Final Recommendations of the Operator Committed Practices Committee for the

Normally Pressured Lance Natural Gas Development Project
Sublette County, Wyoming
February, 2012

The OCP Committee was formed in the year 2010 in response to a request from Encana Oil & Gas (USA) Inc. The purpose of the Committee was to provide enhanced community input regarding the potential effects of, and community concerns related to, the Normally Pressured Lance (NPL) Natural Gas Development Project proposal located in southern Sublette County, Wyoming.

The OCP Committee membership, consisting of a group of 16 area residents, represented community interests including small business, elected officials, sportsmen, ranching, the environmental community, and others. These individuals worked together over the course of several months to identify key issues and concerns to be addressed by Encana prior to, and during development of, the NPL Project.

The final report provided to Encana consisted of 151 specific recommendations for consideration during the pre-planning and NEPA analysis phases of the project. The recommendations included in the report reflected a wide range of major issues including air, water quality, wildlife, reclamation, recreation, cultural and historical resource concerns as well as grazing, socio-economic issues and emergency response needs. Encana has performed a thorough review of the report and has adopted the majority of the recommendations as "Operator Committed Practices". The final document, with Encana's comments and commitments, was returned to the OCP Committee. Following review, the final document was forwarded to the BLM for incorporation into the administrative record of the Environmental Impact Statement (EIS) analysis currently in-progress for the NPL Project.

This new approach provides local residents affected by energy development with enhanced community input into the pre-planning and NEPA analysis processes.

Many thanks are due to the following OCP members for their valuable input:

Pete Arambel, Rancher and landowner Linda Baker, Environmental advocate Wil Gay, Emergency Medical Services Dave Hanks, Rock Springs Chamber of Commerce Don Hartley, Area historian Wally Johnson, Sweetwater County Commissioner Roger Jones, Area businessman Andy Nelson, Sublette County Commissioner Eric Peterson, UW Extension Office Jim Roscoe, Wyoming State Legislator Phil Smith, Mayor of Big Piney Stephen Smith, Mayor of Pinedale Terrie Swift, Sublette County Chamber of Commerce Mary Thoman, Sweetwater County Conservation District Darrell Walker, Sublette County Conservation District Bob Wharff, Wyoming Sportsmen for Fish and Wildlife

Our hope is that this effort will enhance dialogue between the BLM, Encana, and the Sublette and Sweetwater County communities during pre-planning, NEPA analysis, and future development of the Normally Pressured Lance (NPL) Natural Gas Development Project.

Best Regards,

Pati Smith, Facilitator

Members of the Operator Committed Practices Committee

Pete Arambel	Rancher and Area Landowner	Linda Baker	Environmental Advocate
Wil Gay	Emergency Medical Services	Dave Hanks	Rock Springs Chamber of Commerce Director
Don Hartley	Area Historian	Wally Johnson	Sweetwater County Commissioner
Roger Jones	Area Businessman	Andy Nelson	Sublette County Commissioner
Eric Peterson	UW Extension Coordinator	Jim Roscoe	Wyoming State Legislator
Phil Smith	Mayor of Big Piney	Stephen Smith	Mayor of Pinedale
Terrie Swift	Sublette County Chamber of Commerce Director	Mary Thoman	Sweetwater County Conservation District
Darrell Walker	Sublette County Conservation District	Bob Wharff	Wyoming Sportsmen for Fish and Wildlife Director

Pati Smith, Facilitator

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1	Air	All members supported electrification of the field to reduce emissions. However, they wanted to know the power needs. In addition, there was concern that the Rocky Mountain Power rate increases in Sublette County may be due to the high cost of electrifying the field. It would be very helpful if Encana could address this soon since this concern has been mentioned by a number of members as well as the public.	Address residential electrical rate increases	Rocky Mountain Power and the Public Utilities Commission set the rates for Encana, other industrial users as well as residential users. The cost of building and maintaining electrification of the NPL Field will be paid by Encana.	
2	Air	Adopt stricter measures in the Ozone Contingency Plans. No specifics were given, though.	Adopt stricter measures in the Ozone Contingency Plans	Encana continues to work with WDEQ and other operators to implement best practices targeted at reducing ozone throughout the Green River Basin.	
3	Air	Encana should consider maintaining a committee of citizens (like the OCP Committee) to meet regularly. An Encana representative with knowledge of the air quality issues could update the committee on the most current information and share Encana's latest efforts to reduce emissions.	Create an air committee	WDEQ recently announced the planned formation of a UGRB Air Quality Citizen's Advisory Task Force. Encana will work with this task force according to recommendations of WDEQ.	
4	Air	Use directionally drilled wells exclusively. Extend the capacity of wells drilled from one well pad. One member wants to see only one pad per 640-section and up to 52 wells per pad.	Drill directionally and minimize surface locations	, in the state of	ОСР
5	Air	Make sure all exhaust routes to the burners or combustors are achieving optimal destruction.	Ensure optimal combustion of VOCs at burners	In the proposed action, Encana has specified that vapor recovery unit (VRU) technologies will be used to capture vented emissions from dehydrators and storage tanks. VRUs put these streams back into the gas line rather than combusting them.	OCP
6	Air	It is too impactful for water to be trucked out of the area. The members support disposal wells or pits in the field. The county can make suggestions about appropriate areas to locate those wells.	Inject water to reduce truck traffic	In the proposed action, Encana has committed to recycling and reuse of all produced water in the field combined with in-field injection of all waters in excess of drilling and completions needs. In cases of emergency, or other unusual situations, water may be taken to a licensed third party treatment or disposal facility.	ОСР
7	Air	Inspect every well annually and provide all information to DEQ including results of an up-to-date system such as Leak Detection and Remediation (LDAR). (The members are aware that DEQ conducts regular VOC inspections.) Encana should post those results on a website for the public to be able to access easily.	Inspect and report on every well annually	Encana will continue the Jonah EDI&M program in the NPL. A clarifying statement will be included in the NEPA documents. Encana will work with DEQ and other agencies to provide appropriate access to this type of information.	ОСР
8	Air	Several members noted that wind direction is not always from west to east. Therefore, there should be more stations to determine exact wind directions so that emissions in the Field can be predicted more accurately.	Install more air monitoring stations	In the proposed action, Encana has committed to installing state-of-the-art air monitoring stations as required to comply with any potential DEQ requirements. The preferred location of these air monitoring stations would ultimately be determined by Wyoming DEQ, BLM, and	ОСР

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				EPA.	
9	Air	Should the JPAD boundaries be changed to reflect the NPL area, too? DEQ has the authority to change that.	Merge NPL into JPAD boundary	This issue is best handled under the jurisdiction of WDEQ.	
10	Air	Ensure the combustors are continuing to achieve their 98% destruction rate efficiency or move away from combusting VOCs and to another concept such as buried facilities.	Move away from combusting VOCs	In the proposed action, Encana has specified that production waste gas will be recovered using vapor recovery units (VRUs) with combustor control devices used for emergencies, system maintenance, or other rare circumstances.	ОСР
11	Air	Only hire contractors (construction, drilling, completions, etc) who are environmentally-friendly and have the most current technologies on their engines, etc. Consider encouraging them to convert their fleets to natural gas.	Only use environmentally friendly contractors	Encana considers the past environmental record of contractors when evaluating and selecting potential contractors. Encana has developed a Contractor Expectation guideline, and routinely provides contractors with environmental awareness training. Encana is also an industry leader in efforts to make CNG the fuel of choice for all transportation requirements. Encana plans to continue this practice during NPL development.	OCP
12	Air	One committee member wants to see roads serving more than 50 wells paved so a speed of 55 mph or higher could be authorized. However, others were concerned with the impact to pronghorn antelope. One member also noted that "paved roads may never be reclaimed" and ROWs could encourage invasive plant species. There was also concern about who would be responsible for enforcement of the speed limit.	Pave major access road to allow 55 mph speed limit	Specific recommendations for road design are best addressed through NEPA impact analysis and alternatives development.	
13	Air	One member supported a plan to provide reduced compensation for workers who are sent home when the Field shuts down due to a DEQ Ozone action Day. It is an economic hardship for the workers when they cannot work for several days or 1-2 weeks.		Specific recommendations for worker compensation due to WDEQ Ozone Action Days are outside the scope of the NEPA process. All work deferred due to ozone related stoppages is not eliminated, but usually worked and compensated at a later date. It must also be noted that redeployment and compensation policies are ultimately the responsibility of the individual contractors.	
14	Air	Where feasible, trucks should not be allowed to idle in Pinedale or in the Field. That is considered a large contributor of emissions by several members.	Prohibit idling trucks	Encana currently enforces a "no-idle" policy for trucks except where safety or operating conditions require it. For example exhaust from running vehicles may be used for thawing frozen piping during the winter. Encana plans to continue the "no-idle" policy during NPL development.	ОСР
15	Air	Transportation planning is critical to the field, according to a number of members. Dust will be reduced if the roads are kept to a minimum and reclaimed as soon as possible. Members and the County Commission can make specific recommendations on the efficient placement or upgrade of access roads including the Bridger Compressor Station, Reardon Draw Road, 18-mile Road and the Workforce Facility to Highway 191. "Major upgrades on some roads will reduce impacts to other roads".	Reduce dust by keeping roads to a minimum	In the proposed action, several commitments are made to address transportation-related air quality concerns including: multi-well pads using directional drilling, simultaneous completions operations, a small number of Regional Gathering Facilities with consolidated tank batteries for water and condensate to minimize truck traffic, dust control measures during construction and dry periods, speed limitations, and reclamation of roads and	ОСР

