comment@boardmantohemingway.com

From: Gail C <mcgccarb@bendbroadband.com>
Sent: Monday, February 09, 2015 7:32 AM
To: Comment@boardmantohemingway.com
Cc: Tamara Gertsch: BLM-B2H; Jennifer Theisen: BLM
Subject: Boardman to Hemingway Draft EIS
Attachments: B2H Draft EIS Comments rev 2-8-2015.docx

Please accept my comments.

Gail Carbiener

Gail Carbiener
19506 Pond Meadow Ave.
Bend, OR 97702

February 8, 2015

Bureau of Land Management
Vale District Office
100 Oregon Street
Vale, OR 97918

Via email: comment@boardmantohemingway.com

Re: Boardman to Hemingway Draft EIS Comments

Please accept my comments when considering adjustment to the final EIS for the B2H Transmission Line. I appreciate the opportunity and intend to be constructive.

Comment #1: Earth Resources 3.2.1.4 Methodology

As a general rule, I take exception to the statistical methods utilized in measuring geological hazards and soils analyses by comparing limited direct B2H locations as a percentage of the entire county. A landslide of 5 acres or soil erosion by wind between towers both may be very small in percentage to the total county so is determined to be insignificant. That does not make sense.

Soil instability features in the Oregon Statewide Landslide Information Database (SLIDO-2) (Department of Geology and Mineral Industries [DOGAMI] 2011b) were also evaluated to estimate the percentage of the analysis area (by county) for each unstable feature. The entire B2H 250 foot wide length through the county is not significant when measured in this fashion. A better measure would be the amount of soil disturbance or landslide potential within the B2H corridor in the county.

All earth resources should be identified for the public to determine possible hazards as a result of the construction of the B2H Transmission line. The maps in figures 3-2 and 3-3 cover the entire Eastern part of Oregon, not very useful for a 250 foot wide right of way.

Comment #2: Affected Environment, Geological Hazards 3.2.1.5

It appears that from Figure 3-2 and Figure 3-3 the ROW passes through both earthquake and landslide territory. Especially in the Umatilla County south of Pendleton, through the Blue Mountains, down the Burnt River area in south Baker County and northern Malheur County, and in the Owyhee Canyon area.

The DEIS says, Landslides, including mudflows, mudslides, rock flows, rockslides, and debris flows, could occur in the analysis area even though ranked low when measured county wide.

Conditions that precipitate landslides include:

- Saturation of soil and rock material with water;
- Vibrations due to earthquakes or blasting;
- Oversteepening of slopes by undercutting (removal of material through erosion or excavation);
- Oversteepening of slopes by addition of material (such as fill) on the upper portions of the slopes;
- Alternating freezing and thawing.

Additionally, removal of vegetation can leave a slope much more susceptible to surficial landslides because of the loss of the stabilizing root systems. These conditions reduce a slope's resistance to sliding and/or increase the force contributing to slope movement. In the case of saturation, water effectively weakens the soil and rock by reducing cohesion and friction between particles. Saturation also increases the weight of the slope materials and, like the addition of material on the upper portion of a slope, increases the gravitational force on the slope. Alternating cycles of freeze and thaw can result in a slow, virtually imperceptible loosening of rock, thereby weakening the rock and making it susceptible to slope failure.

We know that a 250 clear path will be made, we know that roads will be cut into the soil with drainage focused into common areas, we know that holes will be drilled and blasted to 40 feet deep. What we do not know what is the effect on the soil for potential landslides.

The BLM must conduct a more specific, localized analysis than agreeing that the risk county-wide is low.

Comment #3: Affected Environment, Geological Hazards, Erodible Soils 3.2.1.5

The USDA Natural Resources Conservation Service, March 2000 reported:
"Although erosion on construction sites often affects only a relatively small acreage of land in a watershed, it is a major source of sediment because the potential for erosion on highly disturbed land is commonly 100 times greater than on agricultural land. Construction activities, such as grading and filling, drastically reduce soil quality on construction sites. Erosion from construction sites has off-site environmental and economic impacts. Erosion creates two major water quality problems in surface waters and drainage ways: excess nutrients and excess sediment. These problems adversely impact the health and biological diversity of water bodies.

