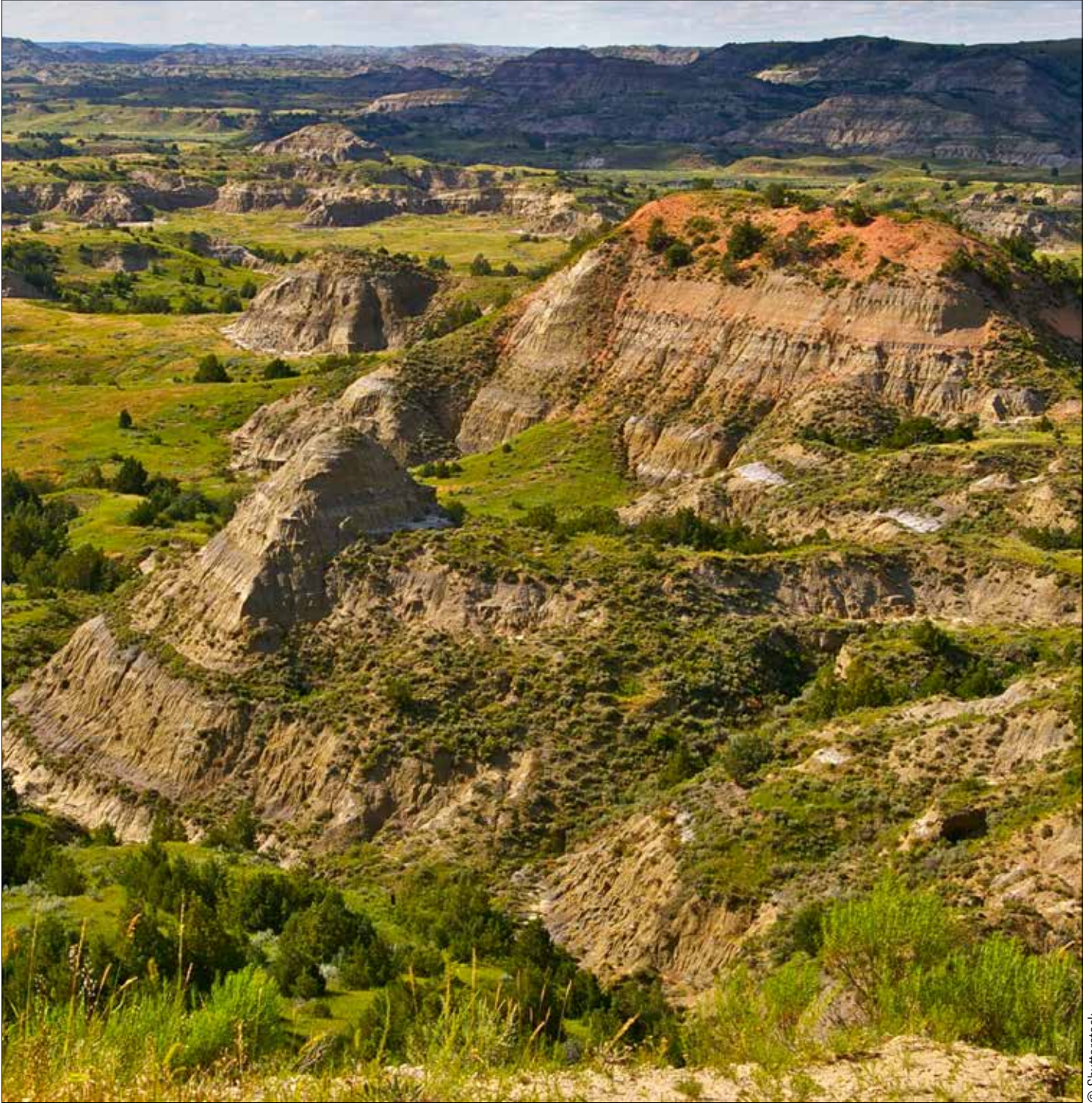


BADLANDS ADVISORY GROUP



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ACTION PLAN

BADLANDS ADVISORY GROUP

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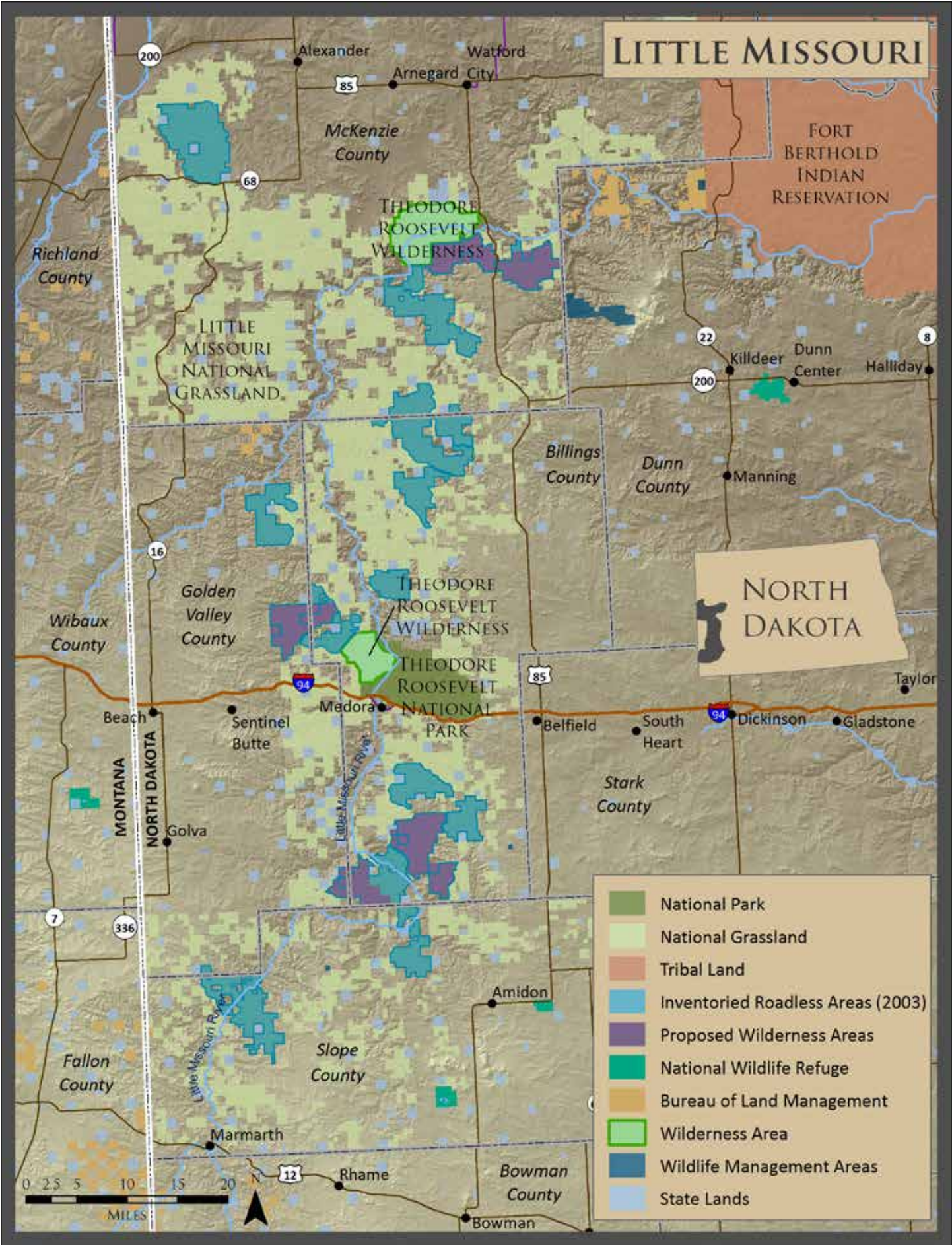


Figure 1. Map of the Badlands of Western North Dakota.

