

**DEPARTMENT OF NATURAL RESOURCES**

**RECORD OF DECISION**

**In the Matter of the Determination of  
the Need for an Environmental Impact  
Statement for the Lake Vermilion and  
Soudan Underground Mine State Park  
Development, St. Louis County,  
Minnesota**

**FINDINGS OF FACT,  
CONCLUSIONS, AND  
ORDER**

**FINDINGS OF FACT**

1. The Minnesota Department of Natural Resources (MDNR) proposes development of Lake Vermilion and Soudan Underground Mine State Parks, consisting of 70 to 75 campsites, including 12 camper cabins, three group camps, four sanitation buildings, and a new public water access in Cable Bay. Future developments may include a visitor center, additional camping areas, recreational trails, nature play areas, and supporting infrastructure for both parks.
2. In 2010, the State of Minnesota purchased property from U.S. Steel Corporation for the purpose of creating Lake Vermilion State Park (LVSP). The LVSP is located near the city of Soudan, in St. Louis County, on the south-east shoreline of Lake Vermilion, and is adjacent to Soudan Underground Mine State Park (SUMSP). Although the two parks administered by MDNR will remain as separate park units, they will be cooperatively managed. The MDNR developed the *Cooperative Master Plan (CMP) for Lake Vermilion State Park and Soudan Underground Mine State Park (LV-SUMSP), 2011 – 2020* that explicitly integrates all aspects of management, interpretation, and operations between the two parks. The CMP identified a number of park facility developments to be pursued to meet MDNR’s mission.
3. The area within the combined statutory boundary of LV-SUMSP contains 4,085 acres, including 15 small islands. Development within the park includes a facility recently constructed (Armstrong Bay Day Use Area), two designed facilities (Main Campground and McKinley Camper Cabins) proposed for the first component of construction, and potential future developments: Boat-in Campsites, Walk-in Campsites, Group Camp, Trailside Campground, Soudan Heritage and Science Center, Stuntz Bay Day Use Area, Lakeside Lodge, Adventure Areas, Welcome Plaza/Contact Station, and the Trail Network.
4. The proposed project requires preparation of a State Environmental Assessment Worksheet (EAW) according to *Minnesota Rules*, part 4410.4300, subpart 20 (Campgrounds and RV Parks), which states that an EAW is required for the expansion of a seasonal or permanent recreational development, accessible by vehicle, consisting of 50 or more sites.
5. The MDNR is the proposer for the state park development project. Pursuant to *Minnesota Rules*, part 4410.0500 subpart 5, item A, the MDNR is the Responsible Governmental Unit (RGU) for conducting the environmental review.
6. Pursuant to *Minnesota Rules*, part 4410.1000, subp. 4, multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when

preparing an EAW and determining the need for an EIS. To meet this requirement, the environmental effects of recent construction and future development were included as part of the EAW.

7. The MDNR began construction of the Armstrong Bay Day Use Area when other portions of the park were still in the concept phase so the details were unavailable for determining whether MEPA environmental review was mandatory. Construction of the Armstrong Bay Day Use Area was formalized prior to the late summer 2012, when it was determined that completion of an EAW for the Main Campground would be mandatory.
8. Two local Breitung Township roadway improvement projects not administered by MDNR have also been planned within the LV-SUMSP area and are at various stages of implementation, as administered by St. Louis County. The two road improvement projects are not considered phased or connected actions due to their stand-alone justification and non-sequential aspects as related to proposed developments. Although the park will benefit from the road improvements, these projects are justified without the construction of the proposed park developments. The Stuntz Bay Access Road is underway and is expected to be completed this spring. The Lake Vermilion Park Drive improvement project is planned and engineering design and specifications have been completed, with construction likely to begin during the spring of 2013.
9. Pursuant to *Minnesota Rules*, part 4410.1000, subp. 5, to address any uncertainty related to details and timing of future developments, the MDNR will conduct a review of this EAW, prior to site selection, structure design, and implementation of each of these future developments. This review will determine if the environmental effects of the proposed future developments is adequately covered within this environmental review process. If substantial changes have been made in the proposed project or other circumstances affecting the potential for significant adverse environmental effects have changed from those addressed in the EAW, a new EAW would be required.
10. The EAW was filed with the Minnesota Environmental Quality Board (EQB) and a notice of its availability was published in the EQB Monitor on March 4, 2013. A copy of the EAW was sent to all persons on the EQB Distribution List, to those persons known by the Department to be interested in the proposed project, and to those persons requesting a copy. A press release announcing the availability of the EAW was sent to newspapers and radio and television stations statewide. Copies of the EAW were also available for public review and inspection at the Minneapolis Public Library; the MDNR Library (St. Paul); the Duluth Public Library; Ely Public Library; the MDNR Northeast Regional Office (Grand Rapids); MDNR Area Office (Tower); and Soudan Underground Mine State Park Headquarters. The EAW was also made available to the public via posting on the MDNR's website.
11. The 30-day EAW public review and comment period began March 4, 2013 and ended April 3, 2013, pursuant to *Minnesota Rules*, part 4410.1600. The comment period closed at 4:30 pm. The opportunity was provided to submit written comments on the EAW to the MDNR by U.S. Mail, by facsimile, or electronically by email.
12. After completion of the EAW, it was determined that the proposed project requires preparation of a State Environmental Assessment Worksheet (EAW) according to an additional rule [*Minnesota Rules*, part 4410.4300, subpart 20a (Resorts, campgrounds, and RV parks in shorelands), Item A], which states that an EAW is required for the construction of 50 or more sites in a nonsensitive shoreland area, if at least 50 percent of the area in shoreland is common open space.

13. During the 30-day EAW public review and comment period, the MDNR received written comments on the EAW from agencies or individuals. A copy of the comments is included with this Record of Decision as Attachment 1.

- 1 Darren Vogt on behalf of The 1854 Treaty Authority
- 2 Kathy J Smith
- 3 Mike Walczynski on behalf of the Natural Resources Conservation Service (NRCS), Duluth, MN
- 4 John Karakash
- 5 Jeff Hardy
- 6 Gregory Kappes
- 7 David G Holmbeck
- 8 Richard Hanson
- 9 Jon Clark
- 10 Mary Mustonen
- 11 Anthony and Agnes Yapel
- 12 Jim Gervais
- 13 Mel Hintz on behalf of the Sportsmen's Club of Lake Vermilion
- 14 Mary Kay Bates
- 15 David and Belinda Bauer
- 16 Tom and Monica Pustovar
- 17 Tim Tomsich on behalf of the Township of Breitung
- 18 Karen Kromar on behalf of Minnesota Pollution Control Agency
- 19 Mary Ann Heidemann on behalf of the Minnesota Historical Society, State Historic Preservation Office (SHPO)
- 20 Tony Sullins (Tamara Smith) on behalf of the US Fish and Wildlife Service, Twin Cities Field Office (April 3, 2012 & April 22, 2013)

14. Several comments expressed an opinion about the merits of the proposed project and did not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS).

Two commenters expressed opposition to the project and three commenters expressed "support" or approval of the project. Individuals submitting comments in this category will generally find their comments regarding the merits of the proposed project not addressed in this Record of Decision. These comments will be provided to the proposer and to permitting and/or approval entities and/or authorities for their consideration as part of further decisions about whether to permit, approve, and/or implement the project.

15. Two commenters identified developments relating to Lake Vermilion Park Drive and Highway 169 and their management or maintenance. Commenter # 16 Tom and Monica Pustovar requested assurances that their property would be accessible during construction of the Lake Vermilion Park Drive and that MDNR provide the name of the governmental unit responsible for post construction snow removal. Commenter #17 Tim Tomsich on behalf of the Township of Breitung provided suggestions for the development of Highway 169 improvements and proposed speed limits along the segment of the highway that passes through the park.

These comments did not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). Both the Lake Vermilion Park Drive and Highway 169 Improvements projects are proposed developments that are outside the scope of the project assessed in the EAW. Comments related to construction and maintenance of Lake Vermilion Park Drive will be provided to Breitung Township and to the project proposer for their consideration. Comments relating to the proposed improvements and management of Highway 169 will be provided to the proposer and to permitting and/or approval entities and/or authorities for their consideration as part of MDNR's participation in the policies and management protocols affecting the LV-SUMSP. MDNR would help evaluate safety measures appropriate for the road network serving the park.

16. Several commenters identified issues related to state park policy. The following commenters suggested a change in the policy used in managing state park lands: Commenters #4 John Karakash and #5 Jeff Hardy recommend that State of Minnesota not get involved in camper cabins or in the operations of resorts; and #8 Richard Hanson recommended that the State of Minnesota sell LV-SUMSP to private interests for development.

These comments did not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). These comments will be provided to the proposer for their consideration as part of future policy decisions relating to park management.

17. Several commenters suggested a change in the project to include or exclude certain facilities or amenities (as listed in parenthesis below). Commenters #2 Kathy J Smith, #7 David G Holmbeck, and #14 Mary Kay Bates (more primitive campsites); #15 David and Belinda Bauer (more developed and spacious campsites); #6 Gregory Kappes (adjust configuration/ design of campground); #9 Jon Clark (design cross-country ski trails for both classical and skate-ski styles and place some ski trails along shoreline); #7 David G Holmbeck (provide additional lake access/docks, more roads for highway licensed vehicles, and add other types of development); #17 Tim Tomsich on behalf of the Township of Breitung (provide additional houseboat tie up locations).

Several commenters requested information or suggested a change in park operations to include or exclude certain management protocols (as identified in parenthesis): #11 Anthony and Agnes Yapel and #16 Tom and Monica Pustovar (procedure for lodging complaints, conflict resolution, identification of after-hour MDNR contacts, emergency medical services, potential loss of privacy of nearby residents; and law enforcement at LV-SUMSP); #16 Tom and Monica Pustovar (prohibition of jet skis in Armstrong Bay); #17 Tim Tomsich on behalf of the Township of Breitung (describe park management restrictions, if any, on applying deicing chemicals to access roads during the winter); #12 Jim Gervais (snowmobile use in park); #12 Jim Gervais (marking snowmobile trail at Armstrong Bay); #17 Tim Tomsich on behalf of the Township of Breitung (neighbor's access to snowmobile trails passing through LV-SUMSP).

These comments did not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). These comments will be provided to the proposer for their consideration as part of future policy decisions relating to park management. The inquiry about using deicing chemicals on park roadways will be provided to the proposer for their consideration.

