

APPENDIX C

SALINE VALLEY WARM SPRINGS AREA ACTIVITY AREAS AND FEATURES

General Setting of the Saline Valley Warm Springs Area

The Saline Valley Warm Springs Area is comprised of three distinct areas, the Lower Spring area, the Palm Spring area, and the Upper Spring area. This appendix presents maps, photographs, and descriptions of the features of the Saline Valley Warm Springs Area and can be used as a guide to the many features that are discussed throughout the Saline Valley Warm Springs Final Management Plan and Environmental Impact Statement (plan/EIS).

Four source springs are associated with Lower Spring; two are associated with Palm Spring; and two are associated with Upper Spring (NPS 2012; Friese 2015). The source springs emerge from fill in the structural basin of Saline Valley between the Last Chance and Saline ranges. Past overflow from the source springs deposited minerals near the orifices, resulting in elevated crater-like spring mounds. The temperatures of the source springs range from 61.2°F to 117.0°F and the flow ranges from less than 1 liter per minute to 30 liters per minute.

The Lower Spring area (also known as Lower Spring) is the first area encountered if driving in from the west side of Saline Valley. Lower Spring is the most developed and includes the following features: Cool Pool, Sunrise Pool, Crystal Pool, Children's Play Tub, communal fire pit, library, shower, bathtub, sink for dishwashing, maintained lawn, settling pond, and the camp host site. It is also the site of many of the communal activities, such as group fires, communal dinners, and singing.

The two main soaking tubs (the Crystal Pool and the Sunrise Pool) are concrete-lined. The smaller Children's Play Tub is made of galvanized aluminum and is shaped to look like a barrel. The tubs are filled by diverting water from the source springs, or natural geothermal springs, to the soaking tubs by buried pipe. The tubs have valves that control the flow of water from the source springs, as well as drains so that the soaking tubs can be drained and cleaned. The soaking tubs typically have continuous flow of water from the source springs and the overflow from the soaking tubs is directed through channels into the settling pond. The main source of water is the warm source spring; water from the Cool Pool is directed to the sprinkler for the lawn and the dishwashing station. Signs are posted at the source springs to discourage people from soaking in the warm source spring and the Cool Pool. Lower Spring has two showers, a bathtub, and dishwashing sinks. All of these features drain into the settling pond, which is located adjacent to the lawn.

In recent years, the camp host position has been staffed by volunteers through the Volunteers-in-Parks program. Currently the camp host site includes living quarters and an ad hoc vehicle support facility; these are located adjacent to the soaking tubs at Lower Spring. A National Park Service (NPS) trailer used for storage is parked just south of the automotive emergency assistance shop. In addition, a set of three free-standing solar panels located to the northwest of the camp host site provide power to the site's generator. Two NPS vault toilets are situated at Lower Spring, a two-stall toilet west of the lawn and a one-stall toilet southeast of the camp host site.

Burro Spring is also located at Lower Spring. Water from Burro Spring is led by a hose to a trough approximately 180 feet northwest to provide water for feral burros. The overflow from the trough waters a line of mesquite trees (*Prosopis* sp.) west of Burro Spring.

The Palm Spring area is the next area encountered, approximately one-half mile northeast from Lower Spring. There is much less vegetation near Palm Spring compared to Lower Spring, and unlike the Lower Spring, Palm Spring does not have a maintained lawn. Palm Spring consists of two soaking tubs that are fed by two source springs, the northern and southern warm source springs. The Wizard Pool is a hexagon-shaped pool, approximately 9 feet wide that is located south of the source springs. The Volcano Pool is

named for its shape—steep sloped sides embedded with pumice and rock; this tub is approximately 9×12 feet wide and is located west of the source springs. Palm Spring also has a shower and dishwashing station. The runoff from these features drains to a wash; this runoff evaporates quickly, and the wash is generally dry. These features are south of the Wizard Pool. There is a one-stall vault toilet at Palm Spring located southwest of the Volcano Pool. Palm Spring currently has a camp host during the winter months when visitor use is high.

Approximately 3 miles to the northeast of Palm Spring via Warm Springs Road is the Upper Spring area. Upper Spring is undeveloped and enclosed by a metal chain-linked fence. The fence was originally installed to keep grazing cattle out of the Saline Valley Warm Springs Area to protect a test population of desert pupfish (*Cyprinodon macularius*) but currently serves to exclude feral burros. The entrance is designed to be narrow with sharp turns to inhibit feral burros from accessing the spring. A portion of the fence was removed by visitors and has been replaced by several strands of barbed wire. Upper Spring is within the road corridor of backcountry, but the boundaries of the road are not defined. Upper Spring is used by visitors but at a much lower frequency than Palm Spring and Lower Spring. There are no shower, dishwashing, or toilet facilities at Upper Spring.

Visitors use the Saline Valley Warm Springs Area throughout the year but the cooler months, October to May, receive the highest use; holidays are times of especially heavy use. Presidents Day and Thanksgiving weekends are traditional heavy use periods for the Saline Valley Warm Springs Area. Regular visitors to the Saline Valley Warm Springs Area organize a communal Thanksgiving Day meal and have observed this tradition for several years. Between 200 and 400 people and more than 100 vehicles have been observed during heavy use weekends.

