

# ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at: [Environmental Quality Board](http://www.eqb.state.mn.us/content/eaw-process) <http://www.eqb.state.mn.us/content/eaw-process>. The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.

**Cumulative potential effects** can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.

**Note to reviewers:** Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

**1. Project title:**

Minnesota Valley Off-Highway Vehicle Recreation Area, Renville County, Minnesota

**2. Proposer:**

Renville County Division of Environment and  
Community Development  
Contact person: Scott Refsland  
Title: Director  
Address: Renville County Government Center  
City, State, ZIP: Olivia, MN 56277  
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**3. RGU:**

Minnesota Department of Natural Resources  
Contact person: Bill Johnson  
Title: Planning Director  
Address: 500 Lafayette Road, Box 25  
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**4. Reason for EAW Preparation:** (check one)

Required:

- EIS Scoping  
 Mandatory EAW

Discretionary:

- Citizen petition  
 RGU discretion  
 Proposer initiated

**If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):**

Recreational Trails, Minnesota Rules part 4410.4300, subpart 37F: Construction of an off-highway vehicle recreation area.

**5. Project Location:**

**County:** Renville

**City/Township:** Sacred Heart South Township

**PLS Location (¼, ¼, Section, Township, Range):** NE ¼ of Sec. 22, NW ¼ of Sec. 23, T114N, R37W

**Watershed (81 major watershed scale):** Minnesota River (Granite Falls) – Watershed No. 25

**GPS Coordinates:** 44.6677, -95.2788

**Tax Parcel Number:** 23-00701-00, 23-00710-00, 23-00680-00

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan.

Figure/Attachment	Description
Figure 1	Project Location Map
Figure 2	USGS Topographic Map
Figure 3	Parcel Identification Map
Figure 4	Existing Land Use Plan
Figure 5A	Tufto Site Mine Phasing Plan
Figure 5B	Ponderosa Site Mine Phasing Plan
Figure 6	Conceptual Site Plan
Figure 7	Aerial Photograph and LiDAR Map
Figure 8	Soil Classification Map
Figure 9	Stormwater Pollution Prevention Plan
Figure 10	Surface Hydrology Features Map
Figure 11	Road Classifications Map
Figure 12	Sacred Township South Township Zoning Map
Attachment 1	Minnesota Department of Natural Resources Correspondence
Attachment 2	State Historical Preservation Correspondence

**6. Project Description:**

- a. **Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).**

Renville County proposes the Minnesota Valley OHVRA on 278 acres of land in Sacred Heart (South) Township. Current sand and gravel mining would be phased out over 20 years, with reclamation including construction of proposed trails and amenities, and revegetation of remaining mined areas to prairie grassland species.

- b. **Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.**

Renville County has received Off-Highway Vehicle (OHV) Grant-In-Aid funds through the Minnesota Department of Natural Resources (MNDNR) as a match to the Federal Recreation Trails Grant Program. The funding is designated for planning and design activities associated with the development of the 278-acre Minnesota Valley Off-Highway Vehicle Recreation Area (OHVRA), a proposed public recreational OHV area for use by all-terrain vehicles, off-highway motorcycles, and off-road vehicles.

The project site is located in Sections 22 and 23 in Sacred Heart (South) Township. The project area is split north and south of County State Aid Highway (CSAH) 15, with the highway lying within one-half mile north of the Minnesota River. The two closest towns south of the project are Belview and Delhi (approximately 6 – 7 miles away), while the Cities of Renville and Sacred Heart are approximately 12 miles north of the project site.

Land use currently includes fallow agricultural land, active and idle nonmetallic mineral mining, naturally vegetated forests and grassland, and the foundation of two abandoned structures from a historic farmstead.

The property has a 60-year history of mining for sand and gravel. The northeast portion of the site includes idle sand and gravel mining operations. Two privately owned and active nonmetallic mineral mining operations are present in the northwest (Tufto Site; Figure 5A) and southwest corners (Ponderosa Gravel Pit; Figure 5B) of the site, as illustrated on the most current aerial photograph (Figure 7). Mining would continue over the next 20 years until all accessible mineral reserves within the project area are claimed. Renville County has initiated conversations with the current landowners; the county's intent is to ultimately purchase or lease the properties based on available funding at the time accessible mineral claims (per phase) have been exhausted.

Reclamation would occur during several phases of the 20-year mining period, and include the construction of the proposed trails and associated OHVRA amenities, revegetation of previously mined off-trail areas, and installation of other site features.

Proposed OHVRA amenities will include a trailhead for parking and one building for group gatherings/classroom safety training, a picnic/interpretation area, enclosed vault toilets, a water well, fencing, a road crossing under CSAH 15, riding trails, and signage. The OHVRA will provide recreation activities such as OHV trail riding for all ages, safety training and riding practice areas, a location for special events related to OHVs, and educational opportunities (e.g. historical; cultural; geographical).

Vehicles that will be using the OHVRA include:

- Class 1 All-Terrain Vehicles (ATVs). The vehicle has a total width of 50 inches or less from outside of tire rim to outside of tire rim.
- Class 2 All-Terrain Vehicles (ATVs). The vehicle has a total width greater than 50 inches but not more than 65 inches from outside of tire rim to outside of tire rim.
- Off-Highway Motorcycles (OHMs). These are motorized two-wheeled off-highway vehicles; OHMs have a seat or saddle designed to be straddled by the operator and have handlebars for steering control; motorcycles may be legal for highway use and still considered to be OHMs if used for off-highway operation on trails or natural terrain.
- Off-Road Vehicles (ORVs). These are motorized recreational vehicles capable of cross-country travel on natural terrain; vehicles not considered ORVs include snowmobiles, ATVs, OHMs, motorcycles, watercraft, or aircraft; farm-, logging-, military-, emergency-, law enforcement-, utility-, trail grooming-, and construction-vehicles are not considered to be ORVs when used for their intended purposes.

Proposed trail types include Class 1 ATV – up to 50” wide, Class 2 ATV – up to 65” wide, and OHM – 24” wide. ORVs will be allowed to operate in only a small rock climbing zone of the recreation area (within the existing mine pit). Trails will consist of all dirt surfaces. There will also be open riding areas, rock crawling areas (for ORV use only), and a Trials and Technical ATV Trail area (refer to Figure 6 – Conceptual Site Plan). Class 1 (8.4 miles) and 2 (8.3 miles) ATV trails will total 16.7 miles long. Refer to Table 7-1 for existing and proposed land cover types.

Temporary fencing will be required near active recreation areas and mining operations (per Mine Safety and Health Administration regulations). Permanent buffer areas and fences will be installed around nearby residences that are not part of the proposed trail system in order to maintain visual separation from the OHVs operating at the site. The dimensions of buffers for the area near residences will vary in width, with a minimum of 50 feet that could range up to 150 feet. The dimensions would depend upon the slope and terrain of the area, the distance from the actual trail, building locations and size, and the likelihood of the presence of neighbors.

Vegetative barriers to screen both sight and sound of operating OHVs would include native species. Physical barriers can be vegetative or fencing, and would need to be acceptable for the trail participants and the immediate neighbors. Similar to the barriers, the type of fencing has not been determined and would need to be acceptable to both the trail users and any immediate neighbors. The types of fencing being considered are:

- split rail type fencing in areas, which have a higher aesthetic appeal, such as near the historic areas;
- chain-link fencing with a vegetative barrier in areas that need to prohibit travel and provide both site and sound buffering, such as along CSAH 15; and
- vegetative barriers in areas that require sound and sight buffering, but are not close to an immediate path of travel where physical restrictions will be required, such as along the feed plot area.

The barriers will be constructed using best management practices (BMPs) for OHV management, including those recommended by:

- Program Manual Minnesota Trails Assistance Program, Grant-in-aid (GIA) trails, Off highway vehicle (OHV) – Funds of ATV, OHM, and ORV (MNDNR; February 1, 2015);
- Trail Planning, Design, and Development Guidelines (MNDNR, 2007);
- *Great Trails: Providing Quality OHV Trails and Experiences*. Dick Dufourd and National Off-highway Vehicle Conservation Council, (NOHVCC, 2015);
- “Management Guidelines for OHV Recreation,” by Tom M. Crimmins, and in association with NOHVCC, 2006; and
- “Park Guidelines for OHVs,” by George E. Fogg, 2002.

OHVRA use is expected during daytime hours (approximately 8:00 a.m. to dusk or 9:00 p.m.) from April 15 through November 1 (weather-dependent).

Temporary construction activities will include grading and excavation for the trailhead/parking area, trail construction, and vault toilets. Construction activities will be phased over the 20 year OHVRA development timeframe to coincide with mining reclamation. The sequence of

construction will begin with the construction of the trailhead area, amenities, and beginner ATV and ORV trails, and then picnic and interpretation area. The timeframe for construction of the OHV Experience Zones (Figure 6) will coincide with phased mining areas (if applicable) and/or available funding. Phasing of the Tufto pit will occur in four phases (totaling 37.88 acres), while four phases of the Ponderosa pit will occur on 20.12 acres within the project area, in four phases that partially extend off the project site. Refer to Figures 5A and 5B.

