

Basin and Range Watch



**Western
Watersheds
Project**

August 23, 2023

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Nevada State Office
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Via email to BLM_NV_greenlinkwest@blm.gov

Re: Comments on the Greenlink West Transmission Project Draft Environmental Impact Statement/Resource Management Plan Amendment - DOI-BLM-NV-0000-2022-0004-EIS

Basin and Range Watch is a nonprofit working to conserve the Mojave and Great Basin deserts and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert.

Western Watersheds Project is a non-profit organization with more than 12,000 members and supporters. Our mission is to protect and restore western watersheds and wildlife through education, public policy initiatives, and legal advocacy.

1. General Comments

The Bureau of Land Management (BLM) is preparing an Environmental Impact Statement and Resource Management Plan Amendments (RMPA) for the right-of-way application submitted by NV Energy for the Greenlink West Project. The Greenlink West Project is proposed to be a system of new 525-kilovolt (kV), 345-kV, 230-kV, and 120-kV electric transmission facilities on private, state, and federal lands. The project would run from Apex to Reno through Clark, Nye, Esmeralda, Mineral, Lyon, Storey and Washoe counties.

The DEIS is not complete and leaves out valuable information about types of poles sites, local master plans, visual resources, cultural resources, impacts to some remote regions (between Esmeralda and Hawthorn) etc. For example, how many of the VRM Classes are undetermined?

The DEIS needs to provide a much better guide to using this DEIS and locating information. It appears to be rushed through too fast. There should be a supplemental EIS simply to cover all the details left out of this one.

The proposed large high-voltage transmission line would create significant impacts to western Nevada.

This badly-planned and rushed transmission line would also open up Amargosa Valley and other remote Nevada basins to widespread and uncontrolled solar development, on deserts that are a hotspot for Mojave desert tortoise, burrowing owls and desert kit foxes. During BLM meetings we raised the concerns about the many proposed utility-scale solar applications needing to be reviewed as connected actions to the Greenlink proposal.

We have continually asked that this giant transmission proposal with its significant impacts be delayed until the Nevada state-wide Resource Management Plan revisions are under public comment. BLM told us this would take too long. Energy planning across the U.S. has suffered from this lack of better planning, and a few years delay will not endanger climate goals—more likely the process of planning renewable energy would be made more efficient and less impactful to natural resources, and towns and communities in Nevada.

A better planning effort would slow down to consider nominated and needed conservation areas, such as Areas of Critical Environmental Concern. Right now the energy developers and Investor-Owned Utilities are driving the process, and conservation needs are being left out or minimized as a concern. This will only cause controversy and potential further delays as all stakeholders are not at the planning table.

Proponent Goals

The developer's goals for building Greenlink West are simply to construct transmission facilities to deliver the projected electric demand in Nevada and to facilitate access to BLM-titled Designated Lease Areas and Nevada Solar Energy Zones, contributing to Nevada's Renewable Energy Portfolio, and helping to meet the goal of 100 percent carbon-free resources by 2050. Greenlink West will connect to the Harry Allen Substation near Apex, Nevada. The DEIS should calculate how many megawatts moving through Greenlink West will be generated from natural gas.

The Draft EIS should discuss in detail the carbon footprint of the 4 natural gas plants that power the substation.

The DEIS says Greenlink West is being built by Solar Energy Zones or Designated Lease Areas. To this day, only one of the Solar Energy Zones have generated interest from developers which is the Amargosa Solar Zone. There are approximately 245 square miles of solar projects associated with the Greenlink West proposal. All of those avoided all 3 of the solar energy Zones

until the Amargosa SEZ leases were auctioned off. To this day, there is still no interest in the Gold Point and Millers Solar Energy Zones. These areas are seeing no interest even with the proposed solar leasing and fee updates because they have to compete for the leases.

The EIS should be paused until the BLM can complete pending land use plans. BLM is currently reviewing a revision to the Western Solar Plan which could create several Solar Exclusion Zones in important areas with sensitive resources. BLM is also reviewing a proposed Conservation Rule which would make conservation a priority in Land Use planning. Because the Greenlink West will cut through areas with multiple valuable resources,

The DEIS should be paused until all the Land Use plans can be resolved.

The BLM has announced that it has funding to review a Nevada-wide Resource Management Plan revision. This would help the public decide the best future for public lands management.

Land use planning can help define the latest values and issues involving these public lands. An RMP revision would require an updated analysis of these values and help the agency better decide the importance of this area. We would like to request that all NEPA review for this proposed project be paused until the Resource Management Plan can be revised.

The Federal Land Policy and Management Act (FLPMA) requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values (Inventories, Section 201). Planning, per FLPMA Section 202, instructs that the Secretary of the Interior shall, with public involvement and consistent with the terms and conditions of the Act, develop, maintain, and, when appropriate, revise land use plans which provide tracts or areas for the use of the public lands. The purpose of a Resource Management Plan (RMP) is to:

1. Allocate resources and determine appropriate multiple uses for the public lands;
2. Provide a strategy to manage and protect resources;
3. Establish systems to monitor and evaluate the health of resources and effectiveness of practices.

RMPs are like a public lands version of municipal zoning. The Bureau of Land Management evaluates and amends or revises its land-use plans in response to changing conditions and demands on the public lands, or when new components are added to the National Conservation Lands that it manages. Keeping a plan up-to-date helps ensure that the BLM manages the public lands in ways that meet the multiple-use and sustained yield goals that Congress has set for these lands. Examples of situations that may require new or changed land-use plan decisions include:

- New information or scientific knowledge about the environmental health of an area.
- Failure to meet the land health standards set out in the original plan.
- Requests for land uses that were not considered in the original plan.

Many older land-use plans, for example, did not consider the possible land-use needs of emerging renewable energy resources. The Las Vegas RMP is 25 years old, and in that timeframe, values, visitation and use of the area have changed

Purpose and Need

BLM's purpose and need statement is narrow and only applies to the ROW/SF 299 application as well as a "need" to manage transmission on public lands.

The Purpose and Need Statement should be rewritten and broadened to include the new conservation goals of the BLM's proposed Public Lands Rule. If the Purpose and Need Statement is broadened to include conservation goals, Conservation Alternatives can be considered. This is already a mandate under the Federal Land Policy and Management Act of 1976 (FLPMA), and the BLM should already be doing this.

The Public Lands Rule is a proposed BLM rule that would provide tools for BLM to protect and conserve public lands¹, bolstering conservation as an equal use in BLM's Multiple Use mandate. The Environmental Impact Statement (EIS) for Greenlink West should analyze how resources along the proposed high-voltage route would be better conserved, not simply used for energy extraction.

Climate Change and Greenhouse Gases

The life cycle of mining iron ore and other metals for the construction of large transmission towers and electrical lines, substations, and microwave towers needs to be analyzed. This includes the open pit mining of ores, including heavy truck and machinery operated using fossil fuels, the smelting of iron ores and other ores to make metal, the transport emissions, and worker commute emissions.

The Greenlink West Project would have over 2,800 poles in total. It can take 40,000 to 60,000 pounds of steel just to build one transmission tower which could be 30,000 tons. What is the carbon footprint of melting all that steel? What is the copper carbon footprint in the transmission line?

The Greenlink transmission Projects are fossil fuel lines that will transmit natural gas electrons from existing natural gas power plants; solar projects hooking in do not negate this fact. The line will hook into natural gas power plants at Apex just north of Las Vegas and eventually transport power north to large tech servers and factories in the Reno-Sparks area. These natural gas power plants generate approximately 2,000 megawatts, and an analysis of CO2 impacts should be undertaken. In addition, life cycle analyses should be completed describing the steel manufacture for the power poles, transportation emissions, SF6 gas emissions, helicopter and diesel construction emissions, and the total carbon footprint of constructing such a massive powerline in remote wildlands, over mountain ranges, and through populous cities.

Biological Soil Crust

¹ <https://www.blm.gov/press-release/update-blm-releases-public-meeting-information-proposed-public-lands-rule>

The DEIS states that biological soil crusts have not been documented in the Greenlink West project area. It is inaccurate for the BLM to assume this is not an impact. The soil crusts have not been documented because the BLM has not been organized enough to have any botanical surveys. If you would like, we can provide GPS coordinates on where we have found soil crusts on the proposed ROW in Tule Springs Fossil Beds National Monument, Corn Creek, Indian Springs Valley, Amargosa Valley, Oasis Valley and Sarcobatus Flat.

Rare plants and vegetation



Figure 1. White-margined penstemon in Amargosa Valley in the route proposed for Greenlink West, 2023. Photo: Kevin Emmerich. See the iNaturalist Amargosa Bioblitz in April 2023 for observations of this species: <https://www.inaturalist.org/projects/2023-amargosa-valley-bioblitz>

Botanical surveys have been poor or lacking along the Greenlink route proposal, with rare plants overlooked, bloom times missed, and new rain events potentially shifting seedbeds.

We suggest improved botanical survey protocols. See Appendix: Suggested New Botanical Inventory Protocols and Requirements.

Vegetation types and plant communities need to be mapped.

Mojave desert tortoise

The Mojave Population of the Agassiz's desert tortoise was listed as Threatened by the US Fish and Wildlife Service (USFWS) in 1990 followed by the designation of critical habitat in 1994. In 2000, the USFWS began systematically surveying tortoise populations in critical habitat and recovery unit areas to determine population trends. Based on their findings (USFWS 2015), which are briefly summarized in the table below.

Recovery Unit: Designated Critical Habitat Unit/Tortoise Conservation Area	Surveyed area (km²)	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km² (SE)	% 10-year change (2004–2014)
Western Mojave, CA	6,294	24.51	2.8 (1.0)	–50.7 decline
Fremont-Kramer	2,347	9.14	2.6 (1.0)	–50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	–56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	–61.5 decline
Colorado Desert, CA	11,663	45.42	4.0 (1.4)	–36.25 decline
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	–29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	–37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	–64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	–52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	–60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	4,160	16.2	4.5 (1.9)	+325.62 increase
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	3,446	13.42	1.9 (0.7)	–67.26 decline
El Dorado Valley, NV	999	3.89	1.5 (0.6)	–61.14 decline
Ivanpah, CA	2,447	9.53	2.3 (0.9)	–56.05 decline
Upper Virgin River	115	0.45	15.3 (6.0)	–26.57 decline
<i>Red Cliffs Desert</i>	<i>115</i>	<i>0.45</i>	<i>15.3 (6.0)</i>	<i>–26.57 decline</i>
Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status	25,678	100.00		–32.18 decline

Figure 2. Summarizing the results of these surveys (USFWS 2015), 17 populations of Mojave desert tortoise are described occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs), including 14 that are on lands managed by the Bureau of Land Management.

The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km² and standard errors = SE), and the percent change in population density between 2004 and 2014. Populations below the viable level of 3.9 breeding individuals/km² breeding individuals per square mile (assumes a 1:1 sex ratio) and showing a decline from 2004 to 2014 are in red.

The results of USFWS surveys in the table show that (a) 10 of 17 populations of the Mojave desert tortoise declined from 2004 to 2014; (b) 11 of 17 populations of the Mojave desert tortoise are no longer viable; and (c) these 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs, which encompass the best remaining tortoise habitats and populations.

The transmission project is not sited within Critical Habitat or a TCA, but this shows how much of a decline has occurred in those protected areas, and how tortoise habitat in other parts of the range of the species is equally important with densities that match Critical Habitat currently. A full analysis of impacts to tortoise should be included in the EIS, as this project has the potential to open up tens of thousands of acres of tortoise habitat to renewable energy development—a massive and significant impact.

The DEIS at 3-198 states:

Steel guyed-V lattice structures are proposed to be used in the Amargosa Valley area.

The Amargosa Valley is Mojave desert tortoise habitat, and important connectivity habitat within the Eastern Mojave Recovery Unit. Much research has shown how lattice transmission towers attract ravens to perch and nest far out into valley bottoms and otherwise open habitat, allowing ravens to penetrate more deeply into tortoise habitat. Huge mortality from raven predation on juveniles and adult tortoises is a leading factor in the species' decline.

This conflicts with statements made in the DEIS that highlight how the construction of lattice towers in relatively pristine, open habitats can have significant impacts to tortoises:

Raptors, including eagles, may use transmission towers for perching and nesting, and they prefer lattice towers that contain diagonal and horizontal bracing (APLIC 2006; Dixon et al. 2013). It is anticipated that under the anti-perching/nesting mitigation measures, eagles use of transmission structures would be slightly less in desert tortoise and Bi-State sage-grouse habitat areas in comparison to the Action Alternatives without the mitigation measures because of the reduction in lattice structure types, which would reduce the number of potential nesting and perching structures available to eagles. (DEIS at 3-104)

As described in Section 3.1 Federally Listed Species, an anti-perching/nesting mitigation measure would be implemented to replace guyed lattice towers with tubular H-frame towers to reduce the overall nesting and perching of ravens within sensitive habitat areas for Mojave desert tortoise and Bi-State sage-grouse. (DEIS at 3-95)

The DEIS claims that anti-perching mitigation measures in desert tortoise habitat include using tubular poles that discourage raven and raptor perching and nesting. Yet the DEIS at 3-49 says:

The majority of the 525-kV transmission line associated with the Action Alternative would use guyed lattice structures rather than tubular H-frame or monopole structures. The anti-perching/nesting mitigation measure would convert approximately 151 miles of the lattice structures in Mojave desert tortoise recovery unit areas to H-frame structures, and approximately 13 miles of the lattice structures in Bi-State sage-grouse habitat areas to H-frame structures.

Why is the Amargosa Desert, which includes high-quality tortoise habitat, proposed for lattice towers?

This contradicts another statement in the DEIS at 40-41, which states:

The Mojave desert tortoise anti-perching/nesting mitigation measure would result in less impacts on Mojave desert tortoises because only tubular structures with perch and nesting deterrent devices on the structures would be used where the transmission line alignment would cross through the Eastern Mojave and Northeastern Mojave Recovery Units. For comparison, the Proposed Action without the mitigation measure would include 151 miles of lattice structures, while the anti-perching/nesting mitigation measure converts these 151 miles of lattice structures to tubular H-frame structures with perch and nesting deterrents. Use of tubular structures with perch and nesting prevention devices would reduce the concentration of raven predation directly around and near the transmission structures in comparison to the 151 miles of lattice structures proposed under the Proposed Action without the mitigation measure, minimizing impacts on individual Mojave desert tortoise and local populations. Use of tubular structures in Mojave desert tortoise habitat, combined with implementation of the GLWP Raven Management Plan (includes raven monitoring measures and use of perch deterrents; Appendix G) would decrease the impacts of the Proposed Action and the Losee A, TUSK B, and Beatty A, C, G, and K Transmission Line Route Group Alternatives on Mojave desert tortoises.

Amargosa Valley is in the Eastern Mojave Recovery Unit for the Mojave desert tortoise.

Coates et al. (2014) found raven abundance increased within 2.2 km of transmission lines. Raven predation poses a significant threat to tortoise populations.

Holcomb et al (2021) showed that expanding raven populations, subsidized by artificial nesting substrates such as transmission towers, is expected to compromise the inter-generational stability of desert tortoise populations as annual juvenile survival is suppressed through a combination of raven depredation and other sources of mortality. Parts of Critical Habitat Units are now seeing no recruitment of juvenile tortoises into adulthood solely because of artificially increased raven predation, the authors conclude. This tells us that every possible mitigation measure needs to be used to avoid and minimize raven predation in all tortoise habitats, including those areas outside of Critical Habitat, such as the Amargosa valley.

