DECISION MEMO
BISHOP CREEK AND PINE CREEK FUELS REDUCTION PROJECT
U.S. FOREST SERVICE
WHITE MOUNTAIN RANGER DISTRICT
INYO NATIONAL FOREST
INYO COUNTY, CALIFORNIA

BACKGROUND

The Bishop Creek and Pine Creek drainages in the Eastern Sierra Nevada near Bishop, CA have relatively high levels of development with numerous homes, campgrounds, trailheads and other recreational facilities, and utility infrastructure. This is complicated by the fact that there is only one road in and out of each watershed. The ecosystems of the Eastern Sierra are adapted to fire and there is an active fire regime.

On a busy summer weekend in 2009, the Forks Fire ignited in the Bishop Creek drainage, forcing law enforcement to evacuate almost 10,000 people. The Forks Fire burned 2,800 acres within one mile of the community of Aspendell and a little less than one and half miles from the community of Starlite. In 2011 the Buttermilk Fire burned 200 acres near Starlite. These fires are the latest of many larger fires that have burned between Bishop Creek and Pine Creek. There have been approximately 60-70 fire starts per decade in the project area in the last three decades with 3 to 4 of these becoming large fires (defined as fires over 100 acres) each decade. There is a pattern towards more large fires as conditions change due to climate change, increases in the non-native annual cheatgrass, and the history of fire suppression leading to increasingly dense vegetation.

The developments in the project area are within the Wildland-Urban interface (WUI) where they are embedded in wildland vegetation. According to California state law, Public Resources Code (PRC) 4291, property owners in the WUI must maintain a minimum of 100 feet of defensible space from any structure on their property. Forest Service Region 5 direction states that, “where consistent with existing Forest Land and Resource Management Plan Direction, Forest Supervisors will provide for a one-hundred foot (100’) defensible space minimum (ref. Section 4291) for all structures on administrative sites, structures authorized by permit, and for developments adjacent to NFS lands” (Forest Service Manual Pacific Southwest Region Supplement No. 5100-2010-1).

In the 2009 Inyo County Community Wildfire Protection Plan (CWPP), three of the communities located within the project area – Aspendell, South Fork, and Starlite - are rated as being at high risk for wildland fire. The plan (2009) concludes that “due to the nature of the vegetation and topography … an aggressive program of evaluating and implementing defensible space for all

homes will do more to limit fire-related property damage than perhaps any other single recommendation in this report."

PURPOSE AND NEED

The primary purpose of this project is to provide defensible space to help protect structures and developments and provide safety for visitors and residents in the Bishop Creek and Pine Creek drainages in the event of a wildfire. An additional objective is to improve and protect the ecological health of the vegetation in the project area. The project should allow managers more flexibility to meet resource objectives to improve and maintain ecological health using wildfire away from the developed recreation areas and communities once they are buffered by a zone of sparser fuels. Defensible space and fuelbreaks are not intended to stop a fire, but to help reduce the fire intensity and provide a safer location for fire suppression forces to defend structures and control a fire if needed.

DECISION

I have decided to implement fuels treatments in the Bishop Creek and Pine Creek drainages as described below.

This action is categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). The applicable category of actions is identified in agency procedures as (36 CFR 220.6(e)(6)) *Timber stand and/or wildlife improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction. (ii) Thinning or brush control to improve growth or to reduce fire hazard including the opening of an existing road to a dense timber stand.* This category is applicable because the primary project objective is to thin trees and implement brush control to reduce fire hazard; with the secondary objective to improve and protect the ecological health of the vegetation in the project area. There will be no road construction or herbicide use as part of the project.

The project will create defensible space on Federal land around facilities, structures, recreation sites, and communities in the Bishop and Pine Creek drainages, at up to 25 different locations. A minimum of 100 feet of defensible space will be created around structures, but may be greater where topography and vegetation require it. Figure 1 shows the project area where treatments are allowed, with more detailed maps in Appendix A. Within that area, an initial fuelbreak design is shown which may be modified if needed to adequately protect the structures and facilities within the project boundary. The initial fuelbreak design will affect 295 acres. Up to 600 acres can be treated within the project boundaries if deemed necessary to strategically meet the objectives.