Trail construction will be accomplished with a minimum amount of impact to the soil and surrounding area. Open grass areas will be established by mowing the treadway initially. If any additional work is needed to shape or address drainage, the contractor will utilize a SUTTER dozer or mini-excavator.

Trail construction in the previously mined area in the northeast part of the site will be accomplished with the use of a mini-dozer, similar to a SUTTER dozer. This will be necessary because of the uneven nature of this previously mined area and the need to move and shape some of the berms and piles to develop a safe and sustainable trail across this altered landscape.

Trail construction on the steeper slope areas is restricted to Off-Highway Motorcycles (OHMs) only to ensure the trail width is kept very narrow and sustainable. These trails will be rated as moderate to most difficult and will have a trail treadway of approximately 12" with a cleared width of 24 – 30 inches. These trails will be rolling and very narrow by OHV standards, and utilize the existing topography and slope. These trails will be constructed by hand or with the aid of a DINGO or other narrow walk-behind type excavator.

The rock climbing area is for ORV use only and is located within the current mining pit in the southwest portion of the proposed OHVRA. Rock reshaping may occur within the pit to remediate potential hazards, such as unstable rock walls and steep slopes that cannot be safely traversed by an ORV.

The goal with all of these different trail construction efforts is to minimize soil disturbance and follow the existing contours of the land to promote existing water shedding characteristics. All construction would abide by Part IV.F.2 of the NPDES Construction Stormwater Permit. Trail design will follow the natural surface trail guidelines as provided in the "Trail Planning, Design, and Development Guidelines," (MNDNR, 2007), as well as the recently released manual "Great Trails: Providing Quality OHV Trails and Experiences," (NOHVCC, 2015).

No demolition of existing structures is proposed. No substantial quantities of solid waste or hazardous waste will be generated or stored during normal OHV riding activities. Some hazardous materials in small quantities may be present intermittently in small portable containers (e.g. gasoline).

The mine site in the northeast corner of the project area may provide an opportunity for water hole riding depending upon the season. A couple of small sites currently hold water during periods of normal or above normal rainfall. Because these sites are landlocked within the old mine site and not classified as wetlands, they will be retained as wet holes for riders to utilize when water is present. No effort will be made to expand the water retention capabilities of

these structures; they will be used as they exist where they exist, provided this activity and related runoff can be retained within these locations.

The OHVRA will have the ability to be temporarily closed for various reasons including spring defrosting, inclement weather activity and conditions, emergency situations, or an extreme fire danger. During periods of time in which the fire danger is not extreme, the use of spark arresters is considered sufficient fire protection. Monitoring of all OHV trails for follow-up maintenance (if needed) will be completed on a regular basis by County staff and volunteer Trail Ambassadors.

**c. Project magnitude:**

<b>Description</b>	<b>Quantity</b>
Total Project Acreage	278
Linear project length (Trails)	19 miles
Number and type of residential units	0
Commercial building area (in square feet)	0
Industrial building area (in square feet)	0
Institutional building area (in square feet)	0
Other uses – OHVRA (in acres)	278
Structure height(s)	10 – 15 feet high

**d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.**

The purpose of the Project is to provide a safe and legal location to ride and operate ATVs and dirt bikes. The Proposer wants to bring to Renville County a facility that would include trails for everyone from the beginner riders to the advanced racer, ranging from the casual enthusiast to the passionate competitor. This project is being carried out by Renville County through the grants available through the Federal Recreational Trail Grant Program and the Minnesota Trails Assistance Program. The beneficiaries of the project include the local community and the local economy.

**e. Are future stages of this development including development on any other property planned or likely to happen?**  Yes  No

**If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.**

There are no plans to expand the OHVRA beyond the facilities evaluated in this EAW. The property has a 60 year history of mining for sand and gravel, which is expected to occur for 20 more years. The OHVRA and mining will coexist at the site as the OHVRA is phased in until all accessible mineral reserves within the project area are claimed and mining phases out.

**f. Is this project a subsequent stage of an earlier project?**  Yes  No

**If yes, briefly describe the past development, timeline and any past environmental review.**

**7. Cover types: Estimate the acreage of the site with each of the following cover types before and after development:**

**Table 7-1. Existing and Proposed Land Cover Types**

	Before	After		Before	After
Wetlands	5.64	5.64	Cropland (Active within 5 Years)	0.00	0.00
Deep water/streams	0.00	0.00	Lawn/landscaping	0.00	0.00
Wooded/forest	46.34	43.15	Impervious surface(trails, roads, trailhead, and rock climbing area) <sup>4</sup>	6.57	32.12
Brush/Grassland (Natural)	45.73	196.04 <sup>3</sup>	Stormwater Pond	0.00	1.05
Brush/Grassland (Vacant/Fallow Cropland > 5 Years)	93.79 <sup>1</sup>	0.00	Other (Nonmetallic Mining)	79.93 <sup>1</sup>	0.00 <sup>2</sup>
			<b>TOTAL</b>	<b>278.00</b>	<b>278.00</b>

<sup>1</sup> Based on current 2016 land use acreage.

<sup>2</sup> Based on post-20-year construction land use. During the 20-year construction timeframe, mining will be an interim land use on approximately 58 acres. Refer to Figure 5 – Mine Phasing Plan. “After” land use acreage reflects post-reclamation conditions.

<sup>3</sup> Reflects vacant/fallow cropland and nonmetallic mineral mining acreage converted to brush/grassland.

<sup>4</sup> Before acreage based on existing roads. After acreages based on assumed worst case scenario, which is a 6-foot wide tire tread of Class 2 ATV trails (0.727 acres/trail mile or 12.145 acres disturbed from Class 1 and 2 ATV trails) and 2-foot wide OHM tire tread (0.242 acres/trail mile or 0.533 acres disturbed from OHM trails) with gravel trailhead parking lot and driveway.

**8. Permits and approvals required: List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.**

All required permits and approvals would be obtained. Any necessary permits or approvals not listed below have not intentionally been omitted. Renville County has received OHV Grant-In-Aid funds through the MNDNR as a match to the Federal Recreation Trails Grant Program. Funding to date is designated for planning and design activities associated with the development of the 278-acre Minnesota Valley OHVRA. If the proposed project were to be developed, the Trail Administrator would submit a Funding Application annually to the sponsor; this would be reviewed by MNDNR and if approved, then a funding amount would be identified for trail maintenance and administration for the coming fiscal year.

Existing mining is conducted by several independent contractors. Renville County issued an Interim Use Permit and approved the mining reclamation plan for the north mine site (Tufto Site; Figure 5A)

on May 11, 2016. The permit was issued for the current and future mining operations, which was issued under a previous mining permit that expired in November 2015. The permit includes numerous provisions, including having the gravel extraction area reclaimed back to prairie grassland following completion of the project. The Interim Use Permit expires in May 2036; a copy of the permit is available upon request.

<b>Unit of government</b>	<b>Type of application</b>	<b>Status</b>
MNDNR	OHV Grant-In-Aid Funding	To Be Submitted
Federal Highway Administration	Federal Recreation Trails Grant Program Funding	Obtained
Minnesota Pollution Control Agency (MPCA)	NPDES Construction Stormwater Permit	To Be Submitted
Renville County	Conditional Use Permit	To Be Submitted
Renville County	Driveway/Right of Way Crossing Permit	To Be Submitted
Renville County	Septic Permit (Vault Toilets)	To Be Submitted
Renville County	Grading Permit	To Be Submitted
Renville County	Interim Land Use Permit for Mining Operation	Obtained
Renville SWCD	Wetland Conservation Act (WCA) – Wetland Delineation	Submitted/ Pending Approval
Renville SWCD	Wetland Conservation Act (WCA) – Wetland Replacement Plan, Exemption, and/or No-Loss	To Be Obtained, if needed
US Army Corps of Engineers (USACE)	Section 404 of the Federal Clean Water Act	To Be Obtained, if needed
Minnesota Department of Health (MDH)	Well Drilling Notice	To Be Submitted, if needed

**Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19**

**9. Land use:**

**a. Describe:**

- i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.**

Land use within and surrounding the project site is active and future nonmetallic mineral mining, natural forest and grassland vegetation, and fallow agricultural land. The adjacent land use is primarily farmed agriculture with some nonmetallic mineral mining.

CSAH 15 dissects the project site from west to east and is designated as a portion of the Minnesota River Valley National Scenic Byway. The CSAH 15 segment of the scenic byway is recognized for the potential traveling user’s experience, such as the scenic beauty of the Minnesota River valley corridor and historic places.

The Minnesota River is located ¼ mile south of the southern project limits. This segment of the river is designated as a portion of the Minnesota State Water Trail. The State Water



Trail identifies the diversity of terrain and other scenic natural beauty and minimal impediments to non-motorized users (paddlers) for this portion of the Minnesota River.

The Minnesota State Trail system identifies one trail segment approximately 24 miles north (near Montevideo) of the project site. Future trail development may include a new trail segment in the vicinity of the project, to connect the overall 175-mile trail system from Big Stone Lake State Park to Le Sueur.