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				other disturbance as soon as possible. Additional transportation planning and road surfacing practices will also be identified via the NEPA process.	
16	Air	Together stationary engines, tanks and dehydration units emit the same amount of VOCs as pneumatic pumps. Concentrate on reducing VOC emissions on all these fronts. Electricity to the well site would be the best remedy to get rid of pneumatic pumps.	Reduce VOC emissions for tanks, dehys, pumps, and engines	The proposed action specifies capture and recovery of all production waste gas from tanks, and dehydration units. The associated pumps will be either air driven or electrically driven, thereby eliminating emissions from these sources.	ОСР
17	Air	Consider more ways of achieving lower VOC emissions on dehydration units. For example, compressed air could be use for controls rather than natural gas to operate dump valves that send water and condensate to tanks.	Reduce VOC emissions on dehydration units	In the proposed action, Encana has stated that VOC emissions from all dehydration units will be eliminated through use of air actuated or electrically actuated controllers and waste gas capture and recovery systems.	ОСР
18	Air	Regarding electrification of the field, it was recommended that current utility corridors should be used to reduce the visual impacts, i.e. Middle Crest Draw, for example. Bury the lines.	Route electric lines along existing utility corridors	Specific recommendations for routing of electric lines and their installation above or below ground are best addressed through NEPA impact analysis and alternatives development with substantial design input from Rocky Mountain Power.	
19	Air	Several members supported shutting down drilling during the ozone season (February and March). Accelerate the drilling schedule to compensate during the rest of the year.	Shut down drilling during ozone season (Feb-Mar)	This practice would be infeasible and cannot be adopted as an OCP.	
20	Air	Regarding VOCs, current information in an emissions inventory is critical. Members noted that fugitive emissions are a major contributor at this point, according to DEQ data. They support a closed system to ensure those emissions are significantly reduced. "Design the system so nothing leaks".	Use "closed system" to reduce fugitive emissions	In the proposed action, Encana has committed to using a three-phase gathering system where produced gas and liquids will be piped to a small number of Regional Facilities. This will eliminate most fugitive emissions by minimizing the equipment. In addition, the equipment that is proposed will be at a small number of facilities that will be more easily managed.	OCP
21	Air	Glycol gets thick during winter conditions. So electric pumps should be used.	Use electric glycol pumps	In the proposed action, Encana has committed to using electric or air driven pneumatic pumps at the Regional Gathering Facilities to eliminate vented emissions from these devices.	ОСР
22	Air	Several supported the use of gas turbine-driven compressors as an alternative to piston type compressors. The gas turbines are considered very efficient and produce fewer emissions.	Use gas turbines rather than piston type compressors	In the proposed action, Encana has committed to electric compression, eliminating essentially all emissions from this source.	ОСР
23	Air	Dust is a major issue for areas impacted by natural gas development. All roads should be covered with magnesium chloride in order to better control dust and erosion on unpaved roads in the NPL area.	Use magnesium chloride to reduce dust on roads	Encana currently uses magnesium chloride and water to minimize dust in the Jonah field. In addition, vehicle speeds are limited to 25 MPH on resource roads. In the proposed action, Encana has committed to maintaining similar practices.	ОСР
24	Air	Several members want to see more use of solar equipment for methanol injection, glycol circulation, or cathodic protection, for example. However, another member experienced with pneumatic pumps felt that industry does not consider solar	Use solar powered equipment	Encana currently uses solar powered processes whenever practicable in the Jonah Field, and would extend the use of solar power into the NPL as appropriate.	ОСР

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		power sources to be effective enough yet. "Use solar power but only if it is practical".			
25	Air	Use the most current re-burn systems on all drilling equipment and vehicles in order to reduce emissions. One member noted there is a newer system that was exhibited at the annual Gas Fair in Jackson in September.	Use state of the art emission control systems on drill rigs	Encana currently uses low emission natural gas powered rigs in Jonah and plans to continue this practice during NPL development. Encana is also in the process of converting field vehicles to CNG.	ОСР
26	Air	Encana should use the latest low-cost, computerized air monitors. Then Encana does not have to submit emission calculations to DEQ. The actual data is available.	Use state-of-the-art air monitoring equipment	The Wyoming Department of Environmental Quality currently operates several air monitors in and around the Jonah Field which must meet EPA quality control guidelines. Any additional stations would comply with DEQ requirements. DEQ requires Encana to submit actual emission inventories regardless of available monitoring data.	
27	Cultural	Encana should consider compiling all the cultural data for the entire NPL Field. Right now it is a piecemeal approach, according to members. The Jonah Field's cultural data is an example of that approach. This may be more economic for the NPL as the disturbance will be small and site specific surveys will be less expensive. Therefore, the members felt there could be more valid and comprehensive meaning for all parties, if that compilation occurred in the NPL Field. One individual or company could be designated to do so. That comprehensive information should be shared with all pertinent offices or workers.	Compile cultural/arch data for entire NPL prior to development	Jonah was block surveyed and a PA was signed by the operators, SHPO, and the BLM. This has been shown to be effective in protecting resources while reducing cost. Encana plans to continue this approach during NPL development. Ultimate authority for determination of future adaptations of this approach falls under BLM/SHPO.	
28	Cultural	For 50 years, Karen Buck has lived at a ranch just south of La Barge. She is also a founding member of the Oregon-California Trails Association (OCTA). She is very familiar with the Sublette Cutoff and historic uses in the NPL Field and has been helpful to an OCP member and me. Encana should consider opening up a dialogue and obtaining her historical perspective, if that has not been done. Contact information is (307) 386-2321 or wyogrammaof2@yahoo.com.	Contact Karen Buck for input	Encana will contact Karen Buck for input on cultural and archaeological issues in NPL.	
29	Cultural	In conjunction with the cultural resources component of the safety orientation, a brochure could be developed and provided to all the workers including contractors. Encana should consider sharing their general approach with the public so that it is reinforced that Encana is culturally sensitive.	Create educational brochure	Encana participated in the development of a booklet entitled "Archeology of the Jonah Field: 9000 Years of Human History". Encana is open to further participation in projects of this sort as the opportunity arises.	ОСР
30	Cultural	When is "enough enough" regarding gathering data on cultural sites? For example, there are probably a number of fire pits in the NPL Field. Is each fire pit or rock cairn significant? Members stated, "Don't throw money at everything". Could Encana (or the regulatory agency) determine how much is realistically needed and follow through appropriately?	Create pragmatic cultural/archeological procedures	Development of specific cultural and archeological procedures is best addressed via collaboration with BLM and SHPO. This recommendation will be shared with SHPO.	
31	Cultural	Encana should evaluate the cultural/archeological sites prior to seismic work. The members understand that currently Encana pays twice, once before seismic work, then again prior to drilling. The members felt it would be more expensive for Encana at the outset, but would probably save money down the road if only one evaluation/survey is done. Note that one member disagreed with this approach; she stated that did not make sense since companies do not share their cultural surveys		This has been standard procedure on previous seismic projects in the Jonah/NPL area and will be continued on future seismic projects. Development of specific cultural and archeological procedures is best addressed via collaboration with BLM and SHPO.	

