

Tribally Approved  
American Indian Ethnographic Analysis of the Proposed Millers Solar  
Energy Zone

Ethnography and Ethnographic Synthesis  
For  
Solar Programmatic Environmental Impact Statement and Solar Energy Study Areas in Portions  
of Arizona, California, Nevada, and Utah

Participating Tribes

*Duckwater Shoshone Tribe, Duckwater, Nevada*  
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## MILLERS

The proposed Millers solar energy zone (SEZ) is situated in the southern end of the Big Smoky Valley, located in Esmeralda County, Nevada. The Big Smoky Valley is a north-trending basin within the Basin and Range province in south-central Nevada. The valley is roughly 567,700 acres and stretches 115 miles. The SEZ is approximately forty miles east of the California/Nevada border, fifteen miles northwest of Tonopah, Nevada, and sits just north of Interstate 95. The valley shares borders with the Humboldt-Toiyabe National Forest, the closest section-sitting due north of the Millers SEZ (see Figure 1).



**Figure 1 Google Earth Image of Millers SEZ American Indian Study Area and Big Smoky Valley**

The Millers SEZ American Indian study area extends beyond the boundaries of the SEZ because of the existence of cultural resources in the surrounding landscape. The Millers SEZ American Indian study area includes plant and animal communities, geological features, water

sources, storied lands, historic events and the trails that would have connected these features. Western Shoshone tribal representatives maintain that, in order to understand Numic connections to the SEZ, it must be placed in context with neighboring connected places.

### **Summary of SEZ American Indian Study Area Significance**

The lands under consideration in the Millers SEZ American Indian study area, related to the Solar Programmatic Environmental Impact Statement (PEIS), were traditionally occupied and used, aboriginally owned, and historically related to the Numic-speaking peoples of the Great Basin. People specifically involved in the Solar PEIS field consultations summarized here are from the Timbisha Shoshone Tribe (Figure 3) and Duckwater Shoshone Tribe (Figure 2) and are representing the cultural interests of the Western Shoshone people.



**Figure 2 Duckwater Tribal Representatives Within the Millers SEZ**

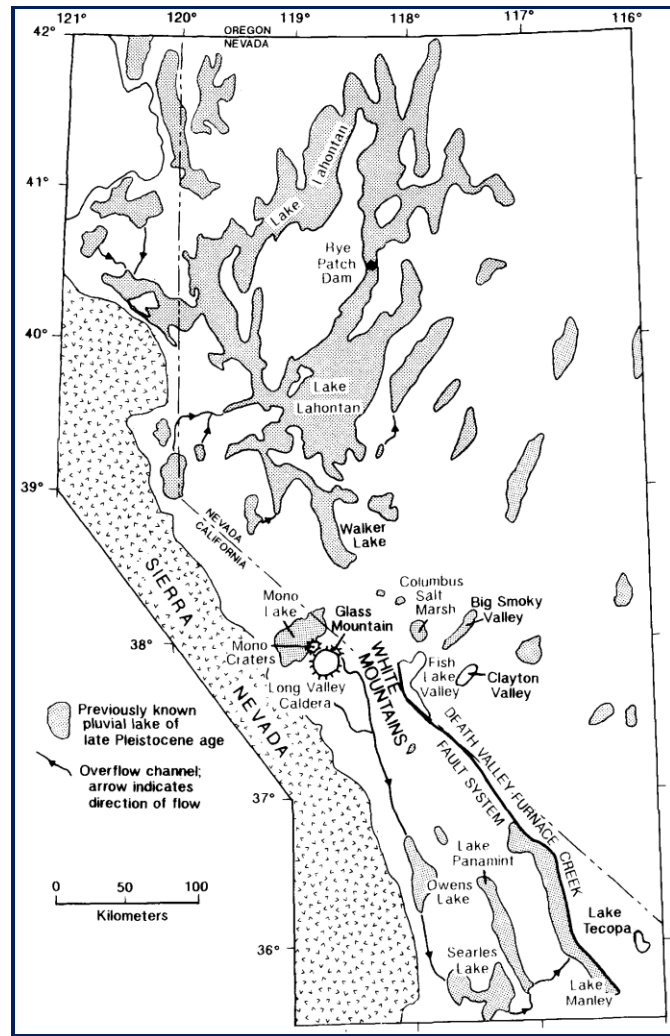


**Figure 3 Timbisha Tribal Representatives at the Base of and on Crescent Dunes in the Millers SEZ American Indian Study Area**



Numic-speaking peoples have and continue to stipulate that they are the American Indian people responsible for the cultural resources (natural and manmade) in this study area because their ancestors were placed here by the Creator and subsequently, they have lived in these lands, maintaining and protecting these places, plants, animals, water sources, and cultural signs of their occupation.

These Numic-speaking peoples further stipulate that, because they have lived in these lands since the end of the Pleistocene and throughout the Holocene (or approximately 15,000 years), they deeply understand the dramatic shifts in climate and ecology that have occurred over these millennia. Indian lifeways were dramatically influenced by these natural shifts, but certain religious and ceremonial practices persisted unchanged. These traditional ecological understandings are carried from generation to generation through the recounting of origin stories occurring in Mythic Times and by strict cultural and natural resource conservation rules. The involved American Indian tribal governments and their appointed cultural representatives have participated in this PEIS in order to explain the meaning and cultural centrality of the plants, animals, spiritual trails, healing places, and places of historic encounters that exist in these lands.



Map 1 Pleistocene Lakes in Nevada and California

The Late Pleistocene ecology of the Great Basin region was rich in fauna and flora. Central to this supportive habitat were wet forested uplands, full grasslands, and long wetlands located along a complex network of streams feeding into medium and large lakes (Grayson 1993). American Indian people hunted, gathered, made trails, and built communities throughout this area. They engaged with this topographically interesting landscape through ceremonial activities. Large mammals, like mastodons, ranged throughout these habitats from the lowest wetlands up to 8,990 feet where the Huntington mammoth remains were found—a subalpine environment in the Late Pleistocene (Grayson 1993:165). While contemporary scholars often focus their studies on charismatic species like the Mastodons, dozens of medium sized mammals have also been found, including camels, horses, ground sloths, skunks, bears, Saber-tooth cats, American lions, flat headed peccaries, muskoxen, mountain goats, pronghorn antelope and American cheetahs (Grayson 1993:159). Smaller mammals were also present. Avian species were abundant and occurred in many sizes that ranged from the largest (the Incredible Teratorn with a wingspan of 17 feet and the Merriam’s Teratorn with a wingspan of 12 feet—both related to the condors and vultures) to the smallest (humming birds) (Grayson 1993:168). Other birds included flamingos, storks, shelducks, condors, vultures, hawks, eagles, caracaras, lapwings, thick-knees, jays, cowbirds, and blackbirds (Grayson 1993:167). The biodiversity of the land and air was matched by the fish species and numbers in the streams and lakes. There were at least twenty species of fish including whitefish, cisco, trout, chum, dace, shiner, sucker, and sculpin (Grayson 1993:187). The fish species traveled widely across the Great Basin through a variety of interconnected lakes and streams. The Late Pleistocene lakes (Map 1) were but a central portion of this hydrological network supporting fish species and by implications, great biodiversity in flora and fauna.

