Appendix A – Reasonably Foreseeable Development Scenario

This Reasonably Foreseeable Development (RFD) Scenario has been prepared to support analyses related to the review of parcels in the Elko District that have been nominated for a statewide competitive geothermal lease sale in July of 2008. Anytime during the 10-year term of a geothermal lease, the lessee, or operator, would submit specific plans for geothermal exploration and development to BLM for approval. These plans would be in the form of a Permit to Explore, Sundry Notice or Plan of Development. BLM then reviews the submission to determine if there are any other site-specific conditions of approval that should be applied. Such conditions of approval must be consistent with the lease rights granted. In conjunction with obtaining approval to explore or develop a leased parcel, the operator would also seek a right-of-way to access the leased lands.

This scenario provides a general description of possible post-leasing activities, based on observation from the exploration and development of geothermal resources in the Elko District since 1975. The level of geothermal exploration activities within the Elko District has varied through time with peak exploration occurring during the mid to late 1970's. This peak was followed by a dramatic decline in the 1980's. The reasons for these variations are complex but include prices of competing energy sources, distance from existing power lines as well as the effect of government policies and regulations. During the late 1970's and early 1980's, developers found that geothermal development proposals were assessed as a high risk factor by financial institutions since it was a very new and technologically unproven energy source. Therefore, industry no longer could justify capital expenditures involved in the exploration of unknown areas and focused efforts on the development of proven areas.

Since 2003, BLM Nevada has received 17 applications for geothermal leasing in the Elko District for a total of 21,765 acres, and issued leases for all but one pending case for 440 acres.

Passage of the Energy Act of 2005 renewed interest in development of geothermal resources, and has provided economic incentives for development of geothermal resources as an alternative to fossil fuels. Recent activities have been related to development of a 32 megawatt Hot Sulphur Springs Geothermal power plant project, which is currently being planned for construction on private land north of Tuscarora in the Independence Valley, in the Hot Creek drainage tributary to the South Fork Owyhee River. Once the power plant is producing power, it is reasonable to assume it would be expanded using leased resources.

The geothermal resources in the Elko District are expected to be used in a variety of ways and these uses would include:

A) Small electric generating facilities
B) Expansion of existing power plant(s), i.e., Beowawe power plant (from the existing 16 Megawatt (MW) capacity to a 100 MW facility)
C) Domestic uses such as heating public or commercial buildings, homes and swimming pools
D) Processing ores from the existing precious metal mining (heap leach) operations along the Carlin Trend

The existing 16 MW Beowawe power plant has been developed at the boundary with the Battle Mountain District, on public lands administered by the Elko District, Tuscarora Field Office.

The Beowawe development is within the same geologic province and has been subjected to the same tectonic and thermal history as the regional geothermal system identified as the Battle Mountain heat flow high. It is expected that any future geothermal-electric generating development within the Elko District would follow a pattern similar to the Beowawe model.

T G Power LLC is currently obtaining permits to develop the 32 net megawatt Hot Sulphur Spring Geothermal Power Plant on private land in the northern portion of Independence Valley. Current development of the project includes construction of a 24.5 mile 150kv transmission line to deliver electricity produced by the new power plant to an existing power switching station. In March 21, 2008, BLM issued a decision to grant a right-of-way for the transmission line (2800, N-83202). It is reasonable to assume the Hot Sulphur Springs Power Plant will be expanded to produce additional power. In December 2007, BLM received a notice for geophysical exploration on leased lands (Serial Nos. N-74915, N-731651, N-74916).

Exploration and development of geothermal resources to provide heating has occurred in the city of Elko. Any future direct uses of geothermal energy are expected to be of the same type as is currently in use in Elko, or for processing ores from heap leach operations associated with gold mining in the Carlin Trend.

Geothermal exploration using geophysical methods is conducted in unexplored areas to find indications of the presence of a potentially commercial resource. Exploration operations are also conducted in developed areas as a means of further refining potential locations for step out and additional development drilling. These types of activities often provide the first indications of the possible existence of a commercial geothermal resource and aid in defining drilling targets for production wells.

ASSUMPTIONS FOR GEOPHYSICAL OPERATIONS: The Assumptions that were made for Geophysical Exploration used for the preparation of this RFD scenario were made after review of the geophysical exploration activities that occurred in the Elko District between 1975 and 1990. These dates were chosen because the most accurate data is available during this time period.

