Purple Sage Energy Center Project Special-status Plant Survey Report

Purple Sage Energy Center Project Project
N-100225

Clark County, Nevada

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List of Acronyms and Abbreviations

ACEC	Area of Environmental Concern
BLM	Bureau of Land Management
COOP	Cooperative Observer Program
FNA	Flora of North America
Gen-tie	generation tie-in
GIS	geographic information system
GPS	global positioning system
IPaC	Information for Planning and Consultation
kV	kilovolt
MW	megawatt
NDNH	Nevada Division of Natural Heritage
NNHP	Nevada Natural Heritage Program
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
OHV	off-highway vehicle
Project	Purple Sage Energy Center Project
SNEI	Southern Nevada Environmental, Inc.
SSURGO	Soil Survey Geographic Database
SWReGAP	Southwest Regional Gap Analysis Project
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WRCC	Western Regional Climate Center
%	percent

INTRODUCTION

The proposed Purple Sage Energy Center Project (Project) would consist of up to a nominal 400-megawatt (MW) alternating current solar photovoltaic power generating facility and a 400-MW Battery Energy Storage System on land managed by the Bureau of Land Management (BLM) in Clark County, Nevada. The Project would be located on approximately 4,456 acres of federally managed land and is located in the Pahrump Valley approximately five miles southeast of Pahrump and 26 miles west of Las Vegas, west of the Spring Mountains and east of the Nopah Range (Figure 1). State Route 160 is less than two miles northeast of the Project site. The power produced by the Project would be conveyed to the NV Energy transmission system via a 2.1-mile-long 230-kilovolt (kV) overhead generation tie (gen-tie) line to the Trout Canyon 230-kV substation. The approximately 4,456-acre application area is considered the Survey Area for the purposes of the wildlife and botanical resources surveys and includes the gen-tie line (Figure 1).

A Botanical Resources Report for the Project was prepared in June 2022 documenting the pre-Project botanical resources surveys and actions that had been conducted for the Project (SNEI 2022). However, prior to this effort, no Special-status plant surveys had been conducted for the Survey Area due to below average precipitation in 2022. Reference sites visited during spring of 2022 showed no germination of the target special-status species. In 2023, above average precipitation resulted in conditions being adequate to conduct a special-status plant survey of the Project Survey Area.

ENVIRONMENTAL SETTING

The Project is located in the eastern side of the Pahrump Valley in the central portion of the Mojave Desert west of the Spring Mountains and east of the Nopah Range. The topography within the Survey Area is a sloping bajada consisting of valleys and ephemeral washes and ranging in elevation from approximately 2,800 to 3,060 feet above mean sea level. The bajada slopes from the Spring Mountains to the northeast and toward the Pahrump Valley floor to the southwest. The vegetation within the Survey Area is characteristic of lower to mid-elevations throughout the region and is predominately Sonora-Mojave Creosotebush-White Bursage Desert Scrub (U.S. Geological Survey [USGS] 2004) which are shrublands associated with arid valley floors and alluvial slopes, commonly characterized by species such as creosotebush (*Larrea tridentata*), white bursage *(Ambrosia dumosa*), and saltbushes (*Atriplex* spp.). Disturbance is generally low throughout the Survey Area; Front Sight Road runs east to west and bisects the northern third of the Survey Area; Cathedral Canyon Road is approximately 150 feet south of the Survey Area and runs east-west parallel to the southern boundary; and Tecopa Road runs north-south approximately 350 feet east of the eastern boundary of the Survey Area. There are also several dirt or off-highway vehicle (OHV) roads and trails that cross the Survey Area. The Stump Spring BLM Area of Critical Environmental Concern (ACEC) is located approximately 1.8 miles south of the Survey Area, south of Tecopa Road (Figure 1).

The climate is typical of the central Mojave Desert, characterized by arid conditions and dramatic daily and seasonal temperature fluctuations (Table 1). Most rainfall occurs from December through March; summer rainfall occurs regularly, typically in July and August (Western Regional Climate Center [WRCC] 2022). Temperature and precipitation data for the Survey Area were estimated from records from the National Weather Service (NWS) Cooperative Observer Program (COOP) Pahrump Station, located about 10 miles to the west-northwest of the Survey Area. The period of record is from March 1914 to June 2023 (WRCC 2023).

Figure 1. Purple Sage Energy Center Project Survey Area

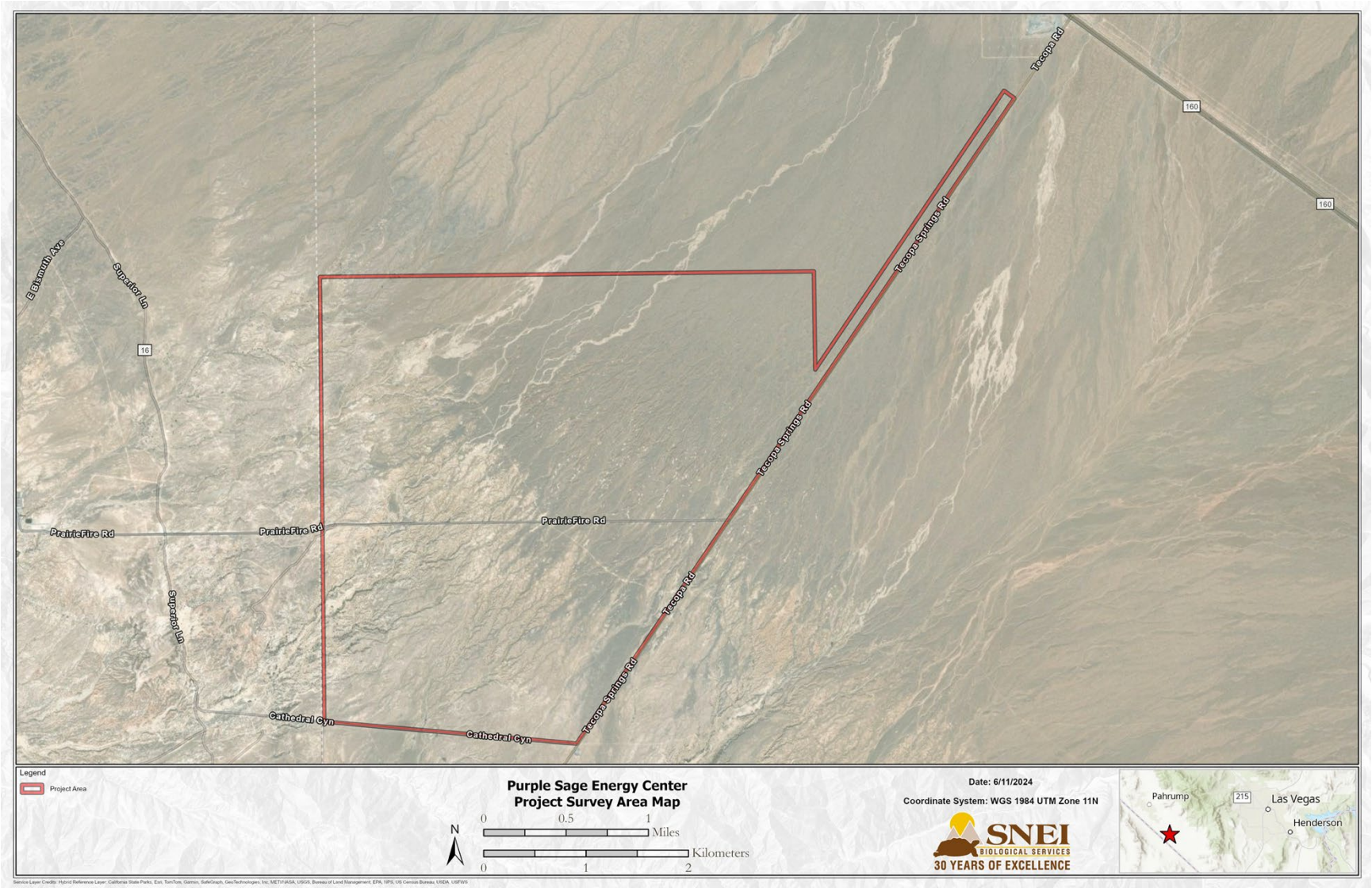


Table 1. Historical average monthly temperature and precipitation (1914-2023) (WRCC 2023).

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual Average Temperatures and Annual Total Precipitation
Average High (°F)	57.5	62.5	68.0	76.0	85.2	95.6	101.8	100.0	92.8	81.5	67.4	57.7	**78.6**
Average Low (°F)	27.3	32.0	37.2	43.6	52.4	60.4	67.7	65.5	56.8	44.8	33.7	26.7	**46.1**
Precipitation (inches)	0.66	0.78	0.56	0.31	0.20	0.08	0.35	0.30	0.30	0.28	0.36	0.53	**4.89**

The cumulative precipitation recorded in Pahrump Valley between July 2022 and July 2023 was 6.54 inches, as recorded by the WRCC for Pahrump, Nevada (Table 2; WRCC 2023). Rainfall was above average for this period of 2022-2023 at 6.54 inches when compared to the average annual accumulation of 4.89 inches (Table 1).

Table 2. Monthly average temperature and precipitation for July 2022 through June 2023 (WRCC 2023).