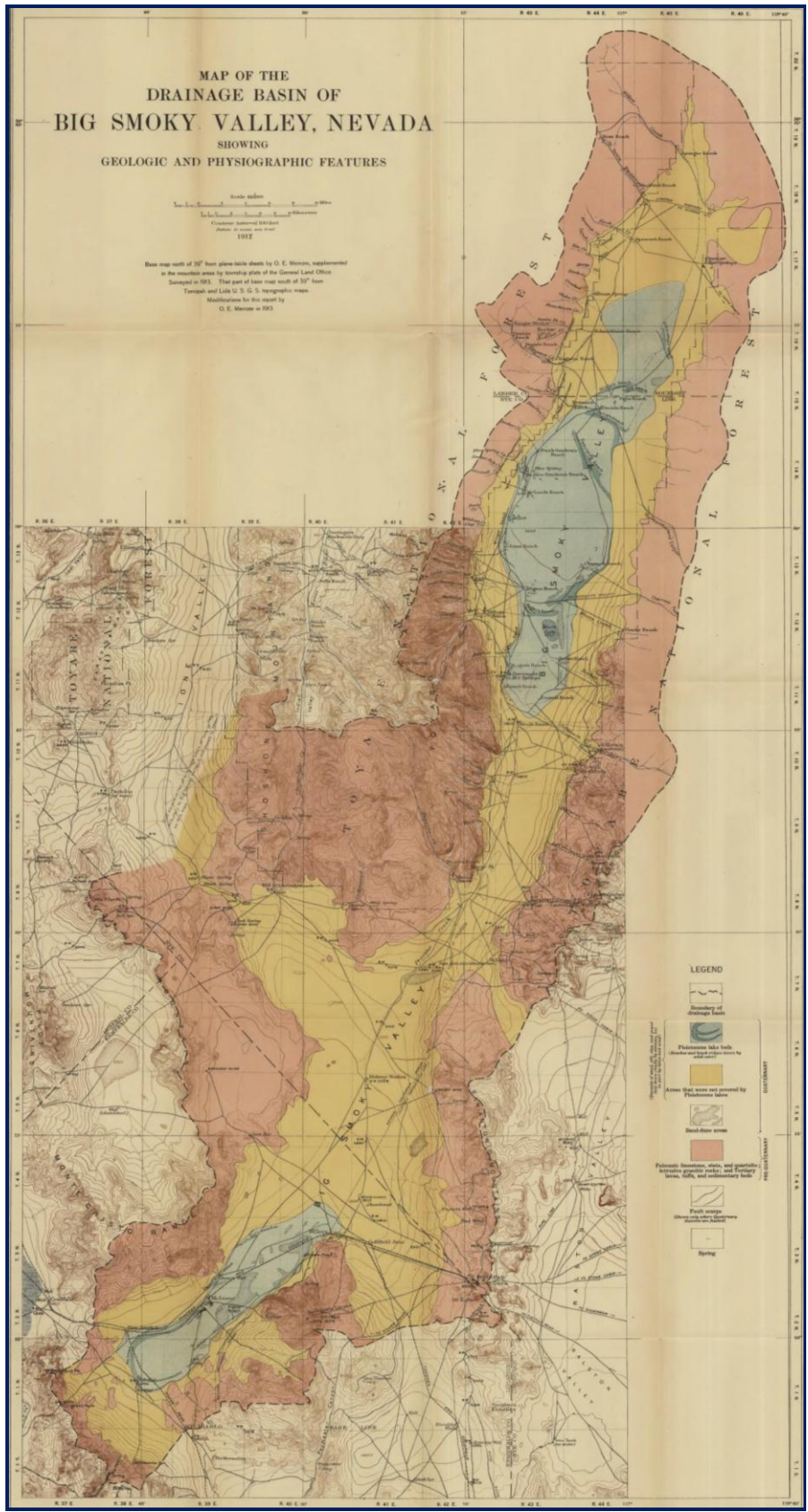
Grayson (1993:169) concluded his analysis with an ecological assessment of the Late Pleistocene natural conditions in the Great Basin region:

The large number of species of vultures, condors, and teratorn in the Late Pleistocene Great Basin raises a number of interesting ecological questions...the fact that there were so many species of these birds here suggests that the mammal fauna of the time was not only rich in species, but also rich in number of individual animals.

Naturally, the American Indian populations also were well supported by this bounty of nature.

### **Lake Tonopah**

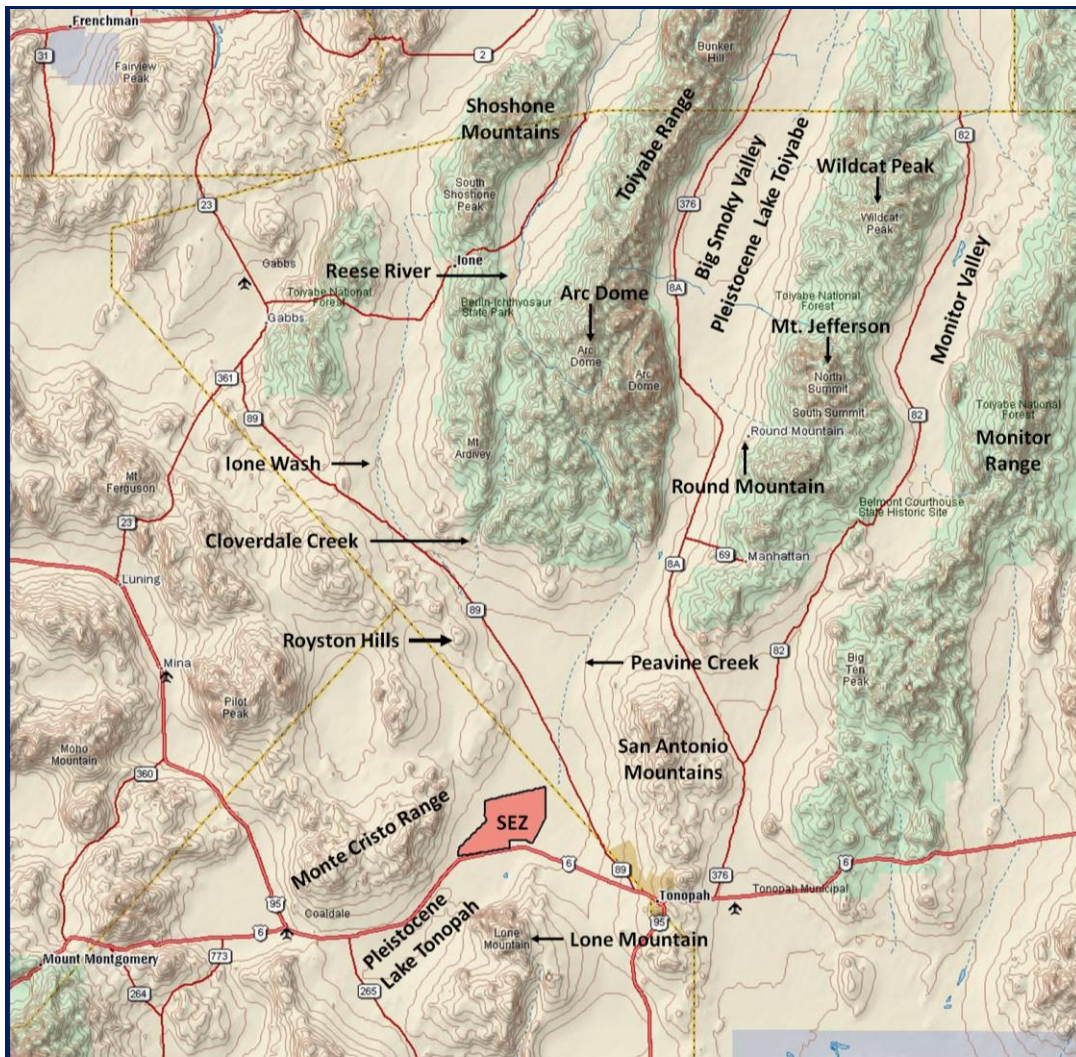
Central in the interpretation of the Millers SEZ American Indian study area is a massive Late Pleistocene lake, wetland, river, and stream hydrological system dominated by what is today called ancient Lake Tonopah. This hydrological system supported both complex biodiversity and biocomplexity for tens of thousands of years—possibly since the Pliocene, as did a similar hydrological system centered in Fish Lake Valley and Columbus Marshes to the west (see Map 2) (Reheis et al. 1993b). Indian people, according to their oral history accounts, have lived in this productive environment since time immemorial. This area, consequently, became and continues to be culturally central in their lives.



**Map 2 Big Smoky Valley Drainage Basin with Pleistocene Lakes**



The watershed of ancient Lake Tonopah extends down slope from the north to the south along what is known today as Big Smoky Valley. This enclosed hydrological system is about sixty-two miles north to south and twenty-one miles east to west. Prominent mountains and ranges surround the major wetlands, lakes, and river in this watershed (see Map 3). Viewing this watershed counterclockwise, Lone Mountain sits in the southeast, the San Antonio Mountains in the east, Mount Jefferson and Wildcat Peak are highpoints in the Toiyabe Mountain Range, which defines the eastern edge of Big Smoky Valley. Mahogany Mountain and Arc Dome are the southern and most visible portions of the Toiyabe Range, a portion of the Shoshone Mountains. The northern portion of Mahogany Mountain is the headwater of the major north-flowing Reese River. The southeast side of Mahogany Mountain contains Peavine Canyon, out of which flows the Peavine Creek. Royston Hills and Paradise Range define the watershed in the west as does the Monte Cristo Range in the southwest. Water flows off the slopes of all these mountains and hills but Peavine Creek is a prominent hydrological feature today, as it flows down slope along the entire length of the Big Smoky Valley and into ancient Lake Tonopah. This hydrological system was a cultural and natural center in the lives of many Shoshone people for thousands of years.



Map 3 Millers SEZ American Indian Study Area and Associated Water Systems

## Special Features

Big Smoky Valley (Millers SEZ American Indian study area) is a *Storied Land* with many important cultural features (Table 1). There are stories here about events that happened before people came to be in charge of the world. It was a time some call Mythic Time, but this term should be used carefully because in Western Culture, the term mythic means not true or fictional. In Numic culture, Mythic Time denotes a real time when animals could talk and important events occurred. According to a Duckwater elder:

*We talk about in our stories a transition of where man wasn't the ruler of the earth but the animals were. There's a transition time when the animals gave up their right to rulership and turned the earth over to man for the Indian people to take care. But for the animals, it was a sad time because now they didn't have a voice on what's going on. It's man's turn. Because they were able to converse like you and I, important decisions occurred. Like the coyote and the wolf, they talked about death. How many times do we have to die? Once or twice? So things like that are discussed and that's why coyote been what coyote is. We should only die one time. And wolf says, "Okay. Let it be so." That's why we only die once. But then coyote's son died and he came back to wolf and said, "What was he saying about us dying twice?" He said, "No, you said one time. We only die once." See, the animals discussed what is going to happen with death. These are the things that were decided by the animals, how we are to live and to die.*

During Mythic Times, great events occurred in Big Smoky Valley. A Shoshone Creation spot sits in the upper portions of the valley near a hot spring located between the Toquima and Toiyabe Mountain Ranges. At that time, there were no pine nuts in the mountains of what is now northern and central Nevada. Raven decided to take pine nuts from where they grew in what is present day Idaho to the south. To escape detection, Raven filled his hollow leg with pine nuts and then he flew south over the Toiyabe Mountains where the people he stole the pine nuts from finally caught up to him, scattering the pine nuts hidden in his leg. According to a Duckwater elder:

*Up in the Toiyabe Mountains, there is a place (you can see it from here) where the pine nut carrier, the Raven, was finally captured or knocked down? He had been chased by the people (animal and human) from Idaho who did not want him to give the Pine Nuts away. When they captured him his leg broke open and the Pine Nuts spread all over the mountains. That is where it occurred and that is how we got Pine Nuts from Idaho.*

Radiocarbon dating puts the arrival of pinyon pines in the Toquima Range at approximately 4200 B.C. (Mehringer 1986:44). The fact that Native American oral documentation of this arrival has lasted until present day illustrates the magnitude of the arrival of this significant food source.