EXECUTIVE SUMMARY

The Badlands Advisory Group (BAG) was formed in August 2016 after Covenant Consulting Group (CCG) released a stakeholder assessment detailing the opinion and perceptions of western North Dakotans on oil development in the Badlands. Recommendations from the assessment included the development of an advisory committee to identify and work out the practical details of the assessment's recommendations. The assessment recommended that committee members have practical experience in oil development, represent various interests in western North Dakota, and take a common-sense approach to "what works and what does not" in their communities of interest.

BAG's objectives were: 1) to think big picture at a landscape scale; 2) to prioritize the key issues that are most important and achievable; and 3) to identify those practical, achievable action steps that would promote land stewardship. They brainstormed solutions that recognize the value of surface assets in North Dakota as well as the need to protect those assets and their owners while still allowing for the development of subsurface mineral assets.

The BAG members and their respective interest areas are:

- Daryl Dukart, County Commissioner
- Blaine Hoffmann, Oil Industry (retired)
- Bill Schaller, North Dakota Game & Fish Department (retired)
- Vicky Steiner, Legislator
- Gene Veeder, Rancher

BAG met six times between August and December of 2016. During the four-month process, the team reviewed research data, consulted with experts, discussed potential actions, and debated the merits of various proposed action steps.

The issues prioritized by BAG were (not in a priority order):

- Transparency & Communication
- Wildlife Habitat
- Reclamation Standards & Education
- Areas of Interest
- Best Management Practices
- Long Term Strategic Planning
- Environmental Review

The Action Plan includes discussion and proposed action steps by topic area. Appendices are included with relevant supporting material.

Below is a condensed summary of the proposed action steps:

- Promote a state driven, long-term strategic plan for the development of North Dakota's natural resources
- Encourage North Dakota Industrial Commission (NDIC) and Department of Mineral Resources to do larger landscape planning to promote the smallest possible infrastructure footprint
- Promote a pilot project area to NDIC, North Dakota Petroleum Council, and oil companies for testing these action steps
- Initiate wildlife habitat improvement program to industry and landowners when developing the state's resources
- Recommend the Governor establish a task force of cabinet or other agencies to coordinate efforts to accomplish these action steps in a timely manner, or establish an energy sub-cabinet to do so
- Consider the use of smaller units (1280 acres, 1920 acres, etc.) for payments to mineral owners within larger unitizations to address mineral owner concerns
- Promote responsible pipeline and infrastructure corridors to lessen impacts to landowners and our other natural resources

- Use more boring in sensitive areas to reduce surface disturbance and erosion
- Promote best management practices for surface assets and landowner relations
- Encourage DMR to strengthen the policy process and public input or access for surface and environmental issues
- Support additional state funding for narrow pipeline disturbance and Badlands sensitive soil research
- Educate landowners about reclamation best management practices, utilizing North Dakota State University publications and Natural Resources Conservation Service standards
- Promote property baseline data for landowners before disturbance starts to aid in reclamation efforts



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BACKGROUND

In August 2016, CCG released the Stakeholder Assessment of the North Dakota Badlands and Little Missouri River Valley (www.ndstakeholders.org). The assessment was a yearlong project involving interviews and research on oil development in the Badlands. It documented the opinions and perceptions of 71 North Dakotans from four stakeholder groups: ranching, oil industry, government, and conservation. The assessment’s goal was to use the interview results to create strategies for how best to develop mineral resources with responsible stewardship of the Badlands.

The assessment revealed widespread support for protection of surface assets in the Badlands as well as throughout North Dakota. At the same time, the CCG team found no one who wished to stop oil production. The common response was “produce oil, but ensure valuable surface resources are protected and recognize the rights and concerns of surface owners”. Most respondents felt that the recent Bakken boom has brought prosperity and growth to the state. However, because of its rapid development, some participants pointed out that the boom created unnecessary, duplicate infrastructure. Other participants believed there was not enough concern for surface resources, upfront planning, or reclamation. While few participants were critical of any individual, government entity, or oil producer, most agreed that the boom came fast. North Dakota was simply not prepared for such an acceleration in activity over such a large area. Drawing upon that experience, most felt that there was room for improvement in future oil development.

Responses to the interviews highlighted the following key concerns about oil development: 1) planning, 2) communication, 3) reclamation of the landscape, 4) regulations, standards, and best management practices, 5) cultural resources and special places, and 6) wildlife habitat and access to public lands. Based on the findings of the stakeholder assessment, the CCG team developed three recommended strategies to achieve the project’s goal: 1) a collaborative process that includes all parties, 2) regulatory and statutory changes, and 3) a landscape pilot project that includes all parties.

Recommendations from the assessment included the development of an advisory committee to identify and work out the practical details of the assessment’s recommendations. They reviewed the Stakeholder Assessment and prioritized the issues they thought were most important and that had achievable solutions. The stakeholder assessment and the convening of BAG were supported by a grant from the Bush Foundation through World Wildlife Fund.

TRANSPARENCY & COMMUNICATION

Summary

The original assessment found that many of those interviewed felt accessing data on oil development was difficult and communications between oil companies, government agencies, and landowners was sometimes lacking. Both in the original assessment and during the team discussions, the concept of using existing infrastructure and infrastructure corridors to lessen impacts were viewed as a priority. The team discussed several issues under this topic including:

- Company drilling plans and the need for landowners and local governments to see the plans sooner vs later
- Landscape planning on a larger scale rather than by 1280 acre units
- Use of larger unitizations especially in Badlands landscapes and better cooperation between the various landowners (i.e., private landowners, state government, and federal government) (See Appendix VII for information on pooling and unitization, see Appendix VIII for details on the Corral Creek unitization project)
- Identify ways to promote larger landscape planning
- Consider use of a pilot project to incorporate key ideas into a test area, similar to an Area of Mutual Interest (AMI), an industry term for cooperation in planning & development (See Appendix I for a definition of AMIs)
 - Success could result in a “show place” for the industry.
 - Criteria for a pilot area:
- Multiple land owners (state, federal, and private)
- Undeveloped area (with some old wells)
- Within the Badlands area (i.e. viewshed, Little Missouri River, and historic sites)
- Includes one or more Areas of Interest
- Limited number of oil companies leasing in the area
- Suitable site for NDSU reclamation research
 - Consider a tax incentive for the oil producer to participate
 - One possible area is from the Elkhorn Ranch to the South Unit of the Park

Action Steps

- Because the Badlands is a sensitive landscape and prone to erosion issues, encourage the NDIC and DMR to do larger landscape planning to promote the smallest possible infrastructure footprint, providing earliest possible plans to assist planning needs all entities (local governments, state, landowners, royalty owners, etc.)
- Consider the use of smaller units (1280, 1920, etc.) for payments to mineral owners within larger unitizations to address mineral owner concerns
- Promote a pilot project area to NDIC, NDPC, and oil companies for testing these action steps

WILDLIFE HABITAT

Summary

The team discussed opportunities to increase wildlife habitat and the potential to use acreages that have been converted from traditional agricultural uses or segregated from a landowner’s ongoing agricultural operations. Some oil companies are offering land lease options with annual payments for such acreages. We discussed wildlife habitat and concluded there is a need for mitigation to address habitat loss. With the potential for 30,000 additional Bakken wells, our goal is to mitigate for the habitat lost through future production.