	2022						2023						Annual Average Temps and Annual Total Precipitation
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Average High (°F)	102.8	101.0	92.9	81.5	67.4	57.7	53.1	57.5	59.7	76.2	86.1	90.6	**77.2**
Average Low (°F)	70.1	71.1	58.0	45.7	29.8	26.7	32.1	29.8	36.6	43.6	54.5	58.1	**46.3**
Precipitation (inches)	0.47	0.30	0.51	0.00	0.81	0.20	1.64	0.75	1.73	0.00	0.00	0.13	**6.54**

General Vegetation

The vegetation types found in the Survey Area are characteristic of lower to mid-elevations throughout the region and include shrublands associated with arid valley floors and alluvial slopes, which are commonly characterized by species such creosotebush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), and saltbushes (*Atriplex* spp.).

Land cover data were assessed for the Survey Area using the USGS Southwest Regional Gap Analysis Project (SWReGAP) data, resulting in the identification of five vegetation communities (USGS 2004; Table 3; Figure 2). These data are developed using remote-sensing techniques for very large areas and can result in inaccuracies at the project-specific level by overlooking communities occurring over only small areas; however, no discrepancies have been noted on the ground. The dominant vegetation community mapped in the Survey Area is Sonora-Mojave Creosotebush-White Bursage Desert Scrub (creosotebush-white bursage) which occurs across most of the northern and eastern portions of the Survey Area and covers approximately 3,525 acres (78 percent [%] of the Survey Area). Sonora-Mojave Mixed Salt Desert Scrub is the dominant vegetation type in the southwestern portion of the Survey Area, covering approximately 933 acres and 21 percent of the Survey Area. The final three vegetation communities each comprise less than one percent of the Survey Area. Approximately 26 acres of Mojave Mid-Elevation Mixed Desert Scrub community are located in the northwest quarter of Survey Area. Approximately 14 acres of North American Warm Desert Riparian Mesquite Bosque can be found in a compact area in the southeast, as well as within multiple riparian areas in the southwestern part of the Survey Area. Approximately three acres of North American Warm Desert Playa is found in the southwestern portion of the Survey Area. General descriptions of the five vegetation communities are provided below.

Table 3. Vegetation communities within the Survey Area (USGS 2004).

Vegetation Community	Acres	Percentage of Survey Area
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	3,525.3	78.3
Sonora-Mojave Mixed Salt Desert Scrub	933.0	20.7
Mojave Mid-Elevation Mixed Desert Scrub	25.9	0.6
North American Warm Desert Riparian Mesquite Bosque	13.6	0.3
North American Warm Desert Playa	2.6	0.1
Total	**4,502.0**	**100**

Sonora-Mojave Creosotebush-White Bursage Desert Scrub

This vegetation community is found in broad valleys, lower bajadas, plains, and low hills in the Mojave Desert and lower Sonoran Desert. Cover ranges from sparse to moderately dense (14.3%–22.7% cover) and the appearance is often of mostly barren ground with well-spaced shrubs. Creosotebush and white bursage (*Ambrosia dumosa*) are typically the dominant species, but a variety of shrubs, dwarf-shrubs, and cacti may be present or co-dominant. Low-elevation communities are typically both more sparse and less diverse while higher-elevation assemblages can have many different shrub, sub-shrub, and cactus species. Co-occurring shrubs and cacti may include saltbushes (*Atriplex canescens*, *A. hymenelytra*, *A. polycarpa*), California croton (*Croton californicus*), prairie clovers (*Dalea* spp.), cottontop cactus (*Echinocactus polycephalus*), encelias (*Encelia* spp.), joint firs (*Ephedra funerea, E. nevadensis*), Anderson boxthorn *(Lycium andersonii*), beavertail pricklypear (*Opuntia basilaris*), rhatanies (*Krameria grayi, K. erecta*), indigo bushes (*Psorothamnus arborescens, P. fremontii*), bladder sage (*Salazaria mexicana*), desert senna (*Senna armata*), and Parish's goldenbush (*Bahiopsis parishii*). Herbaceous species are typically sparse but may be abundant seasonally and commonly include annuals such as sandmat (*Chamaesyce* spp.), desert trumpet (*Eriogonum inflatum*), wooly fluffgrass (*Dasyochloa pulchella*), desert dandelion (*Malacothrix glabrata*), forget-me-nots (C*ryptantha* spp.), and scorpion weeds (*Phacelia* spp.) (USGS 2004; NatureServe 2022).

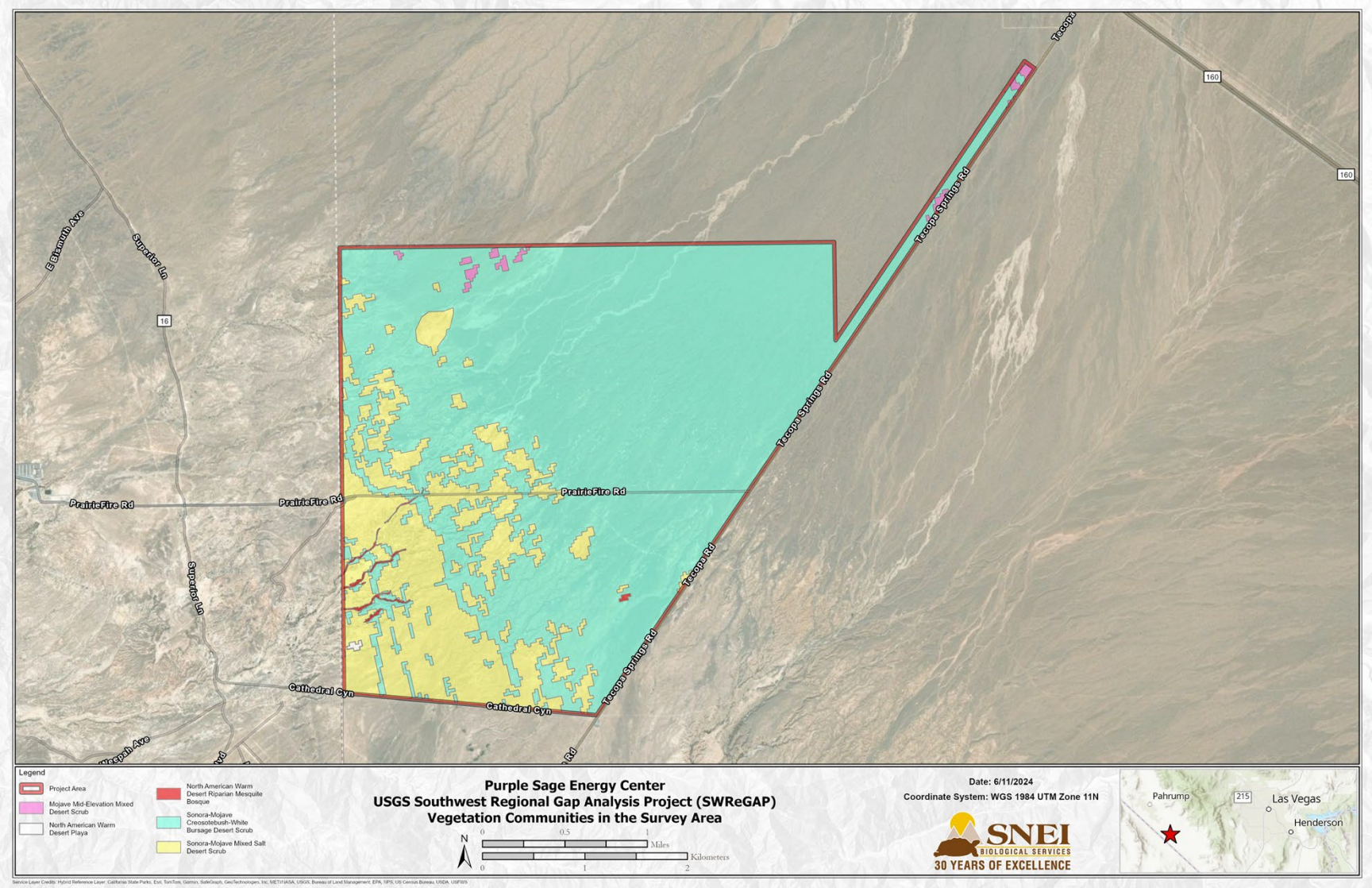
Sonora-Mojave Mixed Salt Desert Scrub

This vegetation community is a predominately saltbush shrub community typically found in saline basins and around playas in the Mojave and Sonoran deserts. Vegetation is typically composed of one or more saltbush species such as fourwing saltbush (*Atriplex canescens*) or cattle saltbush (*Atriplex polycarpa*), along with other species of saltbushes. Substrates are typically fine-textured and alkaline. Species of salt-tolerant plants, such as iodine bush (*Allenrolfea occidentalis*), pickleweed (*Salicornia* sp.), and seepweed (*Suaeda* sp.), may be co-dominant. Salt-tolerant grasses, such as alkali sacaton (*Sporobolus airoides*) or saltgrass (*Distichlis spicata*), may be present (USGS 2004; NatureServe 2022).

Mojave Mid-Elevation Mixed Desert Scrub

This vegetation community is found in the transition zone between creosotebush-white bursage desert scrub and the montane woodlands found in the eastern and central Mojave Desert. Though variable, commonly occurring shrubs, subshrubs, cacti, and yucca may include blackbrush (*Coleogyne ramosissima*), California buckwheat (*Eriogonum fasciculatum*), ephedra, hopsage (*Grayia spinosa*), spiny menodora (*Menodora spinescens*), beargrass (*Nolina* sp.), buckhorn cholla (*Cylindropuntia acanthocarpa*), bladder sage, Parish's goldenbush (*Viguiera parishii*), Joshua tree (*Yucca brevifolia*), and

Figure 2. Vegetation Communities in the Survey Area



Mojave yucca (*Yucca schidigera*). A variety of grasses may be found and could include ricegrass, desert muhly (*Muhlenbergia porteri*), James' galleta (*Pleuraphis jamesii*), and big galleta (*Pleuraphis rigida*) (USGS 2004; NatureServe 2022).