In December 2007, BLM received a notice for geophysical exploration on leased lands near the Hot Sulphur Springs project (N-74915, N-731651, N-74916). The notice proposes six seismic lines on public and private lands that total about 10 miles in portions of sections 7, 8, 9, 16, 17 and 18, T. 41 N. R. 52 E.

Using information from Table A-1 below, it is projected that there would be an average of 3.1 miles of line surveyed per year. However, this would vary greatly from year to year with as many as 25 miles in the most active years followed by no activity in the lean years. In any one year, there would be up to 15.2 acres disturbed from geophysical exploration. Generally speaking, this disturbance would include the crushing and destruction of the brush, but, the understory of grasses would generally survive the traverse by the vehicles carrying the geophysical equipment. In certain steep areas or in wet areas, the grasses would also be destroyed. In either case, reclamation would be completed on these lines within one year

following the project. This reclamation would be from either natural recovery or from efforts taken by the geophysical company.

Table 3-1 displays data for the Elko District from Fiscal Year 1975 to 1990.

TABLE A-1
GEOPHYSICAL SURVEYS IN THE ELKO DISTRICT CONDUCTED FOR GEOTHERMAL EXPLORATION

FISCAL YEAR	MILES OF SURVEY
1975	0.0
1976	1.5
1977	23.6
1978	8.2
1979	17.0
1980	0.0
1981	0.0
1982	0.0
1983	0.0
1984	0.0
1985	0.0
1986	0.0
1987	0.0
1988	0.0
1989	0.0
1990	0.0
TOTAL	50.3 miles
AVERAGE	3.1 miles

Initial geophysical surveys could cross the entire potential geothermal resource area in what would appear to be a random and disorderly pattern. These surveys would attempt to piece together the local subsurface geology. Once real or perceived geologic structures of interest are located, surveys of specific areas would be intense and could be repeated frequently.

TEMPERATURE GRADIENT WELL DRILLING: The search for geothermal resources has been progressing on an intermittent basis since 1973 when the federal government began issuing geothermal leases and permitting geothermal operations. The Temperature Gradient Well (TGH) drilling assumptions that are used in this scenario were made after review of the geothermal drilling activities that occurred in the Elko Resource Area between October 1, 1973 and January 29, 1991. These dates were chosen because the most accurate data is available during this time period. Since 1990, only 10 exploratory geothermal wells were drilled on the Elko District.

Table A-2 displays the Exploration Drilling data available for the Elko District from Fiscal Year 1974 to 1990. There have been a total of 114 recorded wells drilled in search of geothermal resources between October 1, 1973 and January 29, 1991.

TABLE A-2
SURFACE DISTURBANCE FROM GEOTHERMAL DRILLING ACTIVITY IN THE ELKO DISTRICT

FISCAL YEAR	No. of Holes		Pipelines	Roads	Pads
197 4	4	0	0	0.9	
1975	19	0	0	1.1	
1976	16	0	0	0.9	
1977	16	0	0	0.9	
1978	15	0	0	0.9	
1979	10	0	0	0.6	
1980	33	0	34.6	1.9	
1981	0	0	0	0.0	
1982	0	0	0	0.0	
1983	0	0	0	0.0	
1984	0	0	0	0.0	
1985	0	0	0	0.0	
1986	0	0	0	0.0	
1987	1	3.6	0	1.0	
1988	0	0	0	0.0	
1989	0	0	0	0.0	
1990	0	0	0	0.0	
TOTAL	114	3.6	34.6	8.2	
AVERAGE	6.7/yr	0.2 ac/yr	2.0 ac/yr	0.5 ac/yr	

Based on the data, the following averages are used to anticipate disturbance from well drilling for this RFD scenario:

AVERAGE ROAD WIDTH	31 Feet
AVERAGE ROAD LENGTH	2857 Feet
AVERAGE PAD SIZE	0.07 acre (55' X 55')
AVERAGE PRODUCTION PAD SIZE	2.0 acres (300 X 300')

For the purposes of this analysis, the following assumptions are made for temperature gradient well drilling:

A. An estimated 114 wells would be drilled during the life of the plan.
B. The Elko Resource Area is considered to be a high risk (wildcat) exploration region.
C. An estimated 96 wells would be reclaimed during the life of the plan.
D. Drilling time would average one week per well.
E. The average pad size including the reserve pit is 0.07 acre.
F. Approximately 88% of the holes would be drilled next to existing roads and would not require new road construction. Of the 12% of holes that would require road construction, the average access road running surface would be 18 feet wide with additional disturbance on each side for a total disturbed width of 31 feet. The average length of these roads would be 2800 feet.
G. No more than three drill rigs would be operating in the same area at the same time.