No vulnerable populations (e.g., nursing homes, daycares, schools) are located within or adjacent to the project site. There are no parks or trails on or adjacent to the project site.

The NRCS Web Soil Survey indicates 23% of land within the project boundary is farmland of statewide importance, 30% is prime farmland, and 47% is not prime farmland. However, the agricultural land within the project site has been fallow and is currently being used for nonmetallic mining or planned for future mining. An area identified by the MNDNR as remnant native prairie is located in the northeast corner of the site.

**ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.**

Sacred Heart Creek, which is a listed MPCA Section 303d Impaired Waters for *Escherichia coli*, is located approximately one mile southeast of the project site and drains into the Minnesota River. The Minnesota River, which is a listed MPCA Section 303d Impaired Waters for PCB and Mercury found in fish tissue, is located approximately ¼ mile south of the project site; refer to Figure 10. The waste load allocation per pollutant has not been established by a Total Maximum Daily Load (TMDL) Implementation Plan.

The Renville County Local Water Management Plan (2013-2023) identified six goals or issues as the basis of establishing a local implementation plan. The issues are: reducing priority pollutants regarding surface water quality; erosion and sediment; surface water management; groundwater quality and quantity; recreation and biodiversity; and plan administration. The proposed project meets the objectives of each action item in the plan.

The Renville County Comprehensive Plan is an ongoing process to actively guide the county's long-term physical and community development. Adopted in 2002, the plan addresses the comprehensive relationship among land use, transportation, housing, community development, parks and recreation, natural resources, and public facilities and services.

The Renville County Recreation and Conservation Master Planning effort is the basis of developing a master plan to address the conservation of the natural and cultural resources of Renville and Redwood Counties along the Minnesota River Corridor. The plan's goal is to provide for the shared use, enjoyment, and understanding of these resources through a broad selection of outdoor recreation opportunities and recreational travel routes that connect units of the outdoor recreation system in the river valley. The

planning is expected to be complete in summer 2017, and is a collaborative effort between the two counties and MNDNR.

The Interim Use Permit for the Tufto Mine – North Site requires a Mining Reclamation Plan to address planning for the reuse of mining sites upon project completion. Proper reclamation of mining sites is important for protecting and maintaining public health and safety, environmental quality, and natural and scenic beauty. The reclamation process will include 4 reclamation phases within the 37.88 acres subject to mining. Each phase will consist of 9.47 acres of land. As mining activities conclude per phase, the mined area will be reclaimed as the next phase of mining commences. The mining reclamation plan calls for 8: 1 slopes surrounding the pit, topsoil placement, and revegetation with a native dry prairie seed mix. Phased reclamation would be completed in accordance with this plan and approval by Renville County at the end of the interim use permit period (May 1, 2036). The proposed plan is compatible with the mining reclamation plan policies. A copy of the permit is available upon request.

The Minnesota River Valley National Scenic Byway Corridor Management Plan is a community-based strategy for balancing the management and conservation of the Byway's intrinsic qualities with public use of those resources. The plan identifies ten goals to address the overall community-based economic development strategy, including improving the recreational facilities and amenities of the Minnesota River Valley.

The Minnesota River State Trail Master Plan – Big Stone Lake State Park to Franklin (MNDNR, 2008) is broken up into five segments. Big Stone Lake Park to Franklin includes all five sections that are discussed by the MNDNR. The project area falls into the Joseph R. Brown Wayside Rest to Franklin Section. This document discusses the history, intended use, and future uses of the existing trail. The project is within the master plan reference area.

**iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.**

The Renville County Zoning Map (November 2015, Figure 12 – Sacred Heart South Township Zoning Map) currently identifies the project area as zoned for Agricultural (A) land use. Public outdoor recreational areas are a conditional use according to the Renville County Zoning Ordinance; see [Renville County http://www.revillecountymn.com/document\\_center/Chapter\\_02\\_Zoning\\_Regulations.pdf](http://www.revillecountymn.com/document_center/Chapter_02_Zoning_Regulations.pdf).

The project site is not located in a shoreland district, floodplain, critical area, or agricultural preserve.

Minnesota River Wild and Scenic River District. The Minnesota River is a designated State Water Trail (Minnesota Statutes section 85.32) as well as a Minnesota State Wild and Scenic River. A state water trail is a designated stretch of river or lake that is mapped and managed especially for canoeing, kayaking, boating, and camping. The entire 318 miles of the Minnesota River is designated as a state water trail.

Under the Minnesota State Wild and Scenic Rivers Program, the Minnesota River has two segments classified as "scenic" and one classified as "recreational." The designated stretch of river extends from Lac qui Parle Dam to Franklin. The river is designated as "scenic" in the vicinity of the proposed project, and along the Renville County boundary. The project site is not located in a scenic easement (as defined in Minnesota Rules part 6105.1300, subpart 17) and is consistent with Minnesota River Management Plan Trail Design (as defined in Minnesota Rules part 6105.1370).

**b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.**

There are no identified environmental conflicts/incompatibilities between the proposed project and nearby land uses, zoning, or other local or regional plans. The Interim Use Permit requires reclamation of all mined areas, and allows flexibility with post-mining land uses. Refer to the information provided in item 9.a.

By working in conjunction with Renville County and property owner(s), the Mining Reclamation Plans can be altered slightly to reduce the amount of restoration the land owner needs to complete in exchange for allowing this site to accommodate OHV use. The plan still needs to address soil stabilization and ensure runoff and watershed protection, but would reduce the amount of grading and could allow some of the berms, piles, and other mining features to remain and to be more accommodating for OHV use dependent on meeting OHV trail design standards. Mining-disturbed parts of the site not used for OHV purposes will be restored to prairie grassland consistent with the Mining Reclamation Plan.

The active mining site will not be an issue with OHV use in the same area. Current plans define utilizing 10 to 20 acres at a time, and these active areas will be bermed on the outside perimeter for easy identification. Active mining areas will need some type of fencing (per Mine Safety and Health Administration requirements) and signage to further identify the site and restrict any unauthorized use in those areas. The area currently under an active mining plan is largely an open field and is easy to visually identify as the mining area. Prohibited riding areas will be posted and trails redirected around the active mining area(s) to avoid any conflicts with the OHVRA and the gravel mining operation.

The Renville County Comprehensive Plan requires detailed gravel pit operations and reclamation plans that identify the ultimate end use of the property as complementing the surrounding and future land uses, including reclamation that fits with the objectives of the Minnesota Valley Scenic Byway. Regarding recreation resources for motorized uses such as ATVs or OHMs, the plan directs the continued investigation of opportunities for additional facilities that are separate from existing County parks. The proposed project is compatible with these plan objectives.

For the Minnesota River Valley National Scenic Byway Corridor Management Plan, the proposed project meets the objectives of each goal and further advances the purpose of the Plan. The 2015 Byway Investment Priorities identified trail projects, including OHV trail development and maintenance, as the types of projects that are permissible to enhance the byway experience.

Although the Renville County Recreation and Conservation Master Planning effort is not yet complete, the creation of an expanded recreation network for residents and visitors is a goal of the plan. The counties' plan would likely include motorized activities; the project appears consistent with this objective.

The project site is within the search corridor for the segment of Minnesota River State Trail Master Plan. The search corridor is generally 5 miles on either side of the river, but there are places where it is more, and others where it is less, than 5 miles. The search corridor identifies the limits of the potential alignment, but a specific alignment has not been determined and it would not prohibit or prevent other types of development from occurring within the search corridor, including the OHVRA.

**c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.**

Not applicable.

**10. Geology, soils and topography/land forms:**

- a. **Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.**

The Minnesota Geological Survey (<http://www.mnsgs.umn.edu/service.htm>) indicates the bedrock geology as synsedimentary to pre-Algoman granitoids with a depth to bedrock of approximately 41 – 71 feet. The surface geology consists primarily of glacial material, making the area ideal for sand and gravel mining.

There are no identified sinkholes, shallow limestone, shallow aquifers, or karst features identified within the project area (source: Minnesota Geospatial Commons, Karst Feature Inventory Points, [ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us\\_mn\\_state\\_dnr/geos\\_karst\\_feature\\_inventory\\_pts/metadata/preview.jpg](ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/geos_karst_feature_inventory_pts/metadata/preview.jpg)).

- b. **Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.**

The NRCS Web Soil Survey (September 2015) mapped soils units within the project area are illustrated in the Renville County Soil Survey (Figure 8). Mapped soil unit characteristics are provided in the following table.