North American Warm Desert Riparian Mesquite Bosque

This vegetation community encompasses herbaceous marshes and riparian shrublands found in canyons and valleys of the warm desert regions of the southwestern United States and adjacent Mexico. Characterized by low scrub and shrubs along corridors of small, medium, and large perennial and intermittent streams and rivers at low elevations. Dominant scrub species are honey mesquite (*Prosopis glandulosa*) and velvet mesquite (*Prosopis velutina*), and shrubs include mulefat (*Baccharis salicifolia*), arrowweed (*Pluchea sericea*), Geyer willow (*Salix geyeriana*), and arroyo willow (*Salix exigua*) (USGS 2004; NatureServe 2022).

North American Warm Desert Playa

This community is found on barren and sparsely vegetated playas in the warm deserts of North America. Playas are typically saline, and subsoils often include an impermeable layer of clay or caliche. Species may include saltbushes, iodine bush, seepweed, saltgrass, common spikerush (*Eleocharis palustris*), ricegrass (*Achnatherum hymenoides*), dropseeds (*Sporobolus* spp.), and *Tiquilia* spp., among others (USGS 2004; NatureServe 2022).

Soils

A custom soil resource report for the Survey Area was created using the Natural Resources Conservation Service's (NRCS) Web Soil Survey (NRCS 2022). Four soil associations were identified within the Survey Area: Tanazza-Wechech-Wodavar, Corncreek-Badland-Pahrump, Commski-Oldspan-Lastchance, and Pahrump-Wodavar-Vegastorm (Figure 3; Table 4) (NRCS 2022). Most of the Survey Area is comprised of the Tanazza-Wechech-Wodavar association (42.2%) and the Corncreek-Badland-Pahrump association (35.0%), with the Commski-Oldspan-Lastchance association comprising 19.1 percent and the Pahrump-Wodavar-Vegastorm association comprising 3.8 percent (Table 4). Figure 3 shows the distribution of soil types across the Survey Area. In general, these soil associations consist of sandy loams that are well-drained.

Tanazza-Wechech-Wodavar Association

This soil association occurs along lake terraces, fan remnants, and alluvial flats and consists of well-drained, non-saline to moderately saline soils derived from lacustrine deposits and limestone and dolomite parent materials; soils vary from fine sandy loam to extremely gravelly fine sandy loam and have extremely gravelly fine sandy loam, very gravelly sandy loam, fine sandy loam, silt loam, silty clay loam, extremely gravelly loam, gypsiferous material, and cemented material textures (NRCS 2022). This soil type is found mostly in the southwestern half of the Survey Area (Figure 3).

Corncreek-Badland-Pahrump Association

This association is found along fan skirts, relict lakebeds, and lake terraces, and consists of very slightly saline to strongly saline soils formed in limestone-derived alluvium and lacustrine deposits. Soils vary from gravelly to extremely gravelly and have fine sandy loam, loam, and silt loam textures (NRCS 2022). This soil type is found mostly in the northeastern half of the Survey Area (Figure 3).

Commski-Oldspan-Lastchance Association

This soil association occurs along fan remnants and consists of well-drained, non-saline to moderately saline soils derived from limestone and dolomite parent materials; soils vary from very gravelly to extremely gravelly and have loam, sandy loam, and very fine sandy loam textures (NRCS 2022). This soil type is found in the northeastern corner of the Survey Area (Figure 3).

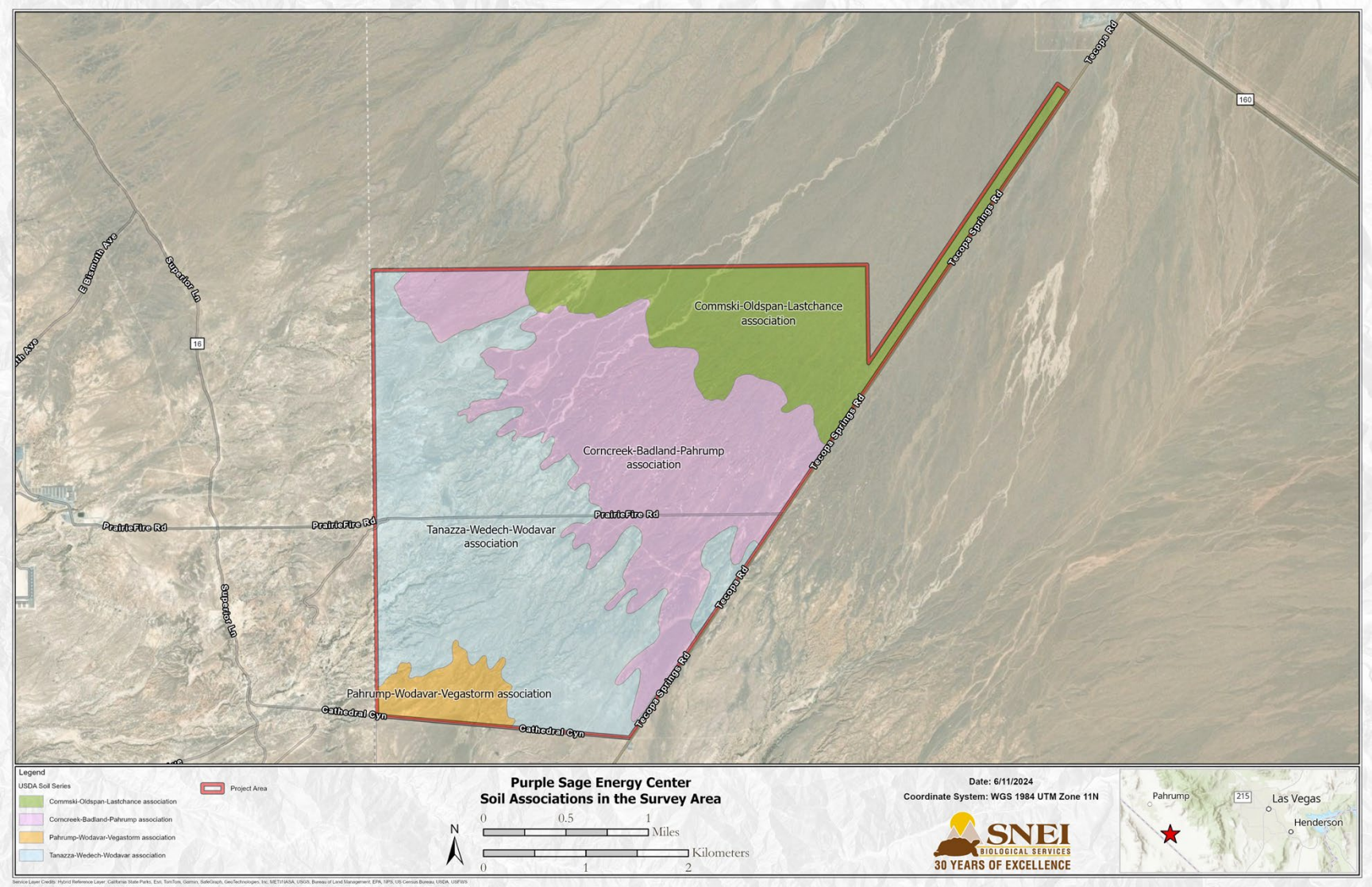
Pahrump-Wodavar-Vegastorm Association

This soil association occurs along lake terraces and alluvial flats and consists of well-drained, non-saline to strongly saline soils formed in limestone-derived lacustrine deposits and mixed alluvium over lacustrine deposits; soils vary from silt loam to very gravelly sandy loam and have silt loam, loam, very gravelly silt loam, gravelly loam, extremely gravelly loam, gravelly fine sandy loam, extremely gravelly fine sandy loam, gravelly sandy loam, very gravelly sandy loam, and cemented material textures. This soil type is found at the southwestern edge of the Survey Area (Figure 3).

Table 4. Soil associations within the Survey Area (NRCS 2022).

Soil Association	Acres	Percentage of Survey Area
Tanazza-Wechech-Wodavar	1,899.25	42.19
Corncreek-Badland-Pahrump	1,574.48	34.97
Commski-Oldspan-Lastchance	858.38	19.07
Pahrump-Wodavar-Vegastorm	169.81	3.77
Total	**4,501.92**	**100**

Figure 3. Soil Associations in the Survey Area



METHODS

No special-status plant surveys had been conducted prior to 2023 due to below average precipitation in 2021 and 2022. Reference sites visited during spring of 2022 showed no germination of the target special-status species. In 2023, above average precipitation resulted in conditions being adequate to conduct a special-status plants survey for the Survey Area. The pre-Project review and reconnaissance visit described below were conducted in 2022 (SNEI 2022).

PRE-PROJECT REVIEW

Pre-project review was conducted in 2022 to determine the special-status plant taxa with potential to occur within the Survey Area and included a desktop habitat assessment and literature review, described below.