There is a small, unimproved landing strip to the west of Lower Spring, referred to as the Chicken Strip. In past years, there were up to three landing strips for small planes, but the Suicide Strip and the Crosswinds Strip have been decommissioned. Historically, the landing strips were used by miners and prospectors to access Saline Valley. The Chicken Strip is the only remaining active landing strip and is open, special regulation pending. It is approximately 1,400 feet long and 35 feet wide. The strip has a tie-down area large enough to accommodate five small planes. The Chicken Strip is maintained by the community of recreational pilots who use it. The Recreational Aviation Foundation (RAF), an organization of private pilots, is active in the promotion of the continued use of the Chicken Strip. In 2017, the National Park Service renewed a memorandum of understanding (MOU) with RAF that allows RAF to maintain the Chicken Strip, in addition to the two other airstrips within the park, at no cost to the National Park Service. Maintenance activities include leveling the surface, removing stones and debris, and packing the surface. Per 36 Code of Federal Regulations (CFR) 2.17, the use of aircraft on lands and waters within the park other than at locations designated by special regulation is prohibited. The National Park Service is proposing a special regulation to designate the Chicken Strip airstrip as a location available for the operation of aircraft, consistent with the preferred alternative in this plan/EIS. The proposed rule would authorize an exemption to 36 CFR 2.17(a)(1),

**Distinct Areas within the
Saline Valley Warm Springs Area**

Lower Spring Area – Lower Spring is the first area encountered if driving in from the west side of Saline Valley. Lower Spring is the most developed and is the site of many of the communal activities that occur, such as group fires, communal dinners, and singing. Lower Spring has three soaking tubs, vault toilets, a communal fire pit, a library, a shower, a bathtub, a sink for dishwashing, a maintained lawn, a settling pond, and the camp host encampment. The Lower Spring activity areas and features are described on pages C-9 through C-15 and presented in figures C-2 through C-4.



Palm Spring Area – Palm Spring is the next area encountered, approximately one-half mile northeast from Lower Spring. There is much less vegetation at Palm Spring compared to Lower Spring, and unlike the Lower Spring, Palm Spring does not have many other features. Palm Spring consists of two soaking tubs that are fed by two source springs, a shower, a dishwashing station, and a one-stall vault toilet. The Palm Spring activity areas and features are described on pages C-19 through C-20 and presented in figure C-5.

Upper Spring Area – Approximately 3 miles to the northeast of Palm Spring is the Upper Spring area. Upper Spring is used by visitors but at a much lower frequency than Palm Spring and Lower Spring. There are no shower, dishwashing, or toilet facilities at Upper Spring. The water from the source spring is not diverted and the majority of the vegetation at Upper Spring is native. The Lower Spring features are described on page C-9 and presented in figure C-6.



Cool Pool Camping Area – The Cool Pool Camping Area is situated around the Cool Pool, which is east of the developed area of Lower Spring (figures C-2 and C-3). Vegetation in this area includes nonnative invasive palm and mesquite trees, which provide some shade to campers. Use of the Cool Pool Camping Area dates back to the mid-1950s, and aerial photography shows campers in this area as early as the 1960s (New South 2015).

Central Camping Area – The Central Camping Area is located southwest of the developed portion of Lower Spring (figure C-2). It is bordered on the west by Warm Springs Road and on the east by the Burro Spring Camping Area. Visitors camp on either side of the arrowweed that grows in this area. The Central Camping Area was likely used as the original camping area and can be dated to the mid- to late-1950s (New South 2015).

Burro Spring Camping Area – This camping area surrounds a line of native mesquite trees that grow as a result of water diverted by a hose from Burro Spring, which is located southeast of the developed area of Lower Spring (figure C-2). The mesquite provides some shade to visitors who camp in this area. The water diversion occurred in the 1990s and visitors likely started using this area regularly for dispersed camping after 1994 (New South 2015).

Lower Dispersed Camping Area – This camping area is primarily used as overflow camping during the peak season and by visitors seeking solitude. It is located southwest of the Central Camping Area (figure C-2). This area seems to have gained popularity in the late 1970s as the number of guests at special holiday events increased (New South 2015).

Middle Dispersed Camping Area – The Middle Dispersed Camping Area is the largest camping area at the Saline Valley Warm Springs Area. It is located between Lower Spring and Palm Spring (figure C-4). Warm Springs Road travels through this camping area, and visitors pull their vehicles off the road to desired camping spots. Several “unofficial campground roads” are visible in the Middle Dispersed Camping Area.

Upper Dispersed Camping Area – The Upper Dispersed Camping Area is the narrow area northeast of Palm Spring that surrounds Warm Springs Road (figure C-5). The terrain in this area restricts visitors from camping too far from the road. The Upper Dispersed Camping Area was used historically by those seeking solitude and use likely began in the 1950s or 1960s (New South 2015).

Lower Spring Features

Lower Spring Cold Source Spring / Cool Pool – Water from the cold water source feeds into the Cool Pool, which is not used for soaking. Water from the Cool Pool is diverted to the dishwashing sink and the sprinkler for the lawn at Lower Spring.



Lower Spring Warm Source Spring – The warm source spring is in the center of Lower Spring. This spring is in relatively natural state. The spring mound surrounding the spring has been heightened with large rocks embedded in concrete to restrict access to the spring. Water from the warm source spring is diverted to the Crystal Pool, the Sunrise Pool, the bathtub, the shower, and the dishwashing sink.

Burro Spring – Burro Spring is located in the western portion of Lower Spring. Water from Burro Spring is led by a hose to a trough to provide water for wildlife. The overflow from the trough waters a line of mesquite trees west of Burro Spring.





Sunrise Pool – The Sunrise Pool was the second developed feature at the Saline Valley Warm Springs Area; it was constructed in 1965 (New South 2015). Visitors enjoy the Sunrise Pool specifically for its view of the sunrise to the east and unobstructed view of the night sky. The Sunrise Pool is often called the “Dolly Pool” after a long-time visitor to the Saline Valley Warm Springs Area. Flat rocks have been cemented to the ground surrounding the Sunrise Pool and several benches made of larger rocks are found near the soaking tub.

