

## **Resources and Guidelines for Water Chemistry Monitoring**

**Q - Why is there so much emphasis on water chemistry monitoring when looking at the effects of air pollution on air quality values?**

*A - Water chemistry (lake, stream or even snow-pack) is generally one of the primary and first sensitive receptors to be measured for air pollution effects. Lake and stream chemistry, in particular, are generally considered good indicators because they integrate the effect of acid deposition across a watershed. By measuring water chemistry and comparing this to a concern threshold, you can quickly ascertain whether the resource is in jeopardy or not.*

*The air resource management program has developed a water chemistry monitoring program including protocols for sampling and data collection, chemical analysis, and data reporting linked to NRIS. It would be prudent for wilderness managers to work with air resource management specialists to implement this established program. The benefits include: uniformity in protocols and analysis of samples, an information management system that is in place, and automatic data storage and retrieval through NRIS. Air specialists then have access to the data and can report and transmit the data in an organized fashion to the air regulatory community, ensuring that the information reaches the place where regulatory changes could be made that would improve air quality and reduce acid deposition, thus protecting wilderness resources.*

**Q - Where do I find guidance on sampling water quality/chemistry for assessing the effects of acid deposition on lake and stream ecosystems?**

**Field Guide for Surface Water Sample and Data Collection.** June 2001. Air Pro-gram, USDA Forest Service. (See [Field Guide to Surface Water Sampling.pdf](#))

**Forms** associated with Air Program water monitoring:

- Surface Water Sampling Form (See Form A.doc in this Section)
- Instructions for Completing the Form (See Form B.doc in this Section)

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