TANDEM TRACKING FOR RESEARCH & RESOURCE MANAGEMENT

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....."For Natural Resources it was agreed that linkage between expenditures and priorities established in Resource Management Plans as communicated in the Natural Resources Assessment and Action Plan (NRAAP) was important, and that a strong tracking and reporting mechanism was needed."

Memorandum from the Director to Reg. Directors, Feb. 4, 1988

....."The N.P.S. should develop a binding contract between managers and researchers that outlines specific responsibilities at the outset of a research project."

Executive Summary, Vol. 2, p. 10, Research in the Parks: An assessment of needs. NPCA.

Those high priority resource management problems requiring research efforts frequently have been identified for a number of years before funds for research are available. A decade or more may elapse from the time a problem is identified until research is completed and management recommendations are made; additional delays in obtaining funding for management action can result in an escalation of the problem and an escalation of the costs to resolve it. (This is perhaps best exemplified by problems associated with feral animals and alien plants.) In the worst case scenario, needed management action is not initiated at all, and recommendations are simply relegated to the files.

The inordinate delays in resolving resource problems also leads to a lack of accountability for their resolution. Park managers identify their own priorities, but they also have other resource problems that were identified long before they arrived at the park. In fact, a Superintendent is fortunate if one or more of his top priority resource problems can be funded, studied, and acted upon during his tenure in a park. Of course the magnitude of the problem and funding required are closely related to the time required for problem resolution.

Consider the following hypothetical example of a resource problem identified by Superintendent A and staff in 1972. Funding for research becomes available in 1979 and continues through 1981, at which time management recommendations and alternatives are identified. The new Superintendent B, who arrived in 1980, follows through in 1981 with a request for funds to implement the recommendations, then transfers to another park in 1983. The new Superintendent C receives funding in 1985, but since he and the new staff have little understanding of the ramifications of the earlier problem, a decision is made to conduct a new study with a different approach. The old problem is still not resolved, but all of our jobs are perpetuated.

I would not argue that in some instances a new study might be the best management decision. My point is that irrespective of the management decision, 13 years elapsed from the time of problem identification to the time when management action could begin. With better meshing of research and resource management, action could have started four years earlier while the problem was better understood and before so many personnel changes had occurred. Although this is a hypothetical situation, it is based on a conglomerate of resource problems I am familiar with. I think it is reasonably typical of projects requiring $60,000 - 90,000 for research, and perhaps that amount or more for management. It is acknowledged that the kind of problem, its severity, its political visibility, and its priority will all affect the time schedule.

Different sources of funding for research and resource management result in separate priority schedules for each discipline. Research is funded largely through the office of the Regional Chief Scientist, and in some cases through Washington, whereas resource management is funded through parks, regional offices, DSC, Water Resource Branch, and Washington. Research projects funded by Fee Money are not considered here, since it is not known whether such funds will be available in the future. Separate priority schemes for research and resource management help promote delays in implementing the recommendations of research. Merging the two disciplines is not the answer to this problem. Each discipline must have its own priorities, but those resource management problems requiring research should be considered separately and funded separately from resource management projects that do not require research for their resolution.

Lack of accountability for using the results of research in decision making is a major concern (NPCA 1988, Investing in Park Futures). Again, delays in the funding for implementation of resource projects exacerbate the human tendency of the manager to give attention only to the most pressing issues of the day; there are more than enough of them to hold his attention. The NPCA report on Investing in Park Futures called for the development of a binding contract between managers and researchers that outlines specific responsibilities at the beginning of a research project. This is a vitally important concept, because although researchers may be well equipped to study the problem and derive reasonable management alternatives, they cannot implement those recommendations. If a resource problem is important enough to receive NPS funding for study, we are not keeping faith with the taxpayers nor with ourselves if we do not follow through with the necessary management actions. A resource problem requiring research is not resolved until both the research and the resource management have been completed.

