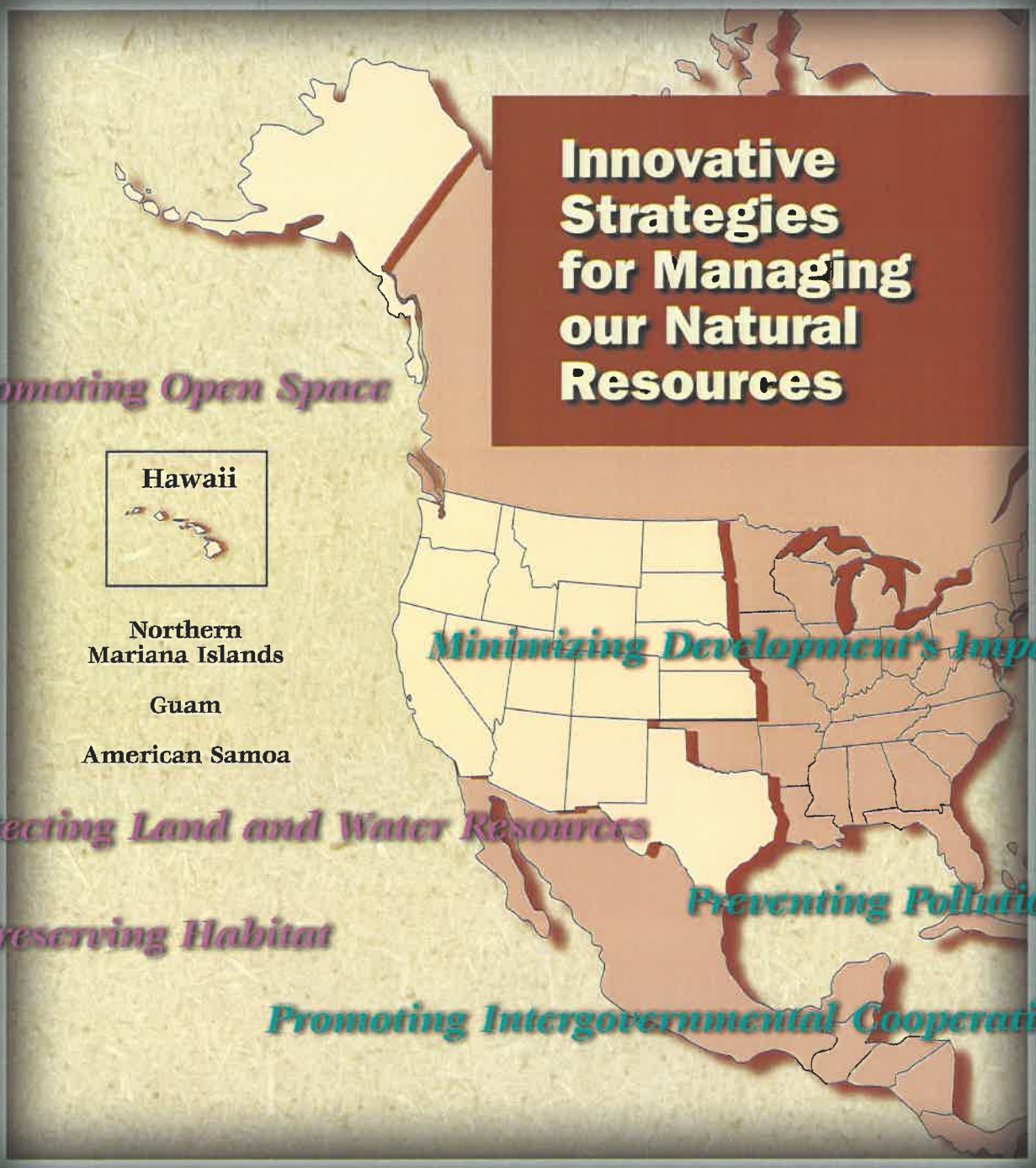
WESTERN GOVERNORS' ASSOCIATION
PARTNERS FOR TOMORROW'S WEST



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PARTNERS FOR TOMORROW'S WEST

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ACKNOWLEDGMENTS

This report was made possible by the dedication and time governors' staff and state agency staff devoted to writing up these case studies. The case studies were collected over the course of six months and were edited by Western Governors' Association staff. Any errors or inaccuracies are WGA's responsibility solely. The report would not have been possible without the talented assistance of Sharon Dawn who was responsible for the formatting and graphics presentation.

PREFACE

Alaska Governor Tony Knowles, WGA Chairman, asked his colleagues to submit short summaries of initiatives in their states that exemplify the theme *Partners for Tomorrow's West* and utilize new approaches to protecting the environment and preserving natural resources. This report is primarily a compilation of the summaries submitted by governors' offices or by their state agencies.

The case studies contained in this report illustrate that there is a growing and welcome reliance on partnerships and collaboration in the West. They demonstrate in whole, or in part, the following features: a sound, collaborative science basis; inclusive forums for developing policy options; voluntary, private-sector initiative; local community and citizen involvement in developing and implementing strategies; and intergovernmental and public-private sector integration of efforts.

Based upon the examples in this report and many other local, state, and regional efforts that are producing real results in communities, watersheds, and agencies, the governors have identified a set of principles that, if implemented broadly, could become a better way to a cleaner future for the West. They have codified the principles in WGA Resolution 98-001, *Principles for Environmental Management in the West.* The governors are seeking comments on the principles and will be identifying other partnerships and innovative approaches like those contained in this report that can serve as models for the region.

INTRODUCTION

Partners for Tomorrow's West

Partnerships are a critical ingredient for making good public policy in the West. That's why I chose the theme of "Partners for Tomorrow's West" for my year as chairman of WGA. Governors have no more important job than maintaining a healthy, growing economy. But this doesn't happen in a vacuum. Many diverse groups, interests and individuals call the West home. So policies and initiatives can be successful only by bringing these diverse groups together and working with citizens, industry and organizations, as partners.

Independence, self-reliance, common sense, and individuality are values which describe the West. Maintaining these values while bringing people together is our challenge. The old model of polarizing constituencies is ineffective. The best way we as governors have found to resolve issues is through balanced, open and inclusive approaches where interested parties and stakeholders are brought together to formulate policies. Collaborative approaches result in greater satisfaction among the parties, broader public support, and lasting productive working relationships.

Successful partnering is a two-way street. Everyone gives a little to reap the rewards; winner-take-all doesn't work. Alaska may be typical of the challenges faced in many western states, where vocal environmental groups are often at odds with major mining, oil, timber and fishing companies. Yet, we realize it's impossible to have a healthy environment without a strong economy. If you protect the watershed and keep the rivers clean, you'll have more salmon and more jobs in the fishing and tourism industries. If the forests are managed for all of the users and the timber is utilized for its highest value, we will have more jobs per thousand board feet and more feet will walk across forested trails. If you ensure safe transportation of oil without mishaps and minimize the impact on the habitat, more oil will make it to market.

Meaningful partnering is the key to success in a global economy and a world growing smaller through technology. Understanding and fulfilling partnerships have made the Western Governors' Association one of the premier, progressive groups of leaders in this country.

This book highlights several important partnerships that are breaking the trail toward tomorrow's West. They demonstrate that partnerships, not confrontation and polarization, are the most effective way to implement public policy. They illustrate that western states have learned that a healthy economy and a healthy environment go hand in hand.

Tony Knowles
Governor of Alaska
Chairman, Western Governors' Association

PARTNERS PRESERVING HABITAT AND SPECIES

California Natural Community Conservation Planning Program

"The nation's biggest and boldest attempt to reconcile urban development with the natural landscape."

New York Times,
February 27, 1996

Overview

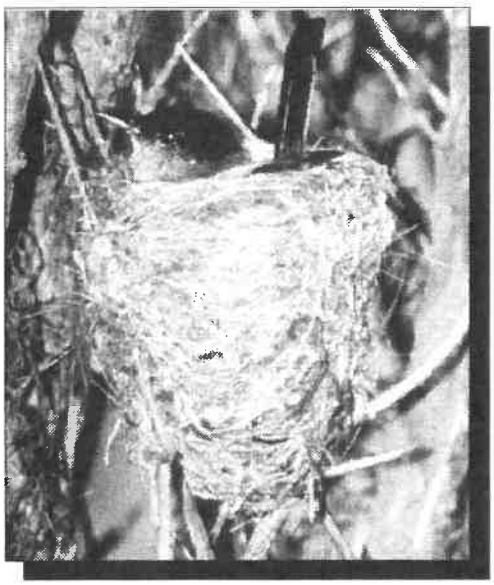
Governor Pete Wilson's Natural Community Conservation Planning (NCCP) program is an unprecedented effort among government, landowners, and environmental interests to protect entire ecosystems and habitats while allowing compatible growth and economic development to occur.

The Natural Community Conservation Planning program is the nation's most advanced and comprehensive effort to reconcile the competing demands of resource conservation and economic development. The NCCP program is an innovative, cooperative, and fully voluntary approach that conserves multiple species and their habitat while still allowing for the utilization of private land.

The NCCP program represents a fundamental shift from the traditionally single-species, piecemeal methods of conservation to a broader and more integrated approach centered on the preservation of entire habitat and their resident species. The NCCP program prevents the conflict with economic development that often results from the listing of species under the Endangered Species Act (ESA) by employing regional ecosystem planning.

The NCCP program attempts to protect wildlife and habitat before it becomes so fragmented and degraded by development or other uses that an ESA listing is required.

The initial application of the NCCP program is in the 6,000 square mile coastal sage scrub habitat of Southern California that is home to the California gnatcatcher and more than 90 potentially threatened or endangered species. This much fragmented habitat encompasses large parts of San Diego, Riverside and Orange counties, in addition to parts of Los Angeles and San Bernardino counties -- a region that is home to nearly half of the State's population.



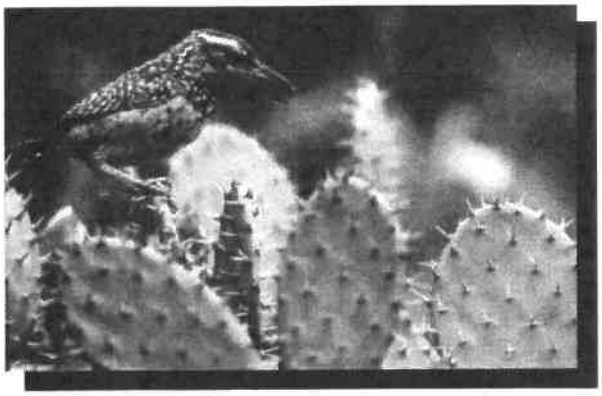
California Gnatcatcher

Highlights and Recent Accomplishments of the NCCP

- In San Diego County, three major plans covering more than 1.3 million acres are being implemented, including the 580,000-acre Multiple Species Conservation Program (MSCP), which was finalized earlier this year by the County Board of Supervisors and the San Diego City Council.

- In Riverside County, a 30-year agreement was signed by various local, state, and federal agencies to implement the Habitat Conservation Plan, which created a reserve of more than 43,000 acres designed to protect the endangered Stephen's Kangaroo Rat. This plan will be combined with other ongoing efforts to develop multiple species plans for an area of more than 260,000 acres.

- In Orange County, two NCCP plans totaling more than 340,000 acres and involving 13 cities and five major landowners are being implemented. These plans will protect the habitats of at least 42 species and provide a long-term solution for their continued existence.



Coastal Cactus Wren

- In Los Angeles County, the City of Rancho Palos Verdes has signed a planning agreement that will address most of the coastal sage scrub habitat on the Palos Verdes Peninsula. A final plan is anticipated to be completed in 1998.

Since the program's inception, local governments have spent nearly $25 million on NCCP plan design and implementation, and the private sector has contributed more than $20 million. The 1997-98 budget signed by Governor Pete Wilson contained $9 million for NCCP land acquisition and program support.

Obstacles and Evaluation

The obstacles to the state's ambitious strategy are formidable. Because biodiversity represents for many a completely new approach and orientation, some constituencies, institutions, and individuals are very wary of it. Environmental interests worry that the NCCP may compromise away some of the environmental protection inherent in existing governmental plans, policies, and regulations. Industry and private property rights groups express concerns that the opposite might happen, that actions taken by the agencies involved would reduce their choices in managing their lands.

At an institutional level, obstacles stem from the complexity of government. The federal, state, and local governments are made up of many agencies with highly specific functions and often conflicting regulatory or management jurisdiction over ecosystems. Each department is bound by its own enabling legislation, regulations, mission, and traditions. Trying to get such entities to work together, where there is little or no tradition of doing so, is difficult.

Biodiversity conservation aspires to establish a new tradition of intergovernmental and interagency cooperation and to have each agency see itself as a part of an entire, coordinated system. Plans and actions of natural resource agencies must be as integrated as the processes of nature itself if there is to be hope in succeeding in conserving biodiversity while allowing growth and maintaining a healthy economy.

Advice and Conclusion

Several pieces of advice can be distilled from both California's experience with the Natural Communities Conservation Planning program. Broadly they are:

1. Strive for inclusiveness and consensus in promoting bioregional strategies and approaches. While the U.S. Supreme Court has not yet addressed the potential conflict between private property rights and the conservation of biological diversity, it has recognized the legitimacy of both. Thus, cooperation with and collaboration between traditional adversaries must be sought. Landowners, conservationists, government at all levels, and others must be included in the development of planning strategies.

2. Efforts must be taken to avoid the appearance - and the reality - that a "top-down" approach to biodiversity conservation is being pursued. Ultimately, the desire and the push for a new, improved, coordinated management of natural resources must come from the people of a particular region, not merely from government "bureaucrats."

3. Recognize that government agency participants are both enabled and constrained by the laws they operate under. This may mean that, despite their best intentions, agencies may be limited in the extent to which they may be able to cooperate as a result of strict legal mandates that force them to take potentially significant unilateral actions.

4. Pull out the carrot, not the stick. Make it clear to landowners, local government, and community organizations that public agencies have significant positive resources to bring to bear on biodiversity conservation problems - e.g., money, staff, and expertise - and not just restrictive sanctions.

5. The need for scientific data increases exponentially when the focus moves from individual species to habitat, ecosystem, or bioregion. Be prepared for substantially greater information needs and for the time and expense necessary to gather data. In California, top academic biologists have been enlisted to consult with state and federal agencies. The state has also sought and received valuable input from field biologists that advise landowners and environmental groups.

6. Breaking new scientific and policy frontiers creates controversy. Taxonomists use relatively well accepted rules for defining species. But the definition of habitats or ecosystems, and the location of their boundaries, often cannot be settled by well accepted scientific rules. Be prepared for controversy about any definition and boundary that is chosen. When attempting to protect a multitude of species, it is unreasonable to expect the same degree of precision that is possible in protecting just one.

7. Create new roles for the federal government. By itself, the federal government cannot rescue endangered species or conserve biological diversity and foster compatible economic development. It must find new ways to provide incentives and assistance to states and localities. It must experiment with preventive approaches to wildlife conservation. The federal agencies cannot do it alone; but similarly, state and local

governments cannot do it without creative support and assistance from Washington.

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Nevada Natural Heritage Program

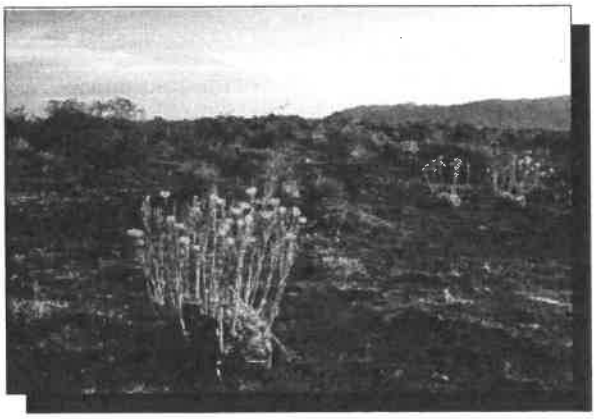
Since 1995, the Nevada Natural Heritage Program (NNHP) has been incorporated into the Department of Conservation and Natural Resources. NNHP systematically assimilates information on sensitive flora and fauna across the state with an emphasis on occurrences, distributions, and current population status. These data with supportive biological findings, land ownerships, and supportive references are readily available for planners involved with both development and conservation efforts.

