

Western Governors' Association
Wildlife Corridors Initiative

Oil and Gas Working Group Report

December 2007

I. BACKGROUND

Western states are made up of a patchwork of federal, state, tribal, local government and private lands that support robust development and ecologically intact landscapes—essential assets to economic vitality and quality of life in the West. Change is occurring in the region at a pace that is difficult for decision-makers at all levels to track and accommodate. This rapid change is happening on many fronts, including unprecedented population growth and associated land-use impacts, energy development to meet growing demands and reduce dependence on foreign supplies, and new transportation infrastructure. Possible climate change poses further challenges for the region, with scientists projecting greater climate extremes, including increases in drought. These fast-paced changes are resulting in notable landscape impacts—including habitat loss and habitat fragmentation—ultimately impacting the West's wildlife and aquatic resources.

In February 2007, The Western Governors' Association (WGA) unanimously approved policy resolution 07-01, *Protecting Wildlife Migration Corridors and Crucial Wildlife Habitat in the West*. This resolution describes the importance of wildlife corridors and crucial habitat and identifies the existing and potential conflicts between energy development and these important wildlife resources. Further, the resolution asks the Western states, in partnership with important stakeholders, to identify key wildlife corridors and crucial wildlife habitats in the West and make recommendations on needed policy options and tools for preserving those landscapes. To implement the resolution, WGA launched the *WGA Wildlife Corridors Initiative*, a multi-state and collaborative effort to coordinate stewardship of wildlife corridors and crucial habitat.

As a first step in this initiative, the *Oil and Gas Working Group (OGWG or Working Group)* was convened to develop recommendations for including wildlife values into oil and gas decision-making in areas identified as wildlife corridors and crucial habitat. The Working Group used definitions for “crucial wildlife habitat” and “wildlife corridors” approved by the initiative's Steering Committee in consultation with scientists and state fish and wildlife agencies.¹

¹ “**Crucial Wildlife Habitat**” describes any particular range or habitat component, but describes that component which is the determining factor in a population's ability to maintain and reproduce itself at a certain level over the long term.

“**Important Wildlife Corridors**” are avenues, routes, or other areas that provide natural, relatively undisturbed connectivity on a seasonal or longer time frame to, between, or among important/crucial core habitat areas used by animal species (occasionally plant species) that require relatively large blocks of habitat and/or are wide-ranging. **Wildlife corridors** sometimes join naturally or artificially fragmented habitats and serve to maintain or increase essential genetic and demographic connection of populations of one to many species, and/or maintain objective wildlife numbers by providing access to crucial (limited) habitat. Further, **wildlife corridors** are often, but not always, narrow connections that may not be fully and routinely occupied by species of interest but serve to ensure that such species are able to use disconnected tracts of habitat that serves—by themselves, or collectively—all life processes.

State Wildlife Action Plans

State Wildlife Action Plans (Action Plans or Strategies) were developed recently by each state and approved by the United States Fish and Wildlife Service. The action plans are a useful starting point for assessing the wildlife resources in each state. These plans are an important resource for understanding some of the species and habitats in greatest need of conservation throughout the West. Each state's plan not only assesses species and habitats of particular interest but also identifies threats and actions that can lead to long-term conservation and help prevent additional listings of species as federally threatened or endangered. Although habitat types and species vary greatly throughout the West where oil and gas development occurs, the plans do identify wildlife and related habitats that are of concern to many Western states.

For example, the Montana, Wyoming, Colorado and Utah Comprehensive Wildlife Conservation Strategies list the Greater Sage Grouse and/or the Gunnison's Sage Grouse as a species in greatest need of conservation. Sage grouse are obligate residents of the sagebrush ecosystem, usually inhabiting sagebrush-grassland or juniper sagebrush-grassland communities. Sage grouse are considered an important measure of the health of the larger sage shrub-land habitat because of their sensitivity to change. Conservation of sagebrush habitats is not only crucial to Sage Grouse, but also to other species that are part of this wildlife community, such as mule deer, antelope and various nongame species.

One common thread cited as a conservation concern to sagebrush habitat in most of the strategies is oil and gas development and the potential for development to fragment remaining sagebrush habitats.

For example, the New Mexico strategy discusses oil and gas development in the following way:

“Energy development infrastructure, including roads, tanks, equipment staging areas, compressor stations, shops, pipelines, power line corridors, associated traffic, and human activity have the potential to affect wildlife more than just the wells themselves. For example, when impact zones surrounding each well pad, facility, and road corridor begin to overlap, habitat effectiveness is reduced over a much larger contiguous area. Development at this level reduces the ability of wildlife to use the habitat. Mule deer in particular are precluded from accessing their winter ranges.”

As oil and gas development expands, these Action Plans could serve as a foundation for identifying crucial habitats throughout the West that are in need of conservation.

The Intersection of Wildlife Corridors and Crucial Habitat with Oil and Gas Development

Care in early stages of planning oil and gas development is important to avoid damage that can take decades to overcome. The Governors' policy resolution specifically identifies the importance of crucial habitats and corridors to healthy wildlife populations and recognizes the need to mitigate the impacts of energy development on these important resources. The reason behind the Governors' focus is clear -- both energy development and wildlife are crucial to a healthy economy and high quality of life in the West. Therefore, accommodating oil and gas development, while minimizing impacts to wildlife habitat, is essential.

Healthy ecosystems and abundant wildlife are an important economic driver

Open spaces support a diversity of wildlife and fish habitat. Wildlife-associated recreation brings important economic benefits to communities throughout the West. Small communities in particular benefit from the revenue that comes with tourism, hunting and fishing, and other forms of outdoor recreation. Retail tax revenue for many small towns is provided to a large degree during the key hunting and fishing seasons. In the contiguous Western states, more than 43.6 million people participated in hunting, fishing or wildlife watching in 2006, spending almost \$33.6 billion.² This revenue is dependent on significant, reliable wildlife populations, which in turn depend on quality habitat and corridor movement.

A 2006 Outdoor Industry Association report compiled data that demonstrates the importance of outdoor recreation. Nationwide, 45 million people go camping, 33 million people fish, 56 million people hike, and 66 million people engage in wildlife viewing. In the Rocky Mountain West, 13 percent of the population fishes, 6 percent hunt and 31 percent participate in some form of watching wildlife (*2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*). This reflects strong support for the open space and healthy ecosystems that either directly or indirectly make these activities satisfying. The natural beauty and landscapes create a quality of life in the West that attracts new residents who bring significant talent, economic activity and jobs to the region.

Oil and Gas from the West — Important to the Nation and the Western Economy

The United States' economy substantially depends on the use of fossil fuels, such as oil and natural gas, as its main energy source to power our nation's transportation, technology and basic manufacturing needs. World events and growing demand have applied sustained pressure to increase domestic production.