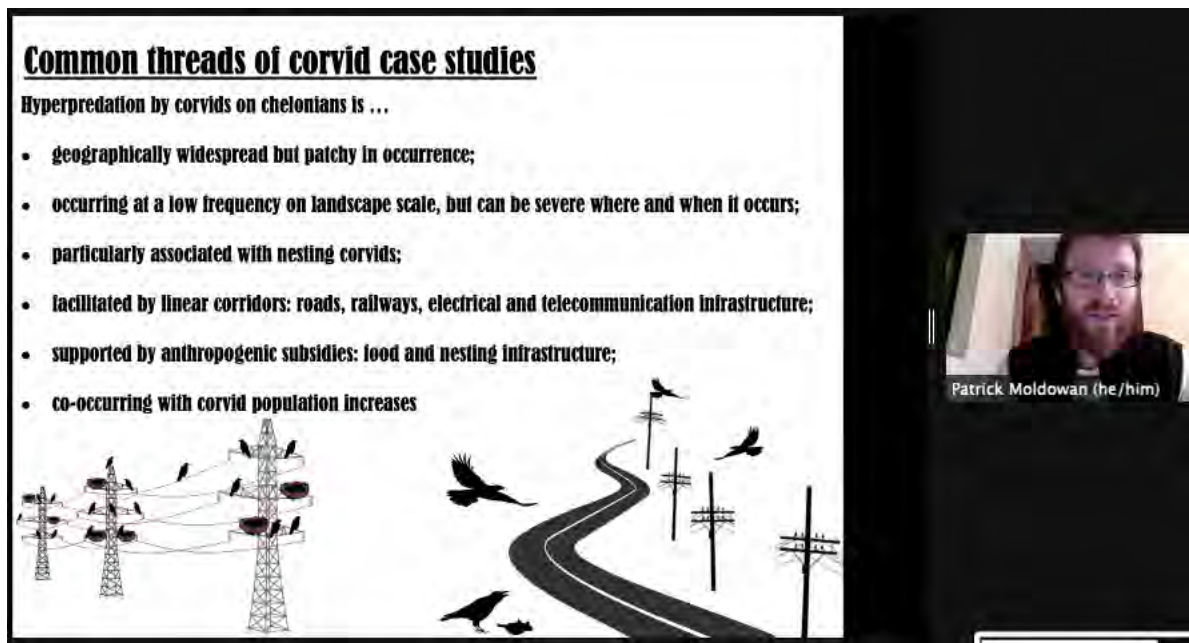


Figure 3. Screenshot of presentation by Patrick Moldowan at the February 2021 Desert Tortoise Council Symposium, held virtually.

Greater sage grouse

The imperiled Bi-State Distinct Population of greater sage grouse is in review for listing under the federal Endangered Species Act, yet BLM fails to avoid Priority Management Units with habitat for this bird. Instead, BLM proposed several unproven mitigation measures that will not fully eliminate collision hazards as sage grouse fly by transmission infrastructure, or raven perches. New roads and microwave towers will further fragment intact sage grouse habitats, pushing this species further into decline.

In its May 17, 2022, Beatty, NV scoping meeting, BLM explained that during the Greenlink West environmental review process, many land use plans may need to be opened and amended, including the 2016 Nevada and California Greater Sage-Grouse Bi-State Distinct Population Segment Land Use Plan Amendment (LUPA) for the Carson City District and the Tonopah Field Office located in Nevada.

The Bi-State sage-grouse Distinct Population Segment of greater sage grouse as a whole is in sharp decline. The extreme drought of 2015-16 caused population crashes in several Priority Management Units (PMUs). Since 2014, Parker Meadow has been augmented with hens and broods to stave off extirpation of this local population.

Now that the Bi-State sage-grouse is once again a candidate for listing under the Endangered Species Act due to recent litigation², this taxon needs a more thorough review and higher level of

² <https://www.westernwatersheds.org/2022/05/court-rules-federal-agency-wrongly-withdrew-bi-state-sage-grouse-protections/>

protection. Simply attempting to amend this plan—which guides multiple agencies and stakeholders towards stabilizing and recovering the bird—in order to construct high-voltage lines over its mountain habitats—is simply unacceptable. Weakening the management of this declining taxon to allow a giant transmission line through its range is counter to the goals of recovery. New transmission creates a risk for catastrophic wildfires in sage grouse habitat. Increased drought and climate change greatly increase this risk.

Large areas of the Pine Nut and Mount Grant PMUs are proposed to be crossed by the proposed high voltage transmission project and associated improved access roads. BLM failed to analyze other alternatives that do not cross Bi-State sage grouse habitat. Proposed critical habitat would be in the Greenlink construction zone, including Pine Nut and North Mono lake units.

Habitat disturbance of intact sagebrush habitat, and collision mortality from transmission towers, wires, new microwave towers and associated infrastructure will not be mitigated by the suggested measures.

The DEIS admits at 3-21:

This area of Bi-State sage-grouse habitat would be fragmented and degraded by the presence of the transmission line and access roads. Although these areas would be become available for use by this species once restoration is complete, sage-grouse have been documented to avoid areas of habitat where tall structures provide perching opportunity to avian predators. Areas that are successfully restored within the vicinity of the transmission line may not provide the same or similar value to pre-project conditions....

And DEIS at 3-22:

A ten year study conducted in central Nevada by Gibson et al. (2018) on the 345-kV Falcon to Gondor transmission line concluded that impacts from raven predation may result in habitat avoidance by sage-grouse to occur up to 7.8 miles from tall transmission lines and other elevated structures (Gibson et al. 2018).

We are surprised that the proponent is proposing lattice tower structures for Greenlink West across the east slope of the Wassuk Range, inside the Mount Grant PMU, and around Walker Lake (DEIS at 3-20). This will attract raven and hawk nesting and a potential increase in predation on sage grouse. Coates et al. (2014) found raven abundance increased within 2.2 km of transmission lines. The EIS needs to analyze tubular poles in these bird-rich areas.

The DEIS at 3-39 says that both the proposed action and the Anti-Perching/Nesting Mitigation mitigation measure action have impacts to Bi-State sage grouse. The mitigation option would have less lattice towers in sage-grouse habitat, but more structures. This seems to negate the mitigation. Structures provide perches and nest platforms for ravens, which prey on sage grouse and their chicks and eggs. More structure also provide a collision hazard for flying sage grouse.

The DEIS at 3-40 admits:

Ravens have been documented to have a substantial impact on prey population dynamics even at low densities (Brusse and Coates 2018). Coates and Delehanty (2010) observed that an increase of 1 raven per 6.2 mile (10 kilometers)- transect was associated with a 7.4 percent increase in the odds of a greater sage-grouse nest failure.

New infrastructure and ROWs do not avoid all development within greater sage grouse PACs. Especially concerning are the connected solar projects proposed along the Greenlink lines. All transmission infrastructure should avoid all PMUs.

The Humboldt-Toiyabe National Forest plan amendment calls for management measures that minimize impacts to sage-grouse:

- No more than 3% surface disturbance per square mile, averaged across a 4.7-mile radius around sage grouse leks (AA-S-02).
- Authorize new roads only when necessary and minimize footprint in habitat (AR-S-01).
- Use existing roads and co-locate powerlines to minimize footprint of rights-of-way for valid existing rights (LUSU-S-01).
- Where feasible, bury powerlines in occupied habitat (LUSU-G-04).
- Do not grant new ROWs in occupied habitat (LUSU-S-01).
- Require proper containment and prompt removal of refuse to avoid attracting predators/scavengers (LUSU-S-09).

Growth-Inducing Impacts are not analyzed: we are told that the Reno-Sparks industrial areas are growing, needing more energy. But what needs to be carefully analyzed is whether supplying more power could cause urbanization impacts to spill over into greater sage-grouse habitat just to the north of Reno and Sparks, in GHMA-designated public lands. Specifically new right-of-way for cell towers, more transmission infrastructure, roads, and even small projects that cause habitat degradation by a thousand cuts.

Pygmy rabbit

The declining pygmy rabbit (*Brachylagus idahoensis*) is being petitioned by Western Watersheds Project and partners for listing as threatened or endangered under the federal

Endangered Species Act³. This small rabbit is found throughout the sagebrush belt of Nevada, south to the Montezuma Range where we have observed this species in sagebrush habitats.

Crawford et al. (2010) describe how avian predation is a leading cause of declines in pygmy rabbits.

Lattice towers are admitted to attract birds of prey, including hawks and eagles, as well as Corvids such as ravens, which all prey on pygmy rabbits. Bi-State sage grouse and Mojave desert tortoise habitat do not exclusively overlap pygmy rabbit habitat. Therefore, BLM needs to eliminate lattice towers as the proposed action because a large portion of pygmy rabbit habitat in sagebrush areas will be impacted by this tower design.

The DEIS at 3-371 says:

The majority of the 525-kV transmission line associated with the Proposed Action would use guyed lattice structures rather than tubular H-frame or monopole structures.

Elsewhere the DEIS, at 3-234, mentions “guyed-V lattice structures,” and “steel guyed-V lattice structures” (DEIS at 1-198).

This is unacceptable, and NV Energy is reverting to less wildlife-friendly transmission designs with Greenlink West.

Important Bird Areas

Greenlink West will pass through 5 Important Bird Areas established by Audubon: the Spring Mountains, Oasis Valley, Mount Grant, Carson River Delta, and Walker Lake. The line will cause unavoidable collisions with birds and the cumulative impacts from solar projects include avian lake effect in which birds mistake solar panels for water and collide with them.⁴

Lahontan Cutthroat Trout

The DEIS state that only “approved” herbicides will be used in the vicinity of Lahontan Cutthroat Trout. There are no herbicides that are good for the species. Please review an alternative that uses no herbicides near trout habitat. Invasive weeds should be hand removed.

Invasive Plants

Construction will bring in a rush of invasive weeds which will compete with native plants. NV Energy may use herbicides to control weeds and herbicides will kill native species. This should be analyzed.

We observed many invasive, non-native plant species along the project proposed routes, including red brome (*Bromus madritensis* var. *rubens*), cheatgrass (*Bromus tectorum*), Mediterranean grass (*Schismus barbatus*), African mustard (*Malcomia africana*), Indian hedgemustard (*Sisymbrium orientale*), saltlover (*Halogeton glomeratus*), Russian thistle (*Salsola*

³ <https://westernwatersheds.org/wp-content/uploads/2023/03/FINAL-030623-Pygmy-Rabbit-ESA-listing-petition-WWP-v2.pdf>

⁴ [Hathcock 2018.pdf \(energy.gov\)](#)

tragus), bassia (*Bassia hyssopifolia*) and redstem stork's bill (*Erodium cicutarium*). We found red brome and *Schismus* to be present in our field trips, and all these species could increase with soil disturbance during construction activities. We are concerned that herbicides will be used to control these exotic invasive plant outbreaks under the solar field, which could do significant damage to native grasses, forbs, and other native plants present. This should be analyzed.

Water Resources

The applicant should develop a detailed erosion and sedimentation control plan, and a flood risk control plan now for public review. Widespread alluvial flooding events and sheetwash deposition occurs. Analysis of how towers and new roads will be impacted by floods and erosion should be included.

Air Quality and Dust

We are also particularly concerned about the compromised air quality that will most likely result from the construction of this project.

The land rush of large solar projects all over the southwestern US has resulted in expedited approval of many of these projects. In most of the cases, the developers have not adequately mitigated the fugitive dust that has resulted in the removal of large acreages of vegetated desert lands. We are concerned that industrial construction in the region will compromise the air quality to the point where not only visual resources, but public health will be impacted. The cumulative dust and particulate emissions should be analyzed for the combined transmission project and associated utility-scale renewable energy projects.

We are also concerned that the applicant will have no choice but to use more water in an already over-drafted aquifer to control the large disturbance they intend to create with new roads, construction on 474 miles of new construction, roads, and a 600-foot-wide construction right-of-way along the main high-voltage line. Where will dust suppression water come from along the line?

Visual Resources

The transmission line would create visual impacts in several Nevada BLM districts. Irreversible visual impacts could be inflicted upon the North Las Vegas Valley, the Desert National Wildlife Refuge, Spring Mountains Recreation Area, the Specter Range, Amargosa Valley, Oasis Valley, Sarcobatus Flat, Lida Valley, Big Smokey Valley, Gold Mountain, the Mina area, Walker Lake, Wassuk Range, Ft. Churchill, and Mason Valley. The impacts are expected to be big enough for BLM to downgrade Visual Resource Management (VRM) Class designations to allow for industrial development in scenic areas of public lands.

Due to these impacts, a few land use plans would need amendments. Since July, 2021, the BLM has been talking about a Nevada State-wide Resource Management Plan revision. These revisions would help the public become involved more in these processes.

Maps need to be made showing VRM class areas. VRM 2 areas are present in portions of the proposed route, and BLM tells us in meetings these will need to be downgraded. For example,

the Tonopah BLM district was not able to locate all of the VRM Class maps in the area when they were asked. Equally, the line will cut through some VRM Class III lands. The project manager at the public meeting stated that even some of the Class III lands the line would cross would require amendments

This is the **VRM Class II Objective**: *To retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.*

This is the **VRM Class III Objective**: *To partially retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.*⁵

We request that certain VRM Classes be reviewed and upgrade to VRM Class II under our ACEC/Conservation Alternative.

If BLM approves the project, the Land Use Plan amendments would need to retain the lower VRM Class to accommodate the solar project. This is another example of why the project should be put on hold until a final decision can be made on the Nevada State-wide RMP Revision.

For the Tule Springs Fossil Beds National Monument, it would be *impossible* to mitigate any visual impacts that would be inflicted on the monument by this transmission project. Mitigation options that would be considered would be:

1. Shorten the height of the poles. The poles would be up to 180 feet tall. If they were shortened, the view from longer distances may be mitigated, but the line would be closer to the ground and the visual disturbance would be unacceptable for visitors within the monument.
2. Bury the line.
3. Paint the line a blending color so it is not as visible: This would still create a huge visual contrast, cast unsightly shadows and possibly reflect in moonlight. Plus, camouflaging the color may cause more raptor collisions.

Public Health and Safety

Building a transmission project so close to private residences could create health problems. Electric fields are created by differences in voltage: the higher the voltage, the stronger will be the resultant field. Magnetic fields are created when electric current flows: the greater the current, the stronger the magnetic field. The BLM and NV Energy said they would not build the

⁵ <https://blmwyomingvisual.anl.gov/vr-mgmt/blm/>

Greenlink Project near residential areas in North Las Vegas for this very reason. We request the same consideration for other communities.

All potential health and safety concerns should be detailed in analysis.

Wildfire Hazard

The transmission line would cross Highway 95 and springs, meadows, native alkaline grasslands, and potentially riparian woodlands. If there is an accident such as a windstorm causing treefall or tower collapse, that would create a potential wildfire danger in drought-ridden fuels. This could be a significant wildfire risk for the residents living in areas along the proposed route. This needs a thorough and detailed analysis due to the many human communities along the proposed transmission route.

Burying lines should be explored as an alternatives in order to keep people safe from transmission ignitions to fuel, such as PG&E is exploring.⁶

Socioeconomic Impacts

NV Energy and their supporters claim that ratepayers' increased bills to pay the billions of dollars to construct the Greenlink transmission projects will somehow be made up for in temporary construction jobs. Yet to us, this is comparing apples to oranges. A few temporary construction jobs to build the high-voltage lines, often in our experience by highly-trained out-of-state workers, does not balance the skyrocketing cost in 5 years to Nevada residents who must shoulder this un-needed transmission cost on their electricity bill—and these are often low- and middle-income workers who will not see any benefit from this short-term construction deal.

The Greenlink West transmission project alone could easily cost \$2 Billion (and most likely more), based on earlier estimates of long 500 kV lines at a Renewable Energy Transmission Initiative 2.0 meeting in 2016.⁷

Nevada's electricity rate design is regressive, meaning the poorest people are paying more of their overall income to just keep the lights on.

Utilities profit by building more and more expensive power lines, such as this Greenlink proposal. For example, California's investor-owned utilities charged ratepayers nearly \$20 billion in transmission line projects between 2010 and 2019 and collected more than \$20 billion in profits over a similar time period.⁸

The visual impacts would be located near the residential areas of the Tule Springs Fossil Beds National Monument, Oasis Valley, Sarcobatus Flat, and areas to the north, and this of course can

⁶ <https://www.npr.org/2021/07/21/1019058925/utility-bury-power-lines-wildfires-california>

⁷ <https://www.basinandrangewatch.org/RET12.html>

⁸ CA Public Utilities Commission: [Utility Costs and Affordability of the Grid of the Future](#) (\$20 billion in transmission costs from 2010-19 pp. 39, Table 11; \$4.336 in 2021 transmission spending and rate of increase p. 36; 1\$/3.50 profit p. 37). \$20B profit figure from utility 10-K filings, [itemized here](#).

impact their quality of life as well as their property values. Property values go up near national monuments. Values will decline near large transmission lines.