Crystal Pool – The Crystal Pool was built in 1972-1973 (New South 2015). This is the largest soaking tub within the Saline Valley Warm Springs Area, and it is in the center of the Lower Spring area. The Crystal Pool is named as such from the crystals and geodes that are embedded in the east wall and bottom of the tub. There is a footbath to the south of the tub for visitors to wash their feet prior to entering and a seat inside the perimeter of the pool. Nonnative invasive palm trees shade the Crystal Pool and for additional coverage from the sun, visitors have hung a shade cloth above the tub.



Children's Play Tub – The Children's Play tub is surrounded by the settling pond and was built in the 1990s to give children their own tub for soaking (New South 2015). The Children's Play Tub is accessed by a small boardwalk. The tub is small and designed to look like a barrel. There is a separate shower located at the Children's Play Tub and a seat for adults, so they can supervise children while in the soaking tub.

Bathtub – The bathtub is the first known development at the Saline Valley Warm Springs Area. It likely was installed some time in between 1933 and 1947 (New South 2015). The original metal tub has been covered in concrete, both on the inside and surrounding the outside of the tub. The bottom of the tub is tiled with flat colored rocks.



Shower – The shower is comprised of a porcelain bathtub embedded in the ground with an overhead shower head that is fed by water diverted from the warm source spring. Visitors are asked to use the shower to rinse off prior to entering the soaking tubs. The shower is thought to have been installed after 1977 (New South 2015).

Dishwashing Area – The dishwashing area was originally built in the 1960s but was moved to its current location in 1971 (New South 2015) and consists of a double porcelain sink and a countertop area. The water for the sink is diverted from the Cool Pool and the warm source spring. The faucets are signed with a warning that the water is untreated and should not be consumed. A small shelf behind the sink holds numerous cleaners and washing tools such as brushes and sponges. The wastewater from the sink is discharged to the settling pond.





Settling Pond – The settling pond receives water from the soaking tubs when they are emptied for cleaning and wastewater from the dishwashing sink. The pond contains koi and mosquitofish that have been brought in by visitors. The settling pond, constructed circa 1976, and the plants act as a biological filter and the fish eat the organic waste that enters the pond (New South 2015).

Lawn – The lawn at Lower Spring is located between the communal fire pit and the settling pond. The lawn is sustained by visitor-supplied grass seed and fertilizer and by the water diverted from the Cool Pool and dates back to the late 1950s or early 1960s (New South 2015). There is an artistic-styled fence made of creosote branches surrounding the lawn to prohibit access by the feral burros. The lawn is shaded by the nonnative invasive palm trees and is a communal gathering place for visitors.



Lower Spring Palm Trees – The nonnative invasive palms have been present at both the Lower and Palm springs since the 1960s. Planting efforts took place in the mid-1980s at the Lower Spring (New South 2015).

Library and Recycling Area – The library and recycling area is adjacent to the communal campfire circle and was created after 1968 (New South 2015). This area contains a multitude of informational signage, including information on camping, trash handling, quiet hours, feral burros, and food storage. Visitors can take or leave books in the cabinet.



Communal Campfire Circle – The communal campfire circle is the site of social gatherings including live music, singing, dancing, and storytelling; it was constructed in 1964 (New South 2015). The fire pit is slightly recessed with a grate to hold wood for the fire. Six handmade wooden benches surround the fire pit and a wood storage area exists beyond the campfire circle. There is a variety of artwork that adorns the campfire circle area, including items made of metal, glass, bone, and wire.

Camp Host Site – Located east of the Central Springs Area and south of the Cool Pool Camping Area, the camp host site consists of both indoor and outdoor living space, including two trailers, a workshop area, and an open area with solar panels. The workshop contains a very large assortment of tools, welding supplies, old tires, and spare parts. The camp host site is surrounded by a variety of fencing for privacy and to exclude the feral burros. This compound can be dated back to 1985.





Art Board / Rock Alignment – A range of subjects for rock alignment artwork can be found throughout the Saline Valley Warm Springs Area. The Art Board / Rock Alignment Area is located east of the Burro Spring Camping Area and contains a large collection of visitor artwork. Community members remember that this site has always been a place for people to come and express or amuse themselves, though there is no evidence for how long this has been occurring (New South 2015).

Saline Valley Warm Springs Sign – When driving into the Saline Valley Warm Springs Area from the west side of Saline Valley, there is a wooden plank sign at the entrance to Lower Spring that reads “Saline Warm Springs, Drive Slowly, Firearms Prohibited.” This sign was installed by the National Park Service after Saline Valley was incorporated into the park in 1994 (New South 2015).



Fencing – The lawn at Lower Spring is surrounded by creosote branches that have been bent into an artistic fence. The fencing keeps vehicles and feral burros from entering the communal area of Lower Spring.

Boneyard – The boneyard is a storage yard for maintenance equipment and tools that is located behind the dishwashing area.



Ball Field / Balcony – Located west of the Central Site Area, there is a softball field used for an annual softball game between the communities of Lower Spring and Palm Spring. This area is also used as a more secluded camping area. The date for this area is undetermined; however, the softball game has been on-going since the mid-1960s.

