined, these factors support the EA's conclusion that surface water impacts are likely to be "short term, of a small size, and localized."<sup>42</sup> Given the mitigation measures prescribed by the DSP and evaluated in the EA and the resulting inherently localized impacts, the lack of a watershed-wide impact assessment in the EA was also reasonable and supported by the record.

## V. Groundwater Impacts

The Report takes issue with the EA's analysis of potential impacts to groundwater, including but not limited to, the EA's characterization of the impacts as acute and short term, and further questioning the adequacy of the EA's analysis of the impact of contaminants entrained in firefighting water.<sup>43</sup>

Applicant respectfully maintains the EA's analyses and conclusion are correct that any groundwater impacts resulting from a thermal runaway event are, unlikely, necessarily acute and short-term. First, and again in light of the Plume Analysis' conclusion that there is no "credible mechanism by which thermal runaway would propagate beyond the initiating container",<sup>44</sup> the total volume of battery chemistry and coolant related contaminants will be limited. The EA specifically recognizes this fact when it states "[g]iven the small quantities involved and the presence of engineered barriers, infiltration of groundwater is unlikely."<sup>45</sup> Elsewhere, the EA describes the presence of "[m]ultiple engineered barriers, impermeable foundations, and emergency response measures" and further notes:

[F]or a thermal runaway event to create groundwater impacts, several conditions would need to occur sequentially: 1. Release of contaminants (electrolyte, degraded battery materials, or fire residues); 2. Failure of primary containment (battery cell, module, enclosure); 3. Failure of secondary containment or site controls; 4. Infiltration of contaminants into soil; 5. Migration to the water table.<sup>46</sup>

Finally, and while the EA notes that "[f]ire suppression water represents a more credible liquid release scenario than electrolyte itself...Site design features, including two stormwater detention basins, are intended to manage runoff and prevent uncontrolled discharge to soil."<sup>47</sup> On this point,

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<sup>41</sup> Ex. EIP-34 at 95 (EA).

<sup>42</sup> Ex. EIP-34 at 991 (EA).

<sup>43</sup> Report at ¶290 & p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>44</sup> Ex. EIP-34 at 242 (EA).

<sup>45</sup> Ex. EIP-34 at 100 (EA).

<sup>46</sup> Ex. EIP-34 at 99-100 (EA).

<sup>47</sup> Ex. EIP-34 at 100 (EA).

the EA again relies on DSP section 5.12, discussed above, requiring post-accident groundwater and stormwater basin monitoring, and mandating pollutant-based action levels.

In short, the record firmly supports the EA's ultimate conclusion that, "even under thermal runaway conditions, the risk to groundwater quality is expected to be low and localized, with no long-term impacts anticipated."<sup>48</sup>

## VI. Alternative Site Selection

The Report notes the lack of an alternative site analysis in the EA. The Report describes that Citizens' Advisory Task Force (CATF) identified two possible alternative sites but ultimately found no viable alternative site options. The Report further notes that the CATF was frustrated by restrictive criteria for viable alternative sites, the lack of any requirement for the Applicant to propose alternatives, and the perceived requirement that it evaluate whether a potentially viable alternative site was available for lease or purchase, noting that this requirement was beyond the CATF's authority or expertise.<sup>49</sup>

The Report concludes this point by stating that "the record suggests that alternative sites away from the Shell Rock River may have been located given appropriate resources and attention by the Applicant. While alternative sites were not required to be identified, given the level of community opposition...it would have been prudent to do so."<sup>50</sup>

The Scoping Decision, approved by the Commission in December 2025, recognizes the CATF considered two potential alternative sites, but was unable to conclude that these sites were viable alternative sites for the Project.<sup>51</sup> The Commission approved Scoping Decision expressly states that the EA will not address "[a]ny site or route for the project other than the site and route proposed by Midwater in its combined application."<sup>52</sup> Accordingly, the EA was not required to include an evaluation of alternative sites.

## VII. Financial Resources

The Report also raises doubts as to the available resources of Applicant – as a subsidiary of a larger parent company – to remediate the environment and otherwise clean up following an accident scenario, including a thermal runaway event, at the BESS Facility.<sup>53</sup> The Applicant will be the permittee under the site and route permits. As permittee, the Applicant will be required to obtain sufficient financing to construct and operate the Project. The total construction cost of the Project is anticipated to be approximately \$459 Million. The Applicant will have sufficient financial resources to construct the Project. Moreover, as described above and in the following sections, the record is sufficient to support the EA's conclusion that impacts resulting from a thermal runaway event will, in fact, remain localized and short term.<sup>54</sup> Questioning whether the Applicant has

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<sup>48</sup> Ex. EIP-34 at 99-100 (EA).

<sup>49</sup> Report at ¶¶ 58 & 61-63 & p. 83 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>50</sup> Report at p. 82 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>51</sup> Ex. EIP-33 at 8 (Midwater EA Scoping Decision).

<sup>52</sup> Ex. EIP-33 at 11 (midwater EA Scoping Decision).

<sup>53</sup> Report at p. 83 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>54</sup> See Sections II-V, *supra* & VII.d, *infra*.

sufficient financial resources to remediate a widespread accident scenario is not founded on the facts presented in the EA and should therefore, not be a question or requirement of Project approval.

## VIII. ALJ Findings

### *a. Site Permit Criteria*

When discussing Site Permit Criteria at paragraph 130, the Report maintains that the EA did not address specific concerns raised in the public comment process and that the EA's assertions were conclusory or otherwise unsupported.<sup>55</sup> The Report at paragraph 130 did not identify which concerns raised in the public comment process were not addressed or otherwise indicate which EA assertions were conclusory or otherwise unsupported. However, it did specifically suggest that it would be reasonable for the Commission to require further assessment of watershed impacts and the feasibility and cost of remediation in the event of a fire or thermal runaway event. Again, the standard to determine whether the EA was adequate is whether the EA and the record created at the public hearing address the issues and alternatives identified in the Scoping Decision. Neither watershed impacts nor the feasibility and cost of remediation in the event of a fire or thermal runaway event were specifically listed in the Scoping Decision as issues to be studied in the EA. Therefore, to determine the adequacy of the EA in accordance with Minnesota Rule, the Commission must look to the Scoping Decision to determine which identified issues needed to be addressed and whether those issues were adequately addressed by the EA and the record in its totality.

The Report most notably points to the lack of watershed level impacts to the Shell Rock River and the supposed failure of the EA to address or analyze the same. The EA, however, addressed watershed-level impacts when it concluded that surface water impacts will be localized and short-term. As described in Sections I-IV above, and Section VIII.e below, the EA's conclusions are adequately supported in the EA and on the record and obviate any further watershed-level analysis. In other words, the EA's properly supported conclusion that impacts will remain local and short-term, necessarily mean that watershed-level impacts will be unlikely, or at the very most minimal, and no further study is necessary or warranted.

The Report also maintains that the EA does not address the feasibility and cost of remediation in the event of a fire or thermal runaway event. On the contrary, the EA assesses the risk of contamination, the materials that may be deposited during a thermal runaway event and the site permit conditions that will ensure contamination is identified and remediated. While the Report states at several points the EA's analysis is conclusory or unsupported, it does not recognize the EA's discussion of the Plume Study, the EA's analysis of equipment safety and containment systems, the EA's analysis of potential pathways for contaminants to reach the environment or otherwise specify what items in the Scoping Decision, went unaddressed. Even though the EA found the risk to groundwater, soils and surface water to be low and localized, with no long-term impacts anticipated, the Report seems to conclude, in spite of the evidence and analyses provided

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<sup>55</sup> Report at ¶131 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

in the EA and the record, that a catastrophic event is likely and should be assessed and planned for in the EA. The EA and record do not support that conclusion.

The Applicant requests the Commission strike Report paragraph 130.

