

Harmony Storage, LLC
Application for a Certificate of Site
Compatibility
for the
Harmony Storage Project
Cass County, North Dakota
NDPSC Docket No. PU-26-__
July 2026

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Acronyms

AC	alternating current
BESS	Battery Energy Storage System
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
BMS	Battery Management System
CAES	compressed air energy storage
Certificate	Certificate of Site Compatibility
Commission	North Dakota Public Service Commission
dB	decibel
dBA	A-weighted decibel
DC	direct current
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FIRM	Federal Insurance Rate Map
GIS	geographic information system
Harmony Storage	Harmony Storage, LLC
IPaC	Information for Planning and Consultation
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MISO	Midcontinent Independent Transmission System Operator
MW	megawatt
MWh	megawatt-hours
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDEQ	North Dakota Department of Environmental Quality
NDDH	North Dakota Department of Health
NDDMR	North Dakota Department of Mineral Resources
NDDOT	North Dakota Department of Transportation
NDDWR	North Dakota Department of Water Resources
NDGFD	North Dakota Games and Fisheries Department
NDGS	North Dakota Geological Survey
NDLMI	North Dakota Labor Market Information Center
NDPDES	National Pollutant Discharge Elimination System
NFPA	National Fire Protection Association
NLCD	National Landcover Database
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWP	Nationwide Permit

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O&M	operations and maintenance
OMI	Operator Maintenance Interface
PLC	programmable logic controller
PCS	Power Conversion System
PLOTS	Private Land Open to Sportsmen
POI	point of interconnection
Project	Harmony Storage Project
SCADA	Supervisory Control and Data Acquisition
SHPO	State Historic Preservation Office
SHSND	State Historical Society of North Dakota
SPCC	Spill Prevention, Control, and Countermeasure
SWPPP	Stormwater Pollution Prevention Plan
USDA	U.S. Department of Agriculture
USFWS	U.S. Fisheries and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
WOTUS	Waters of the United States

1 INTRODUCTION

Harmony Storage, LLC (Harmony Storage), a subsidiary of Geronimo Power, LLC, respectfully submits this application for a Certificate of Site Compatibility (Certificate) to the North Dakota Public Service Commission (Commission) for the Harmony Storage Project (Project) in Harmony Township, Cass County, North Dakota. This Application is submitted pursuant to the North Dakota Energy Conversion and Transmission Facility Siting Act, North Dakota Century Code (NDCC) Chapter 49-22 (Siting Act).

The Project will be a 200-megawatt (MW) battery energy storage system (BESS) with a four-hour duration (800 megawatt-hours [MWh]) to store excess energy. The Project also includes associated inverters, transformers, underground cables, and other ancillary facilities such as fencing, roads, stormwater facilities and a Battery Management System (BMS). The Project will connect to the Harmony Solar 230-kilovolt (kV) collector substation (see Docket No. PU-18-219) via underground 34.5 kV collection lines. The Project Area encompasses approximately 74 acres of land in Township 140N, Range 51W, Section 12 of Harmony Township in west central Cass County, North Dakota (**Figure 1**). The Project and associated facilities will be located on approximately 9.73 acres within the 74-acre Project Area. Harmony Storage expects construction to start in the second quarter of 2027 with commercial operation anticipated in the fourth quarter of 2028. The anticipated lifespan of the Project is 30 years.

The Project will be capable of storing surplus power from the Harmony Solar collector substation and the existing electric grid when production exceeds system demand (oversupply). If the grid has excess energy (e.g., during periods of low demand), this energy will be routed and stored by the Project for later release. The Project will enhance reliability and will be able to deliver surplus energy to the grid by storing low-cost, excess generation from the Harmony Solar Project and surplus power from the grid. The Project will then be able to discharge the stored energy into the grid at times of increased demand.

Harmony Storage seeks a Certificate for the Project Area, which allows for flexibility in the final design. Any unused portion of the Project Area not used for the final design of the Project will be returned to existing use.

1.1 Compliance with the Energy Conversion and Transmission Facility Siting Act, North Dakota Century Code Chapter 49-22

The Siting Act requires the proponent of a utility-scale energy storage facility to obtain a Certificate from the Commission in order to locate, construct, and operate the facility in the state of North Dakota. An application for a Certificate must meet certain criteria set forth in the Siting Act, as well as in North Dakota Administrative Code (NDAC) Article 69-06-08 (Siting Rules).

In this Application, Harmony Storage presents the information required by the Siting Act and the Commission's Siting Rules. Harmony Storage has considered the exclusion and avoidance areas, the selection criteria, and the policy criteria in the design of the Project, in accordance with NDCC Chapter 49-22 and NDAC Section 69-06-08-01. Information regarding Project design and technical information has been included in this Application to allow a thorough understanding of the Project and to aid in review by the Commission, regulatory agencies, and the public. **Table 1.1-1** provides a summary of information included in this Application and the section of the document in which each siting requirement is addressed.

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Table 1.1-1 Certificate Completeness Checklist

State Authority	Description	Section Addressed
NDAC 69-06-04-01	Certificate of Site Compatibility Application	
Section 2	Contents. The application must contain:	
a.	A description of:	
a. (1)	The type of energy conversion facility proposed.	1.0, 3.0
a. (2)	The gross design capacity.	1.4
a. (3)	The net design capacity.	1.4
a. (4)	The estimated thermal efficiency of the energy conversion process and the assumptions upon which the estimate is based.	n/a
a. (5)	The number of acres that the proposed facility will occupy.	3.1
a. (6) a	The anticipated time schedule for obtaining the certificate of site compatibility.	1.3
a. (6) b	The anticipated time schedule for completing land acquisition.	1.3
a. (6) c	The anticipated time schedule for starting construction.	1.3
a. (6) d	The anticipated time schedule for completing construction.	1.3
a. (6) e	The anticipated time schedule for testing operations.	1.3
a. (6) f	The anticipated time schedule for commencing commercial production.	1.3
a. (6) g	The anticipated time schedule for beginning any expansions or additions.	1.5
b.	Copies of any evaluative studies or assessments of the environmental impact of the proposed facility submitted to any federal, regional, state, or local agency.	Appendices H,I
c.	An analysis of the need for the proposed facility based on present and projected demand for the product or products to be produced by the proposed facility, including the most recent system studies supporting the analysis of the need.	1.7
d.	A description of any feasible alternative methods of serving the need.	1.7.2
e.	A study area that includes the proposed facility site is of sufficient size to enable the commission to evaluate the factors addressed in NDCC section 49-22-09.	1.2.2, 6.0-6.9, 7.0-7.10
f.	A discussion of the utility's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.	Appendix A
g.	A map identifying the criteria that provides the basis for the specific location of the proposed facility within the study area.	Figure 2
h.	A discussion of the criteria evaluated within the study area, including exclusion areas, avoidance areas, selection criteria, policy criteria, design and construction limitations, and economic considerations.	2.0-2.6
i.	A discussion of the mitigative measures that the applicant will take to minimize adverse impacts that result from the location, construction, and operation of the proposed facility.	6.0-6.9
j.	The qualifications of each person involved in the facility site location study.	10.0
k.	A map of the study area showing the location of the proposed facility and the criteria evaluated.	Figures 2 - 4
l.	An eight-and-one-half-inch by eleven-inch black-and-white map suitable for newspaper publication depicting the site area.	Figure 8
m.	A discussion of present and future natural resource development in the area.	6.6, 6.7, 6.8, 6.9

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State Authority	Description	Section Addressed
n.	Map and Geographic Information System (GIS) requirements. The applicant shall provide information that is complete, current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the commission. The information must provide the location of the proposed facilities, the proposed site, and the criteria evaluated.	Figures 1-8; USB drive
NDCC 49-22-08	Description of Application Requirements	
Section 1	An application for a certificate must be in such form as the commission may prescribe, containing the following information:	
1. a.	A description of the size and type of facility.	1.0, 3.0
1. b.	A summary of any studies that have been conducted on the environmental impact of the facility.	1.2.4, 6.0-6.9
1. c.	A statement explaining the need for the facility.	1.7
1. d.	An identification of the location of the preferred site for any electric energy conversion facility.	1.2.2, Figure 1
1. e.	An identification of the location of the preferred corridor for any electric transmission facility.	n/a
1. f.	A description of the merits and detriments of any location identified and a comprehensive analysis with supporting data showing why the preferred location is best suited for the facility.	1.0, 1.2, 2.0-2.6, 6.0-6.9, 7.0-7.10
1. g.	A description of mitigative measures that will be taken to minimize all foreseen adverse impacts resulting from the location, construction, and operation of the proposed facility.	6.0-6.9
1. h.	An evaluation of the proposed site or corridor with regard to the applicable considerations set out in section 49-22-09 and the criteria established pursuant to section 49-22-05.1.	1.0, 1.2, 2.0-2.6, 6.0-6.9, 7.0-7.10
1. i.	Such other information as the applicant may consider relevant or the Commission may require.	Complete Application including Appendices and Figures
NDCC 49-22-09	Factors to be considered in evaluating applications and designation of sites, corridors, and routes.	
Section 1	The commission shall be guided by, but is not limited to, the following considerations, where applicable, to aid the evaluation and designation of sites, corridors, and routes:	
1. a.	Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.	6.0-6.9, 7.1
1. b.	The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.	7.2
1. c.	The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.	7.3
1. d.	Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.	7.4
1. e.	Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.	7.5
1. f.	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	7.6
1. g.	The direct and indirect economic impacts of the proposed facility.	7.7
1. h.	Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.	6.1, 6.2, 6.6, 7.8

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State Authority	Description	Section Addressed
1. i.	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	6.4, 6.6, 7.9
1. j.	The effect of the proposed site or route on areas unique because of biological wealth or because the areas are habitats for rare and endangered species.	6.6, 6.9, 7.10
1. k.	Problems raised by federal agencies, other state agencies, and local entities.	8.0

1.2 Project Summary

1.2.1 Project Ownership

Harmony Storage will construct, own, operate, and maintain the Project.

Geronimo Power is a utility-scale renewable energy development company headquartered in Bloomington, Minnesota that has developed multiple operating solar, wind, and energy storage projects throughout the United States. Over 2,900 MW of solar, wind, or energy storage projects developed by Geronimo are either under construction or operational. In addition, Geronimo Power has a multi-gigawatt development pipeline of solar, wind, and energy storage projects in various stages of development throughout the United States. Geronimo Power provides custom renewable energy development solutions for utilities, independent power purchasers and corporations looking to harness renewable energy for business growth and prides itself on developing solar, wind, and energy storage projects that are farmer-friendly, community-driven, and beneficial for rural communities. **Appendix A** describes Harmony Storage's corporate policy and commitments to limit the environmental impact of its facilities.

1.2.2 Project Location

Harmony Storage selected the Project location based on landowner support, proximity to the Harmony Solar Project infrastructure, including the collector substation gen-tie line that interconnects to the existing Northern States Power Bison Substation (**Figure 1**), as well as minimal impact on human and environmental resources. Harmony Storage sited the Project adjacent to the Harmony Solar Project to minimize impacts to the local community and environment, to maximize efficiency and to co-locate the Project with existing electric infrastructure (Bison Substation and associated transmission lines).

1.2.2.1 Study Area

Harmony Storage also reviewed a one-mile buffer around the Project Area, referred to as the Study Area, for relevant sections in the environmental analysis (refer to Section 6.0). The Study Area comprises 3078.79 acres (including the Project Area) of primarily agricultural land in Harmony Township, Cass County, North Dakota (**Figure 3**). The Study Area is located in Township 140N, Range 51W, Sections 1, 2, 11, 12, 13 and 14 of Harmony Township and Township 140N, Range 50W, Sections 6, 7, and 18 of Raymond in west central Cass County, North Dakota. The environmental analysis (Section 6.0) of the Study Area is intended to describe the natural and human environments that have the potential to be indirectly impacted by the Project.

1.2.2.2 Project Area

The Project Area is located in Township 140N, Range 51W, Section 12 of Harmony Township in west central Cass County, North Dakota (**Figure 1**). The Project Area will be directly northeast of the intersection of 32nd Street SE and 162nd Avenue SE and approximately 4.2 miles north of Mapleton, 7.4 miles northeast of Casselton and 10.3 miles northwest of Fargo. All Project facilities will be located on private land. Harmony Storage has executed a lease agreement with a private landowner for the Project. Additionally, Harmony Storage will enter into an agreement with Harmony Solar to connect the BESS to the existing collector substation via an underground collector system.

1.2.3 Project Layout

In this Application, Harmony Storage is providing a preliminary layout, which is subject to final design (**Figure 2**). Facilities include:

- Energy storage (battery) modules;
- Inverters and transformers;
- Electrical collection and communication lines;
- Gravel access roads;
- Stormwater management facilities;
- Operator Maintenance Interface (OMI) areas;
- Laydown area;
- Supervisory Control and Data Acquisition (SCADA) System;
- Security fencing; and
- Associated temporary facilities.

The Project will utilize the operations and maintenance facility and substation being constructed as part of the separate Harmony Solar Project (Case No. PU-18-219). An underground collection line will connect the Project to the Harmony Solar Project's substation. The Project will interconnect to the electrical grid at the existing Bison Substation via the Harmony Solar Project's substation.

The Project layout satisfies all North Dakota siting requirements per the Siting Act and Siting Rules, while optimizing efficiency of space and energy storage as well as avoiding or minimizing impacts to the environment, cultural resources, and existing land use.

1.2.4 Development History

Harmony Storage began evaluating the area as a potentially suitable site for a solar energy system and/or utility-scale energy storage system in 2019. Over the course of the following seven years, based on site-specific studies and in consultation with agencies, landowners, and other stakeholders, Harmony Storage refined the Project location, as described below.

Harmony Storage initiated talks with the landowner regarding solar and other energy development in early 2019, and signed an initial lease in late 2019. Harmony Storage continued coordinating with the participating landowner and finalized site control for the Project Area in early 2026.

Beginning in 2025 and continuing in 2026, Harmony Storage conducted a series of environmental studies and surveys, including a site assessment, Class I and Class III cultural surveys, Phase I Environmental Site Assessment (ESA), and wetland delineations. Harmony Storage identified potential wetlands and surface waters within the Project Area using U.S. Geological Survey (USGS) topographic maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey, National Wetland Inventory (NWI) mapping, and aerial photography. In October 2025, Harmony Storage completed field wetland delineations within the Project Area. Harmony Storage also completed a cultural resource field survey for the Project. All these studies helped Harmony Storage refine the Project Area and design the layout to avoid and/or minimize impacts to wildlife, wetlands, and sensitive resources.

Harmony Storage is committed to transparency and community involvement. Consistent with this commitment, Harmony Storage has met with Harmony Township Board of Supervisors to inform the township of the Project and to provide comprehensive updates on the Project's progress. Harmony Storage is prioritizing close coordination with Harmony Township throughout development.

Harmony Storage gave presentations to and conducted outreach with the Harmony Township Board of Supervisors throughout late 2025 and early 2026, including providing information on the Project and working with the Township on proposed amendments to the Township ordinance to address battery energy storage systems. Harmony Township is in the process of amending its zoning ordinance to authorize BESS

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associated with already-authorized uses as permitted uses in the Agricultural District subject to certain requirements. Accordingly, the Project would be authorized as a permitted use.

Harmony Storage also hosted an informational meeting near the Project site at the Mapleton Community Center on January 7, 2026, providing an opportunity for members of the public to ask questions and learn more about the Project.

Harmony Storage is in the process of finalizing its Generator Interconnection Agreement with the Midcontinent Independent Transmission System Operator (MISO) and Xcel Energy, the local transmission owner.

1.3 Schedule

A summary of the anticipated schedule for the Project is provided in **Table 1.3-1**.

Table 1.3-1 Anticipated Time Schedule

Activity	Anticipated Time
Land acquisition	Harmony Storage has executed a lease agreement with a private landowner.
Obtaining the Certificate of Site Compatibility	Harmony Storage anticipates the Certificate will be issued in the First Quarter of 2027.
Other Permits	Harmony Storage will acquire other permits necessary for construction of the Project prior to conducting the work for which the permit is required.
Starting construction	Harmony Storage anticipates commencing construction in the Second Quarter of 2027.
Completing construction	Harmony Storage anticipates completing construction in the Fourth Quarter of 2028.
Integration, commissioning, and testing operations	Integrating, testing, and commissioning of the Project are anticipated to occur in the Fourth Quarter of 2028.
Commencing commercial operation	Harmony Storage anticipates commencing commercial operations in December 2028.

1.4 Projected Output

The Project will be a 200 MW BESS with a four-hour duration (800 MWh) to store excess energy.

1.5 Expansion or Addition

Harmony Storage does not anticipate expanding the proposed Project.

1.6 Project Cost

The estimated total cost to construct the Project is approximately \$249 million.

1.7 Purpose and Need

1.7.1 Need Analysis

The Project is being developed adjacent to the Harmony Solar Project and will utilize Harmony Solar's collector substation and point of interconnection (POI) to maximize the efficiency. By co-locating on the same interconnection facilities, Harmony Storage avoids the need for new interconnection infrastructure (other than minor modifications to the Harmony Solar substation) while delivering additional grid value through energy storage from the solar facility and the electric grid.

Harmony Storage is in the process of identifying an offtaker for the Project. Energy from the Project may help local or regional utilities to meet applicable renewable energy needs.