In 2005, the U.S. consumed 21.9 trillion cubic feet (Tcf) of natural gas and 7.9 billion barrels of oil, with a record 9.16 million barrels per day of motor gasoline. According to the Energy Information Administration (EIA), natural gas consumption is projected to increase by 18 percent in 2030 to 26.1 Tcf per year. If left unchecked, U.S. consumption of petroleum-based liquid fuels will climb to more than 26 million barrels per year in 2030. These projections could be lowered if there are concerted efforts to conserve energy, as Western Governors have advocated as part of their Clean and Diversified Energy Initiative and in their upcoming report on Transportation Fuels for the Future.

To meet this demand, energy development—especially natural gas—is growing rapidly in different areas of the West. Today, one half of the natural gas consumed in the United States comes from wells drilled in the last five years. Production of natural gas in the Rocky Mountain States has increased 69 percent since 1996, making this region the largest domestic source of natural gas production.

This growth is likely to continue because of the size of the resource in the West. It is estimated that the Intermountain Region holds 284 Tcf of technically recoverable natural gas—enough gas

² U.S. Fish & Wildlife Service. 2007. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, State Overview. The states included in this figure are Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming

to provide all of America's current household energy needs for 60 years. The region also contains one-third of all U.S. gas reserves for the lower 48 states. Department of Energy forecasts show the region is poised to expand to 40 percent of the lower-48 states' onshore production by 2025.

- Sixteen of the nation's largest fields are located in the Rocky Mountains.
- Geologists speculate that as much as 400 million barrels of oil lies beneath the Bakken resource area in Montana and North Dakota.
- The San Juan Basin in Colorado and New Mexico is the nation's largest natural gas field.
- Wyoming and New Mexico rank second and third in the nation in proven natural gas reserves.

State Governments and the Economy Depend on Income from Oil and Gas

The U.S. is the world's largest energy producer, consumer and net importer. In 2006, the oil and gas industry pumped \$542.1 billion into the U.S. economy, amounting to 4.2 percent of the gross domestic product. It also contributes to the economic vitality of the region.

Revenues derived from state taxes and royalties to states and counties are significant; many states and local governments rely on energy development for an important share of their revenues.

There are major benefits of oil and gas production for the region, but some of the public and private lands that have the greatest potential for natural gas production also have crucial habitat and corridors important for wildlife. Finding ways to meet the energy needs of the nation while also recognizing the importance of crucial habitat and wildlife corridors is a challenge that involves cooperation at all levels of the public and private sector.

Stakeholders

The Oil and Gas Working Group reflects many of the stakeholders that are involved in the issue. Land management decisions respecting development and habitat management can also influence practices on adjacent federal, state, tribal and private lands. The interrelationship is a driving factor behind the need to coordinate management actions across multiple jurisdictions. Key stakeholders that need to be involved in these discussions are:

- **State governments** - State governments, through their state fish and wildlife agencies and oil and gas commissions, serve as a bridge between the public/private and local/federal dynamics of decision-making. State governments also usually have the most easily accessible data on wildlife resources. They work continually to update and improve those data, and have laid out their explicit priorities for wildlife conservation in Wildlife Action Plans. States also have the responsibility for decision-making for energy development on state and private lands.
- **Federal land management agencies** - The Bureau of Land Management (BLM) and the U.S. Forest Service (USFS) are responsible for decision-making on energy development on federal public lands. These agencies are working to ensure oil and gas resources on public land can be developed in a timely manner to meet the country's energy demands. They also are charged with analyzing, mitigating and monitoring the impacts of energy development. Additionally, the U.S. Geological Survey contributes important data on both wildlife and oil and gas potential that could assist federal agencies in managing resource development.

- **Tribes** - Energy and biological resources are contained on tribal lands, giving tribes an opportunity for substantial economic benefits from energy production on lands that may also be ecologically and culturally sensitive. Some tribes have hunting, gathering and ceremonial rights to public lands. Tribes need to be included in energy development decisions on public lands to ensure their treaty and other interests are met.
- **Local government** - Counties, municipalities and conservation districts have various authorities relevant to private and federal lands, such as law enforcement, fire protection, zoning, and water and soil quality. They play an important role as a voice of their constituents for both economic development and wildlife conservation. Counties can be particularly dependent on revenues from agriculture, recreation, hunting, fishing and oil and gas to provide services to their citizens.
- **Private land owners** - Ecosystem health and agricultural production are key to the future of the West and are the life-blood of the rural economy and culture. Private lands are part of the matrix of wildlife habitat and energy development. Landowners often are impacted by energy production yet are not always involved in the decisions that affect them. The impacts of energy production create challenges and opportunities for landowners, and they must be integral to relevant decision-making processes.
- **Industry** - Production companies and their service providers vary in size. They all share a need for timely decisions from government so they can proceed with timely development to meet financial goals and commitments. In some cases, changes in technology create options for industry to minimize impacts. The crucial aspect is a full understanding of the technological and economic viability of these technologies.
- **Sportsmen and Conservationists** - Sustained ecosystem health is a shared mission of sportsmen and conservation groups. Some conservation groups are at the forefront of mapping and analyzing ecosystems, and sportsmen and conservationists frequently serve as partners to industry and all levels of governments in their efforts to conserve habitat and mitigate impacts.

II. ISSUES AND RECOMMENDATIONS

(organized by theme rather than priority)

Introduction

This report makes specific recommendations for integrating protection of crucial habitat and corridors into oil and gas development in the West. The Oil and Gas Working Group identified five major areas for discussion and policy recommendations:

*1. The opportunities and needs for improvement of how the **federal-leasing and well-permitting processes** account for wildlife corridors and crucial habitat.*

Development of both new and existing oil and gas leases can create conflicts with other resource values and stakeholder preferences. Because NEPA is intended to disclose information, not engage stakeholders in advanced planning, it is not the right regulatory process to address the special needs of crucial habitat and wildlife corridors. The imprecise regulatory process can lead to delays and denials of proposed development that can adversely affect mineral owners. Conversely, it also can result in sensitive areas being leased without the benefit of pre-planning. Historically, proposed development plans have not been coordinated across the landscape, considering all land status. Land use plans are difficult to modify in a timely manner to reflect

new data that can create a more informed decision-making environment. Also, in crucial habitat and wildlife corridors, the BLM is required to balance established lease rights with other resource values.

*2. Using **monitoring** of impacts to wildlife as an essential input into decisions*

Monitoring helps achieve management objectives. Inadequate monitoring leaves decision-makers uninformed of whether they have achieved their desired objectives and can leave parties with few informed choices for improving actions. Poor monitoring can have serious consequences for both wildlife and development. Without appropriate monitoring, significant wildlife resources could go unnoticed. In the most extreme situation, significant impacts could result in a listing as a threatened or endangered species or prevent the recovery and delisting of a protected species. Also, protocols and collection practices vary. This prevents data from being the foundation for broad understanding and can lead to unsatisfactory policy outcomes.