Vault Toilets – The National Park Service added the vault toilets at the Saline Valley Warm Springs Area in the 1990s. Previously, a system of outhouses was managed by visitors of the Saline Valley Warm Springs Area. Toilet paper, cleaning supplies, and hand sanitizer are all donated by visitors to the springs. One vault toilet is located immediately west of the entrance to the developed area of Lower Spring, and the second is located in between the Camp Host Compound and the Burro Spring Camping Area. At Palm Spring, one vault toilet is located southwest of the soaking tubs.



Palm Spring Features

Palm Spring Source Springs – There are two source springs located at the center of Palm Spring (figure C-5). Large rocks surround both source springs to prevent vehicle access. The northern warm source spring is the water source for the Volcano Pool and the Wizard Pool, and the southern warm source spring supplies water to the shower and the dishwashing sink.



Volcano Pool – This pool, named for its steep sloping sides embedded with pumice and rock, was built between December 1967 and January 1968 (New South 2015). The Volcano Pool is located due west of the source springs. Three benches and numerous boulders are situated around the soaking tub and a small grove of nonnative invasive palm trees grows directly adjacent to it.

Wizard Pool – The Wizard Pool was named for its builder, Walt the Wizard, on his birthday in 1978 (New South 2015). Walt, a professional contractor, and built the soaking tub in the shape of a hexagon, recessed into the ground surrounded by a rock patio with three benches. Directly south of the tub is a grove of 15 nonnative invasive palm trees with a small lawn below them. This lawn is not watered like the lawn at Lower Spring. It persists on the runoff from the Wizard Pool.





Palm Spring Palm Trees – The Palm Spring area is named for the nonnative invasive palm trees that were said to have been planted by a doctor around 1943 (New South 2015). There are two small groves at Palm Spring, one by each soaking tub, but the groves are dense and provide shade for visitors.

Shower – Located on the eastern side of the site, the shower area at Palm Spring consists of a wooden deck platform, a steel pipe with a shower nozzle and a wooden bench. The construction date for the shower is unknown (New South 2015).



Dishwashing Area – Adjacent to the Wizard Pool at the southern end of the nonnative invasive palm trees is the dishwashing area. Drainage water from the sink flows into the palm oasis. The construction date for the dishwashing area is undetermined (New South 2015).

Upper Spring Features

Upper Spring Source Springs – Two source springs are located at Upper Spring that have water year-round. These source springs have mud bottoms and mostly natural aquatic vegetation, though nonnative invasive palm trees and several nonnative grass species also occur.



Upper Spring Palm Trees – The nonnative invasive palm trees that occur at Upper Spring have not been deliberately planted; the seeds have been spread naturally, most likely by birds or other wildlife.

Fencing – The Upper Spring area is surrounded by a chain-link and wire fence that was added under management of the Bureau of Land Management in the 1980s. The fence was intended to restrict feral burro access and to protect desert pupfish that had been introduced to the site; however, the reintroduction effort was not successful (New South 2015). Portions of the chain-link fence have been damaged and have been replaced with barbed wire.



Airstrips

Chicken Strip Airstrip – The Chicken Strip is a small, unimproved landing strip large enough to accommodate five small planes. The Chicken Strip is the only active landing strip in Saline Valley. There are several airplane tiedowns at the airstrip, and pilots often camp next to their airplanes. The National Park Service and RAF signed an MOU in 2012 that allows members of this group to maintain the Chicken Strip at no cost to the National Park Service.



Tail Dragger Airstrip (Decommissioned) – The Tail Dragger Airstrip was the first airstrip established at the Saline Valley Warm Springs Area. Constructed sometime in the 1950s-1960s, the unpaved strip lies just south of Burro Spring. The abandoned airstrip is marked by three large “X” rock alignments on the landing strip that are painted white.

Other Features

Bat Pole – The Bat Pole is located on Warm Springs Road, approximately 4.5 miles from the intersection with Saline Valley Road. The Bat Pole indicates to visitors that they have arrived at the Saline Valley Warm Springs Area. Previously referred to as the painted pole, community members date it back to 1967. At approximately 20 feet tall, the bat pole has evolved into a sculpture containing multiple artistic elements; those elements likely added after 1994 led to it being called the Bat Pole (New South 2015).