Desktop Habitat Assessment

A desktop geographic information system (GIS) review was conducted to evaluate the Survey Area for habitat for special-status plants. The following GIS resources were used in that assessment:

- Southwest Regional Gap Analysis Project (SWReGAP) land cover data for the Survey Area (USGS 2004);
- Soil Survey Geographic Database (SSURGO) soils data (NRCS 2022) for the Survey Area; and,
- Nevada Division of Natural Heritage (NDNH) data for the Survey Area and a surrounding 5-mile buffer (NDNH 2022).

NDNH (2022) data for special-status plants species located within the Survey Area and a 5-mile buffer (Figure 4) were evaluated in conjunction with SWReGAP land cover (USGS 2004) and SSURGO soils data (NRCS 2022) to determine vegetation community and soil type combinations that support special-status plant species with potential to occur in the Survey Area. To complete this analysis, all special-status plant data within the 5-mile buffer were included. Soil type and vegetation community combinations that matched those identified from special-status species polygons were considered suitable habitat.

Desktop Literature Review

In addition to the NDNH data query, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Species List Generator was queried (unofficially) for the Survey Area (USFWS 2022).

The USFWS query did not result in the identification of any special-status plants in the Survey Area. The NDNH data request did not result in the identification of any special-status plants within the Survey Area but did identify two BLM Sensitive species within five miles of the application area: halfring milkvetch (*Astragalus mohavensis* var. *hemigyrus*) and Pahrump Valley buckwheat (*Eriogonum bifurcatum*) (Table 5; Figure 4).

Table 5. Special-status plant species with potential to occur in the Survey Area.

Common Name	Scientific Name	Status*	Phenology/Habitat
Halfring milkvetch	*Astragalus mohavensis* var. *hemigyrus*	S	Flowers in early spring with most typical survey months being April–June. Annual or short-lived perennial species occurring in carbonate gravels and derivative soils on terraced hills and ledges, open slopes, and along washes in creosotebush-white bursage, blackbrush, and mixed shrub zones (Nevada Natural Heritage Program [NNHP] 2001).

Common Name	Scientific Name	Status*	Phenology/Habitat
Pahrump Valley buckwheat	*Eriogonum bifurcatum*	S	Flowers May–June. Annual herb occurs in barren, saline, heavy clay, or silty hardpan soils on or near dry playa margins. This species also occurs on adjacent shore terraces and stabilized sand dunes with saltbush species (*Atriplex* spp.), honey mesquite (*Prosopis glandulosa*), seablite (*Suaeda moquinii*), and spiny hopsage (*Grayia spinosa*) (NNHP 2001).

* Status: S = Species designated Sensitive by State Director of Nevada BLM. BLM Nevada special-status species.

Halfring milkvetch (Astragalus mohavensis var. hemigyrus)

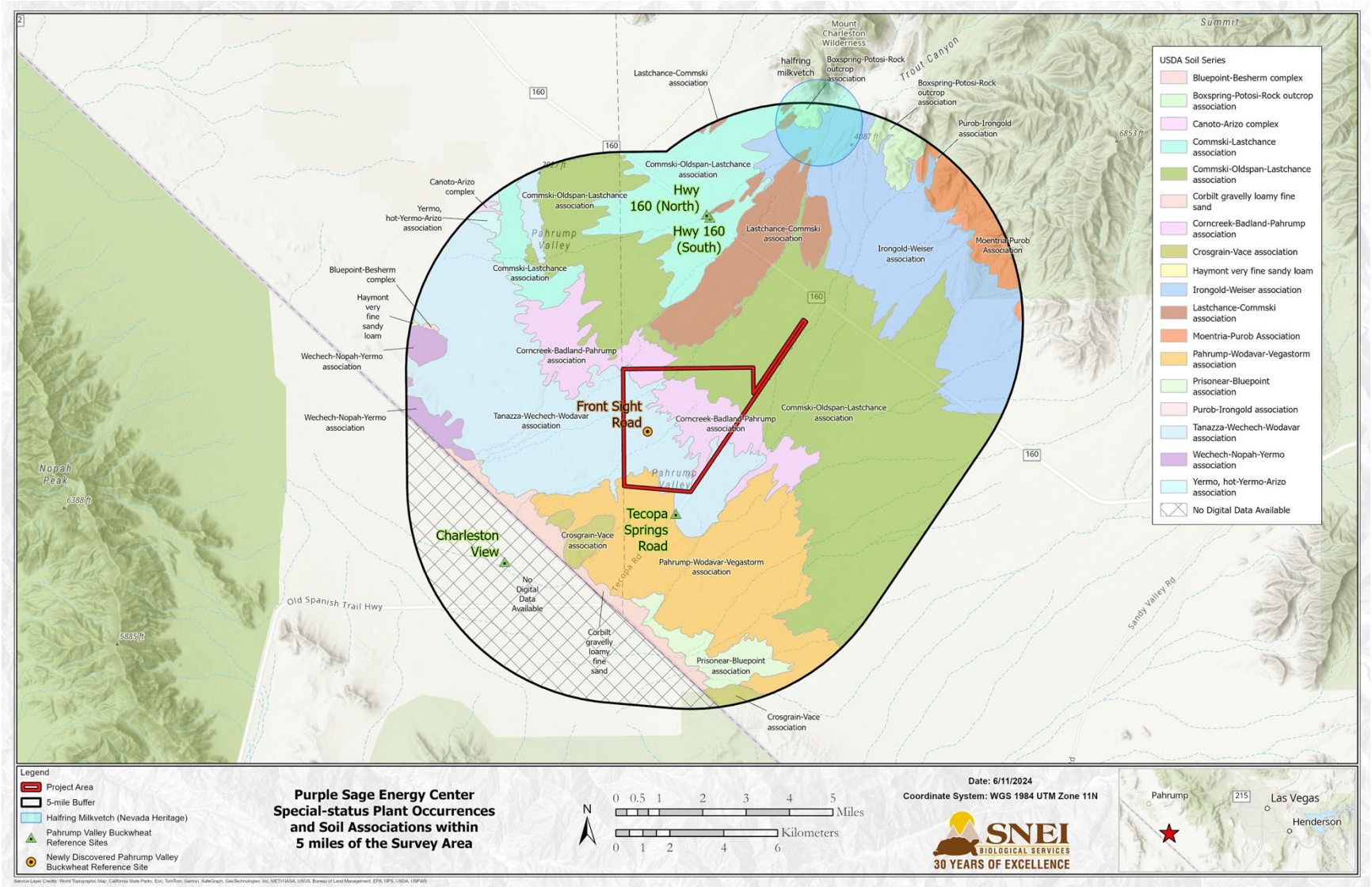
Halfring milkvetch is known to occur in carbonate gravels and derivative soils on terraced hills and ledges, open slopes, and along washes in creosotebush-white bursage, blackbrush, and mixed shrub zones at elevations between 914 and 1,706 meters (3,000–5,600 feet) in Nye, Lincoln, and Clark counties in southern Nevada, and historically in Inyo County, California (NNHP 2001). Some habitat is vulnerable to off-road vehicle use and other recreational activities, dumping, and feral horse and burro trampling (NNHP 2001). Vulnerabilities from invasive species are not well known but populations are likely sensitive to resource and spatial competition.

Pahrump Valley buckwheat (Eriogonum bifurcatum)

Pahrump Valley buckwheat is a late-spring annual in the Buckwheat Family (*Polygonaceae*), typically flowering May-June. Plants are low-growing, 10–50 centimeters tall with inflorescence, with a basal rosette of leaves. The leaves are generally 1–3 centimeters long, generally round, and covered with woolly hairs. Inflorescences can be 5–30 centimeters in length and 10–50 centimeters wide, generally spreading and branched without hairs. Flowers are typically sessile or, if stalked, peduncles are erect and 0.1-0.5 centimeters. Petals are white to faintly pink with outer lobes obovate to cordate and inner lobes lanceolate. Fruits are 2–2.3 millimeters long and hairless (Reveal and Rosatti 2012). This species is most closely related to *Eriogonum insigne* and *E. exaltatum* and it is difficult to distinguish between immature specimens of *E. insigne* (NNHP 2001) and difficult to impossible to distinguish between spring-flowering specimens of *E. exaltatum* (Flora of North America [FNA] 2022).

Pahrump Valley buckwheat generally occurs on barren alkaline sand flats and slopes within saltbush communities at elevations of 600–800 meters (1,969–2,700 feet). This species also occurs near playa margins and adjacent lakeshore terraces and stabilized sand dunes with saltbush species (*Atriplex* spp.), honey mesquite, seablite, and spiny hopsage (NNHP 2001). Pahrump Valley buckwheat are known from near to the Nevada/California state line, from Stewart, Pahrump, and Mesquite valleys in Nye and Clark counties, Nevada, and Inyo and San Bernardino counties, California (NNHP 2001). This species is tolerant of moderate temporary disturbance; however, its habitat is vulnerable to commercial and residential development, agricultural conversion, off-road vehicle activities, and dumping (NNHP 2001).

Figure 4. Known Special-status Plant Occurrences within 5 miles of the Survey Area



RECONNAISSANCE VISITS

A field reconnaissance visit was conducted on March 9, 2022, to assess the habitat conditions on the Survey Area for halfring milkvetch and Pahrump Valley buckwheat. Southern Nevada Environmental, Inc. (SNEI) botanists assessed the likelihood of presence for special-status plants within the Survey Area and surrounding 5-mile buffer. Vegetation and soil data were compared at reference populations for these two species and within the Survey Area as a screening tool to narrow the focus of field reconnaissance.