18. Several comments addressed the accuracy and completeness of the information provided in the EAW, potential impacts that warrant further investigation, and the need for an Environmental Impact Statement. The written comments that were received are listed below, as compiled by topic and summarized from the comment letters. Topics are generally listed in order of the most applicable EAW item number. Where multiple comments on one specific issue were received, those comments are combined in a summary form that represents the essence of the comments. The MDNR's response follows each comment.

**a. EIS Recommendation**

**Commenters and Comments:** #7 David G Holmbeck (suggested that an EIS should not be ordered). #11 Anthony and Agnes Yapel and #16 Tom and Monica Pustovar (suggested that perhaps an EIS should be ordered, referring to the potential need to further describe and address the following environmental effects of the proposed project: effects on rare features, pollution resulting from the wastewater treatment system, effects of traffic and associated hazards, and air pollution--odors, noise, dust, and exhaust fumes).

**Response:** In making the decision, the MDNR must consider the standard and criteria provided in Minnesota Rules, part 4410.1700, subp. 6 and subp. 7. The criteria include the significance of "type, extent, and reversibility of environmental effects"; the "cumulative potential effects"; the "extent to which the environmental effects are subject to mitigation by ongoing regulatory authority"; and the "extent to which environmental effects can be anticipated and controlled" as available from other studies. All environmental effects that may be reasonably expected to occur from the proposed project will be evaluated against these criteria as part of the Record of Decision to determine if an EIS must be prepared.

**b. Lack of Completeness of Information on Future Projects**

**Commenter and Comment:** #11 Anthony and Agnes Yapel (a lack of completeness on description of environmental effects described in the EAW, particularly those from future development, may warrant further investigation through the EIS process).

**Response:** This issue was addressed in the EAW in Item No. 6e as well as in other EAW Item Numbers. The EAW identified scoping areas for each of the identified future developments as well as the scale and types of developments that would occur. The EAW also identified the types of environmental effects that could reasonably be expected from the future developments. If plans or the situation changes, the MDNR will re-evaluate this environmental review process to determine if additional environmental review is warranted. The determination for an EIS made in this Record of Decision will be based on an evaluation of the consideration of the accuracy and completeness of the EAW and the criteria listed in Findings 18a.

**c. Environmental Review Process Defined in EQB Rules**

**Commenter and Comment:** #16 Tom and Monica Pustovar (New construction on the road that extended toward the mouth of Armstrong Bay and Cable Bay was initiated prior to receiving all of the necessary permits).

**Response:** This item was discussed under Item Nos. 6b and 6e in EAW. Construction of the Armstrong Bay Day Use Area was implemented when other portions of the park development were still in the concept phase. Construction activities that have occurred in Lake Vermilion

State Park have been solely for the completion of the Armstrong Bay Day Use Area. Some road repairs may have been completed to facilitate the movement of equipment and hauling trucks for the construction of the day use area. Survey activities, which may have been completed during the design phase of the North and South Campground (Main Campground), are allowed prior to the completion of the EAW, as defined under *Minnesota Rules*, part 4410.0200, subp. 10. MDNR understands that the construction project to rehabilitate Lake Vermilion Park Drive has not begun. Lake Vermilion Park Drive improvement project is a Breitung Township road that is being administered by St. Louis County and is exempt from further environmental review. St. Louis County is in the process of applying for the permits and approvals that must be obtained prior to commencing construction activities to rehabilitate the road.

**d. Compatibility of Project with Information found in the CMP**

**Commenters and Comments:** #11 Anthony and Agnes Yapel and #16 Tom and Monica Pustovar (alleged that the design of the Main Campground is not compatible with the CMP in keeping overnight camping outside of Armstrong Bay).

**Response:** The Cooperative Master Plan for Lake Vermilion State Park and Soudan Underground Mine State Park is a guidance document and includes statements of recommendation and concept designs for the parks. The current designs for the North and South Campgrounds maintain the functionality for day use experiences in the Armstrong Bay area of the park. It is not uncommon for day use areas and overnight areas within state parks to be in relatively close proximity of each other. Additional hiking trails and picnic areas are proposed for the ridgeline area west of the day use area (Day Use Area North on Figure 6 of the EAW) and in Item No. 10, the Day Use Area North scoping area is 54 acres in size, with new development of two to six acres anticipated. The Armstrong Bay Day Use Area North has remained mostly intact with the opportunity for campground and the day use area visitors to access the proposed shoreline docks at several locations and the hiking trail extending through the peninsula north of Cable Bay. The MDNR has determined that an amendment to the Cooperative Management Plan is not needed for the proposed design.

**e. Policy for Public Input during Existing and Future Design-build Phases**

**Commenters and Comments:** #11 Anthony and Agnes Yapel, and #16 Tom and Monica Pustovar (further opportunities for public input should be available to interested parties to discuss the Main Campground design). Commenter #16 suggests that the review process include the opportunity for public input during design-build phases of future developments).

**Response:** This topic was discussed in 6d of the EAW. There are two conditions for which the project would be open for further public review. If it is determined that the situation and/or plans have substantially changed during the design stage and these changes may have the potential for significant environmental effects, other than those which were previously evaluated in this EAW, additional environmental review would be required. The review would include a public review and comment period. Also if substantial changes are proposed to the management of the parks, an amendment to the management plan would be initiated. The process of amending the management plan includes a public review and comment period.

**f. Use Municipal Water/Sewer for LVSP Facilities**

**Commenter and Comment:** #17 Tim Tomsich on behalf of the Township of Breitung (connect proposed LVSP campground facilities to the municipal water and sanitary sewer system of Breitung Township).

**Response:** MDNR has discussed and considered the option to connect Lake Vermilion and Soudan Underground Mine state parks to the municipal water and sanitary sewer systems of Breitung Township. The MDNR is in the process of testing wells within LVSP and evaluating other water supply options, including connecting all or portions of the park facilities to the municipal water supply. Should a municipal water supply and/or a sanitary sewer connection be the most prudent and feasible options, the proposed project changes will be reviewed to consider environmental effects not addressed in the EAW. If a municipal connection is chosen, the pathway of the lines will be located along disturbed corridors to the greatest extent feasible. MDNR will continue to be in communication with Breitung Township regarding water and sanitary sewer utilities.

**g. Coordination with State and Federal Agencies Regarding Associated Policies/Guidelines**

**Commenters and Comments:** #19 Mary Ann Heidemann on behalf of the Minnesota Historical Society, State Historic Preservation Office (SHPO) (requested that MDNR work closely with the SHPO as plans are formalized for the Main Campground and during design-build phase of future developments) #20 Tony Sullins (Tamara Smith) on behalf of the US Fish and Wildlife Service, Twin Cities Field Office (FWS) (provide clarification and update a statement listed in the EAW on page 19, that “due to the limited area of development within the 4,000 acre parkland, the proposed project should have minimal adverse effects on the Canada lynx;” offered assistance in determining mitigation efforts and disturbance permit requirements for protecting nesting Bald Eagles, if construction activities are proposed nearby.)

**Response:** Development within the 4,000 acre parkland will be limited to primitive and developed campgrounds, camper cabins, trail systems, water accesses, water recreation areas, shoreline docking structures, picnic sites, and interpretive areas. The estimated extent of the developments will be less than four percent of the parkland area. Land protection and management resulting from establishing the park will have a net benefit on the Canada lynx and suitable prey habitat within the park. Benefits will accrue from improving forest health and age through long term protection and the application of prescribed fire. It is unknown at this time whether the Canada lynx frequent the parklands, due to the proximity of the LV-SUMSP to several small settlements and highway corridors nearby. Outdoor recreation opportunities will draw visitors to the area, which may have an incremental disturbance on the Canada lynx. However, park users will generally be confined to roadways and trail corridors and ample cover will allow the Canada lynx to remain secluded from humans. For these reasons, the project will have a net neutral or beneficial effect on Canada lynx.

Protocol for coordinating with the SHPO and the FWS is acknowledged and staffs fulfilling these duties are responsible for following the SHPO guidelines and FWS Endangered Species Act requirements and the National Bald Eagle Management Guidelines. MDNR employs archaeological and rare species specialists to interpret laws, rules, and guidelines and ascertain potential environmental effects related to the proposed project. MDNR staffs will continue to cooperate with other state and federal agencies during the reviews of designed and future facilities, as they are sited. Additional field surveys and further consultation are planned to ensure compliance with state and federal requirements.

#### **h. Correction of Information Provided in EAW**

**Commenter and Comment:** #3 Mike Walczynski on behalf of the Natural Resources Conservation Service (NRCS), Duluth, MN (Some of the soil feature information was not correctly listed in Table 1 of the EAW. A minor component (about 15%) of soils unit F5 has a water table close to the surface rather than at “12 – 24 inches”; soils unit 1021A has soils that are very poorly drained rather than poorly drained; and both of soils units F26C and F26E have stony loam over extremely coarse sand, and not loamy or stony loam, as was listed in the table).

**Response:** These soil units listed above were identified to contain hydric soils, which indicate the potential for wetland inclusions. A revised table with the correct information is included as Attachment 2 of this Record of Decision. The incorrect information included in the table did not affect the planning or environmental review of the proposed project.

#### **i. Use of Gravel Resources**

**Commenter and Comment:** #11 Anthony and Agnes Yapel (size of mine and extent of gravel mining); #14 Mary Kay Bates (use low impact development methods, i.e. porous pavers, etc.).

**Response:** The gravel resources, discussed in Item No. 6b and exhibited on Figures 6 and 7 in the EAW, are in proximity to the proposed campground development and within the LVSP. The resources are located approximately 1200 feet (0.2 mile) from the nearest receptor site (building site). Other gravel resources that were not identified in the EAW may also be available for use as construction materials in the park. Using gravel resources already owned by the state will eliminate the cost of purchasing these materials and using materials in proximity to the proposed development will reduce haul distances. This borrow pit will not become a mine. MDNR has no plans or intentions of transporting native gravel resources outside the park boundary.

The amount of gravel fill material that will be necessary to build the proposed campgrounds is not known at this time. The mining, loading, and hauling of the materials is regulated by standard construction protocols for noise, odors, and dust as set forth in St. Louis County Zoning Ordinance (No. 46). All Minnesota Pollution Control Agency noise and air quality standards shall apply. Regarding the use of low impact development methods, the MDNR is supportive of these methods and considers them when applicable and feasible. To help infiltrate precipitation, the MDNR will apply an ample gravel base for campsites, roads and parking areas.