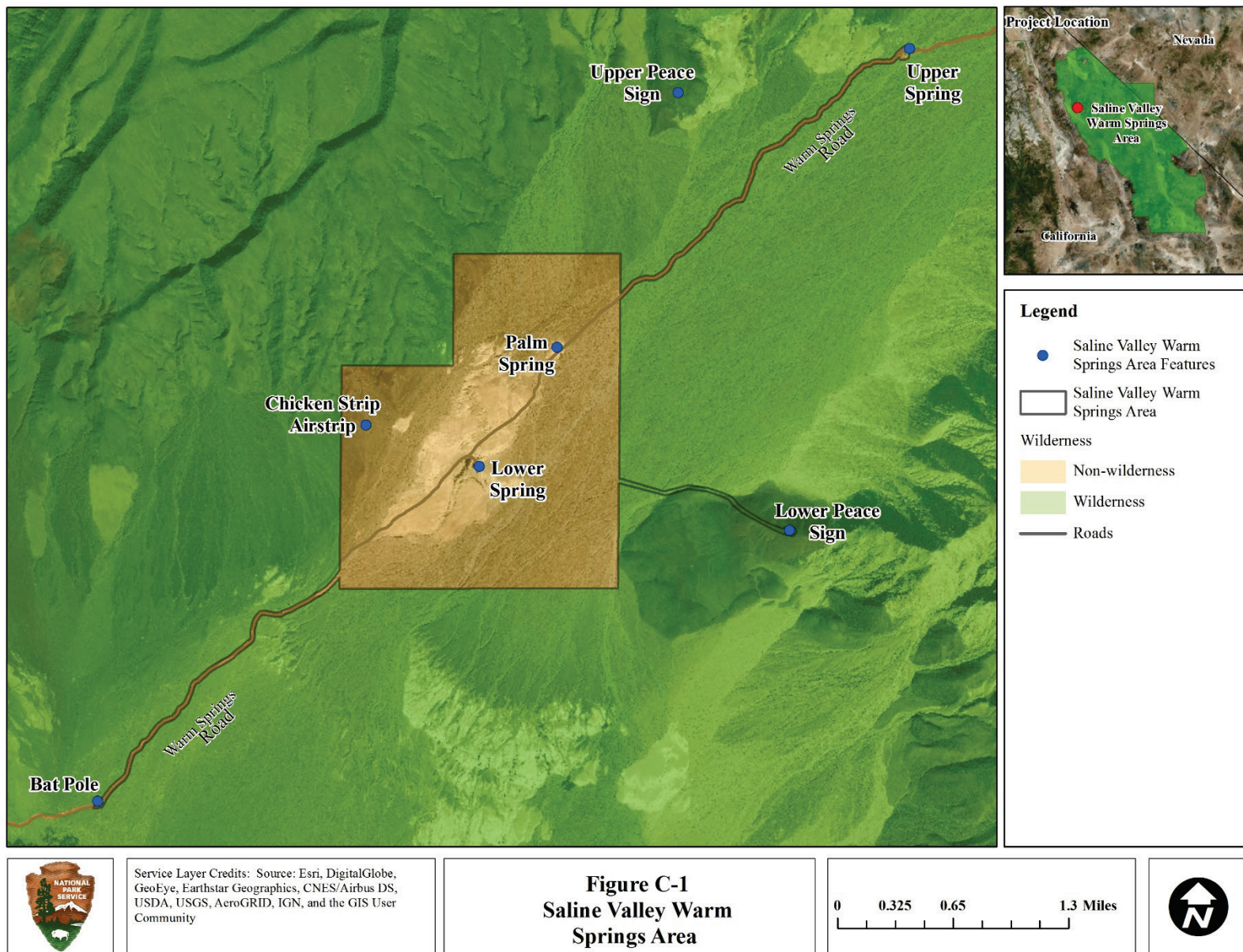


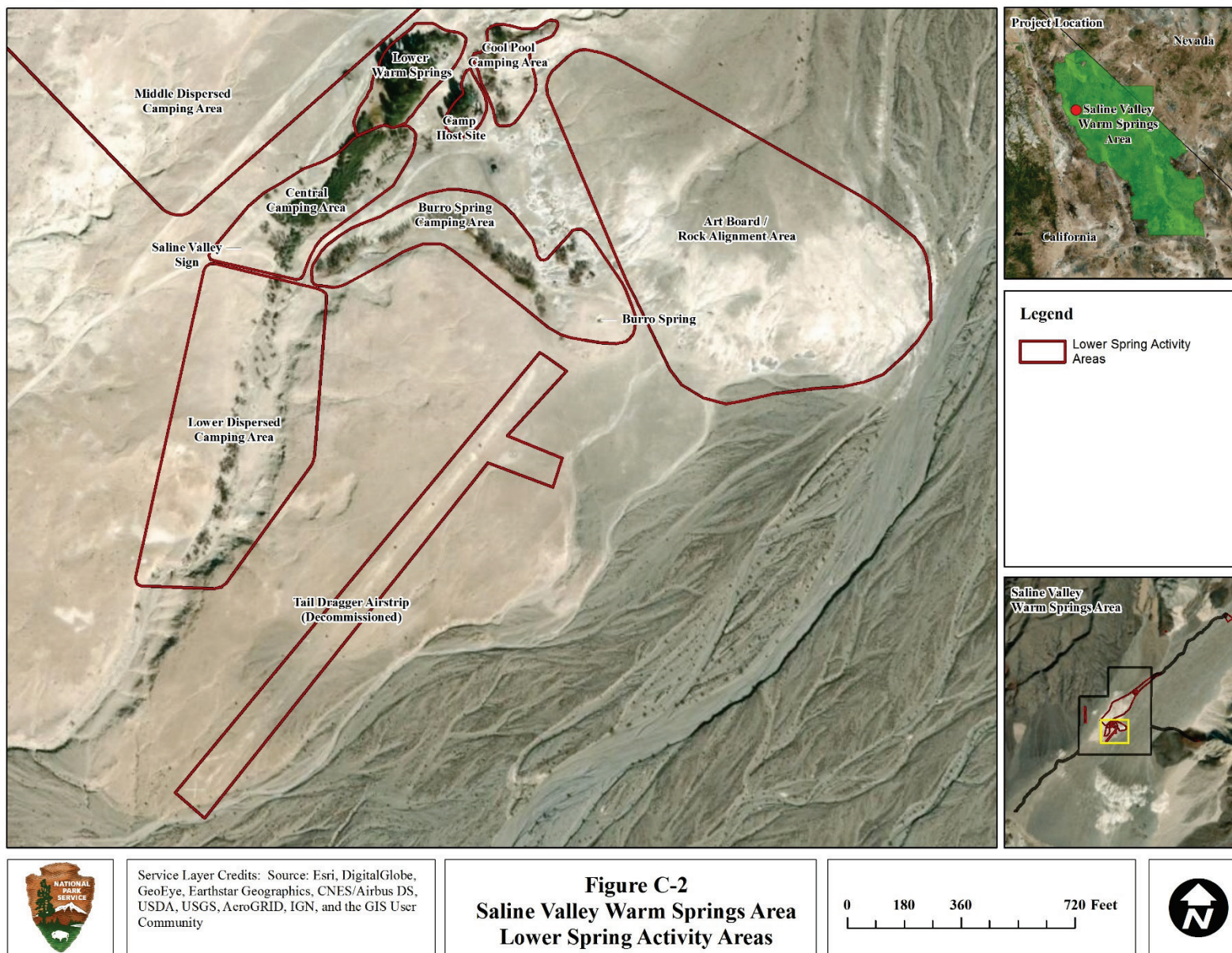
Lower Peace Sign – Constructed in the 1960s, the Lower Peace Sign is the largest piece of folk art at the Saline Valley Warm Springs Area. It was likely created by removing the top layer of soil and rock to expose the different colored surface below. This peace sign was placed as an anti-war statement to the military pilots that routinely fly over Saline Valley from the nearby China Lake Naval Air Weapons Station. The sign has been actively maintained by warm spring visitors since its creation (New South 2015).