*b. Cultural Values*

The Report's finding at paragraph 151 on impacts to Cultural Values reiterates a consistent critique noting, "the EA did not adequately address the risks to the Shell Rock River watershed in the event of a fire or thermal runaway event."<sup>56</sup> Again, and for the reasons stated previously, the EA adequately addressed watershed-level impacts when it concluded that surface water impacts will be localized and short-term. As described in Sections I-IV above and Section VIII.e below, those conclusions are adequately supported in the EA and in the record and, furthermore, obviate any further watershed-level analysis. Applicant requests the Commission revise Report paragraph 151 according to the following:

**151.** ~~While the~~ **The** EA found that construction and normal 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, ~~the EA did not adequately address the risks to the Shell Rock River watershed in the event of a fire or thermal runaway event.~~

The Report's finding at paragraph 153 suggested that Cultural Values will be impacted because a "significant number of local residents have expressed that project construction will change their perception of the immediate area's character thus potentially eroding their sense of place." Midwater does not dispute that some commenters expressed concern about the Project being constructed in the area for a number of reasons, including its industrial character. However, the site is currently developed with a substation and transmission lines,<sup>57</sup> was subject to aggregate mining for decades<sup>58</sup> and there are a number of existing industrial developments in and around the City of Glenville.<sup>59</sup> Moreover, the Report subjectively characterizes public comments as 'significant' and from 'local residents' and failed to mention the EA's conclusion that impacts to cultural values and activities are anticipated to be minimal, due to the small size of the Project and its distance from homes, businesses and recreational resources.<sup>60</sup> Applicant requests the Commission revise Report paragraph 153 according to the following:

**53.** 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. ~~A significant number of local residents~~ **Commenters** have expressed that project construction will change their perception of the immediate area's character thus potentially eroding their sense of place. **Because of the relatively small size of the project and distance from homes,**

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<sup>56</sup> Report at ¶ 151 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>57</sup> Ex. EIP-34 at 38 (EA).

<sup>58</sup> Ex. EIP-34 at 75 (EA).

<sup>59</sup> Ex. EIP-34 at 38 (EA).

<sup>60</sup> Ex. EIP-34 at 51 (EA).

businesses and recreational resource, project impacts to cultural resources and activities are anticipated to be negligible to minimal.

*c. Zoning and Land Use*

The Report's finding paragraph 159 discusses the draft energy storage system ordinance. It recognizes that the draft ordinance has not been passed by the County, but nonetheless, speculates that if it were passed the Project would potentially be nonconforming under the ordinance. The draft ordinance was included as an appendix to the CATF to support CATF recommendations regarding visual screening and vegetative buffers. At issuance of the Report, the draft ordinance has not been passed by the County. Nonetheless, the DSP section 5.2 requires vegetative screening consistent with the draft ordinance. Site and Route Permits issued by the Commission are the sole site or route approval required to be obtained by permittees. Commission issued permits supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

Applicant requests the Commission amend paragraph 159 to remove speculative conclusion regarding the final form of the draft ordinance that may or may not be passed by the County.

**159.** Freeborn County is currently undertaking the development and enactment of an ordinance to regulate siting and operation of Energy Storage Systems. As of this time, the ordinance has not been passed. ~~However, the Project would present potentially nonconforming actions under the ordinance, if passed.~~<sup>243</sup>

*d. Property Values*

Describing the EA's analysis of impacts to property values at paragraph 178, the Report indicates that concerns about potential significant property value impacts resulting from a "catastrophic thermal runaway event...are not unfounded"; the Report states that in this context, the EA did not adequately address the feasibility, timeline, or costs or remediation after an emergency event.<sup>61</sup>

First, the EA, relying, in part, upon the Plume Study, adequately analyzed and concluded that impacts from a realistic worst-case scenario thermal runaway event would be short term, localized, and/or acute.<sup>62</sup> As noted above in Section II, a credible worst-case scenario was modeled in the Plume Study. The EA and the record do not support the Report's assertion that a 'catastrophic' thermal runaway event, beyond the credible worst-case scenario assessed in the EA, is likely and should be assessed. On the contrary, the Plume Study used worst-case scenario burn duration of 19.5 hours for a single-enclosure event based on public information for documented containerized BESS fires such as the Project. Based on documented containerized BESS thermal runaway events and fire testing, the total active fire durations for single-unit events typically range from 4-15 hours (See Attachment A). For fire to spread from one enclosure to another at the Project would require the sequential failure of all independent safeguards required by UL 9540A and NFPA 855 in succession: the passive thermal barriers within the enclosure, the minimum separation distances

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<sup>61</sup> Report at ¶178 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>62</sup> See Sections II-V, *supra* & IV, *infra*.

prescribed by NFPA 855, and the fire testing-validated containment capability that each enclosure is required to demonstrate as a condition of its listing. The probability of this sequential failure chain, against the background of a documented incident record that contains no confirmed case of enclosure-to-enclosure fire propagation at an NFPA 855-compliant installation, does not meet the standard of a credible worst-case event (*See* Attachment A).

The EA, moreover, does address required remediation measures following an emergency event. Notably, Section 5.12 of the DSP requires the permittee 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 Minnesota Pollution Control Agency and the Shell Rock River Watershed District.

The SGMP, moreover, must prescribe pollutant-based action levels for groundwater and required stormwater basin water prior to discharge.<sup>63</sup> The analyses and conclusions that impacts will remain local and short-term, combined with specific mitigation and remediation requirements, including stormwater retention basins and DSP Section 5.12, indicate potential responses to events and remediation, if necessary, are adequately considered by the EA and the record.

The Applicant requests the Commission strike Report paragraph 178. Applicant further requests the Commission replace paragraph 178 with the following finding:

**178. The record demonstrates that Applicant has taken steps to avoid and minimize impacts to property values, and that no additional mitigation is proposed.**

*e. Public Health and Safety*

The Report's finding paragraph 205 correctly notes that ongoing research is shaping industry standards that continue to reduce incident risk and safety concerns. The finding also correctly notes that LFP batteries have a higher thermal runaway temperature, making them more stable and less prone to fire than other battery chemistries.<sup>64</sup> However, the Report incorrectly quotes a scientific study when the Report says that "LFP batteries are more hazardous in terms of combustion and explosion compared to N[MC] batteries." In fact, the scientific study cited in the Report, *Combustion characteristics of lithium-iron-phosphate batteries with different combustion states*<sup>65</sup>, does not discuss or analyze NMC batteries, but rather compares the temperature, voltage, gas release and heat release rate of two LFP batteries during experimentally induced thermal runaway events. Again, the study documented experiments on LFP batteries. It did not compare or otherwise study NMC batteries, but instead noted that its experimental conclusions "can provide reference basis for firefighters to implement firefighting and safety protection strategies."<sup>66</sup> Applicant requests the Commission revise paragraph 205 to remove the inaccurate quote from the finding:

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<sup>63</sup> Ex. EIP-34 at 95 & 101 (EA).

<sup>64</sup> Ex. EIP-34 at 66 (EA).

<sup>65</sup> Ex.EIP-42 (Public Hearing Ex. 8).

<sup>66</sup> Ex. EIP-42 (Public Hearing Ex. 8).

**205.** BESS are a relatively new technology and 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. The BESS will use LFP technology. LFP batteries have a higher thermal runaway temperature, making them more stable and less prone to fire.<sup>284</sup> However, “LFP batteries are more hazardous in terms of combustion and explosion compared to NCM batteries.”<sup>285</sup>

In paragraphs 208-209 of the Report discussing impacts to public health and safety, the Report states the EA failed to consider the impacts of a thermal runaway event, including predictive modeling of the dispersion of pollutants through the Shell Rock River watershed, as well as information on the feasibility, methods, and cost of clean up. Finally, those portions of the Report again note that the EA’s conclusion that potential impacts will be localized and short term are not supported by the record.<sup>67</sup>

Respectfully, and as noted throughout these Exceptions, the EA manifestly considers the dispersion modelling of pollutants from a thermal runaway event at the Project and properly concluded, based on the modeling information, that impacts are anticipated to be short term, localized and/or acute.<sup>68</sup>

The Report here notes two related issues. On the one hand, it maintains that the EA must include predictive modeling of pollutant dispersion through the Shell Rock River watershed. It then maintains that the EA’s ultimate conclusions that the potential impacts will be localized and short term are conclusory or are otherwise unsupported. The EA more than adequately supports its conclusions that impacts resulting for a thermal runaway event – including surface water impacts from runoff or deposition – will be localized and short term.<sup>69</sup> As described above, the EA contains analysis showing that BESS enclosure spacing dramatically reduces – if not eliminates – the risk that a fire will spread from one enclosure to another.<sup>70</sup> The Plume Analysis, moreover, confirms that deposition impacts will be confined to the areas within or up to the Project boundary.<sup>71</sup> And finally, the engineered barriers and stormwater retention basins, combined with DSP Section 5.12 discussed above, will manage stormwater and firefighting runoff, and prevent discharges of potential pollutants to the river.<sup>72</sup>

Combined, the analyses noted above support the conclusion that impacts will be localized and short term; impacts will not reach the Shell Rock River. As a result, a watershed level analysis, let alone predictive modeling of pollutant dispersion through the watershed, is not warranted. Again, Minn. R. 7850.3900 provides an EA, and the record, needs only to address those issues identified in the Scoping Decision. The Scoping Decision here, moreover, states that analyses in the EA “will be commensurate with the level of impact for a given resource and the relevance of the information to consider mitigation measures.”<sup>73</sup> A full watershed analysis complete with predictive modeling

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<sup>67</sup> Report at ¶¶ 208-209 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>68</sup> See Sections II-V, *supra*.