#### **j. Prevention and Control of Invasive Species (Managing Spread of Invasive Species)**

**Commenters and Comments:** #13 Mel Hintz on behalf of the Sportsmen’s Club of Lake Vermilion and #17 Tim Tomsich on behalf of the Township of Breitung (Commenter #13 urges the MDNR to set a high standard by inspecting all watercraft that enter through the Park and states that the EAW did not mention the boat inspection/decontamination unit discussed in the CMP. Commenter #17 noted that the proposed development is an opportunity to improve preventative measures to control or limit the advancement of terrestrial and aquatic invasive species by establishing a cleaning station and providing further education to all visitors of the park at the proposed Welcome Plaza/Contact Station).

**Response:** This topic was addressed in the EAW in Item No. 11a. A wash station is still being considered at the Welcome Plaza location, as indicated in the CMP, especially if Stuntz Bay will have road access from the proposed main entrance to LV-SUMSP, where the Welcome



Plaza/Contact Station is proposed. Best management practices have been incorporated into the design of the new public water access proposed for Lake Vermilion State Park, which includes a boat clean and drain area that will accommodate watercraft inspections, plant and bait disposal, appropriate signage, and tie-down activities. MDNR policies for addressing aquatic invasive species (AIS) are defined in the state park system's operational orders, which include guidelines and instructions for implementing laws, regulations, and best management practices for prevention and control of AIS. The MDNR will need to determine statewide priority areas for wash stations at MDNR operated facilities. Of the few implemented wash stations at public accesses in Minnesota, priority has been given to placing wash stations at or near infested waters. Lake Vermilion is not classified as "infested water" at this time.

**k. Managing Risk of Fire and Posted Fire Use Bans**

**Commenters and Comments:** #10 Mary Mustonen (determination of responsible party for fire originating on park lands, enforcement of campfire bans or restrictions, and reporting violations) and #16 Tom and Monica Pustovar (identify mitigation for the heightened fire threat).

**Response:** The MDNR monitors wildfire across Minnesota and has a database that identifies various aspects and cause of each fire identified by authorities. There is little evidence to support the contention that there is a higher risk of wildfire at state park operated campgrounds. Standard protections are present at state park campgrounds that lessen the risk of wildfire, such as campfires only being allowed in pits with fire rings and the requirement that visitors respect fire bans in times of emergency, as identified in *Minnesota Rules*, part 6100.1000, subparts 1 and 2. Onsite staffing, including volunteer campground hosts, at state park campgrounds helps maintain general quietude, order, and safety among campers. Staff in charge will be versed on the protocols on managing emergency wildfire response. Onsite state park staff will be responsible for enforcing campfire restrictions and monitoring potential fire risk. Having park staff on duty to monitor and respond quickly to fires is an asset to the park as well as to neighboring land owners.

The MDNR has a statewide fire prevention system in place with staff at regional offices available to address open burning regulations and burning restrictions and to coordinate the statewide Firewise program. The MDNR provides wildfire protection to avoid loss of life and minimize the loss of property and natural resources; responds to fires and natural disaster emergencies; and supports the effective use of prescribed fire as a natural resource management tool. The MDNR strives to respond efficiently and quickly to any report of wildfire and maintains excellent coordination with other local fire district response units.

**l. Surface Water Use along Shore of LV-SUMSP**

**Commenter and Comment:** #16 Tom and Monica Pustovar (potential unauthorized swimming in Armstrong Bay, landing of houseboats along LV-SUMSP, and camping in unauthorized areas could cause disturbances to nearby residents, destruction of shoreline, and potential disturbances of sensitive resources).

**Response:** Some water recreation will occur in nearshore areas at the Armstrong Bay Day Use Area, although MDNR will not formally promote swimming at this location. MDNR is aware of the sensitive resources nearby and will continue to monitor for evidence of exposure of the site and activities threatening or causing disturbance to the site. Minnesota Rules, part 6100.0900 define personal conduct and prohibited activities in state parks. As stated in subpart 1, it is unlawful to disturb, destroy, damage, deface, or remove any state property, including historical or archaeological artifacts or sites and historic structures in state parks. The MDNR has the

authority to designate restricted areas to protect sensitive resources, wildlife, or nearby residents. Designated areas for authorized activities will be posted as needed. Materials and/or signage alerting visitors to the rules will be available to visitors at contact stations, campgrounds, water access sites, and along the park shoreline. Additional information will be provided at convenient locations locally, at stations outside of the park that cater to tourists seeking information, and on the MDNR website. Neighbors have the opportunity to register complaints directly to the park management staff.

**m. Stationary Source Air Emissions Not Addressed in EAW**

**Comment Letter and Comment:** #16 Tom and Monica Pustovar (RV generators and other sources of air pollution generated from the campground could be considered “stationary” source air emissions)

**Response:** The environmental effects of vehicle exhaust emissions were discussed in the EAW in Item No. 22 (vehicle-related air emissions). The MDNR did not specifically mention air emissions from RV generators. Item No. 23 in the EAW, dealing with stationary source air emissions, was not considered applicable to the proposed project. This item is generally addressed when larger industrial projects are proposed such as “boilers, exhaust stacks”, or those that generate high volumes of fugitive dust. As described in *Minnesota Rules*, part 4410.4300, subp. 15, an EAW is required when a project is proposed to construct new stationary source facility (SSE) or modify an existing SSE that generates or increases generation of an amount of air pollutant of 250 tons or more per year. The U.S. Environmental Protection Agency (EPA) differentiates between stationary and mobile engines by considering stationary to include those operating at a site for more than 12 consecutive months or an entire operating seasonal period. The *Code of Federal Regulations* (CFR) Title 40, section 63.2, defines stationary source as any building, structure, facility, or installation which emits or may emit any air pollutant. (Item ‘t.’ below addresses emissions from RV generators.)

**n. Efficacy, Environmental Effects, and Contingency Plans for Wastewater Treatment System**

**Commenters and Comment:** #11 Anthony and Agnes Yapel and #16 Tom and Monica Pustovar (function, containment, odors/fumes, groundwater contamination, potential leakage and contingency planning).

**Response:** The four sanitary facilities of the North and South Campground and the water treatment system, proposed at the east entrance to the South Campground, are potential sites for establishing an independent sewage treatment system (ISTS). As stated in Item 18 of the EAW, requirements defined in Minnesota Rules, Chapter 7080 through 7083 need to be met during the design, construction and operation of the ISTS installations, as identified on Figure 7 of the EAW. The ISTS must be designed, constructed, and operated according to *Minnesota Rules*, Chapter 7080, except as modified through a local ordinance in compliance with chapter 7082 and *Minnesota Statutes*, section 115.55. ISTS must be designed, installed, inspected, pumped, serviced, and operated by licensed businesses meeting the qualifications in parts 7083.0070 to 7083.2040. ISTS must conform to all applicable state laws and rules.

Instructions for conducting preliminary design characteristics and layouts of the ISTS and field evaluations of the drain field’s surface features, soils (observations, description, and limiting layer), loading rate and absorption area size, and protection are described in *Minnesota Rules*, part 7080.1720. The ISTS system must be designed according to specification relating to system sizing, design flow, distribution system, equipment, construction, installation, and other technical

requirements. The type, quality, rating and capacity of equipment used in the system, e.g., septic tanks, holding tank, pumps, and pump tanks, pipes, etc., are also specified in the rules. Specifications are provided for each type of ISTS (trench, at surface, or mound). The ISTS must be operated, meet performance standards, and be managed according to its operating permit. The ISTS must have at least a three-foot vertical separation or a vertical separation in compliance with the applicable rules or possible variances. A system with a flow greater than 2,500 gallons per day must demonstrate that the additional nutrient reduction component is in place and functioning. Other parts of these rules include specifications for larger systems, the administrative framework for regulating the units, licensing and certification of engineers, and equipment review and registration.

Compliance criteria are described for the ISTS in *Minnesota Rules*, part 7080.1500. The ISTS must be protective of public health and safety, which requires that the system not discharge sewage or sewage effluent to surface waters, including drainage systems, ditches, or storm water drains. The system must be protective of groundwater, which at a minimum, includes the elimination of any seepage pit, cesspool, drywell, leaching pit, or other pit; and a system with the required vertical separation distance. A determination of the threat to surface water or groundwater quality or the general public for these and other conditions must be made by a qualified employee or a licensed inspection business.

**o. Light Pollution**

**Commenter and Comment:** Comment Letter #11 Anthony and Agnes Yapel (potential for light pollution from campground lighting)

**Response:** Outdoor lighting was discussed in the EAW in Item No. 26. The use of lighting at the proposed campground to maintain safety of staff and visitors will be limited to reduce energy consumption and light pollution. Exterior lighting will be provided only where needed, use efficient light sources and "shut off" controls, and be designed to use the correct amount of light and light levels. Fixtures that direct light downward will be installed at heights generally below the canopy of the surrounding vegetation.

**p. Management of Solid Wastes**

**Commenter and Comment:** Comment Letter #16 Tom and Monica Pustovar (improper handling of trash and garbage may attract bears).

**Response:** MDNR employs appropriate practices in state parks, such as animal proof containers, regularly scheduled trash removal, and techniques to discourage or manage nuisance animals.

**q. Noise and Exhaust Fumes from RV Generators**

**Commenter and Comment:** #10 Mary Mustonen, #11 Anthony and Agnes Yapel, and #16 Tom and Monica Pustovar (ban or limit use of RV generators in park)

**Response:** Visitors are allowed to camp in a tent or overnight in a recreation vehicle at designated locations. Generators are not prohibited from state parks, and there have not been any significant issues or complaints that warrant prohibiting them from parks or campgrounds. *Minnesota Rules*, part 6100.1250, subpart 1 identify several restrictions while camping in Minnesota state parks. Item H of subpart 1 regulates the use of power units used to generate

electricity, prohibiting their use between the hours of 10:00 p.m. and 8:00 a.m., and at other hours of the day, if the operation causes a disturbance for other visitors.

CFR 40 describes the EPA's regulations for the control of emissions from the classes of new small engines, for nonroad compression-ignition under Section 1039, and for spark-ignition engines and equipment under Section 1054, which include RV generator engines. An RV generator would be classified as non-road mobile and its pollutant emissions would be regulated within that class of engines. Mobile sources include a wide variety of vehicles, engines, and equipment. "On-road" or highway sources include vehicles used on roads for transportation of passengers or freight. "Nonroad" (also called "off-road") sources include vehicles, engines, and equipment used for construction, agriculture, recreation, and many other purposes. Within these two broad categories, on-road and nonroad sources are further distinguished by size, weight, use, and/or horsepower. In 2008, the EPA adopted new standards for emissions of hydrocarbons (HC), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) for a variety of nonroad engines and equipment. When fully implemented, the new standards for small nonroad engines will result in an estimated 35 percent reduction in HC+NO<sub>x</sub> emission. The new standards will also reduce evaporative emissions by 45 percent.