Tandem Tracking is a conceptual framework offering a possible strategy to complete a scheduling and funding linkage between research and resource management projects. The following are conceptual underpinnings of the Tandem Tracking scheme:

1) The NPS can do a better job than it is doing in managing park resources.

2) Management actions should begin promptly following completion of research.

3) A resource problem worthy of NPS research funding cannot be considered resolved until appropriate management action is completed.

4) It is highly desirable to develop a contract between researchers and managers that details specific responsibilities of both parties.

5) Linkage between research and resource management must be strengthened by development of a functional tracking and funding scheme.

6) No manager will ever have 100% of the answers about a resource problem. Action frequently must be taken using the best information and judgment available.

Tandem Tracking of research and resource management projects can be implemented by the use of project tracking software. Several commercial programs are available; we use Protracs (Applied MicroSystems, In., P.O. Box 832, Roswell, GA 30077, 404-475-0832). This interactive project and item tracking system allows monitoring of a schedule and task activities in up to 200 separate projects. Each project can contain up to 200 tasks, with 256K computer memory, or up to 2000 tasks per project with 512K of memory. Activities are described and displayed in a spread sheet format, which can be modified as required. One of the most useful features of the program is the production of Gantt charts (Fig. 1). These are chronologically oriented, horizontal bar graphs depicting segments of a project. Each task is represented by a horizontal line in the chart. Scheduled dates and actual dates of completion are shown; changes can be made on the chart, or via the Activity Update screen. Graphic presentation of project events and deadlines allows more rapid visualization of a project's status. In the Tandem Tracking scheme, a research project would be followed immediately by resource management action.

Most resource problems requiring research have fairly predictable outcomes. Research recommendations frequently lead to recommendations for further study, need for active management, need for monitoring, or some combination of these. Thus, if a study were conducted on the status of a threatened population of animals, it is almost certain that a monitoring scheme would be recommended. The Gantt chart would indicate a year or two of study, followed by, perhaps, yearly monitoring. Yearly costs for the study and for the monitoring could be estimated and added to the chart. This would greatly facilitate planning and budget programming over a five year period. It is axiomatic that changes can be expected in any long-term programming. When changes had to be made in scheduling or funding, commensurate shifts would be made in the rest of the schedule. Some small lags still might occur between research completion and funding availability for management, but this type of tracking would provide better visibility, and accountability, of what had been accomplished and what had not.

In order to program funding for the resource management part of this scheme, a separate pool of money should be designated, either by reprogramming resource management funds or by making a request to Congress for additional funds. By no means should research funds be substituted for resource management funds, since research funds are currently inadequate to meet the needs. Conversely, if a research project ended with recommendations that another aspect of the problem be studied, the Regional Office should have the

flexibility to use the previously budgeted resource funds to fund the research, if that were deemed appropriate. The objective is not to parasitize one program to feed another, but to resolve problems more promptly and in a less expensive manner, and to provide a flexible and responsive tracking scheme that allows researchers and resource managers more opportunities to protect park resources.

The Tandem Tracking scheme, if implemented in each Region of the Park Service could dramatically reduce the time lag between research and management action. An additional benefit of the tracking system is that it would facilitate planning and budgeting while enhancing accountability for management actions. The Tandem Tracking concept is simple, straight-forward, and could be easily implemented. Funding is the immediate challenge, but this can be resolved if there is a commitment to do so. Natural resources of our national parks are the real Crown Jewels of the NPS. It is our responsibility to expedite any procedures that will enhance their protection and perpetuation.

AIRCWILD CHRONOLOGICAL ORDER 11/09/88

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DESCRIPTION	1990 J A	F B	M R	A P	M Y	J N	J L	A U	S P	O C	N V	D C

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DESCRIPTION	1991 J A	F B	M R	A P	M Y	J N	J L	A U	S P	O C	N V	D C

I---I - Scheduled date range
x===x - Actual date range
X - Actual start and end in same week