*3. Improving the **capacity** (or staff and financial resources) of the state and federal governments to be able to plan for and address the impacts of oil and gas production*

Increased oil and gas activities across the West have strained the capacity of fish and wildlife professionals to manage and conserve all crucial habitat and wildlife corridors, particularly on private land since their jurisdiction is limited. On public lands, the lack of staff to manage wildlife can lead to slower permit processing and compliance reviews and inadvertently brings inconsistent approaches to fish and wildlife mitigation and restoration. This means an uncertain environment for industry and missed opportunities to conserve fish and wildlife.

*4. Utilizing **incentives** as tools to promote effective actions from industry and private landowners*

In some cases, incentives can be used in place of mandates and requirements to encourage actions by industry and private landowners that strengthen habitat and corridors, promote early planning for wildlife values, and promote better mitigation and remediation of areas being developed. Creation of incentives can involve stakeholders in a way that accounts for their needs—driving solutions that are more sustainable.

*5. Maximizing the use of **tools** that help inform decision-making*

Making informed decisions about impacts in and around crucial habitat and wildlife corridors requires new tools. Decision-makers at all levels of the government and the private sector can benefit from geospatial tools that can identify areas of potential conflict between wildlife needs and oil and gas potential. While very useful, these Geographic Information System (GIS) maps are surprisingly hard to produce because of inconsistent data protocols and gaps in data.

1. FEDERAL OIL & GAS LEASING

The two primary agencies administering Western public lands are the Bureau of Land Management (BLM) and the U.S. Forest Service (USFS). The leasing process for federal onshore oil and gas resources begins with a landscape-level inventory and evaluation of lands within an administrative unit. This analysis identifies which federal oil and gas resources will be available for leasing, and what stipulations, if any, are needed to protect resources if the lands are eventually leased. These determinations involve a careful balancing of federal land managers' broad multiple-use objectives under the “Federal Lands Policy and Management Act” (FLPMA).

New Leases

Normally, leasing analysis is contained in the applicable land-use plan, which can be a Resource Management Plan (RMP) for BLM, or a Land and Resource Management Plan (LRMP) or Forest Plan in the case of the Forest Service. Where existing planning documents do not address leasing availability or appropriate lease stipulations, land managers may need to prepare supplemental documents. Documentation of the leasing analysis is subject to periodic revision and may need to be supplemented or amended to reflect new information or changed conditions. Developing plans and plan amendments can be long processes. Making some planning decisions more efficient through abbreviated processes may allow more information to be incorporated earlier into plans and benefit oil and gas operators through faster decisions.

The leasing determination and associated balancing of uses is a federal action that often triggers (NEPA) requirements. Once an area has been classified as available for leasing, lands may be leased as interest and market conditions warrant. It is important to note that “No Surface Occupancy” (NSO) stipulations that preclude surface activity, but allow the extraction of minerals, must be attached to a lease prior to its sale. Otherwise, the stipulation’s potential benefits in protecting crucial wildlife areas and migration corridors are forfeited. Once an area is leased and a lessee decides to pursue development, an “Application for a Permit to Drill” (APD) is filed, which triggers additional NEPA review. Finally, if exploratory efforts result in an economically viable discovery, the lessee may propose full-field development, which also may be subject to the requirements of NEPA.

Current federal processes, particularly land-use planning and associated NEPA analysis, use currently available information to assess the needs of crucial wildlife habitat and corridors.

A patchwork of existing lease ownership of surface lands (including tribal ownership) creates a complex relationship that must be addressed to protect crucial wildlife habitat and corridors. This patchwork of federal, state, tribal and private land ownership common to the Western United States can complicate both wildlife management and oil and gas development. Improving communication and coordination among adjacent land-management agencies should improve management consistency, benefiting wildlife managers, oil and gas operators, landowners and users. Governors are uniquely positioned to lead efforts that facilitate early understanding of crucial habitat and wildlife corridors in the specific instance and special considerations *before* leases are considered.

Public participation in land-use planning and the associated NEPA process is an integral component of federal land management. Many nongovernmental interests are highly informed about important values that will be impacted by decisions. Governors can work with federal land managers as cooperating agencies and can help facilitate earlier and more effective communication among interested parties, thereby acting as an effective bridge between interests. The earlier such interests are brought together, the easier it is to develop constructive solutions to wildlife issues. While such collaboration requires a significant early investment in time, it can pay dividends later on in terms of reduced controversy, litigation, and delays.

Issues:

#1: Understanding of the special needs of crucial habitat and wildlife corridors should be established before leasing. This includes clear identification of crucial wildlife habitat and wildlife corridors that might need special consideration prior to new oil and gas leasing and development decisions.

- A. **Recommendation:** To minimize positional and reactive communication, land managers should emphasize pre-planning communication and the sharing of information. Best available data and effective consultation processes need to be available prior to leasing for key decision-makers.*
- B. **Recommendation:** Western Governors should direct their respective state fish and wildlife agencies, in coordination with federal land-use agencies, to identify wildlife corridors and crucial habitat and develop the collaborative conservation strategies necessary to sustain these sensitive areas through a transparent, public process taking into account the preferences of private landowners as necessary.*
- C. **Recommendation:** Western Governors should emphasize to the federal agencies the importance of mitigation sequencing (avoid, then minimize, and only then compensate off-site for impacts) in developing leases in crucial habitat and wildlife corridors. Governors also should encourage their own wildlife agencies to emphasize mitigation sequencing as cooperating agencies in federal processes.*
- D. **Recommendation:** Western Governors should request the Secretaries of the Interior and Agriculture to assess, and implement where appropriate, a policy of site-specific NEPA analysis before offering new federal lease parcels in the areas that the states deem to be wildlife corridors and crucial habitats.*
- E. **Recommendation:** Western Governors should request the Secretaries of Interior and Agriculture develop and implement a mandatory, well-defined and inclusive consultation process with the states before new parcels are offered for lease to ensure that leasing does not occur in either the identified wildlife corridors or crucial habitats or that appropriate protective stipulations, including NSO, are applied.*
- F. **Recommendation:** Western Governors should request the BLM and Forest Service to engage affected landowners in the process as early as possible with a transparent means for their input.*
- G. **Recommendation:** Western Governors should direct their state wildlife agencies to identify geographic areas where there is a heightened concern because of conflicts between leasing and/or development and crucial wildlife habitat or corridors. Where state wildlife agencies and federal land managers do not have adequate information about these areas to develop stipulations that adequately avoid or mitigate impacts to crucial wildlife habitat or corridors, individual Western Governors may want to consider requesting short-term postponement of leasing decisions affecting these areas while the requisite information is obtained.*

Existing Leases

Higher demand and price environments coupled with improvements in technology have allowed the oil and gas industry to get production from reservoirs that were previously infeasible or

uneconomic. Some of these areas are within existing leases and have important wildlife corridors or crucial habitats.

