

# Organizations

and 15—show gray-painted turbines *without* daytime strobe lights. By the terms of the DEIS itself, there is no way that the turbines depicted in the simulations actually will be built: either they will be white (which BLM acknowledges makes it difficult to blend into the landscape), or they will carry visually disturbing strobe lights. In either instance, the simulations in Appendix E do not reflect the reality of either of the potential visual impacts.

The simulations are therefore not accurate and “high-quality” information which NEPA requires be supplied to the public for comment and to the decisionmaker to make a non-arbitrary decision on the ROW applications. Because the FAA has to approve the design, BLM should get that approval *first* and then present to the public simulations that depict what the actual appearance of the turbines—white, or grey with flashing strobe lights—will be. It is not acceptable to try to present visual “simulations” that do not reflect either of the possible visual impact scenarios the FAA might approve.

## **2. The photo simulations in the DEIS are misleading and present an inaccurate representation of the likely visual and scenic effects.**

There are several elements of the DEIS’s analysis of impacts to visual and scenic resources that are flawed and make the evaluation of impacts incomplete. The photo simulations of turbine impacts illustrated in the DEIS are highly misleading. There are several reasons for this. First, the photographs appear to have been taken with a wide angle lens in panoramic mode, causing objects in the distance to appear smaller than they would to the naked eye. Secondly, the photos were taken when the atmosphere was hazy. It is during the crystal-clear days that the views are most dramatic and would therefore be the most affected by the presence of turbines. The analysis should take into account those days when the visual impacts will be most severe, and also which represent the most common atmospheric conditions in the arid lands of Southern Nevada; the photos appear to be trying to downplay the impacts. Readily available photographs of other industrial-scale wind energy development projects, with the same approximate scale and distance, show that actual industrial-scale wind energy installations are far more prominent in reality than the simulations in the DEIS. Exhibit 19 (photograph of Elkhorn Valley wind project in Union County, Oregon (100.65 MW), taken from at least 3 miles away—turbines are highly visible even though photograph is smaller and lower-resolution than those in the DEIS).

The flaws in the visual impacts analysis are evaluated and described in additional detail in the comments on KOPs 2, 8, 14, and 15 by R.T. Bundorf, attached as Exhibit 20. We conclude that, to accurately depict what the human eye would see at these locations, a view covering only about 1/6 of the wide-angle photographs actually presented should have been displayed. In properly-scaled photographs, as depicted in Exhibit 20, the visual impact from the turbines is dramatically greater than the DEIS discloses. In addition, as described above, the grey color of the turbines in the simulation (*see* Exhibit 20 at 5–9) is misleading because that will either not be the color the turbines actually are painted, or they will carry flashing daytime strobe lights. Also, at least one of the simulation photographs (from KOP 2) does not appear to contain any turbines at all, although from the location of the KOP (approximately 3.5 miles from the project site), turbines should be visible. This may be an error that BLM must independently evaluate and correct in a supplemental DEIS.

Visual simulations were evaluated at the recommended size and hazy conditions were taken into account; therefore, the contrast ratings were correctly evaluated. BLM visual resources specialists reviewed these evaluations. As full size visual simulations (approximately 20x60 inches) cannot be included in the EIS due to size constraints, the visual simulations in the EIS (including KOP 2) have been updated and scaled to appropriately compensate for the use of the wide-angled panoramic view.

The deficiencies documented by R.T. Bundorf in Exhibit 20 also are echoed when compared with the principles of proper visual effects analysis outlined in Appendix D to the National Research Council's seminal 2007 report on "The Environmental Impacts of Wind Energy Projects," enclosed on the attached CD-ROM. Appendix D describes basic standards such as line-of-sight analysis and proper viewing distance which demonstrate the inadequacy of the visual effects analysis presented in the DEIS. Appendix D also describes how use of wide angle lens photographs—as the DEIS does—"result in inaccurate perspectives," Environmental Impacts of Wind Energy Projects at 350–51, and—as the DEIS has—produce images that "minimize the visual impacts of the proposed project." *Id.* at 351. Also discussed are issues regarding how color, scale, and size and shape of nearby objects or visual clutter (present in several of the DEIS simulated photographs) can affect perceived impacts.

BLM must evaluate, independently, the National Research Council's objective scientific "best practices" guidance for visual resource impacts analysis and must produce a set of photographs for public review that accurately illustrate the impacts to the scenic quality of the Searchlight area, reflecting conditions on clear days, with sharp resolution and angle of view that more accurately approximates normal human vision.

The DEIS discussion of mitigation is wholly inadequate. Rather than include discussion of mitigation for visual impacts, the DEIS references no mitigation that actually will reduce visual impacts from the turbines' operation, instead stating the false proposition that the turbines will be painted a color that will blend with the environment. DEIS at 4-77. As a result, the DEIS contains no description of mitigation and no actual analysis of how, or whether, the proposed design and management practices could be effective to mitigate the dramatic visual and aesthetic degradation of the unique viewsheds of the Piute Valley and surrounding mountains. This is impermissible under NEPA. An agency must take a "hard look" at potential mitigating measures; a perfunctory description, or a mere listing, of mitigating measures, without supporting analytical data, violates NEPA. *Okanogan Highlands Alliance*, 236 F.3d at 473. Examples of mitigation could include ROW conditions requiring setbacks of turbines from affected scenic overlooks or areas frequented by recreationists; conditions limiting the height of turbines, or conditioning approval of ROWs on specific configurations that eliminate visual and noise impacts to areas where visitors and recreationists congregate; installation of proximity-warning devices that would limit the impact of nighttime red light blinking on the unspoiled skyline; or conditions requiring burying the transmission line throughout its entire route.

In addition, other publicly-available simulations of potential visual impacts show far more dramatic effects on the spectacular desert viewsheds than BLM's biased simulations. For example, two simulations posted at <http://www.basinandrangewatch.org/SearchlightUpdates.html>, and attached as Exhibit 21, illustrate potential views of turbines on clear, cloudless days from the vantage point of a quiet recreationist in the Searchlight Mountains, depicting the turbines with the white color that the BLM simulations state will be the color of the structures to be built. DEIS at Appendix E. The supplemental DEIS must include visual simulations that *accurately* depict the likely impacts, not the set of skewed and deceptive simulations that currently are included in the environmental

---

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

62

The contrast ratings and visual simulations were reviewed and approved by BLM visual resources specialists in accordance with VRM BLM Manual Handbook H-8431-1.

Visual simulations were evaluated at the recommended size and hazy conditions were taken into account; therefore, the contrast ratings were correctly evaluated. BLM visual resources specialists reviewed these evaluations. As full size visual simulations (approximately 20x60 inches) cannot be included in the EIS due to size constraints, the visual simulations in the EIS have been updated and scaled to appropriately and accurately compensate for the use of the wide-angled panoramic view. The turbines in the simulations are white.

BLM had considered scenic quality when determining the VRM Class for district as disclosed in the BLM RMP (see discussion in Section 3.9.3-Visual Resources Management Classes). Section 3.9.4.8-Selection of KOPs illustrates views in and around the project area.

Comment noted.

assessment. BLM has failed to provide high-quality and accurate information about visual impacts for the public's review, in violation of NEPA.

**3. BLM must prepare and disclose video simulations that depict arrays of spinning turbines and video simulations that depict turbine array operations at night.**

BLM uses a "one size fits all" approach to its visual and viewshed analyses. In its analyses, The DEIS does not make a clear distinction between the various types of visual stimuli and how each category will affect the environment. Object visibility during the daytime will be affected by a multitude of factors including color, pattern, size, shape, ridgeline, and motion. For example, a stationary, irregular-shaped object with variegated pattern of earth-tone colors located below a ridgeline will be much less dominant on the landscape as a solid white vertical linear object looming above hilltops and roads with moving turbine blades. Wind turbines, by their very nature, are at the very top of visually noticeable unnatural objects. The DEIS tacitly acknowledges this in a statement buried in a table, stating that "[d]ue to the height of the WTGs and the oscillating motion of the blades, it is difficult to make the towers blend into the landscape." DEIS at 2-46. The DEIS's disclosure and analysis do not adequately explain the differences in visual impacts with the various visual stimuli involved (i.e. immobile vs. mobile objects and constant vs. blinking lights).

The spinning blades on 428 ft.-tall turbines looming above the hilltops will undeniably dominate the otherwise dramatic natural beauty of the location and would not be overlooked by the average observer. Video simulations are necessary to disclose accurately the flicker from 200-ft. diameter blades on 87 turbines in the Searchlight mountains. Because the blades rotate, sometimes at high speeds, their flicker will be more eye-catching and disruptive to the visual character of the desert landscape than stationary objects. Without simulations that disclose the movement of the turbines, the DEIS is deficient and violates NEPA.