We envision a program that can benefit all stakeholders: landowners with additional income or compensation for lost acreages, the oil industry with an improved conservation image, and the public with more wildlife and habitat.

A program that incorporates some type of mitigation could increase wildlife habitat and to keep threatened species off the Endangered Species Act list. The team felt it is important that any mitigated acres need to be in close proximity to the respective lost acres.

Some possible acreages that may fit within the program are:

- Abandoned well sites
- Abandoned industrial sites
- Areas that no longer fit into normal farming or ranching practices because of roads or well sites.
- Well sites reduced in size after drilling
- Acreages segregated from a landowner's ongoing operations

A coordinating entity, such as the North Dakota Natural Resources Trust (NRT), could oversee such a program, working with landowners and developers and identifying funding programs from multiple government and non-government entities. Other partner entities, such as the North Dakota Association of Soil Conservation Districts (NDASCD), may also be included to provide support and coordinate with landowners. A key component of the program is ensuring each participating landowner works with an entity with which both the landowner and oil company are comfortable (See Appendix II for a draft concept of the program).

Action Steps

- A coordinating entity and partner entities should promote the program to industry and landowners
- Work with counties, NRCS, NDSU Extension agents, and NDASCD to promote the program
- Explore starting a pilot project in one of the oil producing counties

RECLAMATION STANDARDS & EDUCATION

Summary

The team believes significant improvements have been made in reclamation in the last few years. Some of this is the result of lessons learned by oil companies. For example, NDIC has recently increased standards for gathering line bonding, installation, and abandonment. Some of it is also the result of landowners being more aware of their options. In the last couple of years, NDSU has two publications with reclamation and legal data to assist landowners along with new research on reclamation.

According to Dr. Kevin Sedivec, NDSU, there is little to no science on reclamation practices specifically on Badlands soils and terrain. NDSU is planning research for 2017 on compaction and erosion, but additional funding is needed to do research on the Badlands. Research is also needed on narrowing the standard widths used by industry for pipelines (the standard is 50 or 90 feet of disturbance). Research on how to do this with a narrower disturbance would significantly help restoration efforts.

The team also felt education and information distribution is an important component for improvements in reclamation. As such, we discussed:

- Encouraging landowners to require reclamation to meet NRCS and NDSU publication standards
- Encouraging landowners to complete a baseline report before disturbance occurs (NRCS has a program available to accomplish this)
- The need to have conversation, share information and educate both industry and landowners about best practices and concerns.
- Using more boring in sensitive areas to reduce disturbance and erosion
- Cooperating with landowner groups if available

Action Steps

- Promote responsible pipeline and infrastructure corridors
- Use more boring in sensitive areas to reduce disturbance and erosion
- Support additional state funding for narrow pipeline disturbance and Badlands sensitive soil research
- Support funding for NDSU Badlands reclamation research
- Promote baseline data collection for landowners before disturbance starts
- Educate landowners about NDSU publications and NRCS standards
- Encourage DMR, NDPC and the Public Service Commission (PSC) to include links to the NDSU publications on their websites
- Access US Forest Service (USFS) research on the impacts of oil development on the South Dakota Badlands when it is finished in early 2017

AREAS OF INTEREST

Summary

Areas of Interest, sometimes called “Special Places,” were designated by the North Dakota Industrial Commission in 2014. Within NDIC Policy 2.01, there are 18 specific places with historic or science values on which DMR takes comments and may attach conditions before issuing a permit for drilling (See Appendix III for the NDIC policy and list of 18 Areas of Interest).

Many people are of the opinion that the rules have had little to no effect on activities in and around the Areas of Interest. The team discussed the Areas of Interest and what could or should be done to strengthen the current policies. The team agreed that viewshed was one of the key issues for these places and the established setbacks were likely the most that could be done, considering the amount of private properties included in the Areas of Interest.

Federal lands in the Areas of Interest already require Environmental Assessments under the National Environmental Policy Act, and the results of the policy have mainly moved drilling activity onto adjacent private land where environmental review is not required.

Possible solutions for viewshed issues could be the increased use of boring and submersible pumps.

Action Steps

- Promote a pilot project as per the first topic briefing, Transparency and Communication, that includes an Area of Interest to see what could be accomplished. If successful, this could be a “show place” for the industry
- Include Areas of Interest as part of a Long-term Strategic Plan discussion

BEST MANAGEMENT PRACTICES

Summary

The team discussed several items labeled as Best Management Practices (BMPs). The idea is to incorporate the oil industry’s innovative ideas and best practices to improve landowner’s relations and minimize impacts to surface assets. These BMPs model the principal of treating landowners as you would like to be treated, and treating their land as you would like someone to treat your land. They are mainly common sense, demonstrating respect for property and keeping open communications between the company and the landowner.

The team has drafted a narrative of specific steps to promote BMPs between landowners and the oil industry. The narrative was created to improve relations and reduce the number of disputes or occurrences of misunderstandings between the

companies and the landowners. Topics include staking and site location, drilling and production operations, and engaging communities (See Appendix IV for the complete narrative of BMPs, see Appendix V for the NDPC Land Agent Code of Conduct).

Action Steps

- Meet with Industry periodically to promote best management practices and workshops
- Meet with local landowners or organized landowner organizations periodically to gather new information.

LONG-TERM STRATEGIC PLANNING

Summary

Even with the recent slowdown in oil activity, there is a consensus that North Dakota's future holds a lot more oil wells. Estimates suggest that the Bakken formation could support another 30,000 wells. With that in our future, the state needs a thoughtful, well-developed, written plan for dealing with a multitude of issues related to oil development.

The state has already taken action through various agencies to address some of the issues. However, the coordination of an integrated statewide document to incorporate input from local government, state government, landowners, industry groups, and the public seems prudent to prepare for future development. This should be a state driven process with three overriding objectives: it is completed in a timely manner; it does not restrict development; and it protects surface assets and natural resources through planning of infrastructure by private and public entities, and coordination among all stakeholders.