Many mature fields are experiencing down-spacing of wells to more efficiently recover remaining hydrocarbons. In many instances, there is a corresponding increase in infrastructure required to drill, transport and process the hydrocarbons in a more densely drilled reservoir. Directional drilling and multiple-completion technology can lessen habitat fragmentation impacts to wildlife, but in some cases there are technical or economic limitations to these technologies.

The uncertainty of access to existing federal leases can affect business decisions, and may accelerate development on adjacent non-federal leases with equally important wildlife values.

Expiring, undeveloped leases that occur within identified crucial habitat and wildlife corridors offer the federal agencies an opportunity to evaluate future leasing availability of these parcels in light of new information. To adequately protect wildlife resources, accurate resource data must be shared across administrative boundaries, and leasing decisions should be considered in light of new information concerning crucial habitat and wildlife corridors.

#2: Where there are existing leases and resource management plans, there currently is little opportunity to bring new understanding to aging land-use decisions. In addition, there are limited opportunities to modify federal oil and gas leasing and development decisions to address the needs of crucial wildlife habitat and corridors.

- A. **Recommendation:** Western Governors should encourage a collaborative effort to define and map migration corridors and crucial habitats involving land managers from the private, state, tribal and federal sector. Interstate consideration should be given to this effort.*
- B. **Recommendation:** Western Governors should direct their respective state fish and wildlife agencies to conduct annual meetings for state and federal agencies to do crucial wildlife-habitat and corridor map-sharing. These annual meetings should produce information regarding identified crucial habitats and wildlife corridors and review whether existing stipulations are adequate. If current stipulations are not adequate, the annual meetings should work to outline appropriate stipulations or a process to determine what stipulations are appropriate. These wildlife corridor/crucial habitat maps and other products should be provided to the federal land-management agencies early in the planning process for LUP revisions and for any site-specific field plans.*
- C. **Recommendation:** To build on the improved crucial habitat and migration corridor information from the annual meetings described above in Recommendation 2.B., the Western Governors recommend that the BLM and USFS formally assess and communicate to the appropriate Western Governor how they will utilize this new information and what, if any, changes are needed to current land use plans to ensure adequate protection of newly mapped corridors or crucial habitat. If LUP changes (revisions or amendments) are needed, these should be handled through existing*

- agency processes to determine the level of NEPA documentation and public involvement necessary.
- D. Recommendation:** Once wildlife corridors and crucial habitats are mapped, as appropriate, the WGA recommends the immediate analysis of ongoing oil and gas development to identify and prioritize areas of overlap with imminent conflict.
- E. Recommendation:** Western Governors should direct state oil and gas conservation commissions (as appropriate), state land offices, state environmental regulatory agencies, and state fish and wildlife agencies to jointly lead a collaborative effort that includes private landowners, federal land managers, tribal governments, and land users to accomplish two goals: identify the reasonable foreseeable development in these priority areas, and secondly, agree on appropriate avoidance, minimization, on-site and off-site compensation and monitoring strategies to be implemented across land status and at various scales, but only with the concurrence of the affected private landowners and the federal land-use agency.
- F. Recommendation:** Western Governors should consult with the federal land-management agencies to:
- Amend federal LUPs to incorporate the recommendations of these collaborative groups for existing leases and new leasing in priority areas.
 - Review stipulations and mitigation plans during LUP revisions for areas of less intensive development, taking into account any new scientific-based information.
- G. Recommendation:** Western Governors should convene a task force to research options for federal lease trades and/or buybacks as a tool for oil and gas companies to consider where existing leases are identified in crucial habitat and wildlife corridors. It is recommended that this task force research, but not be limited to, the following:
- identify the instances when leases and buy-backs are beneficial tools;
 - identify the barriers (legal and otherwise) that exist regarding trades and/or buybacks of federal leases;
 - develop mechanisms for assessing the site-specific, financial or other benefits of using trades and buy-backs;
 - identify ways to determine the fair-market value of the mineral leases subject to trades;
 - make recommendations for establishing a mechanism for determining potential losses of both federal and state revenue resulting from the federal lease buyback;
 - make recommendations for establishing a mechanism for determining potential gains or losses of revenue to the state from the result of a federal lease trade;
 - research options for potential sources of funding from which buybacks would be executed.
- H. Recommendation:** Western Governors should work with the Secretaries of Interior and Agriculture to continue the practice of ensuring the timely preparation of a field development NEPA analysis consistent with existing laws and regulation.
- I. Recommendation:** Western Governors should request that, as part of the NEPA process, federal land-management agencies explicitly analyze the impacts to wildlife

corridors and crucial habitats that are likely to result from oil and gas leasing or oil and gas development. Through these NEPA processes, agencies should specify how they will avoid or minimize impacts to wildlife corridors and crucial habitat.

- J. Recommendation:** *In order to adequately compensate for impacts that cannot be avoided or minimized, Western Governors should direct their state fish and game agencies to take the lead to develop criteria and guidance for on- and off-site, compensatory mitigation, including when and where it should be applied or not applied.*
- K. Recommendation:** *Western Governors should identify or support conservation incentives that encourage companies not to develop in areas identified as crucial habitat or wildlife corridors. This may include financial or operational incentives.*

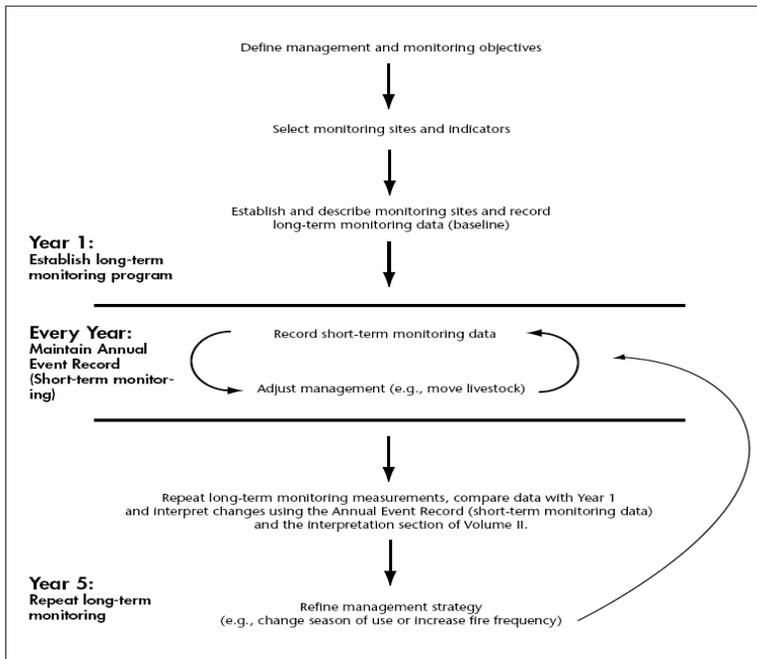
2. MONITORING

Monitoring can be defined as “the orderly collection, analysis and interpretation of quantitative data to evaluate progress in meeting management objectives.” The reason to monitor is to determine whether management actions are achieving their objectives. If not, the actions need to be adapted and monitored again for effectiveness. Monitoring should enable the determination of whether stipulations and conditions of approval are working, and then specifically to gauge how an activity (e.g., drilling, construction, site reclamation, etc.) is impacting wildlife. If specific impacts are not understood, they cannot be mitigated.

