Appendix B

Ivanpah Valley ACEC (Basin and Range Watch)

General Location:	Clark county, near US Highway 15 south of Las Vegas.
General Description:	Rare, diverse botanical and wildlife resources with largely undisturbed and unfragmented habitat.
Nominated By:	Basin and Range Watch.
Nominated Acreage:	89,599 public land acres.
Values Considered:	Habitat for BLM Nevada Sensitive Species Species.

Relevance

An area meets the "relevance" criterion if it contains one or more of the following:

Relevance Value	Yes/No	Rationale for Determination
A significant historic, cultural, or scenic value (including rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	**No**	Nevada: VRI Class IV
	No	Nevada: Cultural— Historic and prehistoric features are present but similar to resources found elsewhere in the region.
A fish and wildlife resource (including habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).	**Yes**	Agassiz's desert tortoise (*Gopherus agassizii)*—Federally listed (Threatened). This area does not contain designated critical habitat, but the area includes known and modeled habitat, as well as habitat that is likely to support tortoise. West of I-15 contains moderate density habitat, including an artificially high population in the large scale translocation site.
	Yes	Gila Monster (*Heloderma suspectum*)—BLM Nevada Sensitive Species. Observed and habitat present.
	Yes	Desert bighorn sheep (*Ovis canadensis nelson*)—BLM Nevada Sensitive Species. Observed and habitat present in the Lucy Gray Mountains, which is within the nomination, and McCullough and Spring Mountains.
	Yes	Western burrowing owl (*Athene cunicularia*)—BLM Nevada Sensitive Species. Observed and year-round habitat present.
	Yes	Golden eagle (*Aquila chrysaetos*)—BLM Nevada Sensitive Species. Habitat is present, birds observed in McCollough Mountains to the east of the nomination.
	Yes	Loggerhead shrike (*Lanus ludovicianus*)—BLM Nevada Sensitive Species. Observed and habitat present.
	Yes	Le Conte's thrasher (*Toxostoma lecontei*)—BLM Nevada Sensitive Species. Area includes year round habitat.
	No	Crissal Thrasher (*Toxostoma crissale*) – former BLM Nevada Sensitive Species. Dense mesquite and acacia habitat is not present in Nevada in the nomination area.
	No	Vaux's swift (*Chaetura vaux*) – No threat ranking designated and non-breeding status within Nevada. Woodland habitat not present within nomination area of Nevada.
	Yes	Brewer's sparrow (*Spizella breweri*)—BLM Nevada Sensitive Species. Nomination area includes summer habitat.

Relevance Value	Yes/No	Rationale for Determination
	Yes	Gray vireo (*Vireo vicinior*) – former BLM Nevada Sensitive Species. Habitat present in areas with mesquite and acacia.
	No	Hepatic tanager (*Piranga flava*) – not a BLM Nevada Sensitive Species. No records in the NNHP within southern Nevada. Non-breeding status within NV. Accidental (casual or stray) within the state, usually far outside its normal range, seen infrequently and irregularly.
	No	sage thrasher (*Oreoscoptes montanus*) - CDFG species of Special Concern – potential winter and migration range. A sagebrush species.
	No	northern goshawk (*Accipiter gentillis*) – not a BLM Nevada Sensitive Species. Forest habitat is not present.
	Yes	northern harrier (*Circus cyaneus*) – not a BLM Nevada Sensitive Species. Potential winter habitat. Sighted at Primm Valley Resort.
	Yes	long-eared owl (*Asio otus*) - not a BLM Nevada Sensitive Species. Potential year-round range. Sighted near Primm Valley Resort.
	Yes	short-eared owl (*Asio flammeus*) - not a BLM Nevada Sensitive Species. Potential winter range.
	No	black swift (*Cypseloides niger*) - not a BLM Nevada Sensitive Species. No recorded sightings and Nevada not considered habitat.
	No	Lucy's warbler (*Oreothlypis luciae*) - not a BLM Nevada Sensitive Species. Habitat is mesquite bosques. No habitat in Nevada portion of the nomination.
	No	yellow warbler (*Dendroica petechia*) - not a BLM Nevada Sensitive Species. Habitat present in areas with mesquite and acacia near water. No habitat in Nevada portion of the nomination.
	No	Whip-poor-will (*Caprimulgus vociferous*) - not a BLM Nevada Sensitive Species. Generally considered outside range of Eastern whip-poor-will. Whip-poor-will sighting recorded in Death Valley, likely the newly described Mexican whip-poor-will (*Antrostomus arizonae*). No observations recorded in Ivanpah Valley.
	Yes	Costa's hummingbird (*Calypte costae*) - not a BLM Nevada Sensitive Species. Observed and habitat present in Ivanpah Valley, CA.
	Yes	Calliope hummingbird (*Stellula calliope*) - not a BLM Nevada Sensitive Species. Nomination is within the range of the species.
	No	Williamson's sapsucker (*Sphyrapicus thyroideus*) – not a BLM Nevada Sensitive Species. Nomination is considered outside the range of the species.
	No	willow flycatcher (*Empidonax traillii*) – not a BLM sensitive species. Does not occur within the nominated area in Nevada. No riparian habitat present. The listed Southwestern willow flycatcher does not occur in the nominated area.
	No	mountain plover (*Charadrius maontanus*) - not a BLM Nevada Sensitive Species. Outside winter and breeding range.

Relevance Value	Yes/No	Rationale for Determination
	Yes	cactus wren (*Campylorhynchus brunneicapillus*) - not a BLM Nevada Sensitive Species. Habitat present.
	Yes	Ferruginous hawk (*Buteo regalis*)—BLM Nevada Sensitive Species. Area includes winter habitat.
	Yes	Peregrine falcon (*Falco peregrines*)—BLM Nevada Sensitive Species. Area includes foraging habitat. No nesting documented within nomination in Nevada.
	Yes	Lewis's woodpecker (*Melanerpes lewis*)—BLM Nevada Sensitive Species. Area includes migration and winter habitat.
	No	Mule deer (*Odocoileus hemionus*) – Nevada game species managed by NDOW. Habitat in Nevada located in the McCullough Mtns outside the nomination area.
A natural process or system (including endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	**Yes**	Nevada agave (*Agave utahensis* var. *nevadensis*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Wright's beebrush (*Aloysia wrightii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Small-flowered androstephium (*Androstephium breviflorum*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Desert bearpoppy (*Arctomecon merriamii*) - BLM Nevada Sensitive Species. The plant has been recorded within the nominated area.
	Yes	Mojave milkweed (*Asclepias nyctaginifolia*) - not a BLM Nevada Sensitive Species. The plant has been recorded within the nominated area.
	No	Borrego milkvetch (*Astragalus lentiginosus* var. *borreganus*) - not a BLM Nevada Sensitive Species. Clark County, NV is not considered within the geographic range of the species.
	Yes	Tidestrom's milkvetch (*Astragalus tidestromii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	No	Chihuahua scaly cloakfern (*Astrolepis cochisensis* ssp. *cochisensis*) - not a BLM Nevada Sensitive Species. Clark County, NV is not considered within the geographic range of the species.
	Yes	black grama (*Bouteloua eriopoda*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	red grama (*Bouteloua trifida*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Small threadstem sandmat (*Chamaesyce revoluta*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	purple bird's beak (*Cordylanthus parviflorus*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.