The soils range from Not Prime to Farmland of Statewide Importance. However, a majority of these areas would have some degree of sequenced mining followed by reclamation of disturbed land. The acreage and volume of material to be excavated during mining is variable and depends upon the reserves present and the market conditions over the life of the mine. No farm land will be taken out of production as a result of the project because there is currently no

**Table 10-1. Soils Characteristics**

<b>Soil Symbol</b>	<b>Soil Unit Name</b>	<b>Slope (%)</b>	<b>HEL</b>	<b>Hydrologic Group*</b>	<b>Hydric Rating</b>	<b>Farmland Classification</b>
94C	Terril loam	6-12	PHEL	B	Predom. Non-Hydric	Farmland of Statewide Importance
875C	Hawick-Estherville complex	6-12	PHEL	A	Predom. Non-Hydric	Not Prime
770C2	Ves-Terril complex	6-15	PHEL	B	Predom. Non-Hydric	Farmland of Statewide Importance
595F	Swanlake loam	18-50	HEL	B	Predom. Non-Hydric	Not Prime
39B	Wadena loam	2-6	NHEL	B	Predom. Non-Hydric	Prime
39A	Wadena loam	0-2	NHEL	B	Predom. Non-Hydric	Prime
327C	Dickman sandy loam	6-12	PHEL	B	Predom. Non-Hydric	Farmland of Statewide Importance
327B	Dickman sandy loam	2-6	NHEL	A	Predom. Non-Hydric	Farmland of Statewide Importance
327A	Dickman sandy loam	0-2	NHEL	A	Predom. Non-Hydric	Farmland of Statewide Importance
27A	Dicknon loam	0-2	NHEL	A	Predom. Non-Hydric	Prime
1845B	Estherville sandy loam	2-6	NHEL	A	Predom. Non-Hydric	Not Prime
1845A	Estherville loam	0-2	NHEL	A	Predom. Non-Hydric	Not Prime
156	Fairhaven silt loam	0-2	NHEL	B	Predom. Non-Hydric	Prime
1392B	Grogan silt loam, moderately wet	1-4	NHEL	A	Predom. Non-Hydric	Prime
1388B	Terril loam	2-6	NHEL	B	Predom. Non-Hydric	Prime

1270D	Bechyn-Rock outcrop complex	0-40	PHEL	D	Predom. Non-Hydric	Not Prime
1261B	Bechyn loam	2-6	NHEL	D	Predom. Non-Hydric	Not Prime
1242F	Swanlake-Terril complex	18-50	HEL	B	Predom. Non-Hydric	Not Prime
1030	Pits, gravel-Udipsamments complex	N/A	NHEL	N/A	Predom. Non-Hydric	Not Prime

**Legend:**

Highly Erodible Land

*HEL: Highly Erodible Land*

*PHEL: Potentially Highly Erodible Land*

*NHEL: Not Highly Erodible Land*

\*Infiltration Rate

A: >0.30

inches/hour

B: 0.15-0.30

inches/hour

C: 0.05-0.15

inches/hour

D: <0.05

inches/hour

Hydric

Rating

*Hydric:*

*100%*

*Predominately Hydric: >67% and <100%*

*Partially Hydric: >33% and <67%*

*Predominately Non-Hydric:*

*<1% and <33%*

*Not Hydric: 0% hydric*

land within the project area cultivated for agricultural production (although portions of the site were farmed in the past).

Earth disturbing activities associated with the construction of the OHVRA will include spreading stockpiled overburden and existing topsoil within the mined areas, and shaping specific trail segments (per the final trail alignment) to the appropriate design standards for trail profile, curve radius, and sight distances for safe travel through the trail routes. Design standards will follow the sustainable natural surface trail design practices throughout the site to minimize tread erosion as described in the Trail Planning, Design, and Development Guidelines (MNDNR, 2007). Refer to EAW item 11.b.ii for a list of applicable design practice.

Topography of the project site ranges from 876 to 1,018 ft MSL; the highest elevation is located in the northwest part of the project site that gently slopes to the southeast (refer to Figure 7). There are areas with steep slopes (12% or greater) in several locations along CSAH 15, and along two stream channels that flow through the northwest corner and northeast portion of the site. Native soils in these steeply sloped areas (e.g., 1242F – Swanlake/Terril Complex) can be easily rutted and eroded by OHV use if the tread is not routinely monitored and maintenance completed. Lesser trail densities, OHM-only use (that exhibit reduced tread width compared to other OHVs), and limited vertical climbs to provide trail connectivity, have been dictated in the Conceptual Site Plan (Figure 6) to reduce erosion potential in the areas with steep slopes. Monitoring of all OHV trails for follow-up maintenance (if needed) will be completed on a regular basis by County staff and volunteer Trail Ambassadors.

Slopes are the preferred area for trail design since it is much easier to manage water on a slope than it is to move water on flat ground. All of the design and construction of the trails

on slopes, especially the steep slopes, will use the natural contours of the land to manage the water to keep water off of the trail and limit erosion potential. These techniques include:

- grade reversals and rolling dips;
- keeping the tread watersheds minimal;
- having off-camber trails along the side hill instead of running along the fall lines;
- utilizing climbing turns instead of switchbacks;
- keeping tread grades low;
- keeping vegetative cover on tread watershed as well as near trail tread for stabilization and cover; and
- use of lead-off ditches.

Tread hardening and geotextiles will be used as needed, but designing the trails to manage the natural flow results in sustainable trails without the need for trail hardening. The use of waterbars is not a preferred method of water management.

The erosion capabilities of the soils are low as described by the NRCS Whole Soil K Factor rating, which ranges from 0.17 and 0.43. Construction activities will temporarily expose soils to an increased risk of erosion from wind and precipitation, however appropriate erosion and sediment control BMPs would be selected based on current site conditions and maintained through the duration of each construction phase. The purpose is to reduce the potential for sedimentation occurring to surface water resources or migrating off site. Temporary BMPs will be inspected and maintained (per the NPDES Construction Stormwater Permit) until permanent vegetation and stabilization has occurred. Permanent BMPs will be incorporated into the trail design to minimize erosion of the trail during routine operational activities (post-construction).

**NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 10.**

#### **11. Water resources:**

- a. **Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.**
  - i. **Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.**

There are no MNDNR public watercourses or basins, MNDNR listed calcareous fens, county or jurisdictional ditches, or designated trout streams/lakes located within or adjacent to the project boundary. Sacred Heart Creek (a listed MPCA Section 303d Impaired Waters for *Escherichia coli*) is located approximately one mile southeast of the project site and drains into the Minnesota River. The Minnesota River (a listed MPCA Section 303d Impaired

Waters for PCB and Mercury found in fish tissue) is located approximately ¼ mile south of the project site (refer to Figure 10). MPCA has indicated this particular section of the Minnesota River at the proposed project, which is designated as AUID 07020004-749, will be proposed to be included on the 2018 EPA 303(d) list for Total Suspended Solids (TSS). Where potential trails cross streams, measures to limit the amount of sediment that may leave the site to the Minnesota River include: providing bridge crossings (where feasible) and trail hardening for the crossings as needed; keeping the descent slopes to the crossing minimal to prevent erosion directly into the stream; and minimizing the number of trail crossings.

A wetland investigation was completed in April 2016 that identified six wetlands within the site boundary; refer to Figure 6 – Conceptual Site Plan Map. The wetland delineation was completed according to the criteria set forth in the USACE 1987 Wetland Delineation Manual and 2010 Midwest Regional Supplement. Where applicable, delineated wetlands are subject to the 1991 Minnesota Wetland Conservation Act (WCA) and Section 404 of the Clean Water Act (as administered by the USACE). The Renville County Soil & Water Conservation District is the Local Governmental Unit (LGU) for administration of WCA. The wetland delineation report has been reviewed and approved by the LGU and USACE.

No wetland impacts are anticipated at this time. Any temporary and/or permanent wetland impacts would be assessed during the final design phase. Any required approvals and/or compensatory mitigation would be obtained prior to work in any wetland.

- ii. **Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.**

The MNDNR Cooperative Groundwater Monitoring website maintains data on ground water levels; see [Minnesota Department of Natural Resources http://www.dnr.state.mn.us/waters/cgm/index.html](http://www.dnr.state.mn.us/waters/cgm/index.html). The closest observation well to the project location is MNDNR Well #64018, which is located approximately 2.5 miles west of the project site. Water levels in the most recent data record (July 20, 2015) were measured at 1030.04 ft MSL.

**Table 11-1. Nearby Wells**

Unique ID	Located/ Unlocated	Type	Name	Address	Distance from project (ft)	Depth (ft)	Static Water Elevation (ft)
182269	Located	Domestic	Donald Forkrud	Sacred Heart, MN 56285	446	46	33
183779	Located	Domestic	Wayne Zaske	Sacred Heart, MN 56286	1,130	40	15
727310	Located	Domestic	William Zaske	21334 CR15 Renville, MN 56284	3,773	78	52.16



587710	Located	Domestic	Sally Milroy	41824 Hunter Ave, Milroy, MN 56214	4,213	870	15
463511	Unlocated	Domestic	John Emestvedt	199951 CR 15 Sacred Heart, MN 56285	125	77	25
769187	Unlocated	Domestic	Dave Zaske	20750 CR 15 Renville, MN 56284	1,325	150	103.8
209730	Unlocated	Unknown	TH USGS	N/A	2,250	2	N/A
148843	Unlocated	Domestic	Harlan Johnson	Renville, MN 56284	2,635	40	30
703600	Unlocated	Domestic	Sally Milroy	44824 Hunter Ave Belview, MN 56214	4,500	900	73

**b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.**

**i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.**

- 1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.**

No industrial wastewater will be produced by the project. Six vault-style toilets within three separate buildings will be utilized at the trailhead, interpretive center, and/or picnic areas. Domestic sanitary wastewater will be collected in holding tanks and pumped out periodically by a licensed contractor for proper disposal. No onsite wastewater treatment or disposal will be necessary. A septic permit would be required to be obtained from the county.