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		with each other. Example: If one company funded a survey prior to seismic work, then another company had the right to drill, the member was concerned the BLM may consider implementing a requirement for the two companies to share the proprietary survey information. That is a minority opinion.			
32	Cultural	Mitigation recommendations that Encana could fund include videos, funding 360 degree pictures, putting up interpretive signs or pullouts to give historic perspectives, or erecting concrete trail markers.	Fund public educational initiatives for Sublette Cutoff	Encana is very interested in developing cultural/historical local partnerships to enhance public awareness of the rich history of the Sublette Cutoff. Encana will contact local historic interests.	OCP
33	Cultural	Avoid cultural/archeological problems upfront by discussing all potential problems early in the process. When unexpected problems occur (and they will), everyone including Encana will understand who/how to notify, the procedures to follow, etc. Include the BLM field office phone numbers since they will need to be notified right away.	problems well in advance of	Development of specific cultural and archeological procedures is best addressed via collaboration with BLM and SHPO. However, Encana has already implemented a comprehensive training and notification program for all their workers and subcontractors in the Jonah Field and will continue this practice during NPL development.	
34	Cultural	Could Encana consider phased development?	Implement phased development	Encana strongly stresses the need for initial delineation (post ROD) of the resource in NPL. Specific recommendations for development scenarios are best addressed through NEPA impact analysis and alternatives development.	
35	Cultural	r	of development	Development of specific cultural and archeological procedures is best addressed via collaboration with BLM and SHPO. However, Encana has already committed to conducting all cultural work using the most comprehensive and efficient methods as required by BLM and SHPO.	
36	Cultural	Regarding trailing concerns, it was noted the wildlife established the trails, then livestock use reinforced the use of those trails. About 10,000 sheep and 200 head of cattle currently use them. Encana should consider working with the permittees to help keep those livestock trails open and preserved. Note that the state is working with one permittee to recognize the historic context of the livestock trails and trail stops. The Arambel's own six of eight trail stops and want to see them recognized and preserved.	Preserve historical context of livestock trails	Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР
37	Cultural	Encana should always begin with and work with local governments or offices such as the county commissions, municipalities, and local historic interests. That is the most effective way to address the issues, according to the members. The members noted "here is no need to create a JIO or PAPA."	Proactively coordinate with all local government stakeholders	Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР
38	Cultural	Alkali Flats, which lies in the northwest part of the field, is an area where stone implements were made by the Native Americans who frequented that area many years ago. Encana needs to be aware of that area and ensure specific protection	Protect Alkali Flats cultural resources	Development of specific cultural and archeological procedures is best addressed via collaboration with BLM and SHPO. Protection of the Alkali Flats area will be	

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		from development.		directed by those offices and addressed by Encana.	
39	Cultural	According to Karen Buck, Sublette Springs was used by wagon trains as a watering and camping spot. The Springs lie east of the NPL Field. Prior to and during development, Encana or their contractors should consider looking for the trail that leads from the Springs to the Sublette Cutoff in the southern part of the NPL Field. While no trails specialists have been able to locate it so far, she said that several OCTA members, including her, know it is there. If located, that would ensure the protection of that trail and would probably garner good will with OCTA members. If the trail is identified through Encana's efforts, it would be good for OCTA and Encana to consider jointly sharing general information with the public.	near Sublette Springs	Specific recommendations for protection of cultural resources are best addressed through NEPA impact analysis and alternatives development. A Class III survey was recently performed for a major variant route of the Sublette Cutoff that passes near Sublette Springs and through the southern portion of the NPL area. All information has been shared with BLM.	ОСР
40	Cultural	Are there any hydrologic values at Sublette Springs?	Protect hydrologic values of Sublette Springs	Specific recommendations for protection of hydrologic values are best addressed through NEPA impact analysis and alternatives development.	OCP
41	Cultural	The New Fork Wagon Road runs parallel to Highway 191. This road was used to bring supplies from Rock Springs to Pinedale until the mid 1930's. While the BLM will probably review this area as part of the EIS process, members did not think it is significant or should encumber development.	Protect New Fork Wagon Road	The New Fork Wagon Road was mapped prior to the construction of the Encana Production office as a mitigation. Specific recommendations for protection of the New Fork Wagon Road are best addressed through NEPA impact analysis and alternatives development.	
42	Cultural	The Sublette Cutoff has been used since 1825. Part of the trail lies within the NPL Field and needs to be protected. Mitigation could include putting wells in draws to protect the viewshed.	Protect Sublette Cutoff	Encana will address these and other recommendations for protection of cultural resources through the NEPA impact analysis and alternatives development process.	OCP
43	Cultural	Members were impressed with Encana's safety orientation. It was recommended that Encana incorporate the value of cultural resources as part of those core values. It could be included in the safety orientation or handled as a separate cultural training. The training needs to include contact information to report an artifact to the appropriate agency or person. It could be emphasized to the workers, for example, that if a hearth or an arrowhead is found, those artifacts/sites need to be protected and reported immediately. A clear and simple process could be developed between Encana, the workers and the contractors. One member noted, "There will be fewer problems with dozers", if Encana does so. (It was emphasized that those artifacts/sites are sometimes only found when a dozer exposes them. "Then damage has already occurred".)	Train employees on cultural regulations	Encana currently provides detailed information and orientation training to contractors and staff on cultural regulations in the JIDP during orientation. In the Jonah Field (and NPL when development commences) detailed cultural surveys are conducted prior construction to greatly reduce the likelihood of damaging artifacts/sites with construction equipment. Encana plans to continue this practice during NPL development.	ОСР
44	Cultural	Karen Buck noted that low profile tanks were installed on the Slate Creek project in Lincoln County. Is this something that Encana should consider?	Use low profile tanks to limit visual impacts on Sublette Cutoff	Specific recommendations for tank design are best addressed through NEPA impact analysis and alternatives development.	
45	Emergency Response	County fire responses rely on volunteers in order to be effective. It would be helpful for Encana to develop an effective program with incentives which will allow the workers to volunteer on a timely basis. To better meet those needs, all the operators should consider participating in the program, sharing the responsibilities and ensuring less volunteer time/worker. (It was emphasized that the operators should make allowances if a volunteer gets called out at 4 am, for example. That individual may be late to work. Fire departments typically struggle	Allow schedule flexibility for employees who volunteer to fight fires	Encana will support, as appropriate, community EMS volunteer recruitment programs. Encana currently provides, and will continue to provide, flexible work scheduling for employees involved in volunteer efforts and other community service.	ОСР

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		from 2am - 6am to get adequate coverage by the volunteers. Understandably, the volunteers are concerned about being tardy to work, then working until 6 pm.)			
46	Emergency Response	Volunteer time for training is an important and ongoing need. So that should be built into the operators' program.	Allow time for volunteer fire fighters to attend training	Encana currently provides, and will continue to provide, flexible work scheduling for employees involved in volunteer efforts and other community service.	ОСР
47	Emergency Response	Construct a helicopter pad in the NPL Field and make sure it is easily identified. As the Field develops south and west, Encana should consider constructing additional pads, as needed.	Construct additional helipads in NPL as needed	Encana will work with local EMS authorities during NPL development to determine appropriate siting and construction of additional helipads as needed. Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР
48	Emergency Response	Emergency services from Sublette, Sweetwater and Lincoln Counties should work with Encana and develop a detailed map of the NPL Field which will show all the viable roads that ambulances can use. An MOU should be drawn up between all the parties. Boundaries should be designated so that workers at each well site know exactly who to call in an emergency. County jurisdiction should not determine which ambulance service will be used. It should be determined based on the closest and most effective services. The map should be clearly posted at each well location and should include contact information. The map should be updated, as needed. Sub-contractors should also have all this information.	map for NPL with responder jurisdictions	Encana will work with local EMS authorities during NPL development to develop detailed maps to assist local emergency response jurisdictions with EMS planning. Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР
49	Emergency Response	Note that members felt any additional energy development is likely to impact fire and medical responses, i.e. the NPL Field, PXP, La Barge, etc. Members want to ensure that there is adequate coverage for the NPL workers.	Ensure adequate emergency response coverage	Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР
50	Emergency Response	The Sand Draw Ambulance Facility must remain operational to meet emergency needs in the NPL and Jonah Fields as well as elsewhere. However, currently that facility only averages one call every three days. The facility, two other ambulance facilities and two medical clinics are funded through a two-mil levy by the Sublette County Rural Health Care District. There was discussion among the members about how to keep this facility open, even if the District ends up operating with reduced revenues for the ambulance facilities and the clinics. If calls to the Sand Draw Facility increase significantly due to the NPL Field, then additional crew members may need to be hired and would cause additional revenue concerns. If Encana donates to the Rural Health Foundation to help with on-going budget concerns, members felt the contribution should be designated to keep the Sand Draw Facility open, not for general medical needs.	Ensure Sand Draw Ambulance Facility remains operational	Encana fully supports continued operation of the Sand Draw Ambulance Facility. However, specific recommendations regarding this concern are outside the scope of the NEPA process.	
		At the weekly safety meetings that Encana holds, Sublette, Sweetwater and Lincoln County EMS, Emergency Management, and Fire Department personnel could do presentations to increase understanding, support and coordination for those services with the industry. It would also be helpful for Encana representatives to attend meetings held by those county services.	Fire officials to speak at safety meetings	Encana is very interested in hosting local EMS and Fire personnel at safety meetings. Specific discussions will take place to determine appropriate venues and scheduling.	ОСР
52	Emergency Response	Identify main access roads and ensure they are adequate for ambulances to travel on. Put up reflector poles at intersections so the ambulance driver can better navigate the roads at night or in bad weather.	Mark roads with reflector poles for EMS	Encana will include a clarifying statement in this regard in the NEPA documents.	ОСР