Relevance Value	Yes/No	Rationale for Determination
	Yes	desert pincushion (*Corypantha chlorantha*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Gilman's springparsley (*Cymopteris gilmanii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Utah vine milkweed (*Cynanchum utahenses*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Nine-awned pappus grass *(Enneapogon desvauxii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Utah fleabane (*Erigeron utahensis*) - not a BLM Nevada Sensitive Species. The species is found within San Bernardino County, CA therefore the nomination may be within the geographic range of the species.
	Yes	Hairy woollygrass (*Erioneuron pilosum*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Clark Mountain spurge (*Euphorbia exstipulata* var. *exstipulata*) - not a BLM Nevada Sensitive Species. The species is found within San Bernardino County, CA therefore the nomination may be within the geographic range of the species.
	Yes	Limestone bedstraw (*Galium proliferum*) - not a BLM Nevada Sensitive Species. The species is found within San Bernardino County, CA therefore the nomination may be within the geographic range of the species.
	Yes	Parish's club-cholla (*Grusonia parishii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	California false pennyroyal *(Hedeoma nanum* var. *californicum*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Polished blazingstar (*Mentzelia polita*) - BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Wingseed blazingstar (*Mentzelia pterosperma*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Utah mortonia (*Mortonia utahensis*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Crowned muilla (*Muilla coronata*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Cavedwelling evening primrose *(Oenothera cavernae)* - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Aven Nelson's phacelia *(Phacelia anelsonii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.

Relevance Value	Yes/No	Rationale for Determination
	No	Skyblue phacelia (*Phacelia coerulea*) - not a BLM Nevada Sensitive Species. The species is located in pinyon-juniper woodland, therefore would not occur within the nominated area.
	Yes	Goodding's phacelia (*Phacelia pulchella* var. *gooddingii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Chinese lantern (*Physalis lobata*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	Desert portulaca (*Portulaca halimoides*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	No	Abert's sanvitalia (*Sanvitalia abertii*) - not a BLM Nevada Sensitive Species. The species is located in pinyon-juniper woodland, therefore would not occur within the nominated area.
	Yes	Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) - not a BLM Nevada Sensitive Species. The plant has been recorded within the nominated area in CA.
	Yes	Branched noseburn *(Tragia ramosa)* - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	White Margin Penstemon (*Penstemon albomarginatus*) - BLM Nevada Sensitive Species. Two populations of the species are located in the Ivanpah Valley.
	Yes	Aven Nelson phacelia (*Phacelia anelsonii*) - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	Yes	rosy twotone beardtongue (*Penstemon bicolor* ssp. *roseus*) - BLM Nevada Sensitive Species. The species has been documented within the nominated area in NV.
	Yes	yellow twotone penstemon (*Penstemon bicolor* ssp. *bicolor*) - BLM Nevada Sensitive Species. The species has been documented within the nominated area in NV.
	Yes	Death Valley ephedra *(Ephedra funerea)* - not a BLM Nevada Sensitive Species. The plant has been recorded within the nominated area in CA.
	Yes	New York Mountains catseye *(Cryptantha tumulosa)* - not a BLM Nevada Sensitive Species. The nomination is within the geographic range of the species.
	No	Spring Mountains milk-vetch *(Astragalus remotus)* - BLM Nevada Sensitive Species. This species has only been documented in the Spring Mountains. The nomination is not considered to contain the species.
	No	Nye milk-vetch (*Astragalus nyensis*) - not a BLM Nevada Sensitive Species. This species has not been documented within the nominated area.
	No	Mojave milk-vetch*(Astragalus mohavensis var. mohavensis))* - not a BLM Nevada Sensitive Species. This species has not been documented within the nominated area.

Relevance Value	Yes/No	Rationale for Determination
	Yes	Biological Soil Crusts—Present in the Ivanpah Valley.
Natural hazards (including areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous if it is determined through the resource management planning process that it has become part of a natural process).	**No**	Not nominated for this value.

Importance

The value, resource, system, process, or hazard described above must have substantial significance and values to satisfy the "importance" criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:

Guidance for management related to BLM sensitive species is found in Manual Section 6840.
Criteria used for BLM Nevada Sensitive Species include:

1. information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or

2. the species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.

Also included are species under review by the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

Importance Value	Yes/No	Rationale for Determination
Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared with any similar resource.	**No**	Agassiz's desert tortoise —The area is not designated critical habitat for this listed species. While there is habitat, habitat quality and population densities within the Nevada portion of Ivanpah Valley are not more distinctive than other habitat in the region. In addition, the habitat for the wild population on the west side of I-15 is fragmented by tortoise fence barriers to separate the experimental population in the large scale translocation site from the wild population.
	No	Though the following BLM Nevada Sensitive Species may occur within the nominated area, the habitat and populations in this area are not more than locally significant. • Gila Monster • desert bighorn sheep • Brewer's sparrow • ferruginous hawk • golden eagle • Le Conte's thrasher • Lewis's woodpecker • loggerhead shrike • peregrine falcon • western burrowing owl • desert bearpoppy • polished blazingstar • rosy twotone beardtongue • yellow twotone penstemon
	Yes	White-margined penstemon—The area represents a significant population of a regionally endemic plant.