More specifically:

- Excess nutrients impact water quality through eutrophication, a process whereby excess nitrogen and phosphorus causes unwanted biological growth.
- Sediment reduces water quality by making the water turbid (cloudy). Turbidity prevents sunlight from penetrating the water and thus reduces photosynthesis and underwater vegetation. Oxygen levels are reduced in turbid waters, further degrading habitat for fish and other aquatic organisms.
- Sediment can build up in stream channels, lowering flow capacity. The problem of low stream capacity is compounded as runoff increases from newly built-up or paved areas and causes stream channels to receive larger amounts of water in shorter periods of time. This leads to more frequent flooding in areas that never or only rarely flooded in the past."

Table 3-6 on page 3-30 indicates a large percentage of Stony-Rocky and Droughty soils both of which have high run-off characteristics. Droughty is defined as: *A soil that is unable to store enough water to meet plant requirements. Sandy and gravelly soils are droughty because they have low water-holding capacities*

There are many creeks and streams (Willow Creek, Butter Creek, Birch Creek, McKay Creeks, Pelican Creek, Grande Ronde River, Burnt River, Malheur River) that are crossed by the B2H route and clearing.

The BLM should have water analysis done on each of the year round creeks and streams to insure that construction does not damage water quality.

Comment #4: 3.2.1.6 Criteria for Assessing Intensity of Impacts

In table 3-10 impacts for soils, the DEIS has included in Moderate intensity the following:
"Short- and long-term disturbance of land surface where soils have low reclamation potential"

How can Long-term disturbance of land surface where soils have low reclamation potential be moderate and not HIGH category? The DEIS definition of long-term is up to 50 years.

Comment #5: 3.2.1.6 Design Features, Soils page 3-50

Idaho Power has indicated they will be constructing the power line all year. Most areas in winter are hard to access and will have considerable snow and rain. What special design features will be in place during these winter months? The features on page 3-50 and 3-51 do not seem appropriate for winter construction.

Rec-12 page 3-50: How will the soils be de-compacted?

Rec-13 page 3-51: How will the BLM measure the soil amendments and soil stabilizing emulsions that may be in runoff to creeks and rivers?

OM-19 page 3-51: Why will the seeding not be done using native grasses present?

Comment #6: 3.2.1.6 Residual Impacts, Soils page 3-53

It is difficult to imagine the size of this project unless other projects of similar construction and completion are compared and visited. Towers almost 200 feet high, taller than 99% of the forest trees. Cement foundations dug up to 30 feet deep and 4 ½ feet across requiring blasting on 100% of each hole.

The DEIS claims; "Residual direct and indirect erosion impacts on soils caused by construction of the Proposed Action and alternatives would be short term during the construction period and localized in the construction areas." Short-term is up to 3 years, even so DEIS calls the effects moderate.

Comment #7: 3.2.2.4 Water Resources and Flood Plains

On page 367 line 20 the DEIS states that everywhere in the analysis area depths to groundwater are greater than 30 feet.

I question this in the following areas:

- Near Interstate-84 on the either of the Longhorn routes
- From Clover Creek to North Powder area to near Baker City
- Willow Creek area in Malheur County

Comment #8: 3.2.2.5 Water Wells

There are 59 water wells in the analysis area all subject to blasting for tower foundations or roads. Have these wells been measured for flow and water quality to determine a base standard? What will the Idaho Power do for mitigation if necessary?

Comment #9: 3.2.2.6 Environmental Consequences

In table 3-25 Criteria for Assessing Intensity of Impacts on Water Resources, the DEIS has placed B2H activities that result in "permanent fill in wetlands" as a Moderate intensity of impact. If the fill in is permanent how can that be moderate? Permanent fill in means that you have lost wetlands.

Comment #10: 3.2.2.6 Wetlands, page 3-95

The DEIS statistics just do not tell the correct story in numbers. On line 18 page 3-95, the DEIS states that 5.31 acres would have long term impact with 1.09 having long term loss. A better understanding would be that over 20% of that wetlands impacted would be lost. Why can't the IPC micro-site the route to eliminate all impact to wetlands?