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53	Emergency Response	Callers need to give GPS coordinates when emergency medical assistance is contacted. It should be posted at each well site. Keep in mind the main purpose of the GPS: if the contact on the scene is recommending flight assistance, that information can be shared upon activation of the flight. That will ensure more timely responses.	Post signs with GPS coordinates at all locations	Encana currently places this sort of information on each well site and plans to continue this practice during NPL development.	ОСР
	Response	A countywide campaign should be considered to recruit volunteers from throughout the communities. It is more difficult to recruit volunteers in the Daniel, Kendall Valley and Bondurant areas so other industry leaders, the county, etc should be partners in this campaign and help fill those gaps.	Support volunteer fire fighter recruitment efforts in certain areas	Encana will work with local EMS authorities to support volunteer recruitment of fire fighters wherever needed.	OCP
	Response	Note that if 911 is called, that can delay response time since the dispatcher must determine which ambulance service to call to that site. Sublette County dispatch can be used as the main point of contact for all emergencies. EMS is prepared to train one dispatch center and then they would notify the appropriate facility based on the mapping.	Use map to determine proper jurisdiction of 911 calls	Encana currently routes all emergency calls to Sublette County for dispatch to appropriate responders. Encana plans to continue this practice during NPL development.	OCP
56	and Vege	Accelerate proper revegetation to prevent noxious weeds from getting a foothold. It will also help to prevent the microbes in the topsoil from dying when it is stored. Shallow piles were also encouraged.	Accelerate Revegetation	Encana currently uses a variety of techniques to accelerate revegetation of reclamation and for weed prevention. Encana will continue this practice and consider, when appropriate, seeding topsoil piles with triticale, slender wheatgrass, or other species to reduce weed infestation, using non-native species on saline sites (may require special approval), spreading soils around the edge and down the middle of the pads, as well as growing sage brush from seed (since transplanting does not work). Encana will include a clarifying statement in this regard in the NEPA documents.	OCP
57	Reclamation and Vege	The WLCI and the Sublette and Sweetwater Conservation Districts both want to see Encana take a landscape approach to vegetation, reclamation and habitat improvement. "Any reclamation plan should be based on landscape objectives".	Adopt landscape approach to reclamation	Encana will continue to work with interested OCP members to define and work toward implementation of a landscape approach to reclamation. Specifics of implementation will be shared with BLM and other groups as they are identified.	
58		It was recommended that Encana only drill in good soil. Encana should avoid drilling in the alkali areas [to minimize destruction of Salt Sage].	Minimize destruction of Salt Sage	Encana will work with BLM and other agencies to minimize the disturbance of Salt Sage during development. A number of the other practice commitments also address this concern. Encana will include a clarifying statement in this regard in the NEPA documents.	OCP
	and Vege	Disturbances must be stabilized and the range improved. That includes controlling erosion and establishing cover. Seeding and reseeding are key. Several members want Encana to use seedlings and transplant sagebrush. Use the soil, etc from the adjacent wells, too.	Establishing Cover	During discussions with the OCP it was decided to merge the practice of using Sage Brush Seed with practice #56. The other portions of this practice were determined to be infeasible.	
60	Reclamation	The members want to see Encana do a baseline inventory. However, it was noted	Use existing	Encana will use existing soil inventory and range	OCP

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	and Vege	how important it is for the initial inventory to not become the ultimate objective. Once an area is disturbed, it will be different. The ultimate goal should be to make a better and functional habitat. Keep in mind it is an "altered ecological" site so the ultimate goals must reflect that as well as the surrounding ecological area. Don't predetermine.		inventory data as baseline information. A detailed site specific inventory will be conducted prior to disturbance. This information will be combined with Sage Grouse mapping, crucial winter range and other data sets to identify management objectives. Encana will include a clarifying statement in this regard in the NEPA documents.	
61		It was noted that operators have traditionally spent a lot on reclamation but that has not necessarily produced better results. "Make an economically feasible plan."	Use common sense and results as measure of success	During NPL development, Encana will continue to use common sense and true results (rather than just cost) as a measure of reclamation success.	ОСР
62		Make sure that Encana has a specific weed management plan in place prior to development. Note that is a priority for the members and the Weed and Pest office. Treat the weeds prior to breaking ground.	Create weed management plan	Encana will create a weed management plan as part of the NEPA process and will include a clarifying statement in this regard in the NEPA documents.	ОСР
63	Reclamation and Vege	Designate an area for topsoil storage, then disc it every ten days.	Disc topsoil piles every ten days	This practice has been determined to be detrimental per discussions with the OCP, and so will not be adopted.	
64	Reclamation and Vege	Monitoring should be done to ALL major objectives. A scouting program could be conducted for weeds. An inventory should be done approximately every year on those major objectives.	Do Annual Reclamation Inventory	Encana currently employs a Reclamation Specialist to continuously monitor reclamation in Jonah. Encana plans to continue this practice during NPL development.	OCP
65	Reclamation and Vege	All members agreed that irrigating produced a shallow root structure and should not be done.	Only irrigate where absolutely necessary, or in special circumstances	In the NPL, Encana will only irrigate where absolutely necessary, but may need to irrigate occasionally in special circumstances.	
66	Reclamation and Vege	It was noted that it can take 3-5 years before reclamation results can be seen; forbs take even longer. So it is important to educate the public about the effort. "It may take longer than some think".	Educate public about reclamation timeframe	Encana will continue to educate via tours, presentations, articles, and other venues. Encana will put up signage at selected areas in the Jonah and NPL areas to help build public awareness of reclamation efforts.	ОСР
67	Reclamation and Vege	Regarding reclamation, fencing out for 1-5 years is a good policy. It depends on the area, though, regarding the time it takes to be fully reclaimed. For example, Alkali Flats could take up to five years.	Fence reclamation- in-progress areas until sustainability is achieved	Encana will communicate with permittees via regularly scheduled meetings to develop and adapt reclamation fencing practices to on-going circumstances as appropriate.	OCP
68	and Vege	Because of the impact of livestock on reclamation areas, it was suggested that fencing should occur around some of the well pads. Encana should coordinate with the BLM and ranchers to keep the cattle off for several growing seasons. Perhaps entire pastures should be rested. The need for coordination with the ranchers was emphasized by the members.	Fence wellpads for livestock during reclamation period	Encana will communicate with permittees via regularly scheduled meetings to develop and adapt reclamation fencing practices to on-going circumstances as appropriate.	OCP
	and Vege	Do power washing on all trucks and equipment. Locally based companies such as Halliburton already wash their truck prior to arrival on site. According to the Weed and Pest Office, the county "is one of the cleanest counties" in the nation and the cleanest one in Western Wyoming. This needs to be retained, according to the members. Rigs don't need power washing but if equipment is brought in from Idaho or Montana, they should be pressure washed first.	Power Wash Field Equipment Moving Into Area	Encana currently requires vendors moving into the field to power wash equipment. Encana also monitors and sprays for weeds. Encana plans to continue this practice during NPL development.	ОСР
70	Reclamation	Because of the large number of wells/pad, rolling banks of topsoil should be done.	Reclaim locations	Rolling topsoil is infeasible, however wellpads will be	

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	and Vege	As soon as one well is drilled, reclaim the last one.	ASAP	reclaimed as soon as possible. If possible, Encana will spread topsoil around edge of location, or down the middle.	
				Encana has already committed to this practice (as amended above) in the proposed action.	
71	Reclamation and Vege	Keep roads, pipelines and pads to a minimum which will reduce the need for reclamation.	Reduce surface disturbance	Encana has already committed to this practice in the proposed action.	ОСР
				Specific recommendations for reducing surface disturbance and development of the transportation plan will also be addressed through NEPA impact analysis and alternatives development.	
72	Reclamation and Vege	Keep in mind that we are all at the mercy of "Mother Nature", so plant permanent and annual seeds. Keep doing it until growth occurs.	Re-Seed Failed Reclamation	Encana currently seeds in the fall and re-evaluates the need for remediation every three years. If needed, reseeding is conducted during the fall of the third year. This practice falls under the qualitative monitoring program per the JIDP ROD.	ОСР
				Encana plans to continue this practice during NPL development.	
73	Reclamation and Vege	The use of water or mulch should be used during the reclamation phase to help control dust.	Suppress dust due to reclamation	Encana will include mulching in the "tool box" of available dust reduction techniques for use when appropriate (i.e. sandy areas). Encana currently waters roads for dust control, but not reclamation, since it would exacerbate the problem	ОСР
				Encana plans to continue this practice during NPL development.	
74	Reclamation and Vege	Ensure Encana has a mosaic of plants in their reclamation plan. Several members believe the Jonah is not planted in a mosaic pattern.	Customize plant mix based on specifics of each location	Encana currently customizes the plant mix based on specifics of each location in Jonah and plans to continue this practice during NPL development.	ОСР
75	Reclamation and Vege	Use all methods to control weeds from burns to chemical treatments. Chemicals are much less concentrated now, much safer and can be used near water on plants such as the Leaf Spurge (20-foot roots).	Use Chemicals To Control Weeds	Specific weed control measures will be compiled into a weed control plan developed as part of the NEPA process.	ОСР
76	Reclamation and Vege	Members discussed the use of a Lawson Aerator, a special machine used in reclamation to disc the soil, plants, seeds and/or fertilizer. The Aerator uses a large roller with irregular "feet" to tamp the soil.	Use Lawson Aerator	Encana will include use of the Lawson Aerator in the "tool box" of available reclamation techniques.	ОСР
77	Reclamation and Vege	Use spreader dikes in the draws and headcuts. That is easiest to do, is beneficial for sage grouse and produces better weed control.	Use spreader dikes	Encana will include use of spreader dikes in the "tool box" of available reclamation techniques.	ОСР
78	Reclamation and Vege	Encana should consider using mulch such as wood chips. Potting soil and microorganisms were also recommended. Wood straw is helpful in generating growth, too.	Use wood chips for mulch	Encana will include use of wood chips, mulch, and microbes in the "tool box" of available reclamation techniques.	ОСР