In order to protect structures, none of the defensible space fuel reduction on the public lands surrounding private lands will be as important as defensible space maintained by the private land owners themselves. A partnership between the Forest Service, Bureau of Land Management, and the private land owners is the best strategy to provide good defensible space. Twenty four project units are on Forest Service (FS) managed land, and one unit is on land managed by Bureau of Land Management (BLM). While the analysis covered all units, this decision is specific to lands

managed by USDA Forest Service, Inyo National Forest, White Mountain Ranger District (hereinafter referred to as U.S. Forest Service). Project activities can be implemented by the Forest Service, Forest Service contractors, or by permit holders on land in the area of their permit responsibility. In general, in the area of a permit holder's responsibility they will implement the treatment with approval from the Forest Service. As an example, recreation residence owners, who own a cabin or house on National Forest land, are responsible for maintaining defensible space within their permit boundary, or if a boundary has not been delineated, within 30 feet of their building.

Defensible space treatments on public lands will be maintained as necessary on a frequency determined by the rate of vegetation regrowth. Typical frequencies of maintenance range from 5 years in productive sagebrush/bitterbrush sites to 15 or 20 years in lower productivity high elevation lodgepole pine sites.

Methods for achieving fuel reduction are described below. Appendix A includes maps of each proposed site and Appendix B contains design criteria which will be used to minimize effects to cultural and natural resources.

Method Descriptions

Methods used will depend on vegetation types, terrain and the overall setting, including distance to homes or other development. The different methods that will be used are mowing, hand cutting, thinning, limbing, removal of dead and down, fuelwood collection, piling and burning, chipping, and seeding/planting native species.

Mowing shrubs
Mowing would involve using a Bobcat™, ASV™ (a compact track loader), or similar-sized machine with low ground pressure (less than 10 psi) equipped with a mower or other appropriate attachment to mow and mulch shrubs and small trees. Chips remain on the ground. The height of mowing can be controlled to leave a percentage of existing shrub cover. Mosaic patterns, islands of untreated vegetation, unit boundaries that follow natural features, and irregular wavy edges will be used wherever possible to minimize effects to visual quality.

Hand cutting shrubs
Chainsaws or hand tools would be used to hand-cut shrubs, usually in a mosaic pattern so that small patches or a percentage of the vegetation are left uncut. Some of the preferred shrub species such as bitterbrush will be left to create natural islands within the treatment. The resulting slash will be piled and burned or chipped depending on the access, recreation setting, and resource concerns (see "piling and burning" and "chipping" method descriptions and descriptions of the actions in each site below).

Thinning trees
Chainsaws would be used to thin woodlands (pinyon-juniper or mountain mahogany) and forests (lodgepole, fir, and other species except whitebark pine). A written prescription will guide

treatment implementation and selection of trees to be cut (see description of treatments by vegetation type for size classes and/or spacing).

Collection and use of material such as fuelwood and Christmas trees will be allowed where feasible. Any remaining slash (tree limbs and boles) will be treated by piling and burning or chipping depending on access and resource concerns (see "piling and burning" and "chipping" descriptions below) or can be removed off site for disposal.

Limbing

In conifer species that naturally self-prune or experience low intensity surface fires that raise the canopy height, trees will be limbed up 10 to 15 feet or no more than 2/3 of the total tree height using a chainsaw or hand tools. This will eliminate ladders for fire into the tree canopy. Species to be limbed include lodgepole pine, Jeffrey pine, white fir, and red fir. Slash will be treated in the same manner as the rest of the slash from the unit.

Removal of dead and down vegetation

In riparian areas (vegetation associated with streams or wetlands), dead and down vegetation will be cut with chainsaws or hand tools. It will be removed from the riparian area by hand and piled outside the riparian area for burning, or be hauled away.

Personal-use fuelwood collection

Where there is adequate public access on existing roads or material can be hauled out to an accessible location, all tree boles and limbs greater than 6 inches in diameter can be offered for public fuelwood collection. Members of the public can collect the fuelwood with a valid fuelwood permit and will not be allowed to drive off-road. In areas of heavy public recreation use where a large number of public fuelwood collectors could cause traffic problems, fuelwood will be offered by lottery to limit traffic.