Utilities are including renewable energy projects in their resource plans as long-term economic energy and capacity resources. In general, alternative energy sources provide lower costs per MWh than conventional sources, and pairing renewable projects with battery storage projects compound these results.(Lazard 2025) (IREA 2025). Battery storage projects can further reduce renewable project costs and improve grid reliability by storing excess power that would otherwise be wasted during periods of excess production or low demand, until it's needed during periods of low production or high-demand (EPA 2018). Thus, the Project could help satisfy local, regional or even national renewable energy demand.

1.7.2 Alternative Methods to Service the Need

Potential alternatives to energy storage facilities include alternative technologies such as hydrogen storage, compressed air energy storage, flywheel energy storage, pumped hydroelectric storage, thermal energy storage, or natural gas peaking generation. However, none of these alternatives is well-suited to the specific requirements of this Project or the characteristics of the proposed site.

Pumped hydro and compressed air energy storage require unique geological or topographical conditions not present at the Project site. Hydrogen and thermal storage technologies remain at early commercial stages and are not currently recognized under MISO's accreditation framework for capacity value. Flywheel storage provides short-duration frequency response but cannot sustain the multi-hour discharge needed to accrue meaningful MISO capacity accreditation.

By contrast, lithium-ion BESS technology is commercially proven, MISO-accredited, and deployable on a schedule consistent with the offtaker's resource adequacy compliance needs. For these reasons, a BESS is the only technology capable of meeting the full scope of the Project's purpose and need.

1.7.3 Ten-Year Plan

In accordance with NDCC Section 49-22-04 and NDAC Chapter 69-06-02, Harmony Storage filed a Ten-Year Plan for years 2026-2036 in June 2026 with the PSC (Case No. PU-26- 230) (**Appendix B**). Harmony Storage's Ten-Year Plan is consistent with the contents of this application.

2 SITE SELECTION CRITERIA

Harmony Storage selected the Project Area based on a number of factors, including proximity to the Harmony Solar Project and associated interconnection facilities, landowner support, communications with local, state, and federal agencies, compatibility with existing land uses and resources, and minimal impact on human and environmental resources. In addition, site selection for the Project was based on the siting criteria outlined in NDAC 69-06-08-01 and the factors in NDCC 49-22-09.

2.1 Exclusion Areas

NDAC 69-06-08-01(1) states that certain "geographical areas must be excluded in the consideration of a site for an energy conversion facility." **Table 2.1-1** outlines the geographic areas identified in NDAC 69-06-08-01(1) and their presence or absence in the Project Area. Exclusion areas in the Project Area, Study Area, and surrounding area are shown on **Figure 3**.

Table 2.1-1 Exclusion Areas

NDAC 69-06-08-01(1)	Present within Project Area?	Section Addressed
1. Exclusion areas.		
a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.	Not present.	6.6

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NDAC 69-06-08-01(1)	Present within Project Area?	Section Addressed
b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.	Not present.	6.6
c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.	Not present.	6.6
d. Areas critical to the life stages of threatened or endangered animal or plant species.	Not present.	6.9, Appendix I
e. Areas where animal or plant species that are unique or rare to this state will be irreversibly damaged.	Not present.	6.6, 6.9, Appendix I
f. Areas within 1,200 feet of the geographic center of an intercontinental ballistic missile launch or launch control facility.	Not present. The nearest intercontinental ballistic missile launch or launch control facility is approximately 75 miles southeast of the Project Area.	6.3
g. Areas within 30 feet [9.14 meters] on either side of a direct line between an intercontinental ballistic missile launch facility and a missile alert or launch control facilities to avoid microwave interference. This restriction only applies to aboveground structures, not to surface features, such as roads, or belowground infrastructure.	Not present. The nearest intercontinental ballistic missile launch facility, missile alert facility, or launch control facility is approximately 75 miles southeast of the Project Area.	6.3

2.2 Avoidance Areas

In accordance with NDAC 69-06-08-01(3), certain “geographical areas may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility[,] the [C]ommission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.”

Table 2.2-1 outlines the geographic areas identified in NDAC 69-06-08-01(3) and their presence or absence in the Project. Avoidance areas in the Project Area, Study Area, and surrounding area are shown on **Figure 3**.

Table 2.2-1 Avoidance Areas

NDAC 69-06-08-01(3)	Present in Project Area?	Description	Section Addressed
3. Avoidance areas.			
a. Historical resources which are not designated as exclusion areas.	Present.	Harmony Storage has completed a Class I and Class III cultural resource inventory for the Project Area. Identified unevaluated, potentially eligible, and eligible archaeological resource sites will be avoided by Project facilities and construction activities.	6.4

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NDAC 69-06-08-01(3)	Present in Project Area?	Description	Section Addressed
b. Areas within the city limits of a city or the boundaries of a military installation.	Not present.	N/A	6.3
c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.	Present.	Based on publicly available Federal Emergency Management Agency (FEMA) EMA Flood Insurance Rate Map (FIRM) data, approximately 1.8 acres of 100-year floodplain is located within the Project Area. However, Project facilities will avoid the FEMA 100-year floodplains; accordingly, no impacts are anticipated.	6.8 Appendix H
d. Areas that are geologically unstable.	Not present.	N/A	6.7
e. Woodlands and wetlands.	Present.	There are no woodlands present in the Project Area. There are less than two acres of wetlands present within the Project Area. The Project has been designed to avoid permanent and temporary impacts to wetlands. There are no wetlands located within the fenced perimeter, and access roads outside of the fenced perimeter avoid wetlands. In limited locations where underground electrical collection lines intersect wetlands, Harmony Storage plans to bore the electrical collection cables under the wetlands, thereby avoiding impacts. Specifically, the collection lines will be bored under the field delineated wetland that is adjacent to 162 nd Avenue, therefore avoiding impacts to the wetland.	6.8, 6.9, Appendix H
f. Areas of recreational significance which are not designated as exclusion areas.	Not present.	N/A	6.6

2.3 Selection Criteria

NDAC 69-06-08-01(5) states that “a site shall be approved in an area only when it is demonstrated to the [C]ommission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum.” **Table 2.3-1** outlines the selection criteria identified in NDAC 69-06-08-01(5) and provides a description of how potential adverse effects from the Project's location, construction, and operation will be avoided, kept at an acceptable minimum, or managed/maintained at an acceptable minimum.

Table 2.3-1 Selection Criteria

NDAC 69-06-08-01(5)	Description of Potential Project Effect	Section Addressed
5. Selection criteria.		
a. The impact upon agriculture:		

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NDAC 69-06-08-01(5)	Description of Potential Project Effect	Section Addressed
(1) Agricultural production.	Agricultural land will be converted from agricultural use to energy storage use for the life of the Project. Out of 74 acres in the Project Area, only up to 7 acres are anticipated to host permanent Project facilities. Any unused portion of the Project Area not used for the final design of the Project will be returned available to return to existing use.	3.5, 6.6
(2) Family farms and ranches.	While some areas of agricultural production will be converted to an energy storage resource during the life of the Project, the Project will provide additional income to the landowner in the form of lease income. Any economic losses are anticipated to be minor in comparison. Additionally, the Project has been designed to minimize impacts to family farms and ranches to the extent possible, and aboveground Project facilities have been set back from occupied dwellings in accordance with Commission requirements and voluntary commitments to the Township.	3.5, 6.6
(3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	The landowner has not expressed concerns related to irrigation on their property, and no known irrigation system is present in the Project Area.	N/A
(4) Surface drainage patterns and ground water flow patterns.	No adverse impacts are anticipated to surface drainage or groundwater flow patterns.	6.8, Appendix H
(5) The agricultural quality of the cropland.	No adverse impacts to agricultural quality of cropland are anticipated. The landowner will be compensated for the placement of Project facilities on their property and will be reimbursed for revenues lost due to temporary crop damage from construction activities.	6.6
b. The impact upon the availability and adequacy of:		
(1) Law enforcement	No adverse effect anticipated.	6.2
(2) School systems and education programs	No adverse effect anticipated.	6.2
(3) Governmental services and facilities	No adverse effect anticipated.	6.2
(4) General and mental health care facilities	No adverse effect anticipated.	6.2
(5) Recreational programs and facilities	No adverse effect anticipated.	6.6
(6) Transportation facilities and networks	There will be a temporary increase in vehicle traffic during construction activities. Harmony Storage will coordinate with local road authorities regarding haul roads. During operations, road use will generally be similar to other area traffic.	6.2
(7) Retail service facilities	No adverse effect anticipated.	6.1, 6.2
(8) Utility services	No adverse effect anticipated. Harmony Storage will coordinate with the system operator and the local utilities for utility services.	6.2
c. The impact upon:		

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NDAC 69-06-08-01(5)	Description of Potential Project Effect	Section Addressed
(1) Local institutions	No adverse effect anticipated.	6.2
(2) Noise-sensitive land uses	Noise sensitive land uses near the Project include inhabited residences. However, Harmony Storage has sited Project facilities to comply with applicable setback requirements and voluntary commitments, and such that predicted sound levels from the Project will not exceed 45 decibel, A-weighted (dBA) within 100 feet of an inhabited residence or community building.	6.5, Appendix D
(3) Light-sensitive land uses	No adverse effect anticipated. Light sensitive land uses near the Project include inhabited residences and wildlife. Lighting will be only in areas where it is required for safety, security, or operations.	3.0, 6.6
(4) Rural residences and businesses	No adverse effect anticipated. The nearest rural residence is located approximately 0.6 mile north of the Project Area and approximately 0.7 mile north of the nearest Project component. Rural businesses such as motels, restaurants, and convenience stores are likely to experience an increase in business during Project construction.	6.1
(5) Aquifers	No adverse effect anticipated. No surficial aquifers are present within the Project Area.	6.8
(6) Human health and safety	No adverse effect anticipated.	6.3
(7) Animal health and safety	No adverse effect anticipated. Coordination is ongoing with the North Dakota Game and Fisheries Department (NDGFD) and the U.S. Fisheries and Wildlife Service (USFWS).	6.9
(8) Plant life	Temporary and permanent vegetation impacts will occur during construction. Following construction, non-cropland areas temporarily impacted by construction will be reclaimed and reseeded with a seed mixture consistent with the surrounding vegetation and free of noxious weeds according to NRCS recommendations, unless otherwise specified by the landowner and approved by the Commission. Once re-vegetated, these areas will be available for their present use. Areas within cropland will be returned to the pre-construction agricultural use and/or seeded with a temporary cover crop based on the landowners preference for returning the area to its pre-construction use.	6.6, 6.7, 6.8, 6.9
(9) Temporary and permanent housing	During construction, construction personnel may utilize existing temporary housing in the form of motels or rental housing. Local housing facilities could experience short-term economic benefits. Harmony Storage anticipates sufficient temporary housing will be available within Cass County and the surrounding area to accommodate construction personnel. Up to two to three full-time personnel will be required during the operation of the Project, and sufficient long-term housing exists in Cass County and the surrounding area. No long-term adverse impacts are anticipated.	2.6, 6.1
(10) Temporary and permanent skilled and unskilled labor	No adverse effect anticipated. The Project will create up to approximately 150 temporary construction jobs over the approximately 9- to 12-month construction period, with the number of workers on-site at any given time varying depending on the phase of construction. The Project will require two to three full time employees during operation and maintenance (O&M).	2.6, 6.1

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NDAC 69-06-08-01(5)	Description of Potential Project Effect	Section Addressed
d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.	No adverse effect anticipated. The Project has been sited to avoid conflict with existing development plans of federal, state, local, and private businesses (where known), addressing potential cumulative effects on surrounding infrastructures.	6.1
e. The impact upon military installations, assets, and operations.	No adverse effect anticipated. No military installations, assets, or operations occur within the vicinity of the Project Area.	6.3

2.4 Policy Criteria

NDAC 69-06-08-01(6) states that “(t)he [C]ommission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The [C]ommission may also give preference to an applicant that will maximize interstate benefits.” **Table 2.4-1** summarizes how Harmony Solar’s policies and practices will comply with the policy criteria specified in NDAC 69-06-08-01(6).

Table 2.4-1 Policy Criteria

NDAC 69-06-08-01(6)	Description of Applicant’s Policies and Practices	Section Addressed
6. Policy Criteria		
a. Recycling of the conversion byproducts and effluents.	The Project is designed in a manner that does not necessitate the recycling of conversion byproducts and effluents.	N/A
b. Energy conservation through location, process, and design.	The Project has been designed to maximize energy conversion where available. The Project is sited adjacent to the Harmony Solar Project, will utilize shared interconnection facilities, and will allow surplus energy to be efficiently stored. Additionally, the Project’s energy-efficient design and streamlined processes will enhance overall energy conservation by minimizing energy losses during storage and distribution, ensuring that stored energy is utilized with maximum efficiency.	3.0
c. Training and utilization of available labor in this state for the general and specialized skills required.	Harmony Storage will use skilled and trained labor from North Dakota, to the extent feasible, within parameters of the Project’s requirements for quality, safety, budget, and schedule.	2.6, 6.1
d. Use of a primary energy source or raw material located within the state.	The energy source of the Project will come from self-supplied electricity stored from the BESS once it is fully operational or when necessary use electricity from Cass County Electric Corporation. In addition, gravel will likely be obtained from a local source for access roads and foundations.	6.2
e. Not relocating residents.	The Project will not cause any residents to be relocated.	6.6
f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.	The Project will not interfere with adjacent land uses. As such, Harmony Storage does not anticipate dedicating any adjacent areas for land uses such as recreation, agriculture, or wildlife management.	N/A
g. Economies of construction and operation.	The Project will achieve economies of scale related to Project construction and operation through strategic planning and efficiency measures. By optimizing construction processes and implementing cost-effective operational strategies, the Project aims to minimize expenses and enhance overall economic	2.6

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NDAC 69-06-08-01(6)	Description of Applicant's Policies and Practices	Section Addressed
	efficiency throughout its operation lifecycle.	
h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.	None. The Project is compatible with existing recreation and wildlife uses.	6.6, 6.9
i. Use of citizen coordinating committees.	Harmony Storage coordinated and will continue to coordinate with landowners as well as the Harmony Township Board of Supervisors and Cass County. Therefore, a citizen coordinating committees is not needed.	1.2.4
j. A commitment of a portion of the energy produced for use in this state.	The Project will interconnect to the grid at the existing Bison Substation via the Harmony Solar Project's substation. Energy stored and released by the Project will be injected into MISO's transmission system. The power stored and released onto the grid by the Project will be positioned to help meet the local, regional, or national demand for renewable energy, and/or corporate or government renewable energy initiatives/goals.	1.7
k. Labor relations.	No adverse effect to labor relations are anticipated.	NA
l. The coordination of facilities.	Existing facilities were considered in the siting of the Project.	1.2.2
m. Monitoring of impacts.	Harmony Storage will monitor construction activities and will employ best management practices throughout construction, including preparation and implementation of a stormwater pollution prevention plan (SWPPP). During operation and restoration, Harmony Storage will monitor the Project and assess impacts as well as comply with all requirements set forth in the Certificate.	6.0-6.9
n. A commitment to installing light mitigation technology for wind energy conversion facilities subject to commercial availability and Federal Aviation Administration approval.	Not applicable.	N/A

2.5 Design and Construction Limitations

In siting the Project, Harmony Storage considered design and construction limitations related to interconnection to the transmission grid, landowner input, environmental constraints, and setback requirements. The Project will be designed and constructed in accordance with industry and manufacturer standards and regulatory requirements. These standards are critical to ensuring safety, efficiency, and environmental compliance. Design considerations will include factors such as storage capacity, discharge rates, voltage requirements, integration with the existing grid infrastructure, and safety features, such as fire protection systems and emergency shutdown protocols. Construction limitations will be managed through planning, adhering to construction schedules, and quality control measures to ensure that the Project meets all specified design criteria and operational expectations.

2.6 Economic Considerations

The Project will provide meaningful economic benefits to landowners, local governments, and communities, including:

- Provides reliable income in the form of lease payments to the participating landowner.
- Create up to 150 temporary construction jobs over the approximately 9-to 12-month construction period, with the number of workers on-site at any given time varying depending on the phase of construction.
- Create up to two to three full-time jobs during operations. These employees are expected to reside locally.
- Provide significant and measurable indirect economic benefits to the general area, including increased retail and service activity at restaurants, gas stations, and local purchases of construction materials and supplies.
- Generate personal income by circulation and recirculation of dollars paid out by the Project as business expenditures, state and local taxes, as well as associated increases to the local tax base.
- Diversify economic development in the Township.

In addition to direct payments to the participating landowner, the creation of jobs, and other economic activities, the Project will also generate direct economic benefits in the form of property taxes paid to taxing authorities. Harmony Storage anticipates paying approximately \$1.1 million in property taxes over the life of the Project. The long-term beneficial impacts to Harmony Township's tax base as a result of the Project's construction and operation are expected to positively impact the local economy in this area of North Dakota. The Project is designed to be socioeconomically beneficial to the participating landowner, local governments, and communities.

3 DESCRIPTION OF PROPOSED FACILITY

3.1 Project Design

The Project is designed to enhance grid stability and optimize energy distribution through the strategic storage and release of electrical power generated from the Harmony Solar Project and the existing electric grid. The flow of energy between the grid and the Project is managed dynamically. When the grid has excess energy (e.g., during periods of low demand), this energy will be stored by the BESS for later distribution. When the grid has capacity for additional energy, the Project will supply energy directly to the grid. This system ensures that energy is efficiently transferred and stored, minimizing waste and allowing for flexible energy dispatch during times of high or low demand. The market settlement process will track and reconcile energy transactions, ensuring proper compensation for stored and discharged energy in accordance with market rules. A preliminary site design is illustrated in **Figure 2**.