List of potential topics for a long-term strategic plan (LTSP):

- Wildlife impacts
- Surface impacts affecting ranchers, farmers, and landowners
- Impacts to cities, counties, and schools
- Reclamation issues
- Prevention and reclamation of spills
- Water quality issues – Reconsideration of setbacks that may not be adequate in relation to the Missouri River, Lake Sakakawea, and Little Missouri River
- Lessons learned from most recent boom
- Local zoning rules
- Population and land use
- Transportation infrastructure
- Water development and infrastructure
- Landscape-planning tools such as unitization
- Environmental review
- Periodic review of the LTSP and its key performance indicators (KPI)

Action Steps

- Promote a state driven Long Term Strategic Plan for the development of North Dakota's natural resources
- Promote the designation of a state agency, such as the Department of Commerce, to lead the LTSP



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ENVIRONMENTAL REVIEW

Summary

The team discussed environmental review and looked at the Montana Environmental Policy Act (MEPA). The Montana law, which the industry prefers compared to Federal requirements, mainly requires an assessment by state agencies to be in writing and available to the public. It generally does not require action by the state, only that they have made the assessment and that it is available to the public and to other state agencies. If the Montana assessment identifies an environmental issue the agency may require additional review or stipulations to mitigate the issue. In some ways, it is similar to North Dakota's Areas of Interest policy, which requires DMR to take comments and issue stipulations if necessary.

DMR does have a policy checklist of issues it considers before issuing a permit (See Appendix VI for the NDIC Drilling Permit Review Policy). The North Dakota Department of Trust Lands also has an internal policy checklist used before granting activity on state trust land.

Benefits of a more formal review process include the evaluation and disclosure of the impacts of various actions to the public, including cumulative effects. The process could include public involvement and identification of alternative courses of action. A scientific, landscape review approach would allow for appropriate management and mitigation practices that protect, restore, and enhance the land while still implementing oil and gas activities.

This is a difficult issue to discuss because industry and much of the public will view it as "more regulation". At the same time, others will ask, "If you want to perform this activity, shouldn't we know or be informed of the potential impacts?"

The team saw water quality and impacts to ranching and wildlife as key issues here. Other agencies, such as the North Dakota Department of Health and the North Dakota Game and Fish Department, would likely have input. Because of the multiple issues it touches on and the multiple agencies that would be involved, the team felt environmental review should be part of a LTSP.

Action Steps

- Recommend the Governor establish a task force of cabinet agencies or other agencies to coordinate efforts to accomplish these recommendations in a timely manner, or establish an energy sub-cabinet to do so
- Encourage DMR to strengthen the policy process with public input and/or access
- Support a LTSP to address environmental review

ACTION PLAN APPENDICES

APPENDIX I – AREAS OF MUTUAL INTEREST

Definition

A geographic location in which more than one oil and/or natural gas company has a stake. An area of mutual interest (AMI) is defined by a contract that describes the geographic area contained in the AMI, the rights each party has in the AMI (e.g., the percentage of the interest allocated to each company), the length of time during which the contract will be in effect, and how the contract provisions are to be implemented.

Some larger AMI agreements split operatorship if there are agreements in place where one operator will drill, produce, and operate one part of the AMI while the other operator will do the same in the other area of the AMI, depending on the agreement.

Agreements

The AMI agreement may also define how the parties to the agreement are allowed to explore for or extract oil and natural gas in the subject lands. If any party to an AMI contract wants to pursue a venture in the specified lands, it must do so in conjunction with the permission of the other parties to the contract. This is similar to most pooling or unitization agreements depending on how they are setup.

A mineral owner's contracts generally do not change under an AMI, and the spacing for the drilling units generally does not change unless approved by the contract partners and the regulatory entities.

An AMI does not give the operator the right to drill off-site wells from a central pad. Drill wells generally are drilled as they would have been before the AMI was signed and approved.

APPENDIX II – HABITAT IMPROVEMENTS

Background

Habitat development and possible public access opportunities on lands impacted by energy development exist across the study area (Badlands affected by past and future oil activities). These opportunities involve, at a minimum, the following:

- Scattered small parcels used for energy infrastructure purposes. These parcels may be owned or leased by companies no longer using them and possibly no longer active in the state. Some of these tracts may end up in public ownership due to abandonment.
- Small, irregular portions of land within areas of fairly intensive energy development, such as land between or adjacent to well pads or related areas. (i.e. Whiting Petroleum has already demonstrated habitat improvement on some of these lands).
- Larger landscapes within, adjacent to or surrounding areas impacted by either of the above.
 - o There is federal land owned and managed by both the US Forest Service and the Bureau of Land Management across the study area, which provides the potential for partnership projects.
 - o Some State Trust Land exists within the study area, providing another partnership opportunity.
 - o Much of the energy development related disturbance is on private land. It is well known that farmers and ranchers are open to considering private land conservation opportunities that fit their operations and provide adequate compensation; in fact, every voluntary private land conservation program offered in North Dakota is oversubscribed. A major partnership opportunity exists to engage these private landowners in innovative conservation, habitat improvement, and public access actions that offset the impacts of energy development across the study area.

An ideal approach to analyzing habitat and public access opportunities across the study area would be to utilize all available data and consider a “hybrid” approach that would combine the opportunities across the broader landscape.

Process

- 1) Identify the location and ownership of small scattered parcels formerly used for energy development infrastructure with potential for habitat improvement and public access.
 - a) Data available from political subdivisions, state and federal agencies
 - b) GIS layer needs to be developed
- 2) Identify the location and ownership of all energy facilities including, but not limited to, well pads, tank batteries, roads, pipeline corridors and all pipeline infrastructure, other storage facilities, rail and trucking facilities, gravel and scoria mining operations.
 - a) Much of this data is available from the Department of Mineral Resources (DMR) web site.
 - b) Other relevant data will need to be assembled by project partners.
 - c) Where not already available, GIS layers will need to be constructed showing all relevant energy related facilities and associated land disturbance.
 - i) A goal should be a computation of all acres disturbed by oil and gas development to date in North Dakota.
 - ii) It is also our suggestion that this acreage of disturbance be the baseline for establishing the goal of acres of habitat that need to be established, enhanced, secured or in some other acceptable manner improved to make the effects of oil development “landscape neutral” across the study area.
- 3) Acquire existing GIS layers or, where not available, construct GIS layers of the following data:
 - a) Land ownership
 - b) Land cover
 - c) Extraordinary Places and buffer footprints (as per Industrial Commission designation)
 - d) Aquatic resources
 - i) Wetlands, streams, rivers and lakes

- ii) Watershed boundaries of Little Missouri River and Lake Sakakawea
- e) Grassland cover (either native or tame)
- f) Threatened or endangered species habitat
 - i) Known critical habitat
 - ii) Potential habitat
- g) Species of Special Concern (as per North Dakota Game and Fish Department data)
 - i) Known critical habitat
 - ii) Potential habitat

Availability and effective use of these combined tools will allow for reviewing the study area landscape for patterns of overlap and associated opportunities that might maximize the impact of habitat development and/or public access projects. It will also facilitate the prioritization considerations discussed below.