On the enclosed CD-ROM, we have included five video clips (IMG 2931, IMG 2932, IMG 2937, IMG 2938, and IMG 2938 in the folder marked "turbine video") that show how turbines and turbine fields look in motion and the actual visual impact of moving turbines, which BLM has excluded from its DEIS analysis. For example, the video numbered "IMG 2931" shows a spinning turbine from approximately the same vantage point as the DEIS's simulation at KOP 15 (Appendix E). As this video illustrates, the simulation included in the DEIS dramatically understates the visual impact of a spinning turbine and presents the public with inaccurate information. The Appendix E worksheet describes that the structures (the turbines) being simulated will be "white" in color—as are the turbines in the video IMG 2931—but the simulation incorrectly shows static turbines that are painted grey.

BLM must prepare and distribute a supplemental DEIS disclosing simulations that show accurate information about the likely visual impacts from the motion of the turbines and their likely white color—impacts which BLM has acknowledged exist. DEIS at 2-46, 4-62, 4-77 Given readily available technology in the year 2012, there is no excuse for the BLM to not prepare and disclose to the public video simulations of the proposed project's true visual impacts.

---

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

63

The contrast ratings and visual simulations were reviewed and approved by BLM visual resources specialists in accordance with VRMBLM Manual Handbook H-8431-1.

The DEIS failed to evaluate adequately the impacts the turbines will have at night. DEIS at 4-77. The DEIS did not prepare simulations of blinking lights on wind turbines, wind turbine movement, and nighttime views. The lack of such concrete visual information in the DEIS thwarts the ability of the public and the decisionmakers to evaluate the true impacts of the project on the dark skies and scenic values which the Department of the Interior must protect on lands it manages, including the protected ACEC and nearby Lake Mead NRA. The failure to include information on nighttime view is particularly troubling. Nighttime views and moving simulations of the turbine strings and transmission lines, which would bear several red strobe lights, flashing at frequencies of at least 20 times per minute, are essential to understanding the dramatic change that the project would wreak on the nighttime sky in the Searchlight area. DEIS at 4-77. And no still image can simulate the experience of viewing a group of flashing lights on an otherwise dark landscape and over a lightless mountain ridge. Flashing lights are a very different experience than steady lights. A proper disclosure of visual impacts requires a realistic, moving-picture representation of the nighttime views of the proposed development, so that the public may have a better understanding of the aesthetic trade-offs that come with it.

Object (illumination) visibility during the nighttime is also affected by a variety of factors including brightness, color, pattern, and constancy. For example, a single, constant, white light that is about as bright as a planet or star from a particular distance will be much less noticeable than a line of bright flashing red lights from the same distance. Again, BLM fails to make this distinction. BLM also fails to point out that a group of flashing lights on a dark night will be noticeable from a much longer distance than the turbines during the daytime.

BLM has failed to evaluate the amount of light from FAA-required and discretionary lighting that will be present on the turbines, transmission line, tensioning towers, and associated facilities at night. One of the most important scenic resources of the Southern Nevada area is the nighttime darkness. A field of 87 wind turbines would have significant nighttime visual impacts. The DEIS inappropriately dismisses this concern by stating that “lights are not expected to contribute to sky glow or glare because of the intermittent nature and color of these lights.” DEIS at 4-77. But this ignores the *actual* visual impacts from the flashing lights: they may not contribute to “glow or glare,” but they interrupt the darkness. It would be easy to and disclose information showing these effects: already in Nevada and southern California there are areas where there are large arrays of wind turbines whose FAA-required lighting blink 15 or 20 times per minute. A simple video of these locations would afford the public (and agency decisionmakers) the opportunity to evaluate whether these effects are unreasonable and therefore whether the ROWs should be denied.

Aside from declaring, without analysis, “minimal” impacts to glow or glare, there is no other discussion in the DEIS of the impacts of the FAA-required lighting in the DEIS. As a result, the statement that there would be “minimal effect” on nighttime light pollution has no support. BLM and USFWS must independently confirm this false statement by visiting and documenting nearby areas, such as the Tehachapi, California region, that have been highly impacted by industrial wind energy. On overcast nights, local people who are not even in direct

BLM does not have a dark sky management policy. The BLM does recognize the importance of protecting the integrity of the Dark Sky environment and will require mitigation to dark sky impacts that fall under BLM authority. The aviation safety warning systems are under the authority of the Federal Aviation Administration (FAA). The FAA is currently assessing the suitability of utilizing Audio Visual Warning Systems that enable on-demand functionality of the WTG warning lights. The BLM is unable to require this form of night sky impact mitigation until such time that the FAA has finalized their assessment and issues new visibility marking policy guidance.

The contrast ratings and visual simulations were reviewed and approved by BLM visual resources specialists in accordance with VRM BLM Manual Handbook H-8431-1.

The BLM has included mitigation consistent with dark skies objectives as suggested by Nevada Division of State Lands and the National Park Service.

view of the actual wind turbines report that all of the red aviation lights reflect off of the clouds and create visual impacts at even great distances from the turbines.

Also, BLM should impose mandatory mitigation of nighttime light pollution by requiring installation of an Obstacle Collision Avoidance System ("OCAS") that is activated by radar and only blinks when aircraft are in close proximity, minimizing or eliminating the nighttime impacts from the Project. *See, e.g.*, Exhibit 22 (describing OCAS), available at <http://www.darksky.org/mc/page.do?sitePageId=84895>. Turbine maker Vestas has acquired the OCAS technology, making it readily available to a facility such as Searchlight. Exhibit 23.

BLM must obtain nighttime photographs and video of turbine arrays and extrapolate those to the 87 that may occupy the Searchlight hills. BLM also has an obligation to present truthful evidence about what it means for the strobes to be "intermittent": in the other areas where wind projects have been built, they flash every three or four seconds. Hundreds of turbines hundreds of feet tall with red or white strobes flashing certainly do contribute to light pollution. The DEIS is simply wrong to suggest that they do not.

Finding a location near any major city with dark skies is very difficult. At present, the area around Searchlight has skies dark enough to permit star gazing. Boaters on Lake Mohave are also able to enjoy the beauty of starlit skies without the intrusion of heavy industry. If the project is built the lighting on the turbines will destroy the dark skies in the area. Many Searchlight residents, as well as visitors to the area, treasure the dark night skies and the dark mountain landscapes that often accompany them. The appearance of such a stark sign of our industrial society, and of newly-industrialized land completely surrounded by protected lands, will surely be off-putting to many, and clearly convey to others that Nevada and Clark County have irretrievably lost some of their naturalness, wild beauty, and traditional character. BLM has failed to carefully evaluate this potential change in the visual and scenic character of the lands it manages in the DEIS.

#### **4. BLM must redo its simulations to depict all reasonable visual impacts scenarios and revise its visual effects analysis to incorporate necessary revisions.**

The BLM should require more KOP simulations that depict all of the visual impact scenarios. All of the most potentially visible angles of light and time of day should be considered to depict the worst case scenario.

The DEIS KOP simulations undermine the full visual impacts. They should be thrown out and re-designed, and BLM must conduct its own independent analysis of the visual impacts of the project because the simulations provided by the applicant's consultant are so misleading. BLM should disclose and evaluate the following factors in its revised visual resources analysis:

(1) Angle of Observation. The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

65

The BLM does recognize the importance of protecting the integrity of the Dark Sky environment and will require mitigation to dark sky impacts that fall under BLM authority. The aviation safety warning systems are under the authority of the Federal Aviation Administration (FAA). The FAA is currently assessing the suitability of utilizing Audio Visual Warning Systems that enable on-demand functionality of the WTG warning lights. The BLM is unable to require this form of night sky impact mitigation until such time that the FAA has finalized their assessment and issues new visibility marking policy guidance.

The only exterior lighting on the WTGs will be the aviation warning lighting required by the FAA. The warning lighting will be the minimum required intensity to meet the current FAA standards. Outdoor night lighting at the O&M facility will be the minimum necessary for safety and for security and will adhere to the minimization measures discussed in under MM-VIS-5.

While the BLM does not have a Dark Sky Management policy, the BLM does recognize the importance of protecting the integrity of the Dark Sky environment, MM-VIS-5 has been updated to reflect that a lighting plan would be submitted and approved by the BLM and the basic elements that would be contained in that plan including proper dark sky protection from unnecessary light pollution scatter.

BLM has revised the scale of the visual simulations in the EIS to address this comment. However, the BLM determined the contrast ratings at the proper scale and as such the contrast ratings remained consistent with VRM Class III standards and objectives.

Visual impacts were assessed using BLM methodology. Seventeen KOPs were selected to address public concerns expressed during project scoping. Although every possible scenario is not addressed, the BLM believes that adequate KOPs were evaluated to illustrate representative views from sensitive viewpoints throughout the project area.

NewFields is an independent third party contractor for the BLM as is Truescape, the firm that supplied the visual simulations. These firms have no financial interest in the outcome of the project. The impact assessment and visual simulations were reviewed and approved by BLM visual resources specialist in accordance with VRM BLM Manual Handbook H-8431-1.

(2) Length of Time the Project Is In View. If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, as from an overlook, the contrast may be very significant.

(3) Relative Size or Scale. The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is placed.