Seems as if IPC is dealing with several agencies – USACE, DSL – to determine mitigation of the small damage to wetlands. Has IPC considered adding or repairing wetland to Baldock Slough in Baker County? Has the BLM determined if the B2H route impacts this wetland?

Comment #11: 3.2.3.4 Vegetation Resources, Data Sources, page 3-105

The DEIS says that the most comprehensive wetlands dataset available in Oregon is the Oregon Wetlands Cover. DEIS goes on to say; because this data is limited to Oregon, NWGAP, NatureServe, and NWI data were used to identify wetland and riparian areas in Idaho. Although OWC and NWI have relatively higher resolution than the NWGAP, these data sets still vastly overestimate the acreage of wetlands and surface waters within the analysis areas.

In the Water Resources section (3.2.2) various paragraphs describe:

- Page 3-80: For the proposed action and alternatives, approximately 127 acres of ground disturbance would occur in surface water drinking water source areas.
- Page 3-82: Approximately 54 acres of forested riparian areas within 100 feet of streams would be disturbed with vegetation removal.
- Page 3-82: The construction of new roads, improvement of existing roads, and construction of other facilities would result in disturbance and vegetation clearing of approximately 300 acres that would be adjacent to perennial streams.
- Page 3-82: To facilitate vehicle and machinery access required to build the transmission line and associated facilities, the Proposed Action would require construction of 296 stream crossings.
- Page 3-85: Approximately 62 acres of disturbance may occur in Groundwater Drinking Water Source Areas.
- Page 3-87: For the Proposed Action, approximately 690 acres of potential construction disturbance would occur in 9 areas of moderate to high flood hazard.

On page 3-105, the DEIS impacts to wetlands and surface waters are expected to be less than 3 acres overall. With all the citations listed above just how does the BLM believe this 3 acre overall amount? Please explain.

Comment #12: 3.2.3.5 Wetlands, Riparian and Surface Water

This description on line 10 page 3-114 is incorrect. *Components of the Proposed Action and alternatives have been or would be sited away from wetlands to avoid any impacts during construction or operation of the B2H Project.* My comments in #11 refer to some of the DEIS that make this inaccurate at best and incorrect or misleading.

Please explain.

Comment # 13: 3.2.3.6 Vegetation Resources, Environmental Consequences

It is difficult for me to understand how two items in table can possible be correct. In Table 3-42 on page 3-162, *Permanent loss of biologically important plant habitats* is ranked "Moderate" in Intensity. How can permanent loss not be "high"? Ranked in the "Low" intensity are; *New populations of known noxious weeds introduced to previously uninfested areas.*

These two items need to be explained.

Comment #14: 3.2.4.6 Wildlife Resources, Environmental Consequences

Table 3-63 on page 3-271 has again a criteria that appears out of place. If permanent means forever than how can *"Permanent loss of important habitat for special status wildlife and management indicator species"* not be high intensity?

Special status includes: northern leopard frog, bobolink, common night hawk, Greater Sage-Grouse , long billed curlew, Swainson's hawk, and pallid bat, American peregrine falcon, pileated woodpecker, Lewis's woodpecker, golden eagle, northern goshawk, olive-sided flycatcher, American marten, gray wolf, North American wolverine, long-legged myotis, Townsend's big-eared bat, and Johnson's hairstreak.

With permanent loss of important habitat, logic says these special status species will disappear from the area. Are there adjacent areas with suitable habitat? How does the BLM explain this?

Comment #15: 3.2.4.6 Wildlife Resources, Direct and Indirect Effects to Wildlife Common to all Alternatives

The DEIS should have included the effect of Public Access via the corridor and roads that were not present prior to construction of B2H. This Public Access will be both direct and indirect and permanent. Public Access, both legal and non-authorized will compound identified effects of Habitat Removal and Fragmentation, Noise, Fire Hazard, Dust and Erosion.

The BLM should set Public Access criteria as a high intensity effect.

Comment #16 3.2.4.6 Direct and Indirect Effects, Segment 2 - Blue Mountains

On page 3-288, the DEIS describes the effects to the forest during and after construction of the B2H. At about B2H mile 96.5 the line joins the Wallowa-Whitman NF Utility Corridor and also joins Bonneville Power's 230 kV line. For most of the corridor, Interstate-84 and Natural Gas pipelines are present. This presents a formidable, dangerous and wide obstacle for wildlife.