<sup>69</sup> See Sections II-V, *supra*.

<sup>70</sup> See Sections II, *supra*; and Ex. EIP-34 at 271 (“No documented failures in the available BESS fire literature, nor anecdotal case reports, identify a credible mechanism by which thermal runaway would propagate beyond the initiating container under these conditions.”) (EA).

<sup>71</sup> See Sections III, *supra*.

<sup>72</sup> See Sections IV-V, *supra*.

<sup>73</sup> Ex. EIP-33 at 10 (Midwater EA Scoping Decision).

is simply not commensurate with the inherently localized and short-term impacts of a thermal runaway event at the BESS Facility. Such analysis, therefore, is not required.

The Applicant requests the Commission strike Report paragraphs 208 and 209. Applicant further requests the Commission find that the EA adequately discusses and analyzes the impacts of a potential thermal runaway event at the BESS Facility, including to surface waters, and further find the EA's conclusion that impacts would be short-term and localized are supported by the record.

*f. Public Safety and Emergency Services*

Paragraphs 219-220 of the Report, regarding Public Safety and Emergency Services, states that the EA does not address whether contamination to the Shell Rock River watershed can be remediated, ignores the potential transport of pollutants through the watershed, and maintains that the record does not support a finding that local first responders will have the ability to mitigate or prevent contamination to the Shell Rock River watershed.<sup>74</sup>

For the reasons stated in Sections II-IV and VIII.e, the EA sufficiently supports its conclusions that potential contamination resulting from a thermal runaway event will be localized and short term. Again, this necessarily means that watershed-level impacts are unlikely to occur and analysis of the same, therefore, is not warranted or required. Simply put, the EA supports the conclusion that pollution will be sufficiently limited and otherwise mitigated such that impacts will not affect areas beyond the vicinity of the Project, including the larger watershed.

Relatedly, the EA also describes mitigation measures, including DSP Section 5.12 – described above and requiring groundwater and retention basin monitoring as well as pollutant-based action levels.<sup>75</sup> While the EA notes contaminants associated with fire suppressants, along with BESS related debris and chemistry, could be entrained in stormwater runoff, the planned stormwater basins – which, again, are subject to monitoring and pollutant-based action requirements pursuant to DPS section 5.12 – are sufficient to retain and manage anticipated stormwater runoff volumes.<sup>76</sup>

Moreover, DSP Section 8.11 requires the preparation of an Emergency Response Plan in coordination with local emergency responders. Applicant shared this proposed permit condition with local emergency responders and then offered edits to DSP Section 8.11 to address local emergency responder requests. Applicant has demonstrated a willingness to work with local emergency responders on the Emergency Response Plan to make sure the plan provides them with the information they need and they have the equipment and training needed to respond to emergencies at the Project.

The Applicant requests the Commission revise Report paragraph 219 according to the following:

**219.** The EA ~~claims that~~ **found that in the event of a thermal runaway event** 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. ~~However, these statements are conclusory and unsupported. The EA does not address~~

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<sup>74</sup> Report at ¶¶ 219-220 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>75</sup> Sections IV-V; Ex. EIP-34 at 95 & 101 (EA).

<sup>76</sup> Sections IV-V; Ex. EIP-34 at 95 & 101 (EA).

~~whether contamination to the Shell Rock River watershed can be remediated and ignores contamination being transported downriver far from the project site and throughout the watershed. The presence of the Shell Rock River makes this site significantly different from other BESS sites.~~

The Applicant further requests the Commission revise Report paragraph 220 according to the following:

~~220. Midwater argues it will coordinate with the local fire departments to ensure an adequate water supply at the BESS in the event of a fire. Potential solutions 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.<sup>298</sup> This acknowledgement that water would be used in the event of a fire again suggests contaminated water could reach the Shell Rock River in an emergency. The close proximity of the project to the City of Glenville would also necessitate prioritizing human health and safety over environmental protection in the event of an emergency. The record is not sufficient to conclude that the Albert Lea Fire Department or the Glenville Volunteer Fire Department would have any ability to mitigate or prevent contamination to the Shell Rock River watershed in the event of a fire or thermal runaway event.~~

*g. Tourism and Recreation*

Paragraphs 233 and 235 of the Report on impacts to recreation and tourism stated that the EA fails to address impacts from contaminants traveling downstream as well as impacts to river-based recreation including boating and fishing.<sup>77</sup>

Again, and as set forth in Sections II-V and VIII.e above, the EA adequately supports the conclusion that impacts will be local and will not result in watershed level impacts. Furthermore, mitigation and DSP conditions – to wit, DSP Section 5.12 and stormwater retention basins – will sufficiently mitigate or prevent impacts to the river.<sup>78</sup>

Finally, and contrary to the Report, the EA does not “disregard[] water recreation activities on the Shell Rock River such as boating and fishing.”<sup>79</sup> Instead, the EA explicitly states “[t]ourism in the project area is largely related to recreational activities including fishing, hunting, and boating.”<sup>80</sup> The EA then notes in its discussion on accident scenario impacts that “smoke could temporarily reduce air quality or visibility, discouraging activities such as fishing, hunting, boating, or snowmobiling. These effects would be temporary and localized, and normal recreational use would be expected to resume once the incident is resolved and the site deemed safe.”<sup>81</sup> This conclusion is further supported by the consistent analysis in the EA that impacts to surface waters would similarly be localized and short term.<sup>82</sup>

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<sup>77</sup> Report at ¶¶ 233-235 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>78</sup> Sections III-V.

<sup>79</sup> Report at ¶ 235 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>80</sup> Ex. EIP-34 at 80 (EA).

<sup>81</sup> Ex. EIP-34 at 81 (EA).

<sup>82</sup> See Sections II-IV.

The Applicant requests the Commission revise Report paragraphs 233 and 235 according to the following:

233. ~~While the~~ The EA **determined** ~~claims~~ fire or thermal runaway impacts would be short-lived and localized to the site, with normal recreation expected to resume once the site is safe, ~~these statements are not supported with evidence. The EA does not address contamination traveling downstream in the Shell Rock River watershed or the feasibility, cost, or timeline to remediate that contamination. Downstream local governments expressed significant concern regarding the impact an emergency event could have on their local tourism.~~

235. The EA **determined** ~~claims~~ that recreational **activities in the project area are 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 wildlife management area.** <sup>83</sup> ~~lands or opportunities are located within or adjacent to the HVTL or BESS. However, this disregards water recreation activities on the Shell Rock River such as boating and fishing. These activities were cited as major concerns to residents.~~

#### *h. Air Quality*

The Report's discussion on air quality impacts in paragraph 257 maintains that the EA fails to provide "sufficient evidence to conclude that soot generated from an accident scenario would not settle or be deposited in the Shell Rock River."<sup>84</sup>

As an initial matter, the question of aerially deposited soot into the Shell Rock River is properly characterized as a surface water impact, rather than an air quality impact. As a result, whether and to what extent the EA properly analyzed that specific impact should not affect the adequacy of its air quality impact analyses. Regardless, and as described in detail in Section III above there is ample evidence in the record to support the EA's conclusion that that aerially deposited soot will not adversely affect the river and specifically because soot generated from a thermal event "is expected to be limited primarily to near-field ground contact close to the source, with residual surface soot present only within the immediate impact area. Beyond this region, atmospheric mixing and dispersion are expected to rapidly dilute and dissipate the soot concentration."<sup>85</sup> Here, there is evidence in the record demonstrating that soot deposition to the river will be minimal to the extent that it occurs at all.

The Applicant requests the Commission delete Report paragraph 257

#### *i. Surface Water and Flood Plains*

The Report's discussion on surface water and flood plain impacts at paragraphs 266, 267 and 275 again maintains that the EA provides only conclusory and unsupported analysis of impacts occurring during an accident scenario, does not address whether and how surface water and

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<sup>83</sup> Ex. EIP-34 at 71 (EA).