Importance Value	Yes/No	Rationale for Determination
	No	Though the following species may occur within the nominated area, the species have been reviewed in accordance with BLM Manual Section 6840 and did not meet the criteria for BLM Nevada Sensitive Species (October 2011). Habitat and populations in this area are not more than locally significant. • cactus wren • calliope hummingbird • Costa's hummingbird • gray vireo • long-eared owl • northern harrier • short-eared owl • Aven Nelson phacelia (*Phacelia anelsonii*) • black grama (*Bouteloua eriopoda*) • Branched noseburn *(Tragia ramosa)* • California false pennyroyal *(Hedeoma nanum* var. *californicum*) • cavedwelling evening primrose *(Oenothera cavernae)* • chinese lantern (*Physalis lobata*) • Clark Mountain spurge (*Euphorbia exstipulata* var. *exstipulata*) • crowned muilla (*Muilla coronata*) • Death Valley ephedra *(Ephedra funerea)* • desert pincushion (*Corypantha chlorantha*) • desert portulaca (*Portulaca halimoides*) • Gilman's springparsley (*Cymopteris gilmanii*) • Goodding's phacelia (*Phacelia pulchella* var. *gooddingii*) • hairy woollygrass (*Erioneuron pilosum*) • limestone bedstraw (*Galium proliferum*) • Mojave milkweed (*Asclepias nyctaginifolia*) • Nevada agave (*Agave utahensis* var. *nevadensis*) • New York Mountains catseye *(Cryptantha tumulosa)* • nine-awned pappus grass *(Enneapogon desvauxii*) • Parish's club-cholla (*Grusonia parishii*) • purple bird's beak (*Cordylanthus parviflorus*) • red grama (*Bouteloua trifida*) • Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) • small threadstem sandmat (*Chamaesyce revoluta*) • small-flowered androstephium (*Androstephium breviflorum*) • Tidestrom's milkvetch (*Astragalus tidestromii*) • Utah fleabane (*Erigeron utahensis*) • Utah mortonia (*Mortonia utahensis*) • Utah vine milkweed (*Cynanchum utahenses*) • wingseed blazingstar (*Mentzelia pterosperma*) • Wright's beebrush (*Aloysia wrightii*)

Importance Value	Yes/No	Rationale for Determination
Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	**Yes**	Agassiz's desert tortoise — Populations and habitat within the Ivanpah Valley are important to maintain population connectivity for the Northeastern Recovery Unit of Agassiz's desert tortoise. The habitat for the wild population on the west side of I-15 is fragmented by tortoise fence barriers to separate the experimental population in the large scale translocation site from the wild population. Development of solar facilities within CA and NV and lack of habitat connection corridors under I-15 have left a narrow area of habitat occupied by tortoises within the nomination area east of I-15 along the Lucy Gray Mountains that maintains population connectivity. In addition, increased human use of the area for recreation and mining and increased demand for transmission utilities further threaten the function of the habitat corridor along the Lucy Gray Mountains. "Corridors" are defined as narrow areas of habitat in which resident tortoises persist and continue to interact with their neighbors within and outside the corridor, rather than a more narrow band of habitat will allow an individual tortoise to move through it to the other side, breed with a tortoise on that side, and produce viable offspring that contribute to the next generation.
	No	Though the following BLM Nevada Sensitive Species may occur within the nominated area, the habitat and populations in this area have not been identified as requiring special land designation to meet conservation goals. • Gila Monster • desert bighorn sheep • Brewer's sparrow • ferruginous hawk • golden eagle • Le Conte's thrasher • Lewis's woodpecker • loggerhead shrike • peregrine falcon • western burrowing owl • desert bearpoppy • polished blazingstar • rosy twotone beardtongue • yellow twotone penstemon
	Yes	White-margined penstemon—Due to the limited distribution of suitable habitat for this species, circumstances could occur if habitat were not protected that makes this population fragile, and vulnerable to adverse change.

Importance Value	Yes/No	Rationale for Determination
	No	Though the following species may occur within the nominated area, the species have been reviewed in accordance with BLM Manual Section 6840 and did not meet the criteria for BLM Nevada Sensitive Species (October 2011). Habitat and populations in this area are not fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change at this time. • cactus wren • calliope hummingbird • Costa's hummingbird • gray vireo • long-eared owl • northern harrier • short-eared owl • Aven Nelson phacelia • black grama • Branched noseburn • California false pennyroyal • cavedwelling evening primrose • chinese lantern • Clark Mountain spurge • crowned muilla • Death Valley ephedra • desert pincushion • desert portulaca • Gilman's springparsley • Goodding's phacelia • hairy woollygrass • limestone bedstraw • Mojave milkweed • Nevada agave • New York Mountains catseye • nine-awned pappus grass • Parish's club-cholla • purple bird's beak • red grama • Rusby's desert-mallow • small threadstem sandmat • small-flowered androstephium • Tidestrom's milkvetch • Utah fleabane • Utah mortonia • Utah vine milkweed • wingseed blazingstar • Wright's beebrush
Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	**No**	Agassiz's desert tortoise — While the species is Federally listed, there is no designated critical habitat in the area. While the species receives protection from the Endangered Species Act, the absence of designated critical habitat shows this area has not been specifically recognized as warranting protection to meet national priority concerns or to carry out the mandates of FLPMA at this time.

Importance Value	Yes/No	Rationale for Determination
	No	Though the following BLM Nevada Sensitive Species may occur within the nominated area, the habitat and populations in this area have not been specifically recognized as warranting protection to meet national priority concerns or to carry out the mandates of FLPMA at this time. • Gila Monster • desert bighorn sheep • Brewer's sparrow • ferruginous hawk • golden eagle • Le Conte's thrasher • Lewis's woodpecker • loggerhead shrike • peregrine falcon • western burrowing owl • desert bearpoppy • polished blazingstar • rosy twotone beardtongue • white margin penstemon • yellow twotone penstemon

Importance Value	Yes/No	Rationale for Determination
	No	Though the following species may occur within the nominated area, the species have been reviewed in accordance with BLM Manual Section 6840 and did not warrant protection to satisfy national priority concerns or to carry out the mandates of FLPMA at this time. • cactus wren • calliope hummingbird • Costa's hummingbird • gray vireo • long-eared owl • northern harrier • short-eared owl • Aven Nelson phacelia • black grama • Branched noseburn • California false pennyroyal • cavedwelling evening primrose • chinese lantern • Clark Mountain spurge • crowned muilla • Death Valley ephedra • desert pincushion • desert portulaca • Gilman's springparsley • Goodding's phacelia • hairy woollygrass • limestone bedstraw • Mojave milkweed • Nevada agave • New York Mountains catseye • nine-awned pappus grass • Parish's club-cholla • purple bird's beak • red grama • Rusby's desert-mallow • small threadstem sandmat • small-flowered androstephium • Tidestrom's milkvetch • Utah fleabane • Utah mortonia • Utah vine milkweed • wingseed blazingstar • Wright's beebrush
Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	**No**	Area was not nominated for this value. None known to be present.
Poses a significant threat to human life and safety or to property.	**No**	Area was not nominated for this value. Not present.

Nominated Area to Potential ACEC

This area was nominated to include 89,599 acres of public land. Basin and Range Watch identified this area as being important for several sensitive species. Their nomination states, "The Ivanpah Valley

contains an important habitat that supports a variety of rare and important species as well as important visual and cultural resources. The Ivanpah Valley is also undergoing pressure to develop various land uses. Golden Eagle, Western Burrowing Owl, Peregrine Falcon, chuckwalla and Gila monster occur here, as well as many rare plants from Nevada and California."