The immense size of the project is large and will have the potential to impact different VRM zones of different classes. Much of the public lands in the region are held to Class 1 VRM standards or the National Park Service equivalent. BLM defines the objective of this class "to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention."

Wind turbines that tower above 428 feet tall have a three-dimensional impact. It is impossible to mitigate these impacts. Protecting visual resources also means protecting unbroken landscapes from very major industrial impacts. It is pointless for BLM to try to define visual impacts based on Class 3 BLM VRM standards.

To accurately depict the likely visual effects of the project, BLM should create additional simulations from relevant viewpoints, including residential areas within Searchlight that presently have views of Spirit Mountain, and from residences northeast of Searchlight that have views of Lake Mohave. The following Key Observation Point simulations should be included in a supplemental DEIS:

1. Five KOPs from local residences that recognize and define the worst case scenario visual impacts.
2. Four KOPs from the Mojave National Preserve, California. Two from the Castle Peaks and Castle Mountains area and two from the Piute Range.
3. Four better KOP observation points from the Lake Mead National Recreation Area. Please design these so they are visible.
4. Three KOPs depicting the flashing red lights at night.
5. Four KOP observations looking down on the massive ground disturbance that will accompany the visual disturbances from vantage points in the surrounding hills and a vantage point that approximates the view from Spirit Mountain.
6. Three KOPs depicting the visual impacts from construction activity (dust clouds, enormous trucks, cranes, etc).

In addition, spurious KOPs should be eliminated from the analysis. It is very difficult to understand why the first KOP, Railroad Pass, was chosen. DEIS at 3-60. It is 36 miles and two mountain ranges from the project, so obviously no turbines would be visible. Similarly, KOP 3 and 4 (28 and 35 miles distant) are also questionable.

The BLM manages visual resources for the VRM class in which the proposed project is located, not for the VRM Class Rating of adjacent BLM administered lands, nor does the BLM have the authority to regulate land use on public lands administered by other federal land management agencies.

Comment noted.

Comment noted. The KOPs included in the EIS were selected as representative and/or included in response to public comments and concerns raised during the scoping period.

Also, the DEIS should disclose and evaluate in its revised analysis that one of the project features, the planned 100-foot high microwave tower, is also very visible and would detract from tourists' views of Lake Mohave. DEIS at 2-32.

How much "weight" is given to visual resources in making the decision whether to approve the ROWs? DEIS at 3-55. The viewshed in virtually every direction around the project will be affected. People who presently have beautiful views of Lake Mohave or Spirit Mountain will no longer be able to enjoy them. People driving east on Cottonwood Cove will drive through a heavy industrial area. Many of the visitors to the lake come from California, where their views have already been destroyed by wind turbines. Those people will likely no longer choose to recreate at Lake Mohave. People driving on US 95, just passing through the area, will be the least affected. People who live in and around Searchlight and who recreate at Cottonwood Cove will be the most affected. As noted, the turbines will be visible from three states, and from a number of wilderness areas. DEIS at 3-56.

How were the VRM categories arrived at? DEIS at 3-58. This is not explained in the DEIS. Beauty is in the eye of the beholder, and the views of Spirit Mountain and Lake Mohave are unparalleled. Likewise, expansive views of Joshua tree woodlands and forests of Teddy Bear Cholla are equally beautiful. However, if the people creating the VRM categories are from the East or West Coast, their bias toward viewsheds of deciduous trees may result in a lower rating for all desert views.

A quote from Section 3.9.4.2 on page 3-60 reads, "The landscape is panoramic, and expansive vistas of distant mountains are common." This sums up the beauty of the desert. However, a panorama intruded upon by 428 foot tall wind turbines is virtually destroyed for all who live in and travel through the region.

Park visitation at Cottonwood Cove is stated at over 300,000 annually. DEIS at 3-60. All 300,000 visitors arrive at Cottonwood Cove via Cottonwood Cove Road. An 8 to 12 month construction period would financially destroy the concessionaire at Cottonwood Cove, and much of the tourism that comes through Searchlight. Applicant should perform an economic analysis to quantify the revenue lost by the concessionaire, the National Park Service, and all Searchlight businesses that are dependent on tourism. The lost business would also result in a loss of sales tax revenue for the county and state.

Line 3 on page 4-65 should read "west" rather than "east" toward the proposed project. If you are looking east, you are looking into Arizona.

**D. The DEIS does not disclose and evaluate adequately the likely impacts of the project on recreation resources.**

The DEIS' analysis of potential impacts to recreational resources is inadequate. Although Section 3.11 appears to provide certain baseline data, its analysis of potential environmental impact is highly flawed and ignores the national significance of scenic vistas afforded at key observation points and recreational destinations throughout the area surrounding Searchlight.

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

67

An additional simulation for the proposed western switching station has been included in the EIS. Refer to KOP 17 in Section 4.10- Visual Resources Impacts.

Impacts to visual resources have to be in conformance with the Visual Resources Management Classification for the area, in this case the project area is designated VRM Class III, which allows for moderate levels of visual change.

Visual Resource Management classes are designated through the land use planning process and declared in the Resource Management Plans (RMPs). Designation of visual management classes is ultimately based on the management decisions made in the RMPs. RMP VRM Class decisions consider inventoried visual values along with other land use allocations and resource protections.

All actions proposed during implementation of the RMP that would result in surface disturbance must be analyzed for conformance to the VRM Class objectives and impacts to the visual values.

Five steps are involved in the visual resource management (VRM) classification process. These are: 1) outlining and numerical evaluation of scenic quality; 2) outlining of visual sensitivity levels; 3) delineating distance zones; 4) overlaying the scenic quality, sensitivity levels and distance zones using a matrix to develop visual resource inventory classes (VRI) I-IV; and 5) designate VRM Classes I-IV to provide protection to visual resource while meeting the multiple use goals of the RMP through the planning process.

Typographical area has been corrected.

including the Piute-El Dorado ACEC and Lake Mead NRA. Essentially, the DEIS sweeps potentially significant adverse effects under the rug by providing only the most cursory discussion of potential impacts to scenic resources and the unique recreational experience afforded on public lands in southern Nevada that are present in the Searchlight desert and mountains and surround the site.

The National Park Service (“NPS”), which administers the Lake Mead NRA, previously expressed significant concern about the impacts from the project in 2009. Exhibit 24. For example, the NPS described that siting the “interconnect facility or any attendant facilities in section 26 [in close proximity to the NRA entrance station] could bring significant impacts to the Cottonwood Cove entrance into Lake Mead NRA during peak traffic periods.” *Id.* The NPS constructed the entrance station approximately 1.5 miles west of the NRA boundary, along Western’s transmission line where the interconnection facility will be placed, and “On a busy summer weekend there are thousands of visitors using this road to access the Lake Mohave shoreline.” *Id.* The DEIS does not disclose these concerns, nor indicate whether (or how) they have been addressed. However, the turbine construction along Cottonwood Cove Road and the interconnection facilities planned adjacent to the road have not varied from the initial proposal about which the NPS expressed concern. The interconnect facility is still located too close to the entrance station to a NRA. DEIS at 2-11. This facility should not be permitted that close to the road and entrance station. The DEIS also does not clearly indicate whether the land exchange described in the NPS letter in 2009 has taken place, and, if so, just how close to land administered by the Park Service the wind turbines and transmission will be. Please clarify this in the maps developed for the final EIS.

The next-to-last paragraph in the DEIS on page 3-88 presents a very accurate description of the existing use of the area, and the reason people choose to live and recreate here. Why, then, would BLM even consider granting a ROW allowing heavy industrial development in an area described as attracting “recreation visitors seeking a primitive recreation experience of natural beauty, solitude, and freedom from the regulations of structured urban environments.” DEIS at 3-88. However, the DEIS’s discussion of the impacts to recreation opportunities in Section 4.11 only lists general effects and does not discuss the specific ways in which the presence of an 87-turbine utility-scale wind project and associated transmission lines will deny recreationists the opportunities for beauty and solitude that BLM identified as characteristic of the area.

The DEIS’s discussion of recreational impacts does not disclose that noise from the operation of the project will be easily audible (up to 25 decibels) throughout large portions of the ACEC surrounding the project site, up to the border of the Lake Mead NRA. DEIS at 4-86, 4-89. In these areas, any quiet recreation seeking the “experience of natural beauty [and] solitude” will be eliminated. The DEIS does not acknowledge that the current, relatively pristine condition of the project site and surrounding protected areas is, in itself, an important recreational resource that will be destroyed in its current form by the project. None of the KOPs are located in areas where quiet recreationists would be seeking to escape from roads into the surrounding natural areas. DEIS at 3-56. Instead, only four KOPs are presented within five miles of the project site, all along roads. *Id.* This fails to accurately present information about visual impacts to a significant class of recreationists who use the area.

Section 4.10-Noise Impacts, discusses the noise impacts of the project. Updated Figure 4.10-1. Noise Contours for the 96 WTG Layout Alternative and Figure 4.10-1. Noise Contours for the 96 WTG Layout Alternative illustrates the noise contours for areas both within and outside the project area.