Any noise or other issues related to generators can be addressed by MDNR park staff. Further information on the environmental effects of this issue is addressed under the topic regarding odors, noise, dust, and traffic.

**r. Odors, Noise, Dust, and Traffic**

**Commenters and Comments:** Comment Letter #9 Jon Clark (increase separation distance between snowmobile trails and cross-country ski trails or don't allow snowmobiles in parks), #11 Anthony and Agnes Yapel, (change in location of the North Campground reduced separation distances between campers and nearby residents), #16 Tom and Monica Pustovar (noise pollution and disturbances coming from campers at both the Main and Group Campgrounds, increased traffic volume, and congestion along access roads).

**Response:** Information about these issues was presented and discussed in the EAW under Item Nos. 21, 22, and 24. As noted in the EAW under Item No. 22, vehicle-related air emissions in this area are anticipated to increase locally as a result of the construction, use, and operation of the park facilities. In Item No. 24 it was stated that construction activities in the project area would create some temporary odors, dust, and noise during the project development. Additional visitor and park operations traffic would locally pose minor increases in odors, dust, and noise. The main access roads and internal campground roads to the water access and campsites will be paved, thus reducing the amount of fugitive dust generated compared to that experienced under their current condition. The existing vegetation that provides a buffer to the nearest neighbors will help attenuate potential noise from vehicles traveling through the park. Most ambient noise will not carry the 1000-foot distance to neighbors. The MDNR acknowledges the potential increases in air pollutants (odors, noise, dust and fumes) from traffic and will design and operate facilities that maintain a high efficiency of travel for visitors entering, exiting, and accessing approved campsites and other amenities.

The system of state parks in Minnesota is accessible to visitors travelling in highway licensed vehicles (HLV), which includes RVs. HLVs are the most common way for the general populace to access the state park system. The number of visitors using the park, estimated at 300,000 annual visits, refers to park usage at full build-out. The traffic would be dispersed among all facilities and not just the day use area and campground sites. Visitors will arrive at the park by

various modes of transportation, including boats, snowmobiles, bicycles, and vehicles. Snowmobiles are permitted to operate on snowmobile trails that existed prior to the establishment of the LVSP. The typical profile of park users includes individuals as well as families and small groups arriving in single vehicles. The daily trips estimate is well below the threshold for requiring a Minnesota Department of Transportation (MnDOT) traffic impact study for an EAW.

A coefficient of 2.5 passengers per vehicle is used for estimating traffic, and camping for several days is attributed a vehicle usage each day, regardless if vehicles were used. Vehicle use in the trails campground, at the adventure areas or lakeside lodge, or at McKinley Camper Cabin site or the Soudan Underground Mine would not affect residents near the Main Campground and Armstrong Bay Day Use Area. Travel corridors are sufficiently designed to manage traffic patterns at the Main Campground. Congestion of traffic, noise generated from HLVs, and associated dust, and exhaust fumes is rarely a concern among Minnesota State Parks, even at the busiest parks in the state system.

Campsites at the Main Campground have been designed with additional vegetative buffering and are spaced at greater distances than is typical of other park campgrounds to enhance visitor experience and help mitigate noise and other potential impacts (odor, visual, etc.) to adjacent campers. The configuration of the campground will help to disperse traffic and sufficient screening is available for most campsites. Only minimal annoyance from traffic in the vicinity of the proposed facilities is anticipated for visitors and neighbors of the park.

Campgrounds do not require any permits for air quality or noise and do not require a noise analysis. The Environmental Quality Board (EQB) guidance document includes railroads, highways, and airports as major noise sources but does not include campgrounds. *Minnesota Rules*, part 7030.0040 defines noise standards applicable to the proposed campground. The Minnesota Pollution Control Agency (MPCA) enforces state noise rules (*Minnesota Rules*, Chapter 7030); the MNDR has noise standards in place for snowmobiles, motorboats, personal watercraft and off-highway vehicles (*Minnesota Rules*, Chapters 6100 and 6102).

During the construction of the proposed campground expansion, the MPCA's Daytime and Nighttime Ambient Noise Standards of  $L_{50}$  equal 65 dB(A) (the level exceeded 50 percent of the time), or the  $L_{10}$  equal 70 dB(A) standard (the level exceeded 10 percent of the time), will not be exceeded by the Proposer. Construction will be conducted during daylight hours. Noise generated during construction would generally be far enough away from receptors to pose only minor annoyances. The nearest receptor site is greater than 1000 feet from all proposed construction areas. During normal campground operation and activities will not exceed the MPCA's Daytime Ambient Noise Standards of  $L_{50}$  equal 60 dB(A) or the  $L_{10}$  equal 65 dB(A) standard. The Nighttime Ambient Noise Standards of  $L_{50}$  equal 50 dB(A) or the  $L_{10}$  equal 55 dB(A) standard will not be exceeded. The proposed campground will have designated quiet hours from 10:00 PM to 8:00 AM.

**s. General Environmental Effects at the Group Camp**

**Commenters and Comments:** #16 Tom and Monica Pustovar (general environmental effects at Group Camp near Lake Vermilion Park Drive)

**Response:** The Group Camp scoping area is primarily upland habitat but contains approximately 10 acres of hydric or partially hydric soil areas, which make up 18 percent of the scoping area. The wetland areas, which are generally along the boundary of the scoping area, will be avoided to the greatest extent possible. Any encroachment into wetlands areas are subject to ongoing public

regulatory authority under the Wetland Conservation Act. Designs of the Group Campground will attempt to minimize environmental effects by evaluating specific natural and cultural resources in the scoping area, as described in Item Nos. 6d and 11a of the EAW.

19. Based upon the information contained in the EAW and provided in the written comments received, and based on the responses to comments provided in Finding 18, the MDNR has identified the following potential environmental effects associated with the project. Each of these environmental effects are discussed in more detail below:

- a. Project Design
- b. Erosion and Sedimentation
- c. Surface Water Quality
- d. Groundwater (Consumption and Wastewater)
- e. Physical Impacts to Water Resources
- f. Aquatic and Terrestrial Invasive Species
- g. Alteration of Vegetation and Aquatic Habitat (Disturbance, Clearing & Fragmentation)
- h. Behavior and Habitats of Wildlife including Species in Greatest Conservation Need
- i. Rare Features
- j. Archaeological, Architectural, and Historical Resources
- k. Traffic and Vehicle Related Air Emissions
- l. Noise, Odors, and Dust
- m. Solid Wastes and Potential Hazardous Wastes
- n. Infrastructure and Public Services
- o. Compatibility with Adjacent and Nearby Land Uses
- p. Cumulative Environmental Effects

- a. Project Design. The topography of the LV-SUMSP is characterized by rock ridges, steep bluffs, and wetland depressions. Upland soils consist of very shallow loam over bedrock, bedrock outcrops, and deeper loam along lower slopes and outwash areas. The uplands are forested with young and old growth stands of northern mesic mixed forest dominated by birch, aspen and conifers. Over one-fourth of the 4,085-acre parkland area consists of wetland, mostly swamp forest and smaller areas of open shrub or herbaceous marsh.

The proposed project will entail the construction road segments, campsites and companion parking spaces, camper cabins and other buildings, electric and water utility lines, sanitary facilities, and the rehabilitation of some existing access roads. Additional potential future developments of the Lakeside Lodge, Adventure Play Areas, Group Campsite, Trailside Campground, network of mountain bike and hiking trails, Boat-in Campsites, inland Walk-in Campsites and Soudan Heritage and Science Center have not been designed nor scheduled for development. About 300,000 annual visits per year can be expected with the proposed development scenario of LVSP.

The CMP identified a number of park facility developments that are being pursued to meet MDNR's mission for the state park system. The EAW described recent, designed, and future facility development. Scoping areas were delineated to serve as analysis areas for determining environmental effects and as search areas for siting the proposed facilities. Nearly 600 acres were included in the scoping area analysis. Soils, water, and landscape features were incorporated into the soil analysis that identified the suitability and limitation of the soil mapping units that make up each scoping area. Rare features, hydrological, natural vegetation and other databases; the timber volume classification for LVSP; and the SHPO archeological and historic properties database were incorporated into the evaluation of environmental effects. A resource assessment,

containing this and other evaluations, is conducted for all proposed development projects within state parks. The maximum extent of disturbance proposed to occur within LV-SUMSP is estimated to be less than 125 acres.

Construction will consist of clearing vegetation, grading, leveling, and applying suitable base aggregate to roads, parking areas, and building sites. Improvements of main roads may include replacement of culverts at wetland or stream crossings and resurfacing with aggregate and/or bituminous pavement. Campground access loops would likely be paved but trails would be natural surfaced, with some paved or graveled segments, especially along the heavily used corridors. Supporting infrastructure would include water wells, distribution lines, storage units, electrical utilities, sanitation buildings, septic lift stations, wastewater treatment systems, vault toilets, and wireless networking technology ("wi-fi"). Electrical utilities include main power supply to electric transformer(s), branch power lines to buildings, campground site hook-ups, safety lights, and other structures. Backhoes, bull dozers, motor graders, logging equipment, off road trucks, hauling trucks, well-drilling rigs, and possibly blasting equipment will be used during construction. Hand tools will be used for many of the natural surfaced trails, and in some cases, a small dozer may be used for the heavy trail work. Work will occur during daytime hours. Similar construction would be necessary to complete the potential future developments.

- b. Erosion and Sedimentation.** This topic is addressed in the EAW in Item No. 16 and Item No. 19. Disturbance due to the recent construction, designed developments, and future park development within LV-SUMSP is estimated at 125 acres. Stuntz Bay water access facility and the proposed Soudan Heritage and Science Center would be located within existing disturbance zones and therefore are not tallied in the disturbance acreage. The full build out of proposed facility development in LV-SUMSP will increase impervious surface by 12 acres and lawn or landscaping area by 14 acres. The development will reduce forest cover by 32 acres and wetland area by two acres.

When sloping lands are cleared, the usual result is more and faster runoff, especially when grading has smoothed a slope's natural roughness. The soil limitations that increase erosion potential on some of the development areas are steep slopes, slow water movement through soil profile, large stones content, and shallow depth to bedrock. Proposed development areas may contain areas with slopes greater than 12 percent. The Main Campground site contains soils that are often shallow and stony and the steeper lands have exposed bedrock.