Nevada has one of the fastest growing populations in the nation and, with less rainfall than any other state, there are inevitable clashes between development and conservation. Nevada is also one of the top states in the nation having the greatest biological diversity, and ranks high in having a large number of extinct and vulnerable species. NNHP has been coordinating with state and federal offices, conservation groups, and private landowners in addressing issues relating to vulnerable plants and animals.

Goal of NNHP

The goal of NNHP is to help establish appropriate habitat protection for Nevada's most vulnerable species in order to avoid any additional losses and to preclude the need to list a species under the provisions of the federal Endangered Species Act.

The program biennially sets priorities for research and planning for sensitive forms by ranking species and their appropriate conservation sites on the basis of global rarity, rapidly declining populations, vulnerability, and management needs. Some extremely rare forms are not as vulnerable as they may be in a protected area and may not be subject to disturbance. Some rare and vulnerable forms may have adequate habitat management in place.



Las Vegas Bearpoppy

By addressing these highest priority sites, several potential conflicts have been averted over the past few years:

PARTNERS PRESERVING HABITAT AND SPECIES

- A Conservation Agreement for the Spring Mountains National Recreation Area has just been completed for the 316,000-acre home of some 67 endemic, rare, or sensitive species. The Spring Mountains jut to almost 12,000 feet, 9,000 feet above the desert, just west of Las Vegas.

- Local residents, and biologists from state, federal, and conservation agencies have implemented protection and renovation of wetlands in Oasis Valley, habitat for the endemic Amargosa toad, an endemic minnow and snail, and several rare plants.

- Grimes vetchling, a showy member of the pea family, was known from a single location in the Independence Mountains until 1992. Surveys by horseback and helicopter turned up additional populations in remote areas, safe from mining operations threatening the original plants.

- The Tahoe yellowcress occurs only in coarse sands edging the beaches of Lake Tahoe. The plant is now gaining ground with shoreline protection and reintroductions in both California and Nevada.

Amargosa Toad

- In Clark County a multi-species habitat conservation plan is being developed to accommodate the economic and social needs in Las Vegas Valley along with protection for some 224 sensitive Mohave Desert species and their habitats. This innovative and broadly cooperative plan is now in draft form.

NNHP feels that significant progress has been made in the protection of sensitive species and their habitats throughout the state of Nevada over the past several years. Increasingly, cooperative efforts and viable alternatives are being prescribed before emergencies and federal listings dictate more contentious and restrictive directions for the state's conservation future.

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Texas Voluntary Private Conservation Programs

More than 97 percent of Texas land is privately owned. Texas recognizes that those closest to the land are the most effective stewards of that land. However, many landowners have been afraid to make any changes to their land, including changes that would enhance habitat and wildlife, for fear of running afoul of the federal Endangered Species Act and its implementation.

To reduce these fears and provide greater protection and certainty for landowners, state agencies, particularly the Texas Parks and Wildlife Department, with the support and direct participation of Texas landowners, have

entered into several conservation agreements with the United States Fish and Wildlife Service. Unfortunately, most of those conservation agreements have not worked, for various judicial and federal administrative reasons.

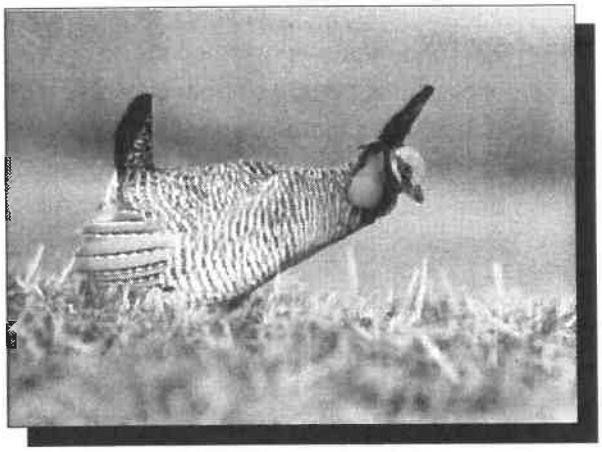
The Texas Parks and Wildlife Department has established a set of programs to help private landowners enhance habitat and wildlife opportunities. Through stronger ties between private landowners and key state agencies, programs that encourage rather than discourage habitat management, and cooperation instead of confrontation, Texas hopes to show that private land management is an appropriate model to ensure habitat and wildlife conservation. The TPWD has initiated several programs to assist private landowners with land management.

Land Management Programs

- Private Lands Enhancement Program
  Under this program, the TPWD provides technical assistance to persons desiring to include wildlife management considerations in present or future land use practices. This service is strictly advisory and is provided without charge to the cooperating land managers. Recommendations, provided as written wildlife management plans, are developed based on the landowner's goals and objectives, with careful consideration of wildlife and habitat diversity. Wildlife management plans developed with a TPWD biologist are strictly confidential by state law, and may be shared only by the landowner or with the landowner's written permission.

  By providing expertise to land managers, the TPWD hopes to slow or reverse the decline in the quantity of the State's wildlife habitat and improve the quality of remaining habitat. TPWD biologists promote management practices that will maximize wildlife potential, prevent waste or depletion of resources, provide aesthetic and economic benefits to the landowner, and offer increased opportunity for public use and enjoyment of renewable natural resources.

- Texas Landowner Incentive Program
  In 1996, the TPWD initiated the first government program in the nation focusing exclusively on encouraging landowners to help conserve rare plants and animals on their property. This non-regulatory approach to endangered species conservation targets landowners willing to be creative in protecting and even increasing rare species on their land while still engaging in such traditional land management as farming and ranching.



Lesser Prairie Chicken

The state is seeking private funds for this initiative. Already funded projects include rare plant propagation in the Hill Country and habitat restoration for the lesser prairie chicken in the Panhandle, for the Ocelot in the Lower Rio Grande Valley, and for the Attwater's Prairie Chicken in the coastal plains.

- Lone Star Land Steward Awards
  This program recognizes and honors private landowners for their accomplishments in habitat management and wildlife conservation. The program is designed to educate landowners and encourage participation in habitat conservation, and particularly to highlight the efforts of private landowners for the urban public and recognize the true conservation heroes.

  The awards are given to landowners from the state's 10 different ecological regions and to a statewide winner. The governor often gives the keynote address at the awards ceremonies to encourage these efforts.

Together, these programs are resulting in increased habitat and wildlife conservation across the state and a better understanding by landowners of the opportunities and approaches needed for conservation, all without mandates, confrontation, or lawsuits.

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Oregon Plan for Salmon and Watersheds

Mission

"To restore our native fish populations --- and the aquatics systems that support them -- to productive and sustainable levels that will provide substantial environmental, cultural, and economic benefits."

Reason

Native populations of salmon, steelhead, and trout have declined, some dramatically, in Oregon during the century and a half since the region has been exposed to industrial-scale development. Many populations of salmon, steelhead, and trout are extinct today; other populations are at risk of extinction, and relatively few are in a condition that may be considered healthy.

The Oregon Plan is an unprecedented effort to turn the tide on the salmon and steelhead decline. No single action by government or Oregon citizens will restore salmon and trout to a viable role in Oregon's culture and economy, but a cooperative effort, sustained over time, may succeed.

Different groups or Evolutionary Significant Units (ESU) of fish are evaluated for whether their stock status warrants a federal listing under the Endangered Species Act. Several ESUs cross state boundaries. Currently there are a number of groups of fish that have been listed. However, there has been one ESU of coho and two ESUs of steelhead that were not listed. On these, National Marine Fisheries Service (NMFS) deferred to Oregon under the Oregon Plan. (This decision has since been

challenged in court and the listing status is now in question.) Oregon is hoping to retain its authority over management of Oregon's natural resources through development and implementation of the Oregon Plan. The goal of the Oregon Plan is not merely to prevent the extinction of coho salmon in the coastal region, but to restore populations of salmon, steelhead, and cutthroat trout to levels that are considered healthy.

The Beginning of the Oregon Plan

Governor John Kitzhaber announced the planning effort to conserve and restore Oregon's coastal salmon and steelhead in October 1995. He recognized that the role that private lands play in their recovery calls for a significantly different approach to restoration than had been used for other species both in terms of how government functions, as well as the role of landowners and the need for their willing participation.

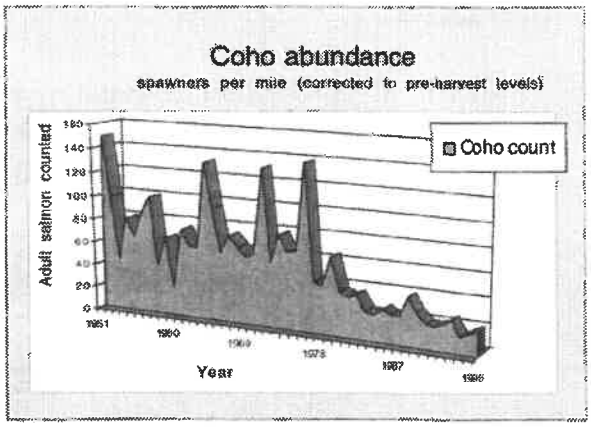
One of his first steps was to establish a team approach for developing an action plan that would lead to restoring the health of coastal salmon and trout populations. Another early step was to require directors of key state agencies to meet with the governor biweekly, reporting progress and resolving interagency obstacles.

An outreach team began to work with key agency stakeholders, asking for their advice and ideas. A Science Team was established to work on technical issues. Agencies worked with stakeholders and NMFS staff to develop action plans designed to address management practices and environmental factors that were affecting salmon production. All of this occurred on a fast track and a draft was submitted to NMFS in August 1996.

Overview of the Plan

The Plan consists of four essential elements:

- Coordinated Agency Programs
  Many state and federal agencies administer laws, policies, and management programs that have an impact on salmon. These agencies are responsible for fishery harvest management, production of hatchery fish, water quality, water quantity, and a wide variety of habitat protection, alteration, and restoration activities. Previously, agencies conducted business more independently.



Salmon, whose life cycle crosses the jurisdictional boundaries of all of these agencies, suffered. Salmon suffered because they were affected by the actions regulated, guided or conducted by all the agencies, but no single agency was responsible for comprehensive, life-cycle management. Under this plan, all government agencies that impact salmon are accountable for coordinated programs in a manner that is consistent with conservation and restoration efforts.

- Community-based Action
  Government, alone, cannot conserve and restore salmon across the landscape. The plan recognizes that actions to conserve and restore salmon must be worked out by communities and landowners, with local knowledge of problems and ownership in solutions. Watershed councils, soil and water conservation districts, and other grassroots efforts provide forums for problem solving, coordination and implementation of restoration projects.

  Government programs are providing regulatory and technical support to these efforts, but the bulk of the work to conserve and restore watersheds is and will be done by local people with technical and funding support often provided by government. Outreach and information exchange are also fundamental parts of community-based action. People must understand the needs of salmon in order to make informed decisions about how to make changes to their way of life that will accommodate the needs of the fish.

- Monitoring
  The monitoring program combines an annual appraisal of work accomplished and results achieved. Work plans are being used to determine whether agencies meet their goals as promised. Biological and physical sampling is being conducted to determine whether salmon habitats and populations respond as expected to conservation and restoration efforts.

- Appropriate Corrective Measures
  The plan includes an explicit process for learning from experience, discussing alternative approaches, and making changes to current programs. The plan emphasizes improving compliance with existing environmental laws rather than arbitrarily establishing new protective laws.

  Compliance will be achieved through a combination of education and prioritized enforcement of laws that are expected to yield the greatest benefits for salmon.

In summary, the Oregon Plan involves the following: (1) coordination of effort by all parties, (2) development of action plans with relevance and ownership at the local level, (3) monitoring progress, and (4) making appropriate corrective changes in the future. Oregon's Plan is an adaptive strategy that will change and improve over time based on constructive suggestions from the public, key partners, scientific reviewers, and the Legislature. Over the long run, the plan will continue to change as agency measures are implemented, local support is built, voluntary commitments are made, and monitoring provides feedback on the success of those efforts.

The Oregon Approach

In contrast to many endangered species recovery plans that rely primarily on regulatory approaches, this plan represents a new way of restoring natural systems—the "Oregon Approach." This approach meshes scientifically sound actions with local watershed-based public support. It relies on teamwork among the various levels of government and is dependent on monitoring and accountability for results.

Strong enforcement of existing laws and regulations are a foundation upon which voluntary and cooperative actions can be built. This is seen as the only approach—one that will generate the support and commitment across all sectors, from

landowners and industry to government agencies—to restore salmon and their natural systems. This plan requires an unprecedented level of cooperation and coordination among local, state, and federal agencies—one that is already emerging.

Obstacles to Success of the Plan

- Funding
  While the Legislature appropriated $30 million of new funds, added to a base of nearly $100 million, adequate funding is needed to support agency efforts and for projects that restore Oregon's salmon and trout populations for years to come. There are many statewide issues competing for those resources. Restoration efforts must make the most effective use of public and private funds that are available.

- Institutional Barriers
  Many state, federal and local governments involved in natural resource management have a history of not communicating or fully cooperating with each other on salmon conservation. Time, public support, and continued leadership is needed to eliminate these institutional barriers.

- Monitoring Program
  A comprehensive, multi-disciplinary monitoring program is crucial to Oregon's ability to conserve and restore salmon and trout populations while this is being built and added on to. No such program has been established or funded in the past. Clear leadership and secure funding is needed for an effective monitoring program.

- Public Expectations for a Quick-Fix
  The complexity of the "salmon crisis" does not lead to easy or quick solutions even though the public may expect instant results. Outreach and education efforts are needed to create a reasonable level of optimism that success is possible in the long term.

- An Adverse Ocean Environment
  The ocean off the Oregon coast is extremely variable in its suitability for coho salmon. No one can predict the cycles of good vs. poor ocean conditions. Presently, improvements can only be made to freshwater and estuarine habitats that support salmon so populations can persist until more favorable ocean conditions return.

- Unintended Consequences of Listing
  A listing of coho in Oregon under the federal Endangered Species Act could result in unintended consequences such as withdrawal of key voluntary measures and a loss of public participation in restoration and enhancement efforts.

What to Expect Next

Development and implementation of the Oregon Plan only marks the beginning of a process to conserve and restore salmon and trout populations in Oregon. The plan must be a dynamic process that is modified and improved as new information becomes available. The focus of the plan will expand to provide more detail for cutthroat trout, chum salmon, and chinook salmon. Eventually, the work of the Oregon Plan should be expanded to encompass the entire state.

Conclusion

Oregon faces significant challenges in managing the state's natural resources. These challenges include restoring native fish populations and improving water quality in

rivers and streams. How these challenges are met will determine if Oregonians will continue to manage their future, or if control will be turned over to the federal government.

The Oregon Plan represents a portion of the "Oregon Approach" that focuses on results through innovation and grassroots involvement for natural resource management. This summary represents the continuing evolution of the Oregon Approach to collaborative problem solving. The plan demonstrates Oregon's spirit of natural resource citizenship coupled with local involvement and government partnerships to tackle natural resource issues using teamwork and cooperation.

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Guam Coral Reef Initiative

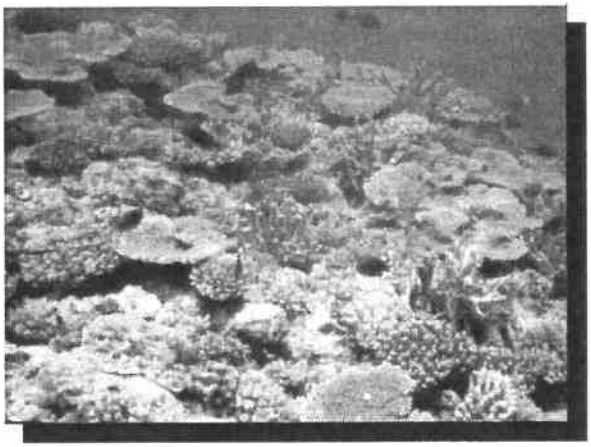
An Environment in Danger

Guam is a relatively small and fragile island in the Western Pacific. Only 121 square miles in size, its limestone plateau lands in the northern half and volcanic mountains in the southern half are protected by a series of fringing, barrier and patch reefs with foundations constructed by living animals -- corals. For the first few thousand years of Guam's human habitation, the immediate and cumulative impacts of her residents were invisible. Even those impacts brought to the island by outside forces were impossible to define.

That certainly changed on December 8, 1941, when this American Flag Island was subjected to the crust of metal and stink of gasoline on the reefs as invading troops from Japan began their 926-day occupation, forever ending Guam's isolation from the environmental impacts of the modern world.