Piling and burning

Slash will be piled by hand and burned under favorable conditions once the slash has cured. The locations of piles will be carefully selected. Where possible, piles will be constructed in natural openings, on top of cut stumps where trees have been removed, and outside areas with high annual grass density. Piles will be constructed at least 10 feet from any remaining tree. A prescribed burn plan written by a qualified burn boss will be followed. Piling will be done where piles can be safely burned according to a qualified burn boss and will be used especially where there is poor access for chippers or hauling away slash. Piles will not be used in campgrounds.

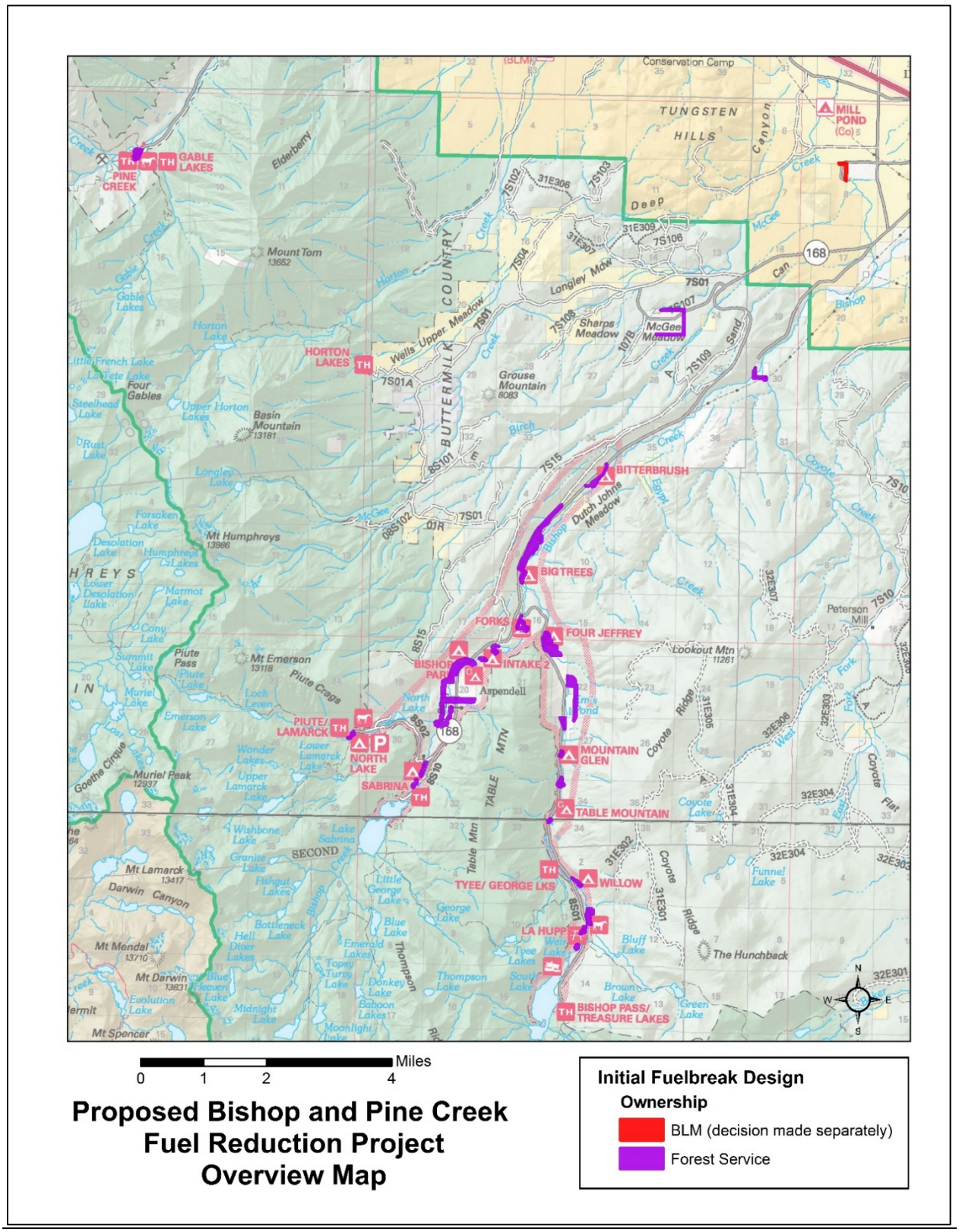


Figure 1. Overview of the project area. The Rocking K unit is on BLM managed land, and the decision for that unit will be made separately by BLM. This decision covers treatments for the other units managed by the Forest Service.