Harmony Storage will tie into Harmony Solar's collection substation by installing underground collection circuits. Additionally, installation of the necessary control and safety equipment to facilitate the safe transfer of energy will occur. Minor modifications to the Harmony Solar substation will be completed to accommodate the Project's connection to the grid; these modifications will be conducted by Harmony Solar.

The energy supplied to the Project will originate from the Harmony Solar Project and the grid through Harmony Solar's collection substation and transmission line. The activity of Harmony Solar and Harmony Storage will be accounted for individually. Harmony Solar will deliver energy to the MISO system, while Harmony Storage may charge from two sources: surplus generation from the Harmony Solar collector substation and excess energy available on the grid during periods of low demand. The BESS stores this energy and, upon receiving a dispatch signal, discharges back to the grid during periods of higher demand via the Harmony Solar collection substation and transmission line to the Xcel 345-kV "Bison" Substation. The simplified process flow is depicted in **Image 1**.

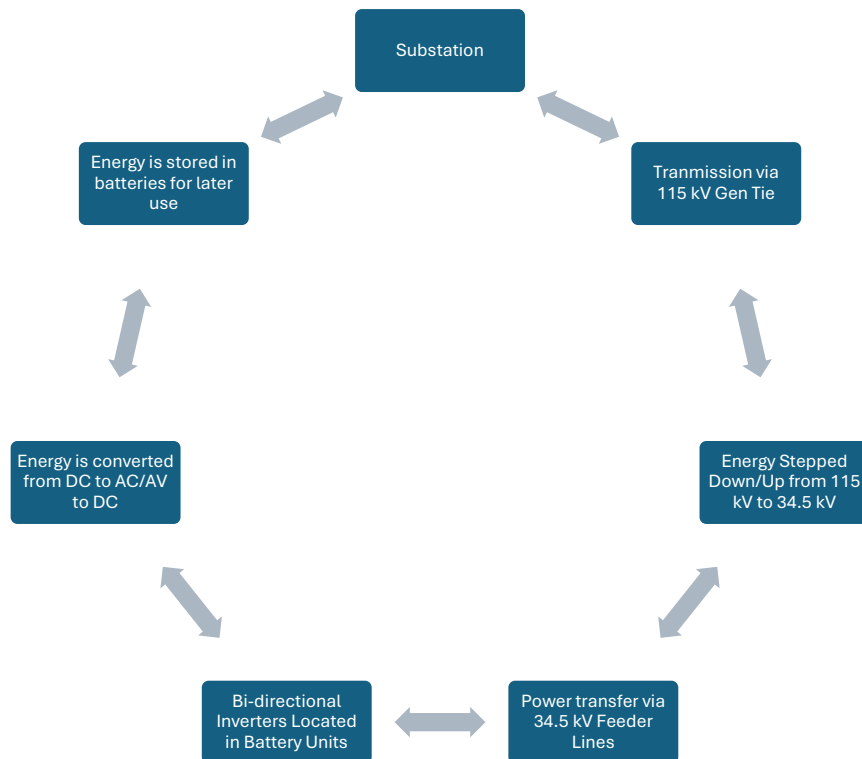


Image 1. Bi-directional Flow of a Typical ESS Facility

3.2 Project Components

The primary components of the BESS include the battery modules, BMS that continuously monitors and regulates critical parameters, and Power Conversion System (PCS) (also referred to as the inverters) that converts the direct current (DC) stored within the BESS to alternating current (AC) suitable for grid integration. These components are housed in energy storage system cabinets.

Battery energy storage systems are comprised of three main components:

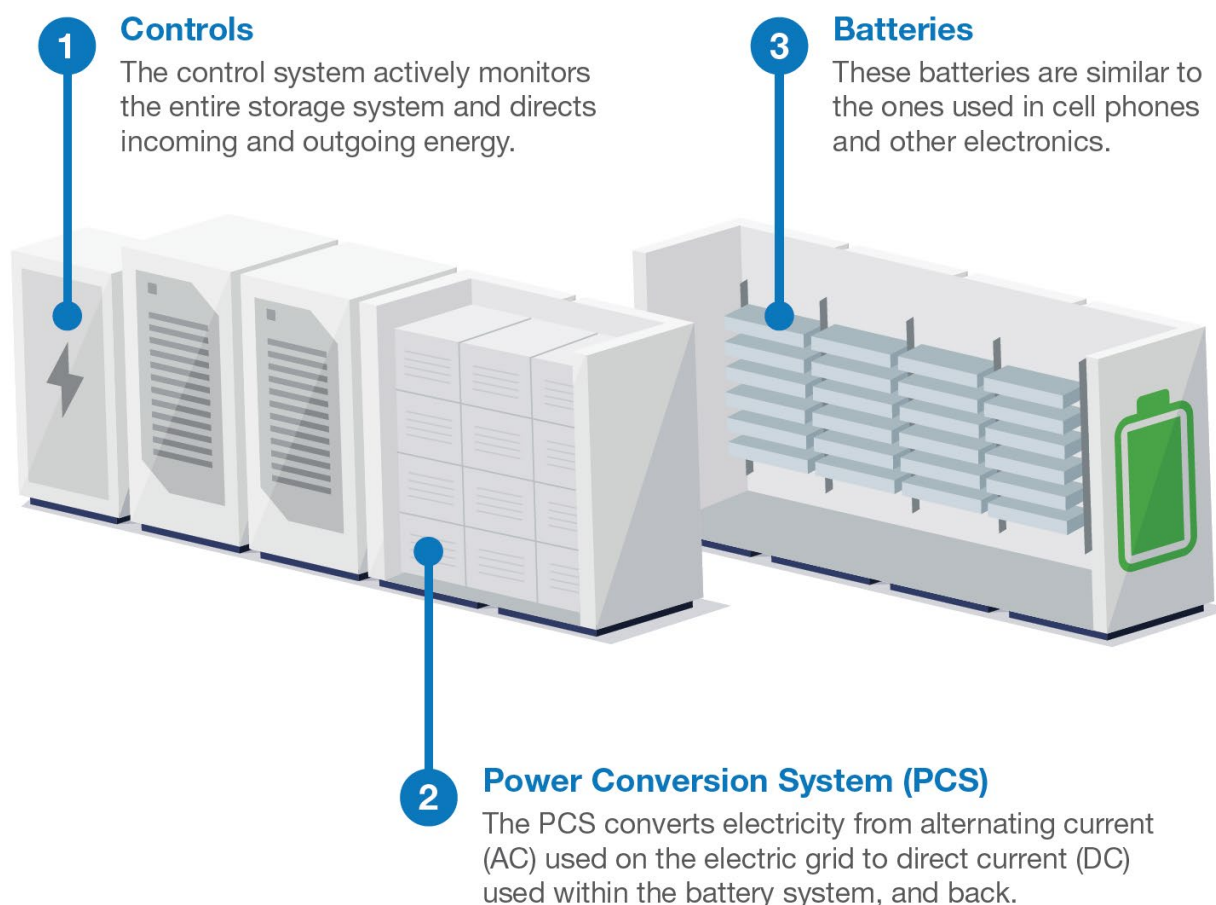


Image 2. BESS Components

3.2.1 Battery Modules

The Project will include individual lithium-ion, or similar technology, battery cells. Battery cells are assembled either in series or parallel in sealed battery modules. The Project will include battery modules in self-supporting racks that are electrically connected either in series or parallel. Individual self-supporting racks are then connected in series or parallel to deliver the BESS power rating. Harmony Storage has not finalized the battery type for the Project and will select the battery type based on the technology available at the time of procurement and prior to construction.

Each battery module is equipped with a BMS that continuously monitors and regulates critical parameters, such as voltage, temperature, and state of charge, to maintain operational integrity and safety. The battery modules are housed within energy storage system cabinets.

3.2.2 Energy Storage System Cabinets and Battery Management Systems

Multiple self-contained energy storage system cabinets will house the batteries and the BMS. Each self-

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contained energy storage system cabinet will be equipped with a thermal management system for thermal management of the batteries. Power for the thermal management systems will be provided through excess capacity in the batteries or via the grid when idle. The energy storage system cabinets will be installed on concrete foundations or piles.

The BMS is used in conjunction with the site-wide programmable logic controller (PLC) to monitor battery voltage, current, temperature, charge, discharge, thermal management, fault diagnosis, and more. Together, the BMS and PLC are a multi-level control system designed to provide a hierarchical system of controls for the battery modules and PCS up to the point of connection with the collection substation. The BMS and PLC ensure that the BESS effectively responds to dispatch instructions and provide a secondary safety system designed to safely shut down the BESS in the event of an emergency. Examples of a BESS and self-contained energy storage system cabinets are shown in **Image 3**.

To maintain the Project's contractually required energy capacity over its operational life, periodic battery augmentation is planned to offset the gradual capacity degradation in the original battery systems. Battery systems are initially sized to meet the full nameplate energy requirement from the start of operations, accounting for auxiliary loads and other energy losses. However, as batteries naturally degrade over time, new battery containers will be integrated within the existing footprint to uphold the contracted energy levels. The nameplate capacity will not be increased by augmentation but will remain the same. The facility's design accounts for planned augmentation, with additional capacity expected approximately every three to four years, depending on the actual degradation as measured by periodic capacity tests and findings from routine inspections. These inspections and installation of additional capacity are part of the operations and maintenance program and are described below in Section 5.1.

Based on the current design, Harmony Storage anticipates approximately 264 initial battery containers (beginning of life or BOL shown on **Figure 2**) plus an additional 50 augmentation containers (end of life or EOL shown on **Figure 2**) for a total of 314 containers. The final number of containers may change depending on final design and technology changes at the time of augmentation.



Image 3. Battery Energy Storage System Example

3.2.3 Power Conversion System

The Project will also include the construction of a PCS to convert the DC stored within the BESS to AC suitable for grid integration. The PCS will ensure the efficient and reliable transfer of energy between the

BESS and the grid.

The PCS (also referred to as the inverters as shown on **Figure 2**) will be located in the BESS and will consist of an inverter, protection equipment, DC and AC circuit breakers, filter equipment, equipment terminals, and a connection cabling system. Electric energy is transferred from the existing power grid to the batteries during a battery charging cycle and from the batteries to the grid during a battery discharge cycle. The PCS converts electric energy from AC to DC when energy is transferred from the grid to the battery and from DC to AC when energy is transferred from the battery to the grid. The energy conversion is enabled by a bidirectional inverter that connects the DC battery system to the AC electrical grid. The PCS will also include a transformer that converts the low-voltage AC side output of the inverter to medium AC voltage, facilitating interconnection and improving overall BESS efficiency. The transformer and associated protection equipment also safeguard the PCS in the event of system electrical faults. Harmony Storage anticipates approximately 46 initial PCS plus an additional 16 augmentation PCS for a total of 62 PCS. The final number of PCS may change depending on final design and technology changes at the time of augmentation.

3.2.4 OMI Areas

The On-Site Maintenance Infrastructure (OMI) area is a dedicated area designed to support the construction, operation, and maintenance of the Project. The OMI consists of two storage containers, designated service staging zones with canopies, and a pad area for a temporary office trailer. The storage containers provide secure storage for tools, spare parts, and maintenance equipment, while the covered staging zones support maintenance activities, equipment handling, and temporary storage during maintenance events. The office trailer area may be utilized during construction, commissioning, or major maintenance activities for project administration, safety coordination, meetings, and other operational support functions. The office trailer is expected to be temporary in nature and may be removed following construction and commissioning activities.

3.2.5 Supervisory Control and Data Acquisition System

The Project will generally be operated remotely, with operational control and 24/7 monitoring performed off-site through the Project's SCADA system, which will be operated and monitored from Geronimo Power's Remote Operations Control Center. The SCADA and associated systems will monitor key battery metrics, including state of charge, battery health, current, voltage, temperature, and alarm indicators for off-normal conditions. In the event of an anomaly or issue with a battery unit, the SCADA system will immediately alert trained personnel in the area. If necessary, the BESS can be remotely shut down within one minute. See Section 5.1 for additional details about how the SCADA system functions as it relates to O&M.

3.2.6 Electrical Collection System

The 34.5-kV electrical collection system will transmit electricity from the Harmony Solar collection substation to the BESS when charging and from the Project to the Harmony Solar collection substation when discharging. Energy to and from the batteries will be routed through a series of underground collection lines, which make up the electrical collection system. The electrical collection system will be designed to meet applicable requirements of the National Electrical Safety Code. The electrical collection system will be directly buried in the section that runs parallel to 162nd Avenue SE. The collection system will be horizontally directional drilled under the field delineated wetlands and under 162nd Avenue SE to the Harmony Solar collector substation.

3.2.7 Site Access

Access to the Project will be provided via compacted gravel driveways connecting the Project Area to 162nd Avenue SE. The driveways will be oriented in a "U-Shape" to provide an adequate turning radius for construction and maintenance vehicles. Travel to the internal BESS facility will be through locked gates that only construction and O&M personnel will have access to.

3.2.8 Parking Areas

Onsite parking spaces may be provided in open gravel areas on the inside of the perimeter fence. Onsite parking areas will comply with applicable local requirements. Parking areas are not depicted on the figures.

3.2.9 Fencing and Security

Permanent security fencing will be installed along the perimeter of the area within the Project Area hosting aboveground permanent Project facilities, consisting of an estimated 7-foot-tall chain-link fence topped with a 1-foot section of three-strand barbed wire. The fencing will be installed in accordance with industry standards and will comply with the National Electrical Code. The fencing will be designed to prevent the public from gaining access to electrical equipment. Access to the internal BESS components will be through two locked gates. Lighting is anticipated to be minimal and would be downward-lit.

3.2.10 Signage

Warning signs indicating high voltage at the BESS will be posted at the access gates and at intervals along the perimeter fencing. The entrance gates will feature a sign reading "Harmony Storage." Additionally, emergency services and safety signs will be placed throughout the BESS site as needed. Signage will include Harmony Storage's contact information for first responders.

3.2.11 Stormwater Facilities

Harmony Storage will manage stormwater through the installation of stormwater management facilities (e.g., retention basins). These facilities will be designed to control runoff and reduce erosion during periods of heavy rainfall. The preliminary location of the detention basin is on the eastern edge of the fenced area and the gravel pad will be sloped to direct stormwater to the basin. The basin will be fully vegetated with a native seed mix to further minimize offsite transport of sediment during storm events. The stormwater facilities will be located within the fenced perimeter.

3.2.12 Temporary Facilities

Temporary facilities may be required for the construction phase of the Project, such as a concrete batch plant, construction laydown area(s)¹ for any equipment and construction management facility, and temporary road improvements and/or intersection improvements to facilitate over-length turning. Any temporarily affected areas will be restored to preconstruction conditions, to the extent practicable after construction has been completed.

3.2.13 Modification to Harmony Solar Project Substation

The Harmony Solar Project's collection substation will undergo minor modifications to accommodate the Project's connection to the grid. Harmony Storage will tie into the Harmony Solar Project's collection substation by installing the necessary control and safety equipment to facilitate the safe transfer of energy. This may include support structures, circuit breakers, and reactors, with all interconnection components dependent upon final design. Utilizing Harmony Solar's permitted substation eliminates the need to construct a separate facility, thereby reducing the Project's overall footprint.

3.3 Compliance with Industry Standards and Safety Codes

Harmony Storage is committed to ensuring safety throughout the design, construction, and operation of the Project, and will apply industry best management practices and applicable safety standards to protect the surrounding community and the environment. The safety of the O&M staff, neighboring landowners, and the public is the highest priority.

Advances in battery technology, safety standards, and fire and building codes have significantly reduced risks associated with BESS. Harmony Storage will design, construct, and operate the Project in compliance with applicable codes and standards, including the National Electric Code (National Fire Protection Association [NFPA] 70), NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems), and applicable International Fire Code requirements.

Hazard mitigation and safety features incorporated into the Project will include:

- Remote system monitoring and controls;
- Heating, ventilation, and air conditioning systems for temperature regulation;

¹ Harmony Storage may convert the temporary laydown area to a permanent laydown area, depending on final design and operational needs.

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- Integrated heat, smoke, and gas detection systems;
- Automatic system shutdown and alarm notifications;
- Deflagration venting, where applicable;
- Security fencing, barriers, and controlled access systems to prevent unauthorized entry;
- Vegetation management, including maintained fire breaks around the facility; and
- Coordination and training opportunities for local fire departments and emergency responders.

The Project will utilize battery storage equipment designed and manufactured to meet stringent safety and quality standards. Battery modules will be housed within enclosed, weather-resistant units equipped with integrated thermal management systems, monitoring controls, and fire detection systems. These systems are designed to operate safely under normal conditions without routine air emissions or off-gassing.

All equipment selected for the Project will undergo testing and certification by nationally recognized third-party organizations. Harmony Storage will ensure compliance with applicable safety standards, including UL 9540 and other relevant UL and International Electrotechnical Commission standards, as well as NFPA 855 and NFPA 70 requirements for system design, installation, and operation.