Initial comprehensive plans described in the CMP identified and selected areas within which proposed facilities would be built. The MDNR placed a high priority on designing and locating facilities in areas accessible from existing roads. The use of mostly existing corridors will help limit the amount of new road construction and reduce disturbance to vegetation, soil, and wetland areas.

Disturbance will be dispersed within and among facilities proposed within the four-thousand acre LV-SUMSP. Approximately 80 percent of the disturbance area would occur on the eastern side of the LV-SUMSP, while its western and central areas would encompass only small areas of disturbance. The dispersed configuration of campsites within the campgrounds, which includes 70 percent of the project's total disturbance area, reduces the erosion potential on these areas by reducing the concentration of impervious surface in any given area. The linear shape of roads and trails designed with proper drainage also disperse and limit the magnitude of erosion hazard. Additionally, numerous existing logging or hunting trails throughout the LVSP will be closed off and revegetated. A substantial portion of the development area identified above would not be converted to impervious surface but would be revegetated with ground cover and allowed to

revert to grass, brush, or woodland. Numerous small interspersed forested habitats within the proposed campgrounds, some of which have not been subtracted from the estimated development area, will provide buffering along cleared areas.

Controls for protecting downstream areas will be applied to mitigate for the increased erosion potential during land clearing, site preparation, and facility operations. Engineering designs indicated that eight acres of stormwater ponds would be established to fully contain sediment and runoff. Best Management Practices (BMPs) and development guidelines provide a number of techniques and tools that will be used to ensure sustainable design and facility use over time. Slopes greater than six percent will be avoided for the most part. The extent of grading and filling will be minimized by designing access corridors and campsite and other facility locations to conform to existing grade as much as possible. Ample fill material will be used to improve infiltration and reduce the potential for encountering bedrock obstructions. Where natural mineral soils are exposed, silt fence or bio-rolls will be installed along the project limits at all points downstream of construction. Erosion stabilization mats or mulch will be applied on disturbed soils and areas graded with 2:1 slopes or steeper. Energy dissipation devices will be employed where construction runoff may concentrate and drainages will be fortified along designated drainageways serving the developments. Temporary seeding of areas not actively being worked and permanent vegetation after construction would be implemented in conformance with the requirements of the NPDES permit. The project's construction management will be overseen by the MDNR construction inspectors, who will conduct timely inspections and verify the contractor's compliance with the General Permit. The suite of erosion control measures will be applied at all designed and future development locations prone to erosion and areas where runoff would concentrate. Erosion and sedimentation will be limited and controlled through the use of a variety of BMPs.

- c. **Surface Water Quality.** This topic is addressed in the EAW in Item Nos. 14 (water-related land use management district), 15 (water surface use), and 17 (water quality: surface water runoff). The LV-SUMSP parkland drains into Lake Vermilion (a public water) via various drainageways: many small channels leading directly into the lake; a small unnamed public water stream drains into Mattson Bay; and the East Two Rivers, a public water watercourse and designated trout stream. Two of the proposed facilities would be located within the East Two Rivers watershed; several others, within the watershed of the unnamed public water stream; and most of the other five facility areas, within the direct catchment of Lake Vermilion. The developments in the shoreland zoning district would include docking structures, a new parking lot and public water access, and the repair of an existing water access, some cabins and campsite placements, and hiking trail corridors.

The MDNR will avoid and minimize to the greatest extent feasible shoreland and wetland areas. The proposed campgrounds, camper cabin construction, and future developments will meet or exceed St. Louis County shoreline and bluff setback standards. The proposed facilities will be developed according to the BMPs already in place and managed largely through existing state and federal regulatory authority. The MDNR will strive to minimize impervious surfaces; treat stormwater runoff on site; use natural vegetative buffers to infiltrate runoff and screen much of the parks' development from the lake; minimize disturbance and fragmenting of riparian and aquatic habitats; and use regulated methods for on-site sewage treatment. Monitoring and maintenance work would correct areas with evidence of active erosion channelization.

The limited development within the shoreland area will help to maintain its natural character and features. The MDNR anticipates the additional activities proposed within the shoreland zoning



district are minor in extent. Only limited, local decreases in water quality are anticipated due to the proposed developments.

- d. **Groundwater (Consumption and Wastewater).** This environmental effect is addressed in the EAW in Item Nos. 13 (water use), and 18 (water quality: wastewaters). Six or seven wells will likely be required for recent and designed developments and four or five wells are potentially needed for future developments. As future wells are planned, built, and tested, it may become apparent that additional wells and/or connection to a municipal supply are necessary. The water use for the proposed three camping facilities is anticipated to be less than 16,000 gallons per day during peak summer use. A smaller volume of water will be used at the welcome center, lodge, and day use areas.

The MDNR is in the process of testing wells within LVSP and evaluating other water supply options, including connecting all or portions of the park facilities to the Breitung municipal water supply and/or sanitary sewer system, as coordinated with Breitung Township. Should a municipal water supply and/or a sanitary sewer connection be the most prudent and feasible option(s), the proposed project changes will be reviewed to consider environmental effects not addressed in the EAW. If a municipal connection is chosen, the pathway of the lines will be located along disturbed corridors to the greatest extent feasible.

Wastewater treatment will be necessary at several of the proposed facilities, with a total of approximately eight on-site Individual Sewage Treatment System (ISTS) units possible. Wastewater generated at the proposed Soudan Heritage and Science Center will be accommodated by an existing wastewater treatment facility at the underground mine complex. Most wastewater will be generated at the campgrounds proposed in the eastern portion of LVSP. Wastewater generated at the Main Campground area is not anticipated to exceed 10,000 GPD during peak summer usage and winter wastewater generation would be limited to one operational sanitation facility serving cabin visitors and occasional campers. An additional 5,000 – 7,000 GPD of wastewater are estimated to be generated from future developments, including the Trailside Campground, Group Campground off of Lake Vermilion Park Drive, Lakeside Lodge and Adventure Play Area, and Welcome Plaza. The system of ISTS drain fields will be spread among several minor watersheds of Lake Vermilion.

Based on the St. Louis County Soil Survey (NRCS), soils of the Main Campground and the Lakeside Lodge scoping areas are largely classified as extremely limited for the establishment of drain fields (infiltration areas), while other sites where treatment would be required are classified as not limited or only moderately limited. Previous field investigations in the Main Campground area indicated that suitable areas for placement of drain fields can be located.

The proposed facilities would be fairly distant from one another, as demonstrated by the closest distance of each scoping area (ranging from 0.7- to 1.0 miles). The proposed ISTS facilities at the Main Campground are situated in two separate minor drainages along Lake Vermilion and at a distance of 1000- to 2400 feet from each other.

Additional on-site investigations will be necessary to determine suitable drain field sites for the proposed ISTS units. The requirements for designing and building the wastewater treatment systems, as defined in *Minnesota Rules*, Chapter 7080 through 7083, will be met. The regulatory requirements stipulate standards and safety measures for construction and operation, including requirements for locating a second drain field prior to construction to serve as a backup if the initial field fails to treat effluent to required standards. The MDNR, with the assistance of Minnesota Pollution Control Agency (MPCA), will fully assess the Parks' ISTS system designs to

confirm whether a Subsurface Treatment System (SSTS) permit will be needed for the Main Campground area. Water use levels will not affect nearby surface waters or established water supply systems. With the required standards and specifications written into the rules, and the dispersed nature of the proposed developments, the environmental effects of wastewater treatment are not anticipated to affect groundwater or surface water quality.

- e. **Physical Impacts to Surface Waters.** This topic is addressed in the EAW in Item No. 12 (physical impacts on water resources). The direct physical impacts to shorelands include eliminating vegetation, disturbing rooted vegetation or other aquatic vegetation, reducing the effectiveness of natural vegetative cover and the ability of soils to infiltrate precipitation by trampling and soil compaction, and increasing turbidity by disturbing shorelines or the lakebed during construction and use of the facilities. Some lakebed alterations may occur when preparing the lakeshore sites for docks, water accesses, and water recreation.

Water flow improvements may be necessary at drainage crossings; and several incidences of wetland encroachment have been identified in designs and additional minor wetland disturbance is expected during future developments. If conditions merit, additional culverts will be installed to maintain continuity of hydrologic systems at road crossings, when road improvements are undertaken. Some replacement or new installation of culverts and bridges are probable during future facility developments and upgrades, but specific sites have not been identified. Potentially small bridging structures and boardwalks for pedestrian trails would encroach into wetland zones.

Emergent vegetation (bulrush) and floating leaf vegetation (lilies) have been largely avoided during facility siting and further scrutiny would be applicable during ground-truthing and construction permitting. Depending on the size and character of the impacted area, aquatic vegetation removal may require a MDNR Aquatic Plant Management permit. The proposed dock construction would fall within the Dock Platforms general permit. The potential need for sand placement at the swim area may require a Public Waters Work permit. A MDNR Public Waters Work permit is necessary for construction of the public water access in Cable Bay. The Stuntz Bay water access improvements may require a permit, depending on the excavation and fill requirements for construction and the size specified in the designs, which have not been completed at this time. Wetland Conservation Act permits would be obtained during preparation of each of the construction phases, if wetland habitats are disturbed.

Work in Lake Vermilion and adjacent wetlands will likely require Department of the Army (DA) authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, as administered by U.S. Army Corps of Engineers (USACE). Agency coordination with USACE to gain approval for Section 404 (CWA) and Section 10 (Rivers and Harbors Act) permits prior to initiating any development that affect wetlands or navigable waters of Lake Vermilion is ongoing.

Impacts to wetlands will be avoided and minimized to the greatest extent feasible through design adjustments to camp facility configurations, road and trail developments, and other future developments. With ample suitable upland areas available for most development within the scoping areas, considerable play in the field selection of sites and placement of facilities is available. Floating boardwalks will be employed to avoid wetland disturbances along wet trail corridors. MDNR's 'Trail Planning, Design and Development Guidelines' manual (2007) is available for designing small wetland or stream crossings. Total wetland impacts for the project, including impacts from the development of future facilities, is not expected to exceed two acres. The environmental effects on wetlands will be mitigated if wetland impacts are unavoidable. The potential wetland losses will be evaluated according to Wetland Conservation Act requirements

of avoidance, minimization, and mitigation under the guidance of the local Technical Evaluation Panel. Wetland bank credits will be purchased to mitigate for wetland losses. The physical impacts to surface waters will be limited and manageable.