Chipping
Slash will be chipped with a mechanical chipper. The chips will either be blown back onto the site at a depth no greater than 2 inches or hauled off the site. Chippers will not be used off existing routes.

Chipping will be used to treat slash in areas where there is adequate road access for the chipper and piling and burning cannot be done safely according to a qualified burn boss.

Seeding or planting native species
A species mix of native perennials such as squirreltail (*Elymus elymoides*), Indian ricegrass (*Achnatherum hymenoides*), and Sandberg bluegrass (*Poa secunda*) appropriate for the site will be seeded or planted where competition from natives is necessary to limit nonnative species abundance, especially nonnative annual grasses. Species will be chosen specific to each site based on the site characteristics, species that occur there, and characteristics such as height, biomass, and curing date that benefit the function of the fuelbreak. Seeds will be certified "weed free" and collected locally where possible. Seeding or planting will be done by any accepted method including hand or rangeland drill. To monitor the success of the seeding or planting and the competition with nonnative species, this method will be implemented with control and treatment sites and monitored for at least 5 years after treatment. If seeding or planting is successful in reducing weed abundance it will be implemented in all parts of the treatment areas where there is a need to reduce nonnative species through competition.

Treatments by Vegetation Type

Treatments will depend on vegetation type. In all vegetation types, any nonnative shrubs or trees can be cut to improve the ecological condition of the sites (see site by site descriptions for examples). The vegetation types, treatments, and methods to be used are described below in the order of their abundance within the project area.

Upland shrubs: The majority of the project area is dominated by upland shrubs. The species vary by elevation from black brush at the lowest elevations to mountain big sagebrush and bitterbrush at the higher elevations. Treatments include shrub removal by mowing with low ground pressure mowers or hand cutting with chainsaws or hand tools, as described above. In lower elevation areas where cheatgrass is abundant, seeding or planting with native herbaceous species will be tested to compete with cheatgrass as described in the method section above.

Riparian: Many recreation sites, facilities and communities in the watershed are within or adjacent to riparian vegetation (the vegetation that grows along creeks and other wetlands). In this area riparian vegetation includes water birch, cottonwood, aspen, and several species of willow. Riparian corridors have carried fire (almost like a wick in a candle) in many fires in the Eastern Sierra under severe fire weather conditions (e.g. Center Fire in 2010 in Big Pine, California).

Riparian vegetation will be treated by removing dead and down vegetation. Some understory shrubs will be cut in open stands (see hand cutting shrubs method description). Because riparian vegetation regrows so quickly and it is important for shading waterways and for wildlife habitat, thinning or cutting live riparian overstory vegetation will not be done unless it is a safety hazard. Some young conifers trees will also be cut (see hand thinning trees in method description) to improve the ecological condition of the riparian stand and prevent overtopping and shading out of aspens and other disturbance adapted vegetation.

All resulting slash will be removed from the riparian zone and treated with either of the slash treatment methods (piling and burning or chipping) or be hauled away.

Pinyon-juniper and mountain mahogany woodlands: In the project area, pinyon pine, sometimes mixed with juniper, grows mixed with upland shrubs. Mountain mahogany can also form woodlands mixed with an understory of upland shrubs. In these systems, the tree component will be thinned to approximately 20-30 foot spacing. Whole trees will be removed. These tree species do not naturally self-prune or experience low intensity surface fires that would raise the canopy height, so the only limbing will be using traditional Paiute methods in cooperation with local Tribes. Personal-use fuelwood can be offered for the larger boles and limbs. The remaining slash will be treated with one of the two slash treatment methods or hauled off site.