Through adherence to these standards and incorporation of proven safety technologies, Harmony Storage will ensure that the Project is constructed and operated in a safe, reliable, and environmentally responsible manner.

3.4 Setbacks

The Project has been sited to comply with the PSC's setback requirements, Harmony Township's setback requirements, as well as setbacks currently proposed through pending amendments to the Harmony Township ordinance.

Table 3.4-1 Setbacks

Feature	Distance	Project Compliance
PSC		
The geographic center of an intercontinental ballistic missile launch facility or launch control facility	Areas within 1,200 feet of the geographic center.	The Project complies with this setback.
Direct line between an intercontinental ballistic missile launch facility and a missile alert or launch control facilities to avoid microwave interference	Areas within 30 feet (9.14 meters) on either side of a direct line between an intercontinental ballistic missile launch facility and a missile alert or launch control facility.	The Project complies with this setback.
Inhabited rural residence	500 feet*	Aboveground Project components, including fencing, will be located at least 500 feet from any inhabited rural residence unless a waiver is obtained. The nearest residence to an aboveground Project component (fencing) is 5,000 feet away.
Harmony Township		
Front yard (front lot line to township roads)	75 feet	Aboveground Project components, including fencing, will be located at least 75 feet from the edge of township road rights-of-way.
Front yard (front lot line to road rights-	100 feet	Aboveground Project

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Feature	Distance	Project Compliance
of-way)		components, including fencing, will be located at least 100 feet from the edge of township road rights-of-way.
Side yard	50 feet	Aboveground Project components, including fencing, will be located at least 50 feet from side yard lines.
Rear yard	50 feet	Aboveground Project components, including fencing, will be located at least 50 feet from rear yard lines.
Inhabited residence or community building	0.75 mile, unless waived by owner**	Aboveground Project components, including fencing, will be located at least 0.75 mile from any inhabited rural residence or community building.
Inhabited residence or a community building	Sound levels within 100 feet of an inhabited rural residence or a community building shall not exceed 45 dBA, unless waived by owner**	Sound levels from the Project will not exceed 45 dBA within 100 feet of an inhabited rural residence or community building, unless a waiver is obtained.
*As set forth in NDCC Section 49-22-05.1(3), the setback may be waived by the owner. **This setback is not in the current version of the ordinance but is being proposed in an amendment currently being considered by Harmony Township.		

3.5 Project Footprint Impact

Within the approximately 74-acre Project Area, a total of approximately 9.73 acres are anticipated to host permanent Project facilities for the life of the Project.

A total of 12.25 acres will be located within the fenced perimeter, containing the stormwater management facilities and the gravel pad, which will host the energy storage system cabinets (housing the battery modules, BMS, and PSC), OMI areas, internal access roads, laydown areas/parking areas and unused areas between above ground components and the fence.

Areas outside the fenced perimeter include the external access roads which will result in permanent surface impacts of 0.11 acre. Other Project facilities outside the fenced perimeter include buried electrical collection lines; these areas will be revegetated after the installation of the facilities. Overall, the estimated footprint of the Project during construction, including both temporary and permanent effects, will cover approximately 14.45 acres. Of this, approximately 4.72 acres are expected to be reclaimed after construction is complete, while approximately 9.73 acres will remain as permanent operational effects.

Any unused portion of the Project Area not used for the final design of the Project will be available for return to the existing use.

Table 35-1 Estimated Project Facility Impacts

Project Location	Project Facility	Project Impacts	Impact in Acres
Within Fenced Perimeters (12.25 acres)	Gravel Pad (battery cabinets, inverters, electrical equipment, OMI areas, access roads, laydown area)	Permanent surface impact	9.62

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Project Location	Project Facility	Project Impacts	Impact in Acres
	Stormwater Basins	Temporary surface impact; areas revegetated after installation of facility	2.64
Outside Fenced Perimeters (62.05 acres)	Buried electrical collection lines	Temporary surface impacts; areas revegetated after installation of facility	1.97
	Driveway portion of access roads	Permanent surface impact	0.11
	Collection Bore	Temporary surface impacts; areas revegetated after installation of facility	0.11
	Unused Areas	May include continued current use	59.86
		Total	74.31

4 CONSTRUCTION

A variety of activities must be completed to carry the Project through construction. Preconstruction, construction, and post-construction activities for the Project include:

- Pre-construction
 - Geotechnical analysis;
 - Design electrical collection system;
 - Design BESS and access roads;
 - Underground utility discovery; and
 - Procure all necessary facility components.
- Construction
 - Site preparation, grubbing, and grading;
 - Construct laydown areas and set up temporary job site trailers;
 - Civil construction of access roads;
 - Install underground collection system; and
 - Install BESS and electrical enclosure/inverter.
- Post-construction
- Restore disturbed areas not intended for permanent aboveground facilities;
- Test facility; and
- Begin commercial production.

4.1 Construction Access and Deliveries

Haul road permits will be acquired from Harmony Township, Cass County, and/or the North Dakota Department of Transportation (NDDOT), as necessary. Furthermore, Harmony Storage will acquire all necessary permits to cross/bore state, county, and township roads required for the installation of its collection lines. A Road Use Agreement will be negotiated with Harmony Township and, if needed, Cass County, regarding haul routes and road use and repair during Project construction.

4.2 Site Preparation

After the necessary permits are received, construction will begin with site preparation. Although the Project site is fairly level and currently in agricultural production, grading and minor earthwork will occur to support the installation of storm water management facilities (i.e., retention basins), perimeter fencing, foundations, and internal access roads. Grading will also be required to provide a suitable base for the installation of the BESS gravel pad and container foundations. In general, the site will be graded, and final constructed to direct sheet flow off the BESS facility and into the stormwater basin. During site preparation, temporary staging area(s) will be designated within the BESS site to serve as the storage area(s) for materials and equipment during construction. The construction contractor will determine the specific location of temporary staging area(s). Topsoil will be segregated and placed in a designated location.

Site preparation and grading will be accomplished using various equipment that could include scrapers, graders, dozers, compaction equipment, and water trucks (to control dust). Water consumption during construction would be needed for dust suppression and earthwork. Water would likely be delivered by truck from an off-site source and stored in on site temporary water tank or through an onsite well.

4.3 Construction Activities

The BESS components will be off-loaded from low-bed transport trucks and installed using cranes, boom trucks, forklifts, rubber-tired loaders, rubber-tired backhoes, and other small- to medium-sized construction equipment, as needed. Equipment foundations for the energy storage system and containers will be driven steel pilings or concrete foundations.

Each equipment enclosure (power conversion system and BESS containers) will be installed on a foundation designed to support its weight based on regional soil conditions. These foundations will either be steel-reinforced concrete slabs or steel pile foundations. For BESS foundations, two installation methods are commonly used: Steel Pile Installation or Excavation and Concrete Pouring. For concrete foundations, a small excavator would be used to dig the major foundation areas before pouring the concrete slabs. For Steel Pile Installation, a pile driver embeds steel piles to create a foundation on which the enclosures can be set and attached.

The power conversion system and BESS containers will be transported to the site on flatbed semi-trailers and placed on the foundations using an overhead crane. The containers will then be secured and fastened to the concrete pads or steel piles with anchor bolts. Crushed rock will be placed between and around installed BESS equipment. Adequate lighting will be installed around the BESS site for worker safety during construction and operation. Lighting will be downlit and controlled via timers, sensors, and switches to limit light usage to the extent necessary to meet safety and security requirements.

4.4 Personnel and Traffic

The Project will create up to 150 temporary construction jobs over the approximately 9- to 12-month construction period, with the number of workers on-site at any given time varying depending on the phase of construction.

4.5 Commissioning

Upon completion of the construction phase, the Project will undergo detailed inspection and testing procedures before being commissioned.

4.6 Restoration

As portions of the Project near completion, temporary staging and laydown areas and other temporary disturbance areas within the Project Area will be restored in accordance with the Vegetation Management Plan.

5 OPERATIONS, MAINTENANCE, AND DECOMMISSIONING

5.1 Operations and Maintenance

Following commissioning and commencement of commercial operation, the care, custody, and control of the facility transfers from the construction team to the operations staff. The construction manager will work with the operations staff, the equipment suppliers, and other construction and maintenance personnel to ensure a smooth transition from the start of construction to commercial operation. The operations staff will have full responsibility for the facility to ensure operations and maintenance are conducted in compliance with approved permits, prudent industry practice, and the equipment manufacturer's recommendations.

The Project will operate 365 days per year and be monitored remotely through a SCADA system. Geronimo Power operates a control center in Bloomington, Minnesota that monitors the readiness of its subsidiaries' energy storage facilities nationwide 24 hours a day, 7 days a week. If an issue is detected at a BESS location, the system can be shut down remotely, and a local technician in the Project Area can be deployed to resolve the issue. The Project team will respond to all emergencies following the Emergency Response Plan (ERP) in **Appendix C**. The ERP establishes procedures for emergency response management, evacuation procedures, response to fire incidents and natural disasters, and security and cybersecurity, among other safety topics. Public safety is further discussed in Section 6.3.

The Project will be professionally maintained and operated by Harmony Storage, an affiliate, or contractor. The full-time O&M staff responsibilities will include routine inspections, system monitoring, and maintenance activities to support the safe and efficient operation of the Project.

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Typically, one major maintenance inspection of the BESS occurs annually. Only occasional, onsite maintenance is expected to be required following commissioning, including replacement of inverter power modules and filters, and miscellaneous electrical repairs on an as-needed basis. During normal O&M, Harmony Storage anticipates one to two workers will inspect the site approximately one to two times per week. Inspection scheduling and monitoring will be supported by the control center's SCADA system, which tracks system performance and flags any irregularities for prompt on-site evaluation.

To maintain the Project's required energy capacity over its operational life, periodic battery augmentation will be planned to offset the gradual capacity reduction in the original battery systems. Battery systems are initially sized to meet the full nameplate energy requirement from the start of operations, accounting for auxiliary loads and other energy losses. However, as batteries naturally degrade over time, new units will be integrated within the existing footprint to uphold the contracted energy levels. The facility's design supports augmentation, with additional batteries expected approximately every three to four years, depending on usage and findings from routine inspections. These inspections are part of a preventive maintenance program to ensure optimal performance. The added capacity will be accomplished by installing either new battery containers only (DC augmentation), or new battery containers with new inverters (AC augmentation). New battery containers with or without new inverters will be added within the existing facility boundary on the existing prepared graveled area. Augmentation will include building new foundations, trenching to connect the new equipment to the existing systems, and testing of the new equipment.

5.2 Decommissioning and Restoration

The expected life of the Project is 30 years, but it may be extended through equipment upgrades.

There are no existing local or state rules or regulations governing decommissioning of energy storage systems; however, Harmony Storage will submit a decommissioning plan and decommissioning financial assurance to the Commission in accordance with the Commission's existing rules governing solar energy conversion facility decommissioning and financial assurance requirements under NDAC Chapter 69-09-10.

At the end of the Project's useful life, Harmony Storage will take the necessary steps to decommission the Project and remove facilities.

Decommissioning activities will include:

- Removal of above-surface facilities and infrastructure that have no ongoing purpose.
- Removal of underground cables to a depth of 24 inches (2 feet).
- Removal of foundations, buildings, and ancillary equipment to a depth of 48 inches (4 feet).
- The site will be graded to restore the area to near as practicable to pre-construction conditions, with topsoil respread to the proper density consistent and compatible with the surrounding area.
- Grading and reseeding will follow NRCS recommendations.

The Project will be decommissioned at the end of its life, with recycling considered for components that are capable of and suitable for recycling, as many of its components are recyclable.

Lithium-ion batteries are rechargeable batteries that consist of cells containing an anode layer, a cathode layer, and a separator, all in contact with an electrolyte. These batteries come in various chemistries, such as lithium cobalt oxide, lithium nickel manganese cobalt oxide, and lithium iron phosphate, each with different characteristics in terms of energy capacity, stability, recharge speed, and longevity. Common materials used in these batteries include lithium, nickel, cobalt, manganese, graphite, iron, copper, and aluminum foils (EPA 2025).

When lithium-ion batteries reach the end of their life cycle, properly recycling these batteries is crucial for safety and to conserve critical minerals and valuable materials used in their production. The recycling process typically involves collecting, sorting, and shredding the batteries to recover materials like black mass, copper, aluminum foils, separators, and electrolytes. These recovered materials can then be processed through heat-based smelting or liquid-based leaching to extract metals like cobalt, nickel, and lithium for reuse in new batteries. The U.S. Environmental Protection Agency (EPA) is planning to propose

new rules for recycling lithium batteries with hopes to improve the management of materials (EPA 2025). These new rules for improving the recycling process of lithium-ion batteries are expected to be in place by the end of the useful life of the Project.

In addition to recycling, there is a growing focus on battery reuse and repurpose as environmentally friendly alternatives to recycling or disposal. Used lithium-ion batteries can still provide useful energy storage for other applications even after their performance degrades. Reuse and repurpose options are being developed to give batteries a "second life," extending their usefulness before they are eventually recycled. These practices not only benefit the environment by reducing resource demands for new batteries but also contribute to a more sustainable approach to managing lithium-ion battery waste. Harmony Storage anticipates that by the end of the useful life of the Project, there may be more opportunities for lithium battery reuse and repurposing options.

6 ENVIRONMENTAL ANALYSIS

The environmental analysis includes a review of the Study and Project Areas, where applicable.

6.1 Demographics and Socioeconomics

6.1.1 Description of Existing Resources

The Project is located in Harmony Township in Cass County, North Dakota, in a predominantly rural agricultural region. There are no incorporated or unincorporated city boundaries within the Study Area. The Project Area is located approximately 2 miles north of Mapleton, approximately 6.2 miles southeast of Amenia and approximately 5.7 miles northwest of Fargo.

The population in Cass County in 2025 was estimated to be 201,794, according to Job Service North Dakota Labor Market Information Center (NDLMI), (NDDOC, 2026). The NDLMI data indicates that the unemployment rate for Cass County in January 2026 was three percent. In December of 2025, the unemployment rate was 2.5 percent. According to the NDLMI data in March of 2026, there were a total of 3,542 job openings in Cass County, with the majority of the openings being associated with healthcare (NDDOC, 2026). No retail services or businesses are known to be located within the Study Area.

Agriculture is an important part of the economy in Cass County. According to the USDA, in 2022, Cass County had 801 farms totaling approximately 941,171 acres with a total market value of agricultural products produced of \$612,696,000 (USDA, 2022). The majority of this agricultural production was from crop sales, totaling approximately \$595,527,000. The remaining sales are associated with livestock, poultry and other products (USDA, 2022). The primary crops in Cass County are soybeans, corn and wheat and the primary livestock is cattle (USDA, 2022). Based on aerial imagery and field surveys, the agricultural field associated with the Project Area grows corn but may rotate crops on a yearly rotation.

From the beginning of 2026 through mid-April 2026, Cass County had over 800 homes for sale, most of them being located within the Fargo and associated suburbs (Zillow, 2026). Based on the 2024 American Community Survey 1-year estimates for housing occupancy from the U.S. Census Bureau, Cass County had 90,427 occupied housing units and 2,028 vacant housing units (U.S. Census Bureau, 2026). Cass County has multiple hotels and motels for lodging capabilities, especially within the Fargo metropolitan area which is approximately 12 miles to the southeast of the Project Area.

6.1.2 Impacts and Avoidance/Minimization Measures

The Project is expected to result in socioeconomic benefits for the local population and will not impact long-term population trends. The Project will be socioeconomically beneficial to the landowner, local community, and local governments because it will provide additional income to the participating landowner in the form of lease payments, which could raise the per capita of Cass County. Harmony Storage designed the Project to minimize impacts to family farms and ranches to the extent practicable, and any economic losses due to taking agricultural land out of production for the life of the Project are anticipated to be minimal in comparison to the additional income provided by the Project.

Limited general skilled labor is expected to be available either in Cass county or the state. Specialized labor will be required for certain components of Project construction. It is likely that this labor will be imported

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from other areas of the state, the region, or other states, as the relatively short duration of construction often precludes special training of local or regional labor. Long-term beneficial impacts to the tax bases of Cass County, as a result of the construction and operation of the Project, will have an additional positive impact on the local economy in this area of North Dakota. In addition to the creation of jobs and personal income, Harmony Storage anticipates paying approximately \$1.1 million in property taxes over the life of the Project.

During construction, any out-of-town laborers will likely use lodging facilities in and around the cities in Cass County, with the majority likely lodging within the Fargo metropolitan area. Although the Project may increase demand for housing during the construction phase, according to the U.S. Census Bureau's 2024 estimates, 2,028 vacant housing units may be present within Cass County. This number of potentially vacant housing units would be enough to house non-local workers throughout Project construction. Demand for lodging could provide a temporary increase in revenue in the area.

Construction of the Project could also provide temporary revenue increases in the area through increased demand for food services, fuel, goods, and services. Personal income could also be generated by circulation and recirculation of dollars paid out by the Project as business expenditures and state and local taxes.

The Project is expected to provide long-term benefits to Cass County's tax base and local economy as a result of the construction and operation of the Project. Overall, socioeconomic impacts are anticipated to be positive, driven by increased wages and spending at local businesses during the construction phase. The proposed Project could increase the labor force in Cass County and demand local housing during construction; however, the construction period is only temporary. Thus, no mitigation measures are needed.