Prioritization

In implementing habitat development opportunities, it is often effective and sometimes required (due to limitations in staffing, funding, or other factors) to prioritize implementation strategies. Prioritization can be done by habitat type, by species, or often by some combination of the two. Some suggestions in that regard include:

- Grasslands – Retention of existing grassland habitat (especially native) and minimizing fragmentation of grasslands due to poorly planned development is the highest priority for any habitat type across the study area. North Dakota (and most states) continue to lose grassland to a wide variety of industrial, agricultural and development uses. The existence of extensive, unfragmented grassland habitat is the underpinning of many game, nongame, and threatened and endangered species.
- Threatened, Endangered and Species of Special Concern – While data on this array of species is not as plentiful and refined as for game species, land disturbance primarily from energy development and agriculture is reducing the populations of some species. Few outcomes should be of more concern than the prospect of reducing, altering or fragmenting habitat in such a manner that any species faces federal listing.
- Aquatic Resources – Embedded within the heart of our oil and gas industrial development zone lays the important aquatic resource in North Dakota: the Little Missouri River, Lake Sakakawea, and the Missouri River. These aquatic resources define our scenic, cultural, recreational, municipal, and industrial water future. In addition to the importance to our multi-million dollar tourism industry, the fishery and associated recreational importance of this system represents one of North Dakota’s prime claims to Missouri River water in disputes with downstream states. All that pales in comparison to the importance of these water resources for human use, with virtually the entire western half of the state dependent on Lake Sakakawea for its municipal water supply. (See watershed maps attached).

There are hundreds of oil wells and related energy infrastructure already sited within these watersheds, with hundreds more planned. Risks of fluid spills (oil, saltwater and others) finding their way into drainages associated with these water courses are of critical concern. Prioritizing habitat improvement and more strategic infrastructure planning within these watersheds would seem to be advisable.

Habitat Partners, Programs, and Funding Opportunities (Not in any priority order)

Federal Programs

- United States Department of Agriculture
 - o Farm Service Agency
- Conservation Reserve Program (CRP)
 - o Natural Resources Conservation Service (NRCS)

- Environmental Quality Incentive Program (EQIP)
- Conservation Stewardship Program (CSP)
- Agricultural Conservation Easement Program (ACEP)
- Agricultural Land Easements (ALE)
- Wetland Reserve Easements (WRE)
 - United States Fish & Wildlife Service
- Partners for Wildlife (PFW)
- Section 6 Endangered Species Funding
- North American Wetland Conservation Act (NAWCA) Funding – NAWCA provides grant funding for projects that protect, restore or create wetland related habitat and associated grasslands
 - U.S. Forest Service
 - U.S. Bureau of Land Management

State Programs

- North Dakota Game & Fish Department
 - Private Lands Open to Sportsmen (PLOTS) – Includes Coverlocks
 - A variety of private land habitat enhancement programs, often associated with PLOTS but could be considered separately as part of a larger partnership
- North Dakota Wildlife Federation (NDWF)
 - Broad interest in partnerships that create or enhance wildlife habitat or public access and specific interest in reducing the impacts of landscape disturbance from oil and gas development
 - Specific funding may be available for work in Dunn and McKenzie counties

Non-Governmental Programs

- Delta Waterfowl (DW) – Emphasis would be on retention, creation or enhancement of wetland habitat and associated grasslands
- Ducks Unlimited (DU) – Emphasis would be on retention, creation or enhancement of wetland habitat and associated grasslands
- Mule Deer Foundation (MDF) – Provide cost share for partnership projects that benefit their mission. In the project study area most likely interest would be protection and enhancement of grassland and riparian habitat
- National Fish and Wildlife Foundation (NFWF) – Created by Congress in 1984, NFWF is an independent 501(c)(3) nonprofit organization governed by a 30-member Board of Directors approved by the Secretary of the Interior. NFWF has become one of the world’s largest conservation grant-makers, currently working with 15 federal partners and more than 45 corporate and foundation partners to protect and restore imperiled species, improve working landscapes for wildlife and conserve water for wildlife and people.
- National/North Dakota Wild Turkey Federation – Provide cost share for partnership projects that benefit their mission. In the project study area most likely interest would be protection and enhancement of grassland and riparian habitat
- North Dakota Association of Soil Conservation Districts (NDACSD) and Individual County Soil Conservation Districts (SCDs) within the study area – Emphasis on delivery of habitat programs including, but not limited to, tree planting, grass planting, grazing systems, delivery of farm bill programs, delivery of existing OHF grant programs. NDACSD has an established partnership with a number of the groups already listed and has one Farm Bill Specialist located within the study area (in Hettinger). Individual SCDs in the study area counties could be tremendous assets in working directly with private landowners in a larger partnership approach
- North Dakota Natural Resources Trust (NDNRT) – NDNRT has a range of private land conservation programs and payment incentives that could be applied in the study area. Of special significance is the Working Grassland Partnership (WGP) program, involving a significant OHF grant and a delivery partnership involving the NDACSD, DU, and PF,

with a geographic emphasis that covers much of the study area. The WGP focuses on maintaining grassland habitat by creating/enhancing grazing systems on expiring CRP acreage. NDNRT can also develop additional partnership approaches, habitat projects and incentive programs as needed. NDNRT will provide coordination and facilitation services for projects initiated within the study area. (see more complete description below)

- Outdoor Heritage Fund (OHF) – Legislative established in 2013, OHF provides grants to state agencies, tribes, and NGOs to create habitat, provide access to sportsmen, improve water quality, enhance farming and ranching practices for conservation, and develop parks and recreation areas. OHF should provide a great opportunity of a unique partnership to evolve in the study area to meet habitat needs. There is known interest within the OHF board to see more of the grant funds used within the oil and gas development area.
- Pheasants Forever – Emphasis on pollinator habitat. A variety of private land options that include tree plantings, grass seeding and other habitat options with varying cost-share working with individual PF chapters across the study area.
- Rocky Mountain Elk Foundation – Provide cost share for partnership projects that benefit their mission. In the project study area most likely interest would be protection and enhancement of grassland and riparian habitat
- World Wildlife Fund (WWF) – Overall emphasis on protection and enhancement of grassland habitat in the Northern Great Plains. WWF developed the Plowprint Report, which tracks annual grassland conversion to cropland across the focal regions of the Mississippi River Basin and Great Plains and increases public awareness of grassland loss.

NDPC and/or Oil Companies

- Cost share of some of the above programs
- Lease agreements that provide an annual rent for set aside acres

Coordination and Implementation

The North Dakota Natural Resources Trust (NDNRT) could be the coordinating entity, working with Soil Conservation Districts, the NRCS, and other partners. A one-stop shop providing background material, work with energy companies, state and federal agencies, NGOs, political subdivisions, county commissions, etc. NDNRT would also help put together background material that could be distributed to the landowners, printed material, social media, video, audio, etc. NDNRT is willing to provide the administrative support of holding all funds and dispersing payments as needed. NDNRT would construct the partnership that would work with both public and private landowners, they would provide the coordination, the consultation, and help sort out options with the different landscapes.

