KEYNOTE ADDRESS--THOUGHTS ON THE FUTURE OF VERTEBRATE PEST MANAGEMENT

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I greatly appreciated the invitation to attend this Conference, and to share some thoughts on the future of vertebrate pest management in the form of a Keynote Address.

In making the presentation, I will dwell mostly on a single document. This document is entitled "Strategic Plan for Animal Damage Control," and became available in December 1989, from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS).

The document is one of the products from a strategic planning process that began in APHIS about 2 years ago, and continues today. The process began at the highest level of organization of APHIS itself, and that effort resulted in its own document. The process then continued with each of the eleven organizational units of APHIS. The federal operational Animal Damage Control (ADC) program is one of those units, and the referenced document is the product of their strategic planning effort. The Denver Wildlife Research Center (DWRC), familiar to many of you as the major federal research program in animal damage control, is part of the Science and Technology (S&T) unit of APHIS, and not organizationally part of ADC. Just like ADC, S&T also completed strategic planning, the product of which was a similar-looking document. In my opinion, the document is a good one and will serve a useful function for the S&T unit. However, it is also more broadly oriented than vertebrate pest management alone, and, because the ADC document is more tightly focused and can serve as well as a basis for discussion of the federal research program in vertebrate pest management, I have chosen to highlight the ADC document. I will digress from its contents slightly only in discussing the research aspects of vertebrate pest management.

I point attention to this document for four reasons. Firstly, ADC is the only major federal program that is focused exclusively on vertebrate pest management. Further, ADC is tied on cooperative bases with many state, county, and local public programs in vertebrate pest management. The program also influences and is influenced by private industry. The program also influences and is influenced by many other organizations, public and private, ranging broadly from the Defenders of Wildlife to the American Sheep Industry and the American Farm Bureau, who have strong interest in pest management in agriculture, or public health and safety. Therefore, the directions that this federal ADC program takes over the next 3 to 5 years will strongly influence the whole arena of vertebrate pest management in the United States.

Secondly, the referenced document is the first I have seen that clearly and completely describes in overview, plans for the future of this major federal vertebrate pest management program. I ascribe even further importance to the document because: (1) it incorporated the collective expertise and wisdom of the federal ADC's top management team; (2) it was developed under the auspices of a professional facilitator trained in strategic planning; and, (3) it was reviewed and commented on by many others, including such other APHIS entities as the DWRC, ADC staff, and cooperators and collaborators with the ADC program. Therefore, the authors of the document have benefited from a broad range of views and perspectives on vertebrate pest management.

Thirdly, the document is the present blueprint that is already guiding the ADC program in its major actions, and, subject to annual review and reconsideration, will continue to guide the program for the next 3 to 5 years. Therefore, if my role as a Keynote Speaker here today is to point toward some pearl of wisdom that will more than any other notion explainable by me within the remaining portion of one-half an hour have a major, positive influence on vertebrate pest management over the next 3 to 5 years, I point to this document and encourage you to read it.

Fourthly, the document itself is devoted exclusively to the federal ADC program, and carries primarily the operational perspective at that. However, the strengths, weaknesses, and opportunities that were analyzed and that led to the definition of six issues as strategic and critical for the ADC program also portray concerns common to many of us who hold strong interest in the broader aspects of vertebrate pest management.

I will read first the way the ADC leadership sees the role of the federal ADC program in the form of a Mission Statement. I will then describe and discuss briefly each of the six critical strategic issues.

Here is the ADC program's Mission Statement as described on page 3 of the Strategic Plan for Animal Damage Control:

> "ADC provides leadership in the science and practice of wildlife damage control to protect America's agricultural, industrial, and natural resources and to safeguard public safety.
>
> "This is accomplished through:
> - cooperative wildlife damage control programs
> - collection, evaluation, and dissemination of information
> - training of wildlife management professionals
> - providing data and a source for limited-use pesticides
> - informing and educating the public
> - development and improvement of control methods
>
> "The ADC mission is accomplished by a commitment to:
> - environmental sensitivity
> - cooperator participation
> - employee growth and development
> - equal opportunity in employment and service delivery

- scientific, technical, and managerial excellence
- professional credibility in the field of wildlife management"

I am certain that many of you sitting in this room who are associated perhaps with a pest control company, or perhaps a firm that contracts to provide data on vertebrate pest management, see the value in such a Mission Statement and its associated commitments. Perhaps a portion or all of it could contribute to your own such Statement.