The shrub treatment in the woodland areas will focus on cutting shrubs 10 feet from the edge of remaining tree canopies (the drip line) and then breaking up larger areas of shrubs if needed to reduce the continuity of fuels.

Timber: In the project area there is very limited area of conifer trees such as lodgepole pine and white or red fir ("Timber" does not include pinyon-juniper). These timber stands will be thinned from below by removing the smallest stems. In general no trees over 14 inches in diameter at breast height (dbh) will be removed unless necessary for spacing or to remove ladders into the canopy for fire. No trees larger than 24 inches dbh will be removed unless they are a safety hazard. Remaining trees will be limbed 10-15 feet in height or no more than 2/3 the total tree height to eliminate ladders for fire into the canopy.

The cut boles and limbs greater than 6 inches in diameter can be offered for personal use fuelwood collection where there is adequate public access. The remaining slash will be treated with one of the approved slash treatment methods or hauled off site.

Whitebark pine occurs very sporadically in some of the highest elevation units. No live whitebark pine will be cut or limbed.

Site Specific Treatment Descriptions (see attached maps in Appendix A)

These site by site descriptions on lands managed by the U.S. Forest Service are meant as a guide to implementation at each site and a description of site specific features but are not an exhaustive list of all the actions or design features for each site. Unless stated otherwise in the site specific descriptions, implementation will be guided by the method descriptions, the treatments by ecological type, the maps in Appendix A, and the Design Criteria found in Appendix B.

1. **Pine Creek Pack Station, ~10 acres**
   Vegetation types: Riparian, Timber
   Action: Create defensible space around the pack station and trailhead on Federal lands by thinning the conifer stand and removing dead and down vegetation in the riparian area a minimum of 100 feet or to the Forest Service property boundary and up to 400 feet on the steep, heavily forested, southern side. Slash will be treated with any of the approved methods in the methods section. A known occurrence of the noxious weed hairy whitetop (*Cardaria pubescens*) will be treated prior to fuels treatment by covering it with a secure opaque material such as plastic or geotextile to attempt to eradicate it and prevent weed spread during treatment. Treatments on the steep slope above the private lands cannot be implemented until safety hazards of past mining have been cleared.

2. **Rocking K, ~6 acres(This unit was in the scoping document, but it will be a BLM decision made separately from Forest Service portions of the project. Not included here)**

3. **Starlite, ~14 acres**
   Vegetation types: Upland shrubs
   Action: Create defensible space on Federal lands bordering Starlite (where there are structures near the public-private land boundary) for a minimum of 100 feet. Leave up to 20% of the area in islands of shrubs in the outer portion of the fuelbreak and use a wavy edge to help blend into the untreated shrubs. Nonnative Cyprus trees planted on Federal lands will be cut. No slash piles will be created for burning due to cheatgrass in the area. Shrubs will either be hand cut or mowed. All slash will be chipped or hauled away. Hand cutting shrubs will be the preferred treatment, but where there is no nearby vehicle access to facilitate chipping or hauling the slash away, mowing will be necessary to avoid the need to pile and burn. When possible, mowing will be implemented during times of day or seasons with cool temperatures to limit impact to reptiles. Treatment will be done in the least weed infested portions of the unit first, then progress to the more weed infested areas to mitigate spread of nonnative species.

   After treatment, areas will be seeded or planted with native herbaceous species to test effectiveness of competition with cheatgrass and other nonnative species.

   On the west side of Starlite, the public lands are too far from the structures for a fuelbreak on public lands to be effective. If new structures are built near the public lands, then fuel reduction would be implemented along the border.

4. **Homes above Plant 4, ~7 acres**
   Vegetation types: Upland shrubs, Riparian
   Action: Create defensible space by reducing fuels on Federal Lands for a minimum of 100 feet from the access road, south along the western public-private boundary through the Bishop Creek riparian area, and along the southern public-private boundary through the Coyote Creek riparian area to tie into the rocky bluff. The fuel reduction in the riparian areas will be widened to a minimum of 200 feet where the fuel loading is the greatest. Slash will be treated with any of the approved methods in the methods section.

   In the upland shrub habitats, leave up to 20% of the area in islands of shrubs in the outer portion of the fuelbreak and use