Process Summary

- 1) Determine location and ownership of scattered tracts – All partners
 - a) Public
 - b) Private
 - c) Energy companies
- 2) Analyze land cover – All partners
- 3) Assess impacts of land disturbance – BAG and all partners
- 4) Review and set priorities – BAG
- 5) Identify habitat/access opportunities – All partners
 - a) On-site
 - b) Off-site
- 6) Identify programs/funding – All partners
- 7) Coordination and implementation - NDNRT

APPENDIX III – NDIC AREA OF INTEREST REVIEW POLICY

NDIC-PP 2.01. After May 1, 2014, any application for a permit within the following areas of interest that relates to public lands, shall comply with NDIC-PP 2.02 through NDIC-PP 2.04.

- 1) Black Butte - two miles from the maximum elevation of the butte
- 2) Bullion Butte - two miles from the maximum elevation of the butte
- 3) Camel's Hump Butte - two miles from the maximum elevation of the butte
- 4) Columnar Junipers (Limber Pines) and Burning Coal Vein – one mile from the exterior boundary of the former Dakota National Forest
- 5) Confluence of the Yellowstone and Missouri Rivers - two miles from the intersection of the centerline of the riverbeds
- 6) Elkhorn Ranch - two miles from the exterior boundary of the National Park and State Park sites
- 7) Killdeer Mountain Battlefield State Historic Site - one mile from the exterior boundary of each site
- 8) Lake Sakakawea - one half mile from the shoreline at 1850' elevation (i.e., the spillway elevation)
- 9) Little Missouri River - one mile from the centerline of the river bed as it is determined at the time of the application
- 10) Little Missouri River National Grasslands that are designated by the United States Forest Service as backcountry recreation areas
- 11) Little Missouri State Park (as of 1/1/2014) - one mile from the park's exterior boundary
- 12) Pretty Butte - two miles from the maximum elevation of the butte
- 13) Sentinel Butte - two miles from the maximum elevation of the butte
- 14) Theodore Roosevelt National Park - two miles from the park's exterior boundaries
- 15) Tracy Mountain - two miles from the maximum elevation of the mountain
- 16) West Twin Butte - two miles from the maximum elevation of the butte
- 17) White Butte in Slope County - two miles from the maximum elevation of the butte
- 18) Wildlife Management Area not located within any other area of interest - one mile from the exterior boundary

The director shall maintain a database with the GPS coordinates or legal description of these areas of interest and post a list of the datasets utilized on the Department of Mineral Resources website.

NDIC-PP 2.02. The director shall, within five calendar days after receiving an application to drill a well on public land within an area of interest identified under NDIC-PP 2.01:

- A. Post on the daily activity reports section of the Department of Mineral Resources website a notice including all non-confidential permit application information. The posted notice shall include all supporting information or records provided by the applicant which are not confidential. Public comments about public lands within the areas of interest regarding such issues as access road and well location, reclamation plans and timing, noise, traffic, and visual impact mitigation, will be accepted by the Industrial Commission executive director's designee for 10 calendar days after the notice is posted.
- B. Forward the portions of the application that are not confidential to the Director of North Dakota Game and Fish Department, the State Historical Preservation Officer, the Director of North Dakota Parks and Recreation Department, the Director of North Dakota Department of Transportation, the Commissioner of North Dakota Department of Trust Lands, the State Engineer of the North Dakota Water Commission, the State Director of the Bureau of Land Management, the Park Superintendent of Theodore Roosevelt National Park, the Supervisor of Dakota Prairie Grasslands, the Field Supervisor of United States Fish and Wildlife Service North Dakota Field Office and the county auditor of the affected county. Any comments regarding the permit application may be accepted by the Industrial Commission executive director's designee within 10 calendar days after the information is sent.

NDIC-PP 2.03. All comments shall be reviewed by the Industrial Commission executive director's designee who shall summarize any comments received for the director of the Division of Mineral Resources. However, the Mineral Resources director is not bound to act upon any comments.

NDIC-PP 2.04. The director may consider the comment summaries for the purposes of attaching conditions to any permit pursuant to NDAC 43-02-02, 43-02-02.2, 43-02-02.3, 43-02-02.4, 43-02-03, and 43-02-05 to mitigate potential impacts to the sites listed in NDIC-PP 2.01.

Adopted March 3, 2014

APPENDIX IV – BEST MANAGEMENT PRACTICES

Staking and Site Location

- 1) Contact landowner and give them contact information for your company. Let them know that you are sending out a staking notice. Send Surface Owner Rights Document with staking notice (www.dmr.nd.gov/oilgas/surfaceowner.pdf). Also, make it clear who the landowner's point of contact is when they have a question or concerns with what is happening on their land. It is also important that the company seeking or owning the site provides a secondary contact number, which is directly to company headquarters.
- 2) Schedule a meeting date with the landowner or landowners (including regulatory agencies, such as North Dakota Game and Fish Department or U.S. Forest Service, if involved) and the survey crew on site to agree on well pad locations, roads, and pipeline placement. At that time, ask for any information from all entities on archeological, biological, or historical areas that may be present, or other concerns of the landowner (e.g., site location, impact on landowner use, transportation issues, drainage, etc.). If possible, bring future drill plans and other needed infrastructure plans for that area to incorporate long term planning. Discuss slopes and seeding of disturbed areas and top soil pile placement with special considerations for slopes in excess of three percent.
- 3) Meet with the landowner after plats have been finalized, and discuss possible surface damage agreement. If agreed on, offer a one-time payment or an annual rental payment. Address concerns that the landowner may have on surface damage and reclamation, which may be encountered during any or all the associated operations, and provide the landowner with the Easement Information Center document (http://www.ndoil.org/oil_can_2/easementinfocenter).
- 4) After the Approved Permit to Drill (APD) has been approved, contact the landowner about the approximate build date of location and roads. Schedule a meeting with the local county, township, relevant state officials, and road department superintendent if your plan will be using county roads, crossing section lines, or need section line easements for right of way (ROW) if available at this time. Build location and road, and check in with landowner on any discrepancies they may have. Insure that all contractors and sub-contractors have been notified of the terms agreed upon with the landowner before starting any construction. Follow up with contractors daily.
- 5) Build infrastructure to encompass current and future needs (e.g., gathering system for oil, gas, and water, power lines, and fiber cables) Compact all ditches as much as possible to prevent any future subsidence. Seed pipeline ROW as per the agreement with landowner. Again, ensure that all contractors are aware of the agreement in place with the landowner. Follow up with contractors daily.
- 6) Inspect pipeline ROWs frequently for subsidence issues. Flyovers can catch many problems before they become issues with the landowners. Discuss with the landowner any issues found, subsidence, seeding, fences, etc. and come to an agreement on a course of action.
- 7) Gates: A closed gate is always better if you are unsure if it should be open or closed when doing construction or inspections. Always check with the landowner if you find an open gate on your ROW. Ensure there is a cleaning and repair maintenance agreement for cattle guards if they are used.