The proposed action and preferred alternative would represent significant adverse impacts to the otherwise natural setting and, therefore, to the hiking experience in the Searchlight desert and mountains and in the ACEC and NRA where the project would be visible. The DEIS must evaluate what hiking areas and camping areas this would affect. In particular, BLM must evaluate how people camping at dispersed campsites would be affected by the flashing red lights on the turbines flashing every 15 seconds throughout the night. This development would forever change, for the worse, the character of the recreation experience on hundreds of acres of protected land in the vicinity of the project site. The DEIS avoids any discussion of noise and visual effects on dispersed campsites, omitting any noise receptors or visual analysis points of view outside of areas of human congregation and an established campground *35 miles from the project site*. DEIS at 3-6. Nor does the DEIS describe any potential conditions that BLM might place on the ROWs to ensure protection of recreational resources. As a result of these shortcomings, the DEIS fails to adequately describe, and propose mitigation for, what invariably would be a significant and irreversible impact to the outstanding and nationally-significant scenic and recreational resources on and surrounding the project site.

Construction of an industrial-scale energy project in the area east of Searchlight also would obliterate the opportunities for use of the "Searchlight Trails" system that Clark County has been developing in the Searchlight area. The Searchlight Trails Study is enclosed on the CD-ROM (available at [http://www.clarkcountynv.gov/Depts/comprehensive\\_planning/advanced\\_planning/Documents/SearchlightTrailsStudy.pdf](http://www.clarkcountynv.gov/Depts/comprehensive_planning/advanced_planning/Documents/SearchlightTrailsStudy.pdf)). BLM does not mention the Study in the DEIS as a recreational resource. The Study outlined plans for a number of hiking, Off-Road Vehicle ("ORV") and horseback trails in the area northeast of Searchlight, and even linking to trails to other areas around Searchlight. The Study shows trails that, if the project is developed, would be overlain by turbines and roads to the turbines. So far only a portion of the trail system has been fully developed (a walking path just east of the community center). If the turbines are erected, there will not be hiking, ORV, or horseback trails through the turbines.

The Study provides an excellent description and photos of Cottonwood Cove Road within the town of Searchlight. They correctly depict the road as very narrow, and as the Study indicates, would be difficult to widen because some of the fences and improvements around residences were built on the easement. This is quite common in old Nevada mining towns.

The discussion of impacts in the DEIS presents impacts as speculative when they are certain. DEIS at 4-92. All four items listed will occur if the project is built. Conflict already exists between the master plan for Searchlight Trails, and the planned WTGs. Also, noise levels will be in conflict with NPS levels for noise at night. Access to existing recreation will be altered by the presence of wind turbines along Cottonwood Cove Road, and ORV riding areas will be impacted by the presence of turbines in previously accessible areas. The levels of use at Cottonwood Cove will change. Many people will no longer find it desirable to travel to a site with the higher noise levels that will result from the turbines. There is also potential for overcrowding when a good share of the 300,000 Cottonwood Cove visitors go to Lake Mead, or to Katherine's Landing.

---

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

69

Noise receptors and visual analysis points were determined during Public Scoping when people living in the valley came forth with the properties and other locations they felt would be the most important to analyze. These included property lines, the NRA boundary, and the campground and other facilities at Cottonwood Cove. Dispersed camping areas were not identified as important locations during this process. The EIS proposes mitigation measures in Section 4.11.3-Mitigation. Refer to Section 4.10-Visual Resources for a discussion of impacts to dark skies.

The BLM manages its lands for a variety of uses. Right-of-ways may include several uses such as transmission lines and trails. Section 4.11.2-Direct and Indirect Effects by Alternative under Recreation has been updated to reflect the findings of the Searchlight Trails Study.

BLM right-of-ways are managed for multiple uses. Section 4.10.2.2-Proposed Action – 96 WTG Layout Alternative, indicates that sound levels for the NPS would be under 35 decibels which is in conformance with the NPS requested level. No wind turbines are directly adjacent to Cottonwood Cove Road. Five WTGs would be visible from the road. Access roads would be improved, providing access for OHV riding. Section 4.11.2-Direct and Indirect Effects by Alternative under Recreation has been updated to reflect the findings of the Searchlight Trails Study.

The DEIS states that there would be no change to the status of the ERMA or existing ROS classification, which includes “recreation in a natural setting, generally away from other human activities.” DEIS at 4-93. How anyone could state that 87 428-foot tall wind turbines will have no effect on recreational opportunities or classification status is puzzling. What would it take to constitute a change?

The third paragraph on page 4-93 does not comply with BLM’s obligation under NEPA that an EIS “shall be written in plain language . . . so that decisionmakers and the public can readily understand them.” 40 C.F.R. § 1502.8. Could this paragraph be translated into plain English? When 12 months of construction, 37 miles of new road, and 87 428-foot tall turbines in a natural area is considered fine for recreation areas on public lands, there needs to be some interpretation done to convert this into “plain language.” Also, the altered environment and noise from turbines will eliminate the area for hunters. The change in the viewshed and noise level will not be palatable for hikers looking for a natural experience.

What does it mean when the DEIS states that “Construction activities would have minimal but permanent impacts on the trail”? DEIS at 4-94. Does this mean the trail will be obliterated? Is there an alternate route that could avoid this historic trail? The history of Nevada is not expendable. The same page mentions that “Access to the project area during O&M would not be restricted and 29 miles of new and improved road would allow for greater access to the area.” If the applicant requires an 886-foot safety set-back from turbines, how can the roads be used for recreation?

It is an understatement to say the project “could” have long-term impacts on the recreation setting and experience. DEIS at 4-94. Basically, the project will change the project area from pristine desert to a heavy industrial zone. The document states the project would “degrade the quality of the recreation setting.” This area is an important area for bighorn sheep, and the document states the project could have a negative effect on big game and upland game and wildlife habitat. Given the admitted degradation of the natural area, and negative effect on every aspect of the area, why would BLM consider any alternative other than the “No action” alternative?

The DEIS states that the project “. . . would not substantially impact the area’s potential for recreation opportunities . . .” DEIS at 4-95. This statement is not believable. Even though the so-called “footprint” (where turbines, transmission towers, and access roads touch the ground) is small, the fact that the turbines and infrastructure are dispersed over thirty square miles—with noise and visual impacts that extend far beyond the “footprint” and indeed beyond the project site itself—belies that statement. How can a 30-square mile project be deemed having “moderate residual impacts on the recreation setting and experience resulting from the long-term presence of WTG’s transmission lines, and access roads.” How can the presence of 430 foot tall turbines, generating loud noises, and destroying the viewshed, be considered “moderate”? If this is considered “moderate,” what does BLM consider “extreme”?

Section 4.11.2-Direct and Indirect Effects by Alternative discloses the proposed project effects on recreation. Construction of the proposed project would not close the area to hunters. Refer to Section 4.10-Noise Impacts for a discussion of noise effects.

Section 4.11.2-Direct and Indirect Effects by Alternative has been updated to reflect that the precise location of the Old Spanish Trail within the project area is unknown and no physical evidence of the trail exists on the ground. Therefore, no impacts to the trail would occur. The 886-foot safety set back is a standard design safety precaution to protect established structures and major thoroughfares. Access roads would be available for public use, although they could not approach too closely to the WTGs.

Comment noted.

The project only would permanently disturb 152 acres. The natural habitat surrounding the WTGs will be maintained to the extent possible and laydown and other construction areas will be returned as closely as possible to the pre-project condition.

**E. The DEIS does not disclose and evaluate adequately the likely impacts to vegetation, special status plants, and noxious weeds.**

The DEIS is also deficient because it provides inadequate and misleading information about rare plants. The botanical surveys for sensitive species plants were performed during a six-week period between March and May 2010. DEIS at 3-23. The botanical survey freely acknowledges that the “survey report can only represent the site as it was observed during the survey period(s).” 2010 Searchlight Botanical Survey at 6. However, this disclaimer is not mentioned in the DEIS itself. These springtime surveys detected no sensitive plant species. However, this is insufficient information from which to conclude that no rare plant species occur in the area that the project will affect. Varying and sporadic rainfall in this arid place means that certain species do not bloom during the few days of surveys, and some species only flower after summer rains. The DEIS is inadequate because it lacks late summer/early fall-flowering plant surveys on the proposed project site.

Approximately 40% of the plant taxa in the area of the project flower in late summer/early fall due to the location and bimodal precipitation regime. The spring surveys conducted would fail to detect and document most of these summer/early fall-flowering rare plants on site. Because of the vagaries of precipitation in the Mojave Desert, surveys should be performed over a number of years during both the spring and summer/fall flowering seasons in order to maximize the probability of identifying all special status species that occur on the project site. Projects of this size and potential impact should include more than two years of surveys. Without an accurate inventory of plant taxa that occur on site, it is not possible to fully assess project impacts to special status plants and therefore meaningful mitigation cannot be developed.