The BLM interdisciplinary team determined that 40,180 nominated acres meet criteria for both relevance and importance and will be considered in the Draft EIS. Specifically, the following meet at least one criterion for both relevance and importance:

- Agassiz's desert tortoise – 30,912 acres

- White-margined penstemon – 13,795 acres (based on presence surveys and habitat modeling that includes low potential habitat)

Approximately 4527 acres of white-margined penstemon habitat around Roach Dry Lakebed overlaps with the area meeting relevance and importance for Agassiz's desert tortoise. This will be considered as one 30,912-acre unit in the Draft EIS.

The Congressional disposal area for the Southern Nevada Supplemental Airport contains 4181 acres of the white-margined penstemon habitat around Roach Dry Lakebed. Populations within the disposal boundary will not be further analyzed for ACEC designation within this planning effort.

The remaining penstemon habitat is located in a population around Jean Dry Lakebed and in Hidden Valley. The Basin and Range Watch nomination area does not include this entire population. BLM has analyzed this population as a whole unit within the Jean Lake ACEC nomination.

The BLM interdisciplinary team determined that the area does not meet the criteria of relevance and importance for cultural values and natural hazards. BLM acknowledges the value of many of the fish and wildlife species and natural process or systems nominated that did not meet the importance criteria. Many of the current ACECs and proposed ACECs contain these resources and will provide adequate protection. In addition, the RMP contains objectives and minimization measures to provide protection for these resources outside designated areas.

OUTSTANDING ENVIRONMENTAL RESOURCES AND VALUES OF THE IVANPAH VALLEY PUBLIC LANDS:

A Nomination to the U. S. Bureau of Land Management (Needles Field Office) for Area of Critical Environmental Concern (ACEC) Status, Ivanpah Valley, California and Nevada

Submitted by Basin and Range Watch on October 23, 2011
to:

Mary Jo Rugwell
District Manager
Bureau of Land Management
4701 North Torrey Pines Drive
Las Vegas, NV
89130

SUMMARY

This petition nominates the public lands in the Ivanpah Valley for status as an Area of Critical Environmental Concern (ACEC). These lands are primarily located in Clark County, Nevada and San Bernardino County, California and are roughly 202 square miles (129,379 acres) in extent. About 50 square miles would be on the California side and 152 square miles would be on the Nevada side. The acreage for the nomination in the Las Vegas Resource Area is: 98,300 acres. This nomination describes the significant environmental resources and values of these lands, and the need for special management attention. The Ivanpah Valley contains an important habitat that supports a variety of rare and important species as well as important visual and cultural resources. The Ivanpah Valley is also undergoing pressure to develop various land uses. Renewable energy is now a very large part of this picture. The Ivanpah Solar Electric Generating System is under construction and will remove 3,600 acres of habitat. The First Solar Stateline project would be located adjacent to the Ivanpah Project and would remove an additional 2,200 acres. The first phase of the Silver State Project is being built across the state line near Primm, Nevada which is 600 acres. In addition, First Solar is seeking to develop a Right of Way for 4,000 more acres of public land on the Nevada side.

Other development proposals in the Ivanpah Valley include:

The Desert Xpress High Speed Railroad;

The Molycorp Mine expansion;

Mining claims include Elissa's rare earth mining claims, totaling approximately 4,460 acres near Primm, Nevada

The proposed Ivanpah airport on Roach Dry Lake that would cover 6,500 acres.

Other solar and wind applications could potentially remove more habitat and block wildlife connectivity.

This proposal to preserve lands in Ivanpah Valley as an Area of Critical Environmental Concern is a response to the recent impacts that have occurred from the Ivanpah Solar Electric Generating System as well as proposals to develop more solar energy on lands of high ecological and conservation value. This proposal is intended to be an alternative to approval of Right of Way Applications for additional energy proposals.

The Ivanpah Valley contains outstanding examples of rare, diverse botanical and wildlife resources. It contains archeological resources and is culturally significant to Native Americans. Ivanpah Valley contains wilderness values and scenic visual significance. It is located next to federally designated wilderness areas and the Mojave National Preserve, the third largest unit of the National Park system in the Continental United States .

In the Mojave Desert Ecoregional Assessment undertaken by The Nature Conservancy, Ivanpah Valley is identified as Ecologically Core in California and parts of Nevada, with most of the Nevada portion identified as Ecologically Intact.

These values are defined as:

"Ecologically Core: These lands of highest conservation value are largely undisturbed and un-fragmented, and support the conservation targets species, ecological systems, springs and seeps) selected for this analysis. Their full protection is critical for long-term conservation of biodiversity in the Mojave Desert."

and

"Ecologically Intact: These lands of high conservation value are largely undisturbed and unfragmented and support conservation targets. They buffer Ecologically Core lands and require levels of protection that will allow them to remain relatively undisturbed to preserve ecological processes and to provide viable habitat and connectivity for native animals, plants, and communities." (Randall et al. 2010)

This ACEC nomination seeks to preserve the following resources:

Biological Resources:

Plants:

Ivanpah Valley is a core area of the biologically rich eastern Mojave Desert where plant diversity rivals that of the primeval coastal redwood forests of the Pacific Northwest. It lies at the heart of the Mojave Desert, an area treasured by scientists throughout the world for its unparalleled pristine quality among deserts, and recognized as one of the world's last functional ecosystems. Ivanpah Valley lies at the hub of a floristic frontier where botanists continue to discover new species to science, and it harbors high concentrations of rare plant species. Twelve rare plants species were documented on the approved Ivanpah Solar Electric Generating System project site.

Ivanpah Valley provides habitat for numerous rare plants (see list below), such as Mojave Milkweed, White-margined Penstemon, and Desert Pincushion. Many species have peripheral populations here, and the area is important for the long-term conservation of genetic diversity and evolutionary potential of their species, particularly within the context of uncertain climatic changes to their habitat. The benefit of preserving intact

habitat and connectivity with surrounding areas is well documented in conservation science literature. It is vital to preserve metapopulations and the processes that sustain them.

Rare plant status and regulations may vary between Nevada and California. An ACEC designation for the Ivanpah Valley in both California and Nevada would provide an opportunity to apply more efficient conservation measures in both states.