Now, I would like to explore the six critical strategic issues. The first is entitled "Effective Management Practices" and is quoted as described on page 4 of the ADC document.

> "ADC lacks an effective system of management practices which has resulted in a diminishing ability to meet program needs, insufficient resources, inadequate support and guidance of operations, and lack of strategic direction."

In addressing this issue, the ADC program felt that it needed to develop systems for virtually every aspect of management, including: strategic and operational planning; organization, delegation, and communication of work assignments; evaluation of resource needs; definition and enforcement of policies associated with program delivery; monitoring results, and impacts of program delivery; and, evaluation of data from monitoring and the redirection of efforts as required.

The second issue is entitled "Control Techniques" and is quoted as described also on page 4.

> "Control tools and techniques have not been adequately maintained or improved, and new methods which are more effective and [more] socially defensible have not been developed, thereby limiting ADC's ability to control wildlife damage."

In discussing the basis for this issue, the ADC program pointed out that there were many examples of impacts on existing control techniques. For example, the 1988 ban on steel leghold traps in an agricultural county in California, the 1988 decision by a Minnesota court to force the U.S. Environmental Protection Agency (EPA) to cancel above-ground uses of strychnine, and the proposed as well as actual cancellation by EPA of some uses of strychnine and Compound 1080 for failure to comply with "data call-ins" all influence availability of control tools for the ADC program. Similarly, recent amendments to the Federal Insecticide, Fungicide and Rodenticide Act to include reregistration at 9-year intervals as well as registration and maintenance fees have also influenced the availability of such tools. So has increasing public concern regarding use of pesticides and traps.

For the ADC program, the Pocatello Supply Depot, its management and other resource needs, as well as how it is perceived by private industry, all bear importantly on the availability of tools and techniques for operational use.

So does research greatly influence the availability of program tools. In the perception of the ADC program, insufficient resources were historically available for applied research in vertebrate pest management so that, with its transfer to USDA, APHIS has had to pay a "sizable mortgage" to attempt to bring the federal research program back up to speed. This factor, in concert with FIFRA amendments and such related regulatory actions as Good Laboratory Practice guidelines and the Animal Welfare Act, have "taken a disproportionate share of resources from progressive research." (document page 4). We who lead the federal research program in vertebrate pest management could not agree more! How does the ADC operational program see its future, and the role of research in it? Again, I quote from the ADC strategic plan, page 5.

> "ADC's future is largely dependent on our ability to place major emphasis on research prioritization and funding. The results must focus on (1) diversity of effective tools and techniques, (2) social acceptance, (3) discovery research that involves the new sciences, and (4) a concern for the well-being of wildlife population and animal welfare."

And here I diverge from the ADC strategic plan for a few minutes. The present status of the Denver Wildlife Research Center, the major federal research program in vertebrate pest management, stands in stark contrast to the above statement of research focus. As one example, the first statement of focus, "on diversity of effective tools and techniques," is contradicted by the ADC operational program priorities, which for this fiscal year is limited to "maintaining existing pesticide registrations only." By that priority, even scientific studies that will lead to improvements and continued or future availability of snares, traps, single dose baits, and bird stupefying agents such as alpha-chloralose, are too esoteric to warrant operating dollars for research. Likewise, the second statement of focus, "social acceptance," also appears contradicted because pesticides are among the least socially accepted of control tools. The third statement of focus, on "discovery research that involves the new sciences," is also completely contradicted, and the fourth statement, "a concern for the well-being of wildlife populations and animal welfare," would also seem contradicted by the operational program's decision to limit research support to maintaining existing pesticides.

If judged by today's ADC program priorities, therefore, one might question the integrity of the group who prepared the strategic document. I believe in the sincerity of this group, however. I believe that the real question is how to get the ADC research program into the position where it can have a strong discovery research component without giving up today's tools. At present, the Denver Wildlife Research Center is a public needs (i.e., ADC program and cooperators) driven program focused exclusively on methods development. Needed is a technology driven component that is discovery-oriented and focused exclusively on the latest technology and its potential applications to vertebrate pest management. The methods development component has specialized requirements in both the laboratory and the field, is in place now, and should be the core of the federal research program. I believe, however, that surrounding that core should be a strong neocortex of discovery research, technology-driven and based on cooperative ties with universities. Perhaps such cooperative ties could be established through a cooperative unit system between APHIS and universities, and that is analogous to that used by FWS for other aspects of wildlife management. In this regard also, I believe the CSRS grant program in vertebrate pest management, recently proposed by Dr. Walter Howard, warrants careful consideration. And now back to the ADC strategic plan.