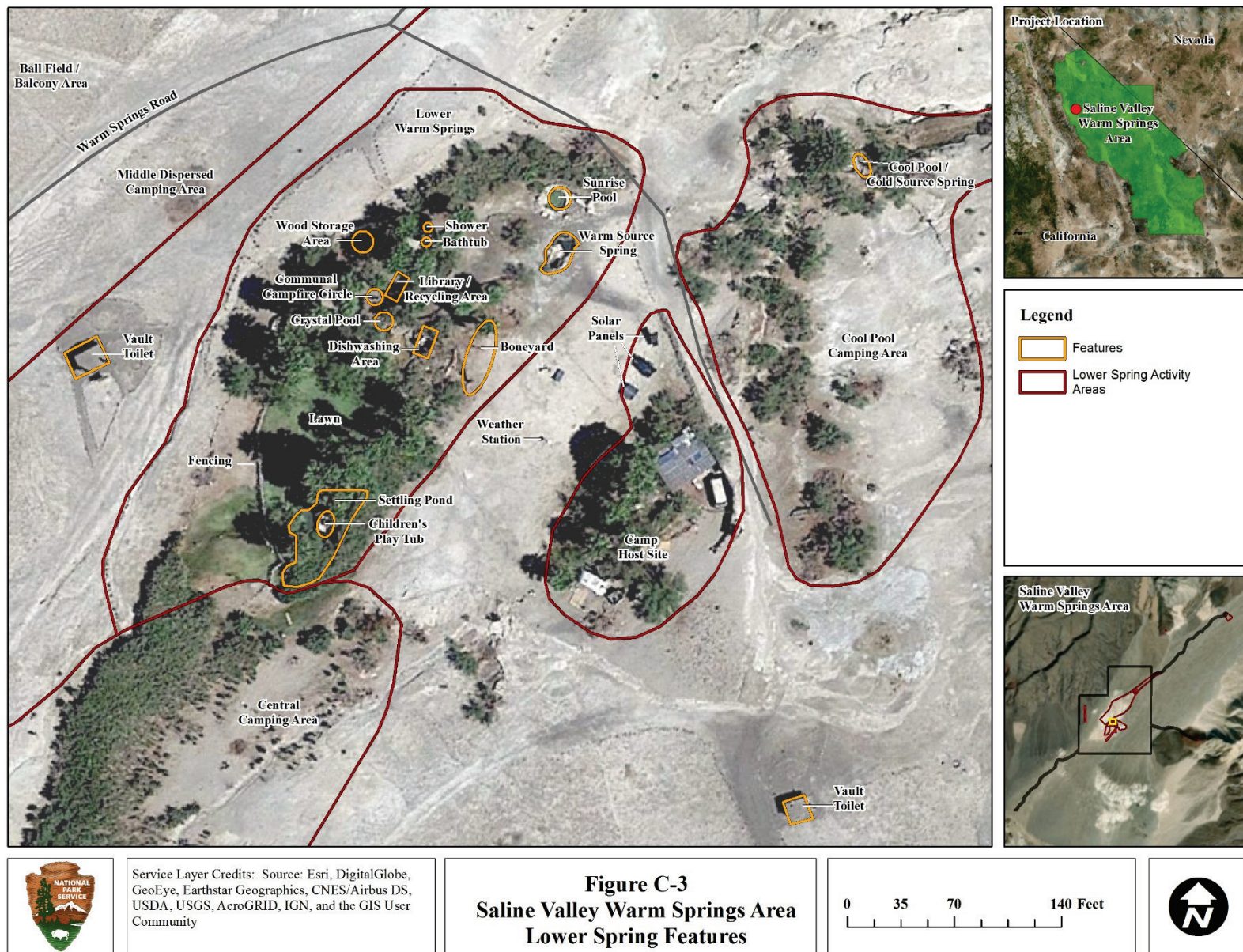
Upper Peace Sign – This large peace sign was constructed sometime in the 1990s between Palm Spring and Upper Spring. It has been speculated that the Upper Peace Sign was likely constructed by walking the design repeatedly or by using hand tools (New South 2015).