- 2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.**

There is no wastewater discharge proposed to any subsurface sewage treatment systems (SSTS).

- 3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.**

There is no wastewater discharge proposed to any surface water or groundwater resources.

- ii. **Stormwater - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.**

Approximately 58 acres, or 21%, of the 278-acre site is planned to be mined over the next 20 years, therefore stormwater within mine areas is anticipated to collect within the bottom of the gravel pits and naturally infiltrate or evaporate.

Temporary erosion and sediment control BMPs will initially be installed in accordance with the required Stormwater Pollution Prevention Plan (SWPPP) and maintained, repaired, and amended throughout the construction phases as required under applicant's NPDES Construction Stormwater Permit. Temporary BMPs may include, but are not limited to: silt fence; bio-rolls/filter logs; rock construction entrances; street sweeping; disc-anchored mulch/hydro mulch; and permanent turf seed and/or sod.

The project's co-permittees (primary contractor and owner) will be jointly responsible for all SWPPP components. The primary contractor will be responsible for all SWPPP components during active construction, which includes amending the SWPPP as necessary, and installation, maintenance, and repair of all temporary erosion and sediment control BMPs.

Permanent stormwater management features include stormwater management basins to provide infiltration of stormwater as shown on Figure 9. The concept designs of these basins exceed the current NPDES Construction Stormwater Permit requirements for the anticipated 25.55 acres of new impervious surfaces from the proposed trailhead, parking area, conceptual trail design/layout, and rock climbing area (refer to Table 7-1).

Stormwater management practices include, but are not limited to, the following:

- primarily utilizing a "rolling grade" design pattern;
- limiting tread grade;
- limiting tread watershed size;
- using alignment tread crests;
- using constructed tread crests, such as filled tread crests or waterbars, where alignment tread crests are not viable;
- hardening tread crests on steeper grades or unstable soils;
- using alignment tread dips;
- using constructed tread dips where alignment tread dips are not viable;
- designing tread dips to prevent clogging;
- constructing ditches or spillways;
- tread hardening in unstable soils; and

- designing drainage crossings as a tread dip hardening drainage crossings where necessary.

In addition to these potential design features, proven trail management and maintenance practices will be implemented to prevent and minimize erosion and potentially adverse stormwater quality impacts. The design of the trail system will include buffers to filter runoff for riparian areas, including wetlands. The overall trail design averages buffers of 50 feet or more, where the minimum average buffer width will be  $\geq 50$  feet; an absolute minimum width is not specified. Stormwater runoff is not anticipated to negatively affect the quality or quantity of the downstream receiving waters.

- iii. **Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.**

Dewatering or basin draining for construction-related activities is not anticipated.

There are no identified wells located within the project boundary that would require sealing. If wells are discovered during construction, then they would be sealed according to MDH standards by a licensed well contractor.

One well may be drilled in the future to provide potable water for trail users at the trailhead area. Appropriations are not anticipated to exceed 10,000 gallons per day or 1,000,000 gallons per year, therefore a MNDNR Water Appropriations Permit should not be required.

- iv. **Surface Waters**

- a) **Wetlands – Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.**

Six wetlands were delineated on the project site; refer to Figure 4 – Existing Land Use. Permanent wetland impacts are not anticipated at this time. Temporary and/or permanent wetland impacts would be determined during the final design phase and any required approvals would be obtained prior to work in any wetland.

Trail routes would avoid wetland areas where feasible, and any necessary crossing(s) may use wooden boardwalks or temporary pedestrian bridges (not connected to permanent abutments) to allow quick removal if necessary in the event of flooding. Structures appropriate for wetland and drainage crossings would be evaluated on a per crossing basis in accordance with Section 6 of the Trail Planning, Design, and Development Guidelines (MNDNR, 2007). If any unavoidable wetland impacts are identified during the final site design, the appropriate permit application would be submitted to the LGU for WCA.

Exclusion measures to avoid post-construction, unauthorized access into the wetlands may include gates, rails, signage, or similar actions where feasible and prudent. Operation of vehicles in wetlands at the proposed OHVRA will not be permitted consistent with state rules. As described in the 2016-17 MNDNR OHV Regulations booklet (page 23, OHVs and Wetland Disturbance section), a person may not operate an OHV in a manner to:

- Carelessly upset the natural and ecological balance of a wetland or public waters wetland.
- Impact a wetland or public waters wetland in excess of minimum amounts established under the law.

The booklet notes at page 21: “There are increased penalties for OHV wetland disturbance. Conviction may be a gross misdemeanor and the off-highway vehicle (ATV, OHM, and ORV) may be forfeited. Wetland restrictions apply to private land as well as public land, and vary by area of the state.”

Treated stormwater is not anticipated to negatively affect the quality or quantity of any downstream receiving wetlands.

- b) **Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.**

Two intermittent streams are present on the project site; refer to Figure 10 – Surface Hydrology Features Map. The bed and banks of the intermittent streams are not planned to be impacted.

Temporary single-span pedestrian bridges (not connected to permanent abutments) will be used for any elevated stream/intermittent watercourse crossings. Treated stormwater is not anticipated to negatively affect the quality or quantity of any

downstream receiving waters. The design of the trail system will include buffers for riparian areas, including wetlands. The overall trail design averages buffers of 50 feet or more, where the minimum average buffer width will be  $\geq 50$  feet; an absolute minimum width is not specified. In addition, the design of the trails will keep the crossings of the stream sustainable, providing trail hardening for the crossings as needed, keeping the descent slopes to the crossing minimal to prevent erosion directly into the stream, and keeping the number of trail crossings minimal.

The mine site in the northeast corner of the project area may provide an opportunity for water hole riding depending upon the season. A couple of small sites currently hold water during periods of normal or above normal rainfall. Because these sites are landlocked within the old mine site and not classified as wetlands, they will be retained as wet holes for riders to utilize when water is present. No effort will be made to expand the water retention capabilities of these structures and will be used as they exist where they exist, provided this activity and related runoff can be retained within these locations.

The project will not change the number or type of watercraft on any water body.

## **12. Contamination/Hazardous Materials/Wastes:**

- a. **Pre-project site conditions – Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.**

MPCA records do not include any current or former contamination sites within or adjacent to the project area. No Phase I Environmental Site Assessment was completed for the project. Past land uses within the project site do not appear to present a substantial risk of contamination. There are no documented spills or leaks from any above or below ground storage tanks within one mile of the project site. In addition, there are no planned substantial excavation or earthwork activities associated with the OHVRA, therefore the potential to encounter subsurface contamination appears to be minimal. If any are encountered during pre-project mining activities, then they would be handled in accordance with all appropriate laws and regulations.

- b. **Project related generation/storage of solid wastes – Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.**

The Project will generate small quantities of solid waste from employees and visitors to the OHVRA. This waste will be collected in small receptacles, picked up by a licensed garbage

service provider, and disposed of at an approved facility. The proposer may work with a local waste service provider to develop a recycling program.

- c. **Project related use/storage of hazardous materials – Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.**

Hazardous materials (e.g., fuels, lubricants, cleaning solvents) are used and temporarily placed onsite in secure, contained storage areas during mining activities. Similar materials may be used at the OHVRA for refueling and maintenance of construction equipment in portable containers. Although the project does not use hazardous materials, small quantities of fuels, antifreeze, and hydraulic oils will be used in individual off-highway vehicles and temporarily stored in portable containers at the trailhead/parking area. The incidental release of any hazardous liquid via leaks or spills is expected to be rare and minimal, however minor leaks and spills of gas, oil, and other fluids will occur onsite. Spill kits will be provided at the trailhead for use in emergency situations. No permanent above or below ground storage tanks are proposed for routine operations of the OHVRA.

- d. **Project related generation/storage of hazardous wastes – Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.**

There is not anticipated to be any hazardous wastes generated by the project during construction or operation of the OHVRA.

**13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):**

- a. **Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.**

General Landscape Characteristics

Ecological land units for the project area have been mapped and defined in the Ecological Classification System (ECS), which has been adopted by the MNDNR. The project location occurs in the North Central Glaciated Plains section of the Prairie Parkland Province. The Minnesota River Prairie subsection coincides with the large till plains flanking the Minnesota River.

The MNDNR describes the section as follows:

The Minnesota River Prairie Subsection is made up of gently rolling hills with the Minnesota River creating a broad valley that splits the section in half. Till plain makes up a majority of the overall landform within the MN River Prairie Subsection. This area usually receive approximately 25 to 30 inches of rain during a single year. The subsection is drained by the Minnesota River, and surrounding rivers and streams end up flowing into the Minnesota River or the Upper Iowa River to the south. Due to its minimal topography, and good soil

structure, a majority of the land is used for agricultural farming. Prior to current agricultural conditions, the subsection was made up of rolling prairies mixed with wetlands and forest stands.