At least one of the figures provides incorrect identification of the species photographed. Figure 10 does not show Sahara Mustard and Phacelia, but rather *Sisymbrium irio* (another invasive mustard) and *Erodium cicutarium* (a major invasive). Given that *Penstemon bicolor* is known to occur just west and north of this site, it is likely to occur on the site but was not observable due to dry conditions or limited surveys. The surveys—featuring few botanists, meandering surveys, and pseudo-systematic sampling, and omitting fall sampling—likely undercounted species on the site. In light of the relative lack of botanical inventories of the southern Nevada region and the location near California and Arizona, influenced by the Colorado River and with expected affinities from the Sonoran Desert to the south, it is surprising that no new taxa for Nevada were identified. A new record in Nevada for plants from neighboring states would automatically fall on Nevada’s watch list and be a species of concern.

The DEIS must disclose the amount and cycle of rainfall at the project site, which most years will be less than six inches, and also disclose the relationship between the amount of rainfall and the times of the surveys. BLM should conduct surveys during the fall as well as spring to identify the potential presence of sensitive plant species, and develop and disclose mitigation for the effects of construction and operation of the project on such plants. The DEIS states that no rare plant mitigation will be required because no rare plants were found on the surveys. Had rare plant surveys been conducted at the proper times, more rare plants may have turned up in the surveys.

---

Judy Bundorf – Friends of Searchlight Desert and Mountains - Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

71

Alphabiota Environmental Consulting conducted the botanical survey for this project according to BLM guidelines.

Comment noted. No change is required in the EIS.

The Eastern Mojave Desert is a botanical frontier where in the past few years alone, a number of very significant botanical finds have occurred and more are to be expected. For example, at least five species previously undocumented within the California Desert Conservation Area boundaries have been documented in the last few years near the project site in Nevada. Additionally, these species that are found on the “edges” of their range are incredibly important for species persistence<sup>13</sup> especially in light of global climate change.<sup>14</sup>

Because of the lack of comprehensive surveys, the DEIS failed to adequately analyze the impacts that the proposed project would have on rare and special status plant species including direct, indirect and cumulative impacts to these plants and failed to adequately identify and evaluate potential alternatives that would avoid or minimize the impacts of the project on these species. In order to comply with NEPA, the BLM should revise or supplement the DEIS with this critical information and circulate it for public review and comment.

The DEIS includes only the most general description of the tremendous problem of invasive weeds. DEIS at 3-22, 4-25 to 4-26. For example, there is only an acknowledgement that the project’s construction and operation has the “potential for the introduction or proliferation of noxious weeds into the project area.” *E.g.* DEIS at 4-26. But there is no detail provided about what weeds or to what extent the project will be a cause of exacerbating the problem of weeds in the project area and surrounding lands. Weeds are one of the greatest threats to the natural environment, yet almost no data or analysis of weeds appears in the DEIS. Please evaluate the Declaration of ecologist Dr. Jonathan Gelbard, on the enclosed CD-ROM (including attachments),<sup>15</sup> who describes that the spread of weeds is “recognized, virtually by scientific consensus, as one of the greatest threats to desert ecosystems.” Gelbard Decl. ¶ 5. The impacts of weeds on these ecosystems range from reductions in biodiversity and wildlife habitat, to changes in ecosystem processes such as fire frequency and hydrology, to increases in erosion and soil loss. *Id.* at ¶ 8–10. Roads serve as “major conduits” for the spread of invasive species because they are the “entry points for virtually all human impacts to terrestrial ecosystems.” *Id.* ¶¶ 11–12. The integral link between the presence of roads and the spread of weeds is well-accepted in the scientific literature. *Id.* ¶ 13 (and Table 1).

The DEIS does not evaluate the extent to which the roads created for construction and later maintenance of the project will lead to invasion of weeds into currently weed-free or low-weed areas, or cause the adjacent ACEC and other nearby lands to be more seriously impacted by invasive weeds. BLM must explain what the baseline conditions for weeds are in the area where

<sup>13</sup>Leppig, G. and J.W. White. 2006. Conservation of peripheral plant populations in California. *Madroño* 53(3):64-274.

<sup>14</sup>Kelly, A. E. and M.L. Goulden 2008. Rapid shifts in plant distribution with recent climate change. *Proc Natl Acad Sci USA* 105:11823–11826.

<sup>15</sup> This Declaration was filed in federal court in *Oregon Natural Desert Association v. McDaniel*, No. 09-369-PK, on July 23, 2010, a case in which BLM is a defendant.

Alphabiota Environmental Consulting conducted the botanical survey for this project according to BLM guidelines.

Impacts as a result of invasive weed species are discussed in Section 4.4.1.2 Direct and Indirect Effects by Alternative and Appendix B-1: Weed Management Plan.

These effects are described as a potential impact of the proposed project, which includes roads in Section 4.4- Biological Resources Impacts and Appendix B-1: Weed Management Plan.

the generation turbines, access roads, and transmission lines will be located. Without the baseline information about existing weed conditions, BLM cannot make a non-arbitrary decision about the effects of weeds from the project's construction and operation. The DEIS's discussion of mitigation, indicating there will be a weed management plan in place—which, of course, has not yet been developed, and therefore we cannot comment on—is inadequate because it does not analyze whether or not that plan will actually be effective in controlling weeds.

Finally, Table 2-7, MM-BIO-2 (DEIS at 2-47) says that yuccas and cacti salvaged from the project may be tagged for commercial purposes. All Joshua trees, Mojave Yuccas, and cacti should be kept on site, and *not* mulched, and not sold, and a special nursery area should be set up so that the plants can be transplanted on site or in the surrounding ACEC. The yuccas and cacti should be watered to keep them alive and used to revegetate the project site after decommissioning.

**F. The DEIS does not disclose and evaluate adequately the likely impacts to wilderness values, wilderness areas, and other protected areas.**

The DEIS does not discuss whether visual impacts from the construction and operations of the turbines (and noise impacts for the turbines closest to the Wilderness borders) violate BLM's non-impairment mandates under the Wilderness Act and FLPMA. Sound levels even up to a half a mile (approximately 600 meters) from wind turbines can be up to 50 to 70 dBA—approximately the loudness of a vacuum machine. Exhibit 25. Please quantify and evaluate the likely loudness of turbines areas with wilderness character, including the surrounding ACEC, to allow an accurate determination of whether conditions should be imposed on the ROWs requiring turbine setbacks from these areas to protect their character as wilderness and areas with opportunities for solitude and quiet recreation. Granting a ROW that allows construction of turbines that mar the viewshed and soundscape within areas containing wilderness values violates both the Wilderness Act and FLPMA. The proximity of a large, heavy-industrial project adjacent to ACECs, Special Management Areas, wilderness areas, and the Lake Mead NRA is not acceptable and not justified by the DEIS's paucity of disclosure of effects on these areas.

The DEIS notes (at 3-40) that there are six designated Wilderness Areas near the proposed project site. If BLM deemed these nearby areas worthy of preserving, as well as the ACEC that surrounds the site, why would the agency be considering destroying this area immediately adjacent to Searchlight? The turbines will be visible from several of the six wilderness areas, as well from as the Mojave Desert Preserve in California. How can these still areas still be considered wilderness if they are in proximity to heavy industrial development? Has BLM evaluated the visual impacts from this project in those areas, and what the noise impacts are? The DEIS contains no information about this. BLM should evaluate how the appearance during the daytime and at night of a large array of tall, spinning turbines will affect the visual resources and opportunities for solitude and primitive recreation in nearby areas that are designated as Wilderness or contain wilderness values.

Additionally, studies have shown that under certain atmospheric conditions, noise from wind turbines can be heard for 15 kilometers (approximately nine miles). This range would

Refer to Section 4.4.1-Vegetation and Table 2.6-2. Mitigation Measures. Specifically MM-BIO-2 has been updated to include current BLM Cactus and Yucca Salvage Plan standards.

Section 603(c) of the FLPMA states, "...the Secretary [of the Interior/BLM] shall continue to manage such lands according to his authority under the Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness ...". The effects of noise and visual effects were not determined to affect any of the nearest six Wilderness areas, located 5-12 miles from the proposed action, therefore the project would be in compliance with this FLPMA-mandated non-impairment standard

include the Sprit Mountain Wilderness Area. Please explain why these effects are not evaluated in the DEIS and please disclose and analyze these effects.

**G. The DEIS does not disclose and evaluate adequately the likely impacts to social and economic values.**

The socioeconomic impacts of wind turbines and transmission lines in potential renewable energy development go far beyond the value of the electricity produced by such projects or the construction, operation and maintenance jobs which may be created. While certainly beneficial in advancing our national quest for renewable energy and our important goal of reducing global warming pollutants, industrial-scale generation and long-distance transmission of renewable energy (as is the case with all industrial developments) will leave permanent impacts on the landscape which is an important economic driver in this region. The public lands that may be impacted by this proposed transmission project are important and valuable to all Americans. Development of these lands for energy transmission should be considered carefully and should account for all their potential values – both market and non-market.