- f. **Aquatic and Terrestrial Invasive Species.** This topic is addressed in the EAW in Item No. 11a. Lake Vermilion contains several aquatic invasive species (AIS), including prohibited invasive species and regulated invasive species. The proposed development of a new public access, the improvement of an existing water access in Stuntz Bay, and docking and nearshore day use/primitive camping facilities would promote water-oriented recreation, which could potentially allow AIS movement to and from Lake Vermilion waters. Lake Vermilion is not designated as infested waters under *Minnesota Statutes*, Chapter 84D.03, subd. 1.

There are many other private and public water accesses on Lake Vermilion that have similar potential for introductions as the ones proposed at LV-SUMSP. Both proposed public water accesses are not likely to be the busiest points of entry to the lake for boaters, considering limited parking and fee requirements for park entry. Recently regulations for boat owners have been strengthened and the MDNR will manage access and boater usage under BMPs that promote AIS prevention. Specific rules must be met when moving docks to avoid the inadvertent transfer of aquatic invasive species from one water body to another. The MDNR would incorporate signage, inspection sites/tie-down areas, and other features and management considerations into designing the water accesses. If the water accesses become a priority for preventing the spread of AIS in the future, the MDNR would take steps to increase visitor awareness. Oversight for placement of check/wash stations is with the MDNR Watercraft Inspection Program, which determines location of the authorized stations. A wash station is still being considered at the Welcome Plaza location, as indicated in the CMP, especially if Stuntz Bay will have road access from the proposed main entrance to LV-SUMSP, where the Welcome Plaza/Contact Station is proposed.

The Watercraft Inspection Program's goal for 2013 is to complete 60,000 hours of watercraft inspection with the equivalent of 2,400 days of Level 2 watercraft inspection at watercraft accesses around the state. The Program will continue to operate regionally and grow within its newly formed management structure. As a part of the regional structure, each regional supervisor will receive some discretionary hours in addition to those designated by the tier system in order to assign work based on regional issues and feedback.

Several terrestrial invasive noxious weeds and other problematic species have been identified to occur within the LV-SUMSP. Construction, campground use and maintenance, other resource management activities, and visitor movements within the park can contribute to the spread of terrestrial invasive species and may introduce new ones to the park.

Pursuant to *Minnesota Statutes*, Section 18.78, efforts must be made by landowners to prevent the spread, maturation and dispersal of any propagating parts of noxious weeds, thereby reducing established populations and preventing their reproduction and spread. The MDNR Operational Order 113 provides guidance and directives on agency procedures for implementing site-level management to prevent or limit the introduction, establishment, and spread of both aquatic and terrestrial invasive species. The guidance and governance for applying herbicides is defined under the MDNR Operational Order 59.

Invasive species prevention measures during construction would include such activities as: assessing the project area for the presence of invasive species prior to initiating work; treatment of invasive species before work begins; locating sources of weed-free materials; cleaning equipment before it arrives and departs; and re-vegetating disturbed areas as soon as possible.

The MDNR will continue to inventory and map terrestrial invasive species locations and apply appropriate treatments on infested areas within LV-SUMSP. Integrated pest management will be used in treating known infestations of the most aggressive weeds. Depending on the site and situation, MDNR staff will use mechanical, chemical, and biological controls to limit the size and number of infestation sites. The MDNR is constantly updating its programs and making additional information/guidance available to park managers dealing with invasive species. The risk of spreading aquatic and terrestrial invasive species due to the proposed development is limited and manageable.

**g. Alteration of Vegetation and Aquatic Habitat (Disturbance, Clearing & Fragmentation).**

This topic is addressed in the EAW in Item Nos. 6c, 7, 9, 10, 11, and 20. A surface mine, and later an underground iron mine, were operated on lands north of Soudan until closure and purchase by the State for the establishment of SUMSP. Past mineral exploration is evident by the hundreds of gold and iron ore exploratory pits that dot both SUMSP and LVSP lands. Excluding about 40 acres of mine site development area, the SUMSP is mostly covered in old growth forest, generally 80 years old or more. After extensive harvesting of upland forests in the LVSP in the 1980s, the stands are currently about 30- to 35-years old, while about one-third of LVSP is covered in swamp forests, from 60- to 100-years old, and shrub or herbaceous wetlands. Numerous temporary access routes and an improved trail, which were used for conducting resource management activities, were identified when the LVSP was purchased in 2010. The nearshore habitats along the ten miles of relatively unmodified LV-SUMSP shoreline contain high-quality fish habitat for fish, referred to as significant aquatic features in the CMP.

The proposed developments would eliminate some forest vegetation and change the structure of other vegetated areas. This would lead to local increases in fragmentation and a loss of or reduction in quality of wildlife habitat and ecosystem services, which include shading that reduces solar intensity, a reduction in wind exposure, protection from erosive forces, preservation of soil fertility, maintenance of biodiversity, and purification of air and water. The SUMSP old growth forests would not be affected by the proposed developments. Collectively, the maximum extent of disturbance due to the recent construction, designed developments, and future park development within LV-SUMSP is estimated at 125 acres. The approximate 4,000-acre park area would experience a loss of two wetland acres and 32 forested acres, while the area of lawn/landscaping and impervious surfaces would increase by 26 acres. The development of shoreline facilities and surface water use resulting from park developments could damage aquatic vegetation zones and reduce the quality and extent of fish spawning areas.

Resource assessments will be conducted for all proposed development projects within LV-SUMSP. The MDNR will continue the process of avoiding high quality native plant communities, old growth, rare species and wetlands; avoiding and protecting archaeological or historic sites; preventing or minimizing the risk of the introduction or spread of invasive species; applying other BMPs to revegetate areas, prevent erosion; and following Wetland Conservation Act sequencing rules to avoid, minimize, and mitigate wetland disturbances. The dispersed nature of the developments will not necessitate clearing large forested areas. Specific recommendations for the management of the large areas of intact wetlands and forests that would remain within the LV-SUMSP are listed in the CMP. Additional restoration will be applied to close off and revegetate numerous existing trails that are no longer needed. The scenic value of the area will likely be enhanced by the additional vegetation management activities. The alteration and/or loss of vegetation and aquatic habitat would be limited and manageable.

**h. Behavior and Habitats of Wildlife including Species in Greatest Conservation Need (SGCN).** This topic is addressed in the EAW in Item No. 11a. The project area supports moose,

white tailed deer, and wolves, mainly during the winter; numerous other resident or transient species, including bear, use the LV-SUMSP. The variety of wetlands and their transitional character provides important habitats for a wide variety of plant and animal species. The East Two Rivers that drains the southern part of LV-SUMSP is a designated trout stream and Lake Vermilion contains 15 fish species popular to recreational anglers.

The temporary impacts from operating construction equipment, such as increased levels of noise and air pollution, would locally affect the behavior and movements of some species of wildlife. Construction of the roads, trails, campsites, and other infrastructure would locally increase forest fragmentation and reduce forest cover and wildlife habitat. A loss of 32 acres of forested upland and approximately two acres of wetland habitats is anticipated under a full build-out scenario. Additional wildlife disturbance and potentially local barriers to movement could result from general campground operations, the increased vehicular traffic, and increased use of the lake and shorelands for recreation. Disturbances to resting or nesting wildlife could increase, potentially causing some animals to leave the project area.

The LV-SUMSP operates under legislative directives to manage for native species and habitats and preserve and perpetuate other significant natural, scenic, scientific, and historic features. The Subsection Forest Resource Management Plans for the Border Lakes and Nashwauk Uplands subsections and the State Wildlife Action Plan will provide guidance for developing long range habitat management plans. Resource assessments will continue to be completed to identify rare features and high quality habitats and avoid sensitive resources. Specific recommendations for forest management are listed in the CMP.

The CMP identified efforts to avoid locating developments and water recreation use near identified fish spawning and other sensitive aquatic habitats. Designated boat tie-ups and docks are planned as an effort to guide boaters to less sensitive shorelands and aquatic zones. The MDNR will protect shorelines and aquatic vegetation needed for fisheries by continuing to inventory and monitor the condition of these high value areas. Areas of the lake containing high quality habitats could be designated to reduce their exposure to surface water activities. The shoreline will be monitored and appropriate measures, such as fencing, bioengineering, hardening, etc., will be implemented when erosion or loss of vegetation is excessive. The provisions of the General Construction Stormwater permit will be applicable for all proposed developments. When construction is proposed near a trout stream, additional Best Management Practices (BMPs) together with enhanced runoff controls are required for discharges to these special waters. Requirements for limiting soil erosion, permanent stormwater management systems and temperature controls are prescribed are described in Appendix A of the General Construction Stormwater permit.

Under the full build-out scenario, only four percent of the landscape would be developed. Achieving this goal will insure that large areas of the landscape and vegetation will remain intact and available to wildlife in perpetuity. The overall condition of the natural communities and nearshore habitats of LV-SUMSP for supporting fish and wildlife should remain relatively intact.

- i. Rare Features.** This topic is addressed in EAW Item No. 11b. The Minnesota Natural Heritage Information System (NHIS) database was reviewed to determine whether any rare, threatened, or endangered plant or animal species or other significant natural features were known to occur within or near the project area. This query identified an active Bald Eagle nest along the shoreline of Lake Vermilion, two state-listed mammals of special concern, and several rare plants.

Populations of the St. Lawrence grapefern found in the area of the proposed Main Campground would be protected from disturbance by maintaining a 20-foot buffer around known populations. The areas where plants are known to occur will be flagged to insure their protection during construction. In addition a population of dragonmouth orchid that occurs in nearby wetlands should not be disturbed.

The U.S. Fish and Wildlife Service, National Bald Eagle Management Guidelines (NBEMG) recommend the MDNR limit human activities within 330 feet (100 meters) of active nests. The NBEMG will be reviewed and followed during general park operations and when locating and scheduling construction in the vicinity of active nests. With these measures in place, the proposed project should not have an adverse effect on nesting eagles in the park.

It is possible that the Canada lynx uses suitable habitat in the parks and animals may occasionally pass through the project area. Development within the 4,000 acre parkland will be limited to primitive and developed campgrounds, camper cabins, trail systems, water accesses, water recreation areas, shoreline docking structures, picnic sites, and interpretive areas. The estimated extent of the developments will be less than four percent of the parkland area. Land protection and management resulting from establishing the park will have a net benefit on the Canada lynx and suitable prey habitat within the park. Benefits will accrue from improving forest health and age through long term protection and the application of prescribed fire. Outdoor recreation opportunities will draw visitors to the area, which may have an incremental disturbance on the Canada lynx. However, park users will generally be confined to roadways and trail corridors and ample cover will allow the Canada lynx to remain secluded from humans. For these reasons, the project will have a net neutral or beneficial effect on Canada lynx.