<sup>84</sup> Report at ¶ 257 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>85</sup> Ex. EIP-34 at 302 (emphasis added) (EA).

downstream impacts will be mitigated, and the cost of those efforts, and notes a supposed acknowledgement from the EA that impacts to the Shell Rock River could occur.<sup>86</sup>

As described at several points above, however, the EA's analyses on the nature and extent of potential impacts to surface waters is not conclusory, and the efficacy and feasibility of mitigation and remediation requirements are adequately described and supported by the record.<sup>87</sup>

The Applicant requests the Commission revise Report paragraphs 266 and 275 according to the following:

**266.** The EA ~~concludes~~ ~~claims~~ that the level of impact is:

[A]nticipated to be minimal under typical or atypical operation scenarios; however, in an accident scenario, impacts may be significant, affecting air, water, and land resources, though reversible and likely short-term. Direct impacts to surface waters are not expected. Indirect impacts to surface waters might occur. These impacts will be short-term, of a small size, and localized. Impacts can be mitigated.

**275.** In the Draft Site Permit, the following sections address surface water and flood plains: Section 4.3.11 (Soil Erosion and Sediment Control); Section 4.3.23 (Restoration); and Section 5.12 (Surface and Groundwater Monitoring). The ~~Judge does not find that~~ proposed permit conditions can mitigate the ~~significant~~ risks to the Shell Rock River in the event of a thermal runaway event, fire, or significant accident.

Applicant further requests that the Commission strike Report paragraph 267.

*j. Geology and Groundwater*

In its discussion on Geology and Groundwater impacts, the Report again questions: the conclusions of the EA that impacts will be acute and short-term, including the failure to address watershed-level impacts; the efficacy of stormwater retention basins; and the feasibility of certain emergency response procedures for managing runoff and remediating contamination to the watershed.<sup>88</sup>

As described in depth in Sections II & V above there is more than enough evidence in the record to demonstrate that a thermal event or fire at the BESS Facility would present only localized and acute impacts to groundwater, rather than chronic impacts as the Report suggests.<sup>89</sup> As a result, furthermore, an analysis of watershed-specific impacts or remediation is neither required nor warranted.<sup>90</sup> That said, the EA does address required remediation measures following an emergency event. Notably, Section 5.12 of the DSP requires the permittee 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

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<sup>86</sup> Report at ¶¶ 267 and 275 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>87</sup> See Sections III-IV & VII.d.

<sup>88</sup> Report at ¶¶ 290, 295-97, and 299 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>89</sup> See Sections II-V.

<sup>90</sup> See Section VII.d.

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 prescribe pollutant-based action levels for groundwater and required stormwater basin water prior to discharge.<sup>91</sup> The analysis and conclusions that impacts will remain local and short-term, combined with specific mitigation and remediation requirements, including stormwater retention basins and DSP Section 5.12, indicate potential responses to events and remediation, if necessary, are adequately considered by the EA and the record.

As described above in Section IV, the ERP will detail the appropriate actions that first responders should follow in the event of a thermal runaway. Moreover, and described in detail in the preceding sections, the physical spacing of the BESS enclosures will ensure the confinement of a potential fire to a single enclosure.<sup>92</sup> At the same time, stormwater retention basins are designed to capture and manage any firefighting runoff before the runoff reaches the river.<sup>93</sup> Here, therefore, and notwithstanding the typical emergency response of maintaining distance and permitting the fire to burn out, a fire event at the BESS facility will be contained and isolated as a result of enclosure spacing, while runoff will be captured and managed by stormwater retention basins and then tested in accordance with the Site Permit prior to discharging to the river.

The Applicant requests the Commission revise Report paragraphs 290, 295, 297, & 299 according to the following:

**290.** ~~While the~~ **The** EA characterizes thermal runaway events as “acute and short-term occurrences rather than chronic sources of contamination” that will not impact groundwater, ~~this characterization is not supported in the record. Thermal runaway may result in contamination, which, if left untreated, can become a chronic source of contamination. The EA and the record as a whole do not discuss methods or timelines for remediation after a thermal event.~~

**295.** 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.<sup>373</sup> **The stormwater detention basins will discharge treated stormwater to** ~~However, the Shell Rock River is the receiving water for facility stormwater runoff.~~<sup>374</sup>

**297.** The EA **provides** ~~claims~~ that any significant release would be promptly reported and remediated in accordance with MPCA and MDH requirements. ~~However, there is no detail about the feasibility of remediating the watershed, discussion of who would pay for that remediation, or what “prompt” means.~~

**299.** A thermal runaway event involving a single BESS enclosure represents a credible worst-case safety scenario. The record is insufficient to conclude that liquid releases associated with thermal runaway would not reach the Shell Rock River **and** watershed or result in ongoing contamination that may impact groundwater.

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<sup>91</sup> Ex. EIP-34 at 95 & 101 (EA).

<sup>92</sup> See Section II & IIV.c, *supra*.

<sup>93</sup> See Section V.

*k. Wetlands*

The Report also states that the EA does not “adequately address how the wetlands interact with the Shell Rock River watershed as a whole, or the potential for a fire or thermal runaway event to impact wetlands.”<sup>94</sup>

On this point the EA concludes that accident scenario impacts to wetlands will be similar to those experienced by surface waters as described in the EA.<sup>95</sup> That is to say, they will be localized and short term to the extent they occur at all, given the limited extent of potential contaminants and in light of permit conditions and mitigation measures such as stormwater retention basins, which will receive runoff from all developed portions of the site and Section 5.12 of the DSP requiring retention basin and groundwater quality monitoring and mandating pollutant-based action levels.<sup>96</sup>

The Applicant requests the Commission strike Report paragraph 308.

## **IX. Permit Conditions**

The Report notes that the Draft Site Permit and Draft Route Permit (DRP), as revised by PUC-EIP and Midwater, include several proposed revisions to permit conditions.<sup>97</sup> The Report further notes that Draft Site Permit prepared by PUC-EIP included various recommendations and potential Site Permit conditions related to the Project, to which the Applicant responded in its direct testimony and written comments.<sup>98</sup> The permit conditions for which modifications have been proposed are provided below. As in the Report, the Draft Site Permit Sections where Midwater proposed modifications, Midwater’s proposed language is shown in **red**, PUC-EIP proposed responses are shown in **green**, and for Section 8.11, the requests of local emergency responders are shown in **blue**. The ALJ agreed that modifications to the conditions described below are reasonable, as does Midwater.

DSP Section 5.2, as modified, states:<sup>99</sup>

~~The Permittee shall~~ 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** and **between the security fence of the BESS and Shell Rock River to mitigate visual impacts to users of the Shell Rock River**. 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;

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<sup>94</sup> Report at ¶ 308 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>95</sup> Ex. EIP-34 at 103 (EA).

<sup>96</sup> See Sections II-IV.

<sup>97</sup> Report at ¶ 353 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>98</sup> Report at ¶ 354 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>99</sup> Report at ¶ 357 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

- 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.

DSP Section 8.11, as modified, states: <sup>100</sup>

#### 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.

Next, PUC-EIP supported Midwaters proposed deletion of Sections 5.6, 5.7 and 5.9, to be replaced with Section 8.11. The ALJ supports these modifications. <sup>101</sup> The ALJ also supports the removal of Section 5.10 requiring the development of an Agricultural Impact Mitigation Plan (AIMP) at Minnesota Department of Agriculture's request. <sup>102</sup>

DSP Section 5.12, as modified, states: <sup>103</sup>

#### 5.12 Surface and Groundwater Monitoring

At least 14 days prior to the pre-construction meeting, the Permittee shall file a Surface and Groundwater Monitoring Plan (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

<sup>100</sup> Report at ¶ 361 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>101</sup> Report at ¶¶ 359-63 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>102</sup> Report at ¶ 364 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>103</sup> Report at ¶ 369 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

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 MPCA and 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.

DSP Section 5.13, as modified, states: <sup>104</sup>

#### 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.

DSP Section 8.3, as modified, states: <sup>105</sup>

#### 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.

DSP Section 5.17 as modified, states: <sup>106</sup>

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<sup>104</sup> Report at ¶ 371 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>105</sup> Report at ¶ 373 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>106</sup> Report at ¶ 377 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

### 5.17 Dust Control

The Permittee shall minimize and avoid, if possible, the use of chloride-based dust control chemicals (i.e., calcium chloride, magnesium chloride). The Permittee shall utilize non-chloride products for onsite dust control during construction.