Often, monitoring is viewed as a “tail-end chore” offering few benefits. This mentality must change to recognize the importance of monitoring in improving efficiency and facilitating better-informed decisions. Failure to monitor impacts of development could result in land use management that decreases future oil or natural gas development activity. Without monitoring, wildlife resources could be impacted to a level that would prevent their recovery or result in a listing as a threatened or endangered species or costly mitigation measures being continued unnecessarily.

Long-term monitoring that is designed to document landscape-scale changes in the overall condition of the land and the wildlife populations includes soil structure, plant cover and wildlife response. Short-term monitoring allows early course correction, if needed. Often, it proves critical to interpreting exactly what mechanism prevented a longer-term action from working.

Monitoring and Management Flow Chart



Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems: Volumes I & II, Jeffrey E. Herrick; Justin W. Van Zee; Kris M. Havstad; Laura M. Burkett; Walter G. Whitford, 2005 , University of Arizona Press

A quality monitoring program is directly related to the development of a quality project plan. The monitoring analysis needs to result in adaptive management strategies that “run both ways,” yielding better stipulations and protection. On the other hand, it should also allow more revised stipulations or the elimination of unnecessary stipulations.

Collaboration among agencies (including local governments and conservation districts) and industry on monitoring design should be a consideration. Determining and establishing what to monitor should involve both management agencies and local governments to set policy and direction for the management team. This participation increases confidence in the participants of the monitoring results. Many of the federal land-management plans are retaining cooperators as an oversight group for implementation. This is the most effective group for oversight because of their involvement in the project development and their stake in the outcome. Because of their investment in the management outcomes and the monitoring processes they are intent on having the plans succeed.

Project developers should be directly involved in monitoring with appropriate agency oversight. They should develop an assessment on whether the project is accomplishing wildlife management goals. If the data acquired by project developers follows established protocols, the information should be used in assessing and developing modifications in land use management. Cooperation and open discussion are critical. Once the initial adaptive management is implemented, continued monitoring is the way to ensure it is working. If not it is the way to allow quick and appropriate adjustments.

Issues:

#1. Lack of adequate institutional support and funding.

A. Recommendation: Western Governors should investigate potential changes in federal or state policy through legislation or other means to divert general federal and state onshore oil and gas revenues to support monitoring activities by federal and state agencies.

B. Recommendation: Western Governors should support a policy to include language throughout the NEPA process, including records of decision that identify the parties responsible for monitoring.

#2. Lack of consistent, universally accepted monitoring protocols that can be used by all partners for monitoring activities.

A. Recommendation: Western Governors should convene an interdisciplinary technical committee with the charge to develop consistent, widely endorsed monitoring protocols that can be used by all partners for monitoring activities. These protocols must include three components: baseline, short-term, and long-term inventories.

#3. Lack of effective storage, management, and sharing of monitoring data across jurisdictions to facilitate adequate project analysis, landscape analysis and adaptive management.

A. Recommendation: Western Governors should support efforts to develop a monitoring and project data storage and management database that could be utilized by multiple jurisdictions (such as being conducted by WLCI and JIO).

3. BONDING

Closely linked with monitoring is the subject of bonding, or assuring financial responsibility for reclaiming development sites. To ensure adequate reclamation, government agencies need assurances that sufficient financial resources are available for reclamation.

Issues:

#1: Release of bonds can occur before adequate reclamation has been achieved.

A. Recommendation: Western Governors should convene a task force to determine if existing rules, regulations and policies, including compliance and enforcement, are adequate and effective in preventing the release of acreages from bonds prior to achieving sufficient reclamation. The task force should also determine if existing rules, regulations and policies dictating bond amounts are adequate and recommend needed changes.

4. INCENTIVES

When oil and gas development is being contemplated or is occurring, opportunities may exist at the landscape scale to provide greater protection for wildlife corridors and crucial habitat than is required by laws and regulation. Furthermore, actions taken on federal and state lands could

increase impacts to private lands and water. Consequently, incentives are needed to provide mitigation opportunities – financial or otherwise – that can be applied toward the voluntary protection of crucial habitat or wildlife corridors. To inspire more effective, timely and coordinated consideration of wildlife values, incentives should be provided to key parties, particularly private landowners, grazing allotment owners, oil and gas companies and conservation groups. Incentives should also be considered when “lessons learned” in habitat restoration or improvements are implemented.

States should develop and apply appropriate incentives to provide greater protection of wildlife corridors and crucial habitat than is required by law and regulations. Examples of incentives include:

- *Create certainty for the oil and gas industry. Certainty for the oil and gas industry means that if they participate in projects that effectively relieve pressure on crucial habitat and wildlife corridors, the mineral lessee will be allowed to access the lease in a timely and predictable manne.;*
- *Create incentives, on a case-by-case basis, for oil and gas companies to voluntarily implement habitat enhancement projects in crucial wildlife and migration corridors beyond the current federal requirements.*
- *Provide additional ability for joint planning and negotiation before energy production commences;*
- *Provide greater development flexibility to agencies and mineral developers who are willing to voluntarily offer financial incentives to landowners and permittees for implementing stewardship practices that benefit wildlife habitat;*
- *Recognize that actions taken on federal and state lands could increase impacts to private lands and water, develop incentives – financial or otherwise – for private landowners to take action to protect crucial habitat or wildlife corridors or to provide other mitigation opportunities on their private lands.*

5. TOOLS

In order to address cumulative and individual impacts of energy development, tools must be identified that help accomplish short- and long-term goals in wildlife, fisheries and habitat protection. The implementation of geospatial formatting for regionally sensitive habitat areas is one tool to be considered. Using this format, tools can include a variety of maps, spatial analysis, remote sensing technologies, and sensitivity models, as well as examining successful and unsuccessful examples of projects that utilized these tools to help facilitate management decisions. These tools help to visualize the landscape-level cumulative effects of surface disturbance and to identify critical information gaps that require additional surveys, models or research.

The lack of a regionally comprehensive and coordinated geospatial data overlay system of critical wildlife and fisheries habitats and corridors, as well as oil and gas development, hampers state and federal agency management decisions. Variations from state to state, among federal agencies, and between federal and state agencies add to this challenge. There is an insufficient current view (and no mechanism to maintain a geospatial picture) of the overlapping and often

competing needs of oil and gas exploration and development; crucial habitats and migration corridors; and the spatial distribution of private and public lands.