The DEIS quotes in part; forests and woodlands cleared during construction would be impacted for much longer than other habitat types. This impact would displace wildlife that use forests and woodlands for many generations until vegetation can recover, up to several decades. Removing trees would cause the loss of both present habitat and potential future habitat, snags and downed wood from dead, mature trees. Because forests and woodlands support a wide range of species and are slow to regenerate, the Proposed Action in the Blue Mountains would result in long-term high impacts.

The BLM and IPC should give consideration to having both the BPA 230 kV line and the B2H 500 kV line run parallel from approximately mile 97 to 107 a distance of about 10 miles. The 230 kV line should be re-built between mile 99 and 103 to move it to the west side near the proposed B2H line and further away from the Oregon Trail.

The will reduce the width of the cleared corridor and allow a better chance for wildlife to cross. It also moves the power lines away from the Oregon Trail.

Comment #17: 3.2.4.6 Direct and Indirect Effects, Segment 4 – Brogan Area

The Tub Mountain alternative appears to be the best for Sage Grouse especially if altered in the southern part. Although Tub Mountain has less overall PPH acres it has more PGH acres and very little of either in the ROW, it does have high percentages of both within 0.6 miles of the Transmission Line. Existing, new or improved roads within 0.2 miles (1056 feet) make up 6.4%, a significant amount of disturbance.

The Tub Mountain Alternative route should be altered to track more to the east when leaving Birch Creek ACEC area in T15SR45E section 9, proceeding south crossing Moores Hollow Road in Section 14, within BLM land go east to east side of Section13 then south to top (north) of Section 24 in Township 17 then go west along BLM land to join with proposed Tub Mountain Alternative in Section 19. This will remove significant acres of PPH and PGH Sage Grouse habitat from disturbance.

The Tub Mountain Alternative was not one that IPC identified as a result of public participation. The BLM selected this route to have less effect on Sage Grouse over the Proposed and Willow Creek routes.

In the Brogan Area of the DEIS page 3-306, the BLM refers to the Oregon Sub-Region Greater Sage-Grouse Draft RMPA/EIS as instructed by Information Manual 2012-044, where Alternative D is the preferred alternative through not yet finalized.

Alternative D's primary objective is to maintain or enhance GRSG habitat to establish a mix of sagebrush classes. This objective allows for human-caused disturbance, including current on-the-ground disturbance, to cover **less than 3 percent of PPMA**, regardless of ownership of land. The Oregon Sub-Region Draft goes on to say; "*it is the BLM's intention that adverse environmental impacts to habitat would be a rare occurrence; all efforts to avoid such impacts would be taken before determining that adverse environmental impacts were unavoidable*."

This modification of the Tub Mountain Alternative should be analyzed prior to final EIS to determine amount and quality of Sage Grouse habitat that will be saved.

Comment #18: 3.2.4.6 Wildlife Resources – Design Features

On page 3-327, IPC has developed framework plans that include proposed design features and measures to reduce or avoid environmental impacts. One of those features is*: "Avoid activities that could result in new noise levels at the perimeter of a lek above 10 dBA from 6:00 p.m. to 8:00 a.m. during the breeding season (March 1 – May 31)."*

Appendix B, page -46 states that construction will generally occur between 7 a.m. and 7 p.m., Monday through Saturday with additional hours if necessary to make up schedule deficiencies or to complete critical construction activities.

Also, I recognize that this is generally after the work day, but we all know that maintenance trucks and fuel trucks perform their work frequently at this time.

Please respond as to how this will be measured at the **perimeter** of the lek. The US Department of Transportation, Federal Highway Department, has measured noise levels for OSHA concerns and indicates that at 50 feet a Flat-bed truck will produce 84 dBA and a pickup truck will produce 55 dBA.

How will IPC resolve the work day and lek noise time protection? If we are going to save the Sage Grouse, let's not make exceptions in some areas and not in others.