The DNR requested the revision to Draft Site Permit Section 5.17 be added to the DRP. Applicant and the ALJ support the addition of Section 5.17 to the DRP.<sup>107</sup>

DNR also proposed the addition of a special condition to both the Draft Site Permit and DRP (section 5.x) requiring compliance with Minnesota's Endangered Species Statute and associated rules, with recordkeeping requirements. DNR proposed the following permit condition, which is supported by Midwater and PUC-EIP.<sup>108</sup> Section 5.x states:

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.

## X. Conclusion

The public engagement process and the EA for this Project was thorough and comprehensive. As demonstrated in these Exceptions, the EA and the record created at the public hearing address the issues and alternatives identified in the Scoping Decision and includes the items required by Minnesota Rule 7850.3700, subp. 4. Moreover, the Draft Site Permit and Draft Route Permit, as presented in Report and in these Exceptions are adequate to mitigate potential impacts from the BESS Facility and HVTL, respectively. The Applicant has agreed to the special permit conditions proposed throughout this process to address public and local government comments and concerns. Granting a site and route permit for the Project would be consistent with the Commission's decision to grant a site permit for the up to 600 MW Sherco South and West Energy Storage System located near the Mississippi River. The Applicant respectfully requests the Commission find the EA adequate and approve the site and route permits for the Project.

Report paragraph 451 should be amended to provide:

**451.** The evidence in the record demonstrates that the EA is inadequate. The EA and the record created at the public hearing and during the subsequent comment period ~~do not~~ appropriately address the issues raised in the Scoping Decision.

Report Conclusions of Law 4 and 5 should be amended in accordance with the following:

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<sup>107</sup> Report at ¶¶ 442-44 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

<sup>108</sup> Report at ¶ 380 (May 13, 2026) (eDockets No. [20265-231785-01](#)).

4. The record in this proceeding ~~does not~~ 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.

5. The Project does not presents the potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and the Minnesota Environmental Policy Act.

Dated: May 27, 2026

*Respectfully submitted,*

*s/ Jeremy P. Duehr*

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Date: May 22, 2026  
Midwater BESS, LLC  
C/O Spearmint Energy  
Attn: Mary Matze  
Manager, Development

### **Subject: Midwater BESS Project Additional Information Request**

Fire & Risk Alliance LLC (FRA) was requested by Midwater BESS, LLC (Midwater) to evaluate and validate assumptions and conclusions contained in the Environmental Assessment (EA) for the proposed Midwater Battery Energy Storage System (BESS) facility, located in Freeborn County, Minnesota, and to inform the Minnesota Public Utilities Commission about the level of potential hazard associated with BESS, and how the hazards are being addressed. This memo addresses the request in three sections as presented below.

#### **1. Assessment of Heavy Metals and Distinction from Moss Landing Incident**

FRA recognizes that the greater public is concerned about the potential for the production of hazardous materials and chemicals in the unlikely event of a fire developing within a BESS facility such as the proposed Midwater BESS facility. To address this, FRA conducted a plume study<sup>1</sup> to better understand the potential downstream impacts in the event of a fire incident. The plume study was evaluated and incorporated into the EA for the Midwater BESS facility. In addition to reporting on the maximum possible extent of carbon monoxide, hydrogen fluoride, carbon dioxide, and visibility hazards, all of which were contained to the proposed site perimeter, the study stated that, “In this plume analysis, no heavy metals or other toxic particulates were identified; therefore, deposition was assumed to consist primarily of carbon-based soot (ash).”<sup>2</sup> This conclusion is based on peer-reviewed research.

##### **1.1. Chemical Composition of Lithium Iron Phosphate Systems**

The Midwater BESS installation will use lithium iron phosphate (LFP) cells, in which the cathode electrode is composed of lithium, iron, and phosphate. The cathode is the primary source of metallic particles when a battery cell fails and undergoes thermal runaway. Because the LFP cathode contains no nickel, cobalt, or manganese, it cannot release those metals during a fire event. Additionally, data on the materials released by LFP cells, modules, and units must be gathered to receive a listing in compliance with UL 9540A.<sup>3</sup> General data for LFP cells demonstrate that the main components released as a gas or aerosol include only carbon monoxide, carbon dioxide, hydrogen, and smaller amounts of hydrocarbons.

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<sup>1</sup> 731-004 Midwater BESS Plume Analysis Final Report Rev2, Jan. 2026.

<sup>2</sup> 731-004 Midwater BESS Plume Analysis Final Report Rev2, Jan. 2026, p. 49.

<sup>3</sup> UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems, 2026.

The exclusion of heavy metals from the plume analysis is grounded in this fundamental chemistry and is confirmed by the peer-reviewed experimental data.

Barone et al.<sup>4</sup> characterized aerosols emitted by lithium-ion battery explosions for three cell chemistries, including LFP, using scanning electron microscopy (SEM) and energy-dispersive X-ray spectroscopy (EDS). The investigators found that LFP explosion aerosols consisted predominantly of carbonaceous cenospheres (i.e., hollow carbon spheres) in the respirable size range of 0.6 to 5 micrometers, containing carbon, silicon, and fluorine. Critically, the study reported that "transition metals (e.g., iron) were absent from LFP aerosols, and this contrasts sharply with the results for NMC (*i.e.*, *lithium nickel manganese cobalt oxide*) explosion aerosols."<sup>5</sup> The study further concluded that "since cobalt and other transition metals were present in NMC/LTO but not LFP samples, LFP explosion aerosols may be the least hazardous of the three battery types evaluated."<sup>6</sup>

This finding is independently supported by the SFPE Foundation's June 2025 technical assessment of environmental and health impacts from outdoor BESS thermal events.<sup>7</sup> In developing particulate composition inputs for plume dispersion modeling, the authors confirmed that direct empirical data on LFP particulate metal composition was limited in the literature and constructed an LFP particulate model from first principles by modifying the NMC composition to remove nickel, manganese, and cobalt because "they are unique to NMC chemistry."<sup>8</sup>

## 1.2. Plume Uptake, Transport, and Toxicology of Lithium Particulates and Absence of Toxic Heavy Metals

The question of whether lithium particulates can become entrained into the fire plume, transported, and deposited offsite requires the evaluation of an LFP fire event. In an LFP battery cell, lithium exists as lithium ions dissolved in the electrolyte or incorporated into the cathode crystal structure during normal cell operation. The cell does not contain metallic lithium. Upon cell failure and combustion, lithium ions transition into lithium compounds such as lithium fluoride, lithium oxide, and lithium hydroxide, not into metallic lithium aerosols. These lithium compounds are not classified as heavy metals, and their environmental toxicity at concentrations achievable from a single BESS thermal event is not a recognized regulatory concern.

The SFPE Foundation study developed a plume dispersion and deposition model for a 3.1 MWh outdoor BESS unit. Heavy metal surface deposition analysis was performed only for NMC chemistry scenarios because those were the conditions where toxic metals were present in sufficient quantities to warrant

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<sup>4</sup> Barone et al., "Lithium-ion battery explosion aerosols: Morphology and elemental composition," *Aerosol Science and Technology*, 2021.

<sup>5</sup> Barone et al., "Lithium-ion battery explosion aerosols: Morphology and elemental composition," *Aerosol Science and Technology*, 2021, p.9.

<sup>6</sup> Barone et al., "Lithium-ion battery explosion aerosols: Morphology and elemental composition," *Aerosol Science and Technology*, 2021, p.10.

<sup>7</sup> McAllister et al., "Environmental and Health Impacts of Thermal Runaway Events in Outdoor Li-Ion BESS Installations," SFPE Foundation, 2025.

<sup>8</sup> McAllister et al., "Environmental and Health Impacts of Thermal Runaway Events in Outdoor Li-Ion BESS Installations," SFPE Foundation, 2025, p. 46.

environmental impact assessment.<sup>9</sup> No analogous heavy metal deposition analysis was necessary for LFP scenarios due to the lack of toxic metals present in the battery chemistry. This omission was deliberate and reflects the scientific conclusion that LFP particulate metal composition does not contain the elements that drive environmental impact thresholds.

Based on the chemical composition of LFP cells, published characterization of LFP fire aerosols, and SFPE Foundation modeling of outdoor BESS particulate deposition, any potential metals released during a hypothetical thermal event at the Midwater LFP BESS installation would not be the toxic metals (i.e., nickel, cobalt, and manganese) of regulatory concern.