Notably, the DEIS does not account for the costs associated with the project (including reduced or degraded recreation visitation and effects on property values from loss of open space), nor does the DEIS address the economic benefits associated with undeveloped public lands, does not assess an alternative which avoids undeveloped public lands in favor of private lands, does not explore the benefits of siting this project on previously developed, contaminated or degraded lands (brownfields), the DEIS fails to consider the non-market values affected by the project. The DEIS examines only potential jobs and income using IMPLAN (DEIS at 4-97) and does not assess the impacts of the proposed project on other sectors of the economy. Accordingly, the DEIS's conclusion that "the two action alternatives would result in favorable short-term and long-term effects for the local and regional economies," DEIS at 4-126, is unsupported by the evidence and analysis provided and is an arbitrary and capricious conclusion.

**1. The DEIS fails to estimate net economic benefits.**

The DEIS describes several purported socioeconomic benefits from the project, and then goes on to state that "[n]o adverse impacts to socioeconomic conditions are anticipated" DEIS at 4-110. However, NEPA requires a disclosure of *all* socioeconomic impacts—not only beneficial ones, and therefore the DEIS must include the costs associated with any activity. The *net* benefit of a project is not comprised solely of income and employment. It is absolutely impossible to estimate the *net benefits* of a project without including *all* costs, and to make such an assertion calls into question the credibility of the entire economic analysis. The DEIS does not allow a meaningful evaluation of the net benefits of the proposed project because it does not include any socioeconomic costs.

To address this error, BLM must reevaluate the proposed alternatives using transparent methodology which includes all the costs associated with the development. Any negative impact will inflict costs on at least some stakeholders. The DEIS ignores the long-term impacts that this

IMPLAN is the accepted standard for NEPA analysis.

Assessment and identification of impacts based on data, analysis, and documented impacts from past projects. This comment indicates confusion between very different economic concepts of impacts versus benefits. Comment contains speculation and cannot be documented.

project would have on real estate, property values and Searchlight's potential to grow as a tourism and retirement community. The DEIS needs to examine the boom and bust effect that this project will have. Just about all the construction jobs will go to workers from outside the local community. No local residents would get jobs. People will not visit Cottonwood Cove in the Lake Mead NRA as often, if at all. This industrial-scale energy project will only create five to ten full-time jobs. There is no information provided on the negative impacts the project will have on the local economy. The impacts to the existing economy must be disclosed, and analyzed, in the discussion of both socioeconomic impacts and environmental justice impacts.

In developing the socioeconomic analysis for development such as an industrial-scale energy generation and transmission project on or impacting public lands, BLM should favor those projects which provide the greatest *net* benefits to the American public. The analyses conducted in the DEIS for the Searchlight Wind Project are inadequate to assess net benefits because it does not account for the costs of the project. This is unacceptable.

Renewable energy development, like any industrial development sited on public lands, will have negative impacts on the lands on which the project is built and on surrounding public lands into which the effects of the project extend, and these impacts may be as great as those associated with other energy development. We do recognize that the production and use of renewable energy, if it replaces that of fossil fuel energy, will also have benefits. These include the lessening of greenhouse gas emissions from electricity production which, in turn, will be beneficial to undeveloped public lands by reducing the already measureable impacts of climate change.

At the same time, in light of climate change, undeveloped public lands are also increasingly important as a source of habitat for species impacted by climate change, as a source of forest and other vegetation which acts as a "carbon sink" and is thus important for mitigation of climate change. Undeveloped lands are also a source of increasingly scarce clean water and other ecosystem services. Any energy transmission projects (even those targeting renewable energy) sited on undeveloped lands (both public and private) will reduce these benefits. These costs should be included in a revised economic assessment of the project in order to do a complete analysis of net public benefits.

Please specifically describe and quantify the costs of the carbon dioxide offset that will be lost by the removal of cryptobiotic soil crusts and vegetation that would result from construction of the project.

BLM must make a quantitative assessment of all the costs associated with the proposed project. Because BLM must circulate a supplemental DEIS to address other deficiencies in the DEIS, this assessment should be included in the supplemental DEIS.

These costs include:

- Costs associated with impacts to wildlife, including desert tortoise, bighorn sheep, golden eagles, other raptors and other migratory birds, bats, and other wildlife;

---

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

75

Section 4.12-Socioeconomic Impacts discloses impacts to socioeconomic conditions and has been updated to include potential effects on recreation and tourism. No negative impacts are anticipated. For further information see the newly added appendix F: Literature Review of Socioeconomic Effects of Wind Project and Transmission Lines.

Refer to Section 1.3.1-BLM's Purpose and Need for the Proposed Project and 1.3.3-Western's Purpose and Need. Maximizing net social benefit is not a requirement of NEPA.

NEPA does not include a provision for monetary evaluation of these resources.

- Costs associated with scenic and visual impacts;
- Costs associated with noise impacts;
- Costs associated with impacts to water;
- Costs associated with impacts to recreation, including the costs associated with potential damage from enhanced ORV access *if* access would truly be available along project roads, and the damage such access may cause to non-motorized recreation;
- Costs associated with invasive weeds and other impacts to vegetation, including the negative impacts of herbicide use;
- Costs associated with damage to cryptobiotic soil crusts and
- Costs associated with impacts to cultural resources.

Finally these costs should be assessed in a cumulative fashion, as they are often interrelated. BLM must assess the economic costs associated with these impacts and include the costs in a true analysis of net economic benefits.

**2. The DEIS fails to consider the effects of the project on the town of Searchlight including effects on tourism and low-income and elderly populations.**

The DEIS is replete with inaccurate or misleading data regarding socioeconomic effects. BLM must present accurate baseline information for its NEPA analysis to be valid. Please correct the following deficiencies in the Final EIS and in any supplemental DEIS.

The number of truck trips (9,025) for the Preferred Alternative will have a profound effect on tourism on Cottonwood Cove Road. DEIS at 2-33. Assuming even one-half of the truck trips are on that stretch of narrow (24-foot wide) paved road, this will have a direct conflict with tourists and particularly recreationalists towing their boats down this already dangerous stretch of road. According to the National Park Service, Cottonwood Cove has 300,000 visitors annually. The conflict between tourist traffic and construction traffic has the potential to be very deadly, and also to discourage visitors from visiting the Lake Mead NRA and the Searchlight area generally. How many people are likely to be killed from such encounters? There are traffic statistics and probability analyses readily available, and these are used elsewhere in the DEIS. Why has BLM not done more than refer to generalized potential for effects on tourism? BLM should analyze, and quantify, the likely impacts of construction and operation of the project on the presence and safety of tourists who would use Cottonwood Cove Road and the surrounding area.

Rather than using Mohave County, Arizona data, why wasn't data from portions of San Bernardino County, CA, used? DEIS at 3-92. The Colorado River presents an enormous physical and geographic divide between Nevada and Arizona. No roads cross the river between Hoover Dam and Laughlin, Nevada, a distance of more than sixty miles. Influence on and access to the project is more likely to occur from California than from Arizona.

Are these comparisons (in the DEIS) used because the same studies were done for the proposed White Hills Wind Farm in Mohave County, Arizona?

Refer to impacts and mitigation measures discussed in Section 4.7-Transportation Impacts.

Section 4.12 – Socioeconomic Impacts has been updated to include a discussion on impacts to recreation and tourism.

Comment noted.

The DEIS states the “physical energy infrastructure serving Clark County and would potentially provide electrical power to the region.” DEIS at 3-92. As of January, 2012, applicant did not have a power purchase agreement (PPA). The state of California is providing its own renewable energy. Arizona is on track to meet its RPS. If applicant does secure a power purchase agreement with a utility in another state, I fail to see how that will benefit the residents of Southern Nevada. Any tax benefits to the county and state would be offset by loss of wildlife habitat, loss of recreation opportunities, and the loss of rural lifestyle, no matter where the expensive wind power is sold.

The DEIS should be updated to reflect 2010 Census data rather than the obsolete 2000 Census data. DEIS at 3-92.

This DEIS provides an accurate description of the area. DEIS at 3-94. Particularly important is the recognition of Searchlight as “. . . the gateway to popular Lake Mohave in the Lake Mead NRA.” This further enforces the obvious conclusion that this area is not an acceptable site for an industrial scale wind energy generation facility. BLM should not grant the ROWs for this project.

For the discussion at DEIS page 3-94, once more, why is 2010 Census data not incorporated? If the projections for 2013 are based on data from 1990 through 2008, they are way off the mark. Population peaked in Clark County in approximately 2007-2008, and has since declined. DEIS should be revised to reflect actual Census data for 2010, and projections recalculated through 2015. BLM has ready access to this information and should disclose current information, particularly when making a decision for a project that would be a permanent fixture of the local environment for at least 30 to 50 years.

Once more, DEIS presents four-year old data. DEIS at 3-97. Re-do tables with 2010 Census statistics.

