

ENVIRONMENTAL OUTREACH CROSS-CUT PLAN

Effective environmental outreach informs and engages the public on the environmental impacts that may arise from planned development activities. By providing a common-sense, balanced view of the issues at hand, a successful environmental outreach effort will help determine how we can provide for the nation's future energy needs from unconventional sources while maintaining and protecting our nation's environmental and natural heritage. As reflected in our environmental laws, Americans place a great importance on preserving our natural resources and have become increasingly committed to leaving a vibrant environmental legacy to future generations. At the same time, the nation needs to develop new energy resources to sustain economic growth, reduce imports from unreliable sources and replace dwindling conventional supplies.

While much environmental progress has been accomplished in the 40 years since most of the nation's environmental laws were adopted, we continue to face complex and urgent environmental challenges driven by rapid growth. For example, in 2000 the EPA reported to Congress that 40 percent of streams, 45 percent of lakes, and 50 percent of estuaries were not clean enough to support uses such as swimming or fishing. Addressing these challenges has often been hampered by unproductive legal and political fights.

More recently, important progress been made through collaborative and innovative approaches to resolving environmental conflicts. The examples of these efforts range from the Oregon Plan for Salmon and Watersheds, to the High Plains Partnership, to Arizona's Las Ciengas Conservation Area, to the off shore oil development plan for the

Bering Sea of Alaska. A key lesson from previous outreach efforts is the importance of "getting upstream" from the final decision making to iron out as many problems as possible, develop trust with key public and private leaders, and achieve public support for the development project by communicating the responsible approaches that both the oversight agencies and the developer will use to address environmental issues.

Developing unconventional energy resources at a viable commercial scale will require a significant effort to overcome technology constraints and economic and environmental barriers. Effective environmental outreach will be a critical component in addressing these constraints and developing the appropriate public policy options at the national, state, and local levels. Obviously, applicable environmental laws will have to be met. The real debate emerging in energy development today is determining and implementing appropriate level of ecosystem management. This includes best practices on-site and possible mitigation off-site to maintain critical ecosystems and ecological services affected by the development activities. The environmental outreach strategy outlined here is intended to help identify and implement management and mitigation strategies that are legal, generally acceptable and cost effective.

The technologies and development processes for each of the unconventional fuels differ greatly from one another. The necessary infrastructure, geographic regions affected, and the associated environmental impacts also vary according to the energy source and individual development plan. Although some stakeholder interests may be common to all

unconventional fuels, most groups will vary according to the region involved in development and the environmental impacts.

Objective: Establish a meaningful dialogue among the various stakeholder groups regarding the environmental impacts associated with unconventional fuels development and the public policy process required to address these issues.

The outcomes are anticipated to include:

- Increased dialogue on the viability of unconventional energy resources
- Increased awareness of issues and how unconventional resources may or may not fit into the nation's larger energy picture
- Increased communication and cooperation between stakeholder groups
- Increased visibility of the benefits and costs of unconventional energy resources
- Overview of environmental issues and prospects for continued dialogue and networking to address collaborative solutions and mitigation of impacts
- Stakeholder input to the public policy development process

Rationale for Action: Congress, under the Energy Policy Act of 2005, directed the Department of Interior (DOI) to prepare a Programmatic Environmental Impact Statement (PEIS) for commercial leasing of oil shale and tar sands. The PEIS will analyze and document the environmental, social, and economic issues associated with alternative development approaches. Although EIS processes have become more collaborative over time they remain primarily a comment and review process, and will not necessarily resolve issues and identify and develop joint solutions or mitigation strategies without a carefully developed environmental outreach program. The program proposed here will attempt to address those issues before, during and after formal processes.

The benefits of an effective outreach program go beyond the goodwill generated by courteously considering stakeholder interests and may include the identification of higher quality solutions to environmental impacts and the broad acceptance of development plans which can foreclose or diminish the effectiveness of diehard opponents. By working together, differing interests can change the dynamic of a situation from one of assigning blame or searching for errors in the decision process to a common search for solutions. The parties included often gain a sense of ownership in the solution or process which can enhance acceptance of solutions and the willingness to implement them in other interests.

The risks of not involving stakeholders effectively include project delays, political and legal challenges, and the costs and time associated with these delays and challenges. Perhaps even more importantly, there is potential for widespread misinformation and the loss of general public support.

ENVIRONMENTAL ISSUES - NATIONAL, REGIONAL, AND LOCAL

A number of environmental issues have already been identified by the environmental community and other stakeholders as being important. These issues were identified in the scoping comments submitted to BLM in January 2006 by over 80 environmental/conservation organizations, government agencies, and other stakeholders. Many of these issues will be addressed in the PEIS for oil shale/tar sands leasing. There may be somewhat different issues involved in other unconventional fuel resource development in other parts of the country with the intent of supplementing those processes.