### 1.3. The Moss Landing Incident Cannot Occur at the Midwater BESS Facility

The January 16, 2025, fire at the Vistra Corporation Battery Energy Storage System in Moss Landing, California, has appropriately drawn public and regulatory attention to the potential environmental consequences of large-scale BESS fires. However, Moss Landing differs from the Midwater BESS project in three main categories: battery chemistry, installation configuration, and the fire safety standards governing the facility at the time of its commissioning. Each difference is directly relevant to whether the Moss Landing experience is predictive of outcomes at the Midwater BESS facility.

#### 1.3.1. Battery Chemistry: NMC versus LFP

The Vistra Moss Landing Phase 1 facility used NMC battery chemistry. Within days of the fire, Aiello et al.<sup>10</sup> deployed field-portable X-ray fluorescence instruments and scanning electron microscopy to analyze soil samples in the adjacent Hester Marsh restoration area within Elkhorn Slough.<sup>11</sup> Post-fire soil analysis revealed a marked increase in nickel, manganese, and cobalt concentrations, with "post-fire Ni:Co ratios averaging 2:1, consistent with NMC cathode chemistry."<sup>12</sup> SEM and EDS analysis confirmed that "the elevated concentrations of Ni, Mn, and Co were linked to the presence of micron-sized metallic particles like those used as cathode materials in Nickel Manganese Cobalt (NMC) batteries."<sup>13</sup> Peak measured concentrations in the most affected surface soils reached 3,702 ppm for nickel, 7,120 ppm for manganese, and 1,604 ppm for cobalt.<sup>14</sup> These concentrations were produced by the fracture and ejection of NMC cathode microparticles during thermal runaway, a mechanism specific to layered metal-oxide cathode chemistries. The LFP cathode does not undergo this process. LFP cathode particles contain no nickel, cobalt, or manganese and therefore cannot produce the NMC-specific contamination signature documented at Moss Landing.

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<sup>9</sup> McAllister et al., "Environmental and Health Impacts of Thermal Runaway Events in Outdoor Li-Ion BESS Installations," SFPE Foundation, 2025, p. 74-75.

<sup>10</sup> Aiello et al., "Coastal wetland deposition of cathode metals from the world's largest lithium-ion battery fire," Scientific Reports, 2025.

<sup>11</sup> Aiello et al., "Coastal wetland deposition of cathode metals from the world's largest lithium-ion battery fire," Scientific Reports, 2025.

<sup>12</sup> Aiello et al., "Coastal wetland deposition of cathode metals from the world's largest lithium-ion battery fire," Scientific Reports, 2025, p. 5.

<sup>13</sup> Aiello et al., "Coastal wetland deposition of cathode metals from the world's largest lithium-ion battery fire," Scientific Reports, 2025, p. 5.

<sup>14</sup> Aiello et al., "Coastal wetland deposition of cathode metals from the world's largest lithium-ion battery fire," Scientific Reports, 2025, p. 4.

### 1.3.2. Installation Configuration: Indoor versus Outdoor

The Vistra Moss Landing Phase 1 facility was housed within an enclosed building structure. During the fire, combustion products and particulate-laden smoke were initially concentrated within the building before being released to the surrounding environment, resulting in high local particulate loading and deposition density in the adjacent wetland. The Midwater installation is an outdoor, containerized BESS system. In an outdoor configuration, combustion gases and aerosols are released directly into the open atmosphere at the point of generation. Buoyancy-driven plume dynamics, ambient dilution, and atmospheric dispersion begin acting on the particulate immediately, reducing concentration levels at any downwind distance relative to the concentrated release from an indoor installation. This configuration difference is directly relevant to the deposition density that can be expected at site boundaries and in the surrounding watershed.

### 1.3.3. Applicable Safety Standards: 2020 Commissioning versus 2026 Code Requirements

The Vistra Moss Landing Phase 1 facility was commissioned in 2020, prior to the adoption of the current generation of large-scale BESS fire safety standards. The 2026 editions of NFPA 855<sup>15</sup> and UL 9540A<sup>16</sup> now require thermal runaway propagation protection (TRPP) systems as critical safety infrastructure, combustible concentration reduction (CCR) systems with mandatory activation at or below 10 percent of the lower flammability limit, installation-level large-scale fire testing demonstrating no thermal runaway propagation to adjacent enclosures, and deflagration pressure relief analysis and testing verified by normative large-scale testing procedures. These requirements apply to the Midwater project and represent engineered fire containment capabilities that were not required of the Moss Landing installation when it was built. The application of these standards materially reduces both the duration and the emissions volume of fire scenarios that could produce widespread offsite impact.

### 1.3.4. Moss Landing Differences Summary

Based on the documented NMC cathode chemistry at Moss Landing as confirmed by post-fire geochemical fingerprinting and SEM/EDS analysis, the indoor installation configuration of the Moss Landing facility as compared to the outdoor configuration of the Midwater BESS project, and the substantial advances in applicable fire safety standards since the Moss Landing facility was commissioned, the Moss Landing incident does not represent an analogous scenario to the Midwater project. The heavy metal contamination documented at Elkhorn Slough is attributable to NMC cathode chemistry and an indoor facility configuration, neither of which applies to the Midwater LFP outdoor BESS installation.

## 1.4. Key Points of the Section 1 Response

- Nickel, cobalt, and manganese are not present in LFP cells and cannot be released during an LFP fire event.

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<sup>15</sup> NFPA 855: Standard for the Installation of Stationary Energy Storage Systems, National Fire Protection Association, 2026.

<sup>16</sup> UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems, 2026.

- NIOSH laboratory testing confirmed that LFP aerosols consist of carbonaceous cenospheres containing carbon, silicon, and fluorine, with heavy metals explicitly absent from LFP aerosol samples and present only in NMC aerosols.
- The SFPE Foundation confirmed no nickel, cobalt, or manganese in its LFP particulate composition model and performed metal deposition analysis only for NMC scenarios, not LFP scenarios, because the LFP particulate composition does not contain metals of environmental concern.
- Metallic lithium is not present in LFP cells under normal or thermal runaway conditions. Lithium in LFP cells exists as ions and converts to non-metallic lithium compounds during cell failure.
- The Moss Landing fire involved NMC chemistry, not LFP. Post-fire soil sampling confirmed nickel, manganese, and cobalt concentrations in adjacent wetland soils, attributable directly to NMC cathode microparticle deposition. These outcomes are chemistry-specific and do not apply to LFP systems.
- Moss Landing was an indoor installation. The Midwater BESS project is an outdoor, containerized system. Outdoor configurations provide immediate atmospheric dilution that substantially reduces near-site particulate deposition compared to an indoor release.
- The Moss Landing Phase 1 facility was commissioned in 2020 under less stringent BESS fire safety requirements. The Midwater BESS project is subject to NFPA 855 (2026) and UL 9540A 6th edition (2026), which require thermal runaway propagation protection systems, combustible concentration reduction systems, and large-scale fire test validation that were not required at Moss Landing at the time of its commissioning.

## **2. Post-Event Debris, Cleanup, and Containment**

FRA recognizes that the greater public is concerned about the potential for a difficult cleanup operation and the ability to contain BESS materials in the unlikely event of a fire developing within a BESS facility such as the proposed Midwater BESS facility. To address this, FRA conducted a targeted review of case studies and available data concerning BESS failures as well as comparing the resulting effects of a BESS failure with other common fire losses that could happen in a commercial setting. The duration of an event modeled in the plume analysis, included with the EA, is valid as a worst-case scenario.

### **2.1. BESS Fire Duration**

The total duration of a potential BESS fire is determined by the cells, modules, electronics, and insulating materials found within a BESS enclosure. Testing data is typically collected by BESS manufacturers to characterize the overall burning behavior of a fully populated BESS unit, as required by the large-scale fire test (LSFT) provision in UL 9540A, for product certification.<sup>17</sup> The duration of the fire is recorded in these tests and follows a similar pattern of a growth phase with a small fire, to a

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<sup>17</sup> UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems, 2026.

steady-state fire that can last for tens of minutes to a few hours, to a decay period with a small fire that can last for multiple hours.

In the plume analysis conducted by FRA, a fire duration of 19.5 hours was used as a worst-case scenario to ensure the dispersion analysis did not underestimate the basis of the emission duration for the analysis and was based on actual LSFT results.<sup>18</sup> This burn duration can be compared with public information on other documented containerized BESS fires. For example, one directly applicable documented case is the September 5, 2024, fire at SDG&E's Escondido Energy Storage Facility.<sup>19</sup> In this incident, the fire was confined to a single containerized lithium-ion BESS unit that burned for approximately 13 hours before being declared controlled.<sup>20</sup> Based on documented containerized BESS incidents and LSFT testing, the total active fire durations for single-unit events typically range from 4 to 15 hours.