A complete socioeconomic analysis should be undertaken to allow Nevadans to see how the project would impact their quality of life and costs, compared to any small benefit.

Equity and Environmental Justice

Utilities have lobbied against every major proposal to help marginalized communities adopt solar and battery storage: affordable housing solar incentives, community solar, microgrids, on-bill financing and more.⁹

Further developing energy projects on intact desert lands fails to implement the President Executive Order “On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.” This order would allow for “advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.”¹⁰

Local desert communities and rural areas should not bear the burden of renewable energy build-out. There are smarter alternatives based on science and environmental justice.

Privileged urban load center communities (cities) should contribute to the solution of climate change by shifting renewable energy generation to the Built Environment with Distributed Energy Resources (DERs), including rooftop solar, solar carports over the abundant desert parking loss, energy efficiency, and energy conservation.

Utility-scale solar projects in remote desert areas do not benefit underserved communities, and may actually cost them higher electric bills because of the passed-on costs of new and upgraded transmission infrastructure. DER policies can easily favor shared community benefits, such as with solar gardens that serve apartment complexes, and local community empowerment with rooftop solar and parking lot solar engineering jobs and training to increase build-out in urban core areas. But these urban DER pushes need legislative support that avoids favoritism of corporate solar developers seeking cheap public lands leases, and utilities seeking higher profits from building more and more pricey transmission lines.

De facto privatization of public lands occurs when utilities build giant high-voltage transmission lines and solar companies obtain associated and connected 30-year leases of thousands of acres of desert in a right-of-way, and erect 8-foot-tall chain-link fences topped with barbed wire, and often guards hired to patrol the energy plant. Accessibility of public lands has been an issue not

⁹ Partial list of initiatives utilities lobbied to kill or weaken: Affordable housing solar incentives ([AB 693](#) - Eggman, 2015); Low-income feed in tariff ([AB 1990](#) - Fong); Community solar ([SB 843](#) - Wolk, 2013; [SB 43](#) - Wolk, 2013; CPUC implementation); Microgrids (SB 1339, CPUC implementation)

¹⁰ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>

well addressed, and this concern would be avoided with Distributed Generation alternatives instead of public lands development for renewable energy.

The cost-shift of ratebasing transmission-building is of great concern to us, especially as ratepayers who can ill-afford higher monthly electric bills during inflation and supply shortages will shoulder the cost of construction of the Greenlink West Transmission Project.

Public Utility Commissions (PUCs) serve as a replacement for the competitive market. In exchange for granting the exclusive right to sell electricity in a given service territory, PUCs determine how much the utility is allowed to invest and in what, how much it can charge, and what its profit margin can be. This is called the “regulatory compact.”¹¹

The rate base is the book value, after depreciation, of the generation, distribution, and transmission infrastructure owned and operated by the utility for the provision of electric service. Utilities earn a regulated Rate of Return (ROR) on rate base based on their capital structure, debt interest rates, and authorized return on equity (ROE). This ROR is the main source of profit for regulated utilities. Other things being equal, a larger rate base results in a higher net profit for the utilities.

The allowed rate of return (return on assets) drives a utility’s profitability. Expenses are simply passed through, including fuel in cases where regulated utilities own power plants. Critics have brought up that so-called “rate of return regulation” does not properly motivate utilities to operate efficiently. By having a set rate of return, utilities essentially are incentivized to make unnecessary investments (such as new transmission lines) in order to increase their rate base and therefore, their profits – called the Averch-Johnson effect. They also have limited incentive to keep expenses in check if those costs are simply passed through to customers.

Specifically, Jamison (no date at 3) states that:

The emphasis on cost recovery in rate of return regulation is the source of the concern that companies may not operate efficiently. For example, if the regulator allows a rate of return that is higher than what the company actually needs to ensure that shareholders continue to provide capital for investment, the company could increase its returns to shareholders by making unnecessary investments (if the regulator does not catch the company doing so). This is called the Averch-Johnson effect....

We estimate the approximate cost of the Greenlink West Transmission Project to be in the range of \$2 Billion and possibly more based on the associated microwave towers and other communications devices. This cost will be rate based and NV Energy will pass on the cost to ratepayer’s bills. This cost passed onto marginalized communities in Nevada should be analyzed. Investments by regulated utilities must be useful to current ratepayers for the provision of utility service. Investments must also be prudently incurred to justify asking ratepayers to pay for them and their associated rates of return.

¹¹ <https://blog.aee.net/how-do-electric-utilities-make-money>

Lands With Wilderness Characteristics

An earlier transmission corridor study along the Greenlink West route noted several Lands with Wilderness Characteristics overlapped the corridor. The EIS must analyze how the Greenlink West line, roads, ROW, and associated laydown areas, microwave towers, and substations would impact these important intact landscapes. From Argonne National Laboratory:

NV-050-306A lands with wilderness characteristics overlaps 809 acres (MP 89 to MP 90), re-route the corridor to the west to avoid. NV-050-306A lands with wilderness characteristics overlaps 2001 acres (MP 90 to MP 94), re-route the corridor to the west. NV-050-330B lands with wilderness characteristics overlaps 1,813 acres (MP 120 to MP 124). NV-050-320 lands with wilderness characteristics overlaps 1,734 acres (MP 125 to MP 128). NV-050-336A lands with wilderness characteristics overlaps 2,697 acres (MP 134 to MP 140), re-route corridor to the east. NV-050-03R-15 lands with wilderness characteristics overlaps 1,219 acres (MP 146 to MP 149), re-route corridor to the northeast. NV-050-352A lands with wilderness characteristics overlaps 682 acres (MP 163 to MP 167), re-route the corridor to the northeast. NV-050-363 lands with wilderness characteristics overlaps 1,669 acres (MP 207 to MP 210) re-route the corridor to the west (comment on abstract).¹²

¹² <https://corridoreis.anl.gov/documents/docs/corridor-abstracts/corridor-18-224.pdf>



Figure 4. Approximately 1,399 acres of the eastern portion of the Project Area are in the Yucca Mountain Lands with Wilderness Characteristics unit (NV-050-363), pictured above in the photograph.

Recreation Management Areas

Humming transmission lines create a consistent noise impact. This will impact hikers and other visitors. Noise from construction and helicopters will be a nightmare for visitors and local people. This needs to be analyzed.

In the application to the BLM, the Project Proponent NV Energy has applied for a 600-foot-wide temporary Right-of-Way (ROW) for construction and a 200-foot-wide permanent ROW for operations and maintenance. These long-lasting and permanent impacts should be thoroughly

analyzed, as these linear disturbances could open up new unplanned and unanalyzed routes for off-highway vehicles.

At the Beatty, NV May 17 BLM public meeting, it was stated that OHV race groups have approached BLM to use these linear ROWs and the construction and laydown areas for the transmission project as their own staging areas for races. This needs analysis. This would also be a connected action to the proposed action. Please evaluate dust, safety and other environmental impacts associated with a new high-speed race route on the Greenlink West corridor. Would high-speed racers collide with transmission towers?

Local Government Designations

Local towns and communities need to be included in regional planning so that any proposed transmission infrastructure does not conflict with local government land uses, maps, and plans. The Beatty Town Advisory Board has undertaken years of planning for local recreation and route designations in its Town boundary which overlaps land managed by BLM.

Cumulative Impacts

Clearly, 230 square miles of solar applications associated with the Greenlink West Project are cumulative impacts. For the Greenlink West Draft EIS, BLM should review public land impacts, endangered species impacts, archeological impacts, environmental justice impacts all associated with these large-scale solar applications. It is probable that BLM ignored this issue because the rule was only recently revised. BLM is required to do this now.

The Solar Project Applications Are Connected Actions

Please review the associated solar applications for Greenlink West as "Connected Actions".

Under the Code of Federal Regulations, connected actions are actions that are directly a result of a specific proposed action.

(1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

- (i)** Automatically trigger other actions which may require environmental impact statements.
- (ii)** Cannot or will not proceed unless other actions are taken previously or simultaneously.
- (iii)** Are interdependent parts of a larger action and depend on the larger action for their justification.

[40 CFR § 1508.25 - Scope. | CFR | US Law | LII / Legal Information Institute \(cornell.edu\)](#)

According to BLM: [Analysis of Connected Actions under the National Environmental Policy Act | Bureau of Land Management \(blm.gov\)](#)

(see BLM 2018)

The following paragraphs revise BLM NEPA Handbook (H-1790-1) Section 6.5.2.1 (page numbers 45-48):

Connected actions are those proposed Federal actions that are “closely related” and “should be discussed” in the same NEPA document (40 CFR 1508.25 (a)(1)). Proposed actions are connected if they automatically trigger other actions that may require an environmental impact statement; cannot or will not proceed unless other actions are taken previously or simultaneously; or if the actions are interdependent parts of a larger action and depend upon the larger action for their justification (40 CFR 1508.25 (a)(1)). Connected actions are limited to Federal actions that are currently proposed (ripe for decision). Actions that are not yet proposed are not connected actions but may need to be analyzed in the cumulative effects analysis if they are reasonably foreseeable.

Because there are nearly 230 square miles of public lands solar energy applications associated with the Greenlink West Transmission Project, they are connected actions to the upcoming draft EIS.

The Greenlink West Project would need to build three major substations designed to connect several thousand acres of large-scale solar on to the grid.

With a few exceptions, all the SF-299 applications for solar energy in the area say they must hook into the Amargosa, Esmeralda or Ft. Churchill Substations - all being built for the Greenlink West Transmission Project. These solar applications would not be pouring into the BLM offices if a large high-voltage new transmission project was not being actively proposed and reviewed. Otherwise, the remote basins have no transmission infrastructure capable of carrying any utility-scale solar generation to load centers. Each of these large-scale solar project applications will need an EIS and would not proceed unless Greenlink West is built.

None of the Solar projects have made NEPA, but they are all submitted as SF-299 applications for the BLM. Nothing has been approved or really looked at in detail yet. According to the developers, they are all feasible because they meet the Variance requirements and could plug into the new transmission line. Since the line would have associated substations built with it, the projects are feasible to hook into it. We do not think they are feasible over the resource damage they would cause.

Are the public lands solar projects not feasible but for the transmission project? Or are those projects already approved and will go in regardless of the transmission project? If it's the former it's a connected action.

But the Purpose & Need statement itself doesn't determine whether projects are connected to the proposed action. BLM's NEPA handbook identifies the relevant factors, and there's nothing in that excerpt about Purpose & Need statements.

The EIS should fully review all connected and cumulative impacts that would result from a Record of Decision issued to approve Greenlink West.

Alternatives

Under the National Environmental Policy Act, BLM is required to consider a “Reasonable” range of alternatives. For the purposes of NEPA, Reasonable means those alternatives which may be feasibly carried out based on technical, economic, environmental and other factors. Under Section 102 of FLPMA, Conservation is a priority: *“the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.”* Because environmental factors must be considered when selecting alternatives, we would like to request the following alternatives with less environmental impacts.

Conservation Alternatives

A conservation alternative would deny the permit for Greenlink West, use Plan Amendments to designate stronger protections on the public lands proposed for the project. This amendment could allow for the nominations of Areas of Critical Environmental Concern and upgrade the VRM Class from VRM Class III to VRM Class II. The objective of VRM Class II is to: “To retain the existing character of the landscape. Allowed Level of Change: The level of change to the 1 <https://www.blm.gov/press-release/update-blm-releases-public-meeting-information-proposed-public-lands-rule> characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer.” Equally, the conservation alternative could be divided into different sections of the line and be divided into multiple conservation alternatives.

Smaller Transmission Line Alternative

The BLM should review an alternative that reduces the size of Greenlink West to a 345 kV transmission line. This would be a smaller line and have smaller impacts to raptors, golden eagles, bald eagles, desert tortoise, white margin beartongue, migratory birds, bi-state sage grouse, pronghorn, wild horses, visual resources and cultural resources. A 345 kV line would be smaller and easier to consider for an underground alternative. A 345 kV alternative could alleviate the problems for the Tule Springs Fossil Beds National Monument by utilizing existing poles. A 345 kV line would also reduce the amount of land that could be converted to solar and wind energy and thus save more habitat from destruction. A 345 kV line would provide less opportunities for ravens and other subsidized predators. A smaller line would make impacts to Amargosa Valley, the Esmeralda region and Mason Valley much less. A 245 kV project only could reduce impacts to the Mason Valley Wildlife Management area, and Walker Lake, and reduce visual impacts to the Atwood Preserve (7J Ranch), Scotty’s Junction and Ft. Churchill would be lessened.

Partial Underground Line Alternatives

Most sage grouse management plans recommend that transmission lines be buried in sage grouse habitat. Transmission can cause collision and direct kills to sage grouse. Exploring underground alternatives on parts of the line could mitigate damages to sage grouse and visual resources. At

public meetings, BLM said that burying a transmission line is too expensive and at one point did say it has never been done before. This is clearly not accurate¹³. While it is expensive, it has been done in California and Japan. It would not be feasible to bury the entire line, but this alternative should be considered in short parts of the proposed ROW that have visual and sage grouse impacts.

A No Action Alternative is a Reasonable Alternative

Because a “reasonable alternative” can be carried out based on environmental factors, BLM should consider the No Action Alternative as a Reasonable Alternative. Traditionally, the BLM does a very minimal job of analyzing the No Action Alternative, but if the goals of conservation are carried through, No Action is the better alternative for this project. The BLM’s proposed new rule points in this direction. For example, the Need for remote energy projects can be examined by considering the potential energy output of Distributed Energy. In 2020, the nation of Vietnam installed 9 GW of rooftop solar onto their local grid.¹⁴ In comparison, the expected capacity for Greenlink West would be 5 GW. BLM must review the No Action Alternative in greater detail.

There are several potential pinch points, including the Walker River Indian Reservation, the Hawthorne Army Depot, the Black Mountain-Pistone Cultural Area, and mountains on the north end, as well as through Beatty and the Tule Springs Fossil beds National Monument-North Las Vegas region. These large problems alone require BLM to choose the No Action Alternative.

2. Regional Greenlink West Alternatives:

Losee

The Losee Alternative A is located on VRM Class III lands but a Plan Amendment could upgrade the VRM Class to VRM Class II. The region is recognized for the scenic quality being adjacent to the Desert National Wildlife Refuge. Again, the VRM Class was established in 1997 and vales have changed in 26 years.

Tule Springs Fossil Beds National Monument

Paleontological Resources:

The TUSK Transmission Line Route Group Alternatives include alternatives within the TUSK and those that avoided the TUSK. TUSK Transmission Alternative A, the initial Proposed Action, TUSK Transmission Alternative B, and the current Proposed Action would involve different structure and location options within the TUSK along the TUSK boundary adjacent to Moccasin Road (extension of El Capitan Way to the east for approximately 1.5 miles). TUSK Transmission Alternative A would consist of 11 delta monopoles, centered on a 100-foot by 100-foot maintenance pad (refer to Figure 2-6). The initial Proposed Action would consist of eight delta

¹³ [Brian Williams Guides Planning for the SOO HVDC Underground Transmission Line \(personsofinfrastructure.com\)](https://personsofinfrastructure.com)

¹⁴ [Vietnam rooftop solar records major boom as more than 9GW installed in 2020 - PV Tech \(pv-tech.org\)](https://pv-tech.org)

monopoles, centered on a 100-foot-by 100-foot maintenance pad (refer to Figure 2-6). The delta monopoles would be Greenlink West Project Draft EIS/RMP Amendments Chapter 2 May 2023 Page 2-20 approximately 120 feet tall.

The DEIS claims that development would only occur 5 feet into the Tule Springs Fossil Beds National Monument but there would also be 100-foot pads, guy wires and in total, disturbance would be 100 feet inside the National Monument. The extreme weight of the poles along with the guy wires to hold the poles up will most likely damage fossil resources extensively.

Ground penetrating radar studies have detected major anomalies under the monument lands at approximately 3 sites along the preferred alternative. Any digging, boring or bulldozing will destroy these fragile fossils. According to BLM: *3-Dimensional (3-D) imaging revealed that the anomalies at one of the study locations in the GLWP ROW were consistent with the skull and limb bone of a member of the elephant family.*

The BLM did not fully consider all the impacts and should reexamine alternatives that will not damage fossils.