The Minnesota River Valley has high conservation value. Under the Minnesota Wildlife Action Plan, the proposed OHVRA site falls within a section scored as having Medium-High Conservation Value within the Wildlife Action Network. Conservation of all remnant native prairie, including buffering, is a high priority in Minnesota.

#### Site Characteristics

The existing land cover in the project area is nonmetallic mineral mining, fallow agricultural lands, and natural vegetation (wooded/forest and brush/grassland), wetlands, and impervious surfaces (CSAH 15 and 200th Street). Portions of the project area were previously farmed and there are two intermittent streams that flow through portions of the site. The Minnesota River is located ¼ mile south of the project site.

#### Wildlife Resources

The parcel is surrounded by mostly agricultural lands with limited natural lands in the vicinity, which imparts some local importance for wildlife. Wildlife species likely to inhabit the site are those found in upland and riparian habitats within the Minnesota River Valley. The habitat quality of the site varies as a function of previous and current mining activity. In the mined or near-mined areas, anticipated wildlife species would likely be those more tolerant to human activity and disturbance than what would be expected in less-disturbed areas. These would include white-tailed deer, turkey, crow, coyote, raccoon, rabbits, small mammals, and birds.

Undisturbed parts of the site provide excellent habitat. The unmined areas including woodlands, fallow fields, and the 17-acre remnant prairie area that has not been previously disturbed and contain a greater diversity of wildlife. Red-headed woodpecker, northern harrier, lark sparrow, and western kingbird have all been observed onsite.

#### Fisheries Resources

There are no fisheries resources at the project site.

- b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-\_\_\_\_) and/or correspondence number (ERDB 20120410-0002) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.**

The MNDNR Natural Heritage Information System (NHIS) search did identify rare features within a one-mile radius of the project site (refer to Attachment A). The Minnesota Biological Survey (MBS) has identified a 17.6 acre native prairie remnant in the northeastern portion of the project area (refer to Figure 4). The prairie remnant was identified by MBS staff in 1998; however, a site visit was never conducted to confirm the initial findings. The prairie is on steep slopes, is undergoing invasion by eastern red cedars, and mining has occurred in the southeast corner. Given the rarity of the

native plant community, MNDNR recommends that ground disturbance within the prairie be avoided and trails routed around the prairie. If feasible, the MNDNR recommends that prairie management, such as cedar tree and brush removal and prescribed burning, be implemented in order to improve the quality of the existing prairie.

Species of concern within a one-mile radius of the project site include the lark sparrow and freshwater mussels.

A high quality mussel bed, containing several state-listed threatened species, has been documented in the Minnesota River downstream of the project area. Deterioration in water quality should be avoided, especially increased siltation and changes in water flow.

Federally Protected Species found throughout Minnesota include the bald eagle and the northern long-eared bat. If there is to be any tree removal, trees should be inspected for bald eagle nests prior to being cut down. The NHIS does not contain any known occurrences of northern long-eared bat roosts or hibernacula within an approximate one-mile radius of the project area. Renville County falls within the northern long-eared bat range but is not known to contain hibernaculum nor roost trees. The nearest known hibernaculum is >65 miles.

The NHIS database is continually updated and is the most complete source of data on Minnesota's rare or otherwise significant species, natural communities, and other natural features. However, this database is not comprehensive and there may be significant natural features within this one-mile review area that are not represented in this database. Rare or otherwise significant species with potential habitat at the site, but not represented in the NHIS database, include:

*Gophersnake*. The proposed OHVRA site contains potential habitat for the gophersnake, also known as the bullsnake, (*Pituophis catenifer*), which is a state-listed Special Concern Species. This is a somewhat large, burrowing snake species that is more active during some periods of their active season than others; this makes the species difficult to locate via visual searches alone. Population levels are considered low, and it is suspected that the gophersnake population along the Upper Minnesota River Valley is critically low and at high risk of extirpation. Key factors likely affecting populations are habitat loss and degradation, road mortality (vehicular), and intentional killing.

The MNDNR Minnesota River Reptile Project is currently conducting reconnaissance for Species of Greatest Conservation Need (SGCN) in the Upper Minnesota River Valley. Underway since 2014, no surveys of the area at the proposed OHVRA site have been conducted. Desktop or GIS-level review indicates the site exhibits necessary habitat features including sandy soils, dry hillsides, and some remnant prairie and burrowing rodents. Past, present, and future mining activity do not preclude the site's value as habitat to this species, especially since parts of the site have been fallow for many years.

- c. **Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.**

The unmined areas that have not been previously disturbed, including woodlands, fallow fields, and the 17-acre remnant prairie area, contain a greater diversity of wildlife that could be vulnerable to



disturbance. OHVRA-related construction and operational activities will alter the quality of wildlife habitats compared to the habitat potentially available with mine site reclamation alone. Game and non-game species currently conditioned to mining and farming activity at the site will be subject to new types of disturbances caused by the ongoing human activity and noise associated with OHV use. Noise will be generated by individual OHV machines, or collectively when ridden in groups. Until the site is completely developed, there will be locations that provide some degree of refuge from OHV-related disturbances. Given the site's history of gravel mining, most of the common species present are likely to be somewhat tolerant of disturbance. Animal species that are tolerant of, and in some instances thrive upon disturbance and early successional vegetative stages, are not likely to be affected by a project of this size and character at either the site-level or population-level. For less-tolerant species likely to occur in the unmined part of the site, displacement may occur and some mortality could be expected as a result of intra-species competition and loss of habitat. It is likely most of the animals will adjust their habits to avoid project developments and associated OHV traffic.

The bald eagle and northern long-eared bat have habitats in trees that are affected during tree removal. No tree removal is planned as part of this project.

The lark sparrow breeds in open habitats, where grass adjoins scattered trees and shrubs, especially in poor or sandy soils. If the species is nesting at the site, the potential for displacement will depend on the density and level of trail use. Because OHV-related disturbance may be greater than conditions under mining operations, any specimens acclimated to mining-related noise and activity could be displaced by the OHV operation within the habitat, especially closer to the trails and higher use areas.

The high quality mussel bed, located in the Minnesota River, is particularly vulnerable to deterioration in water quality, especially increased siltation and changes in water flow. Water quality in receiving waters should not be negatively affected by the project because any stormwater will be contained onsite per the future SPPP of the NPDES Construction Stormwater permit that will be required prior beginning construction. In addition, there are no proposed permanent stream bed crossings that would result in sediment discharge to the waterways.

No future mining is projected for the portion of the site within the native prairie remnant. The native prairie remnant is vulnerable to the introduction and spread of invasive and non-native species along with ground disturbances. Project-related disturbance to the native prairie remnant area may include fragmentation, compaction, and minor rutting of the dirt trail from a small percentage of the OHM (24 inches wide) and Class I ATV (up to 50 inches wide) trails that could cross that area of the site.

Past mining activity does not necessarily preclude gophersnake occurrence at the site; a gophersnake population could be present despite mining- and agriculture-related development in the surrounding landscape. Project-related development and operations could impact gophersnakes if present. During active periods, intensive OHV/vehicular use would pose high risk of direct snake mortality as well as habitat degradation. Although none of these activities is ideal for gophersnakes, all remaining habitat still may be critical for a rare species with limited distribution and limited ability to relocate or recolonize.

- d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.**

No tree removals are proposed in the development of the OHVRA, however some pruning of tree limbs up to eight feet above ground surface may be necessary in order to allow trail passage through areas that have thick understory vegetation. Trimming and pruning of oak trees, if present, will not occur during the high risk oak wilt season over April, May, and June.

Trees were visually inspected for bald eagle nesting sites during the wetland investigations. None were detected.

Nesting lark sparrows, if present, are difficult to identify because the species nests on the ground or in low shrubs, often appropriating other bird's nests. To minimize potential impacts to lark sparrows, it is recommended that disturbance in the savanna or prairie be avoided, as well as minimizing or avoiding tree and shrub removal within suitable habitat during the breeding season (late spring into early summer). Minimizing the amount of trail development in the remnant prairie is a potential measure to limit habitat disruption and species displacement. Eventual site reclamation to prairie-type vegetation may provide additional habitat post-mining, however it may or may not be used subject to trail locations and/or frequency of OHV operations. Conducting surveys for the presence of lark sparrows would inform other potential management actions, if any.

The project site lies within the Prairie Core as identified in the Minnesota Prairie Conservation Plan. The site plan is conceptual and trail alignments can be modified in the future to avoid native plant communities including native prairie, if necessary. The project proposer will develop a vegetation management plan that is based on field identification of the native prairie boundaries in cooperation with the MNDNR. The vegetation management plan will outline potential impacts, describe measures to minimize impacts, which may include demonstrably lower trail density with greater monitoring and maintenance requirements, and include the specific commitments to offset unavoidable impacts. The final site plan will not be approved until the vegetation management plan is finalized. The project proposer intends to implement the restoration and enhancement activities identified in the Minnesota Prairie Conservation Plan (consisting of prescribed burning, conservation haying, and control of invasive species as deemed appropriate by MNDNR staff) as part of the future operational and maintenance plan for the OHVRA. More broadly, vegetation management will reflect consultation with MNDNR staff; for example, it is generally recommended that trimming/wounding of oak trees be avoided during the high risk oak wilt season.