In the Toiyabe Mountains, there is also a place that is visible from central Big Smoky Valley, where Coyote tried to capture a lizard but the lizard turned into a fish to escape. This is an origin story for fish that lived in the streams and lakes associated with ancient Lake Tonopah



and its wetlands, rivers, and streams. Cutthroat Trout still occupy the up-stream portions of Peavine Creek as it passes through Peavine Canyon.



**Figure 4** Viewscape from Rhyolite Foothills Looking North up the Big Smoky Valley, Towards Toiyabe, and Toquima Ranges across the Millers SEZ

This Storied Land (Colwell-Chanthaphonh 2005, Walton 2001) is what some have called *Landscapes of Origin* (Christie 2009). The latter is a term that is reserved to describe the intense and complex ways that traditional and aboriginal people are connected with their lands. Christie explains that the concept of *landscape* is linked to the meaning local people bestow on their cultural and physical surroundings. She also states that the concept of *origin* is used to describe the beginnings of a society or a particular social group. This concept is closely related to memory. She observes that landscape is a powerful factor in the operation of memory because of the associations narrators make between the local landscape and the events of the stories they tell. This continual interaction with past, present, and future time has new meanings and rules. Lineal history as it has been defined in Western academic terms simply does not exist.

The Millers Solar SEZ American Indian study area (Figure 4) is located in Big Smoky Valley which has been culturally central to the lives of Western Shoshone people for thousands of years. Western Shoshone people have maintained long standing complex interactions with and attachments to places in the SEZ American Indian study area. In addition to telling stories of Mythic Time events, the communities of the valley hosted important large scale balancing ceremonies like the 1890 Ghost Dance. Individual acts of ceremony also occurred, like pilgrimages to the mountains for visions quests and seeking spiritual guidance in curing.

Evidence of previous Native American use was documented throughout the Millers SEZ American Indian study area. The base of Lone Mountain was identified as an area to collect high

quality obsidian. Tribal representatives noted numerous pieces of worked obsidian, chert, and red jasper in the area. These materials were used to make tools for ceremonial and doctoring activities. An early prehistoric projectile point (Figure 5) was observed and served as a voice from the past, documenting the presence of Indian people in the valley since the time of ancient Lake Tonopah. Lone Mountain was also identified by Western Shoshone consultants as a vision questing location. The vision questing site would have been located on the triangular ridges half way up the mountain. It was noted that vision questing sites were not always at the top of the hill or mountain.

Historical events occurring in the Big Smoky Valley have also been documented. One of these events was the Ghost Dance movements of mid to late 1800s. This movement sought to correct environmental and cultural conditions, restoring balance and shifting power away from the Euro-American encroachers and back to the Indian people. The Ghost Dance was a response to the physical and mental stresses produced by Euro-American encroachment onto traditional native lands. According to a Western Shoshone spiritual leader and medicine man, Ghost Dances were regularly performed in Big Smoky Valley near a place known as Darrough's Hot Spring. This area is located approximately twelve miles northwest of Round Mountain in central Big Smoky Valley. Hot springs themselves are places of *Puha* (power) concentration, healing, and purification. This site was used throughout the 1890s for Ghost Dance ceremonies. Ghost Dances were performed at other sites throughout central Nevada (Zedeño, Carroll, and Stoffle 2006) and would have been conducted at other locations within Big Smoky Valley. Later, in the late 1800s to early 1900s, Western Shoshone people held seasonal festivals known as big times or *fandangos* throughout Big Smoky Valley. Fandangos were a mixture of social, political, ceremonial, and festive gatherings.



**Figure 5 Projectile Point Found in Millers SEZ**

Ecologically, the Millers SEZ American Indian study area contains a wide variety of traditional medicinal, ceremonial, and edible plants. The eastern portion of the Millers SEZ American Indian study area is dominated by massive fields of Indian ricegrass, or *wai* (*Achnatherum hymenoides*) (Figure 6), a traditional food of great importance. Numic-speaking peoples actively harvested and managed the production of *wai* through the use of beaters, winnowing and control burns (Anderson 2005).

The western portions of the SEZ American Indian study area are dominated by Anderson wolfberry (*Lycium* sp.), a sweet berry used fresh or dried that was often pounded in meat to preserve it. Dried berries used year round (Rhode 2002). The unusually extensive fields of Indian ricegrass and Wolfberry were able to feed thousands of Indian people when managed under traditional patterns of Indian horticulture.



Figure 6 Indian Ricegrass near Crescent Dunes in SEZ American Indian Study Area

All of the animals that live or travel through the valley are used, whether it is for food, as actors in Mythic Time stories, or participants in ceremonies. Migratory animals, such as deer, antelope and big horn sheep, cross through the valley and into the surround foothills and mountains. Tribal consultants commented multiple times on the fact that there were Big Horn Sheep trails all through this area. Another animal that drew a large amount of interest from tribal representatives was the Desert Horned Lizard, or *Mon-tah-gay*. In Western Shoshone culture, the *Mon-tah-gay* is associated with medicine and healing. There is a Horn Toad Song that describes this relationship. The following is a discussion of that song told by Corbin Harney, a Shoshone religious leader:

*I'm singing about the Mon-tah-gay. In my lingo, it's the horned toad and how important the horned toad has been for us at one time. It bleeds us and makes us healthy again, like you're sickly and have too much blood in you. It can bring your blood for you and then it can relieve that ay-be feeling you have when you bleed yourself even sometimes...that's the reason I'm singing about him. That he's over his land, he's jumping up and down. So, when you see him, he raises his head up and down. That's a horned toad...that's how important that little creature is at one time but he disappeared but he's coming back now I see. So because we should appreciate him and sing to him, it makes him happy when we sing about the little creature.*



At the time of the Late Pleistocene, The Big Smoky Valley was a wetland, dominated by lakes, streams and marshes. Although the climate has shifted, steams, seasonal playas and springs still dot the landscape. Originating in the Toiyabe Mountains, Peavine Creek, Ione Wash, and Cloverdale Creek, all cross through the Miller SEZ American Indian study area. At the base of the surrounding mountains and foothills, springs provide water and luscious landscapes. Water maintains an important cultural role in the lives of Shoshone people. Natural water sources, called *gwizho'naipe* or life-producing water, play a large function in crucial rituals as well as day to day life (Gould and Glowacka 2004:188).

Geologically, the presence of the sand dunes and mountains makes the Millers SEZ American Indian study area significant. Within Indian culture, powerful places are recognized by their topographic uniqueness. It is in these places that Puha concentrates. These places of power are often in the form of hot springs, dramatic peaks, canyon constriction, rivers, and sand dunes (Stoffle, Zedeño and Carroll 2000b). Crescent Dunes offers a unique topographic break in the otherwise flat expanse of the Big Smoky Valley. The panoramic views from the top of the dunes as well as the acoustic nature (also known as singing sand dunes) of the Crescent Dunes make these dunes a unique place of Puha. “The views and acoustics have their own powers that in turn contribute to the power of a place as well as facilitate the performance of ceremonies” (Stoffle, Zedeño and Carroll 2000b:5).

This geological feature has spiritual importance and is connected to the Millers SEZ American Indian study area through proximity and trails. The surrounding mountains, as previously discussed also hold power, water sources, mineral resources, and Mythic Time stories. Both mountains and sand dunes were destinations for ceremonial activities.