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79	Recreation	Jonah Field is classified as "dispersed recreation" in the Pinedale BLM recreation plan. It is part of a larger area designated by the BLM as a Dispersed Management Area. That includes hunting, fishing, wildlife watching, ORV use and camping. There is minimal signing for road access. It is a homogenous area with similar topography. It is not like the NPL in terms of the diverse topography or scenery, according to a recreation specialist. It is also no longer considered a recreation setting by the BLM due to the industrialization within that field. The natural setting has been altered and recreation is not much of a component there.	Preserve Recreational Opportunities	Designation and permitting of recreational uses are best handled by the appropriate management agencies such as BLM, WGFD, and others.	
80	Recreation	The members' discussions centered on hunting, ORV use and wilderness inventories. Regarding ORV use, it was noted that there may be a discrepancy between the BLM information and OCP members' anecdotal information. The BLM may feel there is growing ORV use and associated camping in the western part of the NPL Field. The members want Encana to know that ORV use has not been observed at all by those who are frequently in the field for work purposes. Camping occurs during hunting season, according to the members, but is not likely at other times of the year. The BLM needs to quantify the use if they initiate any additional recreation requirements.	Use	Inventory of recreational uses is best handled by the appropriate management agencies such as BLM, WGFD, and others.	
81	Recreation		Restrict ORV use by employees	In the Jonah Field, Encana currently limits ATV use to surveying, wildlife monitoring, and vegetation management contractors. Encana plans to continue this practice during NPL development. Encana will also consider sharing information about this policy with the general public.	OCP
82	Socio- Economic		business people	Encana currently does outreach to newer business people through work with various Community Colleges as well as through the Community Investment program. Encana plans to continue this practice during NPL development.	OCP
83	Socio- Economic	Many non-profit organizations in Sublette and Sweetwater Counties depend on the energy industry for revenue. A number of these programs are essential and addresses needs for children, the elderly, etc. When natural gas development has leveled off or even declined in the area, a number of these non-profit organizations may not be able to survive without the contributions of the energy industry. So Encana should consider assisting the most effective organizations with long-term endowment programs to ensure those needs are still met after the natural gas industry has moved on to other fields. A local board could define what a non-profit is, identify the needs and goals, determine how impactful and meaningful the donations could be and address redundancy of services. Then funding could be prioritized and given to those non-profit organizations. Note there would need to be a local board for each county.	support county non- profits	Encana sees working directly with specific applicants via the Community Investment Program as an effective way of supporting non-profits.	

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	Socio- Economic	_	Develop Incentives for converting local vehicles to CNG	Encana will continue efforts to encourage conversion to Compressed Natural Gas (CNG) for both public and private vehicles. Encana will also continue efforts to improve availability of CNG fueling stations.	OCP
85	Socio- Economic	Other communities in the United States will deal with the impacts of energy development in the future. Sublette County and their communities have learned a great deal about the right (and wrong) ways to address these impacts. A team could be established to work with Encana and share their experience and expertise with those communities.	Work with Community to share lessons learned	Upon request, Encana will support organizations faced with addressing energy development impacts in their local communities by sharing lessons learned in Sublette County and other areas.	ОСР
86	Socio- Economic	Note there is a Sublette County effort to establish a business incubator. Encana could provide "seed money" to help initiate this program. The Wyoming Business Council support will be sought. A revolving loan fund needs to be established to provide low-interest loans to businesses just getting off the ground or expanding. A local Pinedale motel is likely to be converted to this incubator and will need support. (A revolving loan fund is already in operation in Green River, but there is currently no entity to provide that assistance elsewhere in Sweetwater County or in Sublette County.)		This issue is best handled by the Wyoming Business Council.	
87	Socio- Economic	It was noted that Sweetwater County and other communities such as Farson need to have a way to participate in these economic development ventures, too.	Include Sweetwater communities as well	Encana currently works on economic development efforts with many of the communities in Sublette, Sweetwater, and Lincoln counties and plans to continue this practice during NPL development.	OCP
88	Socio- Economic	An Encana representative could participate in the Chambers, Main Street programs, the Urban Renewal Agencies, etc in order to help sustain downtown businesses and events. An Encana representative could sit on the local economic development boards to help support and diversify the communities' businesses.	Participate in county Chambers, Agencies, etc. to sustain local businesses	Encana employees currently serve on a variety of boards and chamber organizations in efforts to give back to the communities in which Encana operates. Encana plans to continue to support this sort of involvement during NPL development.	
89	Socio- Economic	Encana should have a service contract policy to promote local businesses more, i.e. "Buy Locally". Where possible, always start locally, then regionally and finally statewide. If Encana already has this policy, it should be revisited to make sure it is being followed as much as possible. Give Sweetwater and Sublette County businesses a 5% latitude when bidding takes place. (One member noted that an Idaho service company was hired by Encana this summer over local businesses. That has impacted his business, local workers and other businesses who rely on him. One member stated that the out-of-area companies can submit lower bids because their workers frequently live in the Workforce Facility. His workers have homes in the area and therefore require higher wages. "Encana is good at helping the schools, etc but should support the local businesses more".)	Promote local businesses by buying locally	Encana will work with the local communities to raise awareness of how to do business with industry and Encana in particular. Per OCP recommendations, Encana will host one or more "contractor awareness" seminars to help enhance awareness of Encana's contractor hiring practices and requirements.	OCP
90	Socio- Economic	The Workforce Facility is an effective way to reduce impacts to the communities, roads, etc. and increase the workers' safety. It is understood that Arctic Catering provides catering needs, housekeeping, security and other services at that facility. However, local companies would appreciate more opportunity to bid on some of	Solicit local companies to operate the Workforce facility	Encana will consider re-bidding services at the Encana Work Force Facility when appropriate.	

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91	Socio- Economic	those services for Encana. Consider more support for quality of life programs that families want to experience. For example, Encana could support education and enrichment programs.	Support local education and enrichment programs	Encana currently supports a variety of programs and events in Southwest Wyoming through the Community Investment Program.	ОСР
		In addition, an annual Encana or industry picnic and games could be provided to the families each summer. Consider inviting the general public.		Per OCP recommendations, Encana will host one or more "contractor awareness" seminars to help enhance awareness of Encana's contractor hiring practices and requirements.	
92	Socio- Economic	1. Since significant natural gas developments began to occur in the early part of this decade, Sublette County, Sweetwater County and their communities have been challenged to predict and plan for socio-economic impacts. If the county, the BLM and Encana want to more accurately predict socio-economic impacts and changes associated with the NPL Field, it was recommended that an effective model called the Regional Economic Module or REMI be used. The model predicts socio-economic needs and trends and tracks a number of variables over time and region and makes adjustments as the impacts change. That information could be shared with all pertinent officials to better address changes in housing, education, medical care, crime rates, etc. Encana could then invest in the communities in a more effective manner. (The Coalition of Local Governments uses this model.)	Use REMI Model and anecdotal info to predict socio- economic impacts (BLM)	Encana requests consideration of the use of the REMI model for socio-economic analysis of the NPL EIS project. Note: Final authority for determining appropriate socio-economic modeling protocols rests with the BLM in conjunction with stakeholders.	
93	Water and Grazing	sought. "Models only work as well as the information that is compiled". Get ahead of development with more water wells for the livestock. In addition, it would be helpful if there was NO discussion of potential losses of AUMs by the BLM or Encana, something that is of concern to permittees.	Add water wells for livestock	Encana will work closely with permittees to determine the best location for new water wells through joint discussions between Encana, permittees, and the BLM and regularly scheduled permittee meetings.	ОСР
94	Water and Grazing	Encana should monitor noxious weeds and invasive non-native species of concern and implement a control plan in cooperation with the BLM and Sublette County so that an invasion does not occur. Ensure weeds are controlled as much as possible throughout road construction/maintenance. In addition, keep all equipment washed clean to prevent the spread of weeds. Weed-free certification by county extension agents should be required for grain or straw used for mulching revegetated areas. Gravel and other surfacing materials used for the project should also be certified weed-free. Use non-native seeds such as Crested Wheat Grass. (Apparently, the BLM will allow that now.) Note that very effective weed control is occurring by goat usage at Table Rock, etc. They will consume Halogeton and Cheat Grass, for example. Members want Encana to consider the use of goats for weed control.	weed incursion and infestation	Encana commits to developing a weed control plan via the NEPA process that will address this recommendation. Specifics of implementation will also be addressed via regularly scheduled Permittee meetings.	OCP
95	Water and Grazing	Trihydro will analyze the frack fluids before drilling occurs. One member suggested that water could be sampled while drilling occurs. Then the fluids could be analyzed after they are brought up. Trihydro said they would consider that suggestion.		In the Jonah, Encana discloses contents of all drilling muds, drilling additives, and completions constituents prior to drilling or completions operations as required by WOGCC	ОСР

