

Superintendent's Corner

Let's Bet the Ranch and Learn the Game

Winston Churchill once advised, "Play for more than you can afford to lose and you will learn the game." He wasn't talking about park management at the time, but he certainly could have been.

At Mammoth Cave we are in similar straits to those in which most national parks find themselves. We have no complete baseline inventory. We have endangered species that probably are inadequately protected. We have visitors who have an "effect" on the resource, but we're not always sure what or how much. We're a Class 1 airshed, which seems meaningless while we monitor ever-thickening "haze." In short, we — like you — have more problems than answers.

But we have learned one thing: the quantity and quality of our groundwater is absolutely integral to the ecological health of the park. And we came to that conclusion through research. We have subsurface drainage basins that bear little resemblance to surface basins. We found the old saying that the "solution to pollution is *dilution*" is far from true, for when many small sources find their way to underground watercourses, the opposite effect occurs. The sewage is carried away by water but then coalesces as various sources combine until it becomes concentrated in the underground rivers typical of karst terranes. That seems simple, until you stop to consider that the whole theory behind "percolation tests" is that those pollutants will *disperse*.

Good, solid research gave us that critical information.

As a result, Mammoth Cave has become involved in an unprecedented partnership with three nearby communities to build a *regional* sewage treatment system. The Service has contributed major funding and sits on the board of directors. Once completed, it will go a long way toward protecting the underground water on which the park and surrounding communities all are dependent. The partnership has led to working with a local area development district; involvement in the location of solid waste disposal sites in surrounding counties; cooperation with agricultural programs to study the effects of farm chemical applications on water quality; and an enhanced staff awareness that the park is not an island.

This partnership will allow sustainable economic development to occur, but development that is compatible with and cognizant of those park values that are water dependent. It's the Man and the Biosphere program in fact, not theory. We will help insure the development that does occur will neither pollute nor pose a threat to park values.

We did not look beyond park boundaries because a 'law requires us to, or because of some "good neighbor" policy. Rather, solid research gave us the right information to make proper decisions in managing park resources. We know the addition of the sewer infrastructure may allow development to which we may object in the future. But in terms of resource preservation, the tradeoff of the potential for future development that may be ecologically disastrous against the potential for increased, but environmentally compatible development, is worth our current efforts. Plus, we now have a "seat at the table" of a basic resource regulating agency.

How did all this come about? The basis is good research — done by the park's hydrogeologist, Jim Quinlan. "Applied" research in that Dr. Quinlan had the foresight to realize implications long before park management, but "basic" in the sense that it began long before the problem became apparent. This was basic research that doesn't even have a charge in our Service's enabling legislation . . . basic research that *had* to occur outside park boundaries — "had to" because that is where the *need* was to answer the research question.

But that's not the point. It seems most research we do is begun after the problem has become acute. That didn't happen in this instance. What occurred is how research in the Service should be: the potential is recognized; dollars are budgeted; top minds are put to work; results are achieved.

But there's more: management decisions must be made. You see, management at the park, region and Washington levels had to realize that research only pointed out the problem, the potential for disaster, and possible solutions.

The point is that research is not the end . . . it's the means. We can't just say "spend X percent of the budget on research" and expect current problems to disappear. In a perfect world I believe that is how we should manage parks. Any smart industry will put a percentage of its budget into "research and development." That's known as an *investment in the future*. But what about our existing problems, the ones we already have more of than answers? Given our current budgetary constraints, 5, 10 or 15 percent of our budget for research is not likely to occur when a similar case could be stated for all our other programs.

But we do have options. There is nothing that says we can't change the rules. And the rule change needed right now is one giving the National Park Service a basic research mandate. We can always point to the obvious — the water problems at Everglades or at Old Faithful. Or, we can appeal for that which *has* appeal — the wolf, bear, or bison. But in doing so, we will always insure the survival of the "mega-charismatic" to the detriment of whatever it is that *isn't*.

We need a basic research *mandate*. But when we go after it, let's go for the research *dollars* as well. That's where we can use the mega-charismatic to justify the need! The fact is, we don't have enough money to study the problems we have now. My fear is that we may get what we want, without the wherewithal to accomplish what we need. A research mandate will be just one more charge to our growing list of responsibilities and we'll end up trying to do even *more* with less.

As a superintendent, perhaps I find it easier to see the backlog in maintenance, the Interpretive Challenge's charge to "double the budget," the crumbling fabric of historic resources and lost artifacts, and the plea for just "X" percent of the budget. But the latter — the "(5, 10, or 15) percent" — could apply equally to any of the former. What that really tells me is that the Service, and the resources in its charge, are all in the same boat . . . and it's *leaking*.

The underground water of Mammoth Cave is out of sight . . . and out of mind. Were it not for basic research,

park managers' finally realizing the potential for disaster, the support of park neighbors, money to contribute to the solution, and a lot of luck, we might have a different story to tell.

It seems to me we could follow a similar scenario on a national level to identify park problems, point out the potential, garner support, and change the rules. After all, we have a leaky boat, we're loaded to the gunnels, and the wind is picking up. . . . We seem to be arguing over whose leak gets fixed first. Maybe we need a bigger boat.

Let's appeal for that which has appeal. "Mega-charismatic . . ." hey, what's the most charismatic federal agency *you* know?

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