## 2.2. Post-Event Debris Composition and Cleanup

The solid residue from an LFP battery fire consists of iron phosphate (FePO<sub>4</sub>) cathode fragments, aluminum module housings, copper current collectors, carbonized electrolyte and separator materials, and the steel container shell. As established in Section 1, the LFP cathode contains no nickel, cobalt, or manganese and no LFP fire event can produce them. Under the United States Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) regulations, fire-damaged batteries with breached casings carry waste codes D001 (ignitable) and D003 (reactive) regardless of chemistry.<sup>21</sup> This classification does not indicate environmental toxicity equivalent to NMC debris. It reflects residual electrolyte reactivity and mandates that debris be packaged, manifested, and transported to a permitted disposal facility, which is the regulatory mechanism that prevents uncontrolled environmental release. Critically, LFP fire debris is solid. No liquid-phase pyrolysis products are generated, removing the primary transport mechanism by which fire residues would migrate into soil and reach groundwater.

Firewater applied directly to a burning LFP battery system may generate a secondary environmental concern. However, the standard protocol for responding to a burning BESS is to not apply water directly to the burning BESS.<sup>22</sup> Instead, limited water may be applied to cool the fire plume and a majority of the water is applied to the adjacent enclosure surfaces to prevent the spread of the fire.<sup>23</sup> When limited water is applied to a fire plume, it may pick up contaminants, primarily fluoride derived from hydrolysis of the LiPF<sub>6</sub> electrolyte salt, dissolved lithium ions, and combustion byproducts, before washing into stormwater treatment pools. The firewater that is applied to adjacent structures or surfaces to cool or otherwise prevent the spread of a burning LFP battery system will not contain potentially harmful contaminants. Additionally, firewater runoff from an LFP BESS fire is a finite, single-event waste stream managed and removed under enforceable regulatory requirements and not a chronic release pathway to groundwater, wetlands, or other surface waters.

<sup>18</sup> 731-004 Midwater BESS Plume Analysis Final Report Rev2, Jan. 2026.

<sup>19</sup> Energy Storage News, "California: SDG&E battery fire was 'well managed,' caused 'minimal impact,'" 2024.

<sup>20</sup> Energy Storage News, "California: SDG&E battery fire was 'well managed,' caused 'minimal impact,'" 2024.

<sup>21</sup> Memo, United States Environmental Protection Agency, "Lithium Battery Recycling Regulatory Status and Frequently Asked Questions," May 24, 2023.

<sup>22</sup> A. Bordes et al., "Assessment of Run-Off Waters Resulting from Lithium-Ion Battery Fire-Fighting Operations," Batteries, vol. 10, no. 4, p. 118, Mar. 2024.

<sup>23</sup> A. Bordes et al., "Assessment of Run-Off Waters Resulting from Lithium-Ion Battery Fire-Fighting Operations," Batteries, vol. 10, no. 4, p. 118, Mar. 2024.

### 2.3. A Potential BESS Fire is Not a Chronic Source of Contamination

A chronic contamination source is defined by a sustained release pathway such as the ongoing leaching of soluble compounds, persistent groundwater migration, or repeated surface mobilization by precipitation that continues after an initiating event. Two independent lines of evidence establish that LFP thermal runaway does not meet this definition. First, the National Institute for Occupational Safety and Health (NIOSH) / Centers for Disease Control and Prevention (CDC) laboratory characterization of LFP fire aerosols confirmed that LFP combustion products are carbonaceous cenospheres with no detectable transition metal particles.<sup>24</sup> Second, an environmental impact review of documented BESS fire incidents conducted by INERIS and Sandia National Laboratories for the NFPA Research Foundation concluded that "no significant environmental pollution is mentioned" in any documented BESS fire event except for one Portland-area incident in which site containment failures, not LFP chemistry, were the operative factor.<sup>25</sup> For containerized LFP systems specifically, a third-party laboratory assessment of the 2021 Geelong, Australia Tesla Megapack fire determined that "the probability of the fire having had an impact on the water is minimal," with the utility pumping and reprocessing approximately 900 m<sup>3</sup> of water as a precaution before returning the site to service.<sup>26</sup> While contamination left untreated can become chronic, leaving LFP debris untreated is not an outcome that can occur under the regulatory framework already governing the Midwater BESS facility. EPA and RCRA D001/D003 classification requirements<sup>27</sup> impose collection, containment, and disposal obligations that specifically preclude an untreated scenario.

### 2.4. Comparison with a Commercial Fire Remediation Case

A single automobile repair shop or dealership, a facility present in virtually every community, maintains a typical operating inventory that includes motor oil and used oil in storage drums, gasoline and diesel fuel in underground storage tanks, brake fluid, engine coolant, transmission fluid, and commercial solvents such as acetone and mineral spirits, along with tires and lead-acid batteries. When such a facility burns, the combustion of petroleum fluids generates polycyclic aromatic hydrocarbons (PAHs), benzene (a Group 1 human carcinogen per the International Agency for Research on Cancer), toluene, and xylene, and the combustion of tire and rubber components generates dioxins, furans, and heavy metals including lead and cadmium.<sup>28</sup>

The defining characteristic of this type of contamination is that fire-mobilized petroleum products and tire pyrolysis oil are liquid-phase mixtures, partially water-soluble, and capable of penetrating soil and reaching groundwater within days of the fire event. That liquid-phase migration pathway is the mechanism by which an acute fire event transitions into a chronic contamination source requiring

<sup>24</sup> Barone et al., "Lithium-ion battery explosion aerosols: Morphology and elemental composition," *Aerosol Science and Technology*, 2021.

<sup>25</sup> Truchot et al., "Environmental Impact of Lithium-Ion Battery Incidents," NFPA Research Foundation Report No. FPRF-2025-04, INERIS and Sandia National Laboratories, Oct. 2025.

<sup>26</sup> Truchot et al., "Environmental Impact of Lithium-Ion Battery Incidents," NFPA Research Foundation Report No. FPRF-2025-04, INERIS and Sandia National Laboratories, Oct. 2025.

<sup>27</sup> Memo, United States Environmental Protection Agency, "Lithium Battery Recycling Regulatory Status and Frequently Asked Questions," May 24, 2023.

<sup>28</sup> California Air Resources Board / Office of Environmental Health Hazard Assessment, "Health Effects of Tire Fires," CARB Research Report L871.

regulatory-directed cleanup. Based on the EPA's 2022 Leaking Underground Storage Tank Cleanup Cost Study, the average cleanup cost for petroleum-contaminated automotive and service station sites is approximately \$243,000, with complex sites involving groundwater plumes requiring \$500,000 to over \$2,000,000 and remediation timelines commonly spanning three to ten years.<sup>29</sup> By contrast, the post-event response at a single containerized LFP BESS unit is limited to solid debris removal from within the affected container and the collection of firewater runoff for disposal at a permitted facility. No liquid-phase contaminants are generated. There is no soil infiltration pathway, no surface water exposure pathway, and no groundwater exposure mechanism. The 2024 SDG&E Escondido containerized BESS fire required no soil investigation, no groundwater monitoring, and no regulatory enforcement action, and was characterized by the utility as “well managed” with “minimal impact.”<sup>30</sup> In scope, duration, and cost, the remediation effort required following a fire at a conventional automotive service facility well exceeds that associated with a containerized LFP BESS fire event.

### 2.5. Key Points of the Section 2 Response

- Single-unit LFP BESS fires are short-duration events. The 19.5-hour fire duration modeled in the FRA plume study is a conservative worst-case envelope, not a representative incident duration.
- LFP fire debris is solid and physically confined within the affected container. The LFP cathode chemistry produces no nickel, cobalt, or manganese, which are the transition metals associated with documented environmental contamination at NMC battery fire sites, and no liquid-phase pyrolysis products are generated. The debris constitutes a bounded, removable unit.
- Federal hazardous waste regulations mandate collection, packaging, and permitted disposal of fire-damaged LFP battery debris. This enforceable framework is the mechanism that prevents post-event debris from becoming a chronic environmental release, and it is already applicable to the proposed Midwater BESS facility.
- Firewater runoff from an LFP BESS fire is a finite, single-event waste stream. Existing environmental regulations require its collection and disposal at a permitted facility, removing the pathway by which this secondary waste stream could otherwise migrate to groundwater.
- Documented containerized LFP BESS fire incidents have not required soil investigation, groundwater monitoring, or environmental enforcement action. Fires at conventional automotive service facilities, like those found in all communities, generate mobile, liquid-phase petroleum and solvent contamination that routinely requires years of regulated remediation with costs ranging from hundreds of thousands to millions of dollars.