Halfring Milkvetch

It was determined during the reconnaissance site assessment that habitat for halfring milkvetch was not present in the Survey Area. This determination was based on observations of the reference populations of this taxon, which occur in rockier habitat, among terraces, and are generally located at the base of the Spring Mountains within the uppermost portion of alluvial fans; habitat characteristics which are not found in the Survey Area.

Pahrump Valley Buckwheat

Soil types and vegetation communities were used to determine habitat suitability for Pahrump Valley buckwheat. Table 6 provides the soil type acreages, vegetation communities, and associated Pahrump Valley buckwheat habitat potential present in the Survey Area.

Table 6. Potential suitability for Pahrump Valley buckwheat habitat in the Survey Area.

Soil Association	Acres	Percent of the Survey Area	Associated Vegetation Communities	Potential for Pahrump Valley Buckwheat Habitat
Tanazza-Wechech-Wodavar	1,899.25	42.19	Salt desert, playa, creosotebush-white bursage scrub	High
Corncreek-Badland-Pahrump	1,574.48	34.97	Creosotebush-white bursage scrub	Moderate
Commski-Oldspan-Lastchance	858.38	19.07	Creosotebush-white bursage scrub	Low
Pahrump-Wodavar-Vegastorm	169.81	3.77	Salt desert, playa, creosotebush-white bursage scrub	High

The Tanazza-Wechech-Wodavar and Pahrump-Wodavar-Vegastorm soil associations were considered to have high potential for Pahrump Valley buckwheat habitat. These areas contain silty-clay alkaline soils, calcareous outcrops and caliche, old playa, and lake terrace and lacustrine features. Vegetation consists of a mosaic of salt desert shrublands and creosotebush-white bursage scrub. Typical Pahrump Valley buckwheat associates (saltbushes, honey mesquite, Prince's plume [*Stanleya pinnata*], and desert pepperweed [*Lepidium fremontii*]) occur throughout these areas (Figures 2 and 3).

The Corncreek-Badland-Pahrump soil association was determined to have moderate potential for Pahrump Valley buckwheat. This soil type exists at the adjacent Yellow Pine Solar Project site and was surveyed for Pahrump Valley buckwheat in 2018, but no Pahrump Valley buckwheat were observed (SWCA 2019). The area is vegetated by creosotebush-white bursage scrub, with Mojave yucca in some areas. Some typical Pahrump Valley buckwheat associates (saltbushes) were observed near the western border of this soil type polygon (Figures 2 and 3).

The Commski-Oldspan-Lastchance soil association was considered to have low potential for Pahrump Valley buckwheat habitat and, as such, it was recommended that focused special-status plant surveys not be conducted there. This area is vegetated by creosotebush-white bursage scrub with Mojave yucca;

typical Pahrump Valley buckwheat associates (saltbushes, Prince's plume, and desert pepperweed) were not observed in this area (Figures 2 and 3).

REFERENCE SITE VISITS

2022

Several reference sites for Pahrump Valley buckwheat were visited during spring 2022 to assess habitat and verify that plants were emerging. Pahrump Valley buckwheat is an annual herb that typically flowers from May to June. Reference site visits occurred on March 9 and May 6, 7, and 8, 2022 (Table 7). Although dead plants ("skeletons") from the previous year were positively identified at two of these reference sites (identifiable by the erect peduncles), no plants from the current year were observed. Reference sites included sites at Charleston View, Front Sight Road, Tecopa Springs Road, and two sites just north of Highway 160. The Charleston View, Front Sight Road, and Tecopa Springs Road sites are dominated by creosotebush and saltbush species, and substrates consist of barren, hardpack, clay soils. The sites just north of Highway 160 are characterized by Mojave yucca and creosotebush-white bursage scrub with low potential for the growth of Pahrump Valley buckwheat due to the soil type being Commski-Oldspan-Lastchance soil association.

Table 7. Pahrump Valley buckwheat reference sites visited in spring 2022.

Location	Latitude	Longitude	Dominant Vegetation	Pahrump Valley Buckwheat Presence
Charleston View	35.986768	-115.899745	*Atriplex* spp.	No (skeletons from previous season present)
Front Sight Road	36.029722	-115.840278	*Atriplex* spp.	No (skeletons from previous season present)
Tecopa Springs Road	36.002189	-115.829071	*Atriplex* spp.*–Larrea tridentata–Ambrosia dumosa*	No
Hwy 160	36.101022	-115.813572	*Yucca schidigera–Larrea tridentata*	No
Hwy 160	36.102077	-115.814888	*Yucca schidigera–Larrea tridentata*	No

2023

In 2023, several reference sites were visited for Pahrump Valley buckwheat to assess habitat and determine if plants were emerging. Reference site visits were performed in April and May of 2023 by approved botanists Aaron Chambers, Teague Embrey, and Sarah Schmid; reference sites included sites at Charleston View, Front Sight Road, and Tecopa Springs Road (Table 8). April visits were conducted on April 10 and 14, 2023. During the April visits, presumed Pahrump Valley buckwheat plants were observed at all reference site locations, in a vegetative state with basal rosettes present. Reference site visits were again conducted on May 1, 2023, when some plants were displaying characteristics diagnostic of the species (Photo 1).

Table 8. Pahrump Valley buckwheat reference sites visited in spring 2023.

Location	Latitude	Longitude	Dominant Vegetation/Soil Association	Pahrump Valley Buckwheat Presence
Charleston View	35.986768	-115.899745	*Atriplex* spp./ Barren, hard packed clay soil (official soil association not available)	Present
Front Sight Road	36.029722	-115.840278	*Atriplex* spp./Tanazza-Wechech-Wodavar	Present
Tecopa Springs Road	36.002189	-115.829071	*Atriplex* spp.–*Larrea tridentata*–*Ambrosia Dumosa*/Tanazza-Wechech-Wodavar	Present

Photo 1. Pahrump Valley buckwheat (*Eriogonum bifurcatum*) at a reference site on May 1, 2023, displaying diagnostic upright involucres.

TARGETED SPECIAL-STATUS PLANT SURVEYS

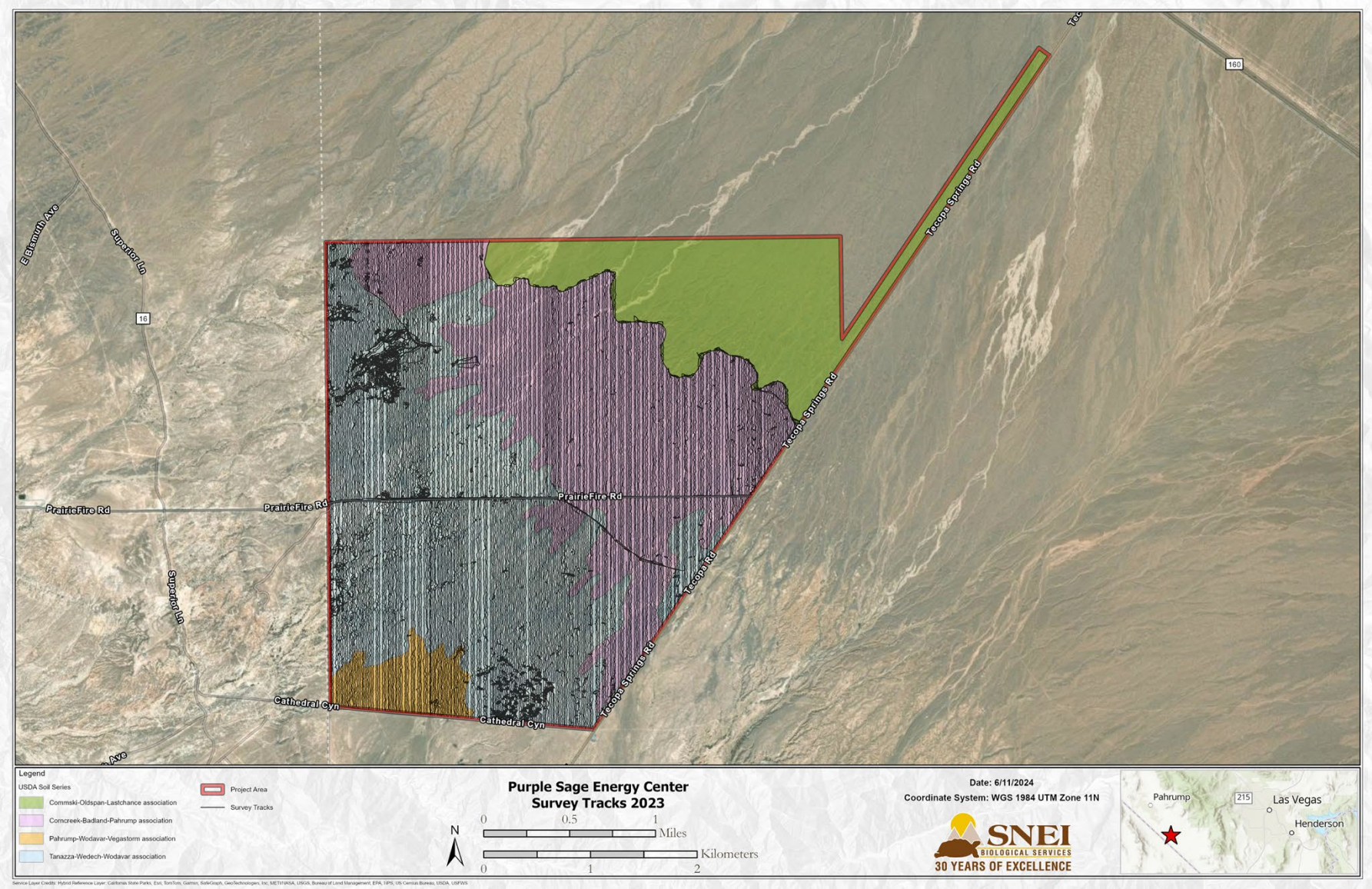
A comprehensive floristic survey was conducted in the Survey Area with the exception of the northeastern portion where the Commski-Oldspan-Lastchance soil association occurs (Figure 5). Within the Survey Area, transects were spaced 49 feet (15 meters) apart. Surveys were conducted from May 8–24, 2023. Surveyors included BLM-approved botanists Aaron Chambers, DeVon Ekenstam, Stephanie Hines, Jesse Perry, Kanin Rouston, Sarah Schmid, Tim Sullivan, Kevin Thomas, Steven Till, Carrie Veety, and apprentice botanists Nichole Nesbihal and Justine Torres (Appendix B). The survey approach and written education materials were also approved by BLM district botanist Lara Kobelt (Appendix B). The Front Site Road reference site was first visited by all botanical team members where the target species was positively identified, and education materials reviewed.