Each of these issues should also be addressed in some fashion in the outreach program. Of course there are numerous opportunities for better understanding of these issues and for

addressing, discussing, and mitigation. They are discussed here to provide a better understanding of the issues that have thus far been identified as being concerns to the environmental community and to other stakeholders. These issues include:

National Energy Policy: Conservation, Alternatives and New Power Generation

Oil shale and other unconventional fuels technologies, whether they are surface retort operations or in-situ methods, require substantial energy to produce oil. For example, an oil shale retort operation producing 100,000 barrels of oil per day may require substantial amounts of dedicated electric generating capacity—essentially its own coal-fired power plant. Many environmental organizations are concerned about the energy produced to energy consumed, resultant impacts and emissions of greenhouse gases and other air pollution, and the energy efficiency of each technology.

Also, some organizations believe the development of unconventional fuels instead of cleaner energy sources would reduce the incentive or the pressure to develop these cleaner energy sources. Providing a more comprehensive view of how unconventional fuels fit into DOE's overall energy program may provide a better understanding of these issues.

Water Resources

Water is a scarce resource in the West and it is becoming more valuable as communities grow and drought lingers. There is concern about how development of unconventional fuels will impact surface water and groundwater. These are some of the largest potential issues that have been raised to date. Stakeholders are concerned with surface and ground water flow patterns, ground water infiltration, in stream flows, wetlands, and water surface runoff rates. In addition, stakeholders are also concerned with potential impacts to water quality, municipal wastewater from growing

communities, as well as downstream water rights.

Air Quality/Global Warming

Most of the candidate areas for unconventional fuels in Colorado and Utah currently enjoy high quality air and are classified as Class II areas under the provisions of the Clean Air Act for Prevention of Significant Deterioration (PSD). For Class II areas only moderate increases in ambient air pollutant levels are allowed. Moreover, several areas within close range of the Piceance and Uinta Basins enjoy even more stringent protection as Class I areas under the PSD program, such as Flat Tops Wilderness Area (50 miles downwind of the Piceance). For these reasons many environmental organizations are concerned about the potential production of direct emissions of several pollutants for which National Ambient Air Quality Standards (NAAQS) have been established—sulfur dioxide (SO₂), particulates, carbon monoxide (CO), ozone (O₃), lead, and nitrogen oxides (NO_x), as well as various non-criteria pollutants on the list. These organizations are also concerned about the potential for acid rain. Several organizations expressed concerns that greenhouse gas emissions—particularly CO₂—would be increased with the additional power generation and with surface retort activity, adding to concerns of global warming.

Wildlife and Vegetation

As with other extractive endeavors on public lands, unconventional fuels development activities may create impact on wildlife and plant populations due to the presence of significant wildlife in the region. Eastern Utah, western Colorado, and southwestern Wyoming are home to many large mammals such as pronghorn antelope, mule deer, and elk. There are also bighorn sheep, moose, mountain lions, and black bears in some of these areas. Wild horses and burros are also

present, and impact on these species is also of concern.

Environmental organizations and wildlife organizations are concerned with winter range for large mammals, potential loss of critical habitats, fragmentation of habitats, impacts on migration routes, and in-stream flows for fish populations. These organizations are concerned with the direct surface disturbance associated with mining activities and facilities, and infrastructure associated with development, including roads, transmission lines, pipelines, housing facilities, and areas for disposal of residuals from retorting oil shale and tar sands.

There is also concern that vegetation could be removed from large areas perhaps requiring long recovery periods. Other issues might be erosion or compacting of soil and the spread of noxious weeds.

LAND USE/COMMUNITY IMPACTS

Of vital concern to stakeholder groups, their members, and residents of the oil shale region is the potential for significant impacts to communities from the onset of a new industry like oil shale or tar sands. Significant study of the potential socioeconomic effects was undertaken in the 1970s and 1980s, much of which is now outdated. These industries are potentially labor intensive, which would bring significant numbers of new residents to the region and require accommodation in the local communities and infrastructure. The landscape in which oil shale or tar sands may be found is largely wide open and comprised of multiple-use federal lands, and is used extensively for grazing and agriculture, oil and gas drilling, hunting, fishing, and other recreational uses. The communities in the area are small and rural. Therefore, many organizations and government entities are concerned about potential impacts to these communities along with their costs, as well as the relative balance of public and private revenue to assist with their mitigation.

Waste Products — Spent Shale, etc.

