

**SEMI-ANNUAL PROGRESS REPORT**  
**TECHNICAL ASSISTANCE TO MINNESOTA'S PEAT INDUSTRY**

By

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## **Technical Assistance to Minnesota's Peat Industry**

### **Semi-Annual Progress and Financial Report for Minnesota Technology, Inc.**

**Coordinator:** Tom Malterer

**Reporting Period:** July 1, 1994 - December 31, 1994

**Objective:** To provide technical assistance to Minnesota's peat industry through research, advice on regulatory matters, administrative support, and education about Minnesota's peat industry.

**Background:** Minnesota's peat industry has been active for approximately 40 years and there are about 25 current peat producers in rural Minnesota. Most of the peat producers are represented by the Minnesota Peat Association (MPA). MPA has identified several critical issues and needs. They are: 1) issues related to surface water and air quality regulations, 2) research needs involving product diversity and peatland reclamation, and 3) greater public awareness of the peat industry and peat products. Through meetings with MPA, the following five tasks were defined for this project: 1) collect and analyze existing water quality information from the peat industry, 2) identify regulatory requirements for air quality permitting, 3) conduct reclamation research on harvested peatlands, 4) provide administrative support to MPA, and 5) develop an educational program about Minnesota's peat industry. These tasks are the basis for work conducted under this Minnesota Technology, Inc. (MTI) project.

**Summary of Progress:** The collection and analysis of existing water quality information from the peat industry is underway. Four peat operations in Minnesota are required to monitor the surface water discharged from their peat harvesting operations, as per a National Pollutant Discharge Elimination System permit issued by the Minnesota Pollution Control Agency. Some producers are also required to monitor the water quality at one or more background stations and at a downstream location.

The water quality data collected over the past 2 to 5 years for each producer, by monitoring station, was collected, sorted, and tabulated. The monitoring stations included background sites, outfalls (the discharge from each peat harvesting operation), and downstream sites. The number of stations and frequency of sampling was different for each operation. The data was graphically displayed using Quattro Pro to evaluate the following: 1) to compare discharge levels, over time, to permitted water quality limits, 2) to compare discharge levels to background levels, and 3) to observe any obvious trends in water quality due to the peat operation. In general, the graphs do not indicate any major trends regarding the impact of peat harvesting on surface water quality. Use of the existing background stations to establish strict discharge limits at each peat harvesting facility should be further evaluated, including the location of background monitoring sites and inherent variability in water quality at background locations.

The identification of regulatory requirements for air quality permitting of peat operations was done. Primarily, through the efforts of NorthWoods Organics, it was concluded that no air quality permit would be required for the peat producers. However, harvesting practices require that fugitive dust be minimized in their operations.

Research on reclamation of harvested peatlands began, in conjunction with completing the MTI project "Characterization of *Sphagnum* Top Moss: Ecology and Market," which ended on December 31, 1994. *Sphagnum* top moss research plots were established at a site near Toivola, Minnesota, to assess the effects of experimental harvesting and vegetative regeneration using moss fragments. Percent moss cover, depth to water table, and abundance of associated plants, were determined. Monitoring of this study, along with sites near Floodwood, Minnesota, and City Point, Wisconsin, will continue during the 1995 growing season. *Sphagnum* moss regeneration studies in the Natural Resources Research Institute's (NRRI) Greenhouse are scheduled to begin in early March.

Administrative support is being given to MPA. MPA promotional materials contain the name and address of the NRRI Peat and Environmental Technologies Program. Incoming inquiries about Minnesota peat products are referred to MPA members or other peat producers that can meet their need. Also, NRRI hosts MPA's monthly board meetings.

The Peat and Environmental Technologies Program is actively developing an educational program about Minnesota's peat industry. In July 1994, NRRI and MPA organized a tour of several peat operations and a tour of research being conducted at NRRI's main building and the Fens Research Facility near Zim, Minnesota. The tour was educational in nature, and it was intended for legislators and economic development organizations. NRRI and MPA also organized and held the Annual MPA Meeting at NRRI. The program was principally devoted to peat producers giving presentations on peat products and environmental issues related to peat production. Attendance was at an all-time high of approximately 50 people.