Feature Type	Special Feature
Landscapes of Origin	➤ Mythic Time Stories and Origin Place
Source for Water	➤ Surrounding Springs, Multiple Playas, Pleistocene Lake Tonopah, Peavine Creek, Ione Wash, and Cloverdale Creek
Geological Features	➤ Spiritual Mountains (Lone Mountain, Toiyabe Range, Toquima Range, Monte Cristo Range, Weepah Hills, Royston Hills), Bighorn Sheep Trails, Big Smoky Valley, Crescent Dunes, Peavine Creek
Source for Plants	➤ Anderson Wolfberry, Indian Ricegrass, Medicinal Plants
Source for Animals	➤ Medical, Spiritual and Utilitarian Use Animals ➤ Migratory Path for Mountain Sheep, Deer, and Antelope
Evidence of Previous Indian Use	➤ Obsidian, Chert, Red Jasper, Agriculture
Indian History	➤ Round Dances, Ghost Dances, Fandangos

**Table 1 Special Features Identified in the Millers SEZ American Indian Study Area**

## Water

Water is a central feature in Shoshone cultural. Traditionally, after a Shoshone woman has given birth to their child, the father jumps into the nearest water source in order to ensure that his child is “physically strong and healthy, fast paced, and alert to its surroundings. If the water wished his son to be a good hunter, he ran in the mountains to the nearest water hole” (Gould and Glowacka 2004:187). Water sources are seen as special locations that help to protect a child’s well-being. A child and mothers hair was often deposited in flowing water to give the child a strong mind. Natural water sources are called gwizho’naipe, which means life-producing water (Gould and Glowacka 2004:188). Thus, water serves as a purifier and plays an important role in many Shoshone rituals.

At the end of the Pleistocene, the Millers SEZ American Indian study area was a valley was filled with lakes, wetlands, rivers, and streams, but the climate has changed and water is less available today. The scarcity of this resource heightens the significance of the streams and springs in the area. These water sources include Peavine Creek, Ione Wash, and Cloverdale Creek. They originate in the Toiyabe Mountains and flow through the Millers SEZ American Indian study area. Numerous springs are located in the foothills and mountains which tribal representatives noted were important cultural features in the Miller SEZ American Indian study area.

## **Geology**

The Millers SEZ American Indian study area is surrounded by the Monte Cristo Range to the west, the Royston Hills to the north, the San Antonio Mountains to the east, and Lone Mountain and the Weepah Hills to the south. These mountains and hills are comprised mainly of dolomite and limestone with silver, gold, copper and lead materialization. The Weepah Hills, Lone Mountain (Tingley and Maldonadol 1983), the San Antonio Mountains and the Royston Hills all have mining and mineral claims (Kral 1919). These mountains have been linked to Western Shoshone ceremonial activity. Western Shoshone people visited places like Lone Mountain to obtain materials, such as obsidian, that were crafted into doctoring and ceremonial tools.

The Big Smoky Valley is a mixture of both consolidated bedrock and loss deposits. The lacustrine deposits come from the surrounding mountains and settle at what was once the Pleistocene Lake Tonopah. Alluvial fan sediment also dominates the valley with deposits of gravel, clay, silt, sand and shale. Aeolian sands give rise to dune formations that dominate the valley’s southern landscape. Natural wells and springs are scattered throughout the surrounding mountains, such as Crow Springs. On the valley floor, a number of springs break the Earth’s surface, including hot springs, pool springs, and mound springs (Meinzer 1917). A playa near the Millers SEZ is covered with a white incristalation formed by the deposits of salts, sulphates and chloride (Spurr 1906). This playa retains water during perennial rains when the washes and stream beds that cut the valley carry water off the mountain tops and into the lower lying areas. The geologic composition of the Millers SEZ American Indian study area is important to aid in the growth of important traditional use plants like Anderson’s wolfberry and Indian ricegrass.

Crescent Dunes (Figure 7) is culturally important because, in addition to being a predominant geological feature, it is also one of a handful of sand dunes in Numic territory

considered “singing sand dunes.” These dunes emit low-frequency sounds that are caused when moisture exists within the sand particles, the temperatures are high, and some sort of impact occurs that cause the sands to shift. Wind, earthquakes, or human activity can create enough impact to cause the sand dunes to shift. The “booming” sound of the sand dunes is emitted when avalanches occur on the leeward face of the dunes and when the avalanches are at an angle that mirrors to the natural angle of sand deposition. Collisions between the grains of sand cause the grains to become synchronized. When this occurs, the outer level of sand vibrates (Andreotti and Bonneau 2009). From a cultural perspective, the emission of tones and measurable musical notes are a testament that this land feature is alive and it can interact with all elements of the universe. Crescent Dunes is a unique place of Paha because the viewscape and the musical nature of the sand facilitate the performance of ceremonies.



**Figure 7 Highest Point at Crescent Dunes (left), Viewscape from Crescent Dunes North, Up-valley Towards Toiyabe and Toquima Ranges within the Millers SEZ American Indian Study Area (right)**

### **Ecology – Plants and Animals**

The Millers SEZ American Indian study area lies within the Central Basin and Range Level III ecoregion. The area is internally drained and constituted by xeric basins, mountains, and salt flats. The SEZ American Indian study area ranges in elevation between 6,200 feet (1,890 m) and 4,750 feet (1,450 m) and Great Basin sagebrush and saltbush-greasewood communities dominate the ecological communities. This area is also part of the Great Basin Desert-scrub biome. Nested within the Central Basin and Range ecoregion, this SEZ lies within the Tonopah Basin level IV ecoregion. Due to its location between the Great Basin and the Mojave Desert, the Tonopah basin represents a transitional zone with characteristics of both areas.

In the southwest portion of the SEZ American Indian study area, the ecoregion transitions to the Lahotan and Tonopah lake beds, which consist of flats, intermittent lakes, playas, and dunes. The predominant cover within the study area is Inter-Mountain Basins Mixed Salt Desert Scrub, as demonstrated by the generally open shrublands. Perennial grasses constitute the majority of the generally low-density understory. Another large portion of groundcover is defined as Inter-Mountain Basins Greasewood Flat. This is linked to the presence of saline soils, a shallow water table, and intermittent flooding despite overall aridity.



Indian ricegrass, also known as wai is found extensively throughout the eastern portion of the Millers SEZ American Indian study area. Numic-speaking peoples harvested wai by using seed beaters. Seed beating allowed for repeated harvests and maximized the numbers of ripe seeds gathered, while minimizing damage to the plant (Anderson 2005:129). When the seed beaters hit the wai, only the fully ripened seeds would fall to the ground, leaving the young ones to develop fully. The seeds that were not swept into the collection baskets by the beaters would scatter on the ground to germinate or to provide food for smaller animals. Indian women actively managed the wai fields by setting small seasonal controlled burns. The small fires were critical for promoting new growth and reseeded of wai fields (Anderson 2005).

Anderson wolfberry dominates the western portions of the Millers SEZ American Indian study area. The berries are sweet when used fresh or dried. Often times, Indian people pounded the berries into meat as a way to preserve it. Dried berries were kept and used year round. Because of the thorns on the bush, beaters and basket were used to collect the prized berries (Rhode 2002). This technique was also used to promote new growth. It is incredibly rare to find this plant dominate a landscape in such a manner like it does in the Millers SEZ American Indian study area. This is one reason why it is believed that these plants must have been carefully tended to create the purposeful, irregular clustering of wolfberry bushes in the SEZ American Indian study area.

During multiple field visits, Native American representatives identified 22 traditional use plants within the Millers SEZ American Indian study area. Table 2 provides readers with the common, scientific, and Western Shoshone names for each plant identified.

Common Name	Indian Name	Scientific Name
Black Greasewood	to-nó-be	<i>Sarcobatus vermiculatus</i>
Big Sagebrush	povi, pohovi	<i>Artemisia tridentata</i>
Bud Sagebrush	povi, pohovi	<i>Picrothamnus desertorum</i>
Desert Prince's Plume, Indian Spinach	tuhuara, tu'mara, woy-boh-numb	<i>Stanleya pinnata</i>
Desert trumpet	tusarambokup	<i>Eriogonum inflatum</i>
Douglas Rabbitbrush	<u>nagaha-see</u> -bup-ee, <u>oh-ha-see</u> -bup-e	<i>Chrysothamnus viscidiflorus</i>
Dune Evening Primrose		<i>Oenothera deltoides</i>
Fourwing Saltbush	noo-roon-up	<i>Atriplex canescens</i>
Horsebrush	<u>coo-see see</u> -bup, coo-see <u>see</u> -bup-e	<i>Tetradymia</i> sp.
Indian Ricegrass	wai	<i>Achnatherum hymenoides</i>
Mojave seablite	<u>attem</u>	<i>Suaeda moquinii</i>
Nevada Smokebush (Indigo Bush)	ma-good-tu-hoo, moh- <u>goon</u> -du-hu	<i>Psorothamnus polydenius</i>
Orange lichen		<i>Caloplaca trachyphylla</i>
Rubber Rabbitbrush	<u>see</u> -bape, su'pimba	<i>Ericameria nauseosa</i>

Shadscale		<i>Atriplex confertifolia</i>
Silver Cholla	wiatimbu	<i>Opuntia echinocarpa</i>
Spiny Hopsage		<i>Grayia spinosa</i>
Spiny Menodora	huupi	<i>Menodora spinescens</i>
Whipple's Cholla		<i>Opuntia whipplei</i>
Wolfberry	huupi	<i>Lycium sp.</i>

**Table 4.2 Traditional Use Plants Identified in the Millers SEZ American Indian Study Area**

The presence of animals in an area contributes to its overall cultural importance to Indian people. In Western Shoshone culture, animals factor significantly in songs, stories and ceremonies. Animals were also important food sources and their fur, bones, and feathers were used in the construction of use items. Tribal representatives identified 35 animals in the Millers SEZ American Indian study area. Table 3 provides readers with the common, scientific, and Western Shoshone names for each animal identified. These animals physically and/or spiritually live in the study area. This area is a migratory path for mountain sheep, deer, and antelope.