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				Encana self-reports all frac constituents on the FracFocus clearinghouse. Sampling of NPL water wells (as specified in the proposed action) commenced in 2011 and will continue for establishment of baseline conditions in the NPL area. Encana plans to continue this practice during NPL development.	
96	Water and Grazing	Regarding construction of pipe trenches, it was noted those trenches have sometimes cut livestock off from their water sources.	Assure continued water access for livestock during pipeline construction	Encana commits to communicating with permittees regarding pipeline construction operations through joint discussions between Encana, permittees, and the BLM.	ОСР
	Water and Grazing	Size the pipelines properly the first time. It is disruptive to the permittees and their livestock operations to have them redone.	of pipeline alignments	Encana will do everything possible to avoid re-work of pipeline segments. Pre-planning of pipeline work would also occur through joint discussions between Encana, permittees, and the BLM.	ОСР
98	Water and Grazing	Bonding between mother and lamb/calf is done by sound. Ensure that energy development doesn't interfere with that. Encana should work with the permittees to determine how development needs to occur to prevent that situation.	Control noise near lambing/calving areas	Encana will work to control noise near lambing/calving operations. Specifics of implementation will also be addressed via regularly scheduled Permittee meetings.	ОСР
99	Water and Grazing	Produce a Unit Plan, then review it and stick to it. Do a summary of operations that could be shared with the permittees. One committee member stated that Encana walkthroughs on grazing allotments was very helpful. Do this with all the permittees who need it. Note the BLM would have to be informed.	Create development plan and share with permittees	Encana will share development plans, as they are created, with permittees. Specifics of implementation will also be addressed via regularly scheduled Permittee meetings.	OCP
100	Water and Grazing	It was recommended that one local Encana contact should be designated to ensure timely communication with the permittees during development to prevent this potential problem.	Encana grazing contact person, regular meetings and communications	Encana will designate a grazing contact person to act as liaison with, and single point of contact for, permittees and Encana. This individual will also coordinate and initiate regularly scheduled meetings and other forms of communication with permittees.	ОСР
101	Water and Grazing	Encana should control weeds through an approved weed control plan and any supporting Pesticide Use Proposal and Pesticide Use Report. Weed monitoring and reclamation measures should be continued on an annual basis by Encana (or as frequently as the BLM determines) throughout the life of the project.	Develop comprehensive weed control plan	A weed control plan will be developed during the NEPA process. The plan will be implemented by an Encana Reclamation Specialist.	ОСР
102	Water and Grazing	Encana should consider developing a website for the NPL Field with contact numbers and basic information about development. Fact sheets, mitigation measures, air quality issues, etc could be posted and regularly updated for the public to access.	Develop NPL website for permittees etc.	Encana already has an NPL website that can be expanded, as appropriate, to address new issues as development commences as well as communication requirements of permittees, and other stakeholder communities. The current website is located at: http://www.encana.com/operations/activities/npl/	OCP
103	Water and Grazing	Throughout development, Encana should continue to coordinate with grazing permittees to develop aquifer and water well data, on a timely basis.	Develop ongoing aquifer and well data on a timely basis	Encana has already commenced, and will continue to conduct, annual groundwater monitoring in the NPL project area. Encana will also work with permittees, and	ОСР

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				other stakeholder communities, to disseminate aquifer and water well data and sampling results.	
104	Water and Grazing	In order to most effectively control dust, "get together early", work with the permittees and put a transportation plan together now. Keep roads to a minimum, too. Avoid redundant roads and control soil disturbance as much as possible. Keep the ditches along each side of the roads to a minimum. If the ditches are too deep, there will be safety problems for the ranchers and field workers. It was noted that road contractors usually put the roads in pretty well, but maintenance workers tend "to screw it up" so maintenance needs to monitored to ensure that does not occur. Reclaim the roads as quickly and efficiently as possible after they are no longer needed. Close the pumper access roads and monitor to ensure the workers are not using them. It was noted that one operator even fined their workers for using those closed roads.	minimize impacts	Development of a specific transportation plan, including dust control measures is already in progress under the NPL NEPA action. Additional recommendations to minimize impacts such as dust will be addressed through NEPA impact analysis and alternatives development.	ОСР
	Water and Grazing	Members want Encana to drill the water wells at least three miles away from the drilling rigs. Otherwise, there could be a conflict between the livestock and drilling activities. Cattle could be "rotated away" in conjunction with the drilling and reclamation efforts. (See the wildlife-friendly fencing comment) Regular and good communication between Encana and the permittees will be critical to the success of a rotation plan, however. "Stay in front of drilling activity".	Drill water wells at least 3 miles from the rigs	Keeping rigs three miles away from water wells may not be feasible. However, Encana will work closely with permittees to determine the best location for new water wells using best available information. Specifics of implementation will also be addressed via regularly scheduled Permittee meetings.	ОСР
106	Water and Grazing	Encana workers, contractors, etc should be required to obey speed limits and support local law enforcement officials in enforcing those limits to reduce fugitive dust concerns, as well as for human health and safety reasons.	Enforce safe travel practices on access roads	Encana is committed to safe travel in the Jonah field and works closely with BLM to enforce speed limits and other road regulations. Encana will continue this practice during NPL development.	ОСР
107	Water and Grazing	Encana should consider offering expertise and helping the ranchers with range improvements. Most of the ranching structures are 30-60 years old. For example, reservoirs and spillways in the northwest section have a severe silting/clay problem. Encana could help the permittees by assisting in cleaning out the reservoirs so they could be used effectively by the livestock and wildlife. Note the BLM will not do any range improvements and may even require the ranchers to do them as part of their permits. Harv Forsgren, USFS Regional Forester, has put in writing his intention to make the ranchers do exactly that. The letter is attached.	Assist with range improvements on a cost share/donation basis	Encana will assist, as appropriate, with range improvements on a cost share/donation basis. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	OCP
108	Water and Grazing	There cannot be a loss of AUMs for the permittees. However, the members supported moving cattle to different allotments, if that is feasible. That would need to be coordinated with and approved by the BLM. Through water and grazing rotations, they felt that could help prevent a loss of AUMs in the Field. In addition, an annual meeting between the ranchers, the BLM and Encana should occur. A rest/rotation pattern could be established during that time for a multi-year effort.		Encana will participate, as appropriate, in joint discussions between permittees and BLM regarding grazing practices in the NPL. Encana will include a clarifying statement to this effect in the NEPA documents.	ОСР
	Water and Grazing	comply with BLM fence construction regulations. This mitigation should apply to both large scale and site specific fences as determined to be necessary by the permittees and the BLM.	Install wildlife friendly fencing	Encana will work closely with permittees and BLM to identify appropriate wildlife-friendly fencing initiatives through joint discussions between Encana, permittees, and the BLM.	ОСР
110	Water and	It should be noted that Western Watersheds Project (WWP), an anti-grazing	Provide water and	Encana has provided, and will continue to provide, as	OCP