The liberation of Guam in 1944, and the subsequent military development which followed, encouraged a system of land-use which began the process of profound change. Road development and construction, hillside clearing, and the modification of soil to impervious pavement, all began to affect the corals. But it was the boom in tourism, igniting Guam's economy between 1984 and 1992, which allowed the damage to increase from arithmetic to geometric progressions.

Beginning in the late 1980s, the signs of damage to coral reefs were beginning to be noticed not only by the environmental movement, but also citizens as well. Reefs, which had provided bountiful fisheries for thousands of years, were now in danger of resource depletion. Brown and reddish plumes began to replace the turquoise waters, and clarity went from more than 100 feet to less than 10 feet after a rain. The sand and coral rubble of the protected bays and lagoons changes to a sticky, almost muddy consistency in some areas. Guam had gone from a military economy to a robust, multi-billion dollar per year tourism and service economy almost overnight, and now the price was beginning to be felt.



Healthy Coral Reef Area on Guam

The entirety of Guam's economy, quality of life, and community sustainability depends upon the viability of Guam's coral reefs. The corals build a barrier against an ocean trying to overtop the island from all sides. They can diminish the power of a 20-foot storm surge which too often accompanies the frequent typhoons and supertyphoons. They provide habitat and food for hundreds of varieties of fishes, edible gastropods and other foodstuffs. They are the very playground and attraction for nearly all of Guam's 1.3 million annual visitors. They provide construction material. They contain the potential for medical breakthroughs, and the realized ability to aid in bone reconstruction and replacement surgery. The benefits of healthy coral reefs reach far beyond the shores of

Guam, and touch lives in Kansas, Oklahoma, Minnesota, and Washington State.

The damage brought on by an uncontrolled building boom resulted in a diminution of living coral cover from 60 percent to 28 percent in some reef areas. In 1994, Guam began the process of developing a strategy to holistically manage the problems which plagued the reefs, and that process would lead to the Guam Coral Reef Initiative.

Initiative Goals

The goals of the initiative are as simple as the problem is complex, with four legs on which to build success.

- Partnerships
  The initiative will build partnerships, ensuring that the full range of concerned parties is involved in the management of Guam's coral reef ecosystem. The primary objective is to foster innovative cross-disciplinary approaches to sustainable management of reef ecosystems through the development of cooperative relationships among the various stakeholders.
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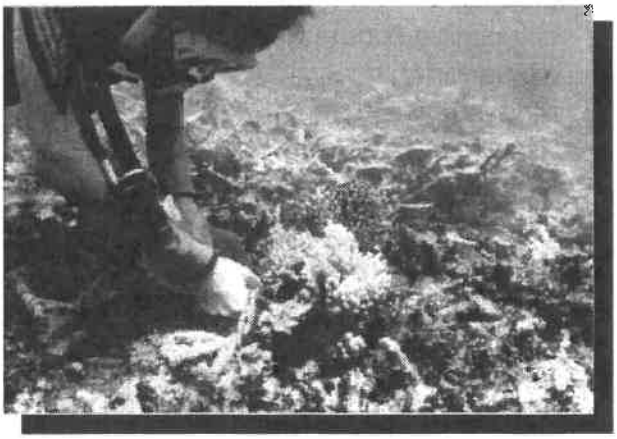

Researcher from the Univ. of Guam's Marine Lab Replanting Coral

- Coordination
  The initiative will strive to ensure that existing and new activities among all players are fully coordinated so that resources are used as effectively as possible to preserve, protect, and manage the coral reef ecosystem of Guam.

- Integration
  The initiative endeavors to ensure that all critical ecosystem components and linkages are taken into account, and that all elements of the problems and their solutions, including research, assessment, monitoring and management will be considered in a comprehensive manner.

- Capacity Building
  The initiative seeks to strengthen local technical and human resources through cooperative education, training and infrastructure development. Particular attention will be given to the stimulation and enhancement of community level efforts aimed at the sustainable management of coral reef ecosystems and sustainable use of coral reef resources.

In employing these strategies, the initiative will undertake the full range of activities needed for the conservation and sustainable use of these ecosystems. These activities include research, mapping and resource assessment, monitoring, management for sustainable use (including protection and integrated coastal zone management, environmental damage assessment and restoration, and capacity building).

History of the Initiative Goals

Experts within the government of Guam began working on an initiative initially as a response to a draft of the U.S. Coral Reef Initiative, which had been drafted by East

Coast interests, who ignored and/or excluded the U.S. Pacific, their corals, and their rights. In helping the departments of Interior and Commerce redraft the U.S. initiative, the need for local action became evident and the governor of Guam created the Guam Coral Reef Coordinating Committee. Composed of representatives from the University of Guam Marine Laboratory, Guam Environmental Protection Agency, Department of Agriculture and Guam Coastal Management Program, the committee began coordinating information and projects regarding Guam's reefs and their status.

After actively participating in the completion of the U.S. Coral Reef Initiative, the development and adoption of the U.S. Pacific Islands Coral Reef Initiative Work Program, and the International Coral Reef Initiative, and at the direction of the Governor of Guam, the Guam Coral Reef Coordinating Committee drafted the Guam Coral Reef Initiative for Governor Carl T.C. Gutierrez, who adopted the initiative through Executive Order 97-10 on May 12, 1997.

How the Initiative Works

The initiative sets out a series of policy statements and directions for action and creates two bodies responsible for activities related to coral reefs: the Guam Coral Reef Initiative Coordinating Committee (CRICC) and the Guam Coral Reef Initiative Policy Advisory Committee (CRIPAC).

The coordinating committee, comprises representatives from the Guam Coastal Management Program, Guam Environmental Protection Agency, University of Guam Marine Laboratory and Department of Agriculture (Division of Aquatic and Wildlife Resources). It has day-to-day responsibility over issues involving coral reefs and reef resources. Committee members also serve as staff to the policy advisory committee. The coordinating committee develops draft legislation, executive orders and policy statements either at the direction of the CRIPAC, or independently for submittal to the CRIPAC. They also provide direction for on-going programs related to coral reefs, and investigate funding sources for coral reef related research, management, or capacity building.

The Policy Advisory Committee, appointed by the governor of Guam comprises the CRICC, the governor's representative acting as chairperson, the administrator of the Guam Coastal Management Program acting as vice-chair, the directors of Bureau of Planning, Department of Parks and Recreation, Department of Commerce and Guam Visitor's Bureau; private sector representative for reef fisheries, the maritime industry, the diving industry, and recreational water craft industry; Kids for Coral (an educational non-governmental organization); the news media; and a representative from the Guam Legislature (appointed by the speaker of the legislature).

The advisory committee is charged with directing the long-term activities of the coordinating committee, developing policy recommendations for the governor, drafting proposed legislation and executive orders related to the initiative, and suggesting directions for research and capacity building. All draft legislation or rules related to coral reefs or their resources is submitted through the advisory committee for its review and comment, prior to submittal to the governor or legislature for action.

The initiative is a demonstration of participatory democracy in environmental stewardship. It is based on the premise that

when a community is allowed to participate as a full partner in the development of its environmental management program, it will understand and support not only conservation, but also the concepts of sustainable use as well.

Obstacles Overcome

The effort to undertake the initial research and to educate both the public and decision-makers on the need to protect the reefs and reef resources, including the mangroves and sea grass beds, was lengthy and often viewed (particularly by developers and resource users) as an obstacle to a growing economy. But the effort was undertaken in the same, holistic fashion as is called for in the initiative itself, as evidenced by the simultaneous adoption of legislation which created marine preserves on Guam. These are areas which reflect not only the importance given the reef areas by the Guam Legislature and Governor Gutierrez, but also will serve as vehicles for carrying out the mandates of the initiative for research and education.

It took many years and substantial man-hours to create the preserves. For its effort that raised environmental awareness, *Kids for Coral* received both a Presidential Award and a United Nations Award.

One potential -- "turf" problems between science, management, and economic interests -- was overcome because of long-term relationships developed by agencies in Guam. Agencies have been ready to work as a single interest on this issue for some time, offering support for one another, rather than fostering jealousies.

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Colorado Resource Advisory Councils

Grazing on Public Lands in Colorado

Livestock grazing on the public lands has been occurring since the Western frontier was settled. Modern livestock grazing on the public lands began with the passage of the Taylor Grazing Act of 1934. Livestock grazing is now governed by the Taylor Grazing Act, the Federal Land Policy and Management Act, the National Forest Management Act, the Public Rangelands Improvements Act, and the regulations promulgated to implement these laws. About 2,200 public land livestock grazing operations hold permits on 7 million acres in Colorado.

PARTNERS PROTECTING LAND AND WATER RESOURCES

The controversy surrounding raising grazing fees and the proper management and administration of livestock grazing on the public lands has polarized the West for decades. The ranching and environmental communities have very different views for how public lands should be used and the effect of livestock grazing on the health and sustainability of public rangelands. The environmental community has been advocating reforms while the ranching community has resisted changes as they believe that reforms would put ranchers out of business.

The environmental community believes:

- allowing too much livestock grazing on public lands has damaged the carrying capacity of some lands;
- overgrazing has harmed wildlife habitat and has harmed sensitive riparian ecosystems and other aquatic resources (e.g. streambanks, fish populations, riverine habitat, erosion, sediment loading, etc.); and
- grazing operations can impact other uses of the public lands such as recreation, wildlife, and other multiple use values.

The ranching community believes:

- they are good stewards of public lands;
- they are closest to the resources and have a direct interest in making sure the land remains productive for the long term;
- ranching helps the economies of rural Western communities;
- ranching can be administered properly so as to reduce environmental impacts;
- grazing fees should not be raised as the quality of the range is not comparable to private land and they are not afforded the same amenities as private rangelands;
- reforms will make it harder and will provide disincentives to graze livestock on the public lands; and
- livestock grazing provides open space, habitat and is a part of the Western culture and heritage.

Given the strongly held views on both sides of the debate, the challenge was to bring both sides together to identify common goals, find common ground and reach consensus on recommendations to reform grazing activities. The effort was to reconcile the polarized positions of both sides, help resolve the controversy, improve public rangelands, and provide a stable grazing management program for grazing operations.

Colorado Rangeland

Governor Romer brought the two sides together in 1993 to find common ground. He asked members of the environmental community, the ranching community and local officials to meet with him in his office to identify the issues, develop an agenda,

define an outcome, and begin the discussions. Each side was asked to identify those who could bring a spirit of collaboration and problem solving to the table.

Governor Romer facilitated the discussions and acted as chair for the duration of each all day session. He kept the group focused on the issues, on developing a realistic set of recommendations, and on proposing a new model for administering grazing on public lands in Colorado.

A Colorado Rangeland Reform Proposal was submitted on January 20, 1994 to the U.S. Department of Interior by Governor Romer and the Colorado Rangeland Reform Working Group. Some of the recommendations of the group were incorporated into the U.S. Interior's new grazing and rangeland reform regulations which were promulgated on February 22, 1995, and became effective on August 21, 1995; other recommendations of the group were modified by Interior in the new regulations.

The recommendations from Governor Romer and the rangeland reform group are effective because they were developed with the involvement and participation of both sides of the debate: the environmental and ranching communities. Each discussed the other side's ideas, and the resulting consensus document was a product that could achieve support from both communities. In addition, the group proposed a model for enhanced community involvement.

The focus of the group's recommendations was to improve the ability for all interests to have a say in how grazing is to be administered and to empower local decision makers in the way that public lands are managed. This was done through the creation of local Resources Advisory Councils, composed of representatives of all interests, and the councils were given the ability to make recommendations on grazing management and other uses of the public lands.

Solutions to polarized environmental and public land issues work best when they can be developed collaboratively and can allow those closest to the resource to have a say in how those resources are managed. Programs work best when they include all interests and give decision makers the tools to solve problems on the ground. Top-down approaches or dictates for Washington or distant regulators are resented and create an atmosphere of polarizing rhetoric.

The group's recommendations have succeeded in preserving livestock grazing as an important use of the public lands. They have succeeded in providing broader involvement from diverse interests in the management of the public lands.

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Washington Watershed-based Wetlands Restoration

Watershed-based Wetland Restoration Initiative for Washington's Puget Sound Basin

To date, attempts at restoring aquatic resources in Washington State have largely been compensatory in nature or oriented to fish/waterfowl and restricted in scope to individual sites. However, a fledgling, non-regulatory initiative has begun within Washington's Puget Sound Trough to address the restoration of aquatic resources in a watershed context.

In 1987, the first Puget Sound Water Quality Management Plan was developed to restore and protect the biological health and diversity of Puget Sound. A new directive was added in 1991 which called on the Washington Department of Ecology (Ecology), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (FWS), and U.S. Army Corps of Engineers (COE) to develop and implement a program to restore Puget Sound wetlands. Budget limitations restricted significant action until 1993 when a program coordinator was hired and an interagency work team of technical experts from Ecology, EPA, FWS, COE, Washington Departments of Fisheries and Wildlife, the Northwest Indian Fisheries Commission and the Puget Sound Water Quality Authority was formed.

The interagency technical work team developed a framework for watershed-based wetland restoration planning and implementation. In 1994, a Puget Sound Advisory Group representing local jurisdictions, tribes, agriculture, timber, conservation, community groups, and state and federal agencies was convened to develop a working draft plan for the Puget Sound Wetland Restoration Program.

Public/Private Approach to Restoring Wetlands

The cornerstone of this program is a coordinated public/private approach to restoring wetlands which can help solve ecological problems and meet community needs within a watershed. Wetland restoration can increase watershed functions such as water quality improvement, flood storage and desynchronization, and fish and wildlife habitat. The dilemma has been finding a common sense method which uses public input and existing technical information to analyze the watershed and identify wetland restoration sites which can contribute to solving problems and meeting needs. Through continued testing and refinement, this program can fill this need for many non-regulatory applications.

Washington State Wetlands Area

Two major products are being developed from this watershed-based effort. The first is a "menu" of wetland restoration sites with anticipated functions each could provide if restored. Functions identified are those which are capable of positively impacting specific

ecological problems and community needs identified by residents of the river basin. This information, along with technical assistance and training, are provided to all individuals, organizations, local jurisdictions, and tribes interested in restoring wetlands.

The second major product is the on-the-ground restoration of wetlands. This program considers planning and technical method development as two critical components of program success. However, planning must not be the end product. The success of this program must be measured by its effectiveness at facilitating the restoration of wetlands which help solve ecological problems and meet community needs.

Keys to Success: Credibility and Funding

The keys to success lie in the ability to establish credibility with landowners, local jurisdictions, and natural resource managers while developing a diverse funding base for restoration activities. Credibility takes time and trust, while a diversified funding base requires the matching of funding sources with functions to be gained through restoration. The development of this large "menu" of sites with anticipated gains in wetland function is the critical link to matching sites with funding sources.

For example, using technically sound watershed analysis techniques, sites having the greatest potential to provide flood flow storage/desynchronization can be identified and targeted for restoration with floodplain management monies. Likewise, sites having the greatest potential to provide non-point water quality improvement can be targeted for restoration using State Section 319(h) grant funds.

Similar funding opportunities exist to restore migratory bird habitat using Pacific Coast Joint Venture and Washington Duck Stamp monies and important off-channel rearing habitat for juvenile coho salmon using state and federal fish habitat enhancement dollars. The information gained through watershed analysis efforts can also serve as an important screening tool to improve predictability and effectiveness of wetland restoration in a regulatory context.

Planning activities consist of watershed analysis techniques which characterize surface and subsurface water flow through the river basin, classify existing wetlands into hydro-geomorphically similar classes, identify potential restoration sites, and characterize the potential functions to be gained at each site. This work will result in the development of the "menu" described above. Then, we partner with local natural resource managers to work on-the-ground with landowners to develop specific wetland restoration site plans and ultimately restore wetlands.

In 1995, this program framework was applied in the 180,000 hectare Stillaguamish River basin in Washington State. The purpose was to begin moving the plan from a conceptual framework to a field-proven method for identifying and analyzing wetland restoration sites and characterizing the functions each is capable of providing. The Stillaguamish Basin serves as the pilot watershed for the development, testing, and evaluation of all methods.