Drilling and Production Operations

- 1) Notify the landowner, county, township, and state when a drilling rig moving in or out and during frack operations. Find out from the county if you need to enter into a road haul agreement to use the county roads your plan calls for. Dust control is imperative at these times. Repair any damage to roads as soon as possible as agreed upon with the landowner and local road departments.
- 2) Remove any debris immediately that may have left the location or ROW areas.
- 3) Monitor seeded areas and control weeds early before they go to seed. Remove any rocks that may have surfaced during any of the operations noted above per the agreement with the landowner. Check in with the landowner periodically to keep communications open.

- 4) Inspect roads, fences, cattle guards, lines, and equipment daily for potential issues and repair accordingly. Always be proactive on maintenance to ensure safety and environmental compliance.
- 5) If there is a release, notify all agencies and landowners immediately and initiate clean up as per the agreement with all entities. Test soils in all areas to ensure any contaminated soils have been removed.

Communities

- 1) Encourage industry employees and local management to become involved in community functions, organizations, and government. It is important for communities and landowners to know that you are committed for the long term.

APPENDIX V – NDPC LAND AGENT CODE OF CONDUCT

The following document was created by the North Dakota Petroleum Council. It is part of a series of documents created as part of an online Easement Information Center (www.ndoil.org/oil_can_2/easementinfocenter). According to NDPC,

“In 2014, the North Dakota Petroleum Council formed a Right-of-way Task Force to address the issues surrounding easements. The task force consisted of industry representatives, regulatory representatives, and landowners (represented by the Northwest Landowners Association and Dunn County Landowners Association). Over the course of several months, the task force identified lack of information and unclear communication as one of the roadblocks between landowners and companies looking to obtain easements. With that in mind, this page and the following documents were created. This information is intended to serve as background and a starting point for landowners entering the easement process. In another effort to facilitate communication between industry and landowners, we’ll be working to create an easement resource liaison in each county.”

The NDPC has provided this code of conduct to all of its member companies, and it is what a landowner should expect when working with a land agent.

Land Agent Code of Conduct (what landowners should expect from land agents):

Landowners have long been the stewards of North Dakota’s lands, working to ensure it provides bountiful harvests and supports livestock and wildlife. Companies seeking easements for pipelines and other underground facilities also facilitate stewardship of the land, ensuring it continues to protect their buried assets from damage while safely moving commodities to market. The landowner and pipeline company’s interests come together through the easement process to create an agreement of understanding, developed to protect each party’s interests, and ensure the land is maintained for its best productivity above and below ground.

When negotiating an easement, landowners will typically work with a land agent who is contracted by the company seeking the easement. In the negotiation process landowners can expect a certain code of conduct by the land agent, and that the information provided by the land agent is accurate and supported by the company the agent represents.

What the landowner should expect:

- A representative of the company that is polite, informative of the company background, the company’s processes during construction, and the remediation practices to restore the property
- The proposed routing of the facility
- The type and size of the facility
- The type of product being carried
- Construction timeline and critical path items to achieve
- That they and their land will be treated with respect
- Timely response to their calls for clean-up issues on the right of way

What the agent should deliver:

- Intricate knowledge of the company’s construction practices and reclamation processes
- Informed understanding of the standard language in the agreements
- Sensitivity to landowner concerns
- Timely responses to any questions or issues that cannot be answered in the initial and on-going negotiations
- Project fulfillment and completion per what was conveyed throughout the process

What the company should deliver:

- A knowledgeable, polite land agent
- Information about the project, timeline, construction and reclamation processes
- Project fulfillment and completion per the terms of the negotiated agreement
- Direct company contact information – a primary and secondary contact

Companies seeking easements should welcome landowner feedback and ideas on how to improve the process and relationships between industry and landowners. Building and maintaining positive and open relationships is beneficial to the interests of the landowner and the energy industry. The landowner can be the best pipelines best monitoring source, they see and know what is happening on their property.

(North Dakota Petroleum Council Right of Way Task Force, May 2014)

Summary of the Project Scope

This summary is designed to provide the landowner with important information about the scope of the project for which an easement is being sought. Please review this information and the terms proposed in the easement agreement carefully and thoroughly. Ask any questions you may have or request any clarifications to ensure you fully understand the scope and terms of the easement offering.

- Project Name:
- Length of Easement:
- Type of Facility (including number of pipelines, if applicable):
- Scope of Facility (size, length, depth of burial, etc.):
- Type of Product in Facility (if applicable):
- Proposed Construction Commencement Date:
- Proposed Construction Completion Date:
- Land Agent Contact:
- Company Contact:

This document should accompany an easement offering or can be used by a landowner to gather key information.

APPENDIX VI – NDIC DRILLING PERMIT REVIEW POLICY

NDIC-PP 1.01. For all applications for a permit to drill under NDAC 43-02-02, 43-02-02.2, 43-02-02.3, 43-02-02.4, 43-02-03 and 43-02-05, regardless of location, the director shall consider the proximity of the proposed location to the following:

- a) A shallow glacial aquifer;
- b) A lake (with a water surface of 640 acres or more);
- c) Lake Sakakawea;
- d) A wellhead protection area;
- e) Near-surface coal, sand, or gravel deposit;
- f) Unstable soils or areas with a high potential for soil instability;
- g) A natural drainage;
- h) A 100-year (or less) floodplain;
- i) An occupied dwelling;
- j) A military facility;
- k) A plugged and/or abandoned well;
- l) A planned bypass route that has been proposed in an approved ten- year, or less, county, state, or federal road master plan;
- m.) 33 feet of any section line which has not been closed or within 200 feet of the centerline of a state or federal highway;
- n) A city's extra-territorial boundary;
- o) A county, state, or federally designated historic site; a public recreation area; or a wildlife management area; and
- p) Any other areas or geographical formations the director deems appropriate.

NDIC-PP 1.02. Because of the proximity of a surface location to any of items listed in NDIC-PP 1.01, the director may attach additional stipulations to the permit deemed necessary, such as:

- a) Closed mud system with no cuttings pit;
- b) Impermeable liner underlying the entire site;
- c) Casing cemented to ground level placed in the rat and mouse holes;
- d) Prohibiting the drilling pit from being constructed with porous materials, i.e., sand, coal, gravel, or scoria;
- e) Spill contingency plan and diking around the entire location;
- f) Hydrogen sulfide contingency plan;
- g) Fencing around the site;
- h) Additional casing strings;
- i) Additional precautions to avoid adverse effects to nearby well(s);
- j) Locating production equipment further from occupied dwellings than the well head;
- k) Requiring access from an off-spacing unit site;
- l) Planting of trees to minimize visual impact;
- m) Restrictions on access road location;
- n) Limiting flaring to completion or work over flow back periods;
- o) Restricting excavation during site construction;
- p) Timing limits on construction, drilling and fracture stimulating operations; or
- q) Any other provision deemed necessary.

NDIC-PP 1.03. If the proposed location is within 1/4 mile of a military installation, the director shall require documentation that the applicant has notified the applicable military service.

NDIC-PP 1.04. If the proposed location is within a wellhead protection area, the director shall require documentation that the applicant has notified the North Dakota Department of Health.

NDIC-PP 1.05. If the proposed location is within 33 feet of any section line which has not been closed or within 200 feet of the centerline of a state or federal highway, or is within any setback previously established by the governing body prior to the filing of the application, the director shall require documentation that the applicant has notified the applicable county or township.