Several Significant Plant Communities, including cliff/talus areas, bedrock shrubland or crystalline outcrops, dry pine-oak woodlands, northern mesic hardwood forests and wet ash swamps, have been mapped within the two parks. Based on standard conservation ranking system, some of them are considered imperiled or vulnerable and are given a higher conservation status to encourage more focused resource management and the implementation of additional protections. The CMP provides guidance statements and recommendations intended to direct resource management activities to conserve significant features, including plant communities, and inform development decisions over the life of the plan. These recommendations are carried out by the completion of resource assessments for each development. The Lakeside Lodge would potentially affect approximately four acres of a northern mesic hardwood forest stand. The proposed development of the south campground of the Main Campground avoids most of the vulnerable plant communities, with minimal impacts expected from road construction. Only minor disturbances are expected due to remote campsite development. The proposed project has avoided to the greatest extent possible the placement of developments within areas of natural vegetation that have higher conservation status. The environmental effects on rare features will be limited and manageable.

- j. Archaeological, Architectural, and Historical Resources.** This topic is addressed in the EAW in Item No. 25. Archaeological sites and historic properties were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory in the vicinity of the proposed developments through the Minnesota State Historic Preservation Office (SHPO). Fieldwork in 2010 through 2012 in LV-SUMSP identified additional archaeological sites near or within designated development areas. The LV-SUMSP contains notable resources including two listings on the National Register of Historic Places; numerous archaeological sites spanning 7,000 years of human activity; an early American Indian stone quarry and additional sites containing

small pits used by the Ojibwe; numerous features related to gold and iron ore mining; and remnants of two historic roadways.

All areas proposed for development would be reviewed in consultation with the SHPO for determining the need for conducting on-site archaeological resource surveys. Surveys would be completed when merited. The MDNR will strive to preserve and protect cultural resources and traditional Ojibwe use areas within the LV-SUMSP. As the cultural resource inventories are completed for development of these park facilities, an attempt will be made to avoid impacting those identified cultural resources, usually by shifting development away from sites containing the resources. If impacts can't be avoided, cultural resources will be evaluated for eligibility to the National Register of Historic Places and again considered for avoidance. If the resource impacts still can't be avoided, then archaeological data recovery or some type of mitigation will be proposed and completed in consultation with interested parties including the Bois Forte Band, the SHPO, the Minnesota Indian Affairs Council, and the Office of the State Archaeologist. If particular development involves the U.S. Army Corps of Engineers or another federal agency, consultation will be conducted as per Section 106 of the National Historic Preservation Act. The archaeology, architectural, and historic resources will be closely evaluated to ensure environmental effects on their site location and quality will be limited and manageable.

- k. Traffic and Vehicle Related Air Emissions.** This topic is addressed in the EAW in Item No. 21 and Item No. 22. Visitors will arrive at the park by various modes of transportation, including boats, snowmobiles, bicycles, and vehicles. Vehicle use will be dispersed along access roads throughout the LV-SUMSP but will be more concentrated along Lake Vermilion Park Drive, which serves the proposed campground and a nearby community of cabin owners. Based on the proposed park developments and comparable state park visitor amenities and attractions, it is estimated that about 300,000 visitors per year can be expected under the development scenario proposed for LV-SUMSP. A coefficient of 2.5 passengers per vehicle is used for estimating traffic, and camping for several days is attributed a vehicle usage count each day, regardless if vehicle is used. The estimated number of total daily trips at the designed facilities is 400, while additional daily trips to future developments have not been estimated. The proposed number of parking spaces at the designed facilities would exceed 400 spaces.

The machinery and vehicles used during the construction and operation of the proposed project will result in a local increase in air emissions. Diesel fuel exhaust emissions contain pollutants such as carbon monoxide, nitrogen oxides, reactive organic gasses, sulfur dioxide, and suspended particulate matter, all of which carry associated health risks. Vehicle-related air emissions, including emissions from RV generators, are anticipated to increase as a result of the use and operation of the park facilities.

Travel corridors are sufficiently designed to manage traffic patterns efficiently along access routes to reach proposed facilities. Congestion of traffic, noise generated from HLVs, and associated dust, and exhaust fumes is rarely a concern among Minnesota State Parks, even at the busiest parks in the state system. The daily trips estimate is well below the threshold for requiring a Minnesota Department of Transportation (MnDOT) traffic impact study for an EAW. Signage for regulating vehicle speeds will be posted along access roads. With speed limits are set at 15 mph speeds within campgrounds and 30 mph on the main entrance road, little engine and tire noise will be evident, even at close range. No touring road loops are proposed within the park for highway licensed vehicles. The main access roads and internal campground roads to the water access and campsites will be paved, thus reducing the amount of fugitive dust generated compared to that experienced under current conditions. Recreational vehicle generator noise output is a top priority for the industry so the units are attractive to consumers. The generators

tend to be quieter and are often enclosed to increase noise suppression. Exhaust emissions and evaporative fumes of newer vehicles and small engines are more stringently regulated by the EPA. With the access to electrical hookups, and the economic advantage of using electricity rather than fuel, the likelihood for excessive odors and fumes resonating from these units is quite low. Only minor complaints have been registered with the park system in the past for generator operation. The operation of RV generators is not permitted at night and at other hours of the day, if visitors are disturbed by the noise or fumes. The existing vegetation provides a buffer to the nearest neighbors and helps to attenuate potential noise from construction and vehicular traffic. The separation distance between proposed facilities and the nearest receptor sites is greater than 1000 feet. Only minimal annoyance from traffic in the vicinity of the proposed facilities is anticipated for visitors and neighbors of the park. The increased traffic volume and vehicle related emissions will be limited and manageable.

- l. Noise, Odors, and Dust.** This topic is addressed in the EAW in Item No. 24. Construction activities in the project area would create some temporary noise, odors, and dust during the project development. It may be necessary to blast some areas to obtain a desirable grade for roads, campsites, and electric, water, and sewer utilities. Additional park operations and visitor traffic would locally increase the levels of noise, odors, and dust. Visitors usually generate the most noise, odors, dust, and exhaust fumes during their routine entrance to establish a camp or exit to pack up and move from a camp, resulting in door opening/closing, engine starts/warm-ups, container lids sounding, and general vehicular traffic along the access corridors.

Construction activities will be limited to normal daily work periods and could extend year-round. Blasting of bedrock during construction will be avoided by increasing the amount of base fill on roads and building sites, thereby reducing the strike distance of leveling cuts. Blasting activities would be temporary and performed in conformance with local and state requirements. Testing of sulfides will occur prior to blasting obstructions.

The configuration of the campground will help to disperse traffic and sufficient screening is available for most campsites. The existing vegetation that provides a buffer to the nearest neighbors will help diffuse potential noise during construction and park operations. During the busiest season, noise, odors, dust, and exhaust fumes could be elevated but should be tempered by the dispersed nature of the campgrounds and the general independent and usual dispersed movement of visitors. Quiet hours are established during the hours of 10:00 PM to 8:00 AM at all state park campsites.

The Minnesota Pollution Control Agency (MPCA) enforces state noise rules for campgrounds and other recreational areas (*Minnesota Rules*, Chapter 7030); and the MNDR has noise standards in place for snowmobiles, motorboats, personal watercraft and off-highway vehicles (*Minnesota Rules*, Chapters 6100 and 6102).

The character of the activities occurring in the campgrounds and the traffic volume and speed suggest minor increased levels of these pollutants. The dispersed campground sites and sanitary facilities are highly suitable for visiting campers, with minimal odors, noise, and dust that may cause infrequent and minimal annoyance within 100 feet of each campsite or sanitary facility. Most of the additional noise generated will attenuate to acceptable levels at the park boundary. Any noise or other issues related to generators can be addressed by MDNR park staff.

- m. Solid Wastes and Potential Hazardous Wastes.** This topic is addressed in the EAW in Item Nos. 19 (geologic hazards and soil conditions) and 20. The operations and park users will generate small amounts of general municipal wastes. Recycling containers will be provided at



the RV dump station/recycling center at the Main Campground and will be serviced by a local waste management company. Signage will encourage recycling of acceptable types of food and beverage containers. Other general municipal wastes will be disposed under service contract with a local garbage hauler. MDNR employs appropriate practices in state parks, such as animal proof containers, scheduled trash removal, and techniques to discourage or manage nuisance animals.

Although much of the area would be sensitive to contamination from wastes or chemicals spills, the development and operation of the proposed facilities would have limited potential of generating accidental spills or other contamination of soils and groundwater. Based on MDNR standard pollution prevention protocol, the operators of equipment and handlers of chemical products and fuels must follow Operational Order 90 regarding handling and storage of hazardous substances and hazardous wastes. The protocol regarding spills is to immediately refer to the material safety data sheets (MSDS) accompanying the hazardous substance for clean-up procedures if the spill is a small one and does not occur near water bodies. For major spills, staff is to immediately report major spills to the Regional Supervisor and State Duty Officer for notification and cleanup.

- n. **Infrastructure and Public Services.** This topic is addressed in the EAW in Item No. 28. Approximately 2.5 miles of 'Old TH 169' and one mile of a former U.S. Steel gravel road will be reconstructed. Referred to as Lake Vermilion Park Drive, this Breitung Township road, will provide ingress/egress for local residents and access to park facilities. Other road improvements in the vicinity of the LV-SUMSP have been completed, are ongoing, or are proposed in the future. The MDNR is still considering the option of connecting to Breitung's municipal water and/or sewer system.

Although not part of the proposed development, the road improvements will benefit park staff and visitors by reducing noise and dust generated and travel time to reach park facilities. With the increase in traffic and the number of individuals participating in outdoor recreation activities, it is anticipated that there will be a higher incidence of requests made for emergency response assistance. Additional park staff will be necessary to manage the park facilities.

- o. **Compatibility with Adjacent and Nearby Land Uses.** This topic is addressed in the EAW in Item No. 29. The land use within and around LV-SUMSP has historically been mining, residential, commercial, and forest management. Present zoning districts are Forest, Agricultural Management, Multiple Use Non-Shoreland, and Residential. Some campground developments on the eastern side of the LVSP occur near cabin sites along the park boundary. The magnitude of the occurrence of odors, noise, dust, or exhaust fumes, the distance of the source to the receptor site (distance of separation), the degree of buffering provided by vegetative cover and landscape, and weather conditions, including wind speed and direction, are factors that influence the dispersal of these pollutants.