Measures available to minimize disturbance to the gophersnake include:

- employing wildlife-friendly erosion control;
- avoiding and/or minimizing impacts to the remnant prairie;
- restoring the existing prairie as well as reclaiming (i.e., reseeding) mining-disturbed areas to prairie-type vegetation;
- consulting with MNDNR Nongame Heritage Program staff regarding the timing of prescribed burns, in any; and
- consulting with MNDNR Nongame Heritage Program staff on posting information about the potential presence of snakes, the need to avoid them, and how to report sightings.

Stormwater pollution prevention best management practices will also be implemented in order to prevent water quality degradation.

To reduce potential impacts to wildlife habitat itself, design standards will follow the sustainable natural surface trail design practices described in the Trail Planning, Design, and Development Guidelines (MNDNR, 2007) throughout the site to minimize tread area and potential erosion. Sustainable natural surface design practices include but are not limited to the following:

- primarily using a “Rolling Grade” design pattern and edge protection techniques;
- limiting tread grade and watershed size;
- using alignment tread crests and constructed filled tread crests or waterbars where alignment tread crests are not viable;
- hardening tread crests on steeper grades or unstable soils;
- using alignment tread dips and constructed tread dips where tread dips are not viable;
- designing tread dips to prevent clogging; or
- tread hardening in unstable soils.

Potential design features for project amenities that could provide benefit to wildlife include greater buffering along the creek and wooded areas, and sites or stops for activities such as picnicking, bird watching, or hiking that use sensitive habitat areas for the placement of such zone.

Invasive species can adversely impact wildlife habitat. Prevention and control of invasive species would be considered in the design, construction, and maintenance of trails. Measures to prevent the spread of invasive species during construction include: working in non-infested areas first before moving to infested areas; thoroughly cleaning equipment after working in infested areas; and revegetating disturbed areas as soon as possible after construction is completed. Wood chips or other mediums which allow invasive plants to easily take root will not be used for the trail system. Where current or future infestations are identified, control methods will be applied to limit the spread and impact of invasive species. Disturbed or rehabilitated land will use native plants seed mixes consistent with the project goal of restoring native prairie where possible, especially when rehabilitating and converting mining areas into trail areas. Keeping riders on designated trails will limit the potential of transporting invasive species to uninfested parts of the site.

Habitat impacts can also be addressed by trail riders being encouraged in the rules and in the signage to stay on the mapped and signed trails as well as to use the PlayCleanGo program, including cleaning machines prior to using the trail system. The current plan will be to have these trails enter into the Minnesota OHV Grant-In-Aid program that will allow the use of Trail Ambassadors to help keep invasive species in check and monitor for trail etiquette and safety.

- The Trail Ambassador Program establishes informational and educational contacts by enabling volunteer monitoring efforts to promote safe, environmentally responsible operation of OHVs. Trail ambassadors are trained on the rules and regulations of operating OHVs and guidelines and policies of proper trail use in the recreation area. They are certified to monitor trail conditions, identify invasive species, and provide first

aid. They are not however licensed peace officers, and therefore cannot arrest or detain violators.

The OHV Grant-In-Aid program will also allow an area ATV club to help maintain the trail system and remove invasive species.

No wash station is proposed for the facility.

**14. Historic properties:**

**Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.**

Information has been received from the Minnesota Historical Society Preservation Office (SHPO); refer to Attachment B. Upon conducting a search of the Minnesota Archaeological Inventory and Historic Structures Inventory, one historical site and one prehistoric archaeological site was identified. The search area consisted of the same sections as the proposed project (NE ¼ of Sec. 22, NW ¼ of Sec. 23, T114N, R 37W). According to the Phase II Archaeological Evaluation (available upon request) the prehistoric archaeological site consisted of a piece of fire-cracked rock, three lithic flakes and one prehistoric lithic scatter. The historic site was identified as the Tufto Farmstead, which is located on the project site. An interpretive site will be incorporated adjacent to the picnic area, with signage placed at the historic Tufto Farmstead to educate visitors of its history and historical importance. The project does not propose any OHV trails on the historic site, therefore the project will cause no direct or indirect adverse impacts to the historic site.

**15. Visual:**

**Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.**

There are no scenic views or vistas on or near the project site. The Minnesota River is located ¼ mile south of the project site and is a popular recreational water use and wildlife viewing area. River users will not be able to see the site due to screening from trees and other vegetation as well as the topography of the area (the site sits higher in elevation than the river, yet lower within landscape due to the gravel pits). The scenic quality of the area should be maintained with no planned tree removals. Visual nuisances such as vapor plumes or glare from intense lights are not project features.

The project is expected to have little impact on the quality of the view along the CSAH 15 corridor, which is part of the Minnesota River Valley National Scenic Byway.

CSAH 15 – North Side. On the north side of the CSAH 15, which is the side away from the Minnesota River, most of the road has a dense vegetative screen comprised primarily of juniper trees and other large deciduous tree species. It is further screened to the north by the rapid rise in elevation, providing a solid visual buffer to the north from the roadway.

CSAH 15 – South Side. From the roadway to the south toward the Minnesota River, there is more open grass with some smaller patches of trees. Tree cover is heavier on the southeast part of the parcel and more open on the southwest portion. The southwest project area also has a large active gravel operation along the south boundary of the proposed OHV site, lying between the site and the river. This has been one of the larger gravel operations in this area, often with an asphalt batch plant set up in the gravel pit area as well. Vegetative screening would be used on this south side of the county road where practical and would provide some benefit without blocking the view of the river valley. On the western end of this site, the county road is elevated above the ground to the south to such a degree that a vegetative screening isn't practical; this means vehicle traffic on the county road will be looking over the top of any activity occurring on the OHVRA site.

This proposed site would operate from 8:00 a.m. until dusk, so no lighting will be necessary that would detract from the Scenic Corridor after dusk or time of limited light. If any lighting is necessary at the trailhead, then such lights would be low and have directional beam to prevent them from lighting up more area than necessary for the safety of the users in the area. Such lights would be on a timer or motion sensor so they did not remain on after activity in the trailhead area had ceased.

**16. Air:**

- a. **Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.**

There are no stationary sources of air emissions currently on-site and or proposed as part of the OHVRA.

- b. **Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.**

Currently there is a high volume of motorized activity occurring on the project site and surrounding area due to the farming, gravel mining, and trucking operations. The addition of the proposed OHV activity should not contribute adverse impacts to the air quality of the area. It is anticipated that total vehicle emissions will be reduced as the OHVRA is developed over 20 years, as operation of mining equipment and associated truck traffic lessen and eventually terminate.

Vehicle air emissions will be produced by traffic generated by visitors traveling to and from the site during the daytime hours of operation. According to the MPCA, a vehicle emits on average 5.7 tons of air pollutants annually that are comprised of carbon monoxide (CO), nitrogen oxides (NOX), hydrocarbons—including volatile organic compounds (VOCs), and carbon dioxide (CO<sub>2</sub>). No traffic improvements or mitigation measures are proposed other than the standard emission

requirements for each vehicle. Air emission levels are expected to remain below current MPCA standards and are not expected to have a negative impact on the regional transportation system or an impact on air quality.

Vehicle-related air emissions considered as greenhouse gases will also be produced from recreational vehicles at the site. Vehicles at the site include ATVs, OHMs, and ORVs that release carbon monoxide, hydrocarbons, and nitrogen oxide into the air when in use. The following table lists the current standards for Recreational Vehicles from the EPA:

**Table 16-1: EPA Current Standards for Recreational Vehicles**

Vehicle	Model Year	Emission Standard		Phase-in
		HC+ NOx g/km	CO g/km	
Off-Highway Motorcycle	2006	2.0	25.0	50%
	2007 or Later	2.0	25.0	100%
ATV	2006	1.5	35.0	50%
	2007 or Later	1.5	35.0	100%

Source: [Environmental Protection Agency  
http://www.epa.gov/oms/regs/nonroad/2002/f02037.pdf](http://www.epa.gov/oms/regs/nonroad/2002/f02037.pdf)

No improvements or mitigation measures are proposed other than the standard emission requirements for each vehicle. Air emission levels are expected to remain below current EPA standards and are not expected to have a negative impact on air quality.

- c. **Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.**

The existing mining operations involve typical construction equipment operating within the gravel pits. In addition, substantial volumes of haul trucks entering and exiting the pits and traveling the gravel roadways are a source of dust. Dust is generated on the site due to the extensive gravel mining activities and truck traffic that travel the local public roads; truck traffic is estimated to be 30 trucks per hour. Mining will continue for approximately 20 years until all of the obtainable mineral resources on the site have been extracted.

As the OHVRA becomes operational, smaller OHVs (ATVs and OHMs) will create dust within the OHVRA, but not on public roadways. Actual dust generation will depend primarily on types and numbers of vehicles, operating speeds, time of day, and trail moisture conditions.

Overall, dust and odor conditions should improve following the project's 20-year construction timeline. The proposed OHV activity following mining should not impair the quality of the area, as it will be similar or less than the existing mining activities.