NDIC-PP 1.06. If the proposed location is an off-spacing unit site, the applicant must provide an affidavit affirming that the surface owner of the pad location agrees to accept the underground burial of cuttings generated from drilling.

APPENDIX VII – POOLING/UNITIZATION/PRODUCTION AREAS

There are many terms in oil and gas leases that may not be familiar to North Dakotans. One of the important clauses in the oil and gas lease is the pooling clause. A quick scan of the provisions and clauses in most, if not all, leases will show a pooling clause. It is in the best interest of the production company that leases the property to insert a pooling clause. It can also be in the best interest of the landowner to read and thoroughly understand the pooling clause in the lease. Signing a lease without understanding what rights are included in the lease can generate legal problems for the landowner. Not understanding the pooling clause and being unaware of the pooling terms can also lead to a compulsorily pooling of the leased land under state laws.

Pooling is the consolidation and combining of leased land with adjoining leased tracts. The area is called a pool or a unit. Pooling has the benefit to the production company of uniting all landowners' leases into a common pool under one drilling production company and utilizing one common underground geological reservoir. There are several types of pooled units. There are voluntary pooled units, forced pooled units, drilling units, proration units, field wide/enhanced recovery units, and specially defined units in lease agreements. Of all these named units, the reality is there are only two real types of pooling that the landowner will experience.

Landowners may find that they are subject to two types of pooling on their leased land. The first and possibly the best situation is voluntary pooling. In voluntary pooling, the landowner gives free consent to the pooling and may reap some benefit by inserting various provisions in the pooling clause. Reading the pooling clause in the oil or gas lease may indicate that the clause sometimes gives unrestricted rights to the production company for the pooling of the leased land. Therefore, it is prudent in the lease terms to set the acreage to be pooled in the leased land to only the minimum acreage necessary for the drilling permit. The landowner should look at the production company's description and the extent of the proposed area to be pooled in the pooling clause. If there is a statutory acreage specified, then the landowner should limit the acreage to that minimum number of acres. If there is no set limitation to the number of acres to be included in the pool, then the production company could extend the coverage area to the entire leased area without any limitation.

The second type of pooling is compulsory or statutory. This type of pooling is compulsory whenever state law has been satisfied for oil and gas leases. Most states have this type of provision for compelling the landowner to enter into a pooling arrangement. In compulsory pooling of leased lands, the production company files a request for a pooling order, which provides for the surrender or sharing of interest by the landowner. When filing a request for a pooling order, the production company must provide a list to the state of all persons reasonably known to own an oil or gas interest in any tract or portion, which is proposed to be pooled. If there are unknown owners of the land, the pooling order and notice of a hearing must be published in a newspaper with the largest circulation in each county where the pooling will take effect. All known owners must be notified and advised of the legal action as well as the time and place of the hearing. After the specified time for landowner notification is reached, the hearing is held before the appropriate state agency. As a result of the hearing, an order can be issued by the state concerning the setting of the cost formula for sharing costs and revenues in the pooled area. The state and the production company usually set the cost formula. Most landowners have very little input in this situation. The landowners may speak in their own behalf at the hearing. This is a compulsory pooling hearing and pooling will take place.

Both types of pooling can change the way the lease is interpreted and how the lease provisions are applied. Before signing a lease, landowners may and should insert a Pugh clause into the lease to protect their interests and the leased land. The Pugh clause states that the lease shall terminate in all non-producing areas when the primary term ends or terminates. The landowner should also read and understand all of the terms of the lease before signing the lease. The landowner should negotiate as effectively as possible before signing the lease. A landowner cannot prevent a statutory pooling; however, in voluntary pooling, there may be ways to insert increased landowner rights and to mitigate the terms to a more satisfactory level for the landowner.

Figure 1. Proposed drill plan on 1920 acre units

This would be an ideal drill plan if the whole township was unitized and all the entities wanted to keep the drilling/production units as small as possible. These would all be 1920-acre spacings with six drill pads and twelve tank battery pads. The tank battery pads would be incorporated into the drill pads, and the average pad size would be approximately 20 acres. Thus, you would have a minimum of 120 acres of disturbance compared to likely over 200 acres if you drilled on 1280-acre units. This would be the smallest drilling/production units you could possibly have with three-mile legs on all wells, which is very difficult to accomplish in the Badlands because of its topography. Any other drill plan would increase the size of the drilling/production units exponentially depending on unit size.

Advantages

- A unitized field is under the operation of one company rather than many companies drilling individual wells, thus the landowners have to deal with fewer entities.
- Pooling allows more wells to be drilled from one pad. Although these pads tend to be large, there is still a greatly reduced footprint on the landscape from an infrastructure standpoint. It also can be more environmentally friendly from a wildlife viewpoint since there is less impact to the land, surface owners, and the natural resources within that unitized area.
- Royalty owners share in more mineral acreage than they previously owned. The percentage of mineral acres may lessen, but the higher production volume from the pooled acres negates the percentage drop and generally increases net revenue to royalty owners over time.
- Pooling allows for renegotiation of contracts on voluntary pooled acres in most cases, which benefits the landowner and mineral owner.
- Most unitized or pooled areas are operated by companies who are good stewards of the land and natural resources. They are here for the long haul.
- Voluntary pooling agreements must be signed by at least 55% of the mineral owners in a designated unit.

Disadvantages

- Revenue is spread out to more royalty owners, which reduces each royalty owner's net income in the early life of the well depending on the type of pooling agreement.
- Forced pooling reduces the ability to renegotiate contracts and terms.
- If the royalty owner does not have a 'Pugh' clause in their original contract it lessens the chance of receiving revenue from non-pooled acres that may be tied up by a leasing agreement.
- Forced pooling may be initiated by regulatory agencies (government) to protect specified tracts of land for environmental or cultural reasons. This leaves the landowners and mineral owners with fewer negotiating rights but may be the right choice in certain instances for the big picture.

APPENDIX VIII – CORRAL CREEK UNITIZATION

Oil & Gas exploration sometimes encroaches on areas that are of scenic, historical, environmental, and cultural value to public and private entities. The Badlands of North Dakota encompass state, private, and federal areas that have been set aside specifically for these reasons. When any type of industry affects these values, mitigation is a tool used to lessen the impact to these areas.

The Corral Creek Project is a great example of mitigation to lessen the impact on the Little Missouri State Park and the Little Missouri River drainage. State, federal, local, and private entities engaged in mitigation conversations with the exploration and production operators to consolidate efforts and minimize the impacts while still developing the mineral resource for the mineral owners.

As the result of these efforts, approximately 33 wells/tank battery pads and nine miles of roads were omitted in this area. By unitizing this field and consolidating resources, it reduced the footprint by approximately 264 acres, a big picture win for all stakeholders considering the fragile ecosystem in this area.

With the success of the Corral Creek Project, BAG supports and encourages the use of pooling, unitization, AMIs, or any combination of these tools to help mitigate industry's footprint in western North Dakota, specifically in the Badlands and the Little Missouri and Missouri River systems.

NOTES:
