SCIENCE AND LAND USE ON THE BOISE FRONT:
A PLACE FOR SCIENTIFIC ACTIVISM IN CITY PLANNING?

Gary Richardson, Idaho Conservation League, Boise

When I studied its history at Yale 30 years ago, I thought of science as an abstract endeavor of pure mind like ancient Greek astronomy, where, detached from the phenomena, the simplest, most elegant models and formulas were computed to explain the workings of the world. To a large extent, that is still my image of the scientist in, say, particle physics.

But, as we have been hearing throughout the day, science grapples with much more down-to-earth concepts in Idaho. Usually applied by extractive industries or watchdog agencies, science comes to Idaho to do a job -- to see that Idaho is well developed, and -- sometimes -- that it is developed well -- which are not the same, of course.

What is the responsibility of those who know (or think they know), to inform the rest of us about the consequences of our group and individual actions? What is the resource scientist's responsibility to the resources studied? Are scientific professionalism and politics compatible?

These are the sorts of questions I'd like to probe with you in the context of a few land-use management decisions and decision-making processes with which I am familiar.

I'm not quite sure why I, as a non-scientist, was invited to address a group like this. But let me tell you a little about where I'm coming from:

I've lived in the Boise foothills about half of the time I've been in this part of Idaho, which has been about a dozen years. For a couple of years a decade ago, I lived half way up Bogus Basin Road on a ranch. For the last five years, I've lived in Aldape Heights, one of Boise's first foothills subdivisions.

Even when I was living on the flatlands of Boise's North End, I spent a lot of my free time recreating on the Boise Front. Especially in Hulls Gulch at the end of 8th Street and behind Fort Boise in the Military Reserve, next to which I now live, I have truly been re-created, revitalized for my daily work -- as a public information officer for the public utilities commission and as a conservationist, trying to help keep Idaho IDAHO.

Shortly after moving into my present home, I helped form a group called Friends of Military Reserve. Dedicated to protecting and improving the 466 acres at the confluence of Cottonwood and Freestone creeks that used to belong to the US Army, we call ourselves "the eyes and ears of Boise's largest undeveloped park."

In early 1988, I was part of a group that founded the Boise Front Coalition, a group of citizens and land use agency folks concerned primarily with problems caused by careless off-road vehicle use in the foothills.

In the summer of 1989, I was asked to write a story for Boise Magazine on what's developing in the foothills. I subtitled it "PacMan Planning on the Boise Front." Shortly after the article was published a group of us confronted the Boise Planning and Zoning Commission with our concerns.

After several heated work sessions in which citizens outnumbered developers *and* commissioners, the commission scheduled a public hearing on hillside development that was attended by more than 200. Some 40 people testified at that February 1990 hearing, which lasted two nights.

Following the hearing, the city council appointed a 33-member citizens committee to review the foothills ordinances and develop a master plan for the Boise Front. I serve on that committee as the Idaho Conservation League representative and will soon become one of its three co-chairs.

My work on this committee has revealed a largely uninformed approach to these issues. Not much scientific thought has been applied to issues of development on the Boise Front (or to urban development anywhere in the county for that matter) since the mid-1970s and the demise of the Ada Council of Governments (ACOG).

Under ACOG, several studies assessed the geological and ecological bases for urban planning in the county in general and the foothills specifically. The 1973 ACOG study *Ada County Ecology* found that "The granitic material associated with the Boise Front, in combination with the steep topography and climatic situation, form an extremely unstable environment for development activities."

Kenneth Holenbaugh, in *The Evaluation of Geologic Processes in the Boise Foothills that May Be Hazardous to Urban Development*, came to similar conclusions:

> For local landslides a slope of 14 degrees [25 percent] or greater seem[s] to be critical. Intensive development of steep slopes may lead to landsliding because of the change imposed on the natural conditions. Lawn sprinkling can increase annual infiltration by 50 percent causing ground saturation which is a major causal factor in slope failure.

Holenbaugh's findings have never been successfully discredited but seem largely to be ignored. As a result, there have been several slope and structural failures -- in the Highlands, in Foothills East and in Aldape Heights. Even my own home, when I bought it, had a mysterious crack in a foundation wall.

Draft revisions to the hillside development ordinances drawn up by engineers in the city's public works department a couple years ago actually proposed changing from 25 percent (Holenbaugh's danger point) to 50 percent the slope at which developers must demonstrate that they can overcome hazards to life, safety, and property.

Our foothills committee rejected that amendment as well as the accompanying suggestion that foothills reviews be moved from the planning department to public works.

In 1975, ACOG published a background report entitled *Land: Nature's Design for the Future*, whose very title betrays the influence of Ian McHarg's excellent study, *Design with Nature*. Allow me to quote from the ACOG report:

> The term 'highest and best use' no longer refers only to the marketability of a piece of land. It should more appropriately refer to its 'carrying capacity' or capability of accommodating urban development, agriculture, open space or other uses with a minimum of adverse environmental degradation. Recent court decisions have, in effect, mandated the need to have development regulations relate directly to these land capabilities rather than to arbitrary standards based upon vague community values or attitudes. Furthermore, Idaho Code requires that zoning be in compliance with a comprehensive plan; thus the need to have comprehensive plans reflect more clearly the land capability and limitations comes clearly into view.

That same year, 1975, Idaho enacted its Local Planning Act, which I am told is one of the best pieces of planning legislation in the country. It was, by the way, the first legislative success of the Idaho Conservation League -- passed over the strong objection of the development community -- and has met with repeated attempts at repeal.