The separation distance from visitor campsites or operation sites to nearby receptor sites is generally over 0.20 miles at Armstrong Bay Day Use Area, 0.30 to 0.44 miles from nearest campsites in the North Campground, from 0.45 to 0.50 mi. from wastewater treatment facility, and approximately 0.50 miles from the nearest campsite in the South Campground. The receptor site separation distance from the main traffic corridor to the campgrounds is 0.25 miles and 0.50 miles, respectively for the North and South Campgrounds.

Most ambient noises that are generated will attenuate to acceptable levels at receptor sites near the park. Any noise or other issues related to generators can be addressed by MDNR park staff. LV-SUMSP will retain the area's compatibility with adjacent and nearby land uses.

- p. Cumulative Environmental Effects.** Several road resurfacing and rehabilitation projects in the LV-SUMSP vicinity, including the reconstruction of Lake Vermilion Park Drive, have begun or are nearing the construction phase. A new segment of the Mesabi multiuse trail has been designed to generally follow Lake Vermilion Park Drive through the LVSP. Other construction stormwater permits are still active for recently completed projects nearby, including the Armstrong Bay Day Use Area construction. The potential environmental effects related to the proposed developments and associated facility operations could combine with environmental effects from other past, present, or reasonably foreseeable future projects for which a basis of expectation has been laid. Stormwater runoff, leading to erosion and reduced water quality, and loss of wetland and forested habitat are environmental effects from the project that could locally contribute to cumulative potential environmental effects.

The area of vegetation clearing of designed projects would total approximately 51 acres, much of which would occur along existing disturbed corridors. All projects will implement both temporary and permanent erosion control measures, such as silt fences, ditch check dams, seeding, mulching, and erosion control blankets. Combined wildlife habitat loss is relatively minor compared to the habitat available and types of habitat that will be affected by these projects. Much of the remaining parkland will be managed to improve its quality for sustaining wildlife in LV-SUMSP. The MDNR goals are to maintain or reestablish plant and animal life that represents pre-European settlement biotic communities and utilize resource management that will harmonize with the Park's natural systems. Actions that would meet these goals include controlling invasive species, protecting habitats from further development, applying BMPs for managing natural communities, controlling stormwater runoff, and encouraging compatible types of outdoor recreation.

Cumulative wetland loss from the proposed park development and other local governmental road improvement projects is estimated to total approximately six acres. Impacts to wetlands will be avoided and minimized to the greatest extent feasible through design adjustments to camp facility configurations, road and trail developments, and other future developments. With ample suitable upland areas available for most development within the scoping areas, considerable play in the field selection of sites and placement of facilities is available. Floating boardwalks will be employed to avoid wetland disturbances along wet trail corridors. The potential wetland losses will be evaluated according to Wetland Conservation Act requirements of avoidance, minimization, and mitigation under the guidance of the local Technical Evaluation Panel. Wetland bank credits will be purchased to mitigate for wetland losses. Work in Lake Vermilion and adjacent wetlands would likely require Department of the Army (DA) authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, as administered by U.S. Army Corps of Engineers (USACE). Coordination with USACE to gain approval for Section 404 (CWA) and Section 10 (Rivers and Harbors Act) permits necessary prior to initiating any development that affect wetlands or navigable waters of Lake Vermilion is ongoing. The cumulative environmental effects of the proposed project on the watershed, forest vegetation and wildlife resources in the area are expected to be limited and manageable.

20. The following permits, approvals, and financial assistance are needed for the project:

<u>Unit of Government</u>	<u>Type of Application</u>	<u>Status</u>
<b>State of Minnesota</b>		
MPCA	NPDES / Construction Stormwater Permit for Armstrong Bay Day Use Area	Obtained and active
	NPDES / Construction Stormwater Permit for Main Campground, McKinley Camper Cabins and other developments	To be obtained
	Section 401 Water Quality Certification	To be obtained
	State Disposal System (SDS) Permit	To be obtained as needed
MNDOT	Access Driveway Permit	To be obtained
	Temporary ROW Construction	To be obtained
MDNR	Public Waters Work Permit	To be obtained
	Wetland Conservation Act Permit	To be obtained
	MN Sustainable Building Guidelines B3	To be implemented for sanitation building and camper cabins
MDLI (Labor & Industry)	Building Permits	To be obtained as needed
MN Legislature	State bonding/funding appropriations	Ongoing
SHPO	Section 106	Ongoing
<b>U.S. Government</b>		
U.S. Army Corps of Engineers (USACE)	Section 404 Permit, Clean Water Act	To be obtained for work in wetlands and/or Lake Vermilion
	Section 10, Rivers and Harbors Act	

## CONCLUSIONS

1. The Minnesota Environmental Review Program Rules, Minnesota Rules, part 4410.1700, subparts 6 and 7 set forth the following standard and criteria, to which the effects of a project are to be compared, to determine whether it has the potential for significant environmental effects.

*In deciding whether a project has the potential for significant environmental effects, the following factors shall be considered:*

- A. *type, extent, and reversibility of environmental effects;*
- B. *cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;*
- C. *extent to which the environmental effects are subject to mitigation by ongoing regulatory authority; and*
- D. *the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.*

2. *Type, extent, and reversibility of environmental effects*

Based on the Findings of Fact above, the MDNR concludes that the following potential environmental effects, as described and discussed throughout these Findings of Fact, will be limited in extent, temporary, or reversible:

- Project Design
- Erosion and Sedimentation
- Surface Water Quality
- Groundwater (Consumption and Wastewater)
- Physical Impacts to Water Resources
- Aquatic and Terrestrial Invasive Species
- Alteration of Vegetation and Aquatic Habitat (Disturbance, Clearing & Fragmentation)
- Behavior and Habitats of Wildlife including Species in Greatest Conservation Need
- Rare Features
- Archaeological, Architectural, and Historical Resources
- Traffic and Vehicle Related Air Emissions
- Noise, Odors, and Dust
- Solid Wastes and Potential Hazardous Wastes
- Infrastructure and Public Services
- Compatibility with Adjacent and Nearby Land Uses
- Cumulative Environmental Effects

3. *Cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;*

Based on the Findings of Fact above, the MDNR concludes that cumulative potential effects from runoff, habitat loss, and wetlands, as described in Finding of Fact 19p, are not significant because: 1) the proposed project would contribute minor increases in cumulative potential effects on the project area relative to the other contributors of erosion, reduced water quality, and loss of wetland and forest habitat; 2) the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and 3) efforts have been made by the proposer to minimize project contributions.

Project related environmental effects added to existing conditions and combined with the potential future environmental effects, for which a basis of expectation has been laid, are minimal and controlled and will not result in potentially significant cumulative effects.

4. *Extent to which environmental effects are subject to mitigation by ongoing public regulatory authority.*

Based on the information in the EAW and Findings of Fact above, the MDNR has determined that the following environmental effects, as described in Finding of Fact 19, are subject to mitigation by ongoing public regulatory authority, including permits, approvals, enforcement of regulations, or other programs:

Erosion and Sedimentation, Finding of Fact 19b. (MPCA NPDES/SDS Permit: Construction Stormwater General Permit including Appendix A requirements for watersheds with trout streams).

Surface Water Quality, Finding of Fact 19c. (USACE, Section 404 Clean Water Act (CWA), Section 10 Rivers and Harbors Act (RHA); MPCA NPDES/SDS Permit: Construction Stormwater General Permit and Section 401 CWA Certification; Board of Water and Soil Resources (BWSR) Wetland Conservation Act (WCA)).

Groundwater (Consumption and Wastewater), Finding of Fact 19c. *Minnesota Rules*, Chapters 7080 through 7083)

Physical Impacts to Water Resources, Finding of Fact 19e. (MDNR Aquatic Plant Management Permit, MDNR Dock Platforms General Permit, MDNR Public Waters Work Permit; MPCA NPDES/SDS Permit: Construction Stormwater General Permit and Section 401 CWA Certification; BWSR WCA; USACE, Section 404 CWA, Section 10 RHA).

Aquatic and Terrestrial Invasive Species, Finding of Fact 19g. (*Minnesota Statutes*, section 18.78; Operational Order #113 MDNR policies for invasive species management and control, includes a listing of statutes and rules governing invasive species management; Operational Order 59 governs the MDNR's use of pesticides).

Archaeological, Architectural, and Historical Resources, Finding of Fact 19j. (Section 106 National Historic Preservation Act)

Noise, Odors, and Dust, Finding of Fact 19h. (MPCA noise standards, *Minnesota Rules* Chapter 7030 in concert with MDNR and local governmental units; *Minnesota Statutes*, section 84.789; *Minnesota Rules*, Chapters 6100 and 6102 describes noise standards for snowmobiles, motorboats, personal watercraft, and off-highway vehicles).

5. *Extent to which environmental effects can be anticipated and controlled as a result of other environmental studies undertaken by public agencies or the project proposer, including other EISs.*

Environmental effects related to park facility design, construction, maintenance, and use are addressed in MDNR's planning documents, where designs and strategies for proposed development and desired outcomes for resource conservation and management are included.

2010. The Cooperative Master Plan (CMP) for Lake Vermilion State Park and Soudan Underground Mine State Park (LV-SUMSP), 2011 – 2020,. MDNR, St. Paul, 103 p.

2007. Trail planning, design, and development guidelines, MDNR, St. Paul, 306 p.

2007. Managing Mountain Biking, IMBA's Guide to Providing Great Riding. International Mountain Bicycling Association, 256 p.

2004. Trail Solutions: IMBA's Guide to Building Sweet Singletrack. International Mountain Bicycling Association, 272 p.

The Minnesota Department of Natural Resources has fulfilled all the procedural requirements of law and rule applicable to determining the need for an environmental impact statement on the proposed Lake Vermilion - Soudan Underground Mine State Park Development project.

6. Based on considerations of the standards and criteria and factors specified in the Minnesota Environmental Review Program Rules (Minnesota Rules part 4410.1700, subpart 6 and 7) to determine whether a project has the potential for significant environmental effects, and on the Findings and Record in this matter, the MDNR determines that the proposed Lake Vermilion - Soudan Underground Mine State Park Development project does not have the potential for significant environmental effects.

## ORDER

Based on the above Findings of Fact and Conclusions:

The Minnesota Department of Natural Resources determines that an Environmental Impact Statement is not required for the Lake Vermilion - Soudan Underground Mine State Park Development, St. Louis County, Minnesota.

Any Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

Dated this 8<sup>th</sup> day of May, 2013.

**STATE OF MINNESOTA  
DEPARTMENT OF NATURAL RESOURCES**

A rectangular box containing a handwritten signature in black ink that reads "Barb Naramore".

Barb Naramore  
Assistant Commissioner