

National Capital Region

The 14 parks of the NCR are in an area marked by rapid environmental change. A systems approach — with the aid of computers — is needed for creating, storing, updating, and accessing natural and cultural resources data to assist park managers and their staffs in making appropriate decisions. With the guidance of the Science and Remote Sensing Sections of the Denver Service Center, the NCR is developing a computerized system for use in the parks and in the Regional office. Currently all data are being entered into computers in DSC for later use by the Region and parks as hardware becomes available. During FY 1984 various types of hardware including software packages with graphic and digital plotting capabilities will be examined toward developing inhouse capability by FY 1985.

As part of this program the entire Region was flown during FY 1983 to obtain color infrared photography and aircraft multispectral scanner data for all park units. Photointerpretation followed by ground truthing is being completed on a systematic basis, one park at a time, while at the same time several plots or themes involving soil groups, hydrogeology, boundaries, roads, trails, utilities and other land use patterns are being prepared in digital form.

Once basic resources are mapped and the computerized data base is created for each park, a multitude of analyses can be accomplished with a minimum of time and money. These analyses may involve integration of several themes that can be quickly viewed via computer capabilities, enhancing the decision process. Examples include fire management planning, exotic species management, vegetation management, wildlife management, wetlands management, historic scene restoration, agricultural leas-

ing programs, and changes in adjacent land use practices. The computerized approach in managing and planning park resources will immeasurably improve the NCR capabilities to respond to environmental changes.

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From Malcolm Wilbur, also at NCR, comes word of CPT Word Processing equipment installed in all parks and most offices in the Regional Directorate. Most of these CPT's have telecommunications capability, most commonly used to send messages between the parks and Regional offices.

In the evolution of NCR's telecommunications capability will be the implementation of a Regional Electronic Mail system, using the existing Servicewide Mailbox and Bulletin Board. The Mailbox is for more formal memos and may only be received by those specified by the sender. The Bulletin Board, less formal, is intended to function as a clearinghouse for questions, suggestions, and ideas on any topic the user cares to address.

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A computer based inventory and information system has been initiated for the nearly 2,000 elms which comprise the major arboreal component of the Monumental Core of Washington, D.C. Development of this system by Ecological Services Laboratory staff was spurred by the need to prepare an annual report for the city-wide Save-the-Elms taskforce and in response to the expressed need for such a system in the NCR Central resource management plan.

The system takes advantage for an existing series of grid maps utilized by the electrical utility, PEPCO. Each map represents a 1000 sq. ft. area on a scale of 1 inch to 50 feet, which permits good visual spacing of the elm trees. The tree locations were plotted in the field by starting from known points and measuring distances using a measuring wheel. After being plotted on the map, elm locations were fixed by superimposing a gridded mylar. Each tree on a given map was provided a three digit X coordinate and a three digit Y coordinate, corresponding to the map location. Data were collected on each tree including species, size, condition, location features, etc. These data, a backlog of historic data and future data on these elms will be entered in a soon to be acquired computer system using a data based management package (DBMS). The intent is to compile data and develop them into a tracking system which will yield the information needed for a more effective elm management system. This system is designed so that it can be expanded to include other components of the landscape.