## 3. Watershed-Level Impacts and Fire Containment

FRA recognizes that the greater public is concerned about the potential for watershed-level impacts and the potential for widespread environmental impact in the event of a fire at the proposed Midwater BESS

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<sup>29</sup> Industrial Economics, Inc. (IEC), "Leaking Underground Storage Tank (LUST) Cleanup Cost Study," U.S. EPA Office of Underground Storage Tanks, Mar. 2022.

<sup>30</sup> Energy Storage News, "California: SDG&E battery fire was 'well managed,' caused 'minimal impact,'" 2024.

facility, including whether the fire could grow to involve the entire installation. To further address this, this section establishes the engineering basis for evaluating the potential for widespread environmental impact in the event of a fire, summarizes the watershed-level environmental findings from the FRA plume study, and explains why full-site fire involvement is not a credible scenario based on the design requirements governing the Midwater BESS project.

### 3.1. Engineering Definition of a Worst-Case Scenario

In engineering practice, a worst-case scenario is defined as the most severe credible event, not the most extreme event that could theoretically be imagined. A credible event is one supported by real incident data, laboratory testing, or documented failure analysis. An event that requires the sequential failure of multiple independent engineered safety systems, each of which must fail before the next step in a propagation chain becomes possible, falls outside the definition of a credible worst-case. This distinction is the appropriate framework for evaluating whether simultaneous fire involvement of all BESS enclosures at the Midwater BESS site represents a realistic design-basis concern. As described below, the engineering requirements governing the Midwater BESS project directly address this question.

### 3.2. Watershed and Soot Deposition

As established in Part 1, LFP battery combustion does not produce the nickel, cobalt, or manganese particulates responsible for the environmental contamination documented at Moss Landing. LFP aerosols consist of carbonaceous cenospheres containing carbon, silicon, and fluorine, with transition metals explicitly absent.<sup>31</sup> The FRA plume analysis modeled gas and soot dispersion from a single BESS enclosure fire under worst-case meteorological conditions. All modeled hazards, including carbon monoxide, hydrogen fluoride, carbon dioxide, and soot visibility, were contained within the proposed site perimeter under all four wind scenarios evaluated.<sup>32</sup> No contaminant reached the site boundary at a concentration of health concern.

Additionally, as described in Part 2, a review of documented BESS fire incidents found no significant environmental pollution associated with any containerized BESS fire event, and a third-party assessment of a real-world containerized LFP fire confirmed the probability of water impact to be minimal.<sup>33</sup> Based on the plume study results and the environmental impact data described in Parts 1 and 2, a single-enclosure LFP BESS fire at the Midwater BESS site does not present a measurable chronic watershed-level impact.

### 3.3. Full-Site Fire Involvement Is Not a Credible Scenario

The question of whether all BESS enclosures at the Midwater BESS site could be simultaneously involved in fire requires evaluating a multi-step propagation process in which each stage requires specific physical conditions to be met before the next stage becomes possible. That process is described below.

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<sup>31</sup> Barone et al., "Lithium-ion battery explosion aerosols: Morphology and elemental composition," *Aerosol Science and Technology*, 2021.

<sup>32</sup> 731-004 Midwater BESS Plume Analysis Final Report Rev2, Jan. 2026.

<sup>33</sup> Truchot et al., "Environmental Impact of Lithium-Ion Battery Incidents," NFFPA Research Foundation Report No. PPRF-2025-04, INERIS and Sandia National Laboratories, Oct. 2025.

If a lithium-ion cell undergoes thermal runaway, it may propagate to adjacent cells within the same BESS module. If propagation continues, the fire may spread through the module of origin, and from one module to another within the same BESS stack. If propagation continues further, the fire may eventually spread to involve all of the modules within a single BESS enclosure. Each of these steps requires sufficient thermal energy transfer to exceed an ignition threshold of the next component, and each step is resisted by the thermal mass, physical separation, and passive thermal barriers designed into the BESS enclosure. This entire process, from initial cell failure to full involvement of a single enclosure, takes place over a period of several hours. As noted in Part 2, documented single-unit containerized BESS fires have active durations in the range of 4 to 15 hours. The slow rate of fire growth is not incidental. It is a physical consequence of the energy transfer processes involved and provides a meaningful window for fire department personnel to intervene and control the event before full enclosure involvement is reached.

The critical safeguard against fire spread beyond a single enclosure is the UL 9540A large-scale fire test (LSFT) requirement. Under the current standard,<sup>34</sup> a BESS enclosure must demonstrate through full-scale testing that a thermal runaway event does not propagate to adjacent enclosures in order to receive a certified listing. This is not a design guideline or a performance objective. It is a mandatory test that must be passed before a BESS product can be certified and sold for installation. The BESS units specified for the Midwater project are required to hold this listing. In addition, NFPA 855 requires thermal runaway propagation protection systems, combustible concentration reduction systems, and minimum separation distances between enclosures, all of which are specifically structured to prevent enclosure-to-enclosure fire spread even in the absence of fire department response.<sup>35</sup>

For fire to spread from one enclosure to another at the Midwater BESS site would require the sequential failure of all of these independent safeguards in succession: the passive thermal barriers within the enclosure, the minimum separation distances prescribed by NFPA 855, and the LSFT-validated containment capability that each enclosure is required to demonstrate as a condition of its listing. The probability of this sequential failure chain, against the background of a documented incident record that contains no confirmed case of enclosure-to-enclosure fire propagation at a NFPA 855-compliant installation, does not meet the standard of a credible worst-case event.

Further, the FRA plume analysis was conducted on the basis of a single-enclosure fire scenario with a conservative 19.5-hour fire duration, characterized in the report as uncharacteristically long even for a worst-case analysis.<sup>36</sup> Even under this scenario, all hazards were contained within the site perimeter. A multi-enclosure scenario is not supported by documented incident data, is contradicted by the UL 9540A certification requirements applicable to the specified equipment, and requires a sequential failure of independent engineered safeguards that is inconsistent with the performance record of similarly designed and listed installations.

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<sup>34</sup> UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems, 2026.

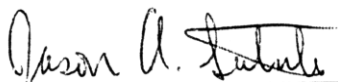
<sup>35</sup> NFPA 855: Standard for the Installation of Stationary Energy Storage Systems, National Fire Protection Association, 2026.

<sup>36</sup> 731-004 Midwater BESS Plume Analysis Final Report Rev2, Jan. 2026.

### 3.4. Key Points of the Section 3 Response

- A worst-case scenario in engineering is the most severe credible event, not the most extreme conceivable event. An event requiring the sequential failure of multiple independent safety systems does not qualify as a credible worst-case.
- The FRA plume study modeled a single-enclosure worst-case fire scenario. All modeled hazards were contained within the site perimeter.
- Fire propagation from a single cell to full enclosure involvement is a slow, multi-step process requiring hours to complete. This time scale allows fire department personnel to intervene before full enclosure involvement is reached.
- UL 9540A requires that every listed BESS enclosure pass a full-scale fire test demonstrating that thermal runaway does not propagate to adjacent enclosures. This is a mandatory certification requirement, not a design guideline, and it is applicable to the BESS units specified for the Midwater project.
- NFPA 855 (2026) imposes thermal runaway propagation protection systems, combustible concentration reduction systems, and enclosure separation distances specifically designed to prevent multi-enclosure fire involvement even without fire department response.
- No confirmed case of enclosure-to-enclosure fire propagation exists in the documented incident record for NFPA 855-compliant containerized BESS installations. The multi-enclosure fire scenario is not a credible event for the Midwater project.

The findings and conclusions stated in this memo were formed to a reasonable degree of scientific and professional certainty. They are based upon the application of accepted principles and scientific methods to all of the known facts at the time of the analysis. Should additional information become available, FRA reserves the right to amend the findings and conclusions in this memo.



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**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 27<sup>th</sup> day of May, 2026, she e-filed on behalf of Midwater BESS, LLC, a true and correct copy of the Exceptions to Findings of Fact, Conclusions of Law, and Recommendations, with Attachment A, with the Minnesota Public Utilities Commission via eDockets ([www.edockets.state.mn.us](http://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: May 27, 2026

*Signed: /s/ Breann L. Jurek*

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