The primary legislation pertaining to fossils from NPS and other federal lands is the Paleontological Resources Preservation Act of 2009 (PRPA) (16 U.S.C. § 470aaa 1-11) which was enacted on March 30, 2009 within the Omnibus Public Land Management Act of 2009.

PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to manage and protect paleontological resources on Federal land using scientific principles and expertise. The Secretary shall develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources, in accordance with applicable agency laws, regulations, and policies. These plans shall emphasize interagency coordination and collaborative efforts where possible with non-Federal partners, the scientific community, and the general public.

We understand that complete paleontological surveys have not been completed and would like to see the DEIS timeline delayed over this until this can be completed.

While the National Monument legislation allows for an energy corridor within the NPS border, the park's enabling legislation and general management plan does not allow for any damage to fossils period. Any attempts to excavate fossils would take years. The Greenlink West Project should be delayed until fossils can be located completely and until a complete excavation plan can be made. The BLM and NPS have stated they are not aware of any plans to excavate fossils. The BLM falsely claims development would only impact 5 feet of the park unit.

The enabling legislation that establishes the energy corridor states that only "renewable" energy can run through the corridor. *"Instructs the Secretary to issue to: (1) a qualified electric utility a 400-foot right-of-way for the construction of high-voltage transmission facilities identified as the Renewable Energy Transmission Corridor on the map entitled "North Las Vegas Valley Overview" (the map);"*

It is already illegal to build Greenlink West through the national monument because Greenlink West will hook into the Harry Allen Substation. The Harry Allen substation accommodates 4 natural gas generating facilities. It is impossible to separate electrons at a substation so Greenlink West will carry fossil fuel which is a violation of the legislation creating the Tule Springs Fossil Beds National Monument.

BLM said they would not consider Alternative G because it would add 70 million dollars to the NV Energy price tag. BLM does not work for NV Energy and they have the funding to pay for this. BLM should not value NV Energy's budget over protection of paleontological resources.

The BLM has claimed that A mapping error placed the renewable energy transmission corridor across private property (south of the section line rather than north), which Congress does not have the authority to do and there was an existing residential development there at that time.

Nobody, including the National Park Service is aware of such a mapping error. The area they are talking about was previously BLM land and auctioned off for Las Vegas growth as disposal lands. The alternative through TUSK just can't be worked out without breaking 2 or 3 laws.

Cultural Concerns:

Native American tribes have clearly opposed the Greenlink West line through the Tule Springs Fossil Beds National Monument. Concerns have been raised by the Moapa Paiute, the Las Vegas Paiute and the Hopi Tribe among others.



Timothy L. Nuvangyaoma
CHAIRMAN

Clark W. Tenakhongva
VICE-CHAIRMAN

September 20, 2021

Derek Carter, Superintendent
National Park Service, Tule Springs Fossil Beds National Monument
601 Nevada Highway,
Boulder City, Nevada 89005

Dear Superintendent Carter,

This letter is in response your correspondence dated August 9, 2021, regarding the Greenlink West Transmission Line Project. The Hopi Cultural Preservation Office appreciates the National Park Service (NPS)'s solicitation of our input and your efforts to address our concerns.

The Hopi Tribe claims cultural affiliation to earlier identifiable Ancestral Pueblo cultural groups in Nevada. The Hopi Cultural Preservation Office supports the identification and avoidance of our ancestral sites, and we consider the prehistoric archaeological sites of our ancestors to be "footprints" and Traditional Cultural Properties. We are interested in consulting on any proposal that has the potential to adversely affect Ancestral Pueblo prehistoric sites.

We understand the NPS has been notified by the Bureau of Land Management that Nevada Power Company and Sierra Pacific Power Company dba NV Energy are pursuing the construction and operation of the Greenlink West transmission line and BLM have identified a preferred alternative for the proposed line inside Tule Springs Fossil Beds National Monument.

We share the concern about impacts from a new transmission line in the park that would potentially impact paleontological resources, cultural resources, visual resources, wildlife movements, invasive species populations, natural sound-scapes and visitor access.

We have reviewed the enclosed briefing statement and support the enabling legislation for the park and routing the line in the existing corridor rather than through NPS lands. We object to BLM conducting a public meeting presenting a preferred alternative for the transmission line inside the park, and

Derek Carter
September 20, 2021
Page 2

not identifying NPS lands or acknowledging this alignment is outside the existing transmission corridor and would require a ROW from the NPS. We also understand BLM has accepted an application for a utility-scale solar project immediately southwest of the park's north unit.

To enable you in planning and avoiding any potential impacts to cultural and natural resources significant to the Hopi Tribe, please keep us informed of these BLM rogue actions, and how we can support the public, NPS, and elected officials in opposing them. Thank you for your consideration.

Respectfully,

Stewart B. Koyiyumptewa, Program Manager/THPO
Hopi Cultural Preservation Office

cc: Secretary of the Interior
Jan Childress, BLM
Director, BLM
Director, NPS
Nevada State Historic Preservation Office

Figure 5. 2021 letter from the Hopi Tribe opposing the Greenlink West line through the TUSK monument.

Construction of the line through the monument lands will disturb fine, silty clay formations and will create fugitive dust issues for the residents living near the monument as well as visitors to the monument.

Valley Fever is a problem that has occurred in Clark County. Of the 368 cases of Valley Fever confirmed in Nevada from 1992 to the present, 336, or 90 percent of them, occurred in Clark County, Todd said. The number of cases is increasing because more people are moving into the areas where the disease is common. ¹⁵

The Scenic Quality Rating for Visual Resources is surprisingly low for BLM lands near TUSK. It is listed as 11 or less total score when it should be 18.5 or more.

The visual simulations in Appendix are very inadequate and undermine the actual visual impacts of the area. The visual simulation of the preferred alternative is

The VRM Class on BOM lands surrounding TUSK is VRM Class III which is a weak designation and was made in 1997 – 17 years after the establishment of the National Monument. Obviously the scenic values of the area have increased due to urban growth and a new national monument. The BLM should use the Plan Amendment to upgrade the VRM Class to VRM Class II which has an objective of: *“retaining the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer.”*

¹⁵ [Valley Fever: Hidden threat in wind - Las Vegas Sun Newspaper](#)

Wildlife and rare Plants:

Constructing the line will require new roads and extensive cleared areas. This will impact species like burrowing owls, desert tortoise, Gila monster, kit fox, American badger, Western Joshua tree, Las Vegas bear poppy, Las Vegas buckwheat and other rare plants. The EIS should map and detail all sensitive, rare, and threatened and endangered species along the proposed route.

Corn Creek Area

The region between TUSK and Indian Springs has a high scenic quality. It is largely designated as VRM Class III and is within the viewshed of the Desert National Wildlife Refuge, the Tule Springs Fossil Beds National Monument and the Spring Mountains recreation area.

The BLM should use the Plan Amendment to upgrade the area to VRM Class II. Again, these VRM Classes are outdated and designated before there was even a TUSK monument in the area.

Corn Creek at the Desert Wildlife Refuge supports a variety of regional birds. A list should be made of all the potential bird fatalities that could occur from Greenlink near Corn Creek.

Northwest Substation Upgrade

“The existing Northwest Substation in Clark County would be expanded west of the existing substation and require an additional area of approximately 17 acres. Substation expansion and transmission line work would be on both BLM-administered land and private property.”

What is the reason for the upgrade and what cumulative impacts may be associated with this upgrade? At one point, BLM did accept a solar application from EDF Renewables called Northwest Solar but would later cancel the application because it was in BLM disposal lands. Are there plans to develop more energy in this region? Are there plans for more solar within the Las Vegas Paiute Reservation besides Snow Canyon Solar?

Cactus Springs, Indian Springs and Mercury Valley

There are no alternatives discussed or evaluated through any of these areas.

The BLM could discuss and 345 kV alternatives that could reduce visual and cumulative impacts or equally alternatives that will move the line further away from the community of Indian Springs.

The DEIS is suggesting that a large construction yard will be built near Cactus Springs, Nevada but the DEIS provides very little detail about this.

How close would the construction yard be to the riparian area?

How much vegetation will be removed for the construction yard?

What rare plants are located on the construction yard?

Are Gila monsters located on the construction yard?

Are desert tortoises located on the construction yard?

Are archeological sites located on the construction yard?

Will all vegetation be scraped off the construction yard?

Will invasive weeds be controlled with herbicide?

BLM needs to review an alternative that will move this construction yard away from Cactus Springs.

What will the newer cumulative impacts on local wildlife be from both the Greenlink West Project and the Gridliance upgrade regarding subsidized predators?

Water:

There are two solar applications located in the region in the Indian Springs that say they may hook onto the Amargosa Substation with a long gen-tie line. This would be a hydrology cumulative impact because each would need to use construction water. Solar projects need project from 300 acre feet to over 1,000 acre feet to control dust on project construction sites. The projects are called Vegas Valley Solar (9,000 acres) and Kawich Solar (4,300 acres). The area is one of the identified “Mega-channels” for Devil’s Hole where water passes through faults in the Spotted Range to Amargosa Valley.

Damage to Point of Rocks:

The Greenlink West Project will cut over the Point of Rocks area west of Cactus Springs. The area has important habitat for desert bighorn sheep and chuckwallas. It also contains valuable archeology sites. Blasting the Greenlink West project through this area will destroy habitat, cultural sites and directly kill chuckwallas. The area should be avoided and protected through a plan amendment under the Cactus Springs Area of Critical Environmental Concern proposal.



Figure 6. Chuckwalla at Point of Rocks, April, 2023. Photo: Kevin Emmerich.

Desert Tortoise/Biological Resources:

See our larger section on desert tortoise for complete details, but the Greenlink West line will pass through an area the BLM and Fish and Wildlife Service have identified as “the most crucial desert tortoise connectivity area in Nevada”. The Greenink West Project will:

Destroy habitat for the desert tortoise

Create a cumulative demand for solar projects in desert tortoise habitat.

Create perches for subsidized predators such as ravens.



Figure 3-5. Mojave Desert Tortoise Recovery Units and GLWP 2021 and 2022 Survey Observations

Figure 7. The map show that surveyors found a large number of tortoises along the Greenlink line through the Las Vegas, Indian Springs and Mercury Valleys.

In September of 2022, Basin and Range Watch along with Western Watersheds Project submitted a 58,000 acre Cactus Springs Area of Critical Environmental Concern¹⁶ nomination to the Bureau of Land Management starting from the riparian area of Cactus Springs to the Spotted Range in the Mercury Valley. The nomination was intended to protect outstanding biological resources in the area including desert tortoise connectivity. It is our understanding that the BLM is completing the review of the relevance and importance criteria and we are confident the nomination meets these criteria.

¹⁶ [Cactus Springs ACEC.pdf \(basinandrangewatch.org\)](https://basinandrangewatch.org/Cactus_Springs_ACEC.pdf)



Figure 8. Map of the 58,000 acre Cactus Springs Area of Critical Environmental Concern that Greenlink West would be built through.

The ACEC would protect desert tortoise connectivity, high cactus density, rare plants, visual resources, riparian areas, migratory bird habitat and groundwater resources.

The Cactus Springs wetlands supports a number of migratory birds and water birds. The Greenlink West line will create additional collision and mortality factors for these birds.

Surprisingly, we can find no reference to the ACEC nomination in the Greenlink West DEIS or the appendices. A Plan Amendment is being made for the Cactus Springs Area of Critical Environmental Concern in the Bonanza Solar Project Draft EIS. This is literally the same area.

Rare plants:

The DEIS fails to mention of analyze the rare Parish club-cholla (*Grusonia parishii* or *Corynopuntia p.*) which is found on alluvial fans near Cactus Springs in Clark County, on the proposed route of the Greenlink West project. This is a mat-forming cholla with limited distribution in southern Nevada, southwestern California, and disjunct populations in Arizona. The narrow-range, and highly scattered populations make this cactus vulnerable to local extirpation. The EIS needs to analyze this species with respect to cumulative impacts—a portion of the Pahrump Valley population has already been destroyed by the Yellow Pine Solar Project now under construction. Other solar project applications are proposed on thousands of acres of Parish club-cholla populations, in Parhump Valley and northeastern Clark County, Nevada¹⁷.

¹⁷ http://www.efloras.org/object_page.aspx?object_id=13347&flora_id=1

Conservationists may seek endangered species listing for this taxon because of the accelerated development of habitat from renewable energy and transmission projects.

Visual Resources:

Will the VRM Class II (orange color) lands in the below map be downgraded to VRM Class IV?
Will this encourage more destructive development in the area for the future?



Figure 9. Visual Resource map of Las Vegas to Indian Springs.

The region has high valued visual resources including Cactus Springs, the west unit of the Desert National Wildlife Refuge, the Mt. Stirling Wilderness Study Area and Cold Creek. These KOP's should defiantly be added to the DEIS.

Because the Las Vegas Resource Management Plan is outdated by 26 years and there is a new ACEC nomination, the BLM should consider upgrading the VRM Class from East Las Vegas Valley to Mercury Valley to VRM Class II in one of the Greenlink West Plan Amendments.

An additional KOP should be added from the community of Indian Springs.

Photo P43 in the KOP simulations fail to show the full contrast of this visual impact. The simulation undermines the actual impact.

Amargosa Valley

The BLM has long targeted the Amargosa Valley for green energy sprawl and the obstruction has always been lack of transmission. The agency is so Hell-bent on approving massive infrastructure in this region that conservation and local communities have taken the obvious back seat. Any local concerns about solar sprawl are only taken semi-serious by BLM and those of us who are concerned about the future of this area are treated like obstructionists. It is a large area with a long history and the BLM Tonopah Office has already acknowledged that the area will see very big impacts and as a result.

Amargosa Microwave Tower:

There is one alternative on private land and one on BLM land – both of which are very close to the Longstreet Casino. The tower would be visually intrusive and potentially impair the experience of people staying at the hotel. The hotel has a lake with a scenic desert backdrop and

the microwave tower will attract attention. Did NV Energy or BLM evaluate the economic impacts this may have on tourism? Did BLM evaluate the potential avian collisions with the tower? The tower could also serve as a perch for subsidized predators. Ash Meadows National Wildlife Refuge accommodates over 300 migrating birds per year. The Longstreet has an artificial lake that attracts water birds. According to the personnel of the Longstreet Casino, NV Energy never bothered to discuss the visual impacts of this tower with hotel management of adjacent home owners. They also say there will be a second tower built close by (possibly by Valley Electric) and the BLM has not reviewed these cumulative impacts in the DEIS.

The DEIS states that no cultural sites are located on the microwave tower site, but the area could be considered a Cultural Landscape to Native Americans.

Rare plants:

The Greenlink West project will pass through one of only 4 known distinct population centers of White-margin beardtongue (*Penstemon albomarginatus*)

The BLM, NV Energy and contractor Powers Engineering failed to survey for this plant after it had one of its most extensive blooms. Strong winter rains in 2022 and 2023 resulted in a super-bloom of this species in Amargosa Valley.

Greenlink West would cut directly through the habitat in Amargosa Valley.

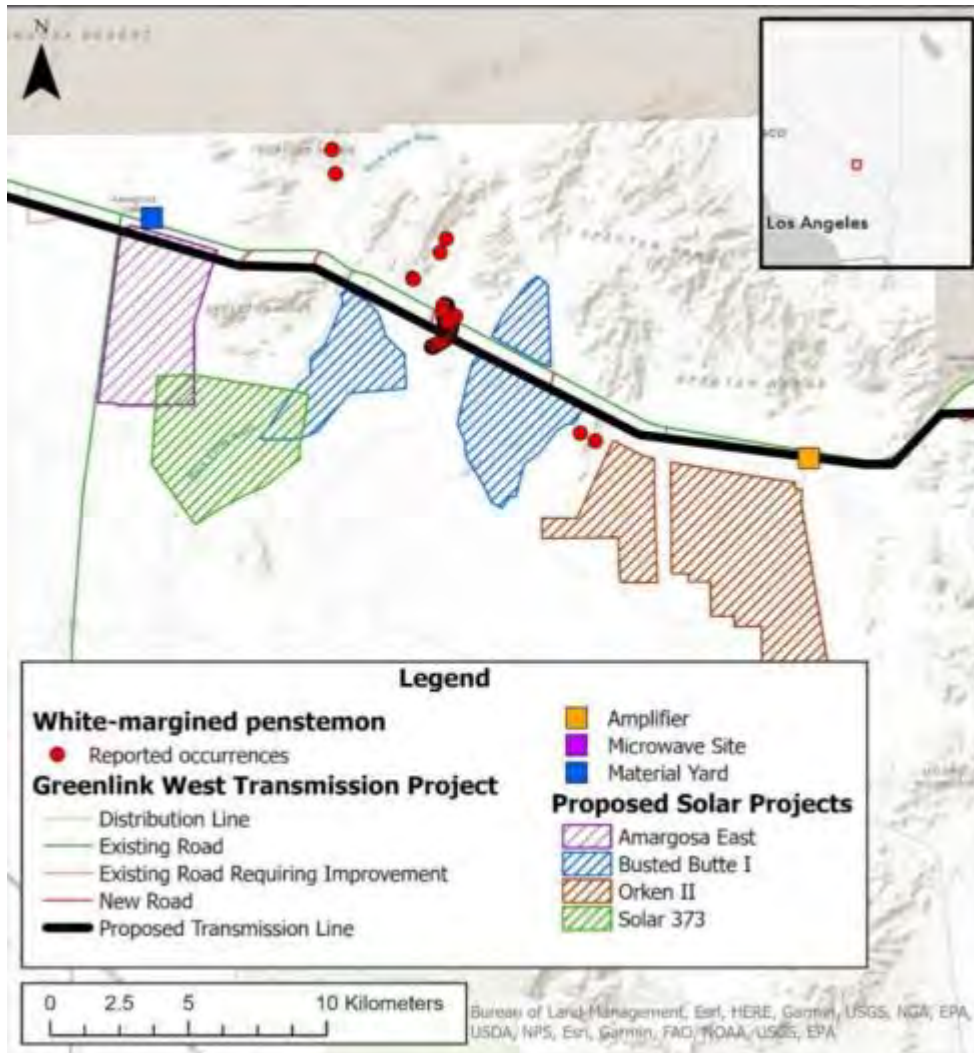


Figure 10. Photo of White-margin beardtongue habitat in Amargosa Valley (Center for Biological Diversity).

Greenlink West will cause habitat loss, alter drainage channels and cause erosion, bring in invasive weeds like Sahara mustard.

In spite of the species having the best bloom in years, BLM and NV Energy missed the window in April to survey for the species. Surveys still did not take place by August. The entire habitat experienced an intense heatwave during July, 2023. Missing the survey window will now result in surveyors finding traces of dried out plants. We have to wonder if the neglect was intentional because we requested BLM do this 3 times.

The DEIS at 3-75 admits that a larger portion of the Greenlink West project would impact this rare plant, including 7% of the Nye County population, which represents one of only four local populations globally:

The GLWP would impact portions of the Nye County population that occurs near US 95 between the Nevada National Security Site and the Ash Meadows NWR. Approximately

13.9 acres and 4.5 acres within the temporary and permanent ROW areas, respectively, would occur within documented occurrences for the white-margined beardtongue. The Proposed Action may impact approximately 7.2 percent (18.4 acres of the 257 acres documented) of the Nye County population through habitat loss (NDNH 2021). Impacts to the white-margined beardtongue include habitat degradation (e.g., increases in dust and introduction of invasive species), alteration of behavior patterns of the species pollinators and herbivores, and loss of pollinator habitat. These impacts of construction of the Proposed Action would result in localized impacts to only a small portion of the Nye County population for the white-margined beardtongue, and EMMs (Appendix C. BIO-1, BIO-6, BIO-8, BIO-21 through BIO-23, BIO-38 through BIO-44) would establish pre-construction surveys and avoidance of the species, measures to manage both dust and invasive species, and restore habitats following construction.

The DEIS says that 7.2 percent of the population would be impacted by Greenlink, but BLM will build a road, disturb the area and create a corridor for invasive weeds like Sahara mustard. The cumulative impacts will disturb more than 18.4 acres.

There are also approximately 60,000 acres of large-scale solar applications in the region that is suitable habitat for the species.

The BLM has not developed an alternative that avoids this habitat. The conservation organization Center for Biological Diversity filed as petition with the Fish and Wildlife Service to list the species as Endangered under the Endangered Species Act.

The BLM must develop an alternative that avoids this habitat, otherwise, the agency will play a major role in the potential extinction of the species.

The BLM must also wait for several land use plans to be resolved before permitting such destructive infrastructure. The DEIS says that Greenlink West will remove 7 percent of the habitat for this species? Why not avoid it? It would cost NV Energy more, but they can afford that.

New rare plant surveys should be undertaken because the seedbed may have shifted with large and widespread flooding and desert sheetflow in August 19-21, 2023, across southern Nevada from the remnants of Hurricane Hilary. Seeds may have moved with sediment shift.

Endangered Species:

Yuma clapper rail, Southwest Willow flycatcher and Yellow Billed Cuckoo all have the potential to collide with transmission towers and the microwave tower near the Longstreet Casino. All are federally endangered. The close proximity to Ash Meadows National Wildlife Refuge makes Amargosa Valley a migratory bird hotspot.

Desert Tortoise Habitat:

The Southern part of the Armargosa Valley has been identified as Priority One Desert Tortoise Connectivity Habitat.

“Priority 1” Least-cost corridor modeling identified potential habitat linkages between existing conservation areas that have the best chance of sustaining connectivity for desert tortoise populations. To identify these linkages, USFWS began with U.S. Geological Survey’s (USGS) Mojave desert tortoise habitat potential model (Nussear et al. 2009), and developed a cost surface where higher habitat potential equaled a lower cost to the desert tortoise.”

Some of the habitat is also Priority 2 Connectivity Habitat.

“Priority 2” Other blocks of habitat with the greatest potential to support populations of desert tortoises, outside least cost corridors, may also have important value to recovery. Based on the USGS model, USFWS identified areas of contiguous, high-value desert tortoise habitat as “Priority 2” lands for conservation of desert tortoise within the context of the Final Solar PEIS. These lands were identified by beginning with the highest habitat potential, and including all habitat down to 0.6 that could be reached from the highest potential starting habitat (i.e., 0.6-1.0), excluding small, unconnected "islands."

The Greenlink West Transmission Project will run through both of these habitats. In April 2023, we move the below adult female off the highway and it ended up right in the path of the Greenlink West Project.



Figure 11. Mojave desert tortoise in Amargosa valley, Nevada, near the route proposal. April 2023. Photo: Kevin Emmerich.

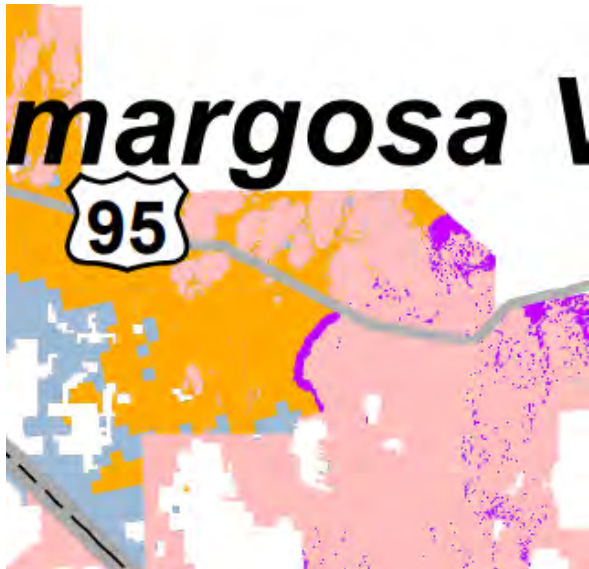


Figure 12. Map showing Priority One (purple) and Two (orange) Connectivity Habitat in Amargosa Valley

Greenlink will also create a spread of invasive weeds which are not nutritious for desert tortoises and perches for subsidized predators such as ravens. Is NV Energy planning to fence off Hwy 95 as mitigation?

Greenlink will create new roads that will be used by off-highway vehicle recreationists which can result in habitat loss and direct mortality for desert tortoises. This will also encourage off-highway vehicle use. As mitigation, BLM should close all roads built for the Greenlink West project except for people working on the project.

Avian Impacts:

Greenlink West will be built in the Southern Amargosa Valley and could cause avian impacts for birds flying to Ash Meadows National Wildlife Refuge.

Bighorn Sheep Wintering Habitat:

Greenlink West will be built on wintering desert bighorn sheep habitat near the Specter Range. How will this impact use from desert bighorn sheep?

Surface Hydrology Disturbance:

Several washes draining into Amargosa Valley will have new transmission line poles built in the vicinity. How will the power poles disrupt surface hydrology flow, how will this be mitigated and how will it impact groundwater recharge?

Cultural Resources:

Greenlink West will block and tarnish the view of mountain ranges from the flat lands of Amargosa Valley. These views are considered "Cultural Landscapes" by local tribes such as the Timbisha/Shoshone and Pahrump Paiute.

A cultural landscape embodies the associations and uses that evoke a sense of history for a specific place. Physical features of cultural landscapes can include trees, buildings, pathways, site furnishings, water bodies – basically any element that expresses cultural values and the history of a site.

Visual Resources:

The majority of the Greenlink West route is situated in VRM Class III designations in Amargosa Valley. There are VRM Class II lands near the Rhyolite Ghost Town. Because of this, BLM must downgrade the VRM Class through Plan Amendments. The VRM simulations include simulations of lattice towers, but BLM has determined that no lattice towers will be sited in Amargosa Valley. The objective of VRM Class III is to: *partially retain the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer.*

In general, the visual simulations do not capture the full contrast of the proposed project. More KOP Simulations should be included including more from the Crystal area, the Specter range and one from Rhyolite ghost town.

A Plan Amendment is required from both the Southern Nevada BLM office and Battle Mountain BLM office to downgrade the VRM Class for the Greenlink West Project. The BLM has targeted the Amargosa Valley for green energy sprawl and it is likely that BLM will continue to downgrade VFRM Classes in the region to enable more solar projects. This gets the ball rolling for a very bad precedent.

These same Plan Amendments can be used to upgrade the VRM Class to VRM Class II in some of the more outstanding scenic areas of Amargosa Valley. These viewsheds include Big Dune, Mesquite ACEC, Lava Dune, Rhyolite, Funeral Mountains, etc.

Kit Fow, Burrowing Owl:

We have lived in this area for 33 years and can say it is a very good habitat for both kit foxes and burrowing owls. How many kit fox and burrowing owl burrows have been located in the path of Greenlink West? What is the collision hazard for burrowing owls?

Amargosa Substation:

Permanent outdoor lighting would be limited to areas required for operations, maintenance, safety, and security and would be anti-glare, shielded, and directed downward to the extent possible.

How would this impact bats and migrating birds? The substation will be 109 acres and create unavoidable collision hazards.

This is also a night time visual impact. There is no KOP of night lighting in the DEIS.

As the DEIS points out, the 109 acres substation will block sand transport for the Lava Dune. The Lava Dune supports a diversity of rare plants, reptiles, insects and small mammals.

At one point, the Lava Dune was being considered for an Area of Critical Environmental Concern, under BLM's pending revision of the Southern Nevada Resource Management Plan in 2014. BLM eventually cancelled the revision in 2018 which left the Lava Dune with no protection. The Amargosa Substation should be moved away from the Lava Dune and the BLM should consider designating the area as an ACEC in the Plan Amendment associated with the Greenlink West Project. The nomination was already submitted to BLM. Pushing the Greenlink West Project through in the area without providing some kind of mechanism of protection for Lava Dune is not the responsible way to manage conservation areas. BLM's proposed Conservation Ruling seeks to make conservation one of the main "Actions" in NEPA reviews. It is more than reasonable to ask for a conservation plan amendment for the Lava Dune.

The substation will permanently remove 109 acres of desert tortoise habitat. The substation will create multiple perches for subsidized predators.

The substation will create avian collision hazards for migratory birds between Ash Meadows National Wildlife Refuge and Oasis Valley, Nevada.

Cumulative Impact and Connected Actions:

Associated with the Greenlink West Project are about 70 large-scale solar and wind applications taking up approximately 250 square miles – about 120 of those square miles in Amargosa Valley, Nevada. Because the bulk of the solar applications identify the Amargosa Substation as their main hookup potential, these solar applications are Connected Actions to the Greenlink West Transmission Project.

Connected actions are those proposed Federal actions that are "closely related" and "should be discussed" in the same NEPA document (40 CFR 1508.25 (a)(1)). Proposed actions are connected if they automatically trigger other actions that may require an environmental impact statement; cannot or will not proceed unless other actions are taken previously or simultaneously; or if the actions are interdependent parts of a larger action and depend upon the larger action for their justification (40 CFR 1508.25 (a)(1)). Connected actions are limited to Federal actions that are currently proposed (ripe for decision). Actions that are not yet proposed are not connected actions but may need to be analyzed in the cumulative effects analysis if they are reasonably foreseeable.¹⁸

¹⁸ [Analysis of Connected Actions under the National Environmental Policy Act | Bureau of Land Management \(blm.gov\)](#)

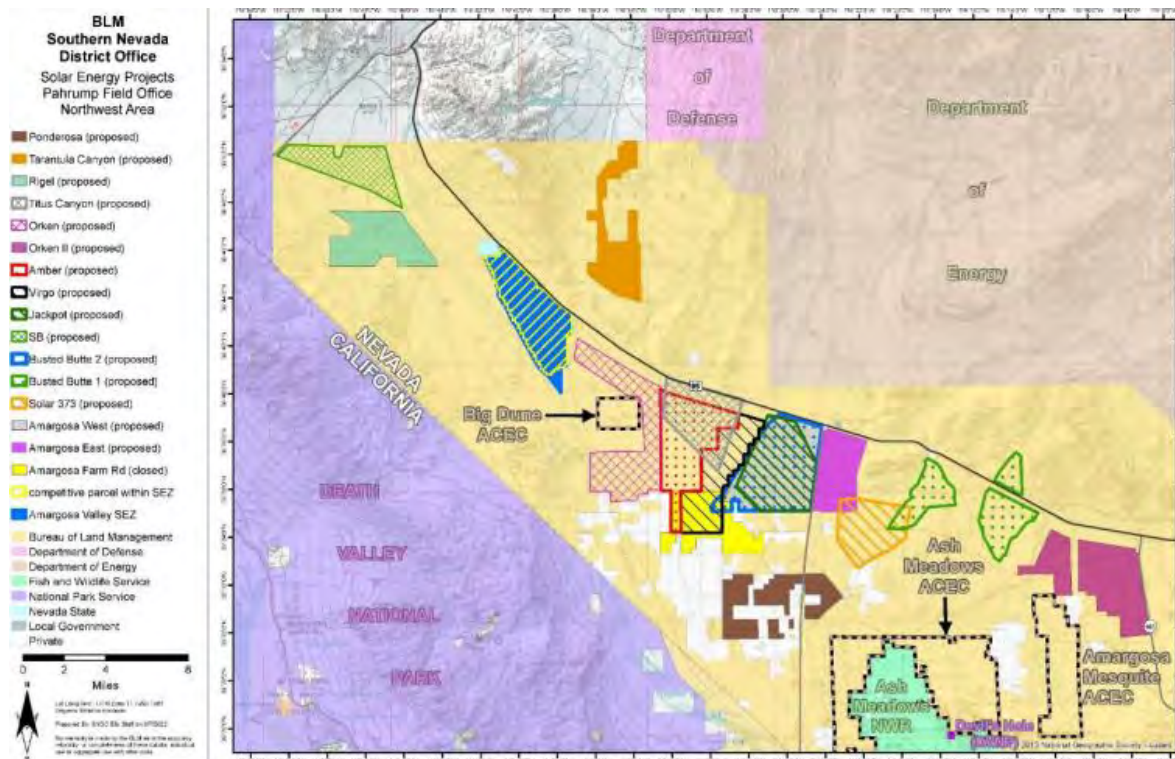


Figure 13. Map of free-for-all solar land rush applications in Amargosa Valley, Nevada

A Cumulative Impact “results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or nonfederal) or person undertakes such other actions.”¹⁹

The cumulative impacts from green energy applications associated with Greenlink West will:

1. Damage wildlife habitat for desert tortoise, kit fox, kangaroo rats, desert iguanas, bighorn sheep, desert tortoise, horned lizard’s, endemic beetles on Big Dune, Mojave fringe-toed lizard, etc. Large solar built near Ash Meadows and Oasis Valley will cause an avian “lake effect” which will cause birds, some endangered, to crash into solar panels.
2. Damage habitat for rare plants like White-margin beardtongue, Ash Meadows Endangered Species by creating a massive invasive plant seedbank.
3. Create huge fugitive dust issues and create Valley Fever threats for local people.
4. Cause socio-economic impacts by lowering property values in Amargosa Valley.
5. Alter surface hydrology and cause flooding in unexpected areas. (Some applications have 40 mile wash cutting through them!)
6. Use up way too much water for the construction phase. Both the BLM and Fish and Wildlife Service have calculated that 15,000 acre feet of water would be needed if all the solar applications in Amargosa Valley were developed. The Amargosa Basin is over drafted by

¹⁹ 40 C.F.R. § 1508.7

17,000 acre feet already! Most of the applications are within a 25 mile radius of Devil's Hole – home of the rarest, most endangered species in the world, the Devil's Hole pupfish. State Law 1197 prohibits major water withdraw within 25 miles of Devil's Hole. This will also lower local well levels.