Methods used for the spring 2023 special-status plant survey of the Study Area complied with BLM Southern Nevada District Office's *Survey Protocols Required for National Environmental Policy Act (NEPA)/Endangered Species Act (ESA) Compliance for BLM Special Status Plant Species*. Late-season surveys are not proposed because the only special-status species with potential to occur in the Survey Area, Pahrump Valley buckwheat, is detectable in spring. The following key aspects of the survey protocols were implemented during the survey:

- SNEI botanists conducted a 100 percent visual inspection of the Study Area using transects;
- The floristic inventory included documenting all plant taxa within the Survey Area;
- All special-status taxa encountered were mapped using a global positioning system (GPS) unit, ArcGIS FieldMaps application; and,
- Data for all special-status taxa were recorded in a data dictionary loaded into the GPS units that was developed to record the location, species, number of individuals, phenology, dominant soil texture, condition, threats, and associated plant species.

All project botanists possess extensive experience surveying for rare plants in the Mojave Desert, and met the requirements set by the BLM Southern Nevada District Office. Each botanist was pre-approved by the BLM, as detailed in the Contractor Qualifications section below (Appendix B for approvals). Additionally, the apprentice botanists were also pre-approved by BLM district botanist Lara Kobelt. Throughout the survey, the apprentice botanists were always paired with a senior botanist to ensure accuracy of plant identification. This collaboration ensured the precise identification of the target species during the survey process.

Figure 5. Special-status Plant Survey Transects in the Survey Area



RESULTS

An estimated 104,669 Pahrump Valley buckwheat individuals were found in the Survey Area during the special-status plant survey (Table 9). Nearly all the occurrences are located on the western side of the Survey Area and three 'clusters' of occurrences are notable in the northwest, south-central west, and central south areas (Figure 6). The 104,669 individuals recorded were mapped as 449 occurrences, ranging from a population of one to an estimated population of 16,000 individuals.

Nearly all (approximately 99.9%) of the individuals found occur on the Tanazza-Wedech-Wodovar soil association (Table 9; Figure 6). Pahrump Valley buckhweat was found in both Sonora-Mojave Creosotebush-White Bursage Desert Scrub and Sonora-Mojave Mixed Salt Desert Scrub vegetation communities, which constitute the dominant vegetation communities in the Survey Area (Figure 6). The habitat where plants were found was typically sparse desert scrub with the dominant shrubs most commonly including four-wing saltbush, shadscale (*Atriplex confertifolia*), cattle saltbush, creosotebush, and white bursage. The predominant soil texture recorded at rare plant locations was clay, along with loam, gravelly, and silt.

A list of all plant taxa observed at the Project during the special-status plant surveys is provided in Appendix A. Photo 2 shows an example of a Pahrump Valley buckwheat population in the Survey Area.

Table 9. Pahrump Valley buckwheat population in the Survey Area by soil association, spring 2023.

Soil Association	Acres	Percent of the Survey Area	Number of Individuals Recorded (% of Total)
Tanazza-Wechech-Wodavar	1,899.25	42.19	104,645 (99.98%)
Corncreek-Badland-Pahrump	1,574.48	34.97	9 (0.009%)
Commski-Oldspan-Lastchance*	858.38	19.07	0 (0%)*
Pahrump-Wodavar-Vegastorm	169.81	3.77	16 (0.015%)
Total	**4,501.92**	**100**	**104,669 (100%)**

*The Commski-Oldspan-Lastchance soil association, located in the north-northeast portion of the Survey Area and along the gen-tie line, was not surveyed because it is considered unlikely to be suitable habitat for Pahrump Valley buckwheat.

Figure 6. Special-status Plant Survey Results

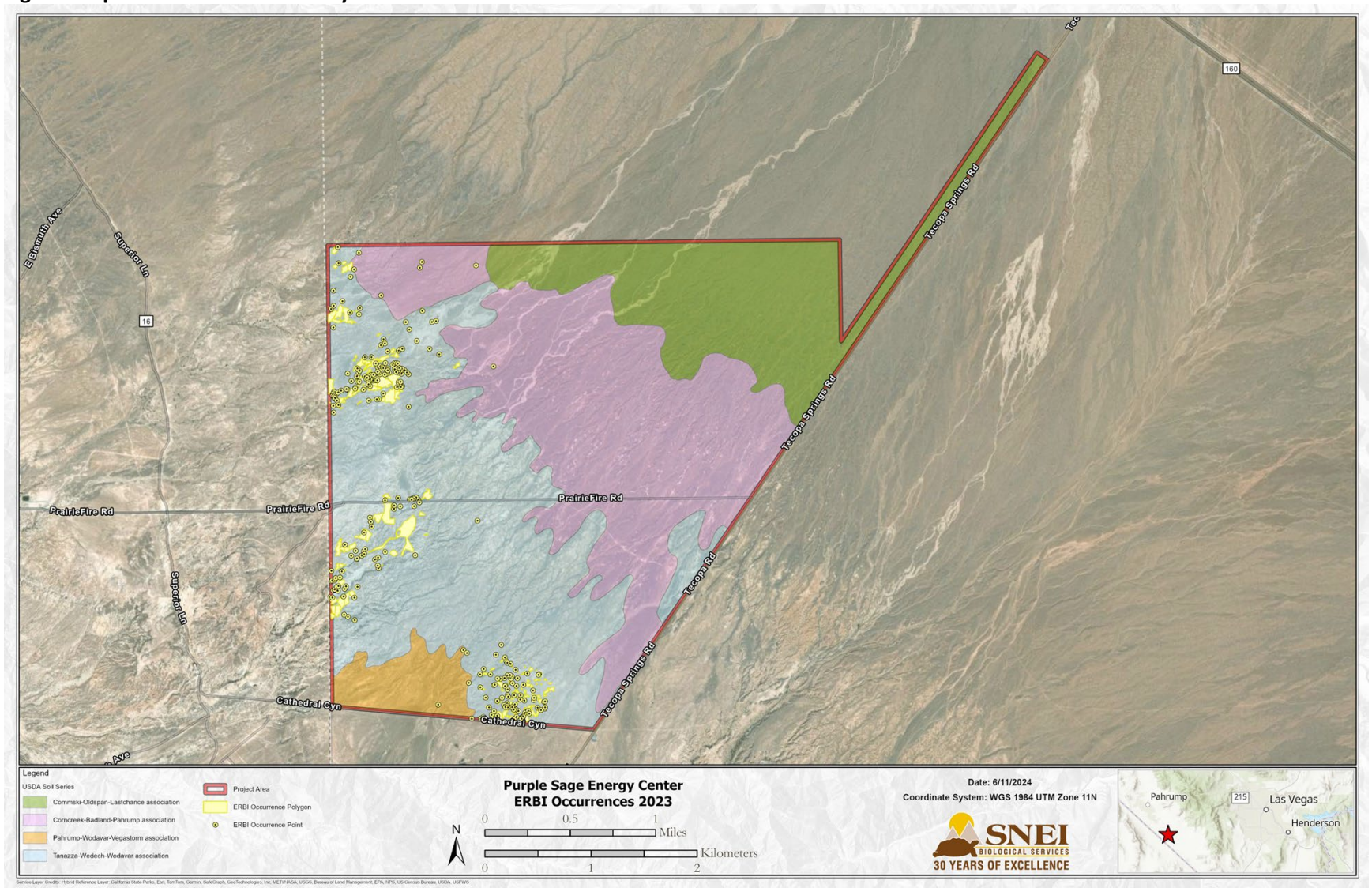


Photo 2. Example of Pahrump Valley buckwheat population in the Survey Area.

SURVEYOR QUALIFICATIONS

The following SNEI biologists conducted the special-status plant survey in spring 2023. Resumes for all biologists were submitted to the BLM botanist and were approved prior to the start of field work.

Aaron Chambers: B.A. in Environmental Studies from Prescott College, Prescott, AZ (2009); 26 years of professional experience conducting biological and botanical surveys in the western United States. A. Chambers conducted the special-status plant investigations and reference site visits for the Project.