Human alteration of natural river basin processes has resulted in degraded water quality, water quantity, and fish and wildlife habitat. Pending endangered species listings for Pacific salmon are strong indicators of the extent of this degradation within Puget Sound

and beyond. There is an urgent need for watershed analysis techniques which identify and characterize the potential functions of wetland restoration sites at a basin-wide scale.

Methods have been finalized in the Stillaguamish River basin and analysis methods are being refined further in the Nooksack, Snohomish, and Skagit River Basins of Puget Sound. These methods will demonstrate that watershed analysis can be completed in a six to eight month period per basin; results are applicable for many non-regulatory and regulatory applications; and that government can work cooperatively with public and private landowners to restore wetlands in a cost effective, time efficient manner.

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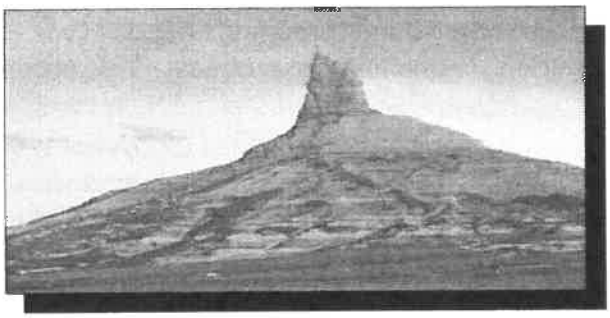
Nebraska Environmental Trust

By any measurement, the Nebraska Environmental Trust has been a success. The idea for the trust grew out of Governor Ben Nelson's 1991 environmental tour of the state. In 1992, Governor Nelson signed into law legislation establishing the Nebraska Environmental Trust. The trust is designed for the purpose of conserving, enhancing, and restoring the natural, physical and biological environment in Nebraska, including the air, land, groundwater and surface water, flora and fauna, prairies and forests, wildlife and wildlife habitat and natural areas of aesthetic or scenic values.



Chimney Rock

The mechanism used to fund the trust is the Nebraska State Lottery. The trust currently receives approximately 49.5 percent of the proceeds from the lottery. Since 1994, the trust has received 602 applications for projects and awarded 218 grants totaling over $17 million dollars.

Nebraska Environmental Trust Board

The legislation establishing the trust also established The Nebraska Environmental Trust Board which is made up of citizens from each of the congressional districts and state agency directors. The board oversees the distribution of the grants and develops priorities for future grant distributions. Current board priorities are critical habitat, surface water quality, ground water quality, solid waste reduction, and development of recycling markets. These priorities were set in July 1995 and will be re-evaluated in 2000.

The money available in the trust fund can be used to leverage additional private dollars but it is not to be used to replace existing programs or funding for those programs. Funds are restricted so that no more than 60

percent of the money can be used to assist remediation of soils or ground water. Gifts, grants and donations can be utilized by the trust.

Anyone is eligible to apply for a grant before the application deadline. After the deadline the grant undergoes a technical review. This technical review takes place with the help of over 70 volunteer professionals who offer technical evaluations of the applications received. The applications next go to the Eligibility and Ratings Subcommittee of the trust board. Some of the criteria taken into account by the subcommittee in rating projects include advancement of the trust fund's priorities; amount of funds committed from other sources; encouragement of public-private partnerships; geographic mix of projects over time; cost-effectiveness and economic impact; direct environmental impact and long-term effects of the project.

The six person Eligibility and Ratings Subcommittee makes recommendations to the entire board. Finally, there is a public hearing in which testimony on any of the applications is allowed. Grant awards take place after review of the hearing testimony and material.

The trust is a vehicle and catalyst for the citizens of Nebraska to identify and pursue long-range environmental goals. Under the program almost 10,000 acres of habitat have been preserved or restored, 26 lakes have been restored, 100 communities have implemented "greenscape" programs (landscaping requiring little or no water or chemicals) and private sector partnerships for recycling have been formed. Groundwater information programs and Missouri River restoration projects will also take place over the next two years.

With trust help, more Nebraskans than ever before are aware of and involved in improving their environment. From zoos to public schools, natural resource districts to recycling groups, universities to small villages, Rotary clubs to the Nebraska Purple Loosestrife Awareness Committee; Nebraskans have taken advantage of this unique opportunity to work on local projects to enhance their environment -- opportunities which would not exist without the resources from the Nebraska Environmental Trust.

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Idaho Dairy Pollution Prevention Initiative

In the past 10 years, the number of dairies in Idaho has increased substantially. While this growth has established the dairy industry as an important aspect of Idaho's economy, it has also increased the scope of public awareness and scrutiny on the industry. As a result, there has been pressure from an array of sources calling for improved management regulations on Idaho's dairies. Interested parties took this unique opportunity to establish a streamlined and effective partnership between state, federal and local agencies and the dairy industry.

Idaho Dairy Operation

All licensed dairy farmers are members of the Idaho Dairymen's Association (IDA). Idaho dairymen recognized, and the Environmental Protection Agency (EPA) admitted, that the existing Idaho Division of Environmental Quality (DEQ)/EPA animal waste program was not effective in reducing or preventing environmental problems associated with livestock entities.

Traditionally, DEQ/EPA would conduct approximately 50 annual inspections on livestock operations. These inspections were generally conducted during a one-week period each spring and were geared for larger, high profile dairies. Operators identified as dischargers to "waters of the United States" were usually fined ($10,000 or less) and identified through media releases. However, the waste containment facilities on approximately 75 percent of Idaho dairies were never inspected by DEQ or EPA.

When Governor Phil Batt was elected in November, 1994, one of his directives was to establish efficient state programs to effectively serve Idaho. Governor Batt believes that government should be the servant of the people, not the master. Following this direction, a meeting was organized in January, 1995 to explore ways to resolve the dairy waste issue. Several local, state, and federal agencies, as well as various interest groups, were represented. At that meeting, a suggestion was made to transfer the waste program from DEQ/EPA to the Idaho State Department of Agriculture (ISDA). It was believed that since ISDA conducts annual farm sanitation inspections on all Idaho dairies, it was a logical progression for the department to inspect dairy waste systems as well. Subsequently, a task force was established to develop a working agreement to capitalize on this opportunity.

Idaho Dairy Pollution Prevention Initiative Memorandum of Understanding

The Idaho Dairy Pollution Prevention Initiative Memorandum of Understanding (MOU) was created in order to develop a proactive, results-oriented program that would protect surface and ground water. This agreement has provided a regulatory climate that encourages effective partnerships and allows dairymen to continue to play a valuable role in Idaho's economy. It

established a system that eliminates duplicative inspections while increasing the inspection frequency of dairy waste systems. It also provides a sound waste design, approval and consistent inspection program.

The MOU is an agreement signed by the Environmental Protection Agency, the Idaho Division of Environmental Quality, the Idaho State Department of Agriculture and the Idaho Dairymen's Association. The MOU recognizes the Idaho Department of Agriculture's lead role in ensuring compliance with federal and state requirements relating to dairy waste systems and practices.

The philosophical differences that arose among the four parties to the MOU were hotly contested. During development of the MOU, the turf-battle issue between the state agencies was the most difficult obstacle to overcome. Also, DEQ and EPA were apprehensive about ISDA's ability to handle the program. ISDA's close working relationship with the dairy industry led to a visible undertone that violations might be swept under the rug. DEQ and EPA questioned why an industry would volunteer to increase its inspection frequency over 2000 percent, provide a penalty that immediately takes away the producer's ability to sell milk, and then fund the whole program. However, DEQ and EPA soon realized that the MOU concept emerged out of a long history of mutual respect and confidence between the dairy industry and ISDA regarding farm sanitation, dairy product quality, and animal health issues. A year and a half after the program began, most of the apprehension had disappeared.

The existing ISDA staff initiated the dairy waste program, and eight months later, a professional engineer was added to assist them. Together, they created computer programs to track the inspection, approval and construction process by inspector, county or watershed. In addition, ISDA created a construction manual and inspection form to assist dairymen, contractors and inspectors with the construction process. Now, dairy waste containment facilities are designed and constructed in accordance with the Idaho Waste Management requirements. Compliance schedules were also established to allow time and resources to be directed at resolving waste problems.

In order to ensure the structural integrity of the containment facility, specific steps in the construction process were identified for inspection. After waste facilities are constructed, the waste systems are inspected during the normal farm sanitation inspection. The State Dairy Inspectors review every dairy at least once a year with the average inspection frequency being less than six months. Inspection frequency is performance-based, so facilities with a poor compliance history are inspected more often. The waste facility inspection includes observing the integrity, operation and management of the waste system.

ISDA's dairy waste program is results/prevention-oriented rather than punitive. However, the program does provide authority to revoke a dairyman's permit to sell milk if compliance cannot be achieved. Sixty-one dairy farmers had their permits revoked during the first 18 months of the program. The duration of revocation ranged from a partial day to four days. Dairymen with four-day revocations had past inspection presence, were repeat violators, were flagrantly discharging or were unable to stop the discharge. Since milk cannot be sold for human consumption if a permit is revoked, ISDA worked out an agreement that enabled processors to accept the milk and

make payment to a charity in lieu of payment to the producer.

During the initial round of inspections conducted under the MOU, approximately 50 percent of Idaho's dairy farms were identified as having serious non-compliance conditions, and 24 percent of the farms had waste discharges. Dairies identified with significant non-compliance conditions were provided with services from ISDA, the Cooperative Extension Service, or the Natural Resource Conservation Service (NRCS), to remedy those problems. To date, ISDA has conducted over 4,700 additional inspections on Idaho dairies.

The Department of Agriculture's dairy waste and dairy farm sanitation inspection programs are funded by the dairy industry through a mill levy assessment on pounds of fat produced or processed in Idaho. The first year of the program cost approximately $126,000; the second year cost approximately $168,000. In addition, ISDA hired a private engineering firm at a cost of $118,000 to complete designs for facilities wanting federal cost-share assistance. Federal cost-share assistance, amounting to approximately $3.4 million, was awarded to all but 17 dairy farms applying for these programs.

During the first two years of operation under the MOU, the number of significant non-compliance situations went from 50 percent to less than 5 percent. Surface and ground water discharges decreased from 24 percent to less than 1 percent. During 1998, Idaho will achieve 100 percent dairy compliance with Clean Water Act requirements.

Obstacles Overcome

Listed below are the obstacles that had to be overcome to develop the MOU:

- Turf battles with sister agencies
- Establishing trust from DEQ and EPA
- Lack of understanding by elected officials Negotiating rules acceptable to signatory parties
- County ordinances that interfered with reasonable waste solutions
- Slow and inconsistent federal responses when trying to resolve issues, i.e. wetland determination, cost-share policies, etc.
- Shortage of cost-share assistance
- Short compliance time to correct problems
- Differing regulatory policies for different areas of the state due to past inspection presence or lack thereof
- Political groups on both sides of the issues trying to leverage their philosophy
- Severe weather conditions – two-year record-breaking wet seasons
- Enforcing requirements on dairies while other livestock operations remain unregulated
- Fear and pressure from other agricultural organizations that Idaho Dairy Industry has gone too far and will cause them to have similar requirements placed on them

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Texas Voluntary Emissions Reductions

Texas has one-fourth of the nation's oil refineries and two-thirds of the chemical industries. Many of these facilities, which use older technologies, are grandfathered from permit obligations under the federal and Texas Clean Air Acts. The Texas Natural Resource Conservation Commission (TNRCC) estimates that hundreds of these larger facilities are grandfathered and there may be hundreds more of smaller sources, such as cotton gins and dry cleaners. The Legislature has not been successful in several attempts to repeal their grandfathered status and reduce emissions.

The Texas Natural Resource Conservation Commission (TNRCC) and several metropolitan areas, notably Dallas and Houston, have struggled with how to attain the federal air quality standard for ozone. Recognizing the significant emissions from grandfathered facilities, the TNRCC convened an ad hoc industry workgroup in the fall of 1996 to develop a plan for permitting grandfathered facilities. Despite intense efforts by workgroup members, the group could not reach consensus and was disbanded.

Governor Bush and the Legislature recognized that a traditional mandatory, command-and-control approach would not best address this problem involving potentially thousands of large and small facilities more than 25 years old with different economic and environmental circumstances. The best approach instead would be to devise a strategy encouraging businesses to voluntarily permit their grandfathered air sources and reduce emissions.

Clean Air Responsibility Enterprise

In 1997, the Legislature passed and Governor Bush signed legislation requiring the TNRCC to prepare a voluntary emissions reduction plan for the permitting of existing significant sources by December, 1998. The TNRCC appointed an 11-member Clean Air Responsibility Enterprise (CARE) advisory committee, consisting of representatives from industry, environmental groups, local governments, academia, and citizen groups.

TNRCC staff and the CARE committee reviewed existing permit programs. In 1995, the Legislature had introduced a significant new permitting concept, "flexible" permits. Under a flexible permit, TNRCC applies the best available control technology (BACT) but allows a total air emission cap for the facility, so the facility then can determine how best to keep its air emissions under the cap. The facility can even "bubble" more than one source's emissions. Flexible permits also allow a company to operate once the permit is issued but before all controls are installed, so that revenues can be generated to help pay for the new control technology. However attractive this sounds, very few companies had sought this permit in the program's first two years.

The CARE advisory committee recognized that further encouragement, flexibility and incentives would be necessary to make additional significant reductions from grandfathered facilities. TNRCC staff thus is developing a "CARE" permit that likely will be available only through 2001 and will require "best available retrofit technology."

It also will include public participation, consider health impacts, and possibly even offer an amnesty period and local tax abatements. TNRCC will hold public hearings on the proposed new permit during the spring of 1998, finalize the plan in the summer, and take any necessary elements to the Texas Legislature for approval in early 1999.

Since this initiative has been underway (and as of March 1998), 36 major companies have volunteered to obtain permits for their grandfathered facilities and reduce air emissions by more than 25,000 tons per year, roughly equivalent to the smog-forming emissions from 500,000 cars.

These companies will use either flexible permits or CARE permits. Permit applications already are being submitted to TNRCC. Governor Bush has thanked these companies publicly, and the State expects many more businesses to volunteer in the next three years.

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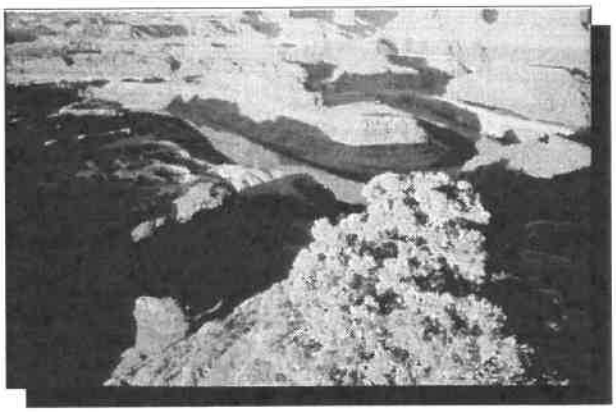
Western Regional Air Partnership

"There is a better way of doing the important business of environmental protection. Rather than following the old paradigm of prescriptive federal laws and regulations, followed by state action, followed by often contentious federal review, followed all too often by third party litigation, participants in the commission's process focused jointly on problems and solutions."—Utah Governor Mike Leavitt's testimony before the U.S. Senate, April 23, 1998.



The Grand Canyon

Population pressures and human activities can have a negative impact on air quality and the quality of life in the West. A land where natural canyons outnumber canyons created by skyscrapers seems distant from the problems associated with poor visibility, yet some Western vistas once open and clear are now impaired by haze. A commitment to resolve haze problems is behind the formation of the Western Regional Air Partnership (WRAP), a successor organization to the Grand Canyon Visibility Transport Commission (GCVTC). In June 1996, the commission completed its mission to recommend strategies for improving

visibility in the Grand Canyon and 15 other national parks and wilderness areas on the Colorado Plateau that have Class I air quality. Among these recommendations were air pollution prevention and reduction strategies.

Purpose and Membership

To assure that the commission's recommendations become a reality, the Western Regional Air Partnership (WRAP) took shape. Its membership includes representatives from Western states and tribes, the U.S. departments of Interior and Agriculture, and the U.S. Environmental Protection Agency. The partnership has set as its goal to "promote and monitor the implementation of the recommendations from the Grand Canyon Visibility Transport Commission and, with the concurrence of its members, engage in other common regional air quality issues."

What this means is that the Western Regional Air Partnership is now positioned to analyze and implement the recommended strategies. The partnership plans to accomplish this by developing a consensus not only among its members, but also with others who will participate in the process, including representatives of local governments, corporations and small businesses, academia, environmental groups and other members of the interested public.