6.2 Public Services

6.2.1 Description of Existing Resources

6.2.1.1 Local Government Services, Schools and Health Care Facilities

The Cass County Sheriff's office provides law enforcement in the Project and Study Areas (Cass County North Dakota, 2026). The Study Area also contains existing utilities that provide residents with necessary services. There are no schools, education programs, or general or mental health care facilities located within the Study Area (NDGIS, 2026). The Project Area is located approximately 2 miles north of Mapleton, approximately 6.2 miles southeast of Amenla and approximately 5.7 miles northwest of Fargo. The majority of public services and infrastructure near the Project are located in the town of Mapleton, which is approximately 2 miles south of the Study Area and 3 miles south of the Project Area. Mapleton has a volunteer fire service, businesses, churches, and a public school for grades kindergarten through 6th grade (City of Mapleton and Mapleton Public Schools, n.d.). The Fargo-West Fargo metropolitan area and town of Casselton are located approximately 5.7 miles southeast and southwest, respectively, from the Study Area and offer access to these services and more.

The Project Area is located within the Casselton Emergency Medical Services boundary and the Casselton Rural Fire Protection District (NDGIS, 2026). These boundaries define the designated ambulance and fire department response services for incidents reported through the 9-1-1 emergency system. The nearest hospital is Vibra Hospital in Fargo, North Dakota.

6.2.1.2 Electrical Services

The five main electricity providers in the Study Area are Nodak Electric Cooperation Inc., Northern States Power Company, Otter Tail Power Company, Cass County Electric Cooperation, Inc. and Western Area Power Administration (Utilities for My Home, 2025).

6.2.1.3 Transportation and Traffic

The Study Area contains public roads which include county roads, township roads, and private roads/driveways (Cass County Highway Department, n.d.). No scenic byway roads or snowmobile trails are located within the Study Area (NDGIS, 2026). Based on the NDDOT District Boundary, the Study Area is located within District 8-Fargo (NDDOT, 2026). The NDDOT does not have traffic count data within the

Study Area. Traffic count data is available for a segment of 31st Street Southeast outside the Study Area to the northeast; however, this road eventually intersects the northern portion of the Study Area. Based on data collected in 1994, the average daily traffic on 31st Street Southeast was 230 vehicles (NDDOT, 2026).

There are no railroads in the Study Area. The closest railroad is a Burlington Northern Santa Fe railroad that is 0.6 mile north/northeast of the Study Area at the nearest point. A second Burlington Northern Santa Fe railroad that connects the towns of Mapleton and Casselton traverses to the south of the Study Area; this railroad is 3 miles south of the Project Area.

There are no public airports in the Study Area (NDGIS, 2026). The closest public airport is the Casselton Robert Miller Regional Airport, approximately 8.3 miles southwest of the Study Area and two miles south of Casselton.

6.2.1.4 Rural and Regional Water Systems

The Cass County Rural Water Users District supplies potable water to communities in the Study Area (NDDWR and NDGIS, 2026). It is common for rural residences in the area to utilize private wells for alternative uses, such as agriculture. According to North Dakota State Water Commission data, there are 2 domestic wells in the Study Area, and none are located within in the Project Area (NDDWR, 2026) (See **Figure 6**). There are no surficial aquifers within the project area. The closest aquifer is the West Fargo aquifer which is 1.2 miles to the east of the of the Study Area (NDGIS, 2026).

6.2.1.5 Cellular and Other Communication Services

In Cass County, cellular service is supported by several major carriers with coverage that includes both urban and rural areas. Verizon, T-Mobile and AT&T are the primary providers offering coverage throughout the region (Best Neighborhood, 2026). No cell phone towers or antenna structures, radio transmitter sites, or T.V. station transmitter sites are located within the Study Area (NDGIS, 2026).

6.2.2 Impacts and Avoidance/Minimization Measures

6.2.2.1 Local Government Service, Schools and Health Care Facilities

No impact to local government services, schools systems, education programs, or general and mental health care facilities is anticipated.

Construction and operation of the Project is not expected to impact the availability of emergency services. Harmony Storage will coordinate with emergency services providers to determine appropriate safety precautions and standards and develop an ERP to implement these precautions and standards. If emergency services are required during construction or operation of the Project, the law enforcement, fire departments, ambulance services, and hospitals near the Project Area would be adequate to address Project-related emergency service needs without negatively impacting the availability of these services for the local populace. Therefore, no mitigation is needed.

6.2.2.2 Electrical Services

The Project will help meet regional demand for electricity, and as a result the Project is anticipated to have a positive effect on the electrical services in the region. Harmony Storage will utilize North Dakota One Call prior to construction to identify existing utilities and will coordinate with facility owners to minimize potential impacts to existing infrastructure. Once operational, the Project will primarily rely on electricity stored within the BESS to meet its internal operational needs. Limited supplemental electricity may be supplied by Cass County Electric Cooperative, as necessary. Based on the anticipated operational profile, no additional mitigation measures are expected to be required.

6.2.2.3 Transportation and Traffic

Existing roadways will be utilized for access to the Project, with the construction of two new access driveways to the Project Area. Harmony Storage will coordinate with Harmony Township, Cass County, and the NDDOT, as needed, on anticipated road-related permits. Harmony Storage will also acquire all required permits to cross/bore state, county, and township roads and install its electrical collection cables. Harmony Storage will negotiate a road use and maintenance agreement with Harmony Township and, if needed,

other relevant road authorities.

During the construction phase, temporary impacts are anticipated on some public roads in the vicinity of the Project, primarily through additional traffic and the potential for slow-moving construction vehicles. Construction traffic will use the existing public roadway system to access the Project facilities and deliver construction materials and personnel. It is anticipated that traffic will temporarily increase within the Study Area during construction. While increased traffic during the construction phase may be perceptible to area residents, the slight increase in volume is not expected to impact traffic function. Slow-moving construction vehicles may cause delays on smaller roads, similar to the impact of farm equipment during planting or harvest. However, these delays should be minimal for the relatively short construction delivery period. Additionally, Harmony Storage will coordinate with the Harmony Township, Cass County Highway Department, and NDDOT to obtain any necessary permits/approvals for the use of township and county roads during construction and will negotiate road use and maintenance agreement(s) as needed with the appropriate road authority(ies).

After construction is complete, traffic impacts during the operations phase of the Project will be negligible.

6.2.2.4 Rural and Regional Water Systems

The Project is not anticipated to impact local water supply, however it is anticipated that construction activities will require water use. Water will be utilized, as necessary, to manage and prevent the spread of dust during construction. Water sources for dust control have not been determined at this stage of the project. The Project construction is not anticipated to require appropriation of surface water for water use, however should it be required Harmony Storage will obtain the necessary permits from the North Dakota Department of Water Resources (NDDWR).

The water supply for water wells and local nearby communities is not anticipated to be affected by the Project. Therefore, no mitigation is required.

6.2.2.5 Cellular and Other Communication Services

BESS facilities do not cause disruptions in cellular phone, radio or T.V. signals as BESS facilities don't operate at the same frequency as these services. No impacts to existing cell service, radio and/or T.V. signals are anticipated; therefore, no mitigation is required.

6.3 Health and Safety

6.3.1 Description of Existing Resources

6.3.1.1 Electric and Magnetic Fields

Electromagnetic fields (EMF) are electric and magnetic fields that are present around any electrical device. Electric fields result from the voltage or electrical charges, and magnetic fields result from the flow of electricity or current that passes through substation transformers, transmission lines, power collection (feeder) lines, house wiring, and electrical appliances. Electric field intensity is associated with the voltage of the line, and magnetic field intensity is related to the current flow through the conductors (wire). EMF can occur indoors and outdoors. Leading U.S. and international scientific organizations, such as the National Cancer Institute and the World Health Organization, have evaluated EMF research. These organizations generally conclude that overall, the body of scientific research does not show that exposure to EMF causes or contributes to any type of cancer, disease, or illness (NIEHS, 1999). No discernible health impacts result from EMF associated with power lines (NIEHS, 2002). The general consensus is that electric fields pose no health risk to humans (New Zealand Ministry of Health, 2013).

6.3.1.2 Hazardous Materials/Hazardous Waste

Due to the rural location of the Project, it is unlikely that there is contamination from large industrial or commercial activities. Based on a search of the North Dakota Department of Health (NDDH) Underground Storage Tank (UST) list, there are no USTs in the Study Area or Project Area. No landfill locations or hazardous waste handler sites were listed by NDDH within the Study Area.

The EPA MyEnvironment mapper was reviewed to determine the potential for major hazardous material

issues (i.e., Superfund National Priorities List [NPL] sites) within the Study Area. There are no NPL sites or proposed NPL sites in North Dakota (EPA, 2025).

6.3.1.3 Public Safety and Security

The Project is located in an area with a relatively low population density and crime rate.

6.3.1.4 Military Operations

There are no military installations and ranges, military training routes, special use airspace, or intercontinental ballistic facilities present within the Study Area. The nearest military installation is Grand Forks Air Force Base located approximately 91 miles northwest and the nearest intercontinental ballistic facility is located approximately 75 miles southeast of the Study Area.

6.3.2 Impacts and Avoidance/Minimization Measures

6.3.2.1 Electric and Magnetic Fields

With the proposed Project, the sources of EMF will be from electrical collection cables (which will be buried underground), inverters, and transformers. Low-level power frequency EMF will occur around the BESS (in the battery cells and inverters), and along the collector lines. The minimal amount of non-ionizing EMFs generated by the Project is comparable to that of home appliances, cell phones, and computers. EMF from underground electrical collection cables dissipates very close to the lines because they are installed belowground within insulated shielding. The electrical fields are negligible, and the small magnetic field directly above the lines quickly dissipates on either side of the installed cable. Additionally, since the transformers are enclosed in a grounded metal case (shielded), they typically do not emit much EMF.

The Project facilities are not significant sources of EMF exposure. The Project complies with all applicable setback requirements, including setbacks from residences. The nearest residence to the Project's fenced perimeter is 5,000 feet. At these distances, EMF levels will be below background levels. As such, no impacts from EMF are anticipated and no mitigation is required.

6.3.2.2 Hazardous Materials/Hazardous Waste

Hazardous waste is not anticipated to be generated or encountered during construction. If hazardous waste is encountered or discovered, Harmony Storage will comply with all applicable regulations. Hazardous materials or petroleum products used during construction will be stored per manufacturers' recommendations in addition to applicable federal and state regulations. Harmony Storage will not install USTs for the Project. During operations, limited quantities of hazardous materials or petroleum products would be minimal and stored in the Harmony Solar Project's O&M building.

If construction or operation of the Project involves storing more than 1,320 gallons of oil or other hazardous substances, a Spill Prevention, Control, and Countermeasure (SPCC) Plan will be prepared for the Project. This plan would outline the procedures for safe storage, spill prevention practices, and emergency response protocols to ensure environmental safety. The need for an SPCC Plan will be assessed based on the final design of the Project. Harmony Storage will obtain coverage under a North Dakota Pollutant Discharge Elimination System (NDPDES) General Construction Permit for the Project, which will require Harmony Storage to develop a SWPPP.

Harmony Storage does not anticipate that contaminated sites will be encountered within the Project Area during construction. Harmony Storage has conducted a Phase I ESA for the Project Area, and no recognized environmental conditions were identified within the Project Area.

Temporary air quality impacts caused by construction-vehicle emissions and fugitive dust from construction activities may occur but will be minimal and temporary. Harmony Storage will take appropriate measures to minimize fugitive dust emissions during construction. Should any complaints arise, they will be addressed efficiently and effectively. No impacts to air quality from the operation of the Project are anticipated.

6.3.2.3 Public Safety and Security

No impacts on the security and safety of local residents are expected from the construction and operation of the Project. Security measures will be taken during the construction and operation of the Project,

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including temporary and permanent (safety) fencing, warning signs, and locks on equipment. The safety of the staff, neighbors, and the public is the highest priority.

Harmony Storage will incorporate multiple layers of design and operational controls into the Project. Battery systems used at the Project will be subject to rigorous industry testing and certification to ensure robust cell and module design. Each battery enclosure will include integrated thermal management systems to maintain operation within prescribed temperature ranges, along with monitoring controls and fire detection systems designed to identify and alert operators to abnormal conditions. The Project will utilize a BMS and associated control systems to continuously monitor performance and automatically isolate or shut down affected units if necessary. These systems, combined with real-time monitoring and alarm capabilities, provide an additional layer of protection to support safe and reliable operation of the BESS.

Harmony Storage has prepared a draft ERP (**Appendix C**). Harmony Storage has started engagement and will continue to engage with, local first responders and fire officials to coordinate response efforts in the unlikely event of a fire. This coordination includes the following:

- Orientation: A general orientation of the Project will be provided to first responders once key design details and access points have been established.
- ERP Training: Harmony Storage will coordinate with applicable local emergency responders for ERP training closer to the commissioning phase of the Project. This training will help prepare first responders for managing potential incidents at the Project.
- Annual Refresher ERP Training: To maintain readiness, Harmony Storage will offer annual refresher ERP training, as required by the NFPA and the International Fire Code. This ensures ongoing preparedness and reinforces best practices for safety and fire protection systems at the Project.

6.3.2.4 Military Operations

No military installations, assets, or operations are present within the Study Area. Therefore, no impacts are anticipated and no mitigation is required.

6.4 Cultural Resources

6.4.1 Description of Existing Resources

A Class I and Class III cultural resources inventory was conducted for the Project Area. The Class I inventory involved a review of documentation on file at the North Dakota State Historic Preservation Office (SHPO), regarding archaeological or historic sites and historic architectural resources that may exist within one mile of the Project Area. This inventory also included a review of previous cultural resources inventories conducted within the same radius. The Class III field inventory encompassed a pedestrian survey of the entire Project Area. One newly recorded unevaluated historic cultural material scatter was identified during the Class III inventory, which does not fall within the proposed area of ground disturbance for the Project.

Harmony Storage is finalizing the Class I and Class III inventory report and expects to submit the report to the State Historical Society of North Dakota (SHSND) by early July 2026.

6.4.2 Impacts and Avoidance/Minimization Measures

The newly identified historic cultural material scatter is not within the proposed area of ground disturbance for the Project. Accordingly, the Project will avoid impacts to cultural resources. Harmony Storage will continue to coordinate with SHSND and will provide the Commission with the SHSND's concurrence once received. Harmony Storage will also prepare and follow an Unanticipated Discoveries Plan, which will outline the steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction.

6.5 Sound

6.5.1 Description of Existing Resources

The Project is located in a rural area. Existing sounds in the Project Area are likely to include traffic from

the nearby roadways, intermittent aircraft overflights, agricultural operations, wind in foliage and ground cover, birds, and insects. Typically, the ambient acoustic environment of a rural or agriculturally-oriented community has equivalent continuous sound levels (Leq, which is an energy-based time-averaged noise level) ranging from 30 dBA to 60 dBA.

6.5.2 Impacts and Avoidance/Minimization Measures

During construction, sound will be emitted by the construction vehicles and equipment. The amount of sound will vary based on what type of construction is occurring at the facility on a given day. These sound impacts will be temporary. The sound levels resulting from construction activities will vary based on what type of construction is occurring on a given day. To the extent practicable, Harmony Storage plans to limit construction activities to daylight hours during construction, which will vary based on season.

The main source of sound from the Project during operation will come from the cooling fans on the BESS units and medium voltage transformers. These systems generate noise during active system operation or power transfer into and out of the BESS.

North Dakota, Cass County, and Harmony Township have yet to establish sound standards for energy storage systems. However, Harmony Township is in the process of amending its zoning ordinance to provide that sound levels from a BESS may not exceed 45 dBA within 100 feet of an inhabited residence or a community building; Harmony Storage has committed to complying with this sound limit. This is consistent with the Commission's rules, NDAC Section 69-06-08-01(4) pertaining to sound from wind energy conversion facilities, which specify that sound levels from a wind energy conversion facility may not exceed 45 dBA within 100 feet of an inhabited residence or a community building. Accordingly, Harmony Storage designed the Project such that sound from the Project will be 45 dBA or less at 100 feet from identified noise-sensitive receptors (inhabited residences and community buildings).

Sound modeling was conducted for the Project. The sound modeling also accounted for future augmentation. The results of the modeling demonstrate that sound from the Project is expected to be 40 dBA or less within 100 feet of the closest receptor. The closest receptors (rural residences) are located approximately 5,000 feet from the Project (See **Appendix D**).

6.6 Land Cover/Land Use

6.6.1 Description of Existing Resources

6.6.1.1 Land Cover

The Study Area and surrounding landscape are primarily agricultural, with fields dedicated to the production of crops such as corn and soybeans.

The land cover within the Study Area was analyzed using GIS data from the USGS National Land Cover Database (NLCD) (USGS, 2025). **Table 6.6-1** provides a summary of existing land cover within the Project Area and Study Area. Land cover within the Study Area is shown on **Figure 5**.