Common Name	Indian Name	Scientific Name
<b>Mammals</b>		
Badger	Ho'-nah, Hoo'-nah, Hoo-nah, Ho'-nan	<i>Taxidea sp.</i>
Jack Rabbit	Kamusi, Tavusi	<i>Lepus sp.</i>
Chipmunks	Woi', Wah'-oi, Woh'-oi, Wo-i'-tsi	<i>Tamias spp.</i>
Bobcat	Doo'-ko-vitch, Too'-ko-vitch, Too'-ko-bitch, To'-ko-pik	<i>Lynx sp.</i>
Cottontail	Dah-voo	<i>Silvilagus spp.</i>
Cougar	Toi-yā-too'-koo, To-ko-bitch, Mi'-yum-be, Kong'-gwi-tu-nu	<i>Puma concolor</i>
Coyote	Ē-jap'-pah, E-jah, E'-chah, It'-za'	<i>Canis latrans</i>
Mule deer	Dū'-he, Tū-hě'-yah, Toó-ho'-yah	<i>Odocoileus hemionus</i>
Kangaroo Rats	Bi'-e, Pi'-yu	<i>Dipodomys spp.</i>
Kit Fox	Kuida moss-suguee	<i>Vulpes macrotis</i>
Pocket Gopher	Yě'-hah-vitch, Yě'-hah'-vitch, Ye-hah'-vitch-e	<i>Thomomys sp.</i>
Pocket Mice		<i>Perognathus spp.</i>
Porcupine	Yen", Yŭ'-hŭ, Yo'-hah, Tsa'-gwit	<i>Erethizon sp.</i>
Pronghorn	Wan-zee	<i>Antilocapra americana</i>
Rock Squirrel		<i>Spermophilus variegatus</i>
Striped Skunk		<i>Mephitis mephitis</i>

Wood Rats	Kah´	<i>Neotoma</i> spp.
<b>Birds</b>		
American Kestrel	Ku-ti´-ta	<i>Falco sparverius</i>
Burrowing owl	Ku´-hu	<i>Athene cunicularia</i>
Common raven		<i>Corvus corax</i>
Gambel´s quail		<i>Callipepla gambelii</i>
Golden eagle		<i>Aquila chrysaetos</i>
Great Horned Owl		<i>Bubo virginianus</i>
Greater roadrunner		<i>Geococcyx californianus</i>
Horned Lark	Te-we-wit-se	<i>Eremophila alpestris</i>
Killdeer	Bah-zah-wee	<i>Charadrius vociferus</i>
Mourning dove		<i>Zenaida macroura</i>
Nighthawk	Du-va-go	<i>Chordeiles</i> sp.
Northern mockingbird		<i>Mimus polyglottos</i>
Red-tailed hawk		<i>Buteo jamaicensis</i>
Turkey vulture		<i>Cathartes aura</i>
<b>Reptiles</b>		
Desert horned lizard	Mon-tah-gay	<i>Phrynosoma platyrhinos</i>
Long-nosed leopard lizard	Sow´-we-vah´, Sah´-we-vah	<i>Gambelia wislizenii</i>
Rattlesnake		<i>Crotalus</i> sp.
Zebra-tailed lizard		<i>Callisaurus draconoides</i>

**Table 3 Traditional Use Animals in the Millers SEZ American Indian Study Area**

One animal that drew particular interest from the cultural representatives in the SEZ was the Desert Horned Lizard (Figure 8), commonly known as a horned toad. The horned toad is a very important animal to all Numic-speaking peoples. The Western Shoshone believe the horned toad is associated with medicine and healing. They have a song that describes this relationship. The following is a discussion of that song told by Corbin Harney, a Shoshone religious leader:





**Figure 8 Horned Lizards Found on Both Trips to Crescent Dunes in the Millers  
SEZ American Indian Study Area**

*I'm singing about the Mon-tah-gay. In my lingo, it's the horned toad and how important the horned toad was for us at one time. It bleeds us and makes us healthy again, like you're sickly and have too much blood in you. It can bring your blood for you and then it can relieve that ay-be feeling you have when you bleed yourself even sometimes...that's the reason I'm singing about him. That he's over his land, he's jumping up and down. So, when you see him, he raises his head up and down. That's a horned toad...that's how important that little creature is at one time but he disappeared but he's coming back now I see. So because we should appreciate him and sing to him, it makes him happy when we sing about the little creature.*

### **Evidence of Previous Indian Use**

During field visits with Western Shoshone representatives, numerous clusters of archaeological materials were identified. Such materials ranged in age from the very old (an approximately 7,000 year old projectile point) to the more recent. All materials help connect contemporary Indian people with their ancestors and help to explain and emphasize that Indian lifeways in the valley have persisted.

### **Indian History**

Indian people continued to traditionally live and use the spiritual and cultural resources of the Big Smoky Valley until the early 1940s, when they were relocated to various reservations by the federal government. Following this time, many remained in the area as homesteaders, Indian Cowboys on ranches, and miners. However, most of the people and the physical centers of Indian life were located elsewhere. Still, Big Smoky Valley remains in the Indian people's traditions.

### **Landscapes of Origin**

The notion that Big Smoky Valley is a Landscape of Origin is discussed above. However, it is worth repeating that such an area is rare in traditional American Indian lands. Big Smoky Valley is thus especially important in the past, present, and future of American Indian culture.

### Native American Comments

During the Solar PEIS field visit, tribal representatives from the Timbisha and Duckwater (D) Shoshone tribes (Figures 2, 3, 9, 10) were interviewed with two survey instruments, the Native American Cultural Resources and Cultural Landscape forms. The following comments are organized by topic and location. The Solar PEIS study visits occurred in December 2010 and April 2011 and included nine tribal representatives. During these visits, 12 interviews were conducted. This total includes ten Native American Cultural Resources forms and two Cultural Landscape forms.

### General Comments

- *That over there, rabbitbrush, I know that's a medicinal plant.*
- *There's one medicinal plant that I am always looking for, indigo bush. It only grows in certain areas and is used for lung congestion, colds and such. You take a little stem like this and smoke it. I forget what it blooms like. It grows like one of the ephedras. They would also brew it and inhale the fumes. Most of the time they would carry and chew on it, but they preferred to use it with their tobacco and smoke it. And it used to remind of the menthol cigarettes. It's called, muhugoolua. That name kind of refers to smoking it. This plant does smell a bit menthol-like. There are very few of them, it looks like the cows have been in here.*



Figure 9 Timbisha Tribal Representative Examining Projectile Point in Millers SEZ

- *There are lots of use plants here at the site. There is medicine bush, rice grass, Indian Spinach, and Cabbage. It would be better to see in the spring time. There might be a lot more Indian food out there. Everything was dead for the winter.*
- *There were groundhogs. In the springtime, you might see more animals.*
- *They would probably go pick pine nuts up here before the storm hits. Then they'd hunt up there and fishing up there as the water runs down. They would never use this area in the winter time. Some of the groups believe that you stayed out of places with snow unless it's absolutely necessary; otherwise you were disturbing the spirits of the snow.*
- *To gather here, first we would acknowledge us by saying that we came here to pick with a good state of mind and we were not here to hurt anything because we respect the plant and Mother Earth. We would then go on to say that we are going to use it for medicinal purposes and then pick some. But you would only pick so much from here and then you would go to another plant and pick some from there. And we would say that we were going to leave some for other life forms to use, like rodents or whoever.*
- *There are moles and rabbits here.*
- *I found some red jasper. It's just a little flake but it was clearly left by somebody who was working a piece of red jasper.*
- *There are lots of chips of arrowheads that were found...four different colors.*



**Figure 10 Duckwater Tribal Representatives and UofA Ethnographers at Crescent Dunes in Millers SEZ American Indian Study Area**



- *Ted found a turtle bark scaper. Stoffle found one piece of red jasper. The obsidian was a rather dense find. This area was for north to south, east to west travels of the Newe. This area was used for food gathering and tool making. There was Prince's Plume in the area. That's a food source. There might be wild cabbage. There is rabbitbrush here. I would like to return in the spring to see the flowers in bloom.*
- *They're just drying out everything here when they go around and use all the water and digging wells. Water is underground and it goes here and there and it's all connected. So if some is living over here uses it all, pretty soon there isn't any water for the next person down the way and these guys got all the water.*

### **Millers SEZ American Indian Study Area – Native American Cultural Resources Interviews**

The following comments were recorded during interviews with Timbisha and Duckwater tribal representatives using the Native American Cultural Resources survey instrument. These interviews focus on the cultural importance of the Millers SEZ American Indian study area.

