

# Marcell

## Site information:

AQS Site ID: **(none)**  
 NADP Site ID: **MN16**  
 Address: **Marcell Experimental Forest**  
 City: **Balsam Lake**  
 County: **Itasca**

Location Setting: **National Forest**  
 Latitude: **47.5311**  
 Longitude: **-93.4686**  
 Elevation: **431 m**  
 Year Established: **1978**

## Monitoring parameters:

PM <sub>2.5</sub> FRM	PM <sub>2.5</sub> Continuous	PM <sub>2.5</sub> Speciation	PM <sub>10</sub>	TSP/Metals	VOCs	Carbonyls	Carbon Monoxide	Ozone	SO <sub>2</sub>	NO <sub>x</sub>	Meteorological Data	Other*
												E

E = Existing, A = Proposed to Add, T = Proposed to Terminate  
 Sampling Frequency: 1/1 = Everyday, 1/3 = 1-in-3 day, 1/6 = 1-in-6 day  
 \*Acid and Hg Deposition



## Site description:

This NADP acid rain and mercury-monitoring site is located in Itasca County, approximately 20 miles north of Grand Rapids, in a two-acre clearing at the Marcell Experimental Forest. This area is within the Chippewa National Forest. U.S. Forest Service personnel operate and maintain this site with support from the MPCA. Land use within one mile of the site is dominated by managed forests and seasonal residences on the area lakes. Significant air emission sources are located more than 20 miles from the site, and consist of pulp and paper mills, lumber mills, and a coal-fired power plant.

## Monitoring objectives:

- Characterize precipitation chemistry to track long-term spatial and temporal trends, support research, and assess the effectiveness of State and Federal SO<sub>2</sub> and mercury emissions reduction programs.
- Demonstrate compliance with the Minnesota Wet Sulfate Deposition Standard (Minn. R. 7005.4010 to 7005.4050).

## Planned changes:

None