DISTURBANCE DURING THE LIFE OF THE PLAN

Based on the above assumptions, total surface disturbance from exploratory well pads is estimated at 10 acres with as much as 35 additional acres disturbed from access roads for a total of 45 acres of the 7.2 million acres of public lands that are administered by the Elko District.

Reclamation of the above disturbance would result in 8.4 acres in well pads and 29.4 acres in access roads being reclaimed for a total of 37.8 acres.

An estimated 95% (108) of the projected wells would occur in the valleys near Beowawe and Tuscarora. Drilling trends would fluctuate greatly, with no drilling occurring in as many as 8 consecutive years. On the other hand, in any ten year period, nearly half of the wells which are projected to be drilled in the area would be drilled. Each new discovery would foster an increase in drilling activity which would last for two to three years.

ASSUMPTIONS FOR LEASE OPERATIONS/PRODUCTION

There have only been 10 recorded production wells drilled for geothermal resources within the Elko Resource Area between October 1, 1973 and January 29, 1991. Currently, there are only three geothermal wells capable of production and one for injection. These wells are in the Beowawe field and the Elko field. The Beowawe wells are located on both public and private lands. The Tuscarora/Hot Sulphur wells are on private lands, and information is not available.

For the purposes of this analysis, the following assumptions are made for lease and production operations:

A. Based on the Beowawe model, the average area encompassed by a producing geothermal field would be 3520 acres. Within this 3520 acre area, there would be 31.0 acres of surface disturbance.
B. The Elko Resource Area is considered to be a high risk (wildcat) exploration region.
C. Approximately 16% of all wells drilled would be producers of usable geothermal energy.
D. Production drill pads would average 2.0 acres each.
E. For wells that would require road construction, the average access road running surface would be 18 feet wide along with barrow ditches on both sides for a total disturbed width of 31 feet. The average length of these new roads would be 2800 feet and there would be one foot of gravel applied to the road surface.
F. No more than three drilling or workover rigs would be in operation in a field at the same time.
G. Limited reclamation work would occur until the producing field was abandoned. No producing fields would be abandoned during the life of the plan.
H. As many as two new producing fields would be discovered during the life of the plan. It is also anticipated that the Beowawe power plant would be expanded from the existing capacity of 16 MW to 100 MW. The two new fields are hypothesized to be equivalent in size and surface disturbance to the Beowawe and Elko geothermal projects. Of the projected producing fields, one would be the equivalent to the Beowawe Field and one would be the equivalent to the Elko Field. The fields would be as close as one mile and as far as 30 miles from each other. The cost factors involved would usually limit drilling to depths of 10,000

feet, although some operators would speculate that larger reservoirs would be encountered at greater depths (to 15,000 feet). Lower temperature resources typically used for direct use operations would limit drilling depths to 2500 feet. Geothermal energy production rates of each field would range from small amounts (for home heating) to extremely prolific (100 MW steam powered electric generator), and the production life of a field would last for 18 months to 35 years.

Assumptions for the Beowawe Geothermal Field Equivalent

For the purposes of analysis, it is assumed that during the life of the plan, one geothermal field within the Elko Resource Area would be developed with a small facility that is equivalent in size to the present Beowawe generating plant (16 MW).