The third issue is entitled "Management of Capital Assets" and is quoted as described on page 5:

> "Since being transferred to the APHIS in FY 1986, ADC has not systematically reinvested in major capital assets, ultimately resulting in reducing program delivery and safety."

This strategic issue is both straightforward and critical. Examples cited by the program include an aged fleet of vehicles (i.e., average of 5 years old and 72,000 miles; although 59% were eligible for replacement in FY 1989, only about 17% were replaced) and radios (i.e., little progress has been made to date to be off of FWS frequencies by FY 1991, now only 6 months away). As described in the Strategic Plan, the program leadership felt that two changes were prerequisite to solving this issue: (1) charging the management concept of reducing capital assets first to accommodate budget reduction; and (2) developing a system for ongoing management, maintenance, and replacement of all capital assets.

The fourth issue is entitled "Professional Credibility of Wildlife Damage Management" and is quoted as described also on page 5:

> "Wildlife damage management has not been appropriately recognized as a critical component of wildlife management, resulting in a lack of professional and public awareness of the need for wildlife damage control as well as a lack of professional credibility of the ADC program."

In the Strategic Plan, ADC leadership describes factors that they believe have contributed to this issue: (1) sometimes less-than-satisfactory interaction between ADC personnel and other wildlife professionals and the public; (2) escalating demands for wildlife management professionals who resolve man-wildlife conflicts with minimal environmental effects and maximal public acceptance; (3) urban culture with changing attitudes toward wildlife management, animal welfare, and animal rights; (4) limited participation by ADC personnel in professional wildlife organizations; and (5) failure by wildlife profession and academic institutions to adequately train wildlife management personnel in the science of wildlife damage management.

The ADC Strategic Plan calls for positive relations with all segments of the concerned public community and the whole of the wildlife profession; for close work with academic institutions for curricula in vertebrate pest management, for cooperative education programs, and, for scientific measurements of wildlife damage and the effects of control.

The fifth issue is entitled "Resource and Program Data Needs." In the ADC document it is described on page 6 as follows:

> "Critical data are lacking on wildlife damage and control actions, benefits and impacts. These data deficiencies result in low levels of public understanding and acceptance, limit ADC program management and direction, and hamper protection of resources of concern."

The Strategic Plan describes two critical needs for this information. The information, for example on economic significance of damage, could lead to a better public understanding of the need for vertebrate pest management. Secondly, knowledge of vertebrate damage and its distribution could lead to better distribution of human and other resources allocated for control. The Plan calls for a nationwide ADC information system in conjunction with surveys, studies, and other systems supported by private enterprise, universities, and other government agencies.

The sixth and final issue is entitled "Human Resource Management System," and is described as follows on page 7:

> "ADC has not adequately recruited and developed personnel at all levels, resulting in critical shortages of personnel fully trained to meet program demands."

This issue is also straightforward and critical. The document cites the following examples: (1) 51% of 37 State Directors will be eligible to retire within 5 years; (2) 4 (57%) of grade 14-15 managers will also be eligible to retire within 5 years; (3) the Supervisory Training Program, a quick-fix to bring on new supervisors is already being outpaced by attrition; (4) women and minorities are not representative of the civilian labor force; and (5) even the full benefits as such investments as procurement of computers are not fully realized because of the need for more training.

The ADC strategic plan includes the initiation of programs to prepare individuals for supervisory roles, including ADC specialists; clarification of career development paths; and training for the improved efficiency of administrative staff.

Do these issues sound somewhat negative? Let me quote Bobby Acord, Acting Deputy Administrator for the federal ADC program, page 2:

> "The nature of the process forced us to focus on our most difficult problems. Our descriptions of Critical Strategic Issues may seem negative and self-deprecating, but we believe the Multiyear Action Plan sections in which solutions were proposed are positive and encouraging."

Regardless, this document represents the broadest and the clearest road map that I have seen on where the federal ADC program is heading over the next 3 to 5 years. The issues, then, that will receive the programs primary attention are:

- Effective Management Practices
- Control Techniques
- Management of Capital Assets
- Professional Credibility of Wildlife Damage Management
- Resource and Program Data Needs
- Human Resource Management System

I believe that at least some of these issues are also of importance to each of you in this room. I wanted to make you aware of both the concerns of as well as the actions planned by the ADC program as expressed in this strategic document. I encourage you to read it; comment on it; use it for your own needs; and, participate in some aspect of it.

That's my Keynote Address.