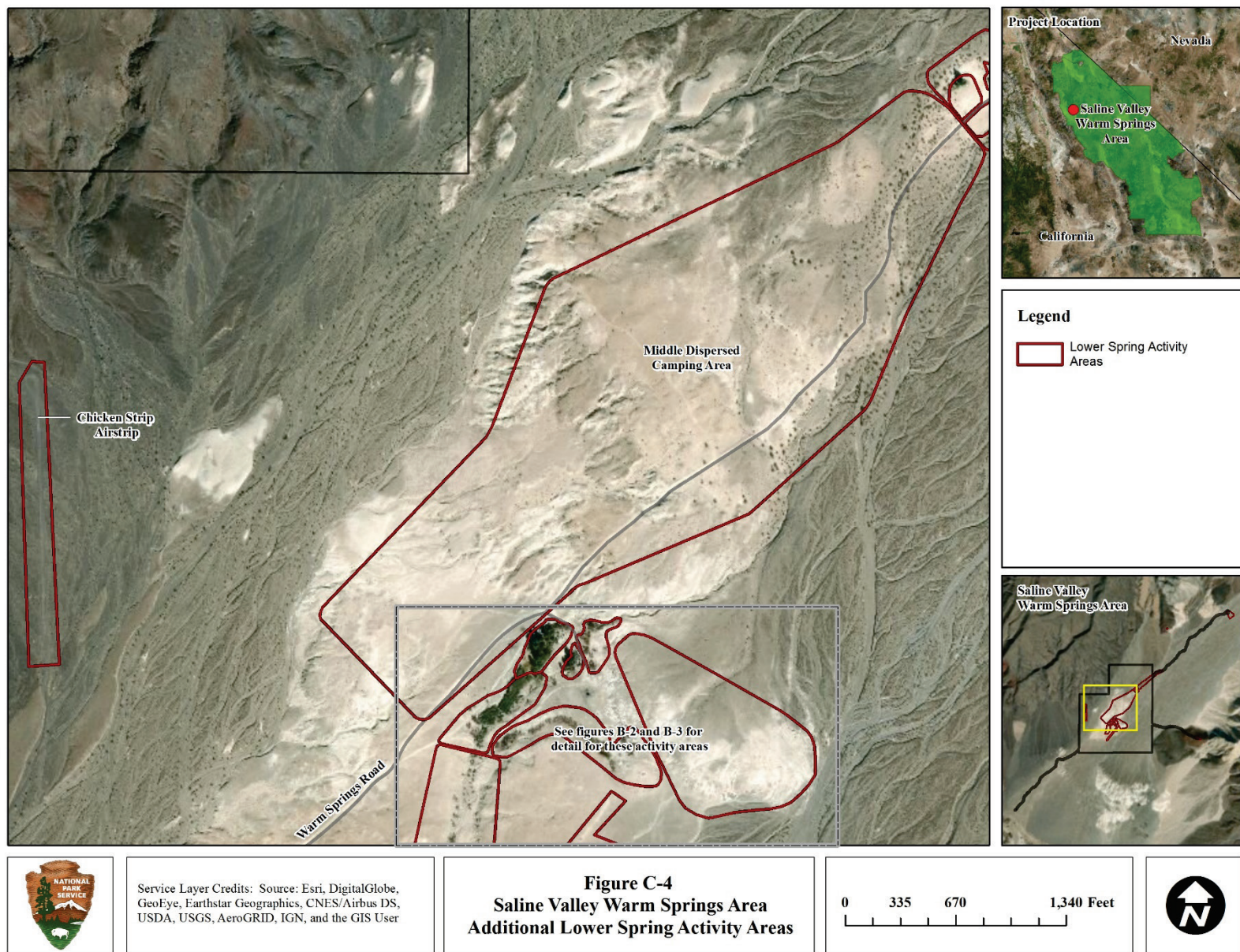


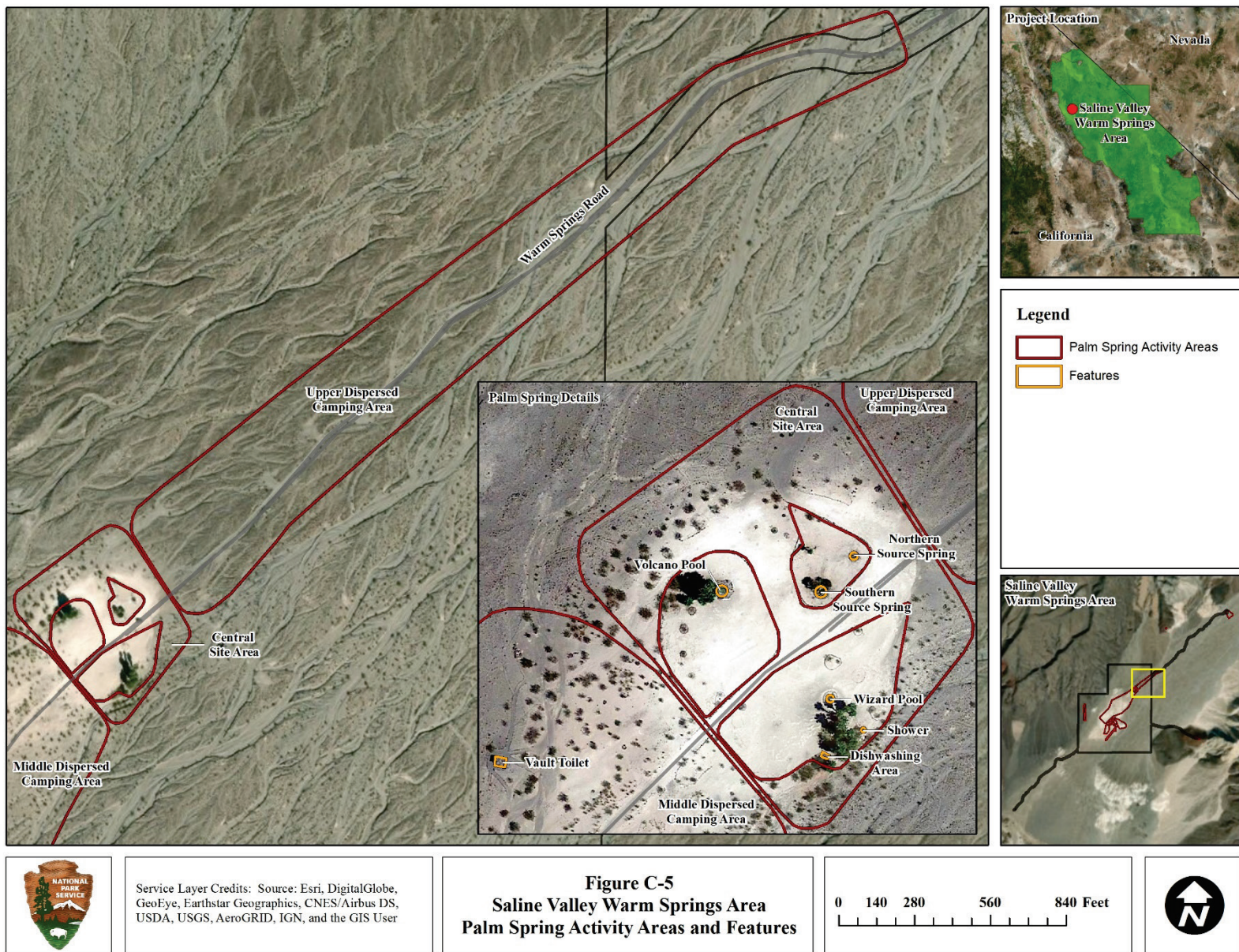
Saline Valley Warm Springs Area Figures Showing Activity Areas and Features