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	Grazing	group, is bringing various perceived grazing issues on the Wind River Front to the BLM. The affected permittees feel WWP is trying to remove grazing from that area, which is likely. If that occurs, then there will be more interest by permittees to ensure grazing remains fully intact in the NPL Field.	wildlife data to interested parties	appropriate, access to NPL water and wildlife information as a courtesy to interested parties. Requests and distribution are handled via BLM as central distribution contact.	
111	Water and Grazing	Artesian wells occur in the Sublette Flats area in the southeast section of the field. The wells flow up to 80 gallons/minute. It is important for Encana to work with the ranchers to identify the locations as well as other pertinent information in order to more effectively operate in the area and prevent "mud plugs".	in Sublette Flats and	Encana has worked, and will continue to work, to prevent adverse effects related to drilling, completions, and production operations on water wells and aquifers. Encana will include a clarifying statement to this effect in the NEPA documents.	ОСР
112	Water and Grazing	It was noted that permittees and Encana can be the "best partners" during development. For example, Encana should consider putting compressor sites, data towers, other ancillary facilities and forage plots on private lands in the NPL Field. Note ranchers are often under pressure to sell out for other kinds of development. Most want to keep ranching, though. Encana should consider paying the ranchers rent for the use of their private land, water or gravel. Encana could also locate mitigation measures on private lands.		Encana will work with the local communities to raise awareness of how to do business with industry and Encana in particular. Encana commits to hosting a "contractor awareness" seminar to help enhance awareness of Encana's contractor hiring practices and requirements.	OCP
113	Water and Grazing	The need for mutual respect was emphasized by several members. All interactions between the permittees, BLM and Encana should reflect that. According to some members and the Rock Springs Grazing Association, there is "a lack of respect"/communication still occurring in other fields due to the primary focus on energy by the BLM and operators. "The ranchers are at the mercy of the BLM and Encana".		Encana commits to maintaining regular communication regarding NPL development through joint discussions between Encana, BLM, permittees, other stakeholders. This will include regularly scheduled meetings with permittees and other stakeholders. Encana will include a clarifying statement to this effect in the NEPA documents.	OCP
114	Water and Grazing	Several members emphasized that "water is the key" to that entire area. Note the water is good quality for livestock in the Wasatch and Ft Union aquifers. To retain good quality water, the wells need to be kept to less than 1100 ft in depth.	Maximize water quality in all new wells	Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР
115	Water and Grazing	Water development and habitat improvements help the wildlife and livestock to thrive. Water quality and quantity must be monitored, maintained or mitigated if degradation occurs. Encana should work with the permittees and other pertinent parties to ensure that occurs.	Monitor water quality	In the proposed action, Encana has committed to annual monitoring and reporting of groundwater quality information. Encana will also meet regularly with permittees to discuss this and any other issues of importance.	ОСР
116	Water and Grazing	The water wells should be close to the grasses used by livestock.	Place new wells near grasses used by livestock	Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	OCP
117	Water and Grazing	It was noted that all the grazing has been removed from the Jonah Field. Encana should work to ensure that does not happen in the NPL Field. Encana should work closely with the permittees to prevent any loss of AUMs. Any grazing impacts should be accurately identified in a timely manner by the permittees and communicated to Encana immediately. Mitigations should be coordinated between Encana, the permittees and the BLM. Coordination should also include the Sublette and Sweetwater County Commissions, when appropriate. Mitigations		Encana will communicate with permittees to minimize development-related impacts to grazing operations in the NPL. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР

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		should become part of the Proposed Project and committed to by Encana as determined by the above parties. Focus on and enhance water development, grazing and grasses OR, as a last resort, adequately compensate the ranchers for their losses.			
	Grazing	Regular and productive communications need to occur between the permittees and Encana. There should be one local Encana contact person for the permittees to go to when there's a problem with forage, cattle guards, potential poaching issues, etc. (Pete Arambel has suggestions about people who may be interested in this position.) That individual should remain in contact with the permittees and Encana until the issue is resolved. However, there also needs to be an MOU and annual meetings between the permittees, the BLM and Encana. The purpose of the meetings would be to discuss project-specific impacts and required or proposed mitigation. Encana would notify affected parties of proposed drilling and maintenance schedules during these meetings. These annual meetings are already being held by Anticline and Rawlins area operators. The meetings should be held before lambing occurs. Encana could arrange speakers with expertise on rehabilitation, etc. to share with the permittees. Note that if there are any substantial changes in the POD for the NPL Project Area, additional meetings with grazing permittees would need to be held. Some impacts may not be fully understood at present.	Č	Encana will designate a corporate point of contact to facilitate proactive communication with permittees. Additional discussions will be conducted during regularly scheduled Permittee meetings.	ОСР
119	Water and Grazing	There are 19 permittees in the NPL Field. The season is from May 1 to January 1 and includes 20,000 AUMs. Forage, birthing areas, etc need to be maintained.	Protect forage, birthing, and other areas	Encana will communicate with permittees regarding forage, birthing, and other areas through joint discussions between Encana, permittees, and the BLM.	ОСР
120	Water and Grazing	There should be no project-related activity in the vicinity of Sublette Springs without consultation with the permittee from May 1 to July 1 in order to avoid impacts to the permittee's lambing operation.	Protect lambing operations	Encana will communicate with permittees regarding lambing operations near the Sublette Springs. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	OCP
121	Water and Grazing	Encana should consider funding and installing pumping units for the permittees. Solar pumps are preferred, according to several members. Encana should consider providing expertise, if needed by the permittees. Encana should also consider allowing a tap on the produced natural gas to run the pump generators.		Encana will work, as appropriate, with permittees on a mutually agreeable cost share arrangement for installation of well pumping units. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР
	Water and Grazing	There are about 240 wild horses in the area. However, this is a non-Horse Management Area. There was discussion among the members about any role that Encana could have to reduce/eliminate those horses. No specific recommendations were made by the members. (Also note the Wyoming Legislature is looking at how to address this from a state perspective by allowing the sale of the horses. That is very unlikely to happen but they may consider it. Talk to State Representative Jim Roscoe for details. Keep in mind this is primarily a federal issue and the BLM is not as likely to conduct roundups in the future.) The concerns with the wild horse numbers will be raised with the BLM.	Reduce/eliminate wild horses	This issue is best handled under the jurisdiction of the BLM.	
123	Water and Grazing	If impacts occur to current wells, springs or surface water improvements, new water well development will be needed to mitigate these impacts according to members. Encana should be responsible for drilling, monitoring, and maintaining new stock water wells and/or improving existing water wells as determined	Replace impacted existing wells with new wells	Encana commits to working closely with permittees to address impacts to existing water wells. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР

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		between Encana, the permittees and the BLM.			
124	Water and Grazing	Renewal of grazing permits with the BLM can be challenging for the permittees. It was suggested that Encana could support the permittees when the BLM must renew the permits, if no changes are being made to the permits. (Note the Rock Springs Grazing Association is supporting federal legislation to extend the grazing permits, drop the EA requirement, etc. when no changes are made in the current permit.)	process of grazing permits	Encana commits to working closely with permittees, as appropriate, to provide data and other assistance, in support of grazing permit renewals. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР
125	Water and Grazing	For roads in the western section of the NPL (and other parts), there is a fugitive dust issue. Dust impacts the livestock, etc. So Encana needs to reduce the dust through the use of water, dust suppressants or gravel. Encana should also apply those measures to construction sites in order to control fugitive dust during the summer.		Encana currently uses magnesium chloride and water to minimize dust in the Jonah field. In addition, vehicle speeds are limited to 25-35 MPH on resource roads. In the proposed action, Encana has committed to maintaining similar practices. This will be further addressed in the EIS impact analysis and subsequent development of the air quality and transportation plans.	OCP
126	Water and Grazing	Regarding Encana's water study to determine baseline information, the members fully supported that. Testing should be done annually to ensure the water quality has not changed. Timely measures should be taken by Encana if degradation has occurred.	Test wells annually for quality changes	Encana has begun conducting, and will continue to conduct, annual groundwater monitoring and will coordinate with permittees to disseminate aquifer and water well data and analyses.	ОСР
127	Water and Grazing	Upgrade the infrastructure such as cattle guards and fences. They are currently in place for two-ton trucks but the field will require more sturdy guards. Encana should consider doing that soon.	Upgrade cattle guards	Encana will work closely with permittees, as appropriate, to upgrade infrastructure such as cattle guards and fences in support of field operations. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР
128	Water and Grazing	Regarding alternative energy ideas, Encana should consider using solar or wind energy sources wherever appropriate. Note there were no specific suggestions from the members, however.	Use solar or wind energy sources	Encana will use solar power, as appropriate, to power certain facilities in the NPL development.	OCP
129	Water and Grazing	The permittees feel that wells are a more efficient water source for livestock than reservoirs. With wells, the water quantity and usage can be more effectively controlled. Otherwise, horses and wildlife are attracted to the reservoirs, too, and will cause range damage. Encana should note that as water development plans are made.	Use wells not reservoirs	Encana will work closely with permittees to determine the best design parameters for new water sources through joint discussions between Encana, permittees, and the BLM.	ОСР
130	Wildlife	Don't manage for one single species. Do it for all of them at a landscape level. "Put science in front of development".	Adopt a "Landscape Level" approach	Encana will continue to work with OCP committee members, and other individuals and groups, to better understand and, if possible, implement appropriate components of a landscape approach to land management.	
	Wildlife	Do phased development so pronghorn antelope, etc aren't impacted. It was noted that would also reduce air quality impacts.	Adopt a phased development approach	Encana strongly stresses the need for initial delineation (post ROD) of the resource in NPL. Specific recommendations for development scenarios are best addressed through NEPA impact analysis and alternatives development.	
132	Wildlife	"Just do drilling, get it done and move on". Don't go back - "Preserve the wildlife corridors". Concentrate the drilling activity to help achieve that.	Concentrate drilling to preserve wildlife corridors	Encana will work with BLM, WGFD, and other stakeholders to better understand, and if possible preserve, migration corridors in the NPL area.	ОСР