Special-status plant species known to occur in the Proposed Ivanpah ACEC. Compiled by James M. Andre, Director of the Sweeney Granite Mountains Desert Research Center & Sacramento Mountains Reserve, University of California - Natural Reserve System, August 28, 2011:

Agave utahensis var. nevadensis
Aloysia wrightii
Androstephium breviflorum
Arctomecon merriamii
Asclepias nyctaginifolia
Astragalus lentiginosus var. borreganus
Astragalus tidestromia
Astrolepis cochisensis ssp. cochisensis
Bouteloua eriopoda
Bouteloua trifida
Chamaesyce revoluta
Cordylanthus parviflorus
Corypantha chlorantha
Cymopteris gilmanii
Cynanchum utahensis
Enneapogon desvauxii
Erigeron utahensis
Erioneuron pilosum
Euphorbia exstipulata var. exstipulata
Galium proliferum
Grusonia parishii
Hedeoma nanum var. californicum
Mentzelia polita
Mentzelia pterosperma
Mortonia utahensis
Muilla coronata
Oenothera cavernae
Penstemon bicolor ssp. roseus
Phacelia anelsonii
Phacelia coerulea
Phacelia pulchella var. gooddingii
Physalis lobata
Portulaca halimoides
Sanvitalia abertii
Sphaeralcea rusbyi var. eremicola
Tragia ramosa

The California Energy Commission staff considered impacts to five rare plants for the Ivanpah Solar Electric Generating System: Mojave milkweed (*Asclepias nyctaginifolia*), Desert pincushion (*Coryphantha chlorantha*), Nine-awned pappus grass (*Enneapogon desvauxii),* Parish's club-cholla (*Grusonia parishii),* and Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) to be significant according to California Environmental Quality Act (CEQA) guidelines because the project would eliminate a substantial portion of their documented occurrences in the state.

"Given the project's location on a large portion of the Ivanpah Valley, and in particular, the bajada and alluvial fans that support special- status plant species, it is reasonable to conclude that a substantial portion of the suitable habitat for these plants would be affected by construction of the ISEGS project, increasing the threat of local extirpation of the Ivanpah Valley proportion of these species' ranges" (Final Environmental Impact Statement for Ivanpah Solar Electric Generating System, page 6.2-71).

Rusby's desert-mallow is considered by the California Native Plant Society to be especially of concern, and is on its List 1B - Rare, threatened, or endangered in California and elsewhere. (California Native Plant Society. 2011. Inventory of Rare, Threatened, and Endangered Plants of California. Accessed at http://www.rareplants.cnps.org/.)

Rusby's Desert-Mallow is a California endemic perennial herb; it is documented globally from less than 30 occurrences in Inyo and San Bernardino Counties in the Death Valley Region and eastern Mojave Desert in the Clark Mountain Range. It has a California Natural Diversity Database state rank of S2 (imperiled). It occurs in the Clark Mountain Range at Ivanpah Springs, on desert slopes and gravelly sandy washes and often in carbonate and limestone substrate, extending into the project area. This plant is also a BLM-sensitive plant species detected on site. This species was not detected during the 2007 surveys, but in 2008 15 individuals were mapped in 12 locations in Mojave creosote bush scrub within Ivanpah 1, 2, and 3, the construction logistics area, and the utility corridor.

Mojave Milkweed is limited to a very small area in eastern San Bernardino County. Currently, it is known from less than 25 occurrences, 16 of which occur in Ivanpah Valley in the project area. Its distribution outside of Ivanpah Valley is limited to a few very old historic collections and only two other populations that have been confirmed extant. This plant also occurs in Arizona, New Mexico, and Nevada but it has a California state rank of S1 (critically imperiled and vulnerable to extirpation from the state due to extreme rarity).

Other rare plants are somewhat more widespread, but taking into account the cumulative impacts of the dozens of other large utility-scale solar applications pending in the desert, this is little comfort: Small-Flowered Androstephium (*Androstephium breviflorum*), Utah Vine Milkweed (*Cynanchum utahense*), and Desert portulaca (*Portulaca halimoides).*

The California Native Plant Society noted that summer-rain germinating species of plants are quite rich and well-represented in Ivanpah Valley.

The California Native Plant Society further commented that the project would eliminate several square miles of occupied rare plant habitat. "There are no known techniques to mitigate for the loss of rare plants and their habitat in desert environments. Avoidance is the only mitigation that is appropriate for this site. There is no known method to compensate for the loss of this rare plant habitat. Simple habitat acquisition for the desert tortoise cannot provide adequate compensation for the loss of this high quality rare plant habitat. To be able to find comparable compensation habitat for the rare plants will require an enormous amount of fieldwork to survey private lands that might be occupied. Simple translocation of the adult plants does not perpetuate

population structures for long term productivity and is an unproven mitigation for habitat destruction. The scale of destruction of subsurface ecosystem components and seed banks is impossible to mitigate. Currently, there are no known mitigation actions that are successful for desert plants and habitats." (ibid. page 6.2-77-78).
The Nevada portion of Ivanpah Valley also has numerous rare plants, including some of the few populations of White-margined penstemon which is being petitioned for listing under the federal Endangered Species Act. Although this is not a comprehensive list, these species have been found on the fan region east of Primm:

Aven Nelson Phacelia *(Phacelia anelsonii)*
Rosy Twotone Beardtongue *(Penstemon bicolor ssp. roseus)*
Yellow Twotone Penstemon *(Penstemon bicolor ssp. bicolor)*
White-Margined Penstemon *(Penstemon albomarginatus)*
Death Valley Ephedra *(Ephedra funerea)*
New York Mountains Catseye *(Cryptantha tumulosa)*
Spring Mountains Milk-Vetch *(Astragalus remotus)*
Nye Milk-Vetch *(Astragalus nyensis)*
Mojave Milk-Vetch*(Astragalus mohavensis var. mohavensis)*
White Bear Poppy *(Arctomecon merriamii)*

Biological Soil Crusts:

Soil biological crust is a mix of organisms that occupy and protect the surface of the soil in most desert ecosystems. The organisms often include filamentous and non-filamentous cyanobacteria, mosses, lichens, liverworts and fungi. Biological soil crusts are common throughout the proposed ACEC boundaries.

Damage to intact desert soils with biotic crusts and the resulting increased siltation during flooding and dust can adversely impact desert ecosystems. Biological crusts protect the soil and hold weeds at bay.
Ivanpah Valley has a very high density of biological soil crusts compared to other areas of the Mojave Desert, and should be protected. These living soil crusts naturally sequester carbon dioxide, and thus Ivanpah Valley is a pool for carbon that can help offset Climate Change impacts, as long as it is not mechanically disturbed.

Biological soil crusts are important to ecological function.

"The presence of these organisms on the soil surface increases soil stability. Because they are photosynthetic they also contribute carbon to the underlying soils. Free-living and lichenized cyanobacteria can also convert atmospheric nitrogen into bio-available nitrogen, and thus are an important source of this often limiting nutrient." (Rosentreter, Bowker, and Belnap 2010)

Wildlife:

Desert Tortoise *(Gopherus agassizii):*

The Ivanpah Valley area is considered excellent quality desert tortoise habitat with some of the highest population densities in the East Mojave Desert.