Questions being asked by the policy makers, scientists, business people and other stakeholders in the region include: How much haze is preventable? How much is acceptable? Who should care and how can they be involved? Who and what are affected? What can be done in terms of prevention? What are the costs? Once answers to these questions begin to take shape, the partnership will deal with the important issue of how to enlist public support and participation in preventing further air quality deterioration as the region's population grows.

Beyond the challenge of facilitating the implementation of the GCVTC recommendations, the WRAP has commented on EPA's proposed haze rules covering all parks and wilderness areas in the U.S. The WRAP will consider broadening its scope to parks and wilderness areas beyond the Colorado Plateau after the rule is promulgated.

On behalf of the Western Governors' Association, Governors Mike Leavitt of Utah and Roy Romer of Colorado wrote EPA in April urging that the regional haze rule be written to allow and facilitate regional, state and tribal strategies for improving visibility in national parks and wilderness areas.

> *"Since 1991, governors, tribal leaders, state and federal agencies, industry and interest groups in the West have invested an extraordinary amount of time, money and political capital in reaching a consensus on strategies for improving visibility in national parks and wilderness areas on the Colorado Plateau. In doing so, we also arrived at a new paradigm for creating and implementing environmental policy that may finally change our environmental protection system from one centered on denial and costly adversarial actions by the participants to one centered on acceptance, innovation, performance and efficiency."* —Excerpted from letter to EPA Administrator Carol Browner, April 1998.

PARTNERS PREVENTING POLLUTION

Organization

The WRAP is comprised of the governors of Western states plus Western tribal leaders and representatives of federal agencies. The states currently include: Arizona, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington and Wyoming. The Partnership recognizes not only that local authorities and residents have the most to gain from improved visibility, but also that solutions are best implemented at the local, state or regional levels with public participation. The Western Governors' Association and the National Tribal Environmental Council provide staff support for WRAP.

- Initiative Oversight Committee
  The Initiative Oversight Committee (IOC) provides general oversight for the coordination and development of air quality strategies to promote the implementation of the Grand Canyon Visibility Transport Commission's recommendations. The IOC is responsible for overseeing the development of other air quality policies and strategies at the direction of the WRAP. It identifies issues to be addressed by forums, based on input, priorities, and directions from the WRAP. Any recommendations made by the forums are reviewed by the IOC before it makes its recommendations to the WRAP.

  IOC members include representatives from states, tribes, federal agencies and the environmental and industrial communities.

- Technical Oversight Committee
  Recognizing the critical importance of objective, credible data upon which to build recommendations, the WRAP formed a Technical Oversight Committee (TOC).

  The TOC provides general oversight for technical activities and identifies technical issues and tasks to be addressed by forums. The TOC reviews any recommendations made by the forums and subsequently makes its own recommendations to the WRAP.

- Public Advisory Board
  To ensure broad involvement and input from all potential interested parties, the WRAP formed a Public Advisory Board (PAB). The PAB is charged with providing input to the WRAP on policy matters and on the general operation of the WRAP. The PAB may recommend new issues to the WRAP for its consideration as well as provide input on existing WRAP issues. The PAB membership must be representative of stakeholders from industry, small business, mobile sources, federal government agencies, tribal, state, and local governments, academia, environmental groups, and the general public.

- Communications Committee
  Public understanding of complex issues involved in air pollution, transport, and visibility is essential to building support for any suggested changes to current policies. The WRAP established a Communications Committee to assist in communicating with and educating the public and interested groups about the WRAP's activities.

- Forums
  The work of forums will provide the basis for the development of recommendations for implementing WRAP priorities. The

initial focus of most forums will be on promoting the recommendations of the Grand Canyon Visibility Transport Commission. The two existing forums are the Market Trading Forum and the Special SO_2 Inventory Work Group.

Other proposed forums include forums on econometrics, emissions inventory, research and development, emissions forecasting, tribal data development, mobile source emissions, ambient monitoring and reporting, area source emissions, pollution prevention, stationary sources, and emissions in and near Class I areas.

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Arizona Preserve Initiative

Problem Statement

Arizonans have voiced and continue to express concerns over land use and preservation of open space, particularly in the fast growing urban areas of the state. A significant amount and the most valuable portion of Arizona's state trust lands lie within the path of growth of many of these communities. Historically, these lands have often been sold or leased for urban scale development after master planning by the State Land Department (or its permitees) and rezoning as necessary by local jurisdictions.

Although these plans may have included unbuildable washes and hillsides designated for open space, there was no other authority or mechanism to make trust lands available for conservation purposes. This conservation purpose needed to comply with rigorous requirements set forth by both Arizona's Enabling Act and Constitution for public auction and to always get highest and best use fair market value for the land.

Goal of the Arizona Preserve Initiative

As stated in the 1996 authorizing legislation, "The legislature finds that the long-term conservation of certain urban state trust land containing unique and significant value as open space is critically important to the citizens of this state. Promoting and enhancing the open space characteristics of state trust land is inherently necessary to conserve open space, protect cultural values and historic traditional uses. Therefore, the legislature intends to create a process to conserve state trust land as open space to benefit future generations that will use and enjoy the land."

As set forth in this legislation and follow-up legislation the next year, the goal of the Arizona Preserve Initiative (API) is to conserve urban state trust lands through a conservation sale or long-term lease to parties willing to manage the land for that purpose.

Background: State Trust Land Management

The Arizona State Land Department manages 9.4 million acres of state trust land on behalf of the 14 beneficiaries of the trust. These lands were granted at statehood by the federal government with a number of provisos as to how they were to be managed and disposed. The largest of these beneficiaries are Arizona's common schools, grades K-12. The department's historic mission, therefore, has been to manage the lands to produce the highest revenue yield for the beneficiaries over the long term. This has been accomplished through leases for resource productive uses, rights-of-way and short-term commercial leases. Over the last 15 years, urban scale development that was planned, zoned, and leased or sold under the Urban Lands Act of 1981 has accounted for a huge increase in the monies raised to benefit the trust.

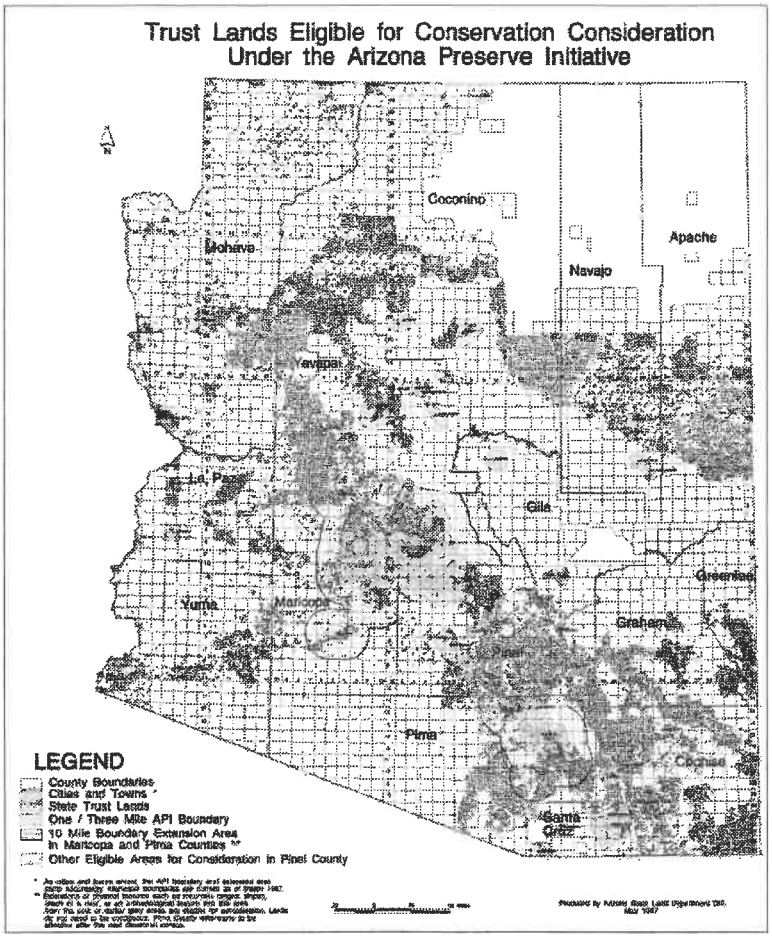
Monies from land sales or royalties are directed to a permanent fund, and the interest therefrom is distributed to the beneficiaries. Monies generated from leases and similar activities are distributed to the beneficiaries directly. The permanent fund at the end of the last fiscal year (June 30, 1997) stood at just less than $821 million. This is the largest permanent fund in the Western states except for those states with significant oil and gas or coal revenues. During the year, the department earned $72.6 million from lease, sale and other activity on the trust lands. Interest from the permanent fund totaled just

under $58 million, for a total income in fiscal year 1997 of $130.5 million.

As is often the case in virtually all Western states, it is a common misconception that state trust lands are public lands; they are not. Access may only be by lease or some other form of specific permission from the Land Department. In Arizona, this may take the form of a hunting or fishing license (which does not allow access other than for that purpose), or a recreation permit which may be purchased from the department.

Creation of the API

With the rapid urbanization of Arizona's major metropolitan areas and some of its smaller cities, the perception that open spaces are disappearing to development has been a growing concern. Where state trust lands are one of the primary players in accommodating growth in a region, there has been no ability to create open space lands outside that provided as part of an urban development plan, a straight sale at competitive auction, or a short-term lease to local or state government.



Open space is not the sole concern, however. A significant archaeologic feature, a unique or special place such as a perennial stream in the desert, or even a ranch that is being encroached upon by the urban entity may also be in need of conservation above and beyond what the existing tools could accommodate. In general, the lack of land exchange authority has exacerbated the problem of getting sensitive lands into the hands of an entity whose mission is land preservation in perpetuity.

Out of these concerns and issues, the Arizona Preserve Initiative was born.

The challenge for the creators of the API was to develop a program that would allow for the conservation of state trust lands within the context of very restrictive federal Enabling Act provisions, state Constitutional issues and subsequent case law governing the purpose and disposition of the lands.

The API was ultimately passed by the Arizona State Legislature as HB 2555 and signed into law by the governor in the spring of 1996, and amended the next year under

HB 2303. The program was originally conceived as a statewide approach that could be beneficial for environmentally sensitive trust lands in both urban and rural areas. It would have included preservation of ranches and farms, addressed national park and preserve inholdings and additions, as well as providing for additional open space in developing communities. Concern among many lawmakers representing areas with natural resource-based economies and their constituents dictated its more limited application to areas in and around incorporated communities.

How the API Program Works

As adopted, the API is designed to encourage the preservation of select parcels of state trust land in and around urban areas for open space to benefit future generations. The law lays out a process by which trust land can be leased for up to 50 years or sold for conservation purposes. Leases and sales must both occur at a public auction.

Conservation is defined in the law as "protection of the natural assets of state trust land for the long-term benefit of the land, the beneficiaries, lessees, the public, and unique resources such as open space, scenic beauty, protected plants, wildlife, archaeology, and multiple use values." The 1996 legislation permitted trust land to be reclassified for conservation purposes if located within incorporated cities and towns, within one mile of incorporated municipalities of less than 10,000 persons, or within three miles of municipalities equal to or greater than 10,000 persons. The 1997 amendments expanded the applicable area in Maricopa County (Phoenix area), and eventually Pima County (Tucson area), up to an additional 10 miles beyond these boundaries and specifically added lands in Pinal County adjacent to the Superstition Mountains (near the Phoenix metro area) and the Tortolita Mountains (north of Tucson) as eligible for conservation consideration.

A state or local government, business, state land lessee or a group of citizens may petition the state land commissioner to have certain trust land nominated and reclassified for conservation purposes. After all appropriate notifications, public hearings, consideration of physical and economic impacts to lessees and the trust, the commissioner may reclassify the subject land as suitable for conservation purposes. The commissioner must consider recommendations from a five-member Conservation Advisory Committee that was established by law, as well as consult with local and regional planning authorities. Existing leases on any land reclassified for conservation purposes may not be canceled or impaired in any way.

Once the land is reclassified, the commissioner must adopt a plan for the property to protect conservation values. The statute authorizes the commissioner the option to withdraw land from sale or lease for three to five years (with the possible extension for up to three more years) to allow prospective lessees or purchasers time to prepare the plan for the property and to raise funds.

With two independent appraisals of the fair market value and required legal notice, a conservation lease or sale must go to public auction. The land value cannot be reduced because of the conservation purpose.

If an existing lease is not renewed because a conservation lease is issued, the former lessee must receive compensation for the loss of lease and reimbursable improvements. If the land is sold for conservation purposes, the lease must be allowed to continue to the end

of its term. If that lease were to be modified or canceled by the new owner, the law provides for compensation by the new owner to the lessee.

The 1997 amendments also added a public-private matching grant program under the State Parks Board for acquisition or lease of state trust lands for conservation, however, it left the program unfunded. (Funding is currently being sought in the present legislative session as part of a larger package of growth management and open space related legislation.)

Opportunities Under the API

The API process can be used to identify key natural features or cultural resources and preserve them either for public access or to protect them from encroachment as the case may be. This is the prime intent of the legislation, and obviously includes community landmarks, riparian areas, significant peaks and ridges, as examples. While individual trails crossing trust lands may be best handled through the means of a right-of-way, certainly trail corridors within larger open space areas could be created through the API.

Land management and stewardship issues can be addressed by the API, first by ensuring that sensitive lands get into the hands of those entities that have land preservation or park management as their primary mission. The API can also be used in certain instances to eliminate state inholding in existing parks, at least those within proximity to existing cities and towns.

Features of the API process itself can assist in building a community's open space system. While the reclassification process identifies properties as suitable for conservation, the optional withdrawal period allows for a reasonable amount of time to raise funds for acquisition giving greater certainty that the lands can be successfully protected. That same withdrawal period requires a management plan be done, in concert with existing lessees, which could be a sub-part of overall community efforts at open space master planning.

The sale or lease process itself can also help provide more certainty in the process. Now there is an alternative to a straight sale for whatever use the buyer wishes to make of the land. State trust lands can be specifically deed restricted as part of auction process for a purchase. This not only has bearing on the sale itself; it also may provide more permanence than local zoning might otherwise achieve. The ability to auction off and execute a 50-year lease for conservation purposes may provide an affordable way to preserve these key parcels while still guaranteeing the state land trust a good rate of return and not encumbering the land asset with expensive improvements.

Finally, in those communities where this is a concern, the API allows for the preservation of open space while continuing to support local resource productive economy such as grazing. This may be less of an issue in major metropolitan areas, but can be vital in and around smaller Arizona towns that are significantly dependent on these resources.

Greatest Obstacles Overcome

The Arizona Preserve Initiative was a very difficult piece of legislation to pass and has been a challenge to implement. It is a story with chapters that are still being written. Forming enough of a coalition of interests to get a bill through both houses of the Legislature, even though the legislation did

not go as far as originally intended, was a major accomplishment. It could not have been done without rock solid backing from the governor's office and from key legislative leaders particularly including Representative Carolyn Allen, Chairman of the House Environment Committee. Active participation from development interests, environmental concerns, key cities and towns interested in open space protection, and the cattleman's association to name but a few led to ultimate passage of the original bill and subsequent amendments.

A large future obstacle remains statewide financing for acquisition or lease of these conservation lands, but there is some promise currently, as part of a larger piece of growth related legislation. There are still some who remain unsure that the program can deliver or even that it is constitutional, but time will tell on both accounts.

Conclusion

API can be used to preserve open space, viewsheds, trails, natural parklands, perhaps even portions of ranches if the interest is there. It will not create soccer and baseball fields; it will not by itself limit, restrict or otherwise stop development in a growth management schema.

The program can work for the Land Department because it gives the agency another tool to make some money for the trust beneficiaries. The next 10 years should give Arizonans a reasonable indication of whether the API will do what its framers set out to do: conservation of the gems of state trust land, at least in the growing urban centers of the state.