Use of data for housing prices from 2008 is totally erroneous. DEIS at 3-98. Furthermore, 2008 was a volatile year for the housing market, and the DEIS provides inadequate baseline information by failing to identify what month the price data relates to (or whether, instead, it is the median price for the year). This data is stale. Data on real estate pricing is readily available from many sources. For example, the median asking price for an existing home in Las Vegas in April 2012 is \$120,000. Exhibit 26. This is far closer to reality than the 2008 median value of \$284,094 listed for Nevada. In fact, Exhibit 26 shows that housing prices dropped nearly 50% from a median of \$238,858 in June 2008 to \$120,000 in February 2011 (one year before the DEIS was published), and have stayed almost the same since February 2011. Land prices in the Las Vegas area in mid-2011 had declined 83% from their peak at the end of 2007. Exhibit 27. The installation of an industrial-scale energy project would further depress an already-depressed housing market in the area, or at a minimum prohibit any recovery from the current lows. There is no explanation for why data that is more than three years old appears in the DEIS, and BLM must update this with current data accurately depicting the dire current conditions of the local housing market.

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

77

Section 3.10-Socioeconomics has been updated to 2010 Census and 2016 projections.

Comment noted.

Why is no mention made of the tourists (non-gaming) who recreate at Lake Mohave? DEIS at 3-100. This includes boaters, fishermen, campers, hikers and also the eco-tourists who come to enjoy the quiet of the Joshua tree woodlands? These tourists eat in the restaurants, buy gas, and buy food at the convenience stores. This source of economic input will largely be lost forever if the turbine project is built. Searchlight is more than just casinos and a way to travel between Nevada, Arizona, and California.

Again, data should be specific to Searchlight, and be at least as current as the 2010 Census. DEIS at 3-101. A quick drive around the region will verify that actual Searchlight income is more like that of Bullhead City, Arizona. Many residents are totally dependent on Social Security for their income. The report does note that the SIA has more people with incomes below \$50,000 than the two-county region. Very possibly the incomes in 2012 are even lower than those reported for 2008, due to the decline of the economy in the entire nation, and particularly in the Southwest.

The graph on page 3-102 only extends to 2000. The report states that "Overall during this period (1970 to 2000) the relative level of prosperity in the region was improving." That may have been true then, but between 2007 and 2012 the economic bubble burst, and the economics of the region today is far different. Many local economists feel the bottom still has not been reached. Nevada has the highest unemployment in the nation. In December 2010, unemployment in the Las Vegas-Paradise metropolitan statistical area had risen to 14.9%, a new all-time high for the region. Exhibit 28. Until tourism rebounds this will not change. The DEIS presents a false picture of the baseline economic conditions and does not comply with NEPA's obligation to present high quality information, and BLM demonstrates no reason why it could not have used current data.

The DEIS notes that nearly 30% of all jobs in the Searchlight Project Impact Area ("SIA")<sup>16</sup> are in the tourism sector, compared to less than 8% in the United States as a whole. DEIS at 3-102. In Searchlight proper, a whopping 56% of jobs depend on tourism services. If this project were built, it would create a few short-term jobs for out-of-town specialists, but in the long term would destroy the tourism in the immediate area. Therefore, the ROW should not be granted.

The temporary increase in construction workers is guaranteed to result in increased crime and auto accidents. DEIS at 4-96. Clark County and Searchlight infrastructure, including police, firemen and paramedics, are not prepared to handle these issues in a remote area. BLM must define "Result in a tax burden to local residents not offset by the Proposed Action's generation of new public revenue." Searchlight is not incorporated, and taxes are set by the state and county.

<sup>16</sup> Defined on page 3-92 as an area of about 2,052 miles of land encompassing 18 census tracts that will most likely be affected by the project.

Section 4.12 – Socioeconomic Impacts has been updated to include a discussion on impacts to recreation and tourism.

Section 3-12-Socioeconomic Impacts has been updated to 2010 Census.

SIC codes end in 2000, causing end to that data series. Data updated to 2010 Census and current conditions wherever possible.

Comment noted.

Refer to Section 4.12-Socioeconomic Impacts under the Fiscal Impacts.

Using the methodology for calculating “benefits” from the project, we gather the following: Clark County may benefit, but the people of Searchlight will suffer. Searchlight’s economy for years has been dependent on tourism. This project will effectively destroy tourism at Cottonwood Cove for one to two years. The increased revenues from feeding and housing the construction workers during that period is unlikely to replace the tourism dollars. The increased spending resulting from the project will occur in Las Vegas, Laughlin, Bullhead City, and even more distant sources of supply. Land Lease payments made to BLM go to the U.S. Treasury; sales tax goes to the state; property taxes go to the county and state. Searchlight will be left worse off economically and “social benefit-wise” than before the project.

The one group that will directly benefit from the project is the shareholders of Duke Energy. CEO James Rogers has been quoted as saying, when asked why Duke invested in wind projects, that wind projects guarantee Duke Energy from 17 to 22 percent return on equity. This is particularly obscene, when one considers the damage to the people of Searchlight and the desert environment surrounding the town. The National Legal and Policy Center has documented Duke’s investments and government aid it receives for renewable energy projects. Paul Chesser, Taxpayers Get Hosed on Duke’s Energy Wind Farm Buying Spree, National Legal and Policy Center, Aug. 4, 2011, available at <http://nlpc.org/stories/2011/08/03/duke-energys-lucrative-wind-farm-buying-spree> and attached as Exhibit 29.

Also, the location of the project surrounding the town on three sides will prevent future growth for Searchlight. The project is a “lose-lose” for the Searchlight and its residents.

The DEIS states a 2008 economic model for Clark and Mohave counties was used. DEIS at 4-97. That was four years ago. What would a current economic model show? Also, the royalty lease payments to BLM will go to the U.S. Treasury, Washington, D.C., so that is not a benefit to Searchlight or to Nevada. *Id.*

The property tax and sales tax abatements provided by the state and county for renewable energy projects are not an argument in favor of the project. *Id.* A business not eligible for these lucrative tax abatements would result in more tax resources for the state and county. Renewable energy should be considered a tax drain, not a cash cow.

The statement “The land would retain its rural desert qualities, and the habitats supporting ecosystems and species would not be altered from project-related encroachments,” is true, under the “No Action” alternative. DEIS 4-98. In addition, the people of Searchlight and the surrounding area could continue to enjoy their rural lifestyle; tourists could continue to find enjoyment in the natural environment surrounding Lake Mohave. Native Americans could continue to visit and worship at sacred Spirit Mountain without the beauty of the nearby desert having been destroyed; Searchlight residents could continue to enjoy the beautiful views of Spirit Mountain and Lake Mohave, and enjoy stargazing under the dark, quiet night skies. Eagles, bats, tortoises, desert bighorn and other wildlife could continue to survive in their natural habitat.

The balance of the paragraph regarding the “No Action” alternative has statements that are unbelievable and supported by nothing but wishful thinking “. . . final end-use retail

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

79

Speculative. This comment indicates confusion between very different economic concepts of impacts versus benefits.

Comment noted.

Comment noted.

The economic linkages contained in IMPLAN models are quite stable, i.e. the set of inputs required producing a good or service changes little over a four-year period. Prices are adjusted to 2011 dollars. Royalty lease payments are not included in direct impacts. Note total operations annual budget of \$8.15 million and total local expenditures (or direct impacts) of \$2.95 million in EIS Table 4.12-3. Summary of Project Annual Operations Expenditures for 96 WTG Layout Alternative.

The EIS is merely disclosing the information on tax abatements, not defending it.

Comment noted.

This sentence has been removed from the EIS.

consumers would not experience any positive sense of social well-being because this alternative would not involve construction and operation of the wind energy facility and delivery of emission-free power.” BLM must provide quantitative data that explains how the end-user will know which electrons are being used and how and where they were generated when he turns on his light switch? This would be an enlightening study.

It is further stated: “The socioeconomic well-being of project construction and O&M workers and suppliers to the renewable energy industry would not be favorably affected under this alternative since the Proposed Project would not be built and operated.” Again, please quantify the socioeconomic impact of something that never happened—or provide the consumer surveys regarding the Searchlight Wind Project that were collected and used to make this statement.

What would no doubt be measurable would be the improved attitude of the local people whose lives and environment are not damaged by this proposed project. Thus, the No Action alternative would have very positive socioeconomic impacts in the immediate areas of Searchlight, Cal-Nev-Ari and Cottonwood Cove. There would also be no need to count dead eagles and other dead birds, dead bats, and dead tortoises under the No Action alternatives.

Why is so much emphasis placed on the “social well-being” of transient construction workers, and so little emphasis placed on the “social well-being” of the long-time residents of the area who love their rural life style? DEIS at 4-100. The construction workers would have 8–12 months of “social well-being,” while the permanent residents would be sentenced to looking at and listening to 428-foot tall turbines for the rest of their lives.

Has an agreement been struck with Duke Energy to confirm their agreement with the figures presented? DEIS at 4-110. Duke Energy has a history of challenging their tax bills. The states of Wyoming and Ohio have had difficulties collecting property taxes from Duke Energy. Dustin Bleizeffer, Duke Energy Disputes Taxes, Casper Star-Tribune (Sept. 5, 2010), available at [http://billingsgazette.com/news/state-and-regional/wyoming/article\\_584efb76-b88e-11df-b372-001cc4c03286.html](http://billingsgazette.com/news/state-and-regional/wyoming/article_584efb76-b88e-11df-b372-001cc4c03286.html) and attached as Exhibit 30. Please also refer to the video news report regarding the dispute in Ohio: [http://www.clipsyndicate.com/video/play/1571412/duke\\_energy\\_reaches\\_temporary\\_agreement\\_on\\_tax\\_dispute](http://www.clipsyndicate.com/video/play/1571412/duke_energy_reaches_temporary_agreement_on_tax_dispute)

Finally, the DEIS incorrectly asserts that there are no environmental justice issues involved in the development of this project. DEIS at xvii. However, given the high number of low income senior citizens who cannot afford to move, why is this group not considered a “minority population” whose status should be considered?

Figures regarding low-income populations were calculated using 2000 Census Data. DEIS at 3-106. This data is entirely too dated to use for Nevada demographics. There has been a great deal of change in the economy and population of Searchlight since 2000. A letter approved at a recent meeting of the Searchlight Town Advisory Board (“STAB”), supporting funding of the “Silver Rider” public transportation system, noted that “[p]ublic transportation is vital to the

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

80

Comment noted.

The existing setting describes the current conditions. The impact analysis presented in Section 4.12-Socioeconomic Impacts, compares the build alternatives with a no build option; the No Action.

Social well-being is addressed in Section 4.12.2.2-Proposed Action - 96 WTG Layout Alternative under Local Private Land Owners/Residents/Large Lot Owners.

Comment noted.

Only minority, tribal, and low-income populations are examined in environmental justice. Seniors cannot be documented as a group to be low-income. The EIS has been updated to utilize 2010 Census data.

Table 3.13-1. Estimated 2010 Families with Incomes Below National Poverty Level has been updated to 2010 Census data. (Zero persons in Searchlight CDP were documented living under poverty in 2010.)

community of Searchlight, particularly in these difficult economic times. Searchlight has a high population of senior citizens, as well as low-income residents, who are public transit dependent.” January 11, 2012 STAB Minutes at 3 (on enclosed CD-ROM). These facts are not reflected in the DEIS. BLM needs to redo calculations using 2010 Census data. The table on page 3-106 showing the estimated 2008 number of families with incomes below the national poverty level should be revised using, at a minimum, 2010 Census data. Searchlight and the State of Nevada have suffered significantly during the recession that began in 2008, so even the 2008 estimates are no longer representative of conditions in 2012. More current data may reflect an entirely different socioeconomic status. The many elderly, low income people could not afford to move away from an operating industrial wind energy project at Searchlight, even if it was impacting their health and well-being.

The DEIS notes that Cottonwood Cove Road passes by some of the newer homes in Searchlight. DEIS at 4-122. Please note that very few of these homes were ever sold. The developer went bankrupt, and the empty homes are now bank-owned, and priced at approximately one-third of the original asking price. The possibility of the homes being in the proximity of an industrial wind energy project has contributed to the low asking prices. Realtors are obligated to inform potential buyers of the plan for an industrial wind project nearby. The DEIS states that “no negative impacts on property values from construction and O&M of the 87 WTG Layout Alternative could be documented.” DEIS at 4-112. This statement is incorrect. Studies in other states and in Canada have proven that values of private property land within sight of wind turbines are immediately devalued by at least 30 and up to 40 percent. *See Exhibits 31 and 32.*

Finally, the DEIS fails completely to disclose and discuss the impact of the project on the local community as evidenced by essentially unanimous local opposition to the project. The extent of this opposition, and the deleterious effect the project would have on the local community, are important factors that the decision maker should consider before approving this project. As one commenter put it, “[w]hile it was once rare that local citizens would organize opposition to utility-scale wind projects this early in the permitting cycle, it is now increasingly the norm throughout the country.” Roopali Phadke, *Resisting and Reconciling Big Wind: Middle Landscape Politics in the American West*, at 755 (on enclosed CD-ROM). The Phadke article provides a thoughtful description of the impacts of industrial-scale energy projects on local communities that must be disclosed and evaluated before BLM issues ROWs for this project, with a particular focus on the impacts of the Searchlight project. *See also* Susan Lorde Martin, *Wind Farms and Nimbys: Generating Conflict, Reducing Litigation*, *Fordham Envtl. L. Rev. Environmental Law Review*, Vol. 20, Nos. 2 & 3 (Winter 2010): 427-68 (highlighting the Searchlight project and describing the unanimity of local opposition) (on the enclosed CD-ROM).

### **3. The DEIS fails to estimate the benefits of protected lands for the local economy.**

The mere presence of undeveloped public lands and the natural and recreational amenities that they provide produce measurable economic benefits for local communities. Development of the project will dramatically reduce these benefits, which should be assessed in

Judy Bundorf – Friends of Searchlight Desert and Mountains – Basin and Range Watch  
Comments on Searchlight Wind Energy Project DEIS, April 2012

Section 4.12-Socioeconomic Impacts has been updated to include potential effects on recreation and tourism. For further information see the newly added ppendi x F: Literature Review of Socioeconomic Effects of Wind Project and Transmission Lines.

Comment is speculative. The EIS describes impacts judged likely after project construction, not impacts anticipated by some prior to construction.

IMPLAN is the accepted standard for NEPA analysis. Tourism and Recreation businesses are included. The set of amenities available to potential amenity in-migrants is not judged to have changed substantially as a result of this project. Section 4.12-Socioeconomic Impacts has been updated to include potential effects on recreation and tourism. For further information see the newly added ppendi x F: Literature Review of Socioeconomic Effects of Wind Project and Transmission Lines.

the Final EIS and any supplemental DEIS. The impacts on undeveloped lands represent a significant class of costs that must be addressed.

The economic benefits of undeveloped lands for local economies is well documented and has grown in importance as the U.S. moves from a primary manufacturing and extractive economy to one more focused on service sector industries. This shift means that many businesses are free to locate wherever they choose. The “raw materials” upon which these businesses rely are people, and study after study has shown that natural amenities attract a high-quality, educated and talented workforce – the lifeblood of these businesses.

As the economy of the West evolves, public lands, especially areas protected from development, are increasingly important for their non-commodity resources – scenery, wildlife habitat, wilderness, recreation opportunities, clean water and air, and irreplaceable cultural sites. A vast and growing body of research indicates that the economic prosperity of rural Western communities depends more on the natural amenities found on public lands and less on the extraction of natural resource commodities.<sup>17</sup>

New residents in the rural West often bring new businesses, and these are rarely tied to resource extraction or other development on public lands. Some are dependent directly on the recreation opportunities on the surrounding public lands. Entrepreneurs are also attracted to areas with high levels of natural amenities. The Federal Reserve Bank of Kansas City has found that the level of entrepreneurship in rural communities is correlated with overall economic growth and prosperity (Low 2004). These businesses may be harmed or deterred if the quality of the scenic and natural amenities is degraded due to renewable energy developments. The Final EIS for the Searchlight Wind Project must assess the value of undeveloped public lands and include criteria which will ensure that the economic role of these lands is not deterred when these renewable energy developments and any associated transmission lines are constructed.

Retirees and others who earn non-labor income are also important to rural western communities. Investment and retirement income makes up 31.9% of total personal income in Clark County and 33.7% in Nevada.<sup>18</sup> If this income were considered an industry it would be nearly as important as tourism, and—like tourism—is likely to be negatively impacted by the proposed transmission project. Retirees are attracted by natural amenities that are available on undeveloped public lands. The potential impact that the development of the project will have on

---

<sup>17</sup> See Whitelaw and Niemi 1989, Rudzitis and Johansen 1989, Johnson and Rasker 1993 and 1995, Freudenburg and Gramling 1994, Speninger et al. 1995, Deller 1995, Power 1995 and 1996, Bennett and McBeth 1998, Duffy-Deno 1998, McGranahan 1999, Nelson 1999, Rudzitis 1999, Morton 2000, Lorah 2000, Rudzitis and Johnson 2000, Deller et al. 2001, Johnson 2001, Shumway and Otterstrom 2001, Lorah and Southwick 2003, Rasker et al. 2004, Holmes and Hecox 2004 and Reeder and Brown 2005, Sonoran Institute 2006, and Barrrens et al. 2006 and Haefele et al. 2007.

<sup>18</sup> Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (<http://www.bea.gov/>). Figures are for 2009, the most recent year available with this detail.

IMPLAN is the accepted standard for NEPA analysis. The set of amenities available to potential amenity in-migrants is not judged to have changed substantially as a result of this project. Section 4.12- Socioeconomic Impacts has been updated to include potential effects on recreation and tourism. For further information see the newly added ppendi x F: Literature Review of Socioeconomic Effects of Wind Project and Transmission Lines