As defined in the original Desert Tortoise (Mojave Population) Recovery Plan (1994), the region was within the Northeastern Mojave Recovery Unit for the desert tortoise, one of six designated evolutionary significant

units. This population was understood to be genetically the most distinctive unit of the desert tortoise in the Mojave Desert. Northeastern Mojave desert tortoises were recognized as the most genetically distinct population of California's desert tortoises. The range of this population is limited in California and Ivanpah Valley contains a significant portion of this range. When the Recovery Plan was issued, some of the highest known tortoise densities were in southern Ivanpah Valley, with 200 to 250 adults per square mile.

The Revised Desert Tortoise Recovery Plan (2011) reduced the number of recovery units from six to five and changed some of the boundaries of the 1994 recovery units, with the result that the Ivanpah Valley population is now classified as part of the Eastern Mojave Recovery Unit. Nonetheless, this population and its high quality habitat remain important for connectivity among desert tortoise populations.

Connectivity:

Based on analysis of genetic data, Hagerty, in her thesis Ecological Genetics of the Mojave Desert Tortoise (2008), identifies the Ivanpah Valley population of desert tortoises as part of the South Las Vegas unit, a genetically distinct subpopulation (see Figure 3, p. 205; see also Hagerty and Tracy 2010). This subpopulation is important in maintaining for genetic flow with other core populations to the north and west in Nevada, and to the south and west into California. Maintaining connectivity within the subpopulation in the Ivanpah Valley and north and east into Nevada is equally important, something only an ACEC in the Valley can achieve.

Animals and plants often do not exist evenly across the landscape, but in spotty patches of preferred or good quality habitat. In the past, biologists looked at the size and quality of habitat patches, but now there is more interest in the areas between the patches, the "matrix." The size and quality of habitat patches has been shown in studies to be a poor predictor of occupancy. The matrix may be more important as the areas between that provide connectivity.

This important connectivity function provided by Ivanpah Valley for desert tortoises cannot be replaced by mitigation measures. The habitat needs to be avoided, and protected.

The several proposed projects in Ivanpah Valley would block this connectivity, and severely impact gene flow between Recovery Units and within Recovery Units.

The 1994 Desert Tortoise Recovery Plan states that "Large blocks of habitat, containing large populations of the target species, are superior to small blocks of habitat containing small populations."

The Revised Desert Tortoise Recovery Plan (2011) indicates that most of the lands in our Ivanpah ACEC proposal have "high potential" to support desert tortoise populations. (see map below)

Alarming Numbers:

We are now all too familiar with the problems that are associated with the Ivanpah Solar Electric Generating System. The numbers of desert tortoise were underestimated. At this point, only one phase of the project has been cleared for desert tortoises.

The following numbers have been determined by private and public biologists working on the Ivanpah Project. The Revised Biological Assessment for the Ivanpah Solar Electric Generating System (ISEGS) Project of April 19, 2011 (prepared for Bureau of Land Management by Sundance Biology, Inc., Kiva Biological Consulting, and CH2MHill) states that 3,344 acres of desert tortoise habitat will be permanently removed, 176 acres more temporarily disturbed.

The revised June 2011 Biological Opinion from USFWS estimates that 51 to 141 adult and subadult tortoises may be found on the ISEGS site while 91 to 391 subadult and adult tortoises may be found on recipient sites where tortoises will be translocated to, a total of 142 to 532 tortoises.

The total number of immature tortoises (under 160 millimeters shell length) that could be impacted may be 891 to 3,236. Juvenile tortoises will suffer an estimated 90% mortality on the project site. And 451 to 1,631 eggs and hatchlings may be impacted by the project activities on site and in the surrounding areas

The recent findings demonstrate that conservation measures are needed to insure survival and viability of the population for the future.

Gila Monster *(Heloderma suspectum cinctum):*

The Gila monster is a fossorial species that is very difficult to locate. Rare Gila monsters have been found in Ivanpah Valley, one of the few places in California and Nevada where they range.

Dr. Daniel Beck of Central Washington University, who is the leading authority on the biology of helodermatid lizards had this to say about surveys:

“As you know it is extremely difficult to make accurate population estimates of Gila monsters, especially in the Mojave Desert, where they are even less frequently active than in the Sonoran Desert. Some sites in the eastern Mojave desert contain population densities of up to 20 lizards/square mile. I know of sites in southern Nevada that contain fairly high densities as well, perhaps as high as 10-15/square mile (just an estimate). High densities are associated with sites that have relatively high topographical complexity (lots of topographical relief, boulders, burrows, and potential shelters for Gila monsters). Sandy areas bordering rocky outcrops are good habitat areas. I'd advise decision makers not to assume the absence of Gila monsters based on short-term surveys” (Daniel Beck, personal communication 2009).

Populations of this species in the Mojave Desert are fringe populations and could carry unique genetic bottleneck traits that should be studies, and their habitat protected.

Birds:

Ivanpah Valley provides habitat for a high diversity of sensitive bird species such as Western Burrowing Owl *(Athene cunicularia hypugaea),* Golden Eagle (*Aquila chrysaetos*), Loggerhead Shrike *(Lanius ludovicianus*), Le

Conte's Thrasher *(Toxostoma lecontei*), Crissal Thrasher (*Toxostoma crissale)*, Vaux's Swift (*Chaetura vauxi),* and Brewer's Sparrow (*Spizella breweri)*. Loss of nesting and foraging habitat for these special-status bird species would adversely affect populations of these species within the Ivanpah Valley.

Ivanpah Valley is adjacent to mountain ranges with pinyon-juniper woodland habitat that have breeding populations of southwestern bird species that are more common in Arizona and rare in California and Nevada. The valley has records of Gray vireo and Hepatic tanager which use the creosote scrub habitat as migration corridors. Clark Mountain is part of the East Mojave Peaks Important Bird Area. In addition, Ivanpah Valley provides potential habitat and migration corridors for a high diversity of sensitive species, including the following California Department of Fish and Game Species of Special Concern:

Mountain Plover *(Charadrius montanus)*
Northern Goshawk *(Accipiter gentilis)*
Northern Harrier *(Circus cyaneus)*
Long-eared Owl *(Asio otus)*
Short-eared Owl *(Asio flammeus)*
Black Swift *(Cypseloides niger)*
Lucy's Warbler *(Oreothlypis luciae)*
Yellow Warbler (*Dendroica petechia*)
Ferruginous Hawk (Buteo Regalis)
Peregrine Falcon *(Falco peregrinus)*
Whip-poor-will *(Caprimulgus vociferus)*
Costa's Hummingbird *(Calypte costae)*
Calliope Hummingbird *(Stellula calliope)*
Lewis's Woodpecker *(Melanerpes lewis)*
Williamson's Sapsucker *(Sphyrapicus thyroideus)*
Willow Flycatcher *(Empidonax traillii)*
Sage Thrasher *(Oreoscoptes montanus)*
Cactus Wren *(Campylorhynchus brunneicapillus)*

Desert Bighorn Sheep *(Ovis canadensis nelsoni*):

Tracks, scat, and beds of Nelson bighorn sheep are found regularly on foothill ridges of the Clark Mountain Range about 3-4 miles above the ISEGS project site. Groups of ewes and lambs have been observed in the Stateline Hills. The Ivanpah Valley itself serves as seasonal foraging and migration corridor habitat. Intermountain areas of the desert floor that bighorn traverse between mountain ranges can be as important to the long-term viability of populations as are the mountain ranges themselves.

Alluvial fans near steep rocky terrain can provide crucial foraging habitat for big horn sheep. For example, ewes at the end of gestation that need nutrients may come down from steep, rocky terrain looking for higher quality forage. They might use areas for only three weeks, but those three weeks are critical.

Bighorn biologists Dr. John Wehausen and Dr. Vern Bleich have concluded that radio telemetry studies of bighorn sheep in various southwestern deserts, including the Mojave Desert of California, have found considerable movement of these sheep between mountain ranges.... Consequently, intermountain areas of the desert floor that bighorn traverse between mountain ranges can be as important to the long-term viability of populations as are the mountain ranges themselves. (Schwartz et al., 1986; Bleich et al. 1990, 1996)."

Alluvial fans near steep rocky terrain can provide crucial foraging habitat for big horn sheep (Wehausen 2005).

Mule deer (*Odocoileus hemionus*)

Mule Deer occupy Clark Mountain and the McCullough Range, and deer have been seen traveling through lower-elevation fans and basin edges in creosote-Mojave yucca habitat elsewhere in the Mojave Desert. Ivanpah Valley could provide seasonal habitat0 for deer as well as bighorn sheep.

Cultural Resources:

The alluvial fans of Ivanpah Valley have high cultural value for present Tribes. Chemehuevi, Mohave and Paiute elders say the flats and fans were much used in their tradition, and still are today. Every shrub had a use, whether medicinal, for baskets, fiber, or food. The Wolfberry (*Lycium*) thickets were highly valued for seasonal berry-picking. Every lizard species, as well as tortoises, were hunted for food. Ancient trails crossed the fan from village sites across the valley (and some can still be seen today), linking springs, agave roasting pits, cave habitations, geoglyphs, prayer spots, and deer/bighorn hunting areas on Clark Mountain. The body of knowledge is extensive about Ivanpah Valley's cultural uses and geography, and this is important to preserve for future generations as an intact cultural landscape.

Previous surveys in the region, including Ivanpah Valley, have found evidence of prehistoric use: campsites, lithic scatters, ceramics, rock shelters showing sign of habitation, trails, and agave roasting pits. These range from the valleys to the mountains. Open temporary campsites as well as more permanent camps have been found in the valley zone, as well as chipped stone artifacts, ceramic scatter, and a trail. Surface artifacts and features may range from 4,000 years old to recent. (California Energy Commission and Bureau of Land Management 2009)

Three rock shelters are in the area, one just above the ISEGS project site at the base of Clark Mountain. One has milling stones. Grass seeds were probably eaten, as well as pine nuts from the local Pinyon groves in Clark Mountain and other surrounding ranges. The playa edge provided other resources when it held water periodically. The local Clark Mountain agave (*Agave utahensis* var. *nevadensis*) stands in the hills provided a rich root-food that was roasted in pits.

Obsidian flakes and nodules, and chert bifaces (all of rock not from the region) were found on the ISEGS site, as well as historic mining debris, pits, and a horseshoe. Three apparently prehistoric rock shelters were found on the small limestone hill in the northern part of the project area, as well as rock walls and cairns on both this hill and the larger metamorphic hill. Cairns may be of both Native American and miner in origin.

During archaeological studies observers found patches of very stable old bajada, bypassed by flood washes and ground disturbance. A subfossil piñon log (*Pinus monophylla*) was found on a more recent bajada surface among recently active ephemeral streams. The log is thought to be anywhere from 1,100 to 3,400 years old and may date the surface on which it was found to that approximate age. This information demonstrates that, although the bajada is subject to a geomorphic regime of net erosion, the landform provides enough stable surface patches to preserve other potential archaeological sites.

This is "old growth Mojave Desert scrub" and ancient creosote rings also indicating stable land surfaces. These creosote bushes grow clonally outwards in a ring, and may be thousands of years old.

An enigmatic geoglyph was found next to the metamorphic hill on a small hill next to the middle of the ISEGS and Stateline Solar Farm project sites. It lies on a ridge, and has five stacked rock features, some like small terraces on either side of the ridgeline. Three stone niches were built, and one part of a bench is filled with white quartz, making a contrast with the blackish metamorphic rocks around it. Near the terrace complex is an odd triangular rock-wall feature filled with angular cobbles. The quartzite was apparently taken from a vein about 90 feet to the south. The quartzite from the feature seems more weathered, and may have been collected prior to the time when the vein was opened by miners. No metal was found.

Archaeologists speculate that it could be related to some symbolic ritual activity, possibly related to Southwest agricultural users. This feature should be preserved, and the surrounding desert context also conserved as a cultural landscape.

Construction of solar and wind projects proposed throughout this region would result in substantial changes in the setting and feeling, and association of the areas in which they are constructed. The current design of these projects would result in a significant cumulative impact to the region. Potential impacts would include physical disturbance or alteration directly as a result of construction activity or diminished visual character of traditional use areas due to the presence of industrial structures. The potential for vast disturbance of the desert would potentially lead to a loss of resources and impacts to visual character of cultural landscapes and connected trails, features, artifacts, and cultural resources, resulting in a significant cumulative impact.

Visual Resources:

In 1994, the Mojave National Preserve was established along with the Stateline and North Mesquite Mountains Wilderness areas under the California Desert Protection Act. Later, Nevada would establish the McCullough Range Wilderness Area. The spectacular visual resources of the Ivanpah Valley were part of the justification for establishing the conservation areas. The lands in Ivanpah Valley have a variety of Bureau of Land Management Visual Resource Management class designations. Many of these lands fall into Class I and Class II designations, which are defined as:

Class I—"The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention."

Class II—"The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape." (Bureau of Land Management 1986)

Due to the immense acreage required, renewable energy projects that are being constructed in Ivanpah Valley and other projects that are being proposed will cumulatively impact visual resources of the regions with the highest conservation status and visual resource rankings. Projects spanning up to ten square kilometers are visible for great distances and negatively impact adjacent conservation areas.

Maps:


North McCullough Wilderness
Sandy Valley
Jean
Mesquite Lake ACEC
Mesquite Wilderness
Stateline Wilderness
South McCullough Wilderness
Ivanpah ACEC
Clark Mountain ACEC
Wee Thump Joshua Tree Wil
Mojave Wilderness
Clark Mountain ACEC
Crescent Townsite ACEC
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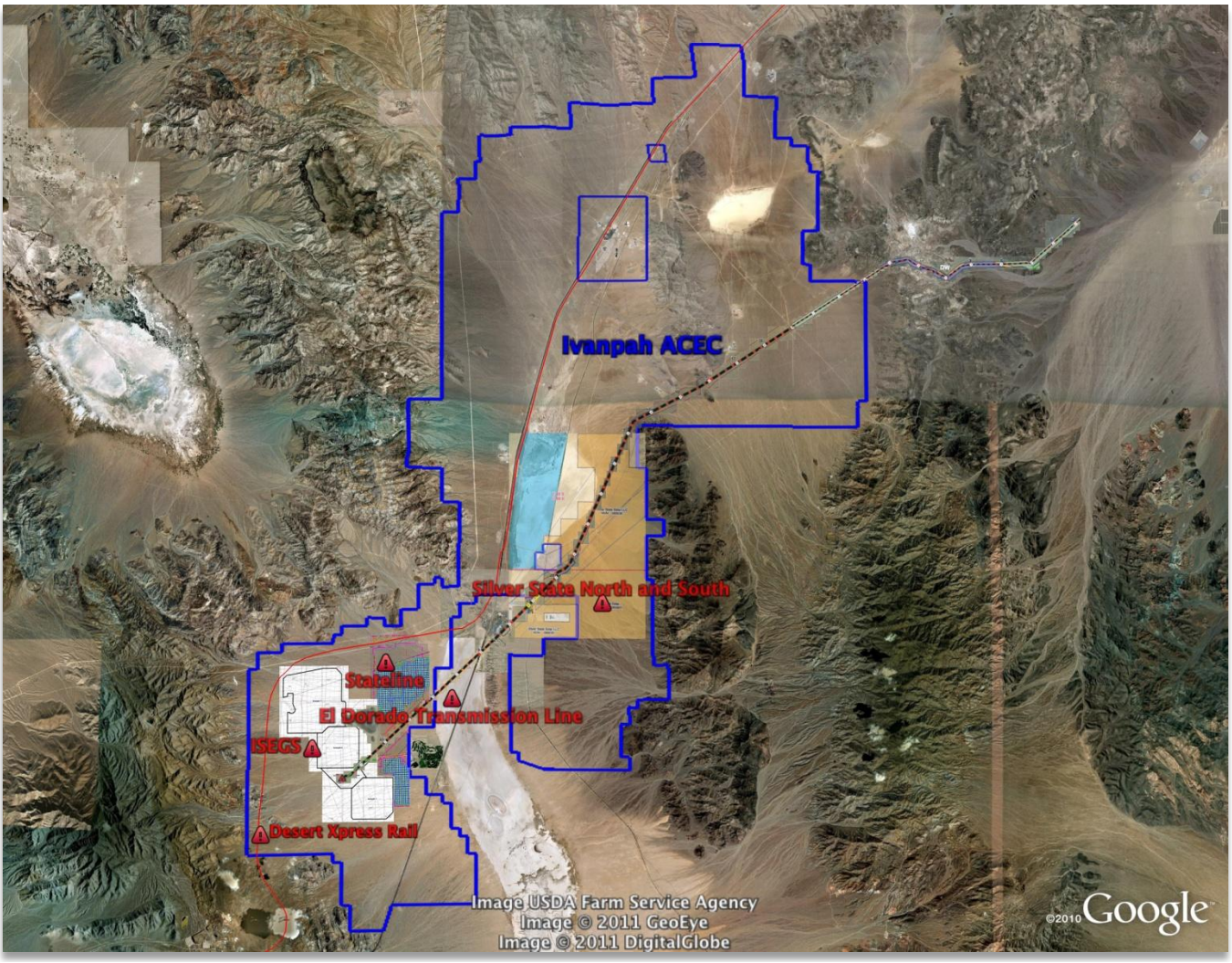

These are the approximate boundaries of the proposed ACEC. We included existing land use designations and some of the latest development projects and proposals on the map. The first map shows the ACEC Boundaries with existing development proposals. The second map shows existing conservation designations with the ACEC boundary.

ACEC Designation and Management:

We understand that the BLM designates ACEC's for both cultural and/or biological resources. Given the information briefly summarized herein, we strongly suggest that the new Ivanpah Valley Area of Critical Environmental Concern be designated to protect both cultural *and* biological resources identified herein.

The importance of these biological and cultural resources warrants the consideration of this new ACEC as the preferred alternative in future environmental documents, which are typically associated with a given development proposal. If not the preferred alternative, it is prudent that each new Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) consider as one of its alternatives a conservation alternative that designates this proposed ACEC.

We understand that designation of a new ACEC would require development of an associated ACEC management plan, and that interested parties may provide through both public input and volunteer efforts support of such a planning effort. Herein, we extend our commitment to assist the BLM by all legal means available to help provide further baseline information and future support to complete the new ACEC management plan.

Although it would be our contention that no new large-scale renewable energy projects should occur in this ACEC, we expect that the management plan would provide standards and guidelines that would codify the level of acceptable development identified through public scoping that would minimize significant impacts to both cultural and biological resources. Mapping of the sensitive plant species and tortoise hot spots may reveal areas where conflicts would be minimized and some, albeit limited, development acceptable.

We recommend that all multiple use categories in the new ACEC be designated as Limited. Without the added protection provided by the ACEC designation, conflicting uses could lead to declines in the numbers or ranges of rare plant and animal species and compromise important, irreplaceable cultural resources. In California, a goal of the CDCA Plan is to prevent rare species from declining to the point of becoming listed as threatened or endangered. The ACEC management provisions should be tailored to the specific needs of the plants and animals found in this new ACEC.

Prudent management prescriptions that may apply to this ACEC include: (1) Minimization or complete exclusion of renewable energy projects. (2) Withdrawal of all lands within the expanded ACEC boundary from mineral entry. (3) Acquisition of private lands from willing sellers and designation of vehicle routes. (4) Botanical surveys for special status plants listed herein and incorporation of conservation measures for the plants and their habitat where new occurrences are identified. And, (5) adoption of other pertinent protection measures identified in the Northern and Eastern Mojave Desert Coordinated Management Plan, as necessary to protect sensitive biological and cultural resources.

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