

From Crater Lake

Monitoring the production, distribution and usage of water supplies throughout Crater Lake NP has recently been improved by the development of a computer model. The Water System Model was developed on the Park's Datapoint 1800 computer utilizing MULTIPLAN, a spreadsheet program that facilitates tabulation of numeric data. The program provides for

the entry of metered production and usage values on a monthly basis and automatically calculates un-metered figures based on distribution to various park and concession operated areas.

Through its capability of automatically adjusting dependent values, the Water System Model also provides a means of analyzing pumping requirements or forecasting conservation needs.

The Crater Lake Limnology research program collects approximately 400 pieces of data per week in the basic monitoring schedule. When this is combined with USGS gaging information and data from special investigations into nutrient chemistry, atmospheric inputs and ground water discharge, the data volume becomes unmanageable by conventional means. Since the program is mandated by PL-97-250 for a period of 10 years, the park quickly recognized that computerized storage, retrieval and manipulation of the information was a necessity for accurate determination of trends in Crater Lake's water quality. Utilizing park base funding and SRP funding for Lake Research, the park has:

- 1.) Purchased a 256KB, 10MB hard disk Wang Professional Computer with associated statistics, programming, communications and graphics software;
- 2.) Begun the development of telecommunications connections to the Oregon State University main frame computer for large data base manipulations; and
- 3.) Begun working with the CPSU at OSU to develop a water quality data program for the Wang that will allow input directly from the park of data that are compatible with the OSU main frame statistical analysis packages.

Additional uses of the Wang PC include a Crater Lake research bibliography, a program for prescribed fire fuel loading calculations, and word processing for Resource Management/Backcountry operations.

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