For the development of a geothermal field equivalent to the present Beowawe Field, the following assumptions are made:

A. Following the exploration phase, three wells would be drilled. There would be two producing wells and one injection well.
B. The 16 MW steam power plant would be placed on one existing pad and a total of three additional acres would be needed to construct the plant site. The plant would be either a duel-flash or binary modularized facility with a cooling tower.
C. The field would be as few as three miles from a major existing road. This separation would require the construction of a major two mile long access road which would disturb 9.6 acres. This road would have an 18 foot wide running surface and a total disturbed width of 40 feet. In addition to this, one mile of existing access road would be upgraded to an 18 foot running surface which would cause five acres of new surface disturbance. Both roads would be surfaced with three feet of gravel.
D. Drill pads would be approximately 300' by 300' and disturb 2 acres of surface. These pads would be covered with two feet of gravel.
E. Three and one-half miles of pipeline would be required. Of this amount, two miles of pipe would be for injection well purposes and 1.5 miles would be for production operations.
F. Three-quarters of a mile to 30 miles of new electric transmission would be needed to connect to existing lines.
G. Gravel would be obtained locally and each gravel pit is assumed to average 12 feet in depth.

The projected surface disturbance for the Beowawe Geothermal Field equivalent is listed on Table A-3 and would include 11.0 acres for drill pads and service road improvements, as well as 9.6 acres for a new main access road. The 16 MW generating plant itself would disturb three acres. Pipelines connecting the geothermal wells to the power plant would disturb an additional 6.4 acres and the gravel source needed to construct the various components of the facility would disturb one acre. The total surface disturbance associated with the development of the Beowawe Geothermal Field equivalent would be 31.0 acres.

Assumptions for the Beowawe Power Plant Expansion

For the purposes of analysis, it is assumed that sometime during the life of the plan, the existing 16 megawatt (MW) generating facility at Beowawe would be expanded to a 100 MW capacity.

The expanded facilities would be located on the Elko District and the Battle Mountain District. A component breakdown of assumptions made for this power plant expansion is as follows:

A. Over the thirty year life of the plant, nineteen new wells would be needed to supply additional steam for the added generating capacity at the existing power plant. Twelve of these new wells would be located on the Battle Mountain District and seven would be located on the Elko District. Of the seven on the Elko District, four would be producing wells and three would be injection wells. The total surface disturbance resulting from the new drill pads on the Elko District would be 14.0 acres.
B. The plant expansion would include the addition of six duel-flash or binary modularized facilities. Approximately two-thirds of this equipment would be located on the Battle Mountain District and one-third would be located on the Elko District.
C. This equipment would be placed on two of the new drill pads that are constructed for the expansion. The total acres needed to construct these new facilities on the Elko District would be six acres.
D. The expanded facilities would be located adjacent to a major existing road. No new major road improvements would be needed for power plant facilities; however, approximately three and one-half miles of new roads would be needed to connect the new production and reinjection wells with power plant. The majority of the new roads would be located on the Battle Mountain District with only 3,270 feet of the roads would be within the Elko Resource Area. These roads would have an 18 foot wide running surface and a total disturbed width of 40 feet. The new roads would be surfaced with three feet of gravel. Total surface disturbance on the Elko District resulting from new road construction would be three acres.
E. Drill pads would be approximately 300' by 300' and disturb two acres of surface. These pads would be covered with two feet of gravel.
F. Three and three-tenths miles of pipeline would be required. Of this amount, two miles of pipe would be for injection well purposes and one and three-tenths miles would be for production operations.
G. Three-quarters of a mile of new electric transmission would be needed to connect to existing lines.
H. Gravel would be obtained locally and each pit is assumed to average twelve feet in depth.

The total projected surface disturbance for the Beowawe Power Plant Expansion is listed in Table A-3 and would include 14 acres for drill pads and service road improvements as well as 3 acres for a new main access road. The expanded power generating facilities would disturb six additional acres. Pipelines connecting the geothermal wells to the power plant would disturb an additional six acres and the gravel source needed to construct the various components of the facility would disturb one additional acre. A total of 30 acres of new surface disturbance would be caused by the Beowawe Power Plant Expansion.

Current federal and state policies encourage the development of geothermal resources. T G Power LLC is currently obtaining permits to construct the 32 net megawatt Hot Sulphur Spring Geothermal Power Plant on private land in the northern Independence Valley. Development includes construction of a 24.5 mile 120kv transmission line to deliver electricity produced by the new power plant to an existing switching station. In March 2008, BLM issued a decision to grant a right-of-way for 8.5 miles of the transmission line on public lands (2800, N-83202).

Assumptions for the Elko Geothermal Field Equivalent

It is estimated that five to ten individuals or companies would try to use geothermal resources for domestic purposes. Anticipated uses would be heating and electric power generation for homes and other buildings. It is anticipated that one recreational hot spring or swimming pool site would be developed during the life of the plan. This recreational site would most likely be located within the vicinity of the center of the city of Elko.

For a geothermal field equivalent to the Elko Field, the following assumptions are made:

A. Following the exploration phase, two wells would be drilled. This would include one 1,000-3,000 feet deep production well and one 1,000-3,000 feet deep injection well. These uses would most likely be located within a one mile radius of the center of one of the population centers in the resource area.
B. Located on the drilling pad sites along with the wells would be one steam separating unit, one steam condenser, heat exchangers, and a reinjection pump. It is anticipated that these features would have a surface disturbance of three acres.
C. The field would be one mile from a major existing road. This separation would require the construction of a major one mile long access road. This road would have an 18 foot wide running surface and a total disturbed width of 40 feet. The road would be surfaced with three feet of gravel. Existing access roads would not need any upgrade.
D. For drill holes that are deeper than 3,000 feet, drill pads would be approximately 300' by 300' and disturb two acres of surface. For drill holes that are less than 3000 feet deep, the drill pads would be smaller (150' X 150'). These pads would be covered with two feet of gravel.
E. One mile of pipeline would be required. Of this amount, two-tenths mile of pipe would be for injection well purposes and remainder would be for production operations.
F. Gravel would be obtained locally and each gravel pit is assumed to average 12 feet in depth.

The total projected surface disturbance resulting from the Elko Geothermal Field Equivalent is listed on Table 3-3 and would include four acres for drill pad construction as well as four and eight-tenths acres for a new main access road. Three acres of disturbance would be required for the construction of the steam separating unit, steam condenser, heat exchangers and reinjection pump. Pipelines connecting the geothermal well to recreation and domestic sites would cause an additional one and eight-tenths acres of disturbance and the gravel source needed to construct the various components would disturb one acre. A total of 14.6 acres of new surface disturbance would be caused by the development of the Elko Geothermal Field Equivalent.

Assumptions for the Heap Leach Model

Currently, open pit mines along the Carlin Trend are expected to reach depths of 2,000 feet or more and at these depths, ground water temperatures are expected to be in excess of 120 degrees Fahrenheit. It is anticipated that waters at this temperature which are encountered along the Carlin Trend would be used to increase the efficiency of heap leach operations of existing mines during winter months. The assumptions made for the heap leach model are as follows:

A. During the life of the plan, it is anticipated that three mines along the Carlin trend would be using geothermal waters during their winter heap leach operations. Each facility would include two 1,000-3,000 feet deep production wells and two 1,000-3,000 feet deep injection

wells. Since development of this resource would be in close proximity to existing mines, additional surface disturbance would be minimal.

B. Located on the drilling pad sites along with the wells would be one electric or diesel powered water pump and associated buildings.
C. Each drill pad and well would be located adjacent to an existing mine road and therefore no new roads would need to be constructed.
D. Each drill pad would be constructed within an existing disturbed mine site but the additional new surface disturbance is assumed to be 55' X 55' or 0.07 acre. The pads would be surfaced with 1 foot of crushed rock.
E. One mile of pipeline would be required at each heap leach operation.
F. The crushed rock to cover the drill pads would be obtained from waste rock at the mine site and no new gravel pits would be needed.

SUMMARY

The total surface disturbance associated with the reasonable foreseeable future geothermal resources exploration and development activities is summarized in Table A-3.

TABLE A-3
PROJECTED SURFACE DISTURBANCE FROM GEOTHERMAL ACTIVITIES

Type of Disturbance	Service Roads & Drill Pads	New Main Acces Roads	Power Plant Site Facilities	Pipelines	Gravel Pits	TOTAL ACRES
Expl. Temp Gradient Wells	45.0	0.0	0.0	0.0	0.0	45.0
Beowawe Expansion	14.0	3.0	6.0	6.0	1.0	30.0
Elko Field Equivalent	4.0	4.8	3.0	1.8	1.0	14.6
Heap Leach Model	0.4	none	None	5.5	0.0	5.9
Beowawe Plant 16 MWEquiv.	11.0	9.6	3.0	6.4	1.0	31.0
Combined Disturbance	74.4	17.4	12.0	19.7	3.0	126.5
Reclaimed Disturbance	37.8	0.0	0.0	0.0	0.0	37.8
Unreclaimed Disturbance	36.6	17.4	12.0	19.7	3.0	88.7

The drilling of 114 Temperature Gradient Wells and associated service roads during the life of the plan could result in about 45 acres of surface disturbance in the 7.2 million acres of public land available for leasing. Expansion of the existing 16 MW Beowawe Power Plant to a 100 MW capacity could result in about 30 additional acres of disturbance. The use of geothermal fluids for domestic purposes equivalent to those now in use at the Elko Geothermal Field would result in 14.6 acres of disturbance, and use of geothermal fluids to increase the efficiency of Heap Leach Gold operations could disturb 5.9 acres. Construction of a new 16 MW power plant that is equivalent in size to the existing Beowawe facility could result in 31 acres of new disturbance. The total surface disturbance resulting from the development of geothermal resources would be about 126.5 acres, of which a total of 37.8 acres would be revegetated. This reclamation includes the unsuccessful exploration well pads and associated service roads. No reclamation is expected on the 18 producing geothermal wells during the life of the plan. Surface disturbance from geothermal activities would result in a net loss of 88.7 acres. Total disturbance of all scenarios is 126.5 acres. Total projected reclamation for all scenarios is 37.8 acres, and unreclaimed disturbance is 88.7 acres.

Appendix B -- Elko District Lease Stipulations

This listing of resource protection stipulations is provided for use by the BLM, Nevada State Office, in conjunction with Table 2-2 of the July 2008 Geothermal Lease Sale Environmental Assessment, in preparing a sale notice for parcels in the Elko District.

LEASE STIPULATION OG-010-05-01: Threatened, Endangered and Senstive Species

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it complete its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC&1531 et seq., including completion of any required procedure for conference or consultation.

Authority: BLM Washington Office Instruction Memorandum 2002-174; Endangered Species Act

LEASE STIPULATION OG-010-05-02: Raptor Nesting Sites

This lease may contain lands with active raptor nesting sites. These lands are subject to seasonal protection from disturbance to avoid displacement and mortality of raptor young. Restrictions apply up to a 0.5 mile radius around the active nesting sites of the following species during the period described. The entire Elko District may provide suitable nesting for one or more of the species listed below.

A. Golden Eagles and Great Horned Owls during the period 1/1-6/30, inclusive.
B. Long-eared Owls during the period 2/1-5/15, inclusive.
C. Prairie Falcons during the period 3/1-6/30, inclusive.
D. Ferruginous Hawks, Northern Harriers and Barn Owls during the period 3/1-7/31, inclusive.
E. Goshawk and Sharp-shinned Hawks during the period 3/15-7/15, inclusive.
F. Cooper's Hawks, Kestrels, and Burrowing Owls during the period 4/1-6/30, inclusive.
G. Red-tailed and Swainson's Hawk during the period 4/1-7/15, inclusive.
H. Short-eared Owls during the period 2/1-6/15, inclusive.

Authority/Supporting Documentation: Wells RMP ROD (p. 25); Elko RMP ROD (p. 25), Birds of the Great Basin, 1985; State Director Decision: Horse Canyon Decision, 2005;

LEASE STIPULATION OG-010-05-03: **Cultural Resources**

This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

Authority: BLM Washington Office Instruction Memorandum 2005-03

LEASE STIPULATION OG-010-05-04: **Mule Deer Crucial Winter Range**

This lease contains lands which have been identified as mule deer crucial winter range (BLM EA 2005/030, September 2005). These lands are subject to seasonal protection from disturbance to avoid displacement and mortality to animals during the winter. Seasonal restrictions from disturbance in mule deer crucial winter ranges apply during the period 11/15-3/16, inclusive.

Authority/Supporting Documentation: Wells RMP ROD (p. 10); Elko RMP ROD (pg. 3); Field Guide to Mammals (1976)

LEASE STIPULATION OG-010-05-05: **Pronghorn Antelope Crucial Winter Range**

This lease contains lands which have been identified as pronghorn antelope crucial winter range. These lands are subject to seasonal protection from disturbance to avoid displacement and mortality to animals during the winter. Seasonal restrictions from disturbance in pronghorn antelope crucial winter ranges apply during the period 11/15-3/16, inclusive.

Authority/Supporting Documentation: Wells RMP ROD (p. 25); Elko RMP ROD (p. 3); Field Guide to Mammals (1976)

LEASE STIPULATION OG-010-05-06: **Pronghorn Antelope Kidding Areas**

This lease contains lands which have been identified as pronghorn antelope kidding areas. These lands are subject to seasonal protection from disturbance to avoid displacement and mortality to animals during kidding season. Seasonal restrictions from disturbance in pronghorn antelope kidding areas apply during the period 5/1-6/30, inclusive.

Authority/Supporting Documentation: Elko RMP (pg. 2-6), ROD, Field Guide to Mammals (1976)

LEASE STIPULATION OG-010-05-07: **Sage Grouse Strutting Ground (Leks)**

This lease contains lands which have been identified as sage grouse strutting grounds (leks) that are subject to seasonal protection from disturbance. No Surface Occupancy is permitted within 0 .5 miles, or other, lesser, appropriate distance based on site-specific conditions, of sage grouse leks.

Authority/Supporting Documentation: Wells RMP ROD (p. 10); Elko RMP ROD (p. 35); Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada, 2000; State Director Decision: Horse Canyon Decision, 2005

LEASE STIPULATION OG-010-05-08: **Sage Grouse Brood Rearing Areas**

This lease contains lands which have been identified as sage grouse brood rearing areas that are subject to seasonal protection from disturbance. Seasonal restrictions from disturbance n sage grouse brood rearing areas apply within 0 .5 miles or other appropriate distance based on site-specific conditions from 5/15 to 8/15, inclusive. This restriction does not apply to operating facilities.

Authority/Supporting Documentation: Wells RMP ROD (p. 25); Elko RMP ROD (p. 3 and 36) Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada, 2000, State Director Decision: Horse Canyon Decision, 2005

LEASE STIPULATION OG-010-05-09: Sage Grouse Crucial Winter Habitat

This lease contains lands which have been identified as sage grouse crucial winter habitat that are subject to seasonal protection from disturbance. Seasonal restrictions from disturbance in sage grouse crucial winter habitat apply during the period November 1 to March 15. This stipulation does not apply to operating facilities.

Authority/Supporting Documentation: Wells RMP ROD (p. 22 and 25); Elko RMP ROD; Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada, 2000;

LEASE STIPULATION OG-010-05-10: I-80 "Low Visibility Corridor"

This parcel includes lands within the I-80 Visual Corridor. Visual impacts are to be minimized within 1.5 miles on either side of Interstate 80. Within this three-mile wide Low Visibility Corridor, the objective is for management actions not to be evident in the characteristic landscape. Management objectives for Class II VRM areas will be used as a guideline when evaluating projects within the Low Visibility Corridor. The Class II VRM objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Authority: Wells RMP ROD (p. 3); Elko RMP ROD (p. 1); Elko Field Office IM NV-2004-013)

LEASE STIPULATION OG-010-05-11: Special Recreation Management Areas

This parcel includes lands within a Special Recreation Management Area (South Fork Canyon SRMA, Wild Horse SRMA, Wilson Reservoir SRMA, South Fork Owyhee River SRMA, Zunino/Jiggs SRMA, or proposed Salmon Falls Creek SRMA) that are within ½ mile of the high water line. No surface occupancy is allowed within ½ mile of the high water line.

Authority: Wells RMP ROD (p. 25); Elko RMP ROD (p. 3)

LEASE STIPULATION OG-010-05-12: Tabor Creek Campground

This parcel includes lands within the Tabor Creek Campground area. No surface occupancy is allowed on lands within the designated boundaries of Tabor Creek Campground: T41N R61E, S1/2 Section 16, S1/2SE1/4 Section 16, E1/2 Section 20, Section 21, NW1/4 Section 28, Section 29.

Authority: Wells RMP ROD (p. 25)

LEASE STIPULATION OG-010-05-13: Congressionally Designated Historic Trails

This parcel includes lands within one mile of the center of Congressionally designated historic trails. Fluid mineral leasing activities within one mile of the center of Congressionally designated historic trails may be limited or modified to protect the historical and scenic values of the trails.

Authority: Nevada BLM Instruction Memorandums 2004-004 and 2004-006

LEASE STIPULATION NSO-010-64: No Surface Occupancy

This stipulation restricts surface occupancy in defined portions of the leased parcels.