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Wyoming's Agricultural Land and Open Spaces Initiative

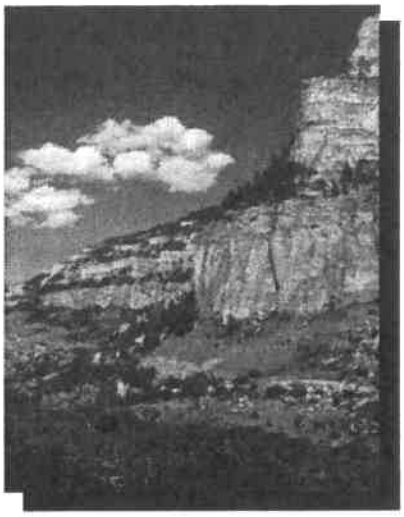
The trend toward increased rural living and out-migration from more populous states has produced a rate of growth in many Western states which exceeds the national average. The willingness and ability of many people to relocate has combined with local factors in Wyoming to create a strong incentive for private landowners and agricultural producers to subdivide their land, raising concerns among Wyoming residents about loss of open space in many of its scenic areas.

Governor Jim Geringer's Agricultural Land and Open Spaces Initiative was established in 1994 to increase awareness among private landowners and local government officials about the options available to help keep ranchers and farmers in business and conserve agricultural land and open space.

History of the Initiative

The centerpiece of Governor Geringer's first year in office was a series of statewide partnership meetings on various key topics

PARTNERS PROMOTING OPEN SPACE



Utah is experiencing an era of unprecedented opportunity, and unprecedented obligation. The challenge is to ensure that the heritage of open space that helps define Utah is also the legacy that remains for generations to come.

History of the Initiative

Ethics take time. You cannot appropriate an ethic. You cannot legislate an ethic. But you can germinate an ethic. This is a long-term process. Only a few years ago there was very little discussion about the importance of open space in Utah. But then came a turning point–the Utah Growth Summit. In late 1995, Utah Governor Mike Leavitt organized the summit to increase awareness and stimulate discussion on three growth-related issues: open space, transportation and water. The summit was a unique partnership of all levels of government, the private sector and the news media. The summit included two televised town meetings that gave Utahns the opportunity to learn about and provide input on several proposals for dealing with growth.

It is estimated that 500,000 people tuned in to the first town meeting which was broadcast live on every major commercial and public television station in Utah, along with many radio stations. A second town meeting was broadcast live the following night on a local public television station. The summit was also attended by several hundred citizens, many of whom participated in the discussions.

Prior to the summit there was some question about why the governor chose to include the topic of open space, particularly when open space was not a well-known or widely debated issue at the time. But of the three subjects, open space evoked the most passion and the most discussion.

A few concepts regarding open space became clear in the summit. One is that open space must be part of a larger vision or strategy for managing the state. There must be a balance between preserving open spaces and ensuring that citizens can obtain affordable housing in the state. Open space preservation cannot be viewed as the only ethic that is important, but must be done in the context of the larger picture.

Another concept that became evident was that open space means different things to different people. To some, it is agricultural preservation. To others, it is a golf course, a trail along a river way, a park. All are open space. Local communities must define open space and determine how to preserve and enhance their open spaces. Regardless of how a person or community defines open space, the issue resonates in the hearts and minds of people. People see the landscape of their communities fundamentally changing–and they want to be part of that discussion. Less than three years after the Utah Growth Summit, open space continues to be a significant issue for Utahns. To continue the momentum on open space issues created by the Utah Growth Summit, Governor Leavitt

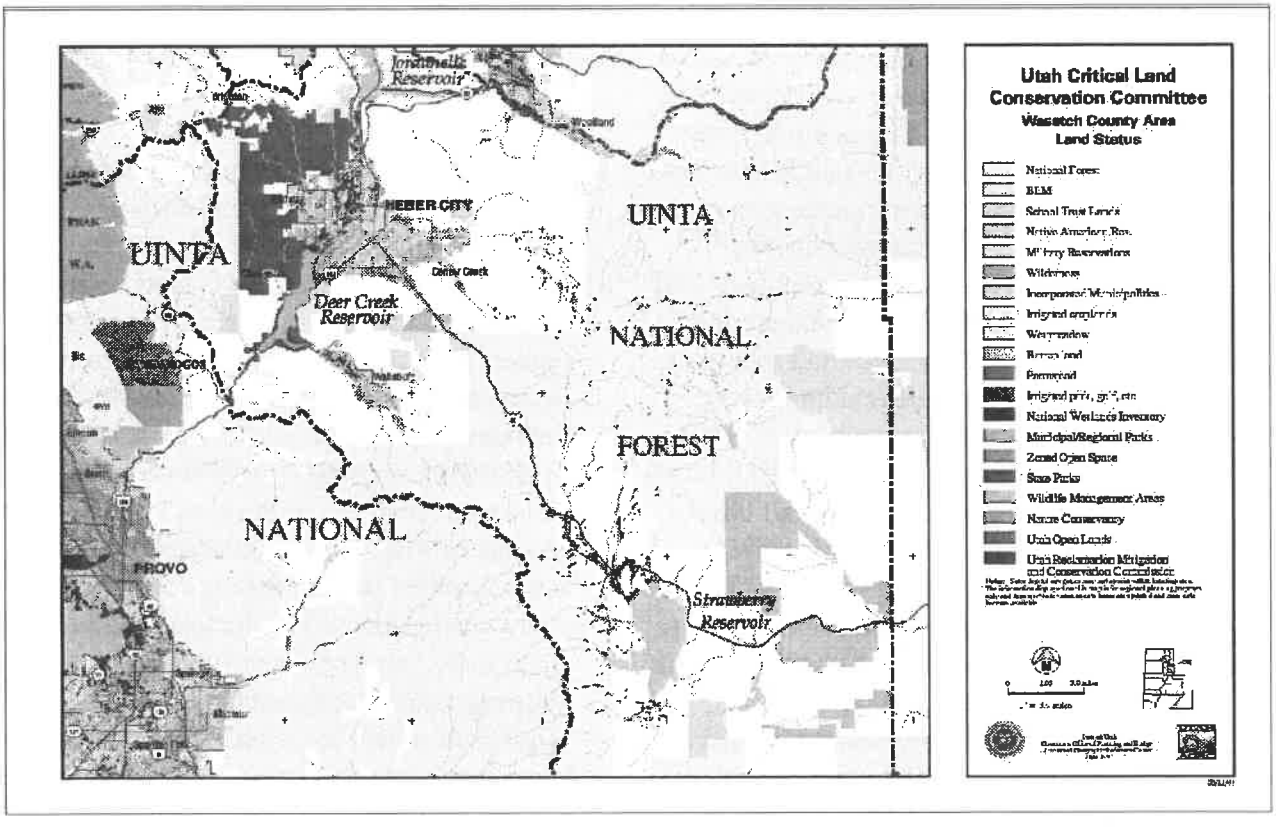
issued an executive order creating the Utah Critical Lands Conservation Committee. The committee is guided by four fundamental principles: protection of private property rights; local control over land use decisions; no net loss of private ownership of land; and partnerships in the funding of conservation efforts.

Description of How the Program Works

The mission of the Utah Critical Lands Conservation Committee is to act as a catalyst for locally initiated efforts to preserve critical open lands in the rapidly urbanizing areas of the state. The committee provides local communities with a knowledge base of issues, tools and resources and then encourages local communities to identify agricultural lands, critical wildlife habitat, watersheds, recreational lands and other lands necessary for the preservation of economically viable and sustainable agricultural production, and the quality of life and cultural heritage of the citizens.

The committee has worked closely with local communities, providing technical assistance in various open space efforts. The committee has produced *Land Conservation in Utah: Tools, Techniques and Initiatives*, a guide to be used by local governments, individuals and groups in their open space preservation efforts.

In cooperation with the American Planning Association, the committee has provided local planning commissioners with training in innovative open space design techniques. The committee inventories and identifies state lands that are not critical to agency missions to determine whether partnerships can be formed that would allow for the preservation of the agency land as open space.



PARTNERS PROMOTING OPEN SPACE

Another important state role has been to bring together local open space committees that include representatives of local, state and national governments, representatives of conservation groups, development groups and other interested parties. There are local open space committees in almost all of the high-growth areas of the state. In the last two years, several significant local open space projects have been undertaken. In southern Utah they are developing a 70-mile long set of trails along a scenic river. In northern Utah, a city purchased a large farm and labeled it open space to preserve the integrity of the entrance to the community.

The 1998 Utah State Legislature passed a bill creating a critical land conservation revolving loan fund to allow local governments and nonprofit organizations to borrow money for open space preservation efforts. The Legislature also appropriated $100,000 to purchase conservation easements on agricultural land. The measure allows farmers to continue owning and working the land, while preventing its sales for development purposes.

Greatest Obstacles Overcome

One of the committee's biggest challenges has been to ensure a proper balance between open space preservation efforts and private property rights. Overcoming this hurdle required an acknowledgment from the beginning that while open space preservation is needed, it should not be done at the expense of other fundamental state interests, such as protecting private property rights and economic development. The four guiding principles of the committee, including protection of private property rights, are aimed at ensuring a balance of interests. The Utah Critical Lands Conservation Committee has been able to move forward with open space preservation efforts while maintaining this balance of interests. They have done this by ensuring that groups representing the various interests are at the table and have a chance to voice their views and concerns. The committee has adhered to its guiding principles and even incorporated them in legislation, including the legislation that created the critical land conservation revolving loan fund.

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Alaska Doing it Right: Oil Exploration, Production, and Transportation System

Background

Alaska's North Slope is 43 million acres in size. Its ownership is a patchwork of Native Corporations and state, federal, and local governments. There is oil and gas development on approximately 20,000 acres of the North Slope. The 48-inch Trans-Alaska Pipeline traverses 800 miles and three mountain ranges to carry approximately 1.3 million barrels of crude oil each day from the oil fields of Alaska's North Slope to the pipeline's terminus in Valdez, the nation's northernmost ice-free port. Daily, two tankers carry Alaska's oil through Prince William Sound, a waterway known for its scenic splendor and valuable fisheries, to markets on the West Coast and Asia. Oil from the North Slope of Alaska provides 21 percent of the nation's domestic production of crude oil. The oil industry provides approximately 80 percent of the state of Alaska's revenues. Alyeska Pipeline Service Company, a consortium of operating oil companies on the North Slope, operates both the Trans Alaska Pipeline System (TAPS) and the Ship Escort Response Vessel System (SERVS).

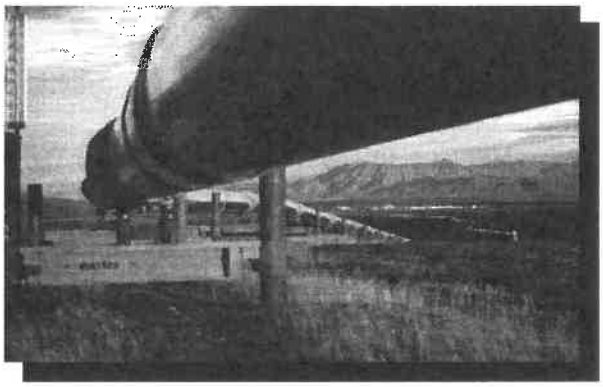
"Doing it Right"

"Doing It Right" is a philosophy and policy direction developed by the Administration of Governor Tony Knowles. It is founded on the belief that resource development must be done "right," or not at all. "Doing it Right" is a comprehensive inter-disciplinary approach of managing resources so they can be used, enjoyed and sustained for present and future generations. It means working with communities and citizens to ensure stewardship of Alaska's natural resources while protecting air, water, wildlife and habitat. It means protecting traditional practices and cultural values, such as the subsistence harvest of fish and game resources. It means providing well paying jobs for local communities and contracts for local businesses and ensuring decisions are community-based and communities have the opportunity to participate and benefit at all levels. It means challenging and partnering with industry as stewards to go beyond compliance. "Doing it Right" has three specific components:

- Sound science-bringing the latest and best scientific information about the resources to bear including the best technologies and local knowledge;
- Prudent management: a) ensuring conservation and sustainability, b) relying on resident contractors and workers, and c) including field monitoring and verification to assure quality information and adaptive management, prior to, during and following development; and
- Responsive, meaningful public involvement including stakeholders, communities, and citizens in ongoing public review.

Today, Alaska is developing the world's safest and most advanced oil exploration, production and transportation system and we are continually working to make it safer and better. This is our commitment to "Doing it Right." Oil on Alaska's North Slope is being explored and produced in an environmentally safe manner. With careful planning, healthy populations of wildlife, including caribou and waterfowl, can co-exist with oil development, and air, water quality and habitat can be

protected. The Trans-Alaska Oil Pipeline has undergone an intensive management review and upgrade in recent years and the most sophisticated technology is being developed for tanker safety.



Trans Alaska Pipeline

It is important to recognize the numerous technological advancements that have been made over the last two decades of oil development on Alaska's North Slope. These improvements have reduced the cost of oil production and have significantly reduced the environmental impact and footprint associated with oil and gas operations. These technologies and government incentives have encouraged the creation of new Alaska-based industries, such as the in-state manufacture of oil field modules that previously were built outside Alaska.

Below are some key examples that demonstrate Alaska is "Doing it Right."

Tanker Safety

Since the 1989 Exxon-Valdez oil spill, the oil industry, the state and U.S. Coast Guard have dramatically improved spill prevention and response. Two vessels accompany every laden tanker that transits Prince William Sound. One is a specially equipped escort response vessel. The other is a tug escort. The Ship Escort Response Vessel System (SERVS) which includes five emergency response vessels, numerous skimmers, response barges, boom and other equipment located throughout Prince William Sound is the largest spill response organization in the United States. A new Vessel Tracking System operated by the U.S. Coast Guard tracks every tanker transiting Prince William Sound. The Prince William Sound Regional Citizens Advisory Committee is ever vigilant in advising the oil industry and government on improved spill prevention and response methods, and state and federal oversight has been significantly enhanced.

In the spirit of continuous improvement, the advisory committee and the communities and fishermen they represent identified some gaps and recommended spill prevention improvements. The Knowles administration convened a coalition of citizens, regulators, and the industry and asked them to make recommendations on improving tug escorts and the response system in Prince William Sound, based on a scientific risk assessment to identify the gaps in the transportation system. As a result, we implemented a number of safety improvements to reduce human error and improve vessel safety including:

- Commitment by industry to design and build two new, highly maneuverable 10,000 horsepower state of the art tractor tugs which will be the world's most powerful and technologically advanced tractor tugs and escort. The first of these tugs will arrive in Valdez in early 1999.

- Announcement by ARCO of the construction of two double-hulled tankers for Prince William Sound, expected to be on-line by the year 2000;

- Stationing the Gulf Service, a high-powered ocean rescue, as guard at

the entrance to Prince William Sound since last spring;

- Improved location of the NOAA weather monitoring station, making for better weather reporting and helping make better decisions on weather closures; and,

- Implementation of a Safety Management Program, which improves the shipboard procedures by minimizing mechanical and human failures.

- Establishment of the Valdez Marine Operators Committee, a mariners forum for monitoring and evaluating tanker operations to provide continuous review and improvement of tanker operations. The committee has improved tanker transit procedures to:

  - Establish clear on-water operating zones for approaching and transiting Valdez Narrows;
  - Clarify escort vessel operators duty to question and, if needed, aid in correcting any abnormal tanker operations;
  - Increase on-water rescue training exercises for tug boat and tanker officers;
  - Provide additional crew members on the bridge of escort tugs when transiting the Valdez Narrows; and

- Creation of bridge simulators by shippers and Alyeska to jointly train tanker and tugboat officers and state licensed marine pilots under conditions which simulate Prince William Sound waters with tug and tanker interactions.

These improvements in tanker safety were possible because of the partnership we have with the industry and communities.

Minimum Impact Exploration and Production

- Roadless Development
  New North Slope satellite oil fields like the Badami field, which is 25 miles from the existing infrastructure, are being developed without the use of a permanent access road. Temporary roads are built using snow and ice in the winter to erect necessary exploration or production infrastructure, but leaves no evidence when snow melts. This decreases gravel needs, eliminates miles of wetland fill, avoids road crossings of streams and rivers and reduces disturbance of wildlife species.

- Directional Drilling
  Directional drilling or extended reach drilling has changed how industry taps distant oil accumulations in Alaska and around the world. Directional drilling allows access to oil in a large area from a single pad. Extended reach of a well refers to the horizontal distance, compared with traditional vertical drilling, from the top of the wellbore to the underground oil pool. Oil can be accessed up to four miles away from the surface pad, thus reducing the number of drilling pads needed to develop subsurface deposits.

