

**State of Minnesota
DEPARTMENT OF NATURAL RESOURCES
Trails & Waterways**

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Subject: *Virginia OHV Recreation Area
Vegetative Cover Type Assessment*

I. RESOURCE DESCRIPTION

Vegetative cover types on the approximately 3,500 acre Virginia Site form a rich mosaic ranging from lowland grass and brush to mature stands of aspen, pine and upland hardwoods. A summary of cover type acreage totals are listed in **Table 1** (below) and shown in **Figure 1** (attached).

Figure 1. Vegetative Cover Types – Virginia OHV Recreation Area

Cover Type	Total Acres
Northern Hardwoods	1,385
Roads / Developed / Unknown	875
Hardwoods / Pine	361
Aspen / Hdwds / Pine	270
Lowland Grass & Brush	224
Water / Marsh	181
Black Spruce	48
Ash / Lowland Hdwds / Aspen	22
Total	3,366

Source: MN DNR, Resource Assessment, Grand Rapids, MN 1999.

Note: Types were identified from aerial photos. Acreage totals are rounded and do not include 200 acre addition. Some similar types have been grouped for simplicity and clarity. All identified types, by stand, are shown in **Table 2**.

Floristic Survey Results – Virginia Site

Four separate floristic inventories have been conducted over the past two years on portions of the Virginia OHVRA site. The plant surveys were carried out under contract with qualified field botanists. A summary of their findings is listed below and copies of their reports are attached.

04/16/98 - 04/28/98 *Botrychium Search - 25 Acre Basin. Gary Walton, Botanist. Findings:*

- Six fronds of *Botrychium multifidum* identified among sparse covering of grasses, lichens, moss, goldenrod and hawkweed. No ETS species present.

11/02/98 - 11/04/98 *General Floristic Survey. Gary Walton/Deb Shubat, Botanists. Findings:*

- Three (3) habitats checked (i.e., mature forest, disturbed mineland, old homestead);
- 169 taxa recorded, no state or federally-listed species identified;
- *Botrychium multifidum* found, suggested resurvey during (both) spring & summer growing seasons;
- Comparatively little soil development as compared with gilbert basins.

08/07/99 - 08/08/99 *General Floristic Inventory – 3,325 Acre Site. Gary Walton and Deb Shubat, Consulting Botanists. Findings:*

- No state or federally-listed ETS species identified among the 318 taxa sited.
- Seven (7) distinct habitat types were identified and described on the Virginia Site. Species checklists were prepared. Types range from dense mature forest to scrub, cutover wetland and open grasses. Disturbed areas show little soil development.
- Spring inventory would be necessary to identify Spring ephemerals. Scattered groups of *Botrychium multifidum* and *virginianum* were identified on the site.

04/16/98 - 04/28/98 *General Floristic Survey of former Tailings Basins in Itasca and St. Louis Counties. Gary Walton, Field Botanist. This survey effort was not limited to the Virginia OHVRA site. Findings:*

- All six sites (275 ac total) share mining/reclamation histories similar to the Gilbert & Virginia tailings basins;
- *Botrychium rugulosum* identified at two (2) sites; (not at the Virginia Site)
- *B. simplex*, *B. multifidum*, *B. dissectum* & *B. matricarifolium* found - not listed; *B. michiganense* and *Eleocharis nitida* (Neat Spikerush) also noted - ETS species.

II. RESOURCE ISSUES & MANAGEMENT OBJECTIVES

The DNR intends to maintain and improve the health and diversity of existing vegetative cover within the statutory boundaries of the Iron Range OHVRA. This will be done through an active program of reforestation, landscape plantings, erosion controls and selective timber harvest. Vegetation management efforts should strive to maintain or improve the present cover types as they relate to development and operation of the OHV area. Longer lived, healthy tree species will enhance the site and the OHV riding experience, while providing a variety of other resource benefits.

Wildfire Protection

A primary vehicle trail traversing the OHV Area capable of handling emergency equipment will be necessary. Detailed maps for locating secondary trails will also be needed to help guide emergency crews on-site. Periodic training and briefings will be needed for DNR fire crews, Virginia Fire & Rescue Crews, and adjacent mutual aid fire departments. Prevention messages, and protocol to be followed in the event of fire emergency, should also be clearly communicated to visitors at the staging area and at other key public gathering areas.

Off-Trail Travel Issues

No off-trail or across country travel will be permitted, except in designated scramble areas. This will help preserve and protect the integrity of forest stands and the soils that support them. It will also significantly reduce the potential for soil erosion, sedimentation and surface water quality degradation.

III. IMPACT AVOIDANCE, MINIMIZATION & AVOIDANCE

Cover Type Conversion

No major permanent cover type conversions are planned for the Virginia Site. Development activities will be limited primarily to the improvement of existing roads and trails, and stabilization of soils and slopes. New trails to be developed in wooded areas will be of the minimum width possible to avoid fragmenting and converting contiguous types to recreational use. Shoreland, wetland and riparian area protections will be incorporated into all trail design plans. Vegetative plantings will also be used to help stabilize soils, control erosion, buffer noise, filter runoff and improve visual quality.

Water Quality Protection - BMP'S

Best Management Practices (or BMP's) are suggested methods that natural resource managers, loggers, contractors, and landowners can apply to minimize or prevent non-point source pollution of open water and wetlands (MFRC, 1999). Non-point source pollutants might include soil sediment, nutrients, pesticides, fuels and organic matter

that finds its way into the water. These voluntary and site-specific guidelines are aimed at protecting riparian areas, water quality, wildlife habitat, cultural resources, visual and aesthetic values of the forest. MN DNR is committed to applying BMP's on DNR-administered lands all across Minnesota.

IV. REFERENCES:

1. "Protecting Water Quality and Wetlands in Forest Management: Best Management Practices in MN", 1995, MN DNR, Division of Forestry, et al.
2. "Visual Quality Best Management Practices for Forest Management in MN", May 1994, MN DNR, Division of Forestry, et al.
3. "Sustaining Minnesota's forest Resources: Voluntary Site-Level forest Management Guidelines", February 1999, MN Forest Resource Council. 250 p.
4. Walton, G., Contract Botanist, 04/16/98 – 04/28/98, Botrychium search of 25-acre tailings basin. Findings: *B. multifidum* identified, no ETS species.
5. Walton, G. & Deb Shubat, Botanists, 11/02/98 – 11/04/98, General Floristic Survey, Findings: 169 taxa recorded, 3 habitat types checked. *B. multifidum* identified. No state or federally listed species were noted.
6. Walton, G. & Deb Shubat, Botanists, 08/07/99 – 08/08/99, General Floristic Survey, Findings: 318 taxa identified in seven different habitat types. *B. multifidum* and *B. virginianum* were identified, but no state or federally listed ETS species noted.

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