

Superintendents' Corner

Editor's Note: Dave Beal, superintendent of Great Smoky Mountains NP, welcomed attendees to the 8th Annual Scientific Research meeting at the Park's Tremont Environmental Education Center in June. His remarks deserve the wider circulation this corner affords.

I have some observations to make on the usefulness of science programs. Traditionally, research in the national parks has been done in search of knowledge for its own sake. National parks are excellent outdoor laboratories and attract researchers. Our response was opportunistic and involved finding common ground with scientists and sharing resulting information. Over the years this relationship was mutually rewarding; knowledge increased substantially and was incorporated in interpretive programs and resource management activities.

More recently, however, science has been strongly supported and resources allocated for the express purpose of developing knowledge to help resolve management problems related to planning and development, resource management, interpretive information and visitor use. For a time it appeared that some managers believed science to be the answer to all problems; dependence on such studies for planning efforts and program implementation led to long term efforts, which could, at least partially, be responsible for Secretary Watt's observation about "paralysis in analysis."

But research produces data and information, not necessarily solutions. We should not expect it to do much more. Recommendations may be made, but objections are frequently raised. Interest groups, individuals, and other levels of government have access to science information too, and occasionally retain their own "hired guns" to dispute us. When researchers or scientists with access to the same data base arrive at highly conflicting interpretations, it is wise to reflect on whether the differences are scientific or ideological.

In this new era of public involvement in government activities, we need the best science we can afford. But with or without research efforts you can depend on the following "Beal's generalization," submitted with full knowledge of Oliver Wendell Holmes caveat that "no generalization is worth a damn, including this one." It is:

Those who disagree with any significant management decision will attack it at any level possible. A "hierarchy of vulnerability" is being established.

Let me illustrate:

Situation	Attack
1. Attempts to manage intuitively or in compliance with law and policy	Accusations of authoritarian and arrogant conduct.
2. Corrective measures to remedy observed complications or effects	Insufficient data base to justify.
3. Managers have some knowledge, but seek funding for more work	Belittle efforts, stress "common knowledge," award "golden fleeces."
4. Extensive data but differing interpretations	Expand or prolong study.
5. Conclusive or absolute evidence	Political appeal - change law to make exception.

You can see it is a "no win" proposition!

Timing and procedure may be more important than scientific fact in getting acceptance of change in our society.

Increasingly, government is being subjected to a burden of proof that is impossible to properly discharge. There is not enough time, money, or expertise available to us. Additionally, most problems cannot be resolved to the satisfaction of *all* parties, and our democratic system of government supports this.

A politician can be nominated by a simple majority of his fellow party members; he can be elected by a bare majority of the voters. He and others similarly selected can pass a law with a majority vote of the legislative body. At that point the career bureaucrat takes over. He and his kind are expected to implement the new law and satisfy everyone, including those who opposed it from the beginning.

By this process we have armed the public and interest groups with an arsenal of political and legal weapons, all well intended, with which to delay, obstruct and often defeat necessary resource preservation efforts. These valuable, but frequently abused two-edged weapons include but are not limited to: Freedom of Information Act, Privacy Act, National Environmental Act, Historic Preservation Act, Endangered Species Act, Clean Air Act, and others.

Management oriented science seems to be moving in the direction of the legal system (perhaps forced to do so by the laws cited). The approach is best described as *adversary* as opposed to *referred* — and it is one in which technicalities and "winning" may be improperly substituted for the goal of a search for knowledge.

Let me offer my fervent hope that we do not let this happen! This conference is a time for constructive dialog and learning — we can all grow in our disciplines and better serve our employers as a result.