Comment #19: 3.2.6.2 Land Use and Agriculture – Energy and Utility Corridors

Please explain how the BLM and IPC complied with the several regulations that encourage if not require new energy facilities to use existing corridors. The BLM and Forest Service completed an 11 state West-Wide Energy Corridor that just happens to have two corridors identified that should be used for the B2H project.

In addition each county and some cities have encouraged utilities to use existing corridors. The "redundancy" issue seems to be the only item considered and accepted by the BLM in siting B2H.

Please explain how the BLM did not consider existing corridors?

Comment #20: 3.2.6.16 Transportation Environmental Consequences

In order to provide access for large construction equipment, IPC has identified minimum access road requirements for transmission line and substation construction and operation at 14-foot-wide traveled way with curve widening of 16 to 20 feet.

Since historical farm and recreation two track roads are significantly less, what has IPC done to protect these unimproved roads?

Comment #21: 3.2.6.16 Access Road Construction

The Condor 201S Aerial Lift Crane weights about 100,000 pounds without any lifting. How will IPC determine the capacity of county bridges and culverts to determine if the vehicle can pass safely?

The DEIS indicates that IPC will have to improve about 342 miles of current roads. That is longer than the entire length of the B2H line. Improvements to these roads includes road widening, road straightening or realignment, mowing, blading, tree removal, and bridge and culvert construction to accommodate very heavy trucks hauling steel, cement and eventually cable. IPC will also build 334 miles of new roads, again more than the entire length of the B2H project. These roads will have to be stabilized so the heavy vehicles can make many trips. This means gravel and compaction so the vehicles will not sink into the soft top soil.

For every mile of Transmission Line, there will be **two miles** of new or improved roads. IPC must develop a plan that reduces and eliminates a significant number of these roads.

Comment #22: Appendix B—Transmission Line and Substation Components

Because of the remote location of the transmission line route, concrete will be provided from portable batch plants set up approximately every 25 miles along the line route in one of the staging areas. Staging areas will be about 20 acres, leveled and covered with gravel and fenced.

Concrete from the batch plants will be delivered directly to construction sites in concrete trucks with a capacity of up to 10 cubic yards. A concrete truck carrying a 10 yard load will weighs about 66,000 pounds. Damage to BLM and Forest Roads will be significant. IPC should be required to limit load weight to protect new and improved roads.

Comment #23: Appendix B—Transmission Line and Substation Components

Large amounts of sand and gravel will be needed for concrete batch plants. Gravel for new and improved roads will be large. IPC does not say where these materials will be obtained. In any case large trucks will be required to haul this material from quarries, where will these be located.

Comment #24: 3.2.6.16 Access Road Construction

To facilitate vehicle and machinery access required to build the transmission line and associated facilities requires the construction of 296 stream crossings and perhaps more for temporary activities. This equates to about one stream crossing for every mile of transmission line.

Comment #25 3.2.6.16 Access Roads

It is estimated that up to 150 employees could be on site. Other estimates suggest that 28 trips to the site for employees that drive. IPC has not identified how these vehicles will controlled to stay on access roads. These vehicles will take significant parking space, what has IPC proposed for this activity? IPC should consider a van or bus for transporting employees to work sites.

On page 3-522 line 36; the DEIS says; *"With effective implementation of temporary disturbance reclamation and maintenance of permanent project access roads, the long-term adverse effects of the access roads would be low."* Of course this is the opinion of the IPC and I believe could not be more incorrect!

Comments #21, #22, #23, #24 and #25, illustrate the environmental disaster that B2H is proposing. Not only excessive road building and stream crossings that require significant construction and damage, but future access by the public, which disrupts wildlife, destroys habitat and causes permanent and total damage and change to the areas are being described by IPC as low adverse impact.

There are many areas of construction that the public will not be able to comment upon prior to the Final EIS being issued. Critical items such as siting towers, staging areas, batch plants, new access roads, potential ROW modifications all have yet to be located or decided.

Comment #26:

Sage Grouse: The DEIS states for Baker, Brogan and Malheur the very same for effects for each to sage grouse; Analysis of cumulative effects on Greater Sage-Grouse assumes that off-site mitigation required for the Proposed Action and other future projects authorized by BLM that may affect the Baker, Brogan and Malheur Greater Sage-Grouse population will be sufficient and effective in maintaining or enhancing habitat for the population as required under BLM WO IM 2012-43. Therefore, the incremental effects of the construction and operation of the Proposed Action and all alternatives, in Baker, Brogan and Malheur, when added to the past and present actions would result in a <u>high cumulative impact</u> to the Greater Sage-Grouse and its habitat. When considering future mitigation, the cumulative effects of the Proposed Action are not expected to result in diminished Greater Sage-Grouse habitat quality or quantity or result in a decrease in the Greater Sage-Grouse population.

Both IPC and the BLM are making a huge leap of faith that as yet unknown mitigation will not result in habitat loss in both quality and quantity.

Appendix E: Greater Sage-Grouse Mitigation Blueprint dated May 2013 is a good start but is certainly not yet a legal document and has many statements that can cause litigation.
For example:

- Page 1: at no time should such modifications result in **<u>significant deviations</u>** from the underlying tenets and goals of the……
- Page 3: …… which require a variety of mitigation actions to achieve "no net loss with a net benefit" for sage-grouse habitat impacts. (will this be determined by ODFW?)
- Page 4: …. time lag to conservation maturity is evaluated as the length of time for a mitigation action to deliver conservation at a maturity level (or ecological state) similar to that which was lost at the impact site. (How do all proponents measure and agree?)
- Page 5: Mitigation timeframes: ODFW states; "Mitigation goals and standards must be achieved within a reasonable time frame to benefit the affected species." (reasonable?)
- Page 7: Funding is defined as an amount determined by appropriate cost-analysis basis. Adequacy is defined as funding necessary to carryout agreed to offset actions and

perpetual/long-term operation, management, monitoring, remedial actions, permitting, planning and reporting. (subject to litigation)

Although Idaho does not have the majority of the B2H transmission line route, it is important to note that the 2006 Conservation Plan for Greater Sage Grouse lists infrastructure such as transmission lines as the second greatest threat for sage grouse after fire. If ranking were available for Oregon, I suspect they would be the same.

Appendix C: PRC-14, design features for B2H are listed as:

- Minimize disturbance/removal of vegetation beneficial to sage-grouse (e.g. sage brush, forbs, and native grasses) in priority habitat by:
- Siting staging areas out of priority habitat and minimize size/footprint of staging areas.
- Siting pulling locations outside of priority habitat.
- Siting equipment storage outside of priority habitat.
- Minimizing development of new access roads by utilizing existing roads.
- Upgrading roads to the minimum extent necessary.
- Managing project access roads to limit public use in priority habitat

These design feature are commendable but are incomplete. Staging areas are not yet determined, pulling areas may be in priority habitat depending upon tower locations that are not yet determined, new and improved roads are not yet determined.

So many decisions are yet to be determined, the BLM must follow 40 C.F.R. 1509(a) and issue a Supplemental EIS so the public can comment on these decisions.

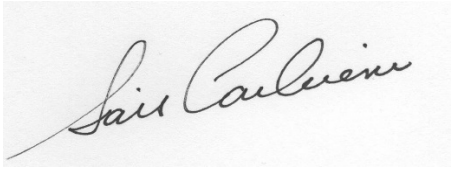
Sage Grouse may be the most effected wildlife species by B2H. Sage Grouse is currently in process of being potentially listed as a species as threatened under the Endangered Species Act. Rancher, farmers, and even the BLM is rushing to create habitat protection prior to the 2015 listing date. IPC determined the route locations prior to 2011, and prior to the Sage Grouse coming to the forefront of concern.

The Draft EIS clearly indicates that sage grouse impacts are a crucial component of the analysis and that mitigation is a necessary element for determining project approval. However, the draft does not share what the impact could be and what mitigation will be needed to insure no net loss. No one, especially the public can if mitigation is adequate.

Sage Grouse discussion is weak and appears to be left to the final EIS. 40 C.F.R. 1509(a) requires, in part: The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.

I formally request a revised draft. A Supplemental EIS, with a Mitigation Blueprint that quantifies direct and indirect impacts to habitat and the projects costs for mitigation.

Respectfully,



Gail Carbiener