7. Create horrible visual eyesores for Death Valley National Park, Amargosa Valley and the town of Beatty.

Cumulative Impacts of upgrading the Gridliance Project in the same area should also be considered.

In June, 2023, BLM auctioned off nearly 24,000 acres of public land leases to NV Energy, Leeward Energy and Nextera Energy. Despite strong objections from the community of Amargosa Valley and Nye County, BLM is pushing to develop parcels next to the community and by Lathrop Wells. NV Energy purchased the leases for the Amargosa Solar Energy Zone. While the community agreed not to object to developing the Solar energy Zone, NV Energy came to a meeting in Beatty and said that their two parcels totaling over 6,000 acres would only need 40-acre feet of water during the construction phase. As BLM is aware, this is a gross underestimate and developing that much land would probably need over 1,000-acre feet. This water is simple not available and if NV Energy is going to lie about this, this is only the beginning of a long, untrustworthy relationship with the local community. A sad preview of things to come.

Beatty/Oasis Valley

Construction Yard:

Please provide an alternative that removes the 25-acre construction yard away from the south entrance of town. The town of Beatty does utilize tourism to maintain it economy. Having an industrial construction yard at the south entrance of town sends out a negative message to tourists considering a stay in Beatty. This could hurt the local motels.

It is good that BLM eliminated Alternative F as it would have hurt more ranches and private property owners, but the Preferred Alternative will still cross over private land against the will of the landowner. BLM's response to this is" the landowner has no say of what would be approved in the air above the land." The BLM has chosen to hurt a local landowner over selecting the Alternative closest to the NTTR Air Force Base – Alternative I.

Who is responsible for wildfire on private land if the lines go down? NV Energy did have their lines collapse for the One Line shortly after it was built. What would be the response time is a wildfire breaks out on the (Atwood) 7-J Ranch? There is no fire plan for this region in the DEIS.

We would like BLM to reconsider Alternative I as a preferred Alternative over Alternative A. The Air Force should not have the final say. In 2010, the Air Force objected to the Crescent Dunes Solar power tower north of Tonopah but were forced to live with it because of Senator Harry Reid. This proves that they can maintain their operations with this kind of infrastructure. Placing infrastructure next to the NTTR base makes sense.

The DEIS does not discuss the recent finding in the Federally Endangered Spring loving centauray (*Zeltnera nemophila*) in wetlands very close to the Preferred Alternative for Greenlink West.

The DEIS should provide a bird species list for the Oasis Valley and a list of birds likely to be impacted by 120 foot plus poles being directly strung over the ranch.

Equally, the BLM should provide a list of invasive weeds that could move onto 7-J Ranch from the disturbance inflicted from Greenlink.

Beatty, Nevada has developed a Master Plan that utilizes the tourism for Death Valley National Park, spectacular scenery, historic elements, mountain bike trails and other recreational trails to boost its economy. But like the other regions along Greenlink West, the Resource Management Plan is outdated and fails to consider visual resources being important for tourism. As a result, the BLM has classified most of the Oasis Valley as VRM Class IV, the lowest quality visual classification.

The objective of VRM Class IV is to: provide for management activities, which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention.

The BLM should consider an Open Space Alternative in a Plan Amendment for the Oasis Valley that denies the ROW for Greenlink West and upgrades the VRM Class to VRM Class III which would allow for some economic development but maintain the scenery. The Beatty Master Plan and popularity increase all happened after the low VRM Class was designated.

The Greenlink West Project will cut through Lands With Wilderness Characteristics along the Amargosa River, Mountain Bike Area and extending 2 miles east.

The Greenlink West Project will cut through active mining claims at the objection of the mining companies. How will this be worked out?

Building Greenlink West so close to the Amargosa River will cross over multiple Native American Cultural sites. It will be impossible to avoid all of these sites.

BLM should consider an alternative in Oasis Valley that would divide the Greenlink West Project into 2 230 kV lines which would be much smaller and it would be more feasible to consider underground alternatives for both of these lines.

Desert Tortoise:

The Beatty region area of desert tortoises represents a healthy population that needs more study, and may represent an area that needs further conservation in light of climate change corridors for future population corridor climate refugia.

In 2012, BLM approved the Tolicha Peak Transmission line north and west of Beatty. During desert tortoise surveys, far more were found than expected including along the path of Greenlink West.

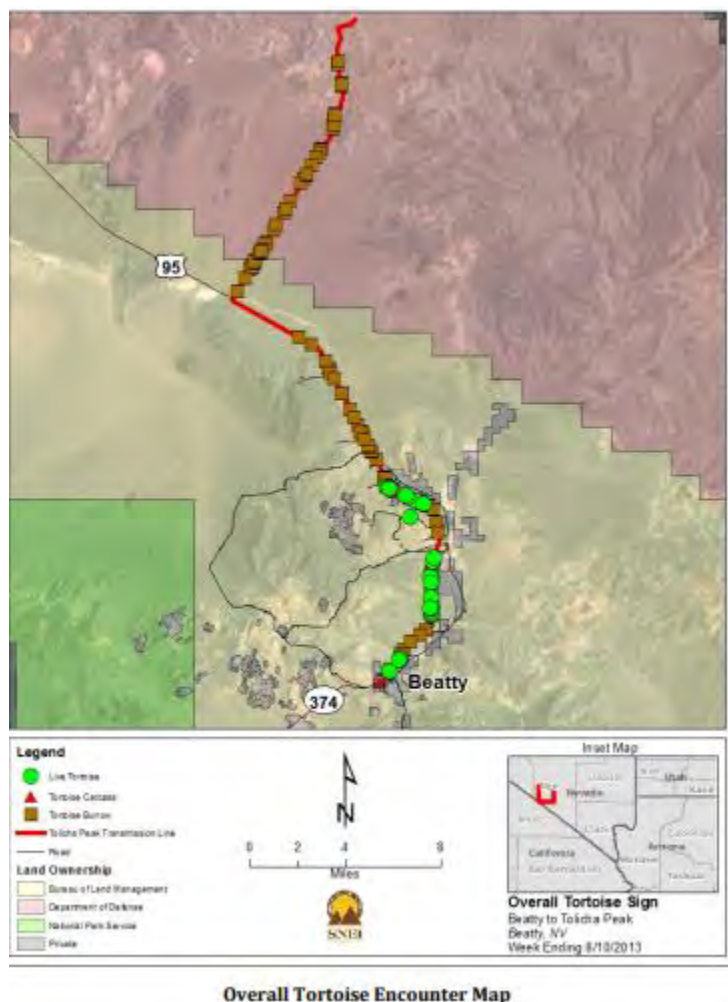


Figure 14. 2012 map of tortoise sign located

Construction of the Greenlink West line is likely to impact bighorn sheep, pronghorn, raptors, Golden Eagle and even Amargosa toads where it crosses the Amargosa River in Oasis Valley.

The project will be built directly and near Amargosa Toad Habitat.

The local community will see no benefits or power from Greenlink West and a No Action Alternative is in the best interest of Beatty, Nevada.

The DEIS states that 107 sites eligible for the NHPA would be impacted by Greenlink West in Oasis Valley and 23 would be adversely impacts. BLM also identifies 43 acres of private land that would potentially have cultural sites in the path.

Oasis Valley Biodiversity:

The Oasis Valley in Nevada lies along the Amargosa River and has numerous springs, marshes, riparian areas, and meadow grasslands with rare plants. It is a birding hotspot as well, for waterbirds and Neotropical migratory birds, as well as resident and breeding desert species. The area supports a high number of nesting golden eagles (*Aquila chrysaetos*) in the surrounding mountain ranges. A large high-voltage transmission line through this area would have large impacts to bird life, as well as potentially increase raven nesting. Ravens are predators on bird nests and desert tortoises.

Oasis Valley is a hotspot for biodiversity and The Nature Conservancy has purchased four properties to conserve and restore to maintain biological resources in the area. Sensitive species locally include the Amargosa toad (*Anaxyrus nelsoni*), Oasis Valley speckled dace (*Rhinichthys osculus* ssp.), and several spring snail species, some of which may be new to science (Family Hydrobiidae).

A new breeding Bell's vireos (*Vireo bellii*) has been discovered and encouraged through riparian restoration. Potential breeding habitats for Federally Endangered Southwestern willow flycatcher (*Empidonax traillii extimus*), and Western yellow-billed cuckoo (*Coccyzus americanus* Distinct Population Segment) are also present with ongoing restoration work of riparian and wetland habitat. How will large transmission lines impact these species and current habitat restoration projects?

Bald and Golden Eagles:

The Nevada Division of Wildlife has identified 35 raptor nests within 10 miles of the Silicon gold exploration project area east of Beatty and 5 golden eagle nests within 4 miles of the project area. One of the nests was occupied. The project site has excellent foraging habitat for eagles and many other species of raptors. The transmission project's close proximity to Oasis Valley increases the potential for diversity of raptors.

Bighorn sheep:

The Bare Mountains harbors one of the best populations of desert bighorn in the state of Nevada. We have no detailed discussion of the impacts to bighorn sheep of all the new roads, construction equipment, noise, habitat fragmentation, or water resource impacts.

Socioeconomic Resources and Environmental Justice:

Greenlink West will adversely impact the scenery, recreational opportunities, mountain bike trails, tourism revenue all of which are important to Beatty. There is no specific analysis on how the project will impact the tourism economy of Beatty in the DEIS.

The town of Beatty has a Master Plan²⁰ and this has been left out of the appendices. How many other towns have master plans that the DEIS overlooked?

²⁰ [Microsoft Word - Beatty_AP_2014-05-12_BTAB.docx \(nyecountynv.gov\)](#)

The long-term goals of the plan encourage tourism and protecting open space values with key planning principles – not converting the area into an energy sacrifice zone.

These Key Planning Principles include:

Key Planning Principles Through multiple town meetings the community identified core values that underlie the following key planning principles used to develop this Plan: Our Community Identity

- *Protect and enhance Beatty's community identity and promote the historical downtown as the community focal point.*
- *Protect Beatty's small town charm by concentrating development in a compact manner within the original townsite where infrastructure is available to support development.*
- *Preserve significant historic buildings and encourage integration of historic buildings into new developments.*
- *Enable the community to maintain the characteristics that make it a desirable location to live, work and raise a family. Our Growth and Development*
- *Promote development within the Historic Townsite, infill development and a mix of uses thereby maximizing use of existing infrastructure.*
- *Improve the variety of commercial establishments in the community and ensure their appropriate location.*
- *Encourage the rural lifestyle by preserving very large lot areas for ranching and other agricultural uses.*
- *Encourage continued community health and development and promote economic diversification by developing the Beatty Airport and Bullfrog industrial park, tourism/ecotourism, mining, agriculture and renewable energy resources.*
- *Identify and protect critical areas of open space, wildlife habitat and significant natural and historic resources, while accommodating new growth in a manner which maximizes the use of existing infrastructure, encourages all transportation opportunities and creates housing and job opportunities for residents of all ages and income levels.*
- *Continue to promote Beatty's identity as a leading tourist destination, and ensure that historical and cultural resources associated with Beatty's mining and railroad history are protected and preserved.*

Sarcobatus Flat

There are numerous archeological sites on the Sarcobatus Flat in the vicinity of the proposed transmission project. We have been told by the Timbisha/Shoshone through personal communication that there is no place to move Greenlink West that will not destroy some archeology sites. The sites are largely composed of worked obsidian chips and are very extensive.

Impacts to the archaeological sites are unavoidable:

The DEIS states: The GLWP components may cause effects to cultural resources/historic properties from ground disturbance during construction. These ground-disturbing activities could have direct physical effects on historic properties, such as displacement of artifacts, features, or cultural deposits, and damage or destruction of artifacts or features. Construction activities that modify the slope of the natural terrain, compact soils, and/or remove vegetation could cause increased erosion of archaeological deposits. The setting of historic properties in the VAPE could be visually affected by the GLWP from the new lines, tower structures, and substation and amplifier sites.

Indirect effects may include illegal artifact collection, vandalism, or looting due to new or increased access to sites or increased visibility of sites.

One mitigation for this is to close all access roads built for Greenlink West to the general public.

The BLM admits that the entire project would adversely impact 182 sites eligible for the National Register of Historic Places (NRHP) and under the National Historic Preservation Act.

A No Action Alternative would avoid these impacts.

Cumulative Impacts and Connected Actions:

The Greenlink line does have 4 large-scale solar applications associated with it on Sarcobatus Flat. Luckily, the town of Beatty objected and the BLM ended up placing these applications on a Low Priority Status. But a new proposed rule on Solar Leasing could end up weakening the prioritization process in favor of solar developers so these applications can still linger.

Vegetation:

The area supports large stands of Western Joshua Trees which are now under protected status in California. The Joshua tree has recently been recognized as composed of two distinct species, the western Joshua tree (*Yucca brevifolia*) and the eastern Joshua tree (*Y. jaegeriana*). The two species occupy different areas of the desert, are genetically and morphologically distinguishable, and have different pollinating moths.

The California population of the Western Joshua tree is recently petitioned for California State Endangered status.¹ The listing petition identifies threats including rising temperatures, drought, habitat loss and vandalism. The Nevada populations share the same genetics as this California population.

We discovered a Bailey's greasewood (*Sarcobatus baileyi*) scrub community in Sarcobatus Flat northward into Esmeralda and Mineral Counties. This unusual southern end of this plant community should be mapped and avoided.

Pronghorn antelope:

The EIS needs to analyze new roads and exploration impacts to Pronghorn antelope (*Antilocapra americana*) in the Sarcobatus Flat area. In fact, there are now records of pronghorn south into

Amargosa Valley, Nevada and even Shoshone, California. This is a surprising oversight. We have observed pronghorn in the project area regularly since 2002. These rare populations need to be analyzed with respect to mining exploration impacts.

The Greenlink West as mapped appears to slice directly through a pronghorn antelope fawning ground that we have found recently in southeastern Sarcobatus Flat, on the east side of US 95. (See photo below.)



Figure 15. Pronghorn antelope mother and newborn fawn during a wildflower bloom just east of US 95 in Sarcobatus Flat. Several pronghorn were giving birth here. The mapped route of the Greenlink line would disturb this sensitive area. 2020. Photo: Kevin Emmerich.

Scotty's Junction

The DEIS states that 65 cultural sites eligible for NHPA. Of those, 12 will be adversely impacted.

Alternative B would run directly through private properties. It is not a surprise that NV Energy did not consider all the private properties that would be impacted by this. It would also run through the Timbisha Shoshone reservation.

Alternative A avoids most of the private lands but still be highly visible. A Plan Amendment could consider upgrading the VRM Class to recognize these visual impacts. An alternative that breaks the line up into 2 230 kV lines would allow NV Energy to bury these lines and avoid these visual impacts.

Socioeconomic Resources and Environmental Justice:

BLM is required to consider impacts from the Action and No Action Alternatives during construction, O&M, and decommissioning. The section analyzes the impacts the GLWP's activities could have on Greenlink West Project Draft EIS/RMP Amendments Chapter 3 May 2023 Page 3-385 population, economic conditions, housing, tourism, outdoor recreation, tax

revenues, property values, education, public services, and Environmental Justice (EJ) populations.

Property Values Residential property values may be affected by the construction of the GLWP.

Adverse effects are more likely when properties are only used for residential use, are very close to the transmission line, and lack landscape or topography that screens the transmission line from view. The variation of effect on property values is highly individualized to specific properties.

Greenlink West will be close to residential private properties in Scotty's Junction and will adversely impact tourism as it will be built within the view of the Shady Lade Bed and Breakfast and the Hard Luck Castle.

Tax Revenues Sales and use tax revenues generated by the Proposed Action are estimated at \$39,549,000. These include taxes paid directly by the Proponent and those paid by Nevada-based contractors in Nevada.

Tax revenues will not benefit residents of Scotty's Junction by more than a few pennies.

There is no adequate analysis specific to Scotty's Junction regarding socio-economic impacts in the DEIS.

Montezuma Range

Greenlink West has the potential to start a fire in this area, Recent drought has caused a moderate mortality of pinyon pines, Joshua trees and other species making the area more vulnerable to wildfires. Who would be the responsible party for wildfire control in this area?

The Montezuma Range supports an extensive population of Western Joshua trees. The species is an Endangered Species in the State of California – also hit hard by drought and vulnerable to wildfire.

During visits to the Montezuma Range. We have encountered a pygmy rabbit, desert bighorn, pronghorn, Golden Eagles, Red-tailed hawks, Prairie falcons, Wild horses, mule deer and other species.

The Greenlink West Project will dramatically alter the visual quality of the area and BLM should consider a Conservation Alternative for the area that recognizes important biological resources, cultural resources and visual resources.

The Montezuma Range has unique visual quality and should not be tarnished with a large transmission project.

The DEIS is not clear about which kind of poles would be strung over the Montezuma Range. Will they be lattice towers, mono poles, H Poles, etc.? Lattice tower poles would create subsidized predator opportunities for ravens. Pygmy rabbits have been located in this area.

The Montezuma Range has an abundance of archeology sites. Worked obsidian chips are common in the area.

The Greenlink West DEIS should move the project out of the Montezuma Range.

Esmeralda

Lands With Wilderness Characteristics:

Greenlink West would pass by NV-050-320, NV -050-330B and NV 050-336A

The visual impacts would be big. The DEIS should be paused so the VRM Class in the area can be better evaluated in a Plan Amendment and potentially upgraded due to BLM identified wilderness values.

The 109 acre Esmeralda Substation will not only have large visual impacts, it will create perches for ravens and other birds and will likely cause collision mortality and perches for subsidized predators.

The BLM states that the Goldfield-Tonopah Transmission Alternative A was eliminated from detailed analysis because it would be inconsistent with the BLM's basic policy objectives for cultural resources in the Approved Tonopah RMP and ROD "to protect archaeological, historical, paleontological, and sociocultural resources and manage for information potential ..., public values ..., and conservation" (BLM 1997). Additionally, this alternative was eliminated from detailed analysis due to the economic infeasibility associated with the \$35.2 million increase in construction costs, as compared to the Proposed Action.

Why did the BLM have no problem approving the project near Beatty which has an equal amount of significant cultural sites?

NV Energy's financial situation should not be considered over protection of natural and cultural resources.

It is our understanding that NV Energy contractors did not survey rare plants in this area due to unreasonable demands to survey large areas in short periods of time, It would appear there are gaps of information in the botanical story here.

Pronghorn:

The line will be placed in pronghorn migration areas and wintering habitat. Solar project connected actions will remove this habitat and block movement.

Wildlife, Vegetation, Special Status Species:

The following should be analyzed in the final EIS:

Bighorn sheep – winter foraging habitat would be impacted.

Monarch butterfly – migration impacts should be analyzed.

Pale kangaroo mouse – habitat loss.

Dark kangaroo mouse – habitat loss.

Burrowing owl – habitat loss.

Golden Eagle - foraging habitat loss, collision hazard.

Spadefoot toad – habitat loss.

American badger – habitat loss.

Ferruginous hawk – foraging habitat loss.

Mule Deer – connectivity loss.

Fringed myotis, spotted bat, Townsend's big-eared bat, and western small-footed bat – foraging habitat loss.

Greater sage grouse -- the potential for impact and need for mitigation should be determined in coordination with the USFWS and NDOW.

Rare plants Nye pincushion, Eastwood milkweed, Nevada dune beardtongue, sanicle biscuitroot, and Toquima milkvetch – habitat loss.

Connected Actions: Associated Solar Application with Esmeralda

There are about 65,000 acres or 100 square miles of large-scale BLM solar applications associated with the Esmeralda Substation land rush. These should be reviewed as Connected Actions and Cumulative Impacts for the Greenlink West Project.

Fugitive Dust:

The potential of developing 65,000 acres of public lands will create a huge dust bowl. Large solar projects in desert areas are very bad for air quality. Removal of stabilized soils and biological soil crust creates a destructive cycle of airborne particulates and erosion. As more stabilized soils are removed, blowing particulates from recently eroded areas act as abrasive catalysts that erode the remaining crusts thus resulting in more airborne particulates. Project sites will have to be graded or mowed. Several miles of new roads, probably over 100 miles worth for all projects, would have to be built. Battery storage, new transmission, lay down areas, etc. will all cause dust issues. How would this impact the communities of Dyer and Tonopah? Valley fever should be considered.

Groundwater and surface hydrology:

If all of these projects were to be built, about 1,000 to 1,500 acre feet per project would be required for dust suppression. Up to 12,000 acre feet of water could be needed to mitigate the dust. Would that come from local wells? Is there enough water in the region for this? Such a large amount of land for each project would alter surface hydrology. How would this impact groundwater resources?

Public Land Access and Recreation:

It is difficult to tell from the maps how many access roads would be cut off from these projects. A full buildout could close over 100 miles worth of backcountry roads.

Avian impacts:

Placing up to 100 square miles of solar panels in this area will have avian impacts. The avian impacts are documented in several solar projects. It is thought that the projects mimic water and cause birds to hit the solar panels. Data from 7 solar projects in California has revealed 3,545 bird kills from 183 species from 2012 to 2016. This can be referenced from the 2016 Multi-Agency Avian Solar Working Group conference from 2016. There is water in the area at Columbus Salt Marsh and the Miller's Rest Stop is used by several species of birds. The nearby Crescent Dunes Solar Project has injured and killed grebes, gulls, ravens, hawks, falcons and a large list of other species.

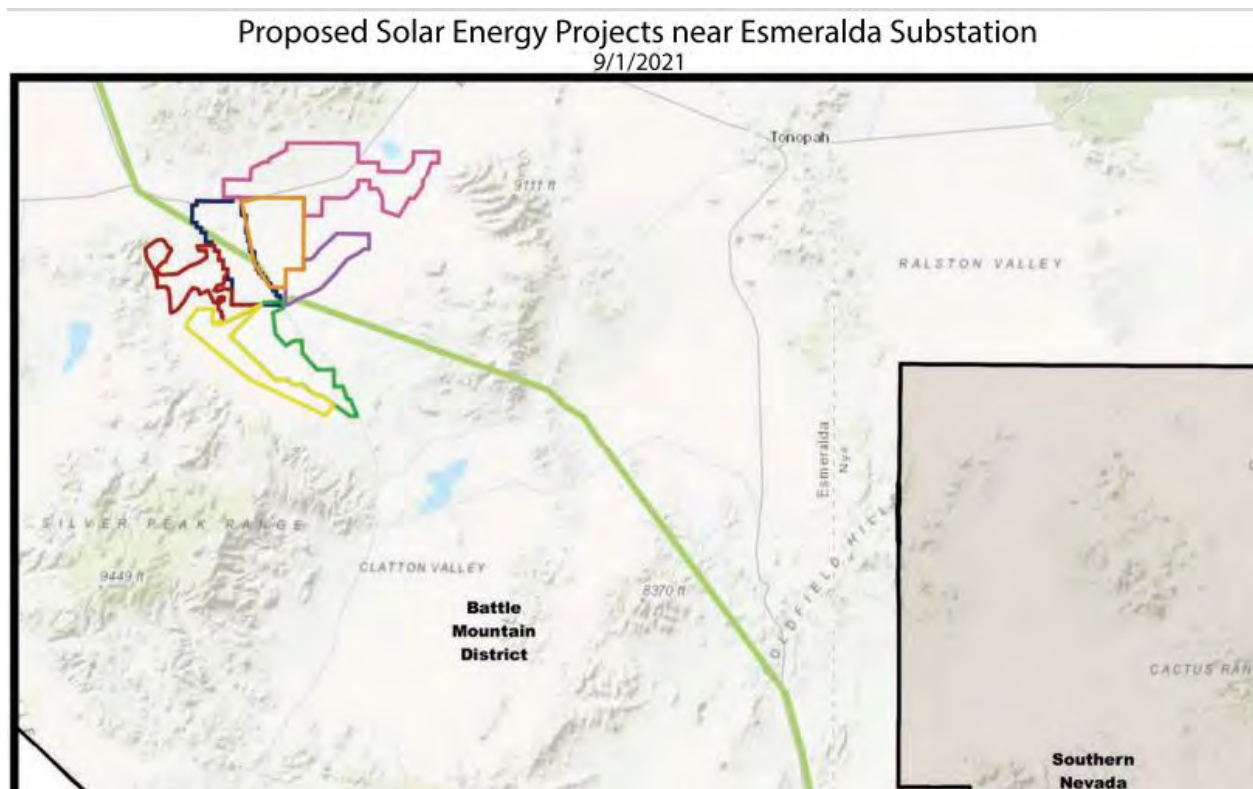


Figure 16. Map of proposed Esmeralda Solar Projects.

Walker Lake and the Wassuk Range

The corridor would endanger raptors, water birds and migrating birds at Walker Lake. Walker Lake has also been recognized as an Important Bird Area.

Avian collision and electrocution should be analyzed. The transmission line would create a collision hazard for birds. A very tall transmission line (to 180 feet towers) would most likely kill a greater number of birds in our region.

The line could run on the east shore of Walker Lake creating visual impacts and endangering avian fauna. Walker Lake has been identified as an Important Bird Area by the Audubon Society. Walker Lake lies at the terminus of the Walker River in Western Nevada. The Walker River is one of three major rivers that drain the east side of the Sierra-Nevada Mountains, and it supports riparian, wetland, riverine, and at its terminus, a desert lake ecosystem. Walker Lake itself is a remnant of ancient Lake Lahontan which covered much of central and northern Nevada during the last Ice Age. Walker Lake provides habitat to Western Snowy Plover, Common Loon, Western, Clarks, and Eared Grebes, Double-crested Cormorant, White-faced Ibis, Tundra Swan, Snow Goose, Gadwall, Redhead, Ruddy Duck, Northern Shoveler, and American White Pelican. Walker Lake is a bald eagle wintering area.

Mount Grant and the Wassuk Range have an important population of desert bighorn sheep, and the habitat should be mapped and avoided.

How will the line impact Lahontan cutthroat trout and riparian habitats as it crosses the Walker River?

The Bi-State sage grouse habitat in the Mount Grant Priority Management Unit (PMU) is proposed to be crossed by pole and lattice tower structures for Greenlink West across the east slope of the Wassuk Range, inside the Mount Grant PMU, and around Walker Lake (DEIS at 3-20). This will attract raven and hawk nesting and a potential increase in predation on sage grouse. The EIS needs to analyze a route that avoids the PMU completely.

Mason Valley National Wildlife Refuge

The DEIS at 3-55 show the proposed transmission line crossing the Mason Valley Wildlife Management Area, which fragments habitat and can lead to waterbird mortality through collision.

The line could be built next to the Mason Valley National Wildlife Refuge and could also cause avian collision mortality for waterbirds. Avian collision and electrocution should be analyzed. The transmission line would create a collision hazard for birds. A very tall transmission line (to 180 feet towers) would most likely kill a greater number of birds in our region.

Fort Churchill State Historic Park

We recommend upgrading the Visual class during the plan amendment.

3. Comments on Appendices

Appendix C – Environmental Management Measures

AiR 1 – to 6: Please consider an alternative that eliminates all diesel vehicles. This is supposed to be green is it not?

Air-7: Dust suppression should include stopping work on days when winds blow over 20 miles per hour.

Air-8: Describe why Sulfur Hexafluoride is dangerous and why only trained personnel can handle it. It happens to be one of the most potent greenhouse gases out there.

Sulfur hexafluoride (SF₆) is a synthetic fluorinated compound with an extremely stable molecular structure. Because of its unique dielectric properties, electric utilities rely heavily on SF₆ in electric power systems for voltage electrical insulation, current interruption, and arc quenching in the transmission and distribution of electricity. Yet, it is also the most potent greenhouse gas known to-date. Over a 100-year period, SF₆ is 23,500 times more effective at trapping infrared radiation than an equivalent amount of carbon dioxide (CO₂). SF₆ is also a very stable chemical, with an atmospheric lifetime of 3,200 years. As the gas is emitted, it accumulates in the atmosphere in an essentially un-degraded state for many centuries. Thus, a relatively small amount of SF₆ can have a significant impact on global climate change.²¹

How will BLM mitigate using 470 miles of transmission that uses the most potent GHG in existence? How does this mitigate climate change?

Bio-1 and Bio-21: *Special status species and threatened and endangered species would be considered in accordance with management policies set forth by the BLM and other appropriate land management agencies (i.e., USFWS, NPS, BIA, DOD, etc.). This will entail conducting pre-construction surveys for special status plant and wildlife species along the Proposed Action and alternatives, and associated facilities as agreed on by the agencies.*

It is our understanding from a FOIA request that BLM and contractors have not conducted plant surveys for the entire line except for Tule Springs Fossil Beds National Monument. At least that was as of early August, 2023. They waited until most of the annual plants have dried out. Construction should not start on the project until plants surveys are finished.

Bio-2: *Herbicide use near special status species and within 100 feet of aquatic resources will be monitored by NV Energy for safety and effectiveness and would follow label requirements; state and federal law; and agency recommendations. Herbicide use with hand spraying will not be used within 100 feet from areas occupied by special status plants (300 feet from occupied areas if herbicide applied from vehicles)*

Please consider using no herbicides extend the buffer of special status plants to 200 feet.

Bio -14: *“A biological monitor will be present during all ground-disturbing and vegetation removal activities to ensure construction is proceeding in compliance with required environmental mitigation measures as well as those measures required by the regulatory agencies.”*

²¹ [Sulfur Hexafluoride \(SF6\) Basics | US EPA](#)

Special status plant surveys will be conducted by qualified botanists prior to construction for the plant species listed in Section 3.3 of the EIS as having high or moderate potential of occurring within either the temporary or permanent disturbance areas for the GLWP.

The biological monitor should have a background and education in biology and should be able to identify multiple species.

Bio-25: *“Construction-related activities would be halted during rainfall events within 300 feet of the Amargosa River and its tributaries and delayed for 24-hours following the end of the initial rainfall event to protect the Amargosa toad.”*

Bio-26: *“Construction related activities should avoid GLWP activity within 300 feet of the Amargosa River and its tributaries during the Amargosa toad breeding season (March – April)”*

Construction near the Amargosa River should be stopped during the entire Amargosa Toad breeding season. Also, heavy construction equipment and poles will probably impact and kill toads hibernating underground during the winter.

Bio-28:

Construction activities will be restricted (i.e., helicopter use, blasting, and vehicle speeds restricted to 25 mph), within the big game (i.e., bighorn sheep and mule deer) winter range from November 1 – March 31

No blasting should be allowed in bighorn sheep habitat period. It is too traumatic.

Bio-31: *To avoid impacts to the Amargosa toad, a qualified biological monitor would be onsite to supervise construction or construction-related activities within Material Yard 7 and along any access roads that cross the Amargosa River or its tributaries near Beatty, including, but not limited to, Fleur de Lis/Boiling Pot Road, Beatty Wash Road, and the unnamed road accessing Fluorospar Canyon*

The construction yard should avoid all Amargosa toad habitat. It can go South of Beatty. The town does not like the location anyway.