Table 6.6-1 NLCD Land Cover within the Project Area and Study Area

Land Cover Category	Project Area (acres)	Study Area (acres)
Cultivated Crops	67.85	2911.19
Deciduous Forest	0.0	9.34
Developed, High Intensity	0.0	4.22
Developed, Medium Intensity	0.0	3.64
Developed, Low Intensity	2.53	75.36
Developed, Open Space	3.87	59.10
Emergent Herbaceous Wetlands	0.0	6.30

Land Cover Category	Project Area (acres)	Study Area (acres)
Pasture/Hay	0.0	9.65

Agricultural lands specifically cultivated crops are the most common land cover area within the Project Area and Study Area. Agricultural land within the Study Area primarily supports corn and soybean crop production. The Lower Branch Rush River, an intermittent stream, runs west to east through the southern edge of the Study Area. The Project is located within the Level IV ecoregion Red River Valley (Bryce et al. 1996). This ecoregion consists of flat plain and is covered by silt and clay deposits from the lakebed of the ancient Glacial Lake Agassiz. The region's soils are generally fertile organic soil resulting from ancient lake sediments. Historically, vegetation cover was primarily tallgrass prairie, though most of the area is now used for agriculture due to the ideal soil conditions for growing crops.

6.6.1.2 Land Use and Ownership/Management

6.6.1.2.1 Public Lands and Easements

The Study Area is not located within any designated or registered national sites, including parks, memorial parks, historic sites and landmarks, natural landmarks, historic districts, monuments, wilderness areas, wildlife areas, wild, scenic, or recreational rivers, wildlife refuges, and grasslands (NDGIS, 2026). The Study Area is not located within any USFWS easements, designated or registered state sites, such as parks, forest management lands, historic sites, monuments, historical markers, grasslands, wild, scenic, or recreational rivers, game refuges, game management areas, management areas, or nature preserves. The Study Area is not located within any county parks and recreational areas, municipal parks, parks administered by other governmental subdivisions, hardwood draws, or enrolled woodlands.

The Project Area does not overlap school trust land properties, which are managed by the North Dakota Department of Trust Lands (NDGIS, 2026). The Project Area is not located within any federal, state, or local land. The closest publicly owned land parcel is managed by the NDGFD and is approximately 17 miles southwest of the Study Area.

Within the Study Area, there are no Private Land Open to Sportsmen (PLOTS) agreements. The nearest PLOT agreement is located approximately 17 miles northwest of the Study Area.

6.6.1.2.2 Rural Residences/Farmsteads

No concentrated residential developments are present within the Study Area or Project Area, though residences and farmsteads are present in both areas. Five inhabited residences are located within the Study Area. There are no residences located within the Project Area. The closest residence to the Project Area is 0.72 mile. The other three residences are located approximately 0.90 mile northeast of the Project Area, off 163rd Ave SE, approximately 0.90 mile southwest of the Project Area off 33rd St SE, and approximately 0.90 mile southeast of the Project Area off 163rd Ave SE.

6.6.1.3 Vegetation

No unbroken grasslands (unbroken grassland (i.e., native prairie, uncultivated grassland) are located within the Study Area or Project Area.

NDCC Chapter 4.1-47 identifies 13 state noxious weeds that are enforced by all cities and counties in North Dakota. Cities and counties are also able to list additional noxious weeds for control within their jurisdiction. 10 of the state listed species, plus one additional species, Spotted Hemlock (*Conium maculatum*), are listed as noxious weeds in Cass County. Please refer to the Vegetation Management Plan in **Appendix E** for a complete list of noxious weeds listed in North Dakota and Cass County.

6.6.2 Impacts and Avoidance/Minimization Measures

6.6.2.1 Land Cover

Agricultural land will be converted from agricultural use to energy storage use for the life of the Project.

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Table 6.6-2. Estimated Project Facility Impacts by Land Cover

Project Location	Project Facility	Project Impacts	Land Cover Impacts (Acres)				
			Cultivated Cropland	Deciduous Forest	Developed (Low, Medium, High and open space)	Emergent Herbaceous Wetlands	Pasture/Hay
Within Fenced Perimeters (12.25 acres)	Gravel Pad (battery cabinets, inverters, electrical equipment, OMI areas, access roads, laydown area)	Permanent surface impact	9.58	0	0.04	0	0
	Stormwater Basins	Temporary surface impact; areas revegetated	2.63	0	0.01	0	0
Outside Fenced Perimeters (62.05 acres)	Buried electrical collection lines	Temporary surface impacts; areas revegetated after installation of facility	1.97	0	0	0	0
	Driveway portion of access roads	Permanent surface impact	0.04	0	0.07	0	0
	Collection Bore	Temporary surface impacts; areas revegetated after installation of facility	0.10	0	0.01	0	0
	Unused Areas	May include continued current use	52.16	0	5.86	1.84	0
						Total	74.31

Vegetation will be removed from areas of permanent infrastructure footprints for the life of the Project. These areas include areas within the fenced perimeter, and exterior access driveways. Following construction, non-cropland areas temporarily impacted by construction will be reclaimed and reseeded with a seed mixture consistent with the surrounding vegetation and free of noxious weeds according to NRCS recommendations, unless otherwise specified by the landowner and approved by the Commission. Areas within cropland will be returned to the pre-construction agricultural use and/or seeded with a temporary cover crop based on the landowners preference for returning the area to its pre-construction use.

The conversion of agricultural land to energy storage facilities will have a minimal impact on the rural character of the surrounding area or Cass County. Any unused portion of the Project Area not used for the final design of the Project will be available to return to existing use. The Project would not conflict with the existing development plans of state, local, or private entities within the Project Area as the Project generally avoids developed areas. Lease payments will be paid to the landowner for placement of Project facilities to offset loss of income from impacts to land used for agriculture during the life of the Project.

Harmony Storage is committed to working with landowners to avoid and minimize impacts to agricultural land and crops during construction. If drain tile is damaged due to construction activities or the operation of the Project, Harmony Storage will work with the impacted property owners to repair any damages, as needed.

6.6.2.2 Land Use and Ownership/Management

6.6.2.2.1 Public Lands and Easements

No impacts to public lands or PLOTS parcels are anticipated. Therefore, no mitigation is required.

6.6.2.2.2 Rural Residences/Farmsteads

As noted above, there are no residences located within the Project Area. The closest residence to the Project Area is 5,000 feet.

6.6.2.2.3 Vegetation

As noted above, there are no trees within the Project Area, therefore no tree and shrub removal is anticipated during construction of the Project.

Harmony Storage will develop and implement a noxious weed prevention plan included in the Vegetation Management Plan and will provide construction contractors with static constraint maps.

6.7 Geological and Soil Resources

6.7.1 Description of Resources

6.7.1.1 Geology and Soils

Based on the USGS topographic map data the Study Area is relatively flat with elevations ranging from approximately 915 to 905 feet. (USGS, 2026). According to the agency response letter from the North Dakota Geological Survey (NDGS) dated March 24, 2026, The Project Area is located in the glacial Lake Agassiz Plain and the shallow subsurface geology consists of expansive glacial lake clay associated with the Brenna Formation at a depth of approximately 25 feet across the Project Area. The Brenna Formation is over subglacial till of the Red Lake Falls formation and the Belle Fourche-Skull Creek formation which consists of undivided rocks of Lower to Upper Cretaceous age, primarily shale and sandstone at depths of approximately 250 feet below the land surface. Based on the USDA, NRCS soil data and wetlands and aquatic resources delineation report for the project, soils within the Project Area consist primarily of poorly drained Fargo silty clay, and smaller areas consisting of poorly drained Hegne-Fargo silty clay loam, Fargo-Hegne silty clay and Overly-Bearden silty loam (see **Appendix F**). Approximately 2.25 acres of soils within the Project Area (3%) are classified as prime farmland; and the remaining 72 acres (97%) are classified as prime farmland if drained (USDA-NRCS, 2026).

The NDGS recommended that site-specific geotechnical testing be conducted due to expansive clays associated with the Brenna Formation. Further details regarding the NDGS response are provided in Section 8.1.2.

6.7.1.2 Mineral Resources

No North Dakota Department of Trust Lands, mineral trust or surface trust lands, are located within the Study Area (NDGIS, 2026). Additionally, the Study Area contains no active sand or gravel mines, per North Dakota State Soil Conservation surface mining report for 2025 (SSCC, 2025), no active oil and gas wells per the North Dakota Department of Mineral Resources (NDDMR) online well search (NDDMR, 2026), or economic coal deposits or area of mined coal per the NDGS publicly available map sets (NDGS, 2026).

6.7.1.3 Geologically Unstable Areas

Based on the publicly available NDGS map sets, the Study Area avoids unstable land surfaces and geologic hazards, including landslide deposits, abandoned mines or earthquake locations (NDGS, 2026 & NDGIS, 2026).

6.7.2 Impacts and Avoidance/Minimization Measures

6.7.2.1 Geology and Soils

The depth of construction is anticipated to be up to 15 feet below ground surface; therefore, based on the proposed project design and the available geologic data, the Project is not anticipated to impact subsurface geology and no mitigation is required. Consistent with NDGS recommendations, a geotechnical analysis will be conducted for the Project.

The proposed Project will impact soils but impacts will be limited to the areas within the Project Area required to complete the construction of the proposed Project. Soil disturbance activities include grading for the area within the fenced perimeter, underground collection lines, and access roads, as needed, which will make soils more susceptible to soil erosion. Following construction, non-cropland areas temporarily impacted by construction will be reclaimed and reseeded with a seed mixture consistent with the surrounding vegetation and free of noxious weeds according to NRCS recommendations, unless otherwise specified by the landowner and approved by the Commission. Once re-vegetated, these areas will be available for their present use. Areas within cropland will be returned to the pre-construction agricultural use and/or seeded with a temporary cover crop based on the landowners preference for returning the area to its pre-construction use.

Less than 4 percent of the total land in the Project Area that could be considered prime farmland or farmland of statewide importance will be impacted for the life of the Project. As such, the acreage of prime farmland and farmland of statewide importance removed from use for the life of the Project will have a negligible impact on agricultural production. Please see **Appendix G** for the Preliminary Stormwater Management Plan for the Harmony Storage Project.

Harmony Storage proposes the following mitigative measures to avoid and/or minimize soil impacts:

- Harmony Storage will complete a site-specific geotechnical survey for the Project footprint once the final design is complete. The geotechnical survey will be utilized to ensure that construction activities and BESS infrastructure are not impacted by the soil/geology present.
- Develop and implement a noxious weed prevention plan.
- Harmony Storage will obtain coverage under the NPDES General Stormwater Construction Permit, which requires preparation and implementation of a SSWPPP during construction to minimize erosion and sediment laden runoff. This will be achieved by identifying and implementing best management practices (BMPs) identified in the SWPPP through the life of the Project. These BMPs can include but are not limited to the installation of erosion control devices, mulching, permanent and temporary seeding, dust control, and top soil and subsoil segregation.
- Training on the Project SWPPP will be provide to construction crews to ensure compliance with environmental regulations and prevent stormwater contamination.
- Should the soils temporarily impacted by construction experience soil compaction, Harmony Storage will address and resolve any compaction.

6.7.2.2 Mineral Resources

No known mineral resources will be impacted by the Project. Therefore, no mitigation is required.

6.7.2.3 Geologically Unstable Areas

No known unstable land surfaces, geologic hazards, including landslide deposits, abandoned mines or earthquake locations will be impacted by the Project. Therefore, no mitigation is required.

6.8 Wetlands and Water Resources

6.8.1 Description of Existing Resources

6.8.1.1 Groundwater

No surficial aquifers or sensitive groundwater areas are located within the Study Area (NDGIS, 2026). Based on publicly available water well logs from the North Dakota State Water Commission, no wells have been recorded within the Project Area and two domestic wells were recorded within the Study Area between 1988 and 1993 (NDDWR, 2026). The recorded wells within the Study area documented groundwater levels ranging from 34 feet to 41 feet below the ground surface (NDDWR, 2026).

6.8.1.2 Wetlands and Surface Waters

A wetlands and aquatic resources delineation survey was conducted in 2025 in support of the Project (see **Appendix H**). Note that the wetlands and aquatic resources survey reviewed wetlands and surface waters within a larger survey area (160 acres) than the current Project Area (referred to as the “Project Study Area” in the report, but referred to herein as the “Aquatic Resources Survey Area” to avoid confusion with the Study Area or Project Area; the Aquatic Resources Survey Area encompasses the Project Area as defined in this application. A desktop review of available resources, including USGS topographic maps, USDA NRCS soil survey, NWI mapping, and aerial photography were used to identify potential surface waters within the Aquatic Resources Survey Area as a precursor for field delineations. Wetlands and other waters delineations followed methodology outlined in the USACE Wetlands Delineation Manual, Technical Report Y-87-1 (USACE 1987 Manual), and subsequent guidance documents and Great Plains Regional Supplements to the USACE 1987 Manual. Multiple wetlands were delineated within the Aquatic Resources Survey Area.

Desktop data indicated the potential presence of up to 1.8 acres of wetlands within the Study Area and 0 acres of wetlands within the Project Area.

Field delineations were completed on October 10, 2025. Wetlands and surface waters were delineated within a survey area that included the Aquatic Resources Survey Area. The field delineation identified 1.94 acres of wetlands, which includes four delineated wetlands within the Project Area, three seasonally flooded basin/PEM wetlands and one Wet Meadow/PEM (associated with a roadside ditch). Two additional seasonally flooded basin/PEM wetlands are located within the Study Area associated with the Aquatic Resources Survey Area assessed during the wetland delineation survey (see **Figure 7**).

Based on desktop data, the remaining wetlands within the Study Area (but outside of the Project Area) are small, isolated prairie pothole wetlands and wetlands associated with the Lower Branch Rush River. No waterways or streams are located within the Project Area. The Study Area contains a section of the Lower Branch Rush River, a tributary to the Rush River and is located within the Rush River-Sheyenne River HUC10 watershed (NDSWC, 2026).

6.8.1.3 Floodplains

Based on publicly available FEMA FIRM data, approximately 1.8 acres of 100-year floodplain is located within the Project Area (FEMA, 2026). The FEMA FIRM data within the Study Area identifies approximately 702 acres of 100-year floodplain, mostly associated with the Lower Branch Rush River and Rush River (see **Figure 7**).

6.8.2 Impacts and Avoidance/Minimization Measures

6.8.2.1 Groundwater

The Project design and construction is not anticipated to impact aquifers and/or groundwater resources. Should shallow groundwater be encountered during construction activities, any resulting impacts are expected to be minor, localized, and temporary in nature. Construction excavations and/or dewatering are not anticipated to significantly alter groundwater gradients or flow patterns, and the natural hydrogeologic regime would be allowed to reestablish and return to baseline conditions upon completion of construction activities. Additionally, the Project should not significantly impact the groundwater flow or recharge due to

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the minimal amount of impervious surface proposed by the Project. Additionally, the Project avoids water wells.

Temporary dewatering, the lowering of rainwater/groundwater levels within excavations, may be required during construction. If dewatering of excavations is necessary, the required temporary water permit(s) will be obtained with the NDDWR and dewatering will be conducted in accordance with the requirements of the NDPDES-GSP and SWPPP.

The risk of groundwater contamination risk will be minimized by the multiple layers of containment within the BESS. Each individual battery cell is isolated and pressure-sealed, with multiple of battery cells enclosed within larger modules that are housed in fully enclosed containers. During normal operation and decommissioning, all battery materials are contained. In addition, multiple layers of safety protocols and safeguards are implemented to prevent any environmental contamination. Therefore, Harmony Storage has determined that no mitigation measures are required.

6.8.2.2 Wetlands and Surface Waters

The Project has been designed to avoid permanent and temporary impacts to wetlands. There are no wetlands located within the fenced perimeter, and access roads outside of the fenced perimeter avoid wetlands. In limited locations where underground electrical collection lines intersect wetlands, Harmony Storage plans to bore the electrical collection cables under the wetlands, thereby avoiding impacts. Specifically, the collection lines will be bored under the field delineated wetland that is adjacent to 162nd Avenue, therefore avoiding impacts to the wetland. Additionally, no appropriation of surface water is anticipated for the Project.

The Project has been sited to avoid impacts (both permanent and temporary) to surface waters.

Harmony Storage proposes the following avoidance and mitigation measures to avoid wetland and surface water impacts:

- Wetlands within close proximity to construction will be delineated and flagged prior to construction.
- The Project will be constructed to properly manage and allow for the unrestricted flow of stormwater runoff within the watershed.
- Coverage under the NDDEQ's NPDES general construction permit will be obtained prior to the start of construction.
- Prepare and implement a Construction SWPPP during construction to minimize erosion and sediment laden runoff. This will be achieved by identifying and implementing BMPs identified in the SWPPP through the life of the Project. These BMPs can include but are not limited to the installation of erosion control devices, mulching, permanent and temporary seeding, dust control, and top soil and subsoil segregation
- Harmony Storage will provide construction contractors with any necessary training and documentation on applicable construction constraints and environmental requirements and ensure compliance through onsite environmental construction monitoring.
- If the discharge of dredge or fill material (temporarily or permanently) into Waters of the United States (WOTUS) will occur, Harmony Storage will obtain coverage under a Section 404 Clean Water Act permit. Harmony Storage anticipates that if there were unavoidable impacts to USACE jurisdictional waters, these activities would be permitted under the Nationwide Permit (NWP) program.

6.8.2.3 Floodplains

Harmony Storage has designed the Project so that facilities avoid FEMA 100-year floodplains based on the FEMA FIRM data (see **Figure 7**); therefore, no impacts are anticipated to floodplains. Accordingly, no mitigation measures are required.