A variety of federal, state, academic and non-governmental organizations are developing geospatial products that relate to energy and wildlife. At this time, it is a challenge for agencies and industry to collate or compare these products. There is also a need to identify new technologies and approaches to help understand the conflicting resource needs and the cumulative impacts of natural and anthropogenic changes.

Issues:

#1. Lack of detailed data that is compatible across jurisdictions limits the utility of maps and other geospatial tools for analysis in the short term.

- A. Recommendation: Maps that utilize both USGS data on oil and gas potential and state wildlife data can be compiled quickly if needed. This can also be used as a base for future efforts. Western Governors should use such maps (if more refined data are not available) as a first step in identifying areas of potential conflict and, therefore, those areas that warrant greater attention.*
- B. Recommendation: Western Governors should direct the Science Committee of WGA's Wildlife Corridors Initiative to develop protocols that will facilitate the comparison of map products in terms of quality of data, resolution and scale. The Science Committee should identify the critical map layers needed by the Governors to make informed management decisions. This will allow compilation on a landscape scale so that states can make informed decisions on land use.*

#2. Incompatibility of data formats and protocols has prevented the production of universally accepted maps that reflect the latest understanding of corridor and habitat needs within the region. Variation occurs between federal agencies, state agencies, tribal governments, universities and conservation groups both within and among the states.

- A. Recommendation: Western Governors should appoint a single coordinating entity within each state to guide data collection and analysis using a single set of protocols. This entity should work with federal and state agencies, industry and non-governmental organizations to collate landscape-scale maps that identify crucial habitats and migration corridors; on-going and projected energy development; key energy and mineral reserves; and land ownership. In this manner, the data layers can be used by the Governors to determine particularly sensitive habitats for protection or, conversely, those areas that are less vulnerable to development impacts.*
- B. Recommendation: Lead entities from each state should convene periodically to develop a regionally integrated data regime and increasingly refined set of maps that overlay oil and gas potential (or activity) with crucial habitat and wildlife corridor information. Periodic updating should be required to ensure that continued monitoring efforts inform future decision-making.*
- C. Recommendation: Cooperation from oil and gas companies in specific high-priority areas should be fostered in order to integrate information into an oil and gas overlay without compromising proprietary data.*

#3 The Bureau of Land Management serves as the primary assembler of data on its lands, but it is not funded adequately to develop a comprehensive database and maintain it on a regular basis.

- A. Recommendation: Western Governors should request the Secretary of Interior make data monitoring and sharing a higher priority of BLM field and pilot offices.*
- B. Recommendation: Western Governors should work with the Secretary of the Interior to ensure that BLM offices have sufficient GIS resources, including staffing, to provide the acquired map layers in a usable format and on a timely basis. These map layers should be integrated into the resource management planning system and be used in decision-making. BLM data also should be made available to the companies, state governments and the public.*
- C. Recommendation: Western Governors should work with the Secretaries of the Interior and Agriculture to implement the Energy Policy Act of 2005 by establishing a joint geographic information mapping system that tracks surface resources across landscapes.*

#4. A lack of demonstrations where success and failure are analyzed has meant that valuable learning is not necessarily shared within and among the states, the BLM and industry.

- A. Recommendation: Western Governors should initiate a process (either as part of the Wildlife Corridors Initiative or afterwards) to analyze projects that have utilized geospatial and other tools, and provide a discussion of new approaches and tools that could be used.*

6. CAPACITY

Building capacity for producer assistance, stakeholder awareness and wildlife protection.

Limited state, federal, tribal and local resources are making it more difficult to regulate and oversee increased oil and gas development activities across the West and determine if the impacts are occurring on wildlife corridors and crucial habitats. This results in slower permit processing and compliance reviews and encourages an inconsistent approach to fish and wildlife mitigation and restoration that can be confusing to industry and less effective for fish and wildlife protection. Increasing agency staffing and resources will promote more expeditious, effective and broadly accepted outcomes by allowing agencies to perform more thorough planning and reviews.

Issues:

#1 – Coordination, communications and awareness.

Conflicts between development and wildlife may be diminished through more inclusive, consistent and timely coordination, communications and stakeholder awareness. Greater capacity is needed among industry, state, federal, tribal and local agencies, and private interests to facilitate improved coordination, communications and awareness.

- A. Recommendation: Western Governors should convene regular forums that assess the coordination and communication relevant to oil and gas development that includes appropriate representatives from industry, state and federal regulatory agencies,*

local governments, tribes, and private interests, including landowners, conservation organizations, sportsmen groups and agriculture.

- B. Recommendation:** *Western Governors should encourage the federal and state leasing authorities to develop improved and consistent public notifications; increase public access to information on wildlife corridors and crucial habitats; and deploy better communication tools, such as Web sites, newsletters and other publications.*
- C. Recommendation:** *Western Governors should encourage relevant state, local and non-governmental stakeholders to gain a better understanding of the NEPA process through training that focuses on linking planning and NEPA.*

#2 – Increased financial resources.

There is a need for additional financial resources for federal, state, local and tribal agencies to increase personnel and operational budgets to better engage in environmental planning and reviews, leasing processes, compliance and enforcement, as well as fish and wildlife research, monitoring and restoration activities.

- A. Recommendation:** *Governors should request increases in federal funding for federal agencies that administer mineral leasing permits and manage fish and wildlife resources, and agencies responsible for compliance and enforcement.*
- B. Recommendation:** *Governors should promote creation of federal or state trusts available to fish and wildlife agencies in order to ensure broad scale fish and wildlife restoration and protection and help ameliorate the long-term and cumulative impacts of energy development on fish and wildlife populations and habitats across the West.*

#3 – Monitoring and research.

There is a need to increase capacity to produce and disseminate reliable biological information, including monitoring, research and mapping related to fish and wildlife crucial habitats and corridors as they relate to oil and gas development.

- A. Recommendation:** *Governors should seek increased state and federal funding to the United States Geological Survey (USGS), state agencies and universities to conduct coordinated research that measures the effects of oil and gas production on wildlife corridors and crucial habitats.*
- B. Recommendation:** *Develop increased capacity with new resources to monitor, analyze and disseminate reliable biological information as identified in Section III-Monitoring.*
- C. Recommendation:** *Each state should assure that adequate resources are made available for state-wide corridor identification, mapping and prioritization and to assure they are developed consistently across state boundaries in the West.*

#4 – Development and retention of expertise.

There is a need to address the increasing attrition of fish and wildlife professionals with knowledge and experience in oil and gas planning, leasing, development and mitigation.

- A. Recommendation:** *Western Governors should encourage the development of workshops for professionals, state university curricula for students and other educational opportunities that provides information about the interrelationships*

between oil and gas development and fish and wildlife resources to develop a broader and more educated workforce.

- B. Recommendation:** *Western Governors should work with the Association of Fish and Wildlife, Agencies (AFWA), The Wildlife Society and the American Fisheries Society to create an oil and gas management certification for fish and wildlife professionals. The certification would help assure recognition and acceptance of their fish and wildlife experience across all sectors of employment, including government, industry and academia.*

APPENDIX
Spectrum of Management Experiences

Off-site Mitigation Plan for the Jonah Field
Southwestern Wyoming

When was the model activity that you describe happening?

This project started fall of 2006 and is ongoing.

Please give a brief summary of the problem that needed to be solved?

The Jonah Field is a highly productive sweet natural gas field that produces both natural gas and condensate (oil contained in the natural gas stream). Final Environmental Impact Statement, Jonah Infill Drilling Project, Volume 1 of 2, Page 3-20. The estimated volume of natural gas in place in the Jonah Infill Drilling Project Area (JIDPA) is 12,800 billion cubic feet (BCF), with recoverable volumes estimated to range between 3,400 and 8,200 BCF; 1 BCF of natural gas is the average annual amount used by 13,700 Wyoming households. Through August 2004, approximately 1,121 BCF of gas and 11 million barrels of oil had been produced from the field from over 500 wells. This level of development can lead to a significant amount of surface disturbance and can impact wildlife habitat.

Who was involved in working through a solution to integrating wildlife into oil & gas processes?

Encana provided funding for off-site mitigation. BP, The Nature Conservancy (TNC) and the Jonah Interagency Office have worked collaboratively on this off-site mitigation project.

Specifically, how were wildlife values (crucial habitat, corridors) incorporated into the decision making?

With the help of wildlife biologists and other scientists, TNC studied wildlife habitat within the Jonah Field and developed what they call target species habitat. Using a habitat model called Marxan, TNC was able to develop a map showing off-site locations that matched and could ultimately substitute for the habitat within the Jonah Field.

Highlight what the components of the solution were. Was the solution reached through collaboration of key stakeholders, through better understanding of the biology/ecology of the area, through innovative or new mitigation or avoidance practices?

The project has been a collaborative effort between key stakeholders through better understanding of the biology/ecology of the area. The new mitigation practice is off-site mitigation.

What is/are the lesson/s that can be drawn from this experience?

Off-site mitigation is a controversial practice and may have been avoided altogether by incorporating innovative mitigation measures in the early stages of development. Once off-site mitigation became an alternative, the stakeholders (Encana, BP, TNC and others) should have been included earlier in the decision making process.

BLM Field Office Resource Management Plan Revision
Farmington, NM

When was the model activity that you describe happening?

2001-2002

Where was the oil & gas project?

Infill drilling on existing leases in the NM portion of the San Juan Basin, on 3.5 million acres of federal mineral estate.

Please give a brief summary of the problem that needed to be solved?

Existing federal leases covering the San Juan Basin were issued in the 1950s, prior to most of the significant environmental protection legislation, including NEPA and ESA. New data and information on wildlife values needed to be addressed and incorporated into the RMP revision process. Significant legal differences of opinion existed as to the degree the development of existing leases could be constrained by new planning decisions. The matter was solved collaboratively with leaseholders, other interests, and the BLM through a series of planning discussions and consensus recommendations in the preferred alternative of the plan, which were not protested by the participants and adopted as standard operating conditions.

Who was involved in working through a solution to integrating wildlife into oil & gas processes?

The oil and gas industry, the New Mexico Department of Game and Fish, some special interests, the New Mexico Oil Conservation Division, and the BLM.

Specifically, how were wildlife values (crucial habitat, corridors) incorporated into the decision making?

The existing restrictions on development did not adequately protect critical deer winter range and failed to address stipulations on new leases. Core wintering bald eagle roost areas and associated buffers were delineated and designated.

Highlight what the components of the solution were. Was the solution reached through collaboration of key stakeholders, through better understanding of the biology/ecology of the area, through innovative or new mitigation or avoidance practices?

Collaborative planning to expand winter closure designations; elk calving restrictions, bald eagle roost areas, and Areas of Critical Environmental Concern (ACEC) for listed species. Collaborative exception criteria for the winter closure areas were also developed.

Used the best available science, including GIS maps, population monitoring data, and actual site visits to educate the collaborative group on the issues and need for updating the land use plan. Worked collaboratively to match opportunities for development with restriction, specifically define allowed and prohibited activities and exception criteria. Developed a GIS based data layer for each area and its corresponding restrictions and made this data available to leaseholders to aid in planning their drilling schedules.

What is/are the lesson/s that can be drawn from this experience?

The collaborative process avoided a potentially costly and lengthy legal challenge over the BLM's authority to modify existing leases to protect sensitive wildlife areas. Data were shared and infill drilling, while constrained substantially from previous planning criteria, was permitted at proposed levels.

Collaborative Conservation Strategies for the Lesser Prairie Chicken Southeastern New Mexico

When was the model activity that you describe happening?

2002-2007

Please give a brief summary of the problem that needed to be solved?

An abrupt population decline of the lesser prairie-chicken in the early 1990s alarmed local residents, environmental organizations, conservation groups and public agencies in New Mexico. In 1995, several groups petitioned the U.S. Fish and Wildlife Service to list the bird as threatened, and in 1997, the agency determined the lesser prairie-chicken was warranted for listing as a threatened species. Various constituencies wished to avoid listing with a strategy acceptable to the state and federal agencies.

The core population of lesser prairie-chickens in NM lies within jurisdiction of the Bureau of Land Management Roswell Field Office. In this area, 20% of the land is leased for oil and gas development and 80% has not been leased or is restricted. Much of the remaining healthy lesser prairie-chicken populations reside on private lands, which are managed without government regulation.

Who was involved in working through a solution to integrating wildlife into oil & gas processes?

In 2002, a coalition of federal and state regulatory and land-management agencies (Bureau of Land Management, U. S. Fish and Wildlife Service, New Mexico State Land Office, and New Mexico Department of Game and Fish) proposed that a “Working Group” of appropriate public and private stakeholders begin meeting immediately to collaborate on a consensus-based strategy that would be used by state and federal agencies as a foundation for management decisions. They hoped the various constituencies could negotiate a collaborative plan that would be acceptable to the state and federal agencies to avoid listing.

Stakeholders in the Working Group included representatives from the oil and gas and ranching industries, environmental groups, wildlife biologists, recreationists, local governments, state and federal agencies.

Specifically, how were wildlife values (crucial habitat, corridors) incorporated into the decision making?

The Bureau of Land Management prepared a Special Status Species Draft Resource Management Plan Amendment (RMPA) and Environmental Impact Statement (EIS) in October 2006 to address the management of the public lands in southeast New Mexico; the final Special Status Species Resource Management Plan Amendment (RMPA) and Environmental Impact Statement (EIS) was issued in November 2007.

The Bureau’s preferred alternative would adopt the concepts of the New Mexico Lesser Prairie Chicken Working Group’s Collaborative Conservation Strategy and adds measures designed to provide greater protection of lesser prairie-chicken habitat, and it elevates the importance of reclaiming surface disturbance. The alternative also has a Core Management Area similar to the Lesser Prairie Chicken Core Habitat Area established by the 1997 Roswell RMP. The Core Management Area would be closed to new oil and gas leasing. New oil and gas leasing of any currently un-leased Federal minerals within these areas would be deferred until the habitat within these areas can be evaluated.

Highlight what the components of the solution were. Was the solution reached through collaboration of key stakeholders, through better understanding of the biology/ecology of the area, through innovative or new mitigation or avoidance practices?

A collaborative conservation strategy was developed by the Working Group with the following consensus-based components:

1. Improve lesser prairie-chicken habitat by modifying grazing practices in important areas, with compensation for ranchers to offset reductions in livestock;
2. Establish vegetative treatment standards and methods to improve habitat through growing grasses and managing vegetation;
3. Exchange energy-rich lands between the Bureau of Land Management and the NM State Land Office, so that core lesser prairie-chicken areas can be consolidated on Bureau lands and oil and gas development can proceed with reduced stipulations on NM State Land Office lands;
4. Purchase or otherwise secure lands for five lesser prairie-chicken reserves in critical areas to protect and connect lesser prairie-chicken populations;
5. Initiate an lesser prairie-chicken captive breeding and reintroduction project;
6. Identify potential conservation reserve areas;
7. Devise creative ways to provide compensation and incentives for ranching and the oil and gas industry;
8. Establish an implementation committee that would guide and monitor implementation of the conservation strategy; and
9. Agree on a plan for monitoring the progress of implementing the conservation strategy and identifying the need and scope of future scientific studies.

What is/are the lesson/s that can be drawn from this experience?

The lessons learned from the Working Group experience were:

1. The willingness of the NM Game and Fish Department to convene the Working Group provided local credibility and avoided the constraints that may result from having to institute formal federal FACA guidelines for negotiations.
2. Securing a facilitation team to organize and conduct meetings saved precious time and helped build trust among stakeholders. The facilitation team carried out a pre-negotiation assessment through a series of one-hour interviews with at least the primary stakeholders to identify key issues.
3. Securing a professional science writer helped ensure that discussions and decisions were documented without bias and that the conservation strategy was well prepared. The writer had the ability to translate the often ambiguous discussions of the Working Group into a framework that represents the best of the ideas and agreements that the group was making into a professional planning document, which had to be acceptable to both the federal regulatory agencies and the participants. The Working Group was aided greatly by having the science writer take minutes of each meeting, from which the facilitators produced summaries of each meeting that acted as a group memory. The summaries highlighted key discussions and decisions from the meetings and provided a record of outcomes and next steps that the group agreed to take.
4. The Organizing Committee was a valuable resource in coordinating logistics for the Working Group's meetings and activities. The committee sent out notification of regular Working Group meetings and reminders of sub-committee meetings. The Committee teleconferenced between each meeting to review the progress, discuss

issues and events, and review and approve the agenda for the upcoming meeting. The Committee was valuable in heading off emerging problems and developing strategies about how to proceed after contentious debates.

5. Establishing a realistic time frame for the completion of the conservation strategy was essential.
6. A shared Information Base (location-specific GIS information) should be developed early in the process to enable participants to clarify commitments on a number of issues, especially with oil and gas development.
7. The process can be improved if the stakeholders have an independent consultant or resource that they mutually trust to assist them in interpreting scientific studies and understanding key assumptions and interpretation. Scientific information plays an important role in judging impacts on endangered species and establishing and evaluating conservation initiatives.

Private-Public Collaboration with Small-scale Oil and Gas Projects My Way Ranch, Western Colorado

Background

Collaborative processes work with smaller projects as demonstrated by Laramie Energy, a small independent producer with federal leases and owned private acreage western Colorado. The federal leases included timing stipulations for big game winter range as identified by the Colorado Division of Wildlife.

Activity

In order to allow development of the federal minerals during the applicability of the timing stipulations, Laramie proposed collaborating with federal and state agencies and using its private lands adjacent to the federal holdings to allow year-round drilling of federal acreage.

The Colorado Department of Wildlife analyzed the lands to identify suitable habitat on the private lands to offset any displacement from the federal leases from year round drilling. In examining the land, it was determined that a portion of the private lands would not be used for grazing in order for the forage to restore itself from overgrazing in the past. Laramie Energy committed to drilling multiple wells from its pad locations to minimize wildlife and surface disturbance.

Result

The process is ongoing. The CDOW has taken baseline information and will continue monitoring the success of the project over time. Collaboration in this example demonstrates how even smaller projects can incorporate wildlife values.

State of Colorado Efforts to Protect Wildlife Corridors

The State of Colorado is currently in the process of developing regulations to implement state legislation (HB 1298) that directs the Colorado Oil and Gas Conservation Commission (OGCC) in consultation with the Colorado Wildlife Commission to adopt rules for minimizing adverse impacts to wildlife resources affected by oil and gas operations and to ensure the proper reclamation of wildlife habitat during and following such operations. A timely and efficient consultation process is being developed between the Division of Wildlife and the OGCC staff governing:

- 1) Notification of oil and gas permit applications and consultation on minimizing adverse impacts;*
- 2) Incentives for operators to utilize comprehensive drilling plans and geographic area analysis strategies to provide for orderly development of oil and gas fields; and,*
- 3) Minimization of surface disturbance and fragmentation in important wildlife habitat by incorporating minimum operating standards and best management practices.*

This process is expected to address many of the major areas identified in the Oil and Gas Working Group Report, including the need for early planning to protect crucial habitat and wildlife corridors, and the ability of the state to understand, plan for and address the impacts to such areas from oil and gas production, the development of incentives to encourage actions that promote wildlife values, and the use of geospatial tools to identify areas of potential conflict between wildlife needs and oil and gas development.

Colorado plans to release an informal “straw man” proposal for these rules in November 2007 for initial public review and comment. Thereafter, formal draft rules are expected to be published in February or March 2008 for further public review and comment, and final rules are expected to be adopted in June or July 2008. These rules will provide a concrete example of how Western states can address some of the issues identified and recommendations made in the Oil and Gas Working Group Report. Colorado would welcome the opportunity to share these rules with the WGA upon their completion. Accordingly, Colorado supports WGA’s efforts on this topic, but notes that the State’s more specific efforts to implement its legislation may lead to some inconsistencies between the WGA recommendations and the Colorado rules.

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