DeVon Ekenstam: M.S. in Botany from Arizona State University, Tempe, AZ; over 20 years of experience conducting professional wildlife and botanical surveys in the southwestern U.S. D. Ekenstam conducted the special-status plant investigations and reference site visits for the Project.

Stephanie Hines: M.A. in Natural Resources and Environmental Management from Ball State University (2005); 16 years of professional experience performing biological surveys in the southwestern U.S. S. Hines conducted special-status plant investigations for the Project.

Nichole Nesbihal: B.S. from Kansas State University, Manhattan, KS (2011); seven years of experience conducting botanical and wildlife surveys in the western U.S. N. Nesbihal assisted with the special-status plant investigations for the Project.

Jesse Perry: B.A. in Liberal Studies from Northern Arizona University, Flagstaff, AZ (2000). Over 10 years of professional experience conducting biological surveys in the western U.S. J. Perry conducted special-status plant investigations for the Project.

Kanin Routson: Ph.D. in Arid Land Resource Sciences from the University of Arizona, Tempe, AZ (2012), M.S. in Environmental Science and Policy from Northern Arizona University, Flagstaff, AZ (2007); over 30 years conduction field biology and botanical surveys in the southwestern U.S. K. Routson conducted special-status plant investigations for the Project.

Sarah Schmid: B.S. in Botany from the University of Florida, Gainesville, FL; 18 years of professional experience performing biological surveys in the Mojave and Great Basin deserts, the Sierra Nevada, and the Intermountain West. S. Schmid conducted the special-status plant investigations for the Project.

Chloe Scott: B.A. in Environmental Studies from the University of California, Santa Cruz (2002); 20 years of professional experience conducting wildlife and botanical fieldwork in the western United States. C. Scott assisted with report preparation of the Special-status Plant Survey Report for the Project.

Tim Sullivan: 20 years of professional experience conducting wildlife and botanical surveys, including rare plant surveys in the Mojave Desert. T. Sullivan conducted special-status plant investigations for the Project.

Kevin Thomas: B.S. in Botany and Biology from Humboldt State University, Arcata, CA (2004); 23 years of professional experience conducting botanical surveys in the western United States. K. Thomas conducted the special-status plant investigations for the Project.

Steven Till: B.S. in Botany from Northern Arizona University, Flagstaff, AZ (2002); over 20 years of professional experience surveying for rare plants across the western U.S. S. Till conducted special-status plant investigations for the Project.

Justine Torres: B.S. in Environmental Science from Southern New Hampshire University (2022); one season of experience conducting biological surveys in the Mojave Desert. J. Torres assisted with special-status plant investigations for the Project.

Carrie Veety: B.A. in Environmental Science from Albright College, Reading, PA; 12 years of experience conducting biological survey work in the western U.S. C. Veety conducted special-status plant investigations for the Project.

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APPENDICES

Appendix A: List of Plant Taxa Observed in the Purple Sage Energy Center Survey Area during the Special-status Plant Survey

List of Plant Taxa Observed in the Purple Sage Energy Center Survey Area during Special-status Plant Surveys

Family	Scientific Name	Common Name
AMARANTHACEAE	*Amaranthus* sp.	pigweed
	Atriplex confertifolia	shadscale
	Atriplex polycarpa	cattle-spinach
	Chenopodium incanum	mealy goosefoot
	Chenopodium incanum var. *occidentale*	mealy goosefoot
	Grayia spinosa	spiny hop-sage
	Halogeton glomeratus	saltlover
	Krascheninnikovia lanata	winterfat
	Salsola tragus	prickly Russian thistle
APOCYNACEAE	*Asclepias erosa*	desert milkweed
	Funastrum utahense	Utah twinevine
ASPARAGACEAE	*Androstephium breviflorum*	pink funnel-lily
	Yucca schidigera	Mojave yucca
ASTERACEAE	*Acamptopappus shockleyi*	Shockley's goldenhead
	Acamptopappus sphaerocephalus	rayless goldenhead
	Adenophyllum cooperi	Cooper's dogweed
	Ambrosia dumosa	white bursage
	Ambrosia eriocentra	woolly-fruit burr-ragweed
	Ambrosia salsola	white ragweed
	Baileya multiradiata	showy desert-marigold
	Baileya pleniradiata	woolly desert-marigold
	Calycoseris parryi	yellow tackstem
	Calycoseris wrightii	white tackstem
	Chaenactis carphoclinia	Pebble Pincushion
	Chaenactis fremontii	morningbride

Family	Scientific Name	Common Name
	Chaenactis macrantha	large-flower pincushion
	Encelia virginensis	Virgin River brittlebush
	Ericameria paniculata	dotted rubber-rabbitbrush
	Glyptopleura setulosa	holy-dandelion
	Gutierrezia sarothrae	kindlingweed
	Lactuca serriola	prickly lettuce
	Malacothrix coulteri	snake's-head
	Malacothrix glabrata	smooth desert-dandelion
	Monoptilon bellioides	Mojave desertstar
	Prenanthella exigua	brightwhite
	Psathyrotes ramosissima	velvet turtleback
	Psilostrophe cooperi	white-stem paper-flower
	Rafinesquia neomexicana	New Mexico plumeseed
	Stephanomeria exigua	white-plume wire-lettuce
	Stephanomeria pauciflora	brown-plume wire-lettuce
	Stylocline micropoides	woolly-head neststraw
	Xylorhiza tortifolia	Mojave woody-Aster
BORAGINACEAE	*Amsinckia tessellata*	Devil's-lettuce
	Amsinckia tessellata var. *tessellata*	bristly fiddleneck
	Cryptantha barbigera	bearded cat's-eye
	Cryptantha micrantha	lesser alley Cat's-eye
	Cryptantha nevadensis	Nevada cryptantha
	Cryptantha pterocarya	wing-nut cat's-eye
	Cryptantha recurvata	curve-nut cat's-eye
	Johnstonella angustifolia	Panamint narrow-wing cat's-eye
	Lappula occidentalis	flat-spine sheepburr
	Nama demissum	purplemat
	Nama pusillum	egg-leaf fiddleleaf

Family	Scientific Name	Common Name
	Pectocarya heterocarpa	Chuckwalla combseed
	Pectocarya platycarpa	broad-Fruit combseed
	Phacelia crenulata	notch-Leaf scorpion-weed
	Phacelia fremontii	Fremont's scorpion-weed
	Phacelia pulchella	beautiful scorpion-weed
	Phacelia pulchella var. *gooddingii*	Goodding's phacelia
BRASSICACEAE	*Caulanthus cooperi*	Cooper's wild cabbage
	Descurainia pinnata	western tansy-mustard
	Descurainia sophia	herb-sophia
	Guillenia lasiophylla	Coast Range wild cabbage
	Lepidium fremontii	bush pepperwort
	Lepidium lasiocarpum	hairy-pod pepperwort
	Sisymbrium altissimum	tall hedge-mustard
	Sisymbrium irio	London rocket
	Sisymbrium orientale	Indian hedge-mustard
	Stanleya pinnata	golden prince's-plume
	Strigosella africana	African adder's-mouth
CACTACEAE	*Cylindropuntia echinocarpa*	golden cholla
	Echinocactus polycephalus	cotton-top cactus
	Echinocereus engelmanni	saints cactus
	Grusonia parishii	matted club-cholla
	Opuntia basilaris	beaver-tail cactus
CONVOLVULACEAE	*Cuscuta* sp.	dodder
EPHEDRACEAE	*Ephedra funerea*	Death Valley joint fir
	Ephedra nevadensis	Nevada joint fir
EUPHORBIACEAE	*Euphorbia albomarginata*	white-margin sandmat
	Euphorbia micromera	Sonoran sandmat

Family	Scientific Name	Common Name
FABACEAE	*Astragalus lentiginosus* var. *fremontii*	Fremont's milkvetch
	Dalea mollis	hairy prairie-clover
	Pediomelum megalanthum	Intermountain Indian-breadroot
	Prosopis glandulosa	honey mesquite
	Psorothamnus fremontii var. *fremontii*	Fremont's dalea
GERANIACEAE	*Erodium cicutarium*	red-stem stork's-bill
KRAMERIACEAE	*Krameria erecta*	small-flower ratany
LAMIACEAE	*Salvia dorrii*	gray ball sage
	Scutellaria mexicana	Mexican bladder-sage
LOASACEAE	*Mentzelia albicaulis*	white-stem blazingstar
MALVACEAE	*Eremalche rotundifolia*	desert fivespot
	Sphaeralcea ambigua	apricot globe-mallow
NEMACLADACEAE	*Nemacladus orientalis*	glandular threadplant
NYCTAGINACEAE	*Mirabilis bigelovii*	wishbone-bush
	Selinocarpus nevadensis	desert moonpod
OLEACEAE	*Menodora spinescens*	spiny menodora
ONAGRACEAE	*Camissonia boothii*	shredding mooncup
	Camissonia brevipes	golden beeblossom
	Camissonia refracta	Narrow-Leaf mooncup
	Oenothera primiveris	yellow-flower desert evening-primrose
	Oenothera suffrutescens	scarlet evening-primrose
OROBANCHACEAE	*Orobanche cooperi*	desert broomrape
PAPAVERACEAE	*Eschscholzia glyptosperma*	desert golden-poppy
PLANTAGINACEAE	*Antirrhinum filipes*	yellow twining-snapdragon
	Plantago ovata	blond plantain
POACEAE	*Achnatherum hymenoides*	Indian rice grass
	Achnatherum speciosum	desert needle grass
	Aristida purpurea var. *fendleri*	Fendler's threeawn
	Bromus rubens	red brome