6.9 Wildlife and Rare and Unique Natural Resources

Harmony Storage has conducted the following wildlife and habitat studies to evaluate potential impacts:

- A field survey was conducted by Stantec for Harmony Storage in October 2025 to evaluate the presence of potential habitat for federally listed species. The Study Area analyzed in the October 2025 field survey and the USFWS Information for Planning and Consultation (IPaC) report (See **Appendix I**) consisted of a 160-acre Study Area, herein referenced to as Field Study Area. The Field Study Area encompasses the current Project Area. The Project Area consisted entirely of cultivated cropland with no trees or woodlands present.

As discussed further in Section 8, Harmony Storage has coordinated closely with the NDGFD. In its response to the Project introduction letter, the NDGFD listed general avoidance and minimization practices to reduce impacts to wildlife, such as by:

- adhering to exclusion and avoidance criteria listed in NDAC 69-06-08-01;
- avoiding habitat loss and habitat fragmentation;
- utilizing wildlife safe construction practices (wildlife safe fencing, wildlife friendly plantings, reducing light pollution, manage noxious weeds); and
- developing safety plans and an end-of-life recycling plan to ensure safe and effective disposal of the batteries.

Harmony Storage met with the NDGFD and USFWS on June 22, 2026 to discuss the Project. Topics covered included an overview of the Project technology and design, the agencies' preference for siting facilities in already disturbed areas, such as cultivated cropland, avoidance of wetland impacts, and lighting. Harmony Storage will continue to coordinate with USFWS and NDGFD, as needed.

6.9.1 Description of Existing Resources

6.9.1.1 Federally Listed Species

The IPaC tool was reviewed on March 3, 2026 to determine if federally listed threatened and endangered species or their designated critical habitat have been previously documented within the Field Study Area. The IPaC data indicated that two federally listed species have the potential to occur within the Field Study Area: Monarch butterfly (*Danaus plexippus*– Proposed Threatened) and Suckley's cuckoo bumble bee (*Bombus suckleyi*– Proposed Endangered). USFWS designated critical habitat is not present within the Field Study Area.

In October 2025, Stantec staff conducted a field survey to evaluate potential habitat for the above-listed species within the Field Study Area. A general assessment of habitat types within the Field Study Area was compared to the general habitat requirements of the listed species identified in the IPaC report. The federally listed and proposed species with their general habitat preferences, as described on the USFWS Region 6 website, and observations from the October habitat assessment are presented below.

- Monarch butterfly – This butterfly species utilizes grasslands, fields, roadsides, wetlands, and other habitats where its host plant, milkweed (*Asclepias* spp.), and flowers are present. Flowering plant species observed during the field survey were limited to road ditches. The Project Area consisted entirely of cultivated cropland and no butterflies were observed during the field survey.
- Suckley's cuckoo bumble bee – This parasitic bee species inhabits grasslands and forests where host bumble bee nests are present. No potentially suitable habitat and no bees were observed during the field survey.

No USFWS identified critical habitats were identified with the Field Study Area. Therefore, as per Section 7(a)(2) responsibilities of the ESA, if no species or their critical habitat are affected by a project, no further consultation with the USFWS is required. Further details regarding threatened and endangered species survey methods and results are provided in **Appendix I**.

6.9.1.1.1 Avian Species

Migratory birds are federally protected under the Migratory Bird Treaty Act (MBTA), and bald eagles are protected under the MBTA and Bald and Golden Eagle Protection Act (BGEPA). According to the MBTA, it is illegal to “pursue; hunt; take; capture; kill; attempt to take, capture, or kill; possess; offer for sale; and export, import, or transport birds, their parts (e.g., feathers), and active nests (and the eggs or young within).” BGEPA protects and conserves bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) from intentional take of an individual bird, chick, egg, or nest, including alternate and inactive nests. Unlike the MBTA, BGEPA prohibits disturbance that may lead to biologically significant impacts, such as interference with feeding, sheltering, roosting, and breeding or abandonment of a nest. No migratory birds of concern were identified within the Project Area in the IPaC review.

Avian species are common visitors to agricultural fields. According to a 2009 study, at least 30 North Dakota bird species use agricultural fields. Horned lark (*Eremophila alpestris*), killdeer (*Charadrius vociferus*), red-winged blackbird (*Agelaius phoeniceus*), and Canada goose (*Branta canadensis*) were observed most often in an agricultural field (Galle et al. 2009). No trees or forested areas are present within the Project Area; therefore, avian species that use trees or forested areas as habitat are unlikely to be present. Since this Project Area is entirely cultivated cropland, the likelihood of ground nesting avian species is unlikely. A small area of wetland is present within the Project Area, but the wetlands will be avoided by project footprint, therefore wetland- or water-dependent avian species are likely to be limited or absent, including waterfowl and waterbirds. Since no grasslands are present within the Project Area, species of migratory birds associated with grassland would also be limited or absent.

The IPaC review did not identify USFWS critical habitat areas for bald eagles or golden eagles within the Field Study Area. No eagle or raptor nests were observed within the Field Study Area or from public rights-of-way in the vicinity of the Field Study Area during the October 2025 field visit. No trees or forested areas are present within the Project Area.

Further details regarding threatened and endangered species survey methods and results are provided in **Appendix I**.

6.9.1.2 Grasslands and Woodlands

In the NDGFD’s April 2026 pre-application notification letter response (See **Appendix J**), the agency listed micro-sitting sites away from native/unbroken habitat (grasslands, woodlands, and wetlands) as an avoidance/minimization impact recommendation for the Project. The Project location was strategically chosen to avoid impacting unbroken grassland and woodland areas, focusing instead on placement within existing cropland. The selected Project Area consists of cropland, which reduces the potential for habitat fragmentation and maintains the ecological integrity of the surrounding grasslands.

6.9.2 Impacts and Avoidance/Minimization Measures

6.9.2.1 Federally Listed Species

Flowering plants are the preferred habitat of the monarch butterfly. Since field surveys were conducted in October, it is reasonable to assume that more flowering plant individuals and species exist within the Project Area. The Project Area is a primarily disturbed area (cultivated crop), thus limiting the likelihood of potentially suitable habitat to road ditches and adjacent to water resources to the Project Area. This species is currently proposed for listing and further review would be needed when the species is formally listed.

No suitable habitat for the Suckley’s cuckoo bumble bee is present within the Project Area. The October 2025 survey assessed forest and grassland conditions, and no features indicative of preferred habitat for this species were identified. Additionally, populations of this species are not presently known in North Dakota, and the species has not been observed in the contiguous United States since 2016. This species is currently proposed for listing and further review would be needed when the species is formally listed.

USFWS designated critical habitat is not present within the Field Study Area.

Additionally, Harmony Storage proposes the following mitigation measures:

- Construction contractors will receive training, spatial data, and sensitive resource summary constraint maps to identify restricted areas for construction equipment.

- Contractors will be educated on threatened and endangered species. If any are identified, construction activities will pause until the species moves through the Project Area.

6.9.2.2 Avian Species

No eagle or raptor nests were observed within the Field Study Area or from public rights-of-way in the vicinity of the Field Study Area during the October 2025 field visit. The Project is unlikely to cause direct or permanent disturbance to migratory birds as the Project land disturbance would be minimal.

6.9.2.3 Grasslands and Woodlands

The siting of the Project avoids impacts to native habitats that wildlife species rely on (grasslands, woodlands) and consists of cropland, which reduces the potential for habitat fragmentation and maintains the ecological integrity of the surrounding grasslands.

7 FACTORS CONSIDERED

NDCC Section 49-22-09 identifies factors that guide the Commission in assessing and designating a site for a proposed facility. These factors are discussed below.

7.1 Public Health, Welfare, Natural Resources, and the Environment

The preceding sections of this Application provide a review of the investigations related to the potential impacts to public health, welfare, natural resources, and the environment that could occur as a result of Project development and operation, as well as the proposed mitigation measures that would be implemented to avoid or minimize these impacts. As discussed in this Application, the Project has been designed to avoid and/or minimize potential impacts to public health and welfare, natural resources, and the environment.

7.2 Minimizing Adverse Environmental Effects

Harmony Storage has, or will, utilize the most current available technologies to site, construct, and operate the Project in order to optimize utilization of space and proximity to existing infrastructure while also minimizing or avoiding potential adverse environmental impacts. Avoidance, minimization and/or mitigation measures to be implemented for each resource are described in each corresponding subsection within Section 6.0.

7.3 Potential for Beneficial Uses of Waste Energy

Utility-scale energy storage does not create waste energy. Therefore, the Project does not have the potential for beneficial use of waste energy.

7.4 Unavoidable Adverse Environmental Effects

Unavoidable adverse environmental impacts are described for each resource category in Section 6.0. The unavoidable direct ground disturbance will include the conversion of primarily agricultural land to a utility-scale energy storage resource and alteration of the visual landscape through the construction of battery facilities for the life of the Project. The direct impacts will total 9.73 acres from the conversion of agricultural land to permanent aboveground Project facilities. Areas temporarily impacted by Project construction activities will be restored to their original conditions following construction, to the extent practicable and in coordination with the landowners. Harmony Storage selected the Project site to minimize unavoidable environmental impacts and will implement appropriate mitigation measures throughout Project development.

7.5 Alternatives to the Proposed Site

As discussed in Section 1.2, Harmony Storage selected the proposed Project Area based on a variety of factors including landowner support, proximity to the Harmony Solar Project and interconnection facilities, and minimal impact to the environment. The Project has been sited to avoid and minimize impacts to the

environment and existing land uses. Harmony Storage believes the proposed site represents the best location for the Project.

7.6 Irreversible and Irretrievable Commitments of Natural Resources

Energy storage projects, including the Project, require relatively few irreversible and irretrievable commitments of natural resources. The primary irreversible and irretrievable commitments of natural resources for the Project are associated with construction activities. Natural resources will be used in the manufacturing and preparation of construction materials including steel, concrete, and aggregate. In addition, transportation of vehicles and equipment to and from the site during construction will require the use of hydrocarbon fuel. Although they would not be retrievable after use, supply of these materials is not sparse, and their use would not be expected to have a significant impact on resource availability. Further, the limited commitment of natural resources for the Project would be balanced against the anticipated benefits resulting from Project development.

7.7 Direct and Indirect Economic Impacts

As Section 2.6 outlines, the Project will provide meaningful long-term economic benefits through lease payments to the landowner, creation of two to three full-time jobs during operations, and taxes paid to state and local taxing authorities.

Short-term economic benefits will include the creation of up to approximately 150 temporary jobs, both skilled and unskilled, at the peak of Project construction and significant and measurable indirect economic benefits to the general area, including increased retail and service activity at restaurants and gas stations and local purchases of construction materials and supplies.

The Project may also indirectly benefit economies in the surrounding area due to wages and salaries paid to local hires and increased spending at local businesses. Further, long-term benefits to the Cass County tax base resulting from the Project will improve the local economy.

7.8 Existing Development Plans of the State, Local Government, and Private Entities at or in the Vicinity of the Site

The Project is not anticipated to conflict with the existing development plans of state, local, or private entities within the Project Area. Harmony Storage has coordinated closely with Harmony Township officials, and the township is currently amending its ordinance to authorize energy storage projects associated with already-permitted solar projects, such as the Project, as permitted uses.

7.9 Effect of Site on Cultural Resources

Project infrastructure has been sited to avoid cultural resources identified and recommended for avoidance in the Class I and Class III inventory. Harmony Storage is finalizing the Class I and Class III inventory report and will submit the report to the SHSND review. Harmony Storage will also prepare an Unanticipated Discoveries Plan, which will detail the process for prompt communication and action in the event that previously unidentified cultural resources or human remains are encountered during construction. Refer to Section 6.4 for additional details regarding the cultural resources survey efforts conducted for the Project and SHSND consultation.

7.10 Effect of Site on Biological Resources

The Project is designed to avoid and/or minimize impacts to biological resources, including wildlife. Section 6.0 provides discussion of specific measures that Harmony Storage has implemented during Project layout and design, or plans to implement during construction and operation, to avoid and/or minimize potential impacts to wildlife.

8 STAKEHOLDER ENGAGEMENT

As part of development of the Project, Harmony Storage and its representatives have maintained close coordination with agencies, as well as other groups and organizations.

8.1 Project Notification Letters

On March 20, 2026, Harmony Storage distributed Project notification letters to local, state, and federal agencies and stakeholders listed in NDAC 69-06-01-05. These letters included an overview of the Project and a map of the Project location. The following sections summarize agency coordination efforts to date, organized by agency.

A list of agencies/stakeholders consulted, and copies of agency/stakeholder correspondence is provided in **Appendix J**.

Table 8-1. Project Notification Letters

Stakeholder Per North Dakota Administrative Code 69-06-01-05	Letter Sent	Response Received
20th Airforce 91st Missile Wing*	March 20, 2026	No response
Cass County Board of Commissioners	March 20, 2026	No response
Energy Infrastructure and Impact Office	March 20, 2026	No response
Federal Aviation Administration	March 20, 2026	No response
Federal Bureau of Land Management	March 20, 2026	No response
Grand Forks Air Force Base*	March 20, 2026	No response
Job Service North Dakota	March 20, 2026	No response
Military Aviation and Installation Assurance Siting Clearinghouse	March 20, 2026	No response
Minot Air Force Base*	March 20, 2026	No response
NRCS	March 20, 2026	March 27, 2026
North Dakota Aeronautics Commission	March 20, 2026	No response
North Dakota Department of Agriculture	March 20, 2026	No response
North Dakota Department of Career and Technical Education	March 20, 2026	No response
North Dakota Department of Commerce	March 20, 2026	No response
NDDEQ	March 20, 2026	May 1, 2026
NDDH	March 20, 2026	No response
North Dakota Department of Human Services	March 20, 2026	No response
North Dakota Department of Labor and Human Rights	March 20, 2026	No response
NDDOT	March 20, 2026	April 30, 2026
North Dakota Department of Trust Lands	March 20, 2026	No response
NDDWR	March 20, 2026	April 21, 2026
North Dakota Forest Service	March 20, 2026	No response
NDGFD	March 20, 2026	April 28, 2026
NDGS	March 20, 2026	March 24, 2026
North Dakota Indian Affairs Commission	March 20, 2026	No response
North Dakota Industrial Commission	March 20, 2026	No response
North Dakota Office of Attorney General	March 20, 2026	No response
North Dakota Parks and Recreation Department	March 20, 2026	No response
North Dakota Pipeline Authority	March 20, 2026	No response
North Dakota Transmission Authority	March 20, 2026	No response
Office of the Governor	March 20, 2026	No response

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Stakeholder Per North Dakota Administrative Code 69-06-01-05	Letter Sent	Response Received
SHSND	March 20, 2026	March 24, 2026
USACE	March 20, 2026	April 14, 2026
United States Department of Defense	March 20, 2026	No response
USFWS	March 20, 2026	Stantec completed IPaC June 9 and official species list was populated same day.

*The letters to the 20th Airforce 91st Missile Wing, Grand Forks Air Force Base and Minot Air Force Base were returned to sender. Stantec resent letters via email on April 9, 2026.

8.1.1 Federal Agencies

8.1.1.1 Natural Resources Conservation Service/United States Department of Agriculture

On March 27, 2026, the NRCS responded to the notification letter. The NRCS stated that it appears the Project is not supported by federal funding; therefore, Farmland Protection Policy Act does not apply, and no further action is needed.

A copy of NRCS's response to the notification letter is provided in **Appendix J**.

8.1.1.2 United States Army Corps of Engineers

On April 13, 2026, the USACE responded to the notification letter, outlining that a Section 404 of the Clean Water Act permit is required if there is any impact on WOTUS, including rivers, streams, and adjacent wetlands. The USACE provided guidance on the permit application process and emphasized the importance of accurately describing the proposed work and construction methodology. The USACE also requested that all submissions be sent electronically to the North Dakota Regulatory office.

If the discharge of dredge or fill material (temporarily or permanently) into the WOTUS occurs, Harmony Storage will obtain coverage under a Section 404 Clean Water Act permit. Harmony Storage anticipates that if there are unavoidable impacts on the jurisdictional waters of the USACE, these activities will be permitted under the NWP program. A copy of USACE's response to the notification letter is provided in **Appendix J**.

8.1.1.3 United States Department of Fish and Wildlife Services

On June 9, 2026, an updated official species list was populated using the USFWS IPaC application. The original species list was populated in March 2026 as part of the Section 7 ESA evaluation (**see Appendix I**). The species list fulfills the requirements pursuant to Section 7 of the ESA and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

Two species were identified in the official species list; the Monarch Butterfly, listed as Proposed Threatened, and the Suckley's Cuckoo Bumble Bee, listed as Proposed Endangered. No critical habitat for the listed species, no wetlands, and no refuge lands or fish hatcheries were identified within the Project Area. A copy of the official species list is provided in **Appendix J**.

On June 22, 2026, Harmony Storage met with USFWS and NDGFD to discuss the Project. Topics covered included an overview of the Project technology and design, the agencies' preference for siting facilities in already disturbed areas, such as cultivated cropland, avoidance of wetland impacts, and lighting. Harmony Storage will continue to coordinate with USFWS and NDGFD, as needed.