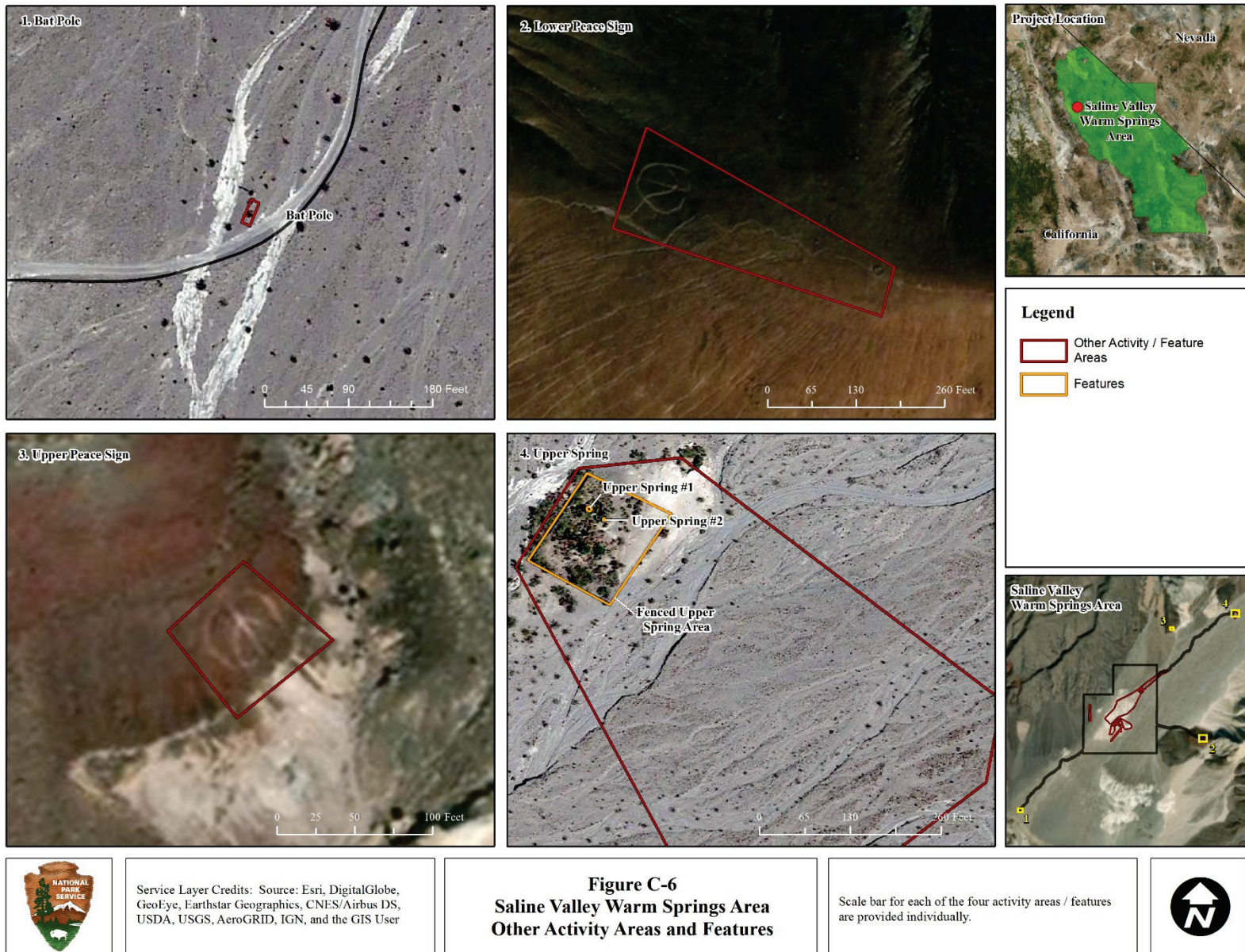












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