When asked to describe the geography of this area or elements which stand out Native American Representatives responded:

- *The Smoky Valley stands out. The whole valley is connected.*
- *The sand dunes and White Mountains stand out.*
- *I'm from the mountains so the mountains stand out. I was raised in the mountains so I'm a mountain person. Right across from us there, the Mormon Mountains, you know if we poke around and look around a little bit I think we'd find us some vision quest sites right up there. Maybe in them rock right over there and them cliffs. (D)*
- *10,000 years ago, there was a big old lake right here where we're sitting on. (D)*
- *What's important to me would be that mountain range up that way towards Smoky Valley and Ione Valley. Just think what it would happen if they start working on this and made the whole thing up there without even no kind of bushes or anything, grass grown, and it'd just be a dust. (D)*

When asked if Indian people would have used this area, Native American Representatives responded:

- *Yes they would have; the area would have been used for permanent living, hunting, seasonal camping, ceremony/power, gathering food, and other things.*
- *This site would have been used for hunting, gathering food, living, camping as well as other things.*



- *Probably because it had hot water and plants of all kinds growing.*
- *Yes! They roamed through here, they traveled through here. They go on down the foothills and they probably cross right in through here, going into Tonopah or going down the other way into Miner and up north towards Smoky Valley, Iron Valley. People would travel through here going into Tonopah or Lida and up north. Also if they were going to Goldfield or Dryer. They camped along Peavine Creek.(D)*
- *There would have been burials in the mountains around here and camps in the valleys. There are a lot of burial grounds through here. They would bury them in the mountains under rocks.(D)*

When asked why or for what purpose Indian people would have used this area, the Native American Representatives replied:

- *Probably because it had hot water and plants of all kinds growing.*
- *They did a lot of doctoring and stuff, purifying, at the hot springs. They would leave offerings, projectile points...The young boys are blessed in the springs by their father to grow up strong, lead a good life, have children, have a good mind instead of one that's all cleared up like today, and be respectful. Be a respectable person, raise your kids right. (D)*
- *They were hunting rabbit, squirrels, all kinds of squirrels. Long time ago there used to be a lot of ground squirrels. Now it's just starting to disappear. I mean, it's gone. Just certain areas, they have that. Over by Tonopah, they've got ground squirrels there. (D)*
- *They gathered plants because they have to. You know, to survive on. Whatever they eat. (D).*
- *I remember because my mother used to say, cause they used to travel all the way from Smoky Valley down into on the other side, Bellmount or Rye patch and on down, down into Tonopah. They'll stay for some time then they'll go back towards north along the foothill or sometimes along the flat or sometimes they'll go across, over towards Miner. They harvest where there are pine nuts. They bring that with them and what they're gonna eat. Oh yeah, harvest what we call the Indian ricegrass. (D)*

When asked if this place is part of a group of connected places, Native American Representatives replied:

- *Yes, this place is connected to high mountains and springs, Crescent Dunes, and Bighorn sheep trails.*
- *It is connected to mountains, land, and spring, Lida and Gold Point.*

- *Yes, it is.*
- *Just up the valley, from talking with elders and stuff, that's where the Shoshone people started. That's their Creation point. From there, they dispersed out into the north, south, east, and west. That's where all the Shoshone came from, Smoky Valley, Monitor Valley. But then again, if we look at the stories, the people and the earth, they talk about a migration over water. We see that when the water skipper brought the coyote back with his little basket full of children that he made, they're coming over water. Maybe these archaeologists have it wrong when they say that the people walked on the land. In our stories, they talk about coming over on a boat. I guess it would be a boat, if you look at the analogies. Again, we're going back to the time when the animals talked, they conversed with each other, interacted with each other, and had ability to have children with each other. This is basically the Creation story, what I'm sharing with you. I listen to the Southern Paiute story and they talk about the Ocean Woman. You know, if you look at them, theirs is similar to ours, tied with the water. They're the same as us. They didn't come over walking, marching on the land like people think. They came over on the water. So we came over here in the time where this was all under water. (D)*
- *Smoky Valley, Ione Valley. This area is all connected because of the Indians, the Shoshone people. The Shoshone go all the way towards Death Valley, down south. (D)*
- *This whole valley is connected to the Smoky people, Reese River and Ione valley. This area is all connected because of the Indians, the Shoshone people. The Shoshone go all the way towards Death Valley, down south. (D)*

When asked if Indian people would have used water within the Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes, they would have used the water in the Millers area.*
- *Yes, the water was used for food and drink, medicine, and ceremony. They had gatherings to thank the Creator.*
- *The water was used for drinking, medicine, and ceremony.*
- *Water in the Millers area was used for drinking, medicine, ceremony, and other things.*
- *They have to or you thirst, die. They get their water from the springs. Springs are higher up in the valley. Water would have been used in medicine and ceremony. Water is used to purify your body. I do that every morning. I pray and get some cold water, talk to the spirit. (D)*

When asked to evaluate the condition of water sources in the Millers SEZ American Indian study area, Native American Representatives replied:

- *The condition of the site is poor. The site is being impacted by over use.*
- *The site is in good condition. Big roads, tourists with ATVs, Jeeps, and cattle are negatively affecting the site. Keep the solar plant out.*
- *Poor. ATVs are affecting the condition of the water at this site.*
- *A lot of springs are drying because we aren't getting that much snow and non-Indians try to dig the springs up and try to dig it up, thinking that they're gonna make something out of it or make the water come out more. And it's nature's spring and there's parts that, after they worked on it like that, it just dried up. They're not respecting water or praying to the water because it happened. (D)*
- *If they use this area to build the big solar energy field and use the ground water, in time it will suck all of those springs out. The plants will get dried out. (D)*

When asked if Indian people would have used plants in Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes, they would have. Plants here would have been used for food, medicine, ceremony, and making things.*
- *Yes, they would have used the plants for food, medicine, ceremony, and making things.*
- *Yes. The plants at this site would have been used for food, medicine, and ceremony. Plants were food for the Indian people and also medicine that was used for some ceremonies.*
- *Plants would have been used for food, medicine, ceremony, and for making things.*
- *There are mostly food plants but Indians might have used some of those for medicine. Indian tea is a medicine plant but you drink it, you boil it. You pick that during a certain time of the year, October. It helps a lot of different ailments. (D)*
- *Indian people had to burn the Indian ricegrass to make it stronger next year. People were burning it because then the year after, whenever they're coming through, there's more. (D)*
- *A long time ago, they did their little ceremonies or the prayers they have here. They'd talk about all the plants and whatever. When they have their fandangos, there was a lot of rain then. They get together, I guess you could call them. The fandangos are being cut down on. They never talk about them things. But some of them do when they have in a*

*circle, the Indian doctor goes in there and talks to all the plants, all different kinds. They put up and do their prayers. (D)*

When asked to evaluate the condition of plants at this SEZ American Indian study area, Native American Representatives replied:

- *The condition of the plants here is poor. A lack of water is affecting the condition of the plants.*
- *Good, there are a lot of edible plants here that are trying to grow. The cattle are affecting the site.*
- *This area is in poor because of the cows.*
- *There's a good variety of plants. Today, we just have a sampling of plants of the desert, things that grow in the desert. By the water, we'd see, cattails, willows, brushes, probably water sage would grow along through there. More than likely you might have cottonwoods that grow along down where the water is at. The valley still has the ability to support people. Just a little manipulation by Indian people that know how to take care of the land and it will come back. (D)*
- *When you come down on this neck of the woods through here, the pine trees aren't 30 or 40 or 50 feet up. They're short, the way they're supposed to be, where it's easier to pick pine nuts. Each place has different pine nuts. This is where they start, right here in Smoky Valley. (D)*
- *They are not growing very well. They don't look healthy. (D)*
- *They're not doing to good. It's not growing good and it doesn't look good either. (D)*
- *Building the solar energy field will affect the plants. More people need to come and attend to them with fandangos and things like that. (D)*

When asked if Indian people would have used the animals in the Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes they would have. The animals would have been used for food, medicine, ceremony, clothing, tools, and other things.*
- *The animals were used for food, medicine, in ceremony, for clothing, tools and other things.*



- *The old people talked about buffalo being in the Smoky Valley so there was buffalo in here also. Besides fish and animals, you would have had little and big birds. Enough so that you can sit down and enjoy a duck or goose dinner once in a while. (D)*
- *The horned toad. He'll tell you where to go and if it's gonna rain or not. That's what they used to say. Antelope used to be in this country. (D)*
- *They used the animals for food and clothing. They just hunt when they really need it. They don't just go and kill them and leave it. They use every part of the animal for things they use. They don't throw away anything. (D)*

When asked to evaluate the condition of animals and habitat in the Millers SEZ American Indian study area, Native American Representatives replied:

- *The condition of animal sources in the Millers area is poor. They are being impacted by overuse.*
- *Poor. The cattle and people are affecting the animals and the habitat.*
- *The condition of the animals and their habitat is poor. It is being affected by cows and lack of Indian contact.*
- *This isn't a good place for the animals because everything is all dried up. There's no water. Right now, I see animals that are still surviving—lizards and horned toads and probably rabbits. (D)*
- *Animals get most of their water from the green plants, like antelope and rabbits; they eat that. That's where they get their water, from the plants. If there isn't enough water to feed the plants, then the animals thirst. (D)*

When asked if Indian people would have used the Millers SEZ American Indian study area and artifacts found here, Native American Representatives replied:

- *Yes they would have used this site and artifacts here. They would have used them for living, hunting, gathering, camping, ceremony/power, and other things.*
- *Yes, they would have used this site for living, hunting, gathering, camping, and for ceremony and power. It was a place to live, to gather, and to meet other Indians.*
- *The big spear point—probably was probably left when this area was under water. They probably shot at something and it dropped into the swamps. So it was used for hunting. (D)*

When asked to evaluate the condition of the SEZ American Indian study area and artifacts here, Native American Representatives replied:

- *The condition of the site and artifacts is poor. The lack of water is affecting the condition of the area and artifacts here.*
- *The condition is poor because of the cars and cattle going through here.*

When asked if Indian people would have used geological resources within the Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes, they would have used geological resources here. The geological features in the Millers area would have been used for seeking knowledge and power, communicating with other Indians, ceremony, communicating with spiritual beings, teaching other Indians, and for marking territory.*
- *The mountains were significant because water comes from the springs that are there. Water is the most important thing. The mountains would have been a good place for hunting. Different kinds of plants are found at different elevations. They mostly had ceremonies in the canyons. But down in Big Smoky Valley, they had ceremonies down on the flat, right where there's a spring. (D)*

When asked to evaluate the condition of geological features in the Millers SEZ American Indian study area, Native American Representatives replied:

- *The condition of geological features here are poor. The lack of water is affecting the condition of the features.*
- *Cattle, motorcycles, and tourists are negatively affecting the geology of this area. The condition of these features is poor.*

When asked to evaluate the condition of the Millers SEZ American Indian study area overall, Native American Representatives replied:

- *Overall, the condition of the Millers site is poor.*
- *The cattle and access roads are affecting its condition. The site condition is poor.*
- *I think the condition of the area is good considering the people and cattle in the area. (D)*

When asked if anything was affecting the condition of the Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes, the impact of people and a lack of water are affecting this place.*

- *If they're going to work on it and plow this whole thing up. It would be bare. It would be worse. There'd be no kind of animals around. And the dust from it will be affecting the people's health and I don't think that's good at all. The solar panels will make this area hotter. It will dry everything up that's around it. (D)*

When asked for recommendations for protecting water sources in the Millers SEZ American Indian study area, Native American Representatives replied:

- *The springs need to be cleaned out.*
- *They should clean out the springs to maintain them better.*

When asked for recommendations for protecting plant sources in the Millers SEZ American Indian study area, Native American Representatives replied:

- *We need to start conserving this area to protect the plants.*
- *Take better care of the plants here.*

When asked for recommendations for protecting animal sources in the Millers SEZ American Indian study area, Native American Representatives replied:

- *The BLM should begin conservation for this area.*
- *Taking better care of the native animals would help them.*

When asked for recommendations for protecting traditional use features in the Millers SEZ American Indian study area, Native American Representatives replied:

- *Restore the natural plants in the Millers area.*
- *Let Indian people take care of the plants.*

When asked for their recommendation for protecting this place, the Native American Representatives replied:

- *Restricting cattle and off-roading in this area would help restore it.*

When asked if Indian people would want to have access to the Millers SEZ American Indian study area, Native American Representatives replied:

- *Yes they would. Indian people would want to come to this place to restore the natural plants.*
- *Indian people would want to come to this place to take care of the plants that are here.*

- *Yes, people would want to hunt and gather food. We would be better eating our own food.*

When asked if any special conditions must be met for Indian people to use the Millers SEZ American Indian study area, Native American Representatives replied:

- *No special conditions must be met for Indian people to use this place.*
- *I don't think Indian people would come back due to solar energy, if it's coming here.*

### **Millers SEZ American Indian Study Area – Cultural Landscape Interviews**

The Native American cultural landscape survey is used to document cultural connections between places, people, and resources. Western Shoshone representatives were interviewed with this form during their field sessions and their comments are in the following sections.

When asked if there were Native American Villages in relation to the area, the Native American Representatives replied:

- *Yes there would have been villages in this area.*

When asked if these villages were connected to villages elsewhere, and if so how, the Native American Representatives replied:

- *Yes, they are connected through the idea of nation.*
- *Yes, they are connected to one another in Southern Nevada and California.*
- *My folks lived in the Smoky Valley and they said that there were four thousand people that lived there at that time. The 1890's or something. (D.)*

When asked if there were seasonal Indian camps in relation to this area, the Native American Representatives replied:

- *Yes, they would have used this area for seasonal Indian camps.*

When asked if these camps were connected to camps elsewhere, and if so how, the Native American Representatives replied:

- *Yes, they all came together. Southern Paiutes and Shoshones were close.*
- *Camps here would have been connected to other camps.*

When asked what Native Americans would have done in this area, the Native American Representatives replied:



- *Native peoples would have farmed, gathered plants, gambled, conducted ceremonies and political meetings, and other activities.*
- *Indians would have gathered plants, gambled, and held ceremonies and political meetings.*

When asked if there were any songs associated with the study area, the Native American Representatives replied:

- *I don't know if there are songs associated with this area.*

When asked if there were any ceremonies associated with the study area, the Native American Representatives replied:

- *Ceremonies would have been held here.*

When asked if this was a Creation place of their people, the Native American Representatives replied:

- *Yes, this is a Creation place.*

When asked if this they knew of any other Creation places of their people and if yes, where, the Native American Representatives replied:

- *Yes.*

When asked if there were any connections between study area and the surrounding mountains, and if so which ones and how, the Native American Representatives replied:

- *I know they are connected but I don't know the names.*
- *Yes there are connections.*
- *People would have been buried along the mountains through here. (D)*

When asked if there were any connections between study area and the surrounding rivers, creeks, springs and washes and if so which ones and how, the Native American Representatives replied:

- *We used to camp along Peavine Creek that goes all the way up the valley. (D)*
- *I don't know.*

When asked if there were any Indian trails connected to study area, the Native American Representatives replied:

- *My mother's family is from the Big Smoky Valley, and they used to travel, all the way to Tonopah. Or they would come through here and go to Lida, and travel the valley. Or up through here to the next valley, Ione Valley. People would pass through here. (D)*
- *I am not sure if there were Indian trails here.*

When asked if this area was connected to any other place or event that had not been previously discussed, the Native American Representatives replied:

- *The whole valley and the mountains are connected.*

### **Crescent Dunes**

- *Indian families gathered here to pick berries and they had ceremonial gatherings here before and after picking. The sand dunes (Crescent Dunes) and the mountain behind here are spiritual. You are supposed to stay out of the snow on that mountain.*
- *The sand dunes are not too far away. The Kawich Mountain range is about 50 miles away or so.*
- *Here, we picked the smokebush when it was green.*
- *Sitting on top of the Crescent Sand Dunes near Tonopah, Nevada. I'm looking west toward the White Mountains and I can see a colorful mountain near the study area. There's a black little mountain that's prominent and stands out. To the north of me is where Yamba is; where the Yamba people are. You can see everything from up on this sand dune and to the south of me is a mountain that my father talked about with bighorn sheep. They used to hunt them a lot. There used to be quite a bit of them. Southeast of me is Tonopah and east of me I can see small mountains behind us.*
- *As I look around, I see a lot of ATV tracks going up and down the sand dunes, driving all over the place. I don't know what sorts of little plants and little animals are out here, but on the way up we saw little round beetles crawling all over the place and then some other tracks that we were not quite sure of what's there, but the little beetle must be finding something up here on the sand dune to eat, otherwise he wouldn't be way up on top of the sand dune.*
- *I can see power lines in the distance going across the valley from south to north and I guess that's where the solar panels would probably be hooking into unless they have to put in a bigger line, which would be more work. I could definitely see how a project like this would really stand out. I can see the rest of the area in the distance and it does stand out quite a bit just looking off. It's a pretty clear day, maybe a little bit hazy. You can see*

*some of the, looks to me like a ranch in the distance there and some trees as it follows the pole line, the road, going north.*

- *I noticed some cattle walking about out here so there must be some food for them. I've been out here before on the pole line road and saw some [onsi] or I should say pronghorn that were out here.*
- *You can see what remnants of dry lakes there were probably in greener times. The elders talk about those times in their stories. It's quite interesting to sit up on top of the sand dune and look around and see what's around, but like I said, the solar site would definitely be reflective, to put it one way.*
- *Looking east, these canyons and drainages look very interesting. I'm sure there's something, probably sites back in there, possibly some rock art, who knows. It looks like a very promising area to be hiking around in.*
- *When I look back toward the west, toward the White Mountains, my father told me that my grandfather, Joe Kennedy, did some quicksilver mining up there in the Whites, and told my father that he was only going to work there for a couple of weeks because the effects that mining that quicksilver caused teeth to fall out and all kinds of bad things. Those people knew those kinds of things back then and knew that they were harmful and yet the drive for money was there to push people to do those kinds of things. My father said that they were only there for a week or two and then they were gone. They didn't stay there very long, doing that kind of work. He always talked about mining being dangerous.*
- *I remember stories of my father's travels with his father, going up this way to Reese River and visiting people. They always went places and visited. Going to Tonopah was a main place for people in my father's era, and probably Pauline's era. It was a happening town there for a while. Tonopah was a big mining district, a lot of mining going on there, and a lot of things happened there. Jim Butler was lead there by a Shoshone person. A Shoshone person doesn't really get the credit, nor the payment of that. That's the way it was then. It was driven by greed that they were out to take lands that didn't belong to them and resources that did not belong to them.*
- *As I look at the power lines out in the distance I just wonder if it is enough; if they have to build more transmission lines to get the power to wherever they need to get it. It seems like the big cities would be where they would want to go, so it would either go to Reno or Las Vegas if they're sending this power out. I don't know if they would just have it go to Tonopah or other cities that are closer like Gabbs, possibly. But you know these mining areas like Gabbs over there in Big Smoky Valley, they use a lot of electricity. So I don't know if that would be the consumer. I always wonder about that, who the consumer is going to be, because the effects could be not for the good if the power is for the mining companies to pollute the ground water and the air and the land.*
- *It was a good feeling to come up to the top here, but a tough hike.*

## Ethnographic Comments

Throughout traditional Numic territory, there are thousands of places connected through songs, oral history, human relations, ceremony, and trails (physical and spiritual). These connections create synergistic relationships between people and place. The following ethnographic comments are provided to help contextualize the major features at the Millers SEZ American Indian study area. This section covers the major themes highlighted by tribal representatives that connect the landscape to the past and to contemporary Shoshone people.