Bio-32: *GLWP components such as structure pads will be sited to avoid suitable habitat for Tiehm's peppercress (*Steganowia tiehmii*), Las Vegas bearpoppy (*Arctomecon californica*), and other special status plants, especially in the vicinity of known populations, where feasible.*

Bio-37: *If special status species and threatened and endangered wildlife species are discovered during construction, O&M, or reclamation activities and the animals are not directly within ground disturbance areas, the biological monitor will mark the edges of the ROW and new access roads in the general vicinity to ensure that workers do not leave those areas.*

All Western Joshua trees should be also avoided.

MDT-1.e.: Desert Tortoise Monitors and Clearance Protocols “

Vehicle travel: GLWP personnel will exercise vigilance when commuting to the GLWP area to minimize risk for inadvertent injury or mortality of all wildlife species encountered on paved and

unpaved roads leading to and from the GLWP site. Speed limits will be clearly marked, and all workers will be made aware of these limits. Onsite, personnel will carpool to the greatest extent possible.

In May and June of 2023, BLM and Powers Engineers contractors were driving off established roads near Big Dune, Beatty and Indian Springs to wrap up surveys quickly. So far, contractors have not followed this.

4. Conclusion

Base a No Action Alternative on Distributed Generation

Instead of the need for growing northern Nevada to extract natural gas generation from southern Nevada with a long, inefficient, and very costly high-voltage transmission project, a serious alternative should be looked at where renewable energy is generated locally in order to fulfill the need for industrial high-tech facilities in Reno-Sparks to gain truly clean energy, not associated with Apex natural gas power plants at the other end of the state. This would eliminate the NEED for the Greenlink West Project and justify a No Action Alternative.

Microgrids, rooftop solar systems, parking lot solar canopies, and distributed solar energy storage should be analyzed, close to the load centers where the energy is most needed.

Rooftop solar reduces costs for all ratepayers. This saves everyone money, but also cuts utility profits. That's what this is all about.

- In 2018 alone, rooftop solar and energy efficiency prompted the state of California to scale back more than 20 power line projects, saving \$2.6 billion.
- Maximizing rooftop solar could save American households nearly \$500 billion over the next thirty years, while doubling down on our overreliance on long-distance power lines could cost Americans \$350 billion.²²
- Reducing grid costs cut against utility profits, even if it saves all ratepayers. As the CPUC recently outlined, “IOUs are inherently incentivized to make investments to drive an increase in their rate base and therefore, their profitability.”²³

Stresses to the grid under management of the California Independent System Operator (CAISO) in recent years shines a light on the value of Distributed Energy Resources (DERs). Rolling blackouts across California caused by an August heatwave caused the California Public Utilities Commission (CPUC) on November 19, 2020, to vote unanimously for rulemaking that would

²² [Utility Dive](#) breakdown of this CA Independent Systems Operator report; Vibrant Clean Energy: [Why Local Solar for All Costs Less](#)

²³ The Averch-Johnson effect described on page 24 of the CPUC’s “Utility Costs and Affordability of the Grid of the Future.”

increase capacity on the energy grid by 2021²⁴, and discussion included the need for more DERs.²⁵

Large-scale solar projects connected to long high-voltage transmission infrastructure were less productive, in part due to cloud cover. The August heat storm hit across the western states, so interstate grid energy imports failed. Unexpected shifts in residential peak occurred due to stay-at-home orders during the COVID-19 pandemic, as well as heat waves continuing into the evening hours, which hampered CAISO's scheduling of forecast energy supply. It was the perfect storm.

Climate Change may only increase such heat storms, and DERs are well-positioned to give value and reliability to the grid.

Net Energy Metering solar + storage units could be fairly compensated to discharge their excess capacity and export to the grid in order to reduce load when needed.

DERs should enjoy a value boost compared to non-resilient energy systems—long, high-voltage transmission lines, utility-scale solar projects, and most natural gas power plants.

The Department of Energy has developed methodologies for valuing the resiliency of DERs and microgrids, and the value of flexibility in dealing with increasing levels of intermittent renewable energy. Microgrids are critical and give ancillary services to the grid.

Nevada's beautiful and wild public lands draw recreational seekers and tourism as people view natural vistas, wildlife, climb mountains, and enjoy dark night skies. This economic driver of the state should not be despoiled and cluttered by huge transmission towers and lines, and associated large-scale solar and wind projects.

Before such massive transmission and energy sprawl projects are built, the public should be fully engaged. Tourists value the remote deserts of Nevada, the historic open unbuilt landscapes and wildlife. These high values of the Nevada Outback should not be summarily thrown away in a poorly-planned and rushed energy build-out that is designed to only benefit utilities, and not the average Nevadan.

We need a better, cleaner, more people-centered clean energy transition that includes planning in the public sphere for conservation of natural and cultural resources.

The smarter alternative to destroying high-value Mojave Desert and Sagebrush-steppe biomes and other arid ecosystems in Nevada is obvious: build solar in the cities, on rooftops, over parking lots, in empty lots, on truly degraded lands close to load centers that will minimize transmission costs. Maximize microgrids connecting to local renewable energy generators and storage components that will provide buffers to utility Planned Power Shut-Offs. And will

²⁴ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M349/K862/349862998.PDF>

²⁵ CPUC business meeting, November 19, 2020; agenda: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M350/K955/350955175.pdf>

maximize local jobs, unlike remote desert utility-scale renewable energy projects which almost always bring in out-of-state workers in our experience.

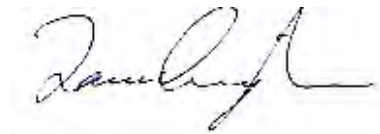
This project should be delayed until the Nevada statewide RMP revision process is started.

Please keep us informed of all further substantive stages in this and related NEPA processes and documents.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Emmerich".

Kevin Emmerich
Co-Founder
Basin and Range watch
PO Box 70
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atomicquailranch@gmail.com

A handwritten signature in black ink, appearing to read "Laura Cunningham".

Laura Cunningham
California Director
Western Watersheds Project
Cima CA 92323
Mailing: P.O. Box 70
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Appendix: Suggested New Botanical Inventory Protocols and Requirements

Need:

We have been in communication with consulting biologists who have identified problems with the required level of work, surveying and reporting required by agencies for botanical surveys. The protocol requirements should be upgraded for all biological resources.

The level of rigor in botanical inventories on BLM lands, particularly in the State of Nevada, appears to be declining. Due to proponents negotiating down inventory intensity or ignoring/omitting botanical inventories altogether (conducting literature reviews) and what appears to be lesser experienced/knowledgeable people engaging in those inventories the following suggestions are being made to improve inventory quality and comprehensiveness. The current BLM NEPA review for the Greenlink West Transmission Project has only literature search information on botanical resources in the entire 13,500-acre project site.

Literature/Data Review:

1. Conduct a thorough literature and available data review of proposed project area and County /Region.
2. Conduct Nevada Natural Heritage Program Data Search.
3. Assemble list of potential sensitive species and host/feeder plant list for pollinators.

Inventory Protocols:

Development of a botanical survey plan must be submitted to, and approved by, the land manager prior to implementation of botanical surveys.

1. Discontinue the Intuitive Controlled Survey methodology as it does not provide adequate or intensive enough coverage and limits potential botanical surveyors to a target list of species (whether by directive or circumstance), when many more species could potentially occur on a proposed project site. Nevada is poorly understood botanically, so limiting inventory work to a set of predetermined sensitive species as target species is ineffectual and lacks rigor, omits data, and skews results.
2. Reference site visits should be required prior to initiation of any sensitive plant inventory. When special status plants are known to occur in the type(s) of habitat present in a project area, observe reference sites (nearby accessible occurrences of the plants) to determine whether those special status

plants are identifiable at the times of year the botanical field surveys take place and to obtain a visual image of the special status plants, associated habitat, and associated natural communities.

3. Botanical field surveys should be comprehensive over the entire project area, including areas that will be directly or indirectly impacted by the project. Adjoining properties should also be surveyed where direct or indirect project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Surveys restricted to known locations of special status plants may not identify all special status plants and unique natural communities present, and therefore do not provide a sufficient level of information to determine potential impacts. Federal agencies and the State should mandate 100% inventory coverage at 10m or less spacing of any area that will receive ground disturbing activities, unless the consultant and proponent can effectively prove that a less intensive inventory is acceptable. An example might be previous surveys done within the project site within the last 10 years for an EA et. al. or for range health analysis if the timing of the past surveys were conducted at the appropriate time(s) of year and surveys were conducted during years with adequate rainfall.

4. All power corridors, linear facility projects (pipelines, fiber optic lines, etc.) should have 100% coverage at 10m thru their entirety, because it is likely that most of the corridor will be impacted, if not the actual expected ROW then often through extra work spaces approvals which may not be determined until after the project is permitted.

5. If the consultant and proponent can prove a less rigorous inventory strategy is acceptable, it should be limited to no less than 70% of the total proposed project area for spatial coverage, area wise in some form of stratified sampling method to provide adequate cross-sectional coverage. This could be long thin rectangles (0.5-1mi x 400ft. etc.) triangles, squares, etc. This sampling method would need to be approved by the lead and/or representative agencies providing project approvals/oversight. At a minimum it should have both a habitat determined (soil stratification, geography stratification, and unique features i.e. wetlands, streambeds, limestone outcrops, etc.) and a random stratified sampling component to identify special/unique habitats or natural communities. Special/Unique habitat or natural communities are habitat features that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects.

The percentage of each would be determined on a project by project basis. See below under Soils/Substrates/Habitat for more information.

6. Timing of botanical surveys must be done within the effective period of anthesis for sensitive annual plants. Botanical field surveys will be conducted in the field at the times of year when plants will be both evident and identifiable. Usually this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the project area. This usually involves multiple visits to the project area (e.g., in early, mid, and late-season) to capture the floristic diversity at a level necessary to determine if special status plants are present. The timing and number of visits necessary to determine if special status plants are present is determined by geographic location, the natural communities present, and the weather patterns of the year(s) in which botanical field surveys are conducted. An exception would be if the botanist/biologist can demonstrably prove they are accomplished enough at forensic botany to do surveys outside the normal bloom period. This approval would be determined by the representative oversight agency. Most Perennial species should be identifiable year round.

7. All sensitive plant populations should be mapped and a 100% count conducted (estimates of population numbers are acceptable for extremely large populations i.e. in excess of 100,000 plants). In addition, the extent of the population should be mapped to a point not to exceed 0.25 miles from the edge of the project area. This is done to assess overall impact to a population.
8. A full floristic survey of the project area needs to be mandated, not just a sensitive plant inventory regardless of sampling method.
9. A full inventory and mapping of invasive/noxious plant species within the project area and extending where allowable via property ownership to a distance of no less than 500 feet from the project perimeter. In addition, an Invasive/Noxious Weed Species Mitigation Plan is required for the project.
10. Comprehensive vegetation mapping will be required using US NVC Standards as described under Soils/Substrate/Vegetation-Habitat Classification below.
11. In Nevada, all cactus and yucca species will be inventoried per Nevada Revised Statute NRS 527 and categorized by height as a relative index of age and for restoration purposes. A standardized set of height categories needs to be established.

Factors contributing to Negative Survey Results and Concomitant Approach

1. Adverse conditions from yearly weather patterns may prevent botanical field surveyors from determining the presence of, or accurately identifying, some special status plants in the project area. Disease, drought, predation, fire, herbivory, or other disturbance may also preclude the presence or identification of special status plants in any given year. Discuss all adverse conditions in the botanical survey report.

The failure to locate a known special status plant occurrence during one field season does not constitute evidence that the plant occurrence no longer exists at a location, particularly if adverse conditions are present. For example, botanical field surveys over a number of years may be necessary if the special status plant is an annual or short-lived plant having a persistent, long-lived seed bank and populations of the plant are known to not germinate every year. Visiting the project area in more than one year increases the likelihood of detecting special status plants, particularly if conditions change. To further substantiate negative findings for a known occurrence, a visit to a nearby reference site may help ensure that the timing of botanical field surveys was appropriate.

Soils/Substrate/Vegetation-Habitat Classification:

1. All inventoried sites should be evaluated for soil types using at a minimum Web Soil Survey to look for discreet habitat types that may contain sensitive species. A soils map showing the pedons occurring in the proposed project area should be part of any botanical report.
2. Any unique or discreet habitats/soil types/rock formations/wetlands or riparian corridors (unique natural communities), that could contain sensitive species are required to have a 100% inventory coverage at 10m or less spacing within the defined extent of such habitats, pedons, or geomorphological features.
3. All projects with ground disturbing activities should be required to have Vegetation Mapping done using U.S. National Vegetation Classification (USNVC) Standards. The use of SWReGap and Landfire

vegetation classifications should be discontinued because they are wildly inaccurate. USNVC and International Vegetation Classification (IVC) standards are superior.

4. All vegetation mapping should be done using Line Intercept, Line Point Intercept, and/or some form of area plot based methods such as standards 20-50m plots with a 100% count of plants within the plot.

5. A comprehensive set of site photographs of the general project area and all unique habitats or natural communities, pedons, or geomorphological features should be taken and submitted with the accompanying survey report.

Reporting Requirements:

Adequate information about special status plants and sensitive natural communities present in a project area will enable reviewing agencies and the public to effectively assess potential impacts to special status plants and unique natural communities and will guide the development of avoidance, minimization, and mitigation measures. The information necessary to assess impacts to special status plants and special/unique natural communities is described below. For comprehensive, systematic botanical field surveys where no special status plants or special/unique habitats or natural communities were found, reporting and data collection responsibilities for botanical field surveyors remains as described below, excluding specific occurrence information.

1. Comprehensive discussion of methods, vegetation community, and sensitive species observed, special/unique habitats or natural communities observed, landform, and soils.

2. For an observation of sensitive plant species and special/unique habitat or natural community detected during a botanical field survey of a project area the following information is required:

- The specific geographic locations where the special status plants and unique natural communities were found. Preferably this will be done by use of global positioning system (GPS) and include the datum in which the spatial data was collected and any uncertainty or error

associated with the data. If GPS is not available, a detailed map (1:24,000 or larger) showing locations and boundaries of each special status plant population and special/unique natural community in relation to the project area is acceptable. Mark occurrences and boundaries as accurately as possible;

- The site-specific characteristics of occurrences, such as associated species, habitat and microhabitat, structure of vegetation, topographic features, soil type, texture, and soil parent material. If a special status plant is associated with a wetland, provide a description of the direction of flow and integrity of surface or subsurface hydrology and adjacent off-site hydrological influences as appropriate;

- The number of individuals in each special status plant population as counted (if population is small) or estimated (if population is large);

- If applicable, information about the percentage of each special status plant in each life stage such as seedling, vegetative, flowering, and fruiting;

- The density of special status plants, identifying areas of relatively high, medium and low density of each special status plant in the project area; and

3. Complete floristic plant list showing native/nonnative and relative abundance.

4. Detailed mapping for sensitive species found, vegetation community, unique natural community, landform, and soils.
5. Discussion of impacts and proposed mitigation.
6. Representative digital site photographs, digital photographs of any sensitive species observed, and sensitive natural communities.
7. Literature review of previous work done in the area/region, if any.

Qualifications:

1. Minimum qualifications to conduct botanical inventories should be at least a degree in botany, biology, forestry or related field and/or 5 years of local botanical experience with demonstrated knowledge of the botanical species in the general area.
2. Must have completed representative projects in the general region or habitat communities. List the projects for review. If a botanist has extensive experience in multiple habitats including desert habitats, they may be approved even if they do not have local experience. This would entail some project risk, see 4. below.
3. If the consultant cannot show representative experience for a project area they shall be required to hire a person/or additional people with local/in situ experience to assist in the inventories.
4. We would propose that an independent team of approved botanists/biologists conduct random checks of project work being performed. This team or person would report directly to the agency.
5. Projects that fail to perform adequate comprehensive inventories or miss large populations of sensitive species/Invasive noxious weeds will need to be re-inventoried in the presence of or by experienced botanists approved by agencies. See item 3 and 4, above.