## 17. Noise:

**Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.**

There is sound being generated on the site due to the extensive gravel mining activities that take place in the area. The existing mining operations involve typical construction equipment operating within the pits. In addition, haul trucks entering and exiting the pits and traveling the roadways are a source of noise. Mining will continue for approximately 20 years until all of the obtainable mineral resources on the site have been extracted. No blasting is permitted for mining operations.

Background noise monitoring was conducted in 2016. The purpose of the noise monitoring was to determine existing outdoor noise levels at selected residential locations near the proposed OHVRA. Noise monitoring was conducted with equipment and procedures consistent with the requirements of the Minnesota Noise Rules. Testing was conducted between 5/17/16 and 5/20/16 at various times to assure various mine operation and atmospheric conditions.

The results of the monitoring showed existing noise levels in the area approached the Minnesota residential noise limit. Major sources of noise included long durations of mining and truck traffic. An average of over 30 trucks per hour were observed on CSAH 15 during the monitoring periods. Monitoring results indicated noise levels between 33-60 dBA. Minnesota residential noise standards are 60-65 dBA during daytime hours. The noise monitoring report is available upon request.

Following mining, reclamation will include the phased development of the OHVRA that will generate noise during trail construction. Construction-related noise will be temporary and occur only during daylight hours. Once the facility is operational, noise sources will include intermittent, daytime on-road and off-road vehicle traffic. Hours of operation are anticipated to be approximately 8:00 a.m. to dusk or 9:00 p.m. The OHVRA is anticipated to be open seasonally from April 15 through November 1 (weather-dependent). The vehicles operating within the OHVRA have much smaller engines than the current mining equipment and truck traffic utilizing the public roads. State rules at Minnesota Rules part 6102.0040, subpart 4 indicate noise emission from ATVs and ORVs to a not-to-exceed 99 decibels (dBA) at a distance of 20 inches and OHMs may not exceed noise emissions of 96 dBA at 20 inches. When operating on public lands, OHMs must be equipped with a silencer or other device that limits sound emissions to the standards set in state statutes.

Portions of the proposed trail may be heard for short durations by nearby private landowners (if occupied at the same time). Due to the distance to these private lands (with variable vegetation and topography), the state noise standards (Minnesota Rules part 7030.0040) are not anticipated to exceed the Daytime (L10 65 dBA and L50 60 dBA) or Nighttime (L10 55 dBA and L50 50 dBA) noise levels for Noise Area Classification No. 1 (NAC No. 1). NAC No. 1 is the most restrictive land use activity at the receiver, which includes camping areas, resorts/group camps, cultural activities, nature exhibitions, and other residential land uses.

Noise intensity may increase with the project, however duration and frequency should decrease from existing mining operations when compared to post-project conditions. Despite the rural nature of the site, some neighbors may still characterize the OHV-generated sound as “annoying,”

especially considering the typically low ambient noise levels for rural areas. While acknowledging the potential for annoyance, Renville County does not believe that anticipated noise levels will, under any circumstance, constitute a “nuisance” under state law; see Minnesota Rules Chapter 7030. The MPCA, along with local governmental units, is charged with enforcing State Noise Standards at this site. Renville County will log and investigate noise complaints; measures available include noise monitoring to verify that noise levels are not exceeded, with remediation employed if noise standards exceed allowed limits.

Although OHVRA traffic and noise will be potentially greater than ambient conditions, noise propagation is somewhat mitigated by foliage during the summer months. Best management practices of final trail alignments may include mitigation strategies such as narrow, rolling trail flow with very few long straight stretches thus minimizing aggressive throttle use. The rolling landscape, rural nature, and wind patterns are factors that could attenuate sound propagation thus muffling vehicle-generated noise.

#### **18. Transportation:**

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.**

The project will utilize 200th Street via CSAH 15 as the single vehicular access point to the parking area (trailhead). The most current Minnesota Department of Transportation (MNDOT) traffic counts were completed in 2011 for Renville County. Renville County Traffic Volumes General Highway Map (2011) shows an Average Daily Traffic (ADT) volume of 140 for CSAH 15. Currently there are no alternative transportation routes to the site.

A traffic study was conducted for the proposed project and is available upon request. The study evaluated existing traffic patterns and volumes and took into consideration traffic generated by similar recreation areas in other areas of the state. The study provided several conclusions and recommendations summarized below.

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project’s impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation’s Access Management Manual, Chapter 5 (available at: [Department of Transportation http://www.dot.state.mn.us/accessmanagement/resources.html](http://www.dot.state.mn.us/accessmanagement/resources.html)) or a similar local guidance.***

There is already a high volume of motorized activity taking place due to the existing farming and gravel mining operations taking place in this area. It is not anticipated that traffic will increase substantially from current conditions, however the road may see a minor seasonal increase in traffic. Following the 20-year construction timeline, truck traffic should decrease as mining within the project area will likely decrease. The traffic study concluded that all movements are performing and are expect to perform at a high level of service (LOS A), and users should expect



very little delay throughout this stretch of CSAH 15; improvements due to the project should not be necessary.

The trailhead provides designated access to the southern part of the site. Access to the northeast and northwest parts portions of the OHVRA would be provided by a grade-separated box culvert under CSAH 15 (east of the 200<sup>th</sup> Street intersection).

**c. Identify measures that will be taken to minimize or mitigate project related transportation effects.**

Any temporary traffic disruptions would be mitigated by implementing proper traffic control measures as specified in the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD). There are no identified long-term traffic minimization plans associated with the project.

The proposed site will require a driveway access permit from Renville County and additional right-of-way signage may be recommended and/or required by the Highway Department at the time of permitting. Appropriate trail specific traffic control should be implemented according to Program Manual Minnesota Trails Assistance Program, Grant-in-aid (GIA) trails, off highway vehicle (OHV) – Funds of ATV, OHM, and ORV, (MNDNR; February 1, 2015) or the International Off-Highway Vehicle Administrators Association (INOHVAA) signing standards.

The existing gravel roads are performing at a high level of service at peak conditions, and the traffic generated from a site of this size and type is not expected to have negative implications to road safety and performance. The road geometry provides conditions where trail crossings can be constructed at grade with existing roads, as long as the crossings are visible, flat enough for an OHV to safely stop, and located a sufficient distance from all permitted road access points. All crossings should be permitted by the governing authority prior to construction.

To control unauthorized traffic in and out of the site, measures to be considered include use of existing vegetation, and placement of boulders and/or fences, all of which present a visual and/or physical blockage to the trail user.

**19. Cumulative potential effects: (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)**

**a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.**

The geographic scale of this project is defined by the project area and extent that noise, dust, and traffic effects may interact with other projects, which for the purposes of this EAW is defined as a ½ mile-wide zone around the OHVRA project site.

The timeframes related to environmental effects extend from the present day to 20 to 30 years into the future. Over the period the OHVRA is expected to become fully online, while known mining activity is projected to decline and eventually terminate.

**b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.**

Three sand and gravel mining operations represent reasonably foreseeable projects that may interact with the proposed OHVRA project for noise, dust, and traffic environmental effects. Specifically:

- Proposed OHVRA Site. Sand and gravel mining currently occurs at the proposed OHVRA project site, and will continue into the future. Mining is projected to be phased-out over a 20-year period, with reclamation including construction of proposed trails and amenities, and revegetation of remaining mined areas to prairie grassland species.
- Adjacent parcels. Sand and gravel mining currently occurs on adjacent parcels located both north and south of the OHVRA site. Mining is expected to be present for the immediate future and an unspecified period beyond.
- Zaske Site. Sand and gravel mining currently occurs approximately ½ mile east of the OHVRA site at the Zaske site. An approximately 55-acre mining area expansion has been proposed that is undergoing a separate EAW. Mining is estimated to be feasible for approximately 30 years (based on average extraction rates and available mineral resource).

No other projects are known at this time to be proposed in the vicinity of the proposed OHVRA project.

**c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.**

Noise, dust, and traffic impacts of the 20-year phased mining operations at the OHVRA site, and for an unspecified time for adjacent parcels, would overlap and interact with the project's impacts. Similar albeit smaller interactions would be expected to occur with the approximately 30 years of operations projected at the Zaske site. Mining activities, including material transport, typically occur year-round during daylight hours, while the OHVRA is expected to operate from April 15 through November 1 (weather dependent). Traffic from both mine hauling and trailered OHVs will use the same public roads.

Cumulative effects for noise, dust, and increases in traffic will typically be limited to the period April through October of the year when OHVRA operations coincide with mining activities. OHVRA-related activities will have limited potential for cumulative environmental effects due to the minor incremental increases of project's effects in addition to mining-related activities. As mineable sand and gravel resources are exhausted, overall cumulative effects would be expected to decline and terminate without mining adjacent to, or nearby, the OHVRA.

**20. Other potential environmental effects: If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.**

There are no other known or potential environmental effects that were not discussed in EAW items 1 to 19.

**RGU CERTIFICATION.** *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

**I hereby certify that:**

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.



Signature \_\_\_\_\_

Date March 31, 2017

Title Planning Director