8.1.2 State Agencies

8.1.2.1 North Dakota Department of Environmental Quality

On May 1, 2026, the NDDEQ responded to the notification letter and reviewed the Project with respect to possible environmental impacts. The NDDEQ highlighted the importance of minimizing fugitive dust emissions during construction and addressing any complaints efficiently. NDDEQ requires that aggregate

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that is used for road construction should not contain erionite. Care must be taken during construction near water bodies to prevent adverse effects, including minimal disturbance of stream beds and banks, as well as the prevention of oil and grease spills. NDDEQ provides additional guidance for projects that involve construction or environmental disturbance near North Dakota state waters. Projects disturbing one or more acres require a stormwater permit until vegetation or other permanent cover is re-established. The NDDEQ encourages efforts to reduce, reuse, and recycle solid waste materials. The USACE may require a water quality certification if the Project is subject to Section 404 permitting. The NDDEQ noted it owns no land in or adjacent to the Project, and it believes the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for North Dakota.

Harmony Storage will follow the NDDEQ recommendations and guidance. A copy of NDDEQ's response to the notification letter is provided in **Appendix J**.

8.1.2.2 North Dakota Department of Transportation

On April 30, 2026, the NDDOT responded to the notification letter. NDDOT stated that any utility line work performed on NDDOT highway right-of-way will require a utility permit from the NDDOT's Fargo Office.

Harmony Storage will coordinate with NDDOT and obtain any required NDDOT permits for work within NDDOT rights-of-way.

A copy of NDDOT's response to the notification letter is provided in **Appendix J**.

8.1.2.3 North Dakota Department of Water Resources

On April 15, 2026, the NDDWR responded to the notification letter, providing information on NDDWR permitting requirements. The NDDWR confirmed that the Project avoids impacts to water features and therefore a North Dakota state sovereign land permit is not required. NDDWR noted that initial review indicates that a conditional or temporary permit for water appropriation is not required. Related to floodplains, NDDWR confirmed that there are no FEMA National Flood Insurance Program floodplains identified or mapped in the Project Area; therefore, no permits relative to the Program are anticipated to be required. NDDWR recommended that the potential for flood risk identified through the North Dakota Risk Assessment Mapservice and Base Level Engineering (NDDWR 2026i) be considered in the design process. In accordance with NDDWR's recommendation, Harmony Storage will coordinate with the local floodplain administrators, as needed.

A copy of NDDWR's response to the notification letter is provided in **Appendix J**.

8.1.2.4 North Dakota Game and Fish Department

On April 28, 2026, the NDGFD responded to the notification letter, emphasizing the need for thorough due diligence in site selection and construction to minimize potential risks to wildlife. They highlighted the importance of responsibly developing energy projects, particularly with the introduction of new technologies like battery storage in North Dakota. The NDGFD provided recommendations to avoid and mitigate impacts, including adhering to specific site selection criteria, consolidating facilities to reduce habitat loss and fragmentation, and considering wildlife-safe fencing, avoiding light pollution, implementing a local weed board approved noxious weed plan, and utilize wildlife-friendly plantings. Additionally, the NDGFD stressed the importance of developing safety and recycling plans for the batteries and requested to be kept informed throughout the project's progress to offer informed feedback to the Commission. The NDGFD requested to receive all documents, including wildlife surveys, spatial data, and any voluntary offsets being proposed 100 days prior to the hearing date.

Copies of correspondence between NDGFD and Harmony Storage and NDGFD's response to the notification letter is provided in **Appendix J**.

As noted above, on June 22, 2026, Harmony Storage met with USFWS and NDGF to discuss the Project.

8.1.2.5 North Dakota Geological Survey

On March 24, 2026, the NDGS responded to the notification letter and provided details on the shallow subsurface geology at the proposed project site. The NDGS recommended Harmony Storage utilize site-

specific geotechnical engineering and materials testing in a manner consistent with the current standard-of-care for similar construction projects in the Red River Valley.

Harmony Storage will follow the NDGS recommendations and guidance. A copy of the NDGS response to the notification letter is provided in **Appendix J**.

8.1.2.6 State Historical Society of North Dakota

On April 15, 2026, SHSND responded to the notification letter and recommended that a Class III (pedestrian survey) of cultural resources be conducted.

A Class I inventory was conducted and involved a review of documentation on file at the North Dakota SHPO, regarding archaeological or historic sites and historic architectural resources that may exist within one mile of the Project Area. On May 5, 2026, a Class III pedestrian survey was conducted of the entire Project Area. Harmony Storage is finalizing the Class I and Class III inventory report and expects to submit the report to the SHSND by early July 2026. Harmony Storage will continue coordinating with SHSND.

A copy of SHSND’s response to the notification letter is provided in **Appendix J**.

8.1.3 Tribes

On April 1, 2026, Harmony Storage sent notification letters via email to the following Tribes:

- Apache Tribe of Oklahoma
- Flandreau Santee Sioux Tribe of South Dakota
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Leech Lake Band of Ojibwe
- Lower Sioux Indian Community
- Prairie Island Indian Community
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
- Spirit Lake Nation
- Upper Sioux Community Pezihutazizi Oyate

The notification letter provided an overview of the Project and welcomed tribes to respond if they had interest in the project. **Appendix J** contains a template of the notification letter. Harmony Storage will continue to coordinate with tribes, as needed.

8.1.4 Local

8.1.4.1 Harmony Township

Harmony Storage gave presentations to and conducted outreach with the Harmony Township Board of Supervisors throughout late 2025 and early 2026, including providing information on the Project and working with the Township on proposed amendments to the Township ordinance to address battery energy storage systems. Harmony Township is in the process of amending its zoning ordinance to authorize BESS associated with already-authorized uses as permitted uses in the Agricultural District subject to certain requirements. Accordingly, the Project would be authorized as a permitted use.

9 POTENTIAL PERMITS AND APPROVALS

Table 9.0-1 outlines the federal, state, and county permits or approvals that may be required for the construction and operation of the Project.

Table 9.0-1 Potential Permits and Approvals

Agency	Type of Approval	Applicability	Status and Timing
Federal Approvals			

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Agency	Type of Approval	Applicability	Status and Timing
USACE	Section 404 of the Clean Water Act	Required if dredging or filling jurisdictional waters of the United States. These discharges may be permitted by an NWP, provided the activity meets the permit conditions.	To be obtained prior to activity subject to permit, if needed.
State of North Dakota			
NDDEQ	NDPDES General Permit for Stormwater Discharge Related to Construction (includes preparation of the SWPPP)	Required for stormwater discharges from construction activities with disturbances greater than one acre.	To be obtained prior to activity subject to permit, if needed.
	401 Water Quality Certification	Required in connection with Section 404 permit for filling in jurisdictional waters of United States.	Incorporated into Section 404 Nationwide Permits; to be obtained prior to activities subject to permit, if required.
NDDOT	Road Approach/Access Permit(s)	Required to construct driveway access to state owned right-of-way.	To be obtained prior to activity subject to permit, if needed.
	Utility Occupancy Permit(s)	Required to install electrical lines within state owned right-of-way.	To be obtained prior to activity subject to permit, if needed.
	Temporary Modification Permit(s)	Required for temporary modifications to state-owned right-of-way.	To be obtained prior to activity subject to permit, if needed.
NDDWR	Drainage Permit	Required before draining a pond, slough, lake or sheetwater, or any series thereof, that has a watershed area (i.e., drainage area) of 80 acres or more.	To be obtained prior to activity subject to permit, if needed.
	Conditional Water Permit	Required for all uses of water (where the use period will exceed 12 months), except in cases when both the amount of water to be impounded, diverted, or withdrawn is less than 12.5 acre-feet (4,073,137 gallons) and the use is domestic, livestock, fish, wildlife, or other recreational uses.	To be obtained prior to activity subject to permit, if needed.
	Temporary Water Permit	Required for all temporary uses of water, except in cases when both the amount of water to be impounded, diverted, or withdrawn is less than 12.5 acre-feet (4,073,137 gallons) and the use is domestic, livestock, fish, wildlife, or other recreational uses.	To be obtained prior to activity subject to permit, if needed.
North Dakota Highway Patrol	Overheight/Over weight Permit	Required to transport oversize/overweight loads on state-maintained roads.	To be obtained prior to activity subject to permit, if needed.

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Agency	Type of Approval	Applicability	Status and Timing
North Dakota Public Service Commission	Certificate of Site Compatibility	Required for a utility-scale energy storage plant designed for operation as a grid resource and capable of 5 megawatts or more of rated power capacity.	In progress; to be obtained prior to construction.
SHSND	Cultural and Historic Resources Review	Consultation required in connection with other agency permitting requirements, such as the PSC.	Harmony Storage is coordinating with SHSND/SHPO on cultural resource survey results.
Local Permits			
Cass County	Oversize/Overweight Permit(s)	Required to transport oversize/overweight loads on county roads.	To be obtained prior to activity subject to permit, if needed.
	Access Permit(s)	Required to construct driveway access to county road right-of-way.	To be obtained prior to activity subject to permit, if needed.
	Utility Permit(s)	Required for the installation of electrical lines on/across county road right-of-way.	To be obtained prior to activity subject to permit, if needed.
Harmony Township	Building Permit(s)	May be required.	To be obtained prior to activity subject to permit, if needed.
	Access Permit(s)	May be required to construct driveway access to township road right-of-way.	To be obtained prior to activity subject to permit, if needed.
	Utility Permit(s)	May be required for the installation of electrical lines on/across township road right-of-way.	To be obtained prior to activity subject to permit, if needed.
	Oversize/Overweight Permit(s)	May be required to transport oversize/overweight loads on township roads.	To be obtained prior to activity subject to permit, if needed.

10 QUALIFICATIONS OF CONTRIBUTORS

The qualifications of each significant contributor involved in the facility site location study and this application are provided below in **Table 10.0-1**.

Table 10.0-1 Qualifications of Contributors

Name and Project Role	Education and Professional Experience
Alia Mohammad Senior Permitting Specialist Geronimo Power, LLC	Alia Mohammad graduated from the State University of New York College of Environmental Science and Forestry with a Bachelor of Science degree in Environmental Science. Prior to joining Geronimo Power, she worked for a utility company where she supported environmental due diligence and permitting efforts for electric and natural gas projects. Alia has been with Geronimo Power since April 2023. She began as a Permitting Associate, where she supported utility-scale renewable energy projects by assisting with project siting efforts and local and state permitting processes. She subsequently advanced to Permitting Specialist and now serves as a Senior Permitting Specialist. In these roles, she has led and supported the permitting and environmental review of utility-scale solar and battery energy storage projects, coordinating closely with internal teams, external consultants, and regulatory agencies.

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Name and Project Role	Education and Professional Experience
Amber Miller Permitting Director Geronimo Power, LLC	Amber Miller has a Bachelor of Arts degree in Public Policy and Legal Studies from University of St. Francis and a Master of Public Administration from Saint Louis University. Amber spent 20+ years working as a Community Development Director and City Planner for several communities throughout the Midwest. She joined Geronimo Power in 2018 to work on the Community Solar portfolio in Illinois. She transitioned to utility scale solar, battery storage and wind successfully permitting more than 2GWs of projects across Michigan, Wisconsin, & Illinois. Amber has been the Permitting Director for 2 years for Geronimo Power expanding the department to include compliance staff to ensure permitting compliance throughout construction and operations.
Maddy Doeden Late-Stage Projects Developer Geronimo Power, LLC	Maddy Doeden graduated from the University of Wisconsin–Madison with a Bachelor of Arts degree in Environmental Studies and Legal Studies. Maddy joined Geronimo Power as a Development Intern in Spring 2023, where she supported early-stage development efforts and site selection activities. She remained with the development team as an intern until May 2024, when she transitioned into a full-time Development Associate role. As a Development Associate, Maddy primarily supported late-stage utility-scale renewable energy projects by assisting with project management and project delivery functions. She subsequently advanced to Developer and now serves as a lead late-stage project manager on Harmony BESS and other similar utility-scale energy projects, focusing on late-stage deliverables and advancing projects toward construction.
John Waiter Project Manager Stantec Consulting Services Inc.	John Waiter has over 26 years of experience managing complex utility scale renewable energy, battery storage and electric transmission projects. His experience managing complex State Public Service Commission licensing projects makes him ideally suited to lead the multidisciplinary Stantec team and coordinate with other stakeholders to successfully drive a project like this to completion. To date, he has managed the development, submittal and approval of Certificate of Public Convenience and Necessity (CPCN) and other state utility commission renewable and route/corridor permit applications. To date, he has obtained state utility commission approval for over 2,000 megawatts of solar energy generation and 900 megawatts of battery storage in the Midwest. Of this total, John has successfully managed 750 MW of solar generation and 60MW of battery storage projects for
Nicole Pahl Project Manager/Environmental Specialist Stantec Consulting Services Inc.	Nicole Pahl is a Project Manager with over nine years of experience. Her expertise is in preparing local and national environmental impact assessments and permitting for a variety of power, transportation, water resources, and renewables projects in the Midwest. Nicole is currently involved in both the Minnesota and North Dakota regulatory processes for Xcel Energy's Bison to Alexandria project. She recently assisted with the development of the Minnesota Public Utilities Commission (MPUC) Certificate of Need (CN), Route Permit Amendment (RPA), and is currently supporting the development of the North Dakota Public Service Commission (NDPSC) Certificate of Corridor Compatibility and Route Permit Amendment applications.
Chris Schmidt Senior Project Manager/ Environmental Consultant Stantec Consulting Services Inc.	Chris Schmidt is a skilled environmental consultant offering a comprehensive background in project management, environmental solutions, environmental permitting, and agency coordination for a wide variety of renewable energy, energy storage and electric transmission projects. Specifically, Mr. Schmidt has experience in preparation of ND PSC Corridor Compatibility and Route applications, Environmental Impact Studies and Assessments, Wildlife and Endangered Species Assessments, transmission line and pipeline route evaluations, and North Dakota, Minnesota, Wisconsin, Illinois and other Midwest states permitting.
Angela Julin Project Manager Stantec Consulting Services Inc.	Angela Julin is a senior archaeologist and Principal Investigator with over 15 years of experience in cultural resource management. She has experience completing Section 106 and National Environmental Policy Act documentation and complying with state and local regulations. Angela has conducted archaeological survey, site evaluation, technical oversight, and review for Federal and State-level reviews including National Historic Preservation Act (NHPA), Rural Utilities Service (RUS), and Federal Energy Regulatory Commission (FERC)-compliance-based cultural resource investigations for projects in Minnesota, Iowa, Wisconsin, North Dakota, Michigan, Missouri, Arkansas, Mississippi, Arizona, Colorado, Utah, Wyoming, California, Kansas, and Oregon. Her expertise includes conducting Phase I reconnaissance survey, Phase II evaluation survey, and Phase III data recovery excavations; conducting background research and literature reviews; authoring reports; precontact site stabilization; historic and precontact site condition assessments; and archaeological monitoring and reporting of construction activities.
Kevin Mueller GIS Specialist Stantec Consulting Services Inc.	Kevin Mueller is a Geographic Information System (GIS) Specialist with over 21 years' experience supporting, enhancing, and streamlining geospatial data and map services to help create a wide range of products and analysis for watershed districts, transportation and mining and energy sector related projects, including oil and gas pipelines, refined products, liquefied natural gas storage, wind/solar energy, and transmission line projects. Specialized skill set includes natural resource mapping and analysis, working with raw and processed LiDAR to create digital surface and elevation models, watershed analysis, archaeological site sensitivity modeling, permitting support, construction and feature impacts assessment, siting/routing/feasibility studies, fatal flaws analysis, AutoCAD integration into GIS, GIS database development and implementation, tools, and process development with ModelBuilder, and Python scripting. Experience working with internet mapping applications using ArcGIS Online, Enterprise and ESRI JavaScript API and field data collection

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Name and Project Role	Education and Professional Experience
	management utilizing the suite of ESRI data collection applications. Additionally, Mr. Mueller has State and Federal level permitting experience, including Corridor Compatibility and Route applications and 3 rd Party Construction Compliance work for the ND PSC.
Mollie Smith Attorney at Law Fredrikson & Byron, P.A.	Mollie Smith assists clients with wind farm, solar, pipeline, and transmission line permitting matters in North Dakota, South Dakota, and Colorado. At the state level, Mollie represents clients in certificate of corridor compatibility, route permit, certificate of site compatibility, and rulemaking proceedings before the PSC; and energy facility permit proceedings before the South Dakota Public Utilities Commission. At the local level, Mollie advises and assists clients with a variety of permitting related matters, including obtaining conditional use/special exception permits, variances and subdivision approvals, and participating in zoning ordinance amendment processes. Mollie has a Bachelor of Arts in English from Northern State University, Aberdeen, SD; a Master of Arts in Literature from Colorado State University, Fort Collins, CO; and a Juris Doctor from the University of Minnesota Law School, Minneapolis, MN.
Bridget Duffus Attorney at Law Fredrikson & Byron, P.A.	Bridget Duffus assists clients with wind farm, solar farm, transmission line, and pipeline permitting matters in North Dakota, South Dakota, and Minnesota. At the state level, Bridget represents clients in certificate of corridor compatibility, route permit, and certificate of site compatibility proceedings before the North Dakota Public Service Commission, facility permit proceedings before the South Dakota Public Utilities Commission, and certificate of need, route permit, and site permit proceedings before the Minnesota Public Utilities Commission. At the local level, Bridget advises and assists clients with a variety of permitting-related matters, including obtaining conditional/special use permits and variances, and participating in zoning ordinance amendment processes. Bridget has a BA in Psychology from the University of St. Thomas, St. Paul, MN, and a JD from the University of St. Thomas School of Law, Minneapolis, MN.

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