That attempts at repeal have died down in recent years is less a proof of the law's success than testament to the fact that its execution is only as effective as the planning that informs it. In other words, Idaho's Local Planning Act has posed little threat to developers because it has been poorly implemented.

Let me cite some of the purposes of the law and some of the components it requires in the comprehensive plans that all local governments must develop:

> **67-6502. Purpose:**
>
> (d) To ensure that the important environmental features of the state and localities are protected and enhanced.
>
> ***
>
> (g) To avoid undue concentration of population and overcrowding of land.
>
> (h) To ensure that the development on land is commensurate with the physical characteristics of the land.
>
> (i) To protect life and property in areas subject to natural hazards and disasters.
>
> (j) To protect fish, wildlife, and recreation resources.
>
> (k) To avoid undue water and air pollution.

67-6508. Planning duties:

(c) Land Use -- An analysis of natural land types, existing land covers and uses, and the intrinsic suitability of lands for uses such as agriculture, forestry, mineral exploration and extraction, preservation, recreation, housing commerce, industry, and public facilities. A map shall be prepared indicating suitable projected land uses for the jurisdiction.

(d) Natural Resource -- An analysis of the uses of rivers and other waters, forests, range, soils, harbors, fisheries, wildlife, minerals, thermal waters, beaches, watersheds, and shorelines.

(e) Hazardous Areas -- An analysis of known hazards as may result from susceptibility to surface ruptures from faulting, ground shaking, ground failure, landslides or mudslides; avalanche hazards resulting from development in the known or probable path of snowslides and avalanches, and floodplain hazards.

***

(h) Recreation -- An analysis showing a system of recreation areas, including parks, parkways, trailways, river bank greenbelts, beaches, playgrounds, and other recreation areas and programs.

(i) Special Areas or Sites -- An analysis of areas, sites, or structures of historical, archeological, architectural, ecological, wildlife, or scenic significance.

The plans containing these analyses were to have been completed by July 1978 -- more than a dozen years ago. But I can tell you that in areas such as the Boise Front, they have yet to be accomplished.

It seems to me that there is a massive amount of scientific work to be done if the Boise Front is to be developed *well*. This morning, I asked John Freemuth, who spoke about ecosystem management, how science might be injected into the very political business of making land use decisions in such places as the foothills.

He mentioned focusing media attention on scientific information about watersheds, slope stability, etc. He mentioned challenging decisions makers to take into account our concerns.

I would like to expand on those thoughts:

There are a number of citizens groups grappling with foothills planning and development issues. We need your help.

We need people like Dora Gallegos to come to our meetings and educate us about foothills geology and its implications for development.

Recently, the Land and Water Fund (LAW Fund), a group headquartered in Boulder, opened a branch here in Boise to provide legal assistance to environmental efforts. They have, for instance provided an attorney to work on the suit to protect Box Canyon in the Hagerman Valley reach of the Snake River from development.

I wonder if a similar mechanism might not be developed to facilitate the infusion of science into some of our efforts.

If you've read my abstract, you know that one of my theses here is that in many cases, the injection of science into local public policy debates is the privilege of those who can afford it and is, therefore, very selective and not particularly disinterested.

Certainly we citizen activists will not be much happier than the developers when science goes against us, but I'm willing to take my chances.

Along these lines, I'd like to read something I picked out of a recent newsletter of the Idaho chapter of the American Fisheries Society. Cleve Steward, Chair of the group's Chinook Committee wrote:

> The best way to guard against wrong decisions is to make sure sufficient information is available to make the right decision. But information is rarely unequivocal, even within the scientific community, and it must be carefully interpreted and argued before being accepted. Decisions based on sound information should be supported; otherwise, they should be challenged. By participating in this process, we are able to promote informed and reasoned actions that can be defended on biological, ethical, and even economic grounds.
>
> The advocate's role should not be left to the recreationist, no matter how dedicated that person is, nor should it be solely the responsibility of biologists and managers that deal with controversial issues as part of their jobs. It is important that all fisheries professionals involve themselves and speak out as the need arises, so that good environmental stewardship prevails.

Let me mention a few other ways I think scientists can plug into some to the important development decisions being made on the Boise Front:

Under the aegis of the soil conservation district, a CRMP (Coordinated Resource Management Planning) process is underway for the western portion of the foothills. Several years ago, the CRMP for the eastern portion was completed, resulting in most of that area being protected as deer winter range. The CRMP study is an exhaustive (and exhausting) process, which needs the latest and best scientific input possible.

The City of Boise is currently forming a Heritage Preservation Committee, which will identify and map those lands the city should acquire over the next six years for a wide range of purposes. While not mandated, this committee is provided for in the Local Planning Act. I understand that city council has set aside $50,000 for this effort.

Soon, a study of the foothills gulches will be undertaken, so that they may be brought under the city's Boise River and Stream Management Ordinance. The effort to do that was stymied recently by developers and their attorneys claiming an inadequate technical basis and in the city's comprehensive plan. Needless to say, geological, hydrological, and biological information will be key to developing a good understanding of what is needed in that ordinance.

Since 1905, Boise has experienced 24 earthquakes and at least two major foothills gulch floods, the most recent of which brought mud several feet deep into the east end of downtown. The Challis quake caused structural damage to city hall and undoubtedly other buildings in town (maybe even my foundation wall).

There is a paucity of scientific information available to decisions makers about these phenomena and their effects on development. What are the carrying capacities of the foothills? How much residential development can they take before they are not longer fit for habitation?

Many of the answers to these questions are aesthetic, but they have important scientific and technical elements. We need your help if we are to avoid the mistakes that have been made elsewhere in the name of "economic reality."