Family	Scientific Name	Common Name
	Bromus tectorum	cheat grass
	Dasyochloa pulchella	false fluff grass
	Hilaria jamesii	James' galleta
	Hilaria rigida	big galleta
	Schismus arabicus	Arabian Mediterranean grass
	Vulpia octoflora	eight-flower six-weeks grass
POLEMONIACEAE	*Eriastrum diffusum*	miniature woolstar
	Gilia brecciarum	Nevada gily-flower
	Gilia brecciarum subsp. *brecciarum*	Nevada gily-flower
	Gilia hutchinsifolia	desert pale cheat gily-flower
	Gilia latifolia	broad-leaf cheat gily-flower
	Gilia stellata	star gily-flower
	Ipomopsis polycladon	sprawling skyrocket
	Langloisia setosissima	bristly-calico
	Langloisia setosissima subsp. *punctata*	bristly-calico
	Langloisia setosissima subsp. *setosissima*	Great Basin langloisia
	Linanthus demissus	desertsnow
	Linanthus jonesii	Jones' desert-trumpets
POLYGONACEAE	*Chorizanthe brevicornu*	Brittle spineflower
	Chorizanthe rigida	Devil's spineflower
	Eriogonum bifurcatum	Pahrump Valley buckwheat
	Eriogonum brachypodum	Parry's wild buckwheat
	Eriogonum fasciculatum	Eastern Mojave wild buckwheat
	Eriogonum inflatum	Indian-pipeweed
	Eriogonum maculatum	spotted wild buckwheat
	Eriogonum nidularium	birdnest wild buckwheat
	Eriogonum trichopes	little desert trumpet
	Oxytheca perfoliata	round-Leaf puncturebract
RANUNCULACEAE	*Delphinium parishii*	ocean-blue larkspur
SOLANACEAE	*Lycium andersonii*	red-berry desert-thorn

Family	Scientific Name	Common Name
	Lycium pallidum var. *oligospermum*	rabbit thorn
TAMARICACEAE	*Tamarix ramosissima*	five-stamen tamarisk
VERBENACEAE	*Verbena bracteata*	carpet vervain
ZYGOPHYLLACEAE	*Larrea tridentata*	creosotebush

Appendix B: BLM Approval of Project Personnel

-----Original Message-----
From: "Kobelt, Lara A" <lkobelt@blm.gov>
Sent: Tuesday, February 22, 2022 2:13pm
To: "Carey Carlos" <careycarlos@snei.com>, "Headen, Jessica A" <jheaden@blm.gov>
Cc: "Beth S" <Bethshipley@primergysolar.com>, "Toby Butterfield" <tb@primergysolar.com>, "Aline LaBar" <AlineLaBar@snei.com>
Subject: Re: [EXTERNAL] Golden Currant Project Botanist Resumes

Hi Carey,
Those botanists are all approved.
If you want to do a kickoff call, it would be helpful for me to have the sampling design in advance to review. Do you have the documents for the botany survey protocols for SNDO? After this week I'll be on leave - so the earliest I can probably meet is March 11 or the week of March 14. Given how dry it has been I don't think this will be problematic from the Vegetation side of things.
Best,
Lara

Lara Kobelt
Natural Resource Specialist I Energy & Infrastructure Team
Bureau of Land Management I Southern Nevada District Office
702.515.5022 I lkobelt@blm.gov

From: Carey Carlos <careycarlos@snei.com>
Sent: Tuesday, February 22, 2022 11:44 AM
To: Headen, Jessica A <jheaden@blm.gov>; Kobelt, Lara A <lkobelt@blm.gov>
Cc: Beth S <Bethshipley@primergysolar.com>; Toby Butterfield <tb@primergysolar.com>; Aline LaBar <AlineLaBar@snei.com>
Subject: [EXTERNAL] Golden Currant Project Botanist Resumes

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Everyone,
SNEI is thrilled to be working on the Golden Currant Project (formerly known as Sagittarius Solar Project) with Primergy and BLM.
In preparation for the spring botany surveys to be performed utilizing the AIM protocols, SNEI would like to submit the resumes of the following:

- Sarah Schmid for designated lead botanist
- Teague Embray for field botanist
- Glenn Rink for field botanist
- Aaron Chambers for field botanist

The preliminary vegetation and wildlife land cover data has already been requested from NDNHDB. The botanical team will begin all aspects of field surveys next month and want to ensure everything you want to see will be covered.
We are currently working on a project timeline. In the meantime, we would like to set up a project kickoff call to discuss our protocols to make sure they are in line with BLM requirements. Please advise when the best time for a meeting would be at your earliest convenience.

Thank you!
Carey Carlos
Vice President of Operations
SNEI Corporate Office
9160 Dean Martin Drive | Las Vegas, NV 89139
O: 702.248.5370 | C: 702.460.8923 | E: careycarlos@snei.com

-----Original Message-----
From: "Kobelt, Lara A" <lkobelt@blm.gov>
Sent: Wednesday, May 10, 2023 11:24am
To: "alinelabar@snei.com" <alinelabar@snei.com>
Cc: "Carey Carlos" <CareyCarlos@snei.com>
Subject: Re: [EXTERNAL] Botanists and Education Pamphlet for Buckwheat Surveys in Pahrump

Hi Aline,
Thanks for this additional information.
Can you please make sure that all the biologists see as many of the different species of *Eriogonum* in the field with either one of the approved botanists, or Sarah?
Can you please make sure that if any of the biologists is unsure about an identification, that they feel comfortable calling/radioing Sarah or another approved botanist for ID confirmation?
Can you please make sure that all of these steps, as well as any others you are taking, are fully documented in the botanical surveys for this spring?
I'm comfortable with you moving forward with these sidebars.
Best,
Lara

Lara Kobelt
Natural Resource Specialist (Botany) | Energy & Infrastructure Team
Bureau of Land Management | Southern Nevada District Office
702.515.5067 | lkobelt@blm.gov

From: alinelabar@snei.com <alinelabar@snei.com>
Sent: Thursday, May 4, 2023 4:21 PM
To: Kobelt, Lara A <lkobelt@blm.gov>
Cc: Carey Carlos <CareyCarlos@snei.com>
Subject: [EXTERNAL] Botanists and Education Pamphlet for Buckwheat Surveys in Pahrump

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good Afternoon Lara,

Thank you for taking my call on Tuesday.

Below is a link to the Sharepoint folder with three sub-folders inside. They contain:

1. An educational pamphlet for all botanists and surveyors to review prior to getting to the project, which will also be reviewed in the field by Project Botanist Sarah Schmid. SNEI will print copies of this pamphlet for each botanist to review in the field.
2. Resumes for previously approved qualified botanists
3. Resumes for biologists who have performed botanical tasks in the past. These individuals will be placed with a BLM botanist to ensure data collection is complete and accurate.

Pahrump Valley Buckwheat Surveys
Password: [redacted]

Botanist list:
DeVon Ekenstam
Jesse Perry
Caitlin MacMurtrie
Kevin Thomas
Stephanie Hines
Timothy Sullivan

Apprentice Botanists:
Nichole Nesbihal
Justine Torres

Gerald Monks
Mark Franke

The original four botanists you have already approved are not all available at this time. The botanists we are submitting are not all available at this time either. We are hoping to begin the surveys this Monday May 8 and complete all surveys by the beginning of June.

Please review these documents for both Golden Currant Solar Project and Larrea Solar Project, as the surveys will be completed consecutively.

Thank you so much for your time, and please let me know if you have any questions or objections.

Have a great evening,

Aline LaBar
President / CEO

WBE / MBE / DBE / SBE Certified by WRMSDC, CPUC and NDOT

SNEI Corporate Office
9160 Dean Martin Drive | Las Vegas, NV 89139
O: 702.248.5370 | C: 561.312.3951 | E: AlineLaBar@SNEI.com

Re: [EXTERNAL] Botanists and Education Pamphlet for Buckwheat Surveysin Pahrump

From: Kobelt, Lara A <lkobelt@blm.gov>
Sent: Thu, May 11, 2023 at 2:13 pm
To: alinelabar@snei.com
Cc: Carey Carlos

AlineHeadshotEmailTag.jpg (45.3 KB)

Thanks Aline,

The resumes all look great. Hope they find some plants this week!

Best,

Lara

Lara Kobelt

Natural Resource Specialist (Botany) | Energy & Infrastructure Team
Bureau of Land Management | Southern Nevada District Office
702.515.5067 | lkobelt@blm.gov

From: alinelabar@snei.com <alinelabar@snei.com>
Sent: Thursday, May 11, 2023 11:17 AM
To: alinelabar@snei.com <alinelabar@snei.com>
Cc: Kobelt, Lara A <lkobelt@blm.gov>; Carey Carlos <careycarlos@snei.com>
Subject: Re: [EXTERNAL] Botanists and Education Pamphlet for Buckwheat Surveys in Pahrump

Good Morning!

Today is my lucky day. I have three previously authorized BLM botanists that will be available to join our team the week of May 22nd. Please find the attached resumes for:

Steven Till
Carrie Veety
Kanin Routson

The will likely be finishing up Golden Currant at that time, then heading to Larrea.

Please let me know if you have any questions or concerns.

Thank you!

Aline

-----Original Message-----