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				Encana will include a clarifying statement to this effect in the NEPA documents.	
133	Wildlife	Several members noted that Encana should document if the wildlife is pulled from one area into another. Some assume there is a loss of wildlife numbers when the wildlife has simply moved to another area. Encana shouldn't be penalized for "loss of animals" when that has not occurred. In conjunction with that, consider doing off-site mitigation. Also look at potential vs actual impacts so Encana can accurately maximize/mitigate onsite or offsite. Note, one member disagreed with this recommendation and does not feel displacement is a major factor, and believes actual wildlife losses are taking place.	are dying or moving from area to area	Encana has conducted regular wildlife surveys in the project area and reports findings to BLM and WGFD. Encana plans to continue this practice, as appropriate, to assist with NEPA analysis and other regulatory efforts.	OCP
134	Wildlife	Regarding energy development noise, members wanted to know how it affects the birds. A committee member shared a study that was recently published by UC Davis' Gail Patricelli and others. The study showed that current noise standard levels (drilling and road noise) may not be adequate to prevent lek disturbance. Baseline noise monitoring should be done and the referenced report reviewed for potential action. That is a minority suggestion by the committee.	Determine how noise affects birds, especially SAGR	Specific recommendations for determining effects of noise on Sage Grouse populations are best addressed through NEPA impact analysis and alternatives development.	
135	Wildlife	One member wanted one well/section for the whole field, not just in sage grouse core areas, in order to minimize disturbance to wildlife. However, most members felt that four wells per section "made sense". Several members agreed that "Encana doesn't even know where all the gas is yet" and indicated support for four wells/section.	Develop one location per section both in and out of SAGR Core Area	Specific recommendations for determining impacts and appropriate spacing of surface locations are best addressed through NEPA impact analysis and alternatives development.	
136	Wildlife	What is Encana doing to ensure good baseline information on pronghorn antelope migration corridors? There was a consensus that this information is vital.	Develop Pronghorn migration corridor baseline information	Encana has conducted regular wildlife surveys in the project area, reporting findings to BLM and WGFD. Encana plans to continue this practice, as appropriate, to assist with NEPA analysis and other regulatory efforts. Encana will include a clarifying statement in this regard in the NEPA documents.	OCP
137	Wildlife	Encana should consider sponsoring "global" bird counts in specific areas of the Field. For example, the Deseret Ranch has sponsored counts on major holidays. There was widespread interest by bird watchers. This effort could be shared with the public through press releases.	Do "global" bird counts in specific areas of the NPL	The Encana Community Relations group will coordinate with the US Fish and Wildlife Service to host such an event.	ОСР
138	Wildlife	Sage grouse recommendations: Research shows burying power lines, fence marking (sage grouse migrate at night), etc are good mitigation measures for Encana to initiate. Also, Encana should eliminate ANY appearance of structures as potential/real predator perches. Note there are indirect impacts up to two miles away, according to some members.	Do everything possible to reduce SAGR mortality	Specific recommendations for mitigations to protect Sage Grouse populations are best addressed through NEPA impact analysis and alternatives development. The Wyoming Sage Grouse Core Area Strategy will also be applied to the NPL development.	
140	Wildlife	In sage grouse core areas, certain kinds of growth such as salt sage are required to sustain the birds. How could Encana voluntarily encourage more growth?	Encourage growth of Salt Sage for SAGR habitat	This item has been merged with #58	
141	Wildlife			This issue is being addressed via the Wyoming Sage Grouse Core Area Strategy and other regulatory efforts at	

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		look at habitat enhancement projects, but no specific recommendations were made.		multiple levels of government.	
142	Wildlife	The Wyoming Game & Fish Department's (WGFD) Pinedale office is the first in the state to be gathering winter concentration information. So far, it has only documented that information in the northwest section of the NPL Field. Several members stated the bird numbers fluctuate over time and hoped this was a long term study. In severe winters, for example, some studies show the birds are much more likely to concentrate in one area.	Fund SAGR winter concentration studies	Encana has funded, and will continue to fund, studies and projects, as appropriate, to help better understand Sage Grouse winter concentrations and lek locations.	OCP
143	Wildlife	Regarding pronghorn antelope migration, all fences should be wildlife-friendly. Note the fence separating the Pinedale and Rock Springs BLM field offices is in good shape but is not wildlife-friendly. A cooperative wildlife-friendly fencing effort should be considered between Encana and the Wyoming Land Trust. The Trust has already successfully partnered with others on wildlife-friendly fences elsewhere in Sublette County and should be considered by Encana.	Fund WLT to install wildlife friendly fencing	Encana commits to working closely with permittees and BLM to upgrade infrastructure such as cattle guards and fences as needed to support field operations. Specifics of implementation will be addressed via regularly scheduled Permittee meetings.	ОСР
144	Wildlife	All members agreed there are a number of factors causing the bird reductions. Predators including ravens, crows, coyotes, and raptors are also factors in the reduction of sage grouse. It would be helpful to know the actual cause and extent of the predator problem. Encana should consider developing and/or compiling that predator data. Encana would need to work with the WGFD, the BLM, USGS (or WLCI), and USFWS. This will be shared with the federal and state agencies. Note the WLCI is already working on this issue and may consider a partnership with Encana to accomplish this goal.		Specific recommendations for mitigations to protect Sage Grouse populations are best addressed through NEPA and RMP impact analysis and alternatives development processes. The Wyoming Sage Grouse Area Strategy and other efforts to reduce Sage Grouse predation will also be applied to the NPL development.	
145	Wildlife	A committee member noted that bonds for final reclamation are capped at \$150,000/section (or \$10,000/well) by law. Yet US Steel, for example, walked away from their South Pass ore operation after paying only \$150,000. The taxpayers ended up paying the bulk of the reclamation. Several other committee members agreed this needs to be increased to reflect the actual costs. My two cents: Realistically, this is a regulatory issue that Encana is not likely to institute or support. However, some of the members wanted this recommendation included. (Unless Encana has a recommendation to share with a regulatory agency, this information will not forwarded to them.)	amounts to cover actual costs of abandonment	Encana has always complied, and will continue to comply, with all bond requirements as specified by the BLM or WOGCC. Any specific changes to bond requirements would best be handled under the authority of the appropriate regulatory agencies.	
146	Wildlife	Encana should share the message "We care about wildlife" with the public. They should also publicly share improvements from year to year.	Inform public that Encana "cares about wildlife"	Encana regularly provides various types of communications and educational materials in this regard through a variety of means, and will continue to do so in the future. Encana will ensure that this message continues to be communicated to the public.	ОСР
	Wildlife	Public perception is that mule deer are in the NPL. Educate the public that they are not there.	Inform public that Mule Deer are not present in the NPL	Specific recommendations of this sort are outside the scope of the NEPA process. However, where appropriate, Encana will share the most current information about wildlife and their activities in the NPL Field. Mule deer information will also be shared at that time.	
148	Wildlife	Encana should put up signs so the public can avoid disturbing the leks during the mating season. The signs should be positive-sounding and well outside the lek	Post warning signs on roads near leks	Specific recommendations of this sort are outside the scope of the NEPA process. However, the OCP	

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		areas. The signs should include the time frame and be educational in nature. Remember the WG&F and BLM have final say on signs.	during mating season	Committee will share this recommendation with the Wyoming Game and Fish Department.	
149	Wildlife	project and data information. Several members emphasized the need for Encana to		Encana has provided, and will continue to provide, as appropriate, access to NPL water and wildlife information as a courtesy to interested parties. Requests and distribution are handled via BLM as central distribution contact.	ОСР
150	Wildlife	There must be good reclamation AS development occurs. This suggestion has been made by all members a number of times.	Reclaim disturbance ASAP	In the proposed action, Encana has committed to reclamation of each disturbed location as soon as possible. Ideally, re-seeding would occur prior to the next growing season.	OCP
151	Wildlife	the landscape level. This information will be shared with the WLCI.	Work with WLCI/USGS to develop landscape level inventory	Encana will continue to work with members of the OCP Committee, and other groups, to better understand and implement, as appropriate, components of a landscape approach to land management.	ОСР
152		reclamation	Use Sheep and Goats for weed control/reclamation	Encana is open to working collaboratively with the BLM and the community to identify best practices in this regard.	
		Encana should consider using a herd of sheep to tamp the soil after seeding. It allows pockets for the moisture to collect in and helps with seed germination.			