### Landscapes of Origin

It is important to consider stories from Mythic Times to be true without question. They are just so because they have been handed down for generations. These truths are reaffirmed when events in Mythic Stories match contemporary scientific information. For instance, the story of the Raven bringing pine nuts to the central Nevada, documents the arrival of the pinyon pine to the area. This natural resource event must have been of some magnitude given the food value of pine nuts and as such it would be remembered. Radiocarbon-dated charred seeds from Gatecliff Shelter confirm pinyon pine's arrival in the Toquima Range, central Nevada, by about 4200 B.C. (Mehring 1986:44), long after the arrival of the Shoshone people in the area.

### Horticulture

An intimate knowledge of plant genetics has been suggested as a major *cultural focus* of desert-dwelling Indians (Anderson 1956; Shipek 1970) In order to maximize available resources, Numic-speaking peoples developed an adaptive strategy (Bennett 1976:273) involving both seasonal movement in pursuit of the total spectrum of flora and fauna and cultivation of crops using flood plain, oasis, and riverine irrigation and dry farming techniques. This wide ranging semi-sedentary *transhumant adaptive strategy* (Stoffle and Evans 1976), when combined with plant and animal husbandry, produced an environmental carrying capacity that actually exceeded that produced by Euro-American strategies of fulltime farming and/or ranching. This strategy effectively utilized extensive desert tracts and supported dense populations of American Indian people. The systematic and annual management through patch ecology burning of Wolfberry and Indian ricegrass in Big Smoky Valley constitutes an example of such semi-domesticated horticulture that resulted in increased carrying capacity that supported large numbers of people.

### Indian History

Indian people have a history like all people. Their history however, has largely been carried down through time via oral accounts. This is so because those who controlled writing and publication for much of this time were non-native and dominated the narration of events. Indian history can be considered to begin as soon as impacts of Europeans arrived in Indian Country. For the people of Nevada this began with Virgin Soil Epidemics probably first occurring in the 1600s, but certainly by the mid-to late 1700s. The first European documents recording the presence of Indian people in the Great Basin region and western Colorado Plateau was in 1776 as a consequence of the Fathers Domínguez and Escalante expedition. Indian history continues to



be produced today as events of cultural importance occur to Indian lands, resources, and the people themselves.

### *Fandangos*

In the late 1800s to early 1900s, Western Shoshone people gathered at places in areas like Big Smoky Valley and held annual or seasonal festivals known as big times or fandangos. These events served both social and ceremonial purposes. Fandangos featured hand games, large feasts, and round dances for physical and spiritual renewals. It has been estimated that as many as 300 to 500 people would attend these events throughout central and northern Nevada. Each fandango had a local leader who sponsored and conducted the event. Western Shoshone scholar, Steven Crum, documented that fandangos were held and led by the following traditional leaders: Sam Courts (Big Smoky Valley), Chief Blackeye (Duckwater), Captain Bob (Battle Mountain) and Joe Gilbert (Austin). Crum also notes that fandangos also were held in Elko and Ruby Valley (Crum 1994).

During the period of encroachment, many Shoshone people were removed from their water sources, farm lands, and traditional use areas by non-Indian settlers, ranchers, and miners. Fandangos were used by Western Shoshone people as a method of preserving and carrying on their traditions during this period of rapid social and environmental changes. Another tool Western Shoshone people utilized to combat these increasing threats was through the practice of the Ghost Dance. In recent oral history interviews, contemporary Shoshone people discussed how places in Big Smoky Valley were used by Indian people for the Ghost Dance and associated activities.

### *The Ghost Dance Movement*

The Ghost Dance movements of mid to late 1800s sought to restore environmental and cultural conditions to their aboriginal states and shift power away from the Euro-American encroachers and back to the Indian people. According to visions received by Ghost Dance leaders, the millennium would come more quickly if many Indian people correctly performed the Ghost Dance and thus restore balance to the world.

The Ghost Dance is best understood as a response by Indian people to the stresses produced by Euro-American encroachment on traditional Indian lands. These stresses included major depopulation from European diseases, non-indigenous animal disruption of native plant areas, decline of the population of prey animals, dislocation from permanent water sources, social disruption, a power shift from competition to domination, and the failure of traditional religions either to explain or to deal with the encroachments.

In central Nevada, particular places were selected for the performance of the Ghost Dance ceremony. These places were chosen because they were areas where the Indian people's ancestors had performed ceremonies. These places were known as places of Puha. It was understood that the ceremonies would be effective if the people sang ceremonial songs for and about the special places, animals, plants, and all other living elements. These living forces grew

stronger as a result of these songs and prayers. In turn, this power was used to help and heal the Ghost Dance participants, while restoring balance and wellness to the earth.

According to a Western Shoshone spiritual leader and medicine man, Ghost Dances were regularly performed in Big Smoky Valley near a place known as Darrough's Hot Spring. This area is located approximately twelve miles northwest of Round Mountain in the Big Smoky Valley. Hot springs are places that *Puha'gants* (shamans or medicine men) and other indigenous people have always returned to for healing. Knowledge of the diverse healing properties of particular waters is transmitted from generation to generation and people travel as much as 200 miles in order to elicit a cure. This site may have been used throughout the 1890s for the balancing ceremony of the Ghost Dance. Ghost Dances were also performed at other sites throughout central Nevada (Zedeño, Carroll, and Stoffle 2006).

### **Potential SEZ American Indian Study Area Impacts-Tribal Recommendations**

During the December 2010 and April 2011 field visits, Western Shoshone tribal representatives expressed concerns pertaining to the current environmental and cultural conditions of the Millers SEZ American Indian study area. During these interviews, they provided management recommendations for Native American resources and for potential solar energy development.

#### **Solar Recommendations**

- Tribal representatives believe that solar energy development in the Millers Valley SEZ American Indian study area will adversely impact the viewscape from Crescent Dunes and the plant and animal resources in the area (see Table 1). They maintain that it is necessary to preserve this place because of its sacred connection to Shoshone Creation stories and its significance in the history of the Shoshone people.
- Tribal representatives consider the cultural resources in the Millers SEZ American Indian study area to be important to understanding their past, their present, and their future. They state that these resources will always be culturally important to Western Shoshone people.
- Tribal representatives believe that the culturally significant places mentioned in the above text should be considered for tribal declarations as Sacred Sites (Executive Order 13007) and nominations as Traditional Cultural Properties (Bulletin 38) to the National Register of Historic Places.

#### **Bureau of Land Management Recommendations**

The consulting tribes believe that the Millers SEZ should be managed as a spiritual cultural landscape. To accomplish this goal, Timbisha and Duckwater Shoshone tribal representatives should be brought together with Bureau of Land Management (BLM) to work out an integrated cultural landscape management plan.

- Tribal representatives stated that they want to be involved in a co-management relationship with the BLM in order to harvest and traditionally manage the fields of Indian ricegrass, Anderson's wolfberry, and other important traditional use plants in the proposed Millers SEZ and the SEZ American Indian study area. They believe that harvesting and consuming traditional foods will have positive health and culture impacts for Indian people.
- The BLM should decrease ranching in the study area and restrict ATV access to Crescent Dunes in order to protect the cultural and spiritual importance of the Millers SEZ and the Millers SEZ American Indian study area.
- Tribal representatives believe that the culturally significant places mentioned in the above text should be considered for tribal declarations as Sacred Sites (Executive Order 13007) and nominations as Traditional Cultural Properties (Bulletin 38) to the National Register of Historic Places.
- The consulting tribes desire to be formally contacted on a government to government basis whenever projects or proposed land management actions occur on and/or near the following topographic areas:
  - Crescent Dunes,
  - Big Smoky Valley,
  - Late Pleistocene Lake Tonopah
  - Lone Mountain,
  - Toiyabe Range,
  - Toquima Range,
  - Monte Cristo Range,
  - Peavine Creek,
  - Ione Wash,
  - Cloverdale Creek
  - Weepah Hills,
  - Royston Hills