  This technology greatly reduces habitat impacts onshore and additionally can allow tapping of offshore oil reservoirs from onshore. Instead of a causeway structure, a gravel island, an offshore rig or a subsea pipeline, a field can be accessed from onshore and impacts to critical, nearshore fisheries habitat can be avoided. Facilities can be located to minimize risk to critical wildlife habitat areas.

- Footprint Reduction
  Oil production and exploration pad footprints have been reduced more than 80 percent over the past 20 years due to improved technology which allows much closer well-head spacing and smaller pads. Smaller pads are also possible because of the elimination of reserve pits that were once used to store drilling wastes but are no longer used. Drilling waste is now deep-well injected into confined geologic formations. In addition, advanced seismic-data acquisition and interpretation improves drilling efficiency. These technologies result in better pad placement, fewer dry holes and higher recoveries.

- Concurrent Restoration of Gravel Mine Sites
  Gravel is required for construction of roads and pads, and this gravel is mined from sites on the North Slope. Gravel mines are sited to avoid important fish and wildlife habitats and to provide opportunities for fish and wildlife enhancements. Rehabilitation of the mine sites occurs concurrently with mining. In addition, every effort is being made to reduce the need to mine for gravel by restoring or rehabilitating old gravel pads and recycling the gravel.

- Waste Minimization and Pollution Prevention
  Alaska is working in partnership with the oil industry and oil support industries to recycle scrap metals, anti-freeze, drilling fluids and used batteries. The state, in partnership with the industry, has an active field-wide pollution prevention program that includes materials inventory control, chemical substitution, and management review aimed at a continuous improvement of routine waste procedures. In addition, vehicles are operated to avoid any contamination of water or soil. For example, every vehicle operator on the North Slope must place a drip pan under the engine when the vehicle is stopped.

Pipeline Safety

- Leak Detection and Monitoring
  Alyeska leads the pipeline industry in leak detection capability. The new transient volume balance system is the best available technology for leak detection in the world. The system can detect whether a leak may be occurring and can identify the probable location. Also used is the Line Volume Balance system that senses leaks by checking the oil volume entering the line with the volume leaving the line. Deviation alarms are triggered when there are inappropriate variations in pressure, flow, and flow rate balance.

- Smart Pigs
  Pigs are mechanical devices that travel with oil flow through the pipeline. The new generation of so-called "smart pigs" can detect internal and external corrosion and survey the shape of the pipe. Advances in pig technology introduced in 1994 allow more accurate determination of pipeline integrity. More than 35 ultrasonic testing and pigs have been run through the Trans Alaska Pipeline (TAPS) since start up. Corrosion monitoring pigs currently run through TAPS annually. High-resolution ultrasonic testing pigs can detect loss of wall thickness down to a few thousandths of an inch. The present generation of "smart pigs" gives more complete and reliable data a four-fold improvement above previous technology. This

information can be used to prevent spills before they happen.

- Fiber Optic Communications
  Presently, as a safety measure, if communications are lost to any valve or pump station along the TAPS Pipeline for more than two minutes, the pipeline is shut down until communications can be re-established. A new, state-of-the-art, fiber optic transmission system, offering digital transmission of data is presently under construction along the TAPS line. This new fiber optic upgrade will handle current and projected voice, video, and data needs, and will include a back up satellite communication system. These communications improvements will ensure safer operation of the pipeline because of improved surveillance capabilities.

Conclusion

This success represents the benefit of the partnership we continue to have in Alaska with citizens and industry on important resource issues. Just because we have had successes does not mean we stop being vigilant. To the contrary, we are working in a partnership with industry to encourage and challenge them to operate in the most environmentally safe manner possible.

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New Mexico Minimizing Highway Expansion Impacts

Background

San Juan County, in the northwest corner of New Mexico, is a vital economic region of the state with potential for much greater development if adequate transportation is provided.

San Juan County has the fourth largest available labor force and the fourth highest population in the state, however, it also has the ninth highest unemployment rate of 33 counties in the state. These facts, together with abundant water supplies, vast natural resources, good access to air service and good quality of life make this region of the state an excellent candidate for economic growth if adequate roads are provided. New Mexico Economic Development Department studies show 96 percent of companies looking to relocate require access to a four-lane highway system. San Juan County is served by State Road 44, a two-lane road that extends 149 miles from just north of Albuquerque to Bloomfield.

Any expansion of NM 44 is complicated by two major factors: limited resources and significant environmental concerns. New Mexico has identified $11.6 billion in highway needs compared to the State Highway and Transportation Department's (SHTD) annual budget for road construction

and maintenance of $233 million. Environmental considerations include crossing the continental divide, the highway's interface with the Rio Puerco and an archeological nightmare crossing ancient Indian ruins.

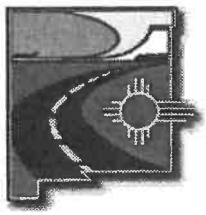
The New Mexico State Highway and Transportation Department

Goal

The goal of SHTD in attempting to address the transportation problems facing San Juan County was to construct a safe, high quality, cost effective, low maintenance four-lane road in an environmentally sensitive and efficient manner.

History

The Corridor 44 Project had its roots in the 1960s when SHTD first began discussing the impact a four-lane road would have on the northwest corner of the state. Due to financial constraints, modest safety enhancements and routine maintenance were the only improvements made to the route.



In 1995, Governor Johnson appointed the Citizen's Highway Assessment Task Force (CHAT) to hold public hearings statewide to ascertain the public's desire and willingness to support a comprehensive road improvement program. Broad public input was received from interest groups and private citizens through 17 town hall meetings and hundreds of letters from those unable to attend the meetings.

Based on an analysis of New Mexico's two-lane road system using factors such as accident rates, traffic volume, and the percentage of commercial traffic, NM 44 was determined to be a high priority corridor that demanded immediate attention. However, after two years of the New Mexico Legislature's failing to address the road program in a manner acceptable to the governor, SHTD began to look for innovative ways to solve the dilemma of expanding NM 44 without increased funding. Additionally, SHTD needed to develop a design that could address the environmental issues. The result of this search is the Corridor 44 Project.

How it Works

SHTD and the Federal Highway Administration (FHWA) have created a first-of-its-kind model for highway construction and financing in the United States. It utilizes a public/private partnership in every phase of the project.

Utilizing FHWA "Innovative Financing and Innovative Construction" authority, SHTD formed a private sector partnership, through a competitive bid process, to design, manage construction, and warrant and finance the $420 million project. The state is also obtaining a first-of-its-kind 20-year, no-fault warranty on the road. SHTD will repay issued bonds with future federal funds allocated to the Department by the FHWA over the next 18 years.

By integrating up-front private funding with future federal funding and by utilizing a "developer" to address all facets of the project, SHTD will receive numerous benefits:

- By using innovative financial and construction management techniques the road will be designed and built in three years instead of an estimated 30 years if SHTD had to build the road on a pay-as-

you-go basis using normal contracting procedures.

- The road is being built to stricter specifications that require less maintenance over the 20-year life of the road. Less maintenance means less interruption of traffic flows, less exposure to heavy machinery and fewer potential environmental impacts.

- SHTD will have a state-of-the-art road that uses less asphalt to construct, yet is capable of sustaining more traffic, all at less cost than a typical highway. Traditionally, state departments of transportation have resisted new highway designs because the risk of a failure rested with the DOT. With the warranty, however, the private developer retains the risk associated with the new design. SHTD will continue to perform "routine" maintenance on the right-of-way, such as mowing, snow removal and sign and guard rail replacement. The developer will be responsible for all repairs to the pavement needed to keep the road at a very good level of service for the full 20 years.

- The design of the expanded road is a new "compressed four lane" using only the existing right-of-way. This requirement will result in fewer disturbances to fragile archeological sites that are common in the region. It will also reduce the "footprint" of the road, thereby reducing its impact on the environment. Another benefit to the design is that it costs about $700,000 a mile less than a typical divided highway.

- The project will restore the Rio Puerco to its original channel, stabilizing bank erosion and improving water quality. The Rio Puerco, an ephemeral river which parallels NM 44 for 10 miles, has caused erosion problems, not only for the highway but also for landowners, since NM 44 was realigned in the mid 1960's. Various groups including the Bureau of Land Management, Bureau of Reclamation, Indian Pueblos and the Sierra Club approached SHTD requesting the river be returned to its original path. By using innovative financing techniques, the rebuilding of NM 44 offers this opportunity.

Obstacles Overcome

SHTD had no state legislative authorization to secure long-term financing (bonds) and it seemed unlikely that such authority would be provided by the Legislature in the foreseeable future. By structuring a 100 percent federal project, SHTD utilized innovative provisions of the Intermodal Surface Transportation Efficiency Act (ISTEA) which permits a "soft match" to federal funds. This eliminated the need to commit future funds, which would have been considered unconstitutional.

The financial markets had never issued long-term bonds secured by federal funds that extended beyond the expiration of the federal authorizing legislation. ISTEA, when it is reauthorized, will most likely be for six years. Bonds issued for 18 years will be dependent on future actions of Congress and therefore considered less than "investment grade" by Wall Street. SHTD, in cooperation with financial consultants, marketed the proposal and for the first time in the country, secured bond insurance for a AAA bond rating.

Long-term warranties are impractical and too expensive according to conventional wisdom. The Corridor 44 Project will have a 20-year warranty that will save taxpayers at least $23 million over the life of the contract and

maintain the road in a better condition than could realistically be anticipated.

Lesson Learned

There is often a basic lack of understanding between the private sector and public sector, which results in a mutual distrust. The private sector believes the public sector is incapable and inefficient. The public sector believes the private sector is motivated solely by profit. The Corridor 44 Project overcame these stereotypes in order to capitalize on each other's strengths. SHTD will provide environmental and right-of-way clearances and the private developer will bring cost-control knowledge. Ultimately, this public/private partnership will provide substantial savings to New Mexico's taxpayers.

Hawaii's Innovative Partnerships to Protect the Environment

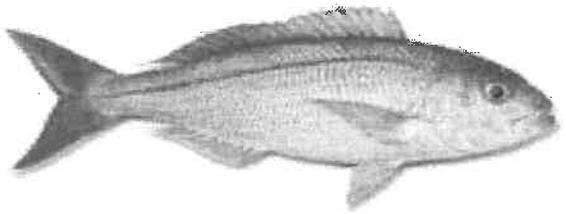
The State of Hawaii's Department of Land and Natural Resources (DLNR) is charged with the vital mission of sustaining Hawaii's precious and fragile environmental resources for the benefit of future generations.

In pursuit of its management philosophy of "sustainability," the department has invited the community to work in partnership with the department's resource managers. Two of the most outstanding examples of this partnership that will have long-reaching impacts in Hawaii are the work of the Bottomfish Task Force and the development of "sustainability teams" and matching actions plans that are outlined in the department's recently-completed Sustainability Hotspot Management Plan and Notebook.

The positive response of the community statewide to this inclusive, and engaging, management approach, and their desire to take part in managing Hawaii's natural resources is an encouraging sign that together Hawaii is creating a vision for the future—and making that vision a reality.

Bottomfish Task Force

In recent years, Hawaii's fishermen became increasingly aware that bottomfish resources, especially stocks of *ehu* and *onaga*, were being seriously depleted. By 1995 it was clear that either Hawaii needed to take immediate, serious action to develop an effective bottomfish management plan, or face collapse of the fishery and federal intervention. DLNR recognized that in order for the plan to be successful, it would have to have the support of the bottomfishermen, so their involvement in the plan's development was critical.



A Bottomfish Task Force consisting of bottomfishers from around the state, fisheries experts form DLNR's Division of Aquatic Resources and other agency representatives was formed. They met 13 times, heard from fishery biologists from other fisheries, examined documented scientific data or what has worked in other fisheries, and came up with a preliminary plan. This plan was then discussed at 14 roundtable meetings with bottomfishermen statewide, followed by another eight public meetings. Based on extensive public input received at these

meetings, the plan was modified, and then public hearings on the plan were conducted in five locations statewide. Only then did the Board of Land and Natural Resources adopt new rules to establish a bottomfish management plan.

The plan's main objective is to raise the spawning potential ratio (SPR) for *onaga* and *ehu* above two percent. Our data indicates the spawning potential ratio for *onaga* is currently about five percent of what it was in the 1950s, and for *ehu* it is about eight percent. An SPR below 20 percent is considered an indication of an overfished stock, so it is clear these two species need some additional protection.

The new administrative rules which were signed by Governor Cayetano, and which went into effect June 1, 1998, limit, for the first time, the number of fish that can be caught, the areas where fishing for these species is allowed, and the types of gear that can be used to catch these deep-ocean fish.

DLNR will work with bottomfishermen and fishing agencies to understand and comply with the rules. A comprehensive information campaign is being conducted to get the word out to fishermen through a variety of means.

Sustainability "Hotspot" Management Plan

DLNR has identified 25 natural resource "hotspots" throughout the state, where, in spite of an active community, there is resource degradation, there are conflicts among users, public welfare is compromised, and there may be illegal activity.

To address these problems, DLNR assembled inter-divisional "sustainability teams" for each hotspot. In conjunction with Hawaii's communities, the teams aim to arrest the misuse and decline of a hotspot, and hopefully place it on the road to recovery.

Usually, management of a hotspot is complex, requiring the attention of multiple DLNR divisions. A good example is the world-famous landmark, Diamond Head, on the island of O'ahu, which is a State Monument managed by DLNR. Divisions sharing responsibility for its management and for protection of these resources include State Parks, Forestry and Wildlife, Land Division, Historic Preservation, and the Conservation and Resources Enforcement Division. Another prime example for a complex, multi-division hotspot is Kane'ohe Bay, O'ahu. In each case, DLNR also works with other agencies and community organizations to provide for broad stakeholder participation in management decisions and actions.

Diamond Head State Monument, Island of Oahu

Easily identifiable for its distinctive profile, Diamond Head is an integral part of Hawaii's image and mystique. In geological terms, Diamond Head is "pyroclastic cinder cone generally comprising of a friable tuff-type soil structure which is easily scarified and subject to accelerated erosion." Nearly a million people each year visit this ancient volcanic crater, known as *Leahi* to the ancient Hawaiians, which is situated at the edge of the Waikiki resort area.

Diamond Head, Island of O'ahu

PARTNERS MINIMIZING DEVELOPMENT'S IMPACT

As many as 4,000 visitors a day may hike the .7 mile trail and ascend to the crater's summit to enjoy the spectacular coastal view. Diamond Head has been kept intact through ordinances and the DLNR's efforts to preserve the natural beauty of this world-renown cinder cone.

Diamond Head State Monument, which includes the crater and its slopes, is also known to have had several heiau (religious temples) on its flanks. *Papaenaena Heiau*, erected by Maui's King Kahekili following his conquest of O'ahu, was completed demolished by an O'ahu chief in1856. Gun batteries and bunkers remain as evidence of Diamond Head's role in the military's coastal defense system since World War I.

The crater's interior is a large, mostly undeveloped tract of land with habitats that include some unique endemic and endangered plants and birds. A seasonal wetland provides habitat for Hawaiian coot (alae keokeo), Gallinule (alae ula) and two endangered sedges, Cyperus trachysanthos and Toralinium aueiculatum. An exposed, unaltered natural crestline provides habitat for the endangered plant, Schiedea admantis, which is unique to Diamond Head.

As the number of people ascending to the summit has increased, uncontrolled access along the interior's slopes has brought about visible scarring as the soil breaks away. The threat of uncontrolled fires and public access in some of the crater areas has risen, and may bring about the demise of endangered birds and plants.

The future vision of DLNR is the establishment of a world-class semi-wild park in the crater's interior and development of an exterior park for family picnic outings, as stated in the approved Diamond Head State Monument Plan developed by the Diamond Head Citizen's Advisory Committee and adopted by the Board of Land and Natural Resources in 1979. The plan was subsequently enacted into law by the Hawaii State Legislature in 1992.

DLNR's plan is to:

- provide interpretation, information, maintenance and enforcement for visitor satisfaction and protection of resources;
- work closely with partners to protect critical habitat of endangered plants and wildlife;
- continue trail improvements to minimize erosion; construct visitor interpretation and orientation facilities to create awareness of the unique cultural and natural beauty of Diamond Head and Hawaii;
- secure, restore and incorporate the Federal Aviation Administration site, Cannon Club, and portions of the National Guard installation into the monument in the long-term plan for Diamond Head State Monument.

The crucial obstacle towards sustaining Diamond Head State Monument is the commitment and resolve of the people of Hawaii and their elected officials to persevere toward a clear, uniform program of action. The Diamond Head Citizen's Advisory Committee provides a stabilizing force toward this goal as segments of government have grappled with setting aside such a large land area within urban Honolulu for preservation of natural beauty and historical aspects and public use for recreational purposes.

PARTNERS MINIMIZING DEVELOPMENT'S IMPACT

Kane'ohe Bay, Island of O'ahu

Set against the dramatic majesty of the Ko'olau mountain, Kane'ohe Bay has been a rich resource for those who harvest the sea as well as those seeking calm waters for ocean recreation. Over time, due largely to the stress on this resource by the presence of man, the bay is a shadow of the fertile estuary it once was.

The Kane'ohe Bay Task Force was created by the Hawaii State Legislature in 1990 to develop a plan for the sustained use and enjoyment of this resource. After many public meetings, much community effort, contention, negotiation and compromise, the task force produced the Kane'ohe Bay Master Plan.

The master plan identifies resources at risk in this area, including: aquatic life in the bay, the Ko'olaupoko District watersheds of the 12 streams entering the bay, and wetland habitats; water quality; and open space on the bay's inner and outer waters. The risks thereby impact resources such as ecological diversity; sustainable recreational, subsistence and commercial uses; aesthetic value; as well as human health and safety. The master plan identifies parties affected by resources at risk, such as residents in the area watershed, recreational and commercial users of the bay, and research scientists working in the bay. The plan recognizes many barriers to sustaining the resources of the bay, such as runoff and pollution from urban development, limited public access to the bay, deteriorating water and ecological quality in the bay, commercial recreation activities, overfishing, safety and public recreation conflicts, and the inadequacy of existing mooring areas.

In partnership with the community and the Legislature, the goal for this sustainability hotspot is the implementation of the Kane'ohe Bay Master Plan. As stipulated in the master plan, DLNR has acted to:

- preserve and protect natural resources of Kane'ohe Bay for the continued use and enjoyment of the general public and future generations;
- resolve conflict among various users of the bay, including the general public, anglers and commercial ocean recreation operations;
- assess the environmental and ecological impacts of activities on the bay and in the watershed.

DLNR has also held public workshops to explain research results and continues to conduct educational and informational activities focusing on Kane'ohe Bay. This includes presentations to schools and community groups, site visits to the Hawaii Institute of Marine Biology on Coconut Island, and an interactive TV program on coral reef resources seen in classrooms all over the country. DLNR's Conservation and Resources Enforcement division has even conducted well-publicized "sweeps" in Kane'ohe Bay to discourage fishing violations and encourage compliance with management regulations.

Today, DLNR is working to accomplish other goals of the Kane'ohe Bay Master Plan. In spite of limited funding and manpower, the Division of Aquatic Resources is conducting ongoing research and revision of existing administrative rules and regulations to improve management tools for more effective stewardship of the resources in the bay.

The Boating and Ocean Recreation division is bringing to public review a package of

proposed administrative rules (state regulations) to manage commercial boating activities, reduce user conflicts among boaters, and sustain the resources of Kane'ohe Bay. The division aims to adopt boating rules for Kane'ohe by mid-1998.

DLNR's Conservation and Resources Enforcement division is working with the Kane'ohe Bay Regional Council on a volunteer program and plans to conduct more sweeps in the bay as funds and manpower permit.

The Sustainability Hotspots Notebook is a catalog of information about each hotspot, the needs and conditions of each site, and the department's vision for the future of these resources. It is a work in progress. DLNR invites the involvement of the public and private sectors, working with government, to realize the plans and vision of DLNR and these communities, and to ensure the sustainability of Earth's best resources.

Web Address:
www.state.hi.us/dlnr/welcome.html

PARTNERS PROMOTING INTERGOVERNMENTAL COOPERATION

Utah Customer Service Oriented Environmental Quality Department

Problem Statement

Past misalignments and enforcement-oriented regulatory practices within the Department often resulted in delays, frustration, and increased costs for businesses, inefficient delivery of environmental services, and wasted taxpayer resources.

Misalignments between federal and state and local governments, business interests, and citizens often resulted in inefficient and ineffective environmental programs and services. Some environmental issues were poorly coordinated because each agency thought the other was responsible. As a result, some community problems were left unresolved. Federal, state and local agencies sometimes addressed environmental issues differently.

This situation, besides being inefficient and ineffective, created confusion and frustration for the public. The public would receive inconsistent information and not know which agency to approach.

The public's interest, to get a problem solved no matter which government agency was responsible, was not served. The mounting impacts of rapid state growth and development exacerbated this already difficult situation.

> *"Utah needed new ways of doing environmental business."*

History of the Initiative

In January 1993. Governor Leavitt appointed Dianne Nielson Executive Director of the Department of Environmental Quality (DEQ) and charged the Department to operate as a customer service organization. The governor's charge expanded the agency's customer-focused Total Quality Management (TQM) initiative, begun the prior year, and focused DEQ on this key objective:

> *"Make state government directly responsive to the people it serves."*

DEQ leaders gave the governor's initiative dynamic form. They revised the department's strategic goals to reflect this new way of doing business and began including key customers and staff in their planning process. They linked these goals, intended to guide every agency activity, through the entire organization to individual, front-line employee performance plans. In addition, DEQ managers and staff established "Operating Principles" which spell out the new way to do business and guide each person in creating an atmosphere of cooperation.

The Partnership Vision

Realizing that DEQ can best achieve its mission by working closely in partnership with its customers, constituents, and other government agencies, the department dramatically changed the way it does business. DEQ staff actively works to develop partnerships through forums for information sharing, joint planning and problem-solving with the Environmental Protection Agency (EPA), Local Health Departments (LHD), city and county

PARTNERS PROMOTING INTERGOVERNMENTAL COOPERATION

governments, local facility operators, developers, industry leaders, small business owners, special interest groups, legislative representatives and concerned citizens. Employee and customer feedback guide improvements as these activities continue to evolve.

Business Partners

Although working in partnership with regulated industries is a radical departure from traditional oversight and enforcement, this approach actually achieves greater compliance in many cases. Guided by environmental standards, DEQ makes every effort to help businesses achieve compliance.

Compliance assistance resources include technical workshops and other educational programs for businesses and industry consultants, on-site assistance visits, fact sheets, coordination and support through industry associations, technical assistance by phone, Internet access to regulations, and Small Business Assistance Programs.

Local Health Department Partners

The Partnership Council, formed in 1993 with Local Health Departments and DEQ representatives, has become a successful model of local and state cooperation, joint planning, and service improvement. Formed to improve deteriorated working relationships and to address service delivery concerns, the Council has chartered and managed successful problem-solving teams, established environmental services delivery plans, and jointly petitioned the Legislature for program support and budget requests.

Specific accomplishments through the Partnership Council include:

- Major improvements in the DEQ underground storage tank program and the creation of an industry-sponsored tank training facility.
- Improved local emergency response capabilities through acquisition of emergency response equipment and additional training for LHD personnel.
- Creation of an ongoing LHD/DEQ joint problem solving and review committee to assure consistent state practices through the used tire recycling program.
- Solutions to many state drinking water service delivery concerns through greater coordination, communication, and training.
- New DEQ/ LHD service contracts to create greater flexibility, simplify reporting procedures and reflect improved, more trusting relationships.

Integrating resources has benefitted Utah citizens and improved services throughout the state. Decades of mutual frustration have been transformed into partnership relationships that make possible the multilevel Partnerships for the Environment, described below.

Federal Government Partnerships

Through ongoing negotiations with the EPA and through active leadership in national organizations, DEQ leaders influence national policy and funding to support Utah environmental needs.

PARTNERS PROMOTING INTERGOVERNMENTAL COOPERATION

- In October 1995, DEQ was one of the first states in the nation to sign a Performance Partnership Agreement with the Environmental Protection Agency (EPA) through the National Environmental Performance Partnership System (NEPPS). This annually negotiated agreement establishes Utah goals for environmental protection as standards for state accountability.

- Utah was one of the first states to adopt Performance Partnership Grants, which allow Utah to use grant resources flexibly to address state needs.

Partnership for the Environment

As a natural extension of these working partnerships, greater communication and trust, the Partnership for the Environment initiative brings together three levels of government (EPA, DEQ & LHD) to address environmental problems identified by local officials and community leaders. The partnership initiative reflects Governor Leavitt's commitment to "Customer-Driven Government" and creates a new, ongoing model for federal, state, and local government cooperation.

New Ways to Do Business

The partners have practiced new ways to do business, guided by jointly developed vision, value and operating principles. Their willingness to work within this framework made the initiative possible.

Shared values identified by the local, state, and federal government partners shaped the vision and made the initiative possible:

- Focus activities at the local level.

- Solve or prevent problems by using each agency's resources and authority.
- Take risks, build trust, and listen to community needs.

- Commit personal leadership, teamwork and follow-through to assure success.

Practices for Working with Counties

Addressing individual county environmental issues through collaboration and coordination was and continues to be the overall goal. The specific objectives are:

1. Determine what elected officials and other community leaders perceive to be the environmental problems in their respective counties and prioritize those concerns.

2. Identify resources which partners can contribute to solve these problems and commit jointly to appropriate steps to address each issue.

3. Maintain regular contact with community leaders to communicate progress and seek necessary assistance.

4. Assure adequate communication, coordination and collaboration between the agencies to provide a seamless resolution to the issues.

Southwest Partnership for the Environment

The five-county Southwest Utah Partnership for the Environment, initiated in January, 1996, is an ongoing partnership success for the EPA, DEQ, LHD, county commissioners,

the Five County Association of Governments, and the people of Southwest Utah.

The Southwest Utah Public Health Department (SWUPHD), DEQ and EPA met to determine what each agency could bring to the partnership and how to begin. Next, a meeting was held locally with invited community leaders from each of the five counties in this 17,000 square mile area. During this meeting, DEQ directors briefly presented county-specific environmental information. County groups then expressed their specific environmental needs, issues, and concerns. Their issues were consistent with those identified during a statewide, EPA-funded Comparative Risk Project through which communities previously were surveyed. Phase two of the Comparative Risk Project, working directly with communities, was initiated through the Southwestern Partnership.

With the needs, issues and concerns identified by the counties, SWUPHD, DEQ and EPA began the process of clarifying the information. The three agencies met to make sure everyone heard the same thing and to discuss what could be done. Follow-up meetings were held with county commissioners to verify needs, establish priorities and learn more about their concerns. Each county identified drinking water and waste water as priority issues. Other priorities included landfills, radon, used tires, and air quality.

Once this identification and verification process was completed, the three agencies chose assignments based on their particular resources. The work began. A tremendous amount of work was accomplished in a very short time and without any increases in agency budgets. Once the three agencies focused their collective resources on the same issues, each partner shifted priorities to provide staff, technical expertise, services, regulatory authority and funding to this project.

Results

The following has occurred in direct response to the needs, issues and concerns expressed by community leaders.

1. Adoption of a local health department ordinance addressing non-public water systems. Government partners, county commissioners, county building inspectors, and well drillers prepared the ordinance which the SWUPHD Board of Health adopted after public hearings.

2. Adoption of model county ordinance/recommendations addressing septic tank management for groundwater protection. Government partners, county building inspectors, and real estate interests prepared the ordinance adopted by county commissioners. Through the EPA Senior Environmental Employee program a retired engineer was hired to work with the public and county planning and zoning commissions on this ordinance. Government partners produced a tri-fold color brochure for public information.

3. "Ideas for Water Management Strategies," a workshop for more than 100 people from the five county area was conducted by the partners and representatives from local governments.

4. The SWUPHD is developing a certification program for individuals interested in being able to conduct percolation tests and soil analyses for septic systems. Small counties need more local, qualified individuals.

5. In order to stop illegal dumping, partners helped landfills increase public accessibility, educate citizens, and coordinate state/county enforcement actions

6. A basin/aquifer study for groundwater protection began in Washington County to assess septic system impact on the aquifer and the need to restrict septic system density. A similar study is now being developed for Iron County.

7. Public information and availability of radon test kits through the Beaver County newspaper helped citizens where radon readings are highest in the state.

8. The partners, five county commissions, and federal and state land managers met to discuss needed coordination of controlled burns in this scenic tourist destination where more than 90 percent of the five county area is publicly owned.

9. Additional activities included watershed management, underground storage tank seminars, used tire disposal, fact sheets on open burning, fugitive dust and air quality, and a recycling guide for Iron County.

10. Improved relationships have helped all governments utilize each other's resources for more effective environmental services delivery. Each agency is recognized as willing, helpful, and effective in solving problems in these rapidly growing communities. They proved they could *listen and work together effectively.*

Using the model developed in the southwest, a community-based partnership with DEQ, the Tri-County Health Department, other local entities and the EPA began in August. 1997 in the Uintah Basin.

Over time, partnerships between EPA, DEQ, and the remaining ten local health departments, and county governments will be initiated to address local needs throughout the state.

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Wyoming Intergovernmental Cooperative Lands Management

Under Governor Jim Geringer, Wyoming has found better ways to coordinate federal and state land management planning and decision making. Those better ways include the Governor's Kitchen Table and the Capital City Coordinator.

PARTNERS PROMOTING INTERGOVERNMENTAL COOPERATION

Governor's Kitchen Table

Shortly after taking office in 1994, Governor Geringer decided to address the fact that state and federal agencies in the state often worked at cross purposes on land management issues where there was shared jurisdiction. Recognizing the need for better cooperation, the governor invited federal and state agencies to meet with him and his staff to "strive for alignment" among agencies and set the stage for the most "effective and efficient public service." He called this meeting his "Kitchen Table" because in rural America, friendships are built, business is discussed, and binding agreements are sealed with a handshake over a cup of coffee around the farm or ranch house kitchen table. Eleven state and federal agencies attended this first Governor's Kitchen Table.

That meeting was such a success that the governor institutionalized the effort. Participants at the second Kitchen Table discussed strategies for coping with shrinking agency budgets. Opportunities for sharing data and other resources were identified. As a result of that meeting, Governor Geringer, Rocky Mountain Regional Forester Lyle Laverty, and Intermountain Regional Forester Jack Blackwell signed a Memorandum Of Understanding (MOU) regarding data sharing and data management at the 1998 Kitchen Table.

Also stemming from the 1996 Kitchen Table, an interagency task force was established to develop a model which could accurately predict the movement of particulate matter in the southwestern Wyoming airshed. Regional haze has been a major issue in mineral development efforts there because of a Class I wilderness area "downwind" of proposed development, and existing air transport models did not accurately predict movement of particulate matter within this airshed.

That group, the Southwest Wyoming Technical Air Forum (SWyTAF), will run their new model and test it against actual measurements beginning late this year. SWyTAF is itself recognized as an excellent working model for federal/state agency cooperation.

Participants in the third Kitchen Table discussed innovative opportunities for state and federal partnerships in the federal planning and NEPA processes. Those processes were discussed in the context of such issues as roads, non-point source pollution, and land exchanges. The Wyoming Capitol City Coordinator position is an outgrowth of these discussions.

Over 20 agencies and three congressional offices participated in the fourth Kitchen Table this year. Using a general framework of air and water quality issues, participants clearly defined each agency's role and responsibilities. Discussions identified jurisdictional overlaps and gaps, recognized where partnerships were happening effectively, and identified opportunities to improve partnerships.

Wyoming Capital City Coordinator

The Wyoming Capital City Coordinator position was established in 1997 by Governor Geringer and two regional foresters to promote communication, coordination, and cooperation among state and local governments in Wyoming, the USDA Forest Service (FS), concerned interest groups, and Wyoming's congressional delegation. The

coordinator is a Forest Service employee who is housed at the Department of State Lands and Investments.

The coordinator strives to improve Forest Service program delivery, presence, and credibility by establishing and maintaining effective contacts in the Capital City and across Wyoming. Issues and projects the coordinator has helped work on include: the Forest Service/Wyoming data sharing MOU signed at the 1998 Governor's Kitchen Table; national issues, including the proposed Forest Service transportation system policy; a proposal to reform policy governing Forest Service payment to the states; a natural resource agenda; and coordination of local and regional issues with the State of Wyoming, local agencies, and other federal agencies.

Stan Sylva is the current coordinator. He is a career Forest Service employee who has served in a variety of positions in Wyoming, Colorado, South Dakota and California.

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