Surface mining and retorting of oil shale or development of tar sands resources could result in significant amounts of spent products. Moreover, crushing and retorting may increase the volume of the waste product compared with the raw rock prior to mining. For this reason, many environmental organizations are concerned with changes to the landscape. Therefore, waste disposal methods of the waste material expected from each of the different development technologies are important. Although in-situ retorting will no doubt be less disruptive than surface mining, these issues are also of interest.

Wilderness Protection/Special Areas of Concern

Oil shale and tar sands resources lay among some of our country's most undeveloped landscapes. Several environmental organizations believe these lands have wilderness values that should be protected from development. They believe the development of this industry would create irreparable impacts to these wilderness values.

There are also concerns by many organizations that Areas of Critical Environmental Concerns (ACECs)—recreation areas, historic trails, and wild and scenic rivers—could be impacted by unconventional fuels development. The identification of these areas of concern and how to address these issues are important to the outreach effort.

Scenic/Visual Resources

Because much of the West, where unconventional fuels lie, is presently largely open, many organizations are concerned with the impact to visual resources that form the character of the landscape as seen from various view sheds. Many organizations want to preserve natural landscapes, while they recognize the normal patterns of growth—

roads, pipelines, etc.—will always impact views and vistas.

Cultural Resources

The areas of Colorado, Wyoming, and Utah, where oil shale and tar sands leasing may take place, include some of the highest concentrations of cultural resources in the nation. Oil shale or tar sands may include surface disturbances over large areas. Therefore, many organizations are concerned about the impacts on cultural resources from facilities and associated infrastructure, as well as the indirect impacts to such resources from population increases and expansion of the transportation infrastructure.

PARTICIPANTS

In an outreach program, it is important to identify important interests and ensure that participants are representative of those interests and not simply themselves. Given that large numbers of people and organizations are concerned about these issues, participant groups would need to represent these broader interests to ensure a successful outreach program. The representatives can be identified from the following interests and organizations (this list is representative and not inclusive):

National Environmental Organizations

Environmental organizations are all unique, and it should be recognized that attempts to categorize them is in no way fully descriptive of the breadth of activities in which these organizations engage. With that caveat in mind, at the national level, there are numerous environmental groups that are active in energy issues. These organizations are interested in environmental law, in protecting public health, and in protecting undeveloped landscapes. These organizations deploy various legal means in order to achieve their goals. The majority of national environmental groups thrive on large memberships, and often have a national professional staff based

in one or more major cities, as well as individual chapters around the country. Information on specific environmental issues of concern is broadcast to members, and members also raise local issues with the national office that can rise to national importance. As a result of their large memberships, these organizations are well-funded and often exert significant influence and political pressure by lobbying state governors, members of Congress, and the administration. Examples of these organizations interested in unconventional fuels include the Sierra Club, the Natural Resources Defense Council, and the Wilderness Society

Regional Environmental Organizations

At the state or regional level, many environmental groups focus on more near-term concerns than perhaps national long-term policy issues. For example, in several states, local environmental groups are concerned with a single issue such as wilderness preservation and do not always have the resources to be involved in all issues. In general, it seems that many state-based environmental groups are interested in learning more and in being actively involved in research projects going on in their regions.

The other important issue to consider, however, is that it is apparent that national and regional environmental organizations are already forming coalitions and working arrangements to work together on these energy development issues, and as the outreach program moves forward this should be recognized and dealt with accordingly. Examples of some of these state/regional organizations include The Colorado Environmental Coalition, Environment Colorado, Wyoming Outdoor Council, and the Southern Utah Wilderness Alliance.

Local Environmental Organizations

These types of organizations may be located in smaller parts of the region and are focused

on particular issues of concern for that area. They will likely have a great deal of knowledge about local landscapes and resources, but they are small and do not have substantial staff resources. They are also effective, as noted above, in working with other environmental organizations. Examples of these organizations might be the San Juan Citizens Alliance, the Grand Valley Citizens Alliance, and the Southern Rockies Ecosystem Project.

Energy-Based Environmental Organizations

By and large, most organizations working on energy issues are focused on promoting clean and sustainable sources of energy. In most cases, these energy-based organizations may work closely with other environmental organizations. The major example of this type of organization concerned with unconventional fuels in the West is Western Resource Advocates.

Land Conservation Organizations

Many nonprofit organizations are involved primarily in land conservation. Frequently focusing on this policy issue, they may also raise funds to purchase sensitive tracts of land and place conservation easements upon them. Sometimes the lands are then transferred to government or other organizations that manage the lands. These groups would likely be concerned with energy development projects in areas they are trying to conserve. As project sites are considered, it is important to also consider their proximity to sensitive lands in which conservation groups may have an interest. These organizations are helpful in developing mitigation strategies and in helping consensus-building and collaborative efforts. Examples of these types of organizations include The Nature Conservancy, the American Farmland Trust, the Trust for Public Land, the Colorado Cattlemen's Land Trust, Utah Open Lands Conservation Association, and other local land trusts.

Federal Government Agencies

Obviously, numerous federal government organizations play a key role in addressing, regulating, and mitigating environmental concerns related to energy development. These organizations should play a role in the outreach program. Beside the agencies involved in the task force, other agencies include the EPA, the Fish and Wildlife Service, the Army Corps of Engineers, the US Forest Service, and others.

State and Local Government Agencies

Elected officials care deeply about issues affecting the economy, public safety, and the environment. The development of unconventional fuels affects all three areas. State governments and many counties also have a department of environmental quality or departments of health, departments of transportation, and these entities should be involved in the outreach effort. Also, special districts that provide water and other infrastructure are important. There are also state wildlife agencies that have responsibility for managing wildlife in the impacted areas and will have concerns about impact to wildlife habitat. All of these entities have credibility with a variety of stakeholders and can have a huge impact on framing the topics. In addition to state and local officials, there is also benefit from addressing associations such as the National Governors Association, the Western Governors Association, the Conference of Mayors, the Environmental Council of States, etc.

Industry Representatives/Business Leaders

Other constituencies who address environmental issues are business and industry leaders and groups. It is important to understand the different perspectives that business leaders will bring to this effort which are likely to have a strong impact on public perceptions of unconventional fuels at the local level. The representatives may be from

individual companies or they may represent industry or trade organizations such as the regional oil and gas associations. Also, local businesses and Chamber of Commerce organizations are important constituencies to be involved. An important resource in this category is the Western Business Roundtable.

University/Research Organizations

Many university groups have done substantial research on environmental impacts of unconventional fuels. These universities should be included in any substantial outreach efforts. The universities in the West in the impacted region might include the University of Utah, University Of Wyoming, Colorado School of Mines, Utah State University, Colorado State University, etc. Numerous other universities and research laboratories may also need to be included.

Ranchers and Other Agricultural Interests

Ranchers, farmers and those with agricultural interests will be concerned about potential environmental impacts. There are many large farms and ranches that are contiguous to federal land where unconventional fuels development might occur. In other cases, some ranches are totally surrounded by federal or state lands. It is important to engage them early on regarding efforts to mitigate impacts. Many times these interests can be represented by Farm Bureaus, Cattlemen Associations, etc. These organizations often have valuable resources and information available. Examples of these types of organizations include the Utah Farm Bureau, Colorado Cattlemen's Association, and the Rock Springs Grazing Association.

Recreation Interests

Much of the undeveloped country in the West is home to numerous recreational activities that could be impacted. The issues vary and the organizations involved also differ considerably. Some of the organizations that need to be involved in this category include

the National Outdoor Leadership School, mountain bike associations, off road vehicle associations, hiking groups, canoe and rafting groups, and horseback riding organizations.

Wildlife Organizations

Wildlife organizations are advocates for wildlife habitat and many times provide access to private and public land for hunting. They may raise money to purchase habitat for wildlife. They will be concerned about projects that affect wildlife habitat or hunting opportunities. These organizations are often willing to discuss mitigation measures both on-site and off-site. Examples of these organizations include the National Wildlife Federation, Rocky Mountain Elk Foundation, Mule Deer Foundation, Sportsmen for Fish and Wildlife, Trout Unlimited, etc.

Native American Representatives

There are some Native American tribal lands that are adjacent to land where unconventional resources are found. All of these outreach discussions should include representatives from Native American tribes including the Ute tribe in Utah and other identified Native American interests.

The General Public

The main focus of the outreach program has been to create a meaningful dialogue among the various stakeholder groups regarding the environmental impacts associated with unconventional fuels development. There will be, however, a number of private citizens who are not members of any stakeholder group that may have concerns and interests in the issues. Also, general public opinion is important to development process.

A major general public involvement process is not being recommended at this juncture, but rather a process driven by stakeholder groups. However, many of the recommended action items will have major general public benefits. Many of the workshops and conferences can be attended by the general public where

important information is presented. Materials will be developed along the way that will be useful in formulating a balanced view of unconventional fuels resources that is instrumental in forming general public opinion.

RESEARCH AND RELATED PROJECTS IN ENVIRONMENTAL OUTREACH

A current review of reports and plans for environmental outreach reveal generally two types of efforts. Most of the outreach projects that were reviewed were developed by government agencies or their consultants in an effort to raise awareness and educate or inform the general public about some proposed policy or action. In these cases, emphasis is placed on developing education materials that describe the proposed action and in conducting public meetings to present the information and receive feedback. The second approach to outreach focuses more on identifying key stakeholder groups and in designing a collaborative process in which there is a more collective sense of consensus building and broader impact on the decision-making process. It is the second approach that is the basis for the proposed outreach strategy for the Unconventional Fuels Task Force.

Although the approach or philosophy of outreach may differ among projects, the stated overall objectives are usually quite similar. The reviewed outreach plans listed objectives such as: gain information and feedback from constituents⁵²; maintain the public trust⁵³; communicate complete, accurate, understandable, and timely information to the public⁵⁴; convey to people in the region that the project has far-reaching effects...and supports the agencies and public in working openly and collaboratively toward a recommendation that can be effectively implemented⁵⁵; and increase awareness, understanding, and public acceptance⁵⁶.

The identified participants in the various outreach plans included public agencies, public officials, local schools, business organizations, environmental and other NGOs, tribes, farmers and ranchers, and the general public. The identification of relevant audiences or stakeholder groups varies from project to project, but is based upon an understanding of which groups are necessary to achieve the project goals. If the goal is to gain or maintain the public trust, then clearly the public must be involved. If the goal is to minimize project delays due to litigation, then those stakeholder groups who are most likely to litigate over specific issues or decisions must be engaged.

The outreach plans that were reviewed included a variety of outreach activities in order to reach their intended audiences or stakeholders. All outreach efforts include some type of forums to gather people and gain input or feedback on identified issues or proposed actions. These forums include workshops, roundtables, conferences, open houses, educational forums, and public hearings. Some outreach efforts include the establishment of advisory boards or committees where ongoing involvement is important to establish and maintain relationships with the broader community⁵⁷. Most efforts include the development of educational materials in the form of fact sheets, project overviews, brochures, or written descriptions of the outreach plan. A number of the plans included use of the Internet as a stakeholder list-serve or electronic mailing list to send messages and provide general information or as a dedicated website for anyone that can access the Internet.

In addition to the outreach plans and projects reviewed, both CRM and the Oquirrh Institute have been involved in and conducted related outreach activities concerning energy development and other natural resource issues. For example, CRM organized and

facilitated an outreach project concerning development of offshore oil and gas resources that included the oil industry, environmental groups, native groups, and government agencies. This project included a number of stakeholder conferences, workshops, and issue negotiations. The effort included the establishment of advisory committees, consensus recommendations to the Department of Interior, and a consensus plan for the development and conservation of the Bering Sea of Alaska. The formulation of the outreach plan was based on knowledge of the issues, the establishment of clear goals and expectations, extensive interaction with all relevant stakeholders, and an open and transparent process.

The Oquirrh Institute included a number of case studies of effective outreach and collaboration in their 2004 publication *The Enlibra Toolkit: Principles and Tools for Environmental Management*. The report describes projects such as the Sonita Valley Planning Partnership that undertook an outreach and collaborative process leading to the establishment of the Las Cienegas National Conservation Area. The stakeholder outreach and collaboration process included representation from conservation organizations, grazing and mining interests, federal, state, and local government agencies, as well as residents from southwestern Arizona. The Toolkit outlines important principles for successfully organizing stakeholder outreach and collaboration processes⁵⁸.

OUTREACH EFFORTS AND DEVELOPMENT ON PUBLIC LANDS

The development of unconventional fuels such as oil shale or coal to liquids on public lands will be subject to NEPA requirements and the associated public involvement activities in the course of preparing the necessary Environmental Impact Statements (EIS), Resource Management Plans (RMP) or required permits. Environmental outreach

activities as recommended in this plan would not take the place of these regulatory requirements for public outreach and involvement. The outreach activities described here would be voluntary and would occur in addition to those required by federal or state regulations. This voluntary outreach would include greater stakeholder participation earlier in the process and would emphasize consensus building and maintaining stakeholder relationships. We recognize the importance of the legal permitting process and public engagement requirements and support the need for adequate funding for federal agencies to carry out their responsibilities.

A recent study of current oil and gas development in the West by several national conservation organizations points out the need for early stakeholder involvement and outreach to deal with environmental issues and the need to adequately fund federal agencies responsible for data collection, analysis, and permitting activities⁵⁹.

PROCESS OF OUTREACH AND COLLABORATION

An effective outreach and collaboration process will provide advice, analysis, and guidance from environmental stakeholders to more effectively avoid or mitigate environmental impacts associated with the development of unconventional fuels. The basic organizational structure and process of outreach and collaboration can be defined at this point in time, but it is understood that participant stakeholders must be involved in the design process to insure the activities and outcomes are accepted and supported. Participant involvement in process design will result in changes to the process as well as higher levels of commitment and ownership.

The process for environmental outreach and collaboration involves a number of activities beginning in the early stages of energy development planning and continues through

construction and operation phases of individual projects. In order for the process to be effective as a means of guiding development, the necessary information and stakeholder activities must have both organization and focus. In the case of oil shale development, an entirely new industry with the necessary support infrastructure must be created in a very rural environment. The amount of research and information needs will be significant and all stakeholders who participate in the process will benefit from an organized and focused structure that facilitates data collection, analysis, and dialogue. The key components of the process will include the following:

Phase I – Assessment

- Develop outreach materials
- Identify key issues, interests, and stakeholder groups
- Define core stakeholder participants
- Define agenda, timeline, and resource needs

Phase II – Organization, Process Design

- Organize advisory committee and sub groups
- Define objectives, roles and expectations, principles and procedures
- Define outreach activities
- Identify information needs

Phase III – Convene Substantive Discussions

- Plan and organize regional conferences/workshops
- Review development plans and analyze issues
- Identify areas of agreement and points of conflict
- Identify data gaps and input to research agenda

- Build consensus on environmental guiding principles
- Provide input and guidance on environmental management plans

Phase IV – Monitoring, Ongoing Assessment and Feedback

- Monitor development activities and environmental impacts
- Maintain ongoing forums and organization for stakeholder dialogue
- Provide continued assessment and feedback of development activities and environmental mitigation needs

GUIDING PRINCIPLES FOR SUCCESSFUL OUTREACH AND COLLABORATION

Voluntary collaborative processes as a means of consensus-building and collective problem-solving require a much different approach than what typically takes place as the result of regulatory proceedings involving public hearings, formal comment periods, or other prescribed public involvement activities. Collaborative outreach focuses on common solutions and mutual trust of all stakeholders. Some guiding principles for successful outreach process using this approach include the following:

- Identify and elevate the common good
- Process should be inclusive, transparent, and flexible
- Encourage openness, information exchange, and cooperative learning
- Foster understanding of interests and perceived risks of all parties
- Process requires adequate resources, time, and skillful and objective facilitators

Tools for outreach and collaboration: As meetings are conducted and workshops and conferences convened, there are a number of technology tools available to help groups

move toward consensus. Each of these tools can be applied in the appropriate setting as cost allow. These tools include:

- Sketch scenarios with digital chip analysis – a method of constructing hypothetical development scenarios and look at impacts.
- GIS maps and animations. Tools available to understand the magnitudes of impacts and how to visualize them.
- Keypad polling – a method of determining the degree of on-going consensus of a group before discussion, during discussion, and at the end.

Outreach Activities and Materials: The outreach program will have four primary activities:

1. Establishing an organizational structure of stakeholder committees
2. Organizing and conducting regional workshops and conferences
3. Developing outreach materials and Internet resources
4. Monitoring, evaluation, and program management

Within these primary activities are a number of specific actions and materials as described below:

1. Establishing an organizational structure of stakeholder committees.

Within each fuel source and affected region of the country are various types of stakeholder groups that can influence public policy and public opinion. These groups need to be engaged early in the resource development process to gain their input and support as a means to improve decision-making and mitigate environmental impacts. Regional subcommittees for each fuel source should be established under the umbrella of an environmental advisory committee for unconventional fuels. The advisory committee

can assist in the organization of regional steering committees and play an important coordination role. Once in place, the committees can provide input to task force plans as they are developed. This will include environmental management plans and R&D plans for oil shale, tar sands, heavy oil, enhanced oil recovery, and coal to liquids. The committees should also be empowered to develop a declaration of guiding environmental principles for each fuel source. This will provide a basic foundation for stakeholder input and a guide for consensus building on specific environmental issues. The committees can also be a resource to develop any off-site mitigation projects that may be necessary as part of an overall environmental management plan for a given fuel resource. For example, a mature oil shale industry with the necessary infrastructure of roads, pipelines, power production facilities, mining operations, and in-situ wells may require off-site mitigation strategies for wildlife habitat or other resources.

2. Organizing and conducting regional workshops and conferences.

Stakeholder forums are necessary at regional levels to explain development proposals and to discuss potential environmental impacts as they affect specific sites and regions. Whether in small workshops or in larger conferences the participants can focus on the issues they are most concerned about and provide input on the appropriate mitigation strategies. A regional conference for oil shale and tar sands is being planned in the spring of 2007 following release of the PEIS. This conference would include stakeholders from Colorado, Utah, and Wyoming. The participants would review results of the PEIS and discuss the potential impacts of development from surface mining and retorting and in-situ projects. Environmental issues include potential impacts on air quality and wilderness areas, water resources, wildlife habitat, and endangered species.

Similar workshops or conferences would take place in areas affected by coal to liquids development and heavy oil and enhanced oil recovery. For example, workshops on CO₂-enhanced oil recovery projects might take place near the production basins in California, Alaska, or the Gulf Coast. Environmental issues would include potential impacts on ground water, release of CO₂ into the atmosphere, and other stakeholder concerns.

3. Developing outreach materials and Internet resources.

In addition to organized committees and regional conferences and workshops, effort should be made to reach stakeholders and the general public through accurate and balanced educational materials. Unfortunately, many environmental conflicts and controversies get started due to misinformation or information that is outdated or misinterpreted. This may be the case in oil shale development where existing information about mining and retort technologies is based on plans and projection of impacts from the industry boom and bust in Colorado and Utah in the 1970s and 1980s.

The outreach program must provide accurate and complete information that stakeholder groups and the general public can easily access and readily understand. For each fuel source a simple information packet should be produced describing the technology, development plans, outreach efforts, and environmental management strategies. Individual fact sheets that address specific issues or topics in more detail should also be produced as needed. The educational materials should be in printed form with professional graphics available to be distributed and used at conferences, workshops, and in general stakeholder discussions.

The materials should also be made available on the Internet and accessible to the general public. The Internet should be used as a major outreach tool by developing a dedicated

website for each fuel source where project information, outreach events, research studies, and other information can be posted. The website can also provide an electronic forum for stakeholder comments and interactions. In addition to the websites, stakeholder listserves can be used to communicate on specific issues or address specific questions to a select group of stakeholders.

4. Monitoring, evaluation, and program management.

The combination of established advisory committees, workshops and conferences, educational materials, and use of the Internet for stakeholder education and interaction will require coordination and project management. The impact of these activities on issue perception and stakeholder attitudes will change as issues mature, new information is developed, and as the media become involved. Stakeholder interaction and participation in outreach activities can also change with changing circumstances. Because the process can be fluid and the effectiveness of outreach activities is uncertain, program management must remain flexible and engage in monitoring and evaluation of activities in an ongoing basis. Monitoring and evaluation can take place as a regular part of committee feedback, evaluation forms completed at the end of workshops and conferences, informal interviews, and stakeholder surveys. A report of outreach activities including an evaluation of program effectiveness should be prepared for the task force on an annual basis.

RECOMMENDATIONS AND ACTION ITEMS

1. Establish an environmental advisory committee for unconventional fuels and necessary subcommittees to organize and coordinate stakeholder review and input to task force plans and decision making. We believe this kind of structure would avoid the need for Federal Advisory Committee Act (FACA) approval. For example, in the case of oil shale development, the advisory committee

and its oil shale sub committee would provide input and guidance on the following plans and strategies:

- Environmental management plan that will review impacts on an industry wide basis and identify management strategies for industry and government and defines approaches for monitoring, analysis, and mitigation of environmental impacts.
- Carbon management plan to address CO₂ emissions
- Environmental research and development (R&D) plan to support mitigation of environmental impacts
- Water resource management plan

The advisory committee should have a separate operating budget to cover travel costs and independent consultants/advisors to conduct specialized analysis and monitoring. Funding must also provide for objective facilitators to manage the process and provide staff support to the advisory committee and its subcommittees. The committee should be large enough to include representation from all key stakeholder groups but not so large that decision-making and consensus-building becomes bogged down. Ideally the national advisory committee will include 10-15 people.

2. Convene advisory committee and necessary subcommittees to review and complete process design, work agendas, and initiate outreach efforts.

3. Organize and convene regional conferences or workshops to expand environmental feedback on development plans and engage a broader stakeholder population. These events and meetings should be planned and designed with stakeholder involvement from the appropriate members of the advisory and sub committees. For example, a regional stakeholders conference for oil shale and tar sands development could take place following the release of the PEIS in February or March of 2007. Preliminary

discussions with the task force and relevant stakeholders have begun and Park City, Utah, has been identified as a possible location with the conference taking place in May or June 2007. The conference would include a discussion of relevant environmental issues, necessary research, possible mitigation strategies, and the stakeholder collaboration process.

4. Empower advisory committee and relevant subcommittees to craft a declaration of guiding environmental principles for each unconventional fuel source. These should be broad environmental principles to be used in policy-making, general decision-making, and for mitigation strategies. The guiding principles should define a general philosophy of environmental management and mitigation and give direction to more specific and detailed mitigation plans or best management practices. Ideally the declaration should reflect a consensus of the national advisory committee and include principles or statements such as:

- All development activities must meet or exceed federal, state, and local environmental standards and regulations
- Insure a no net loss of critical wildlife habitat through on-site mitigation and regional offsets.
- Employ best available technology to minimize water use and protect in-stream flows of existing streams, rivers, lakes.

5. Develop a list of off-site mitigation projects such as wildlife habitat enhancements, conservation land banks, or other efforts to offset environmental impacts at development sites. While every effort should be used to mitigate on-site impacts, the scale of cumulative impacts of industry-wide development may require that environmental offsets be created elsewhere in the region.

6. Use the Internet to inform and broaden stakeholder collaboration by setting up individual websites or stakeholder list-serves

for each unconventional fuel source. The websites could include ongoing updates on development activities, research findings, mitigation plans, and provide a forum for stakeholder commentary and interaction. The stakeholder list-serve can be used to make announcements or send specific messages to identified groups or individuals.

7. Develop educational materials for each fuel source. These materials should provide a brief overview of development plans, technologies, and outreach efforts. Individual fact sheets should also be developed and used to inform stakeholders, the media, and the general public. The educational materials can be distributed on the Internet and at stakeholder outreach activities such as workshops or conferences.

8. Monitor public opinion, perceptions, and stakeholder concerns to assess effectiveness of outreach program and make adjustments as needed. Monitoring and evaluation activities should include ongoing feedback from advisory committees and stakeholder activities. This could also include stakeholder interviews, focus groups, and informal surveys.

9. Complete annual report to the Unconventional Fuels Task Force describing outreach activities, documenting the collaboration process and the resulting conclusions and recommendations. The report should include discussion of the issues addressed, describe outreach activities, identification of the participants who were involved, evaluation of program effectiveness, and an overview of the lessons learned.

Figure II- 56. Environmental Outreach Advisory Subcommittee Relationship to Other Subcommittees

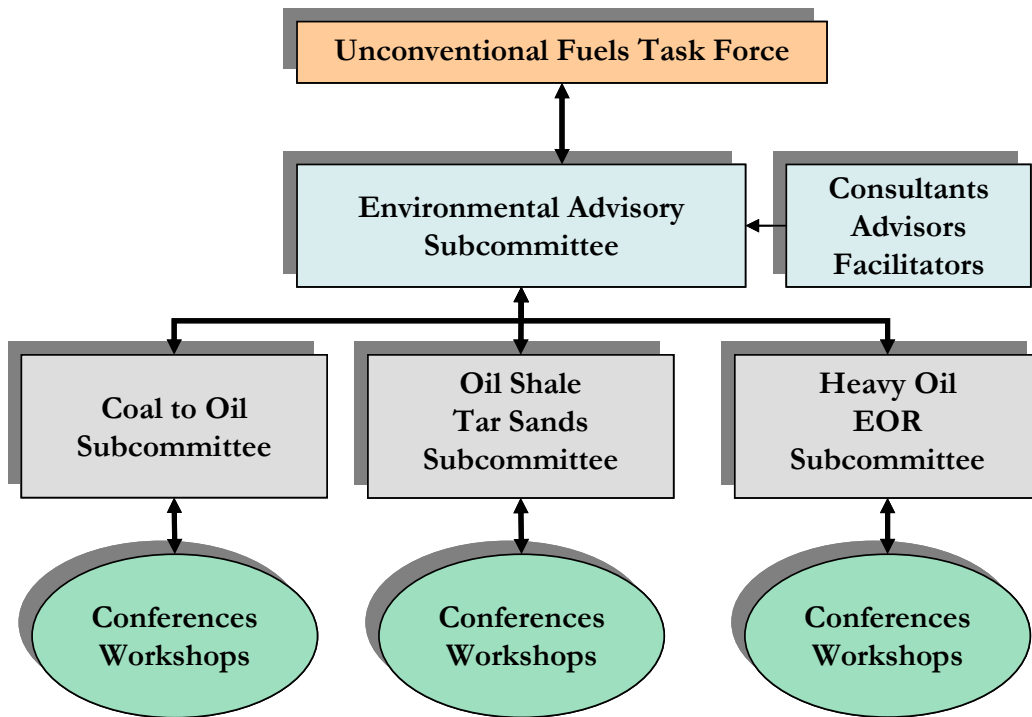


Figure II- 57. Environmental Outreach Activities Schedule

Environmental Outreach Activities	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Establish advisory comm./sub comm.															
Define declaration of guiding principles															
Establish individual websites															
Develop outreach materials															
Provide input to R&D plan															
Provide input to water & other resource management plans															
Organize & convene regional conference/workshops															
Monitor development & provide input on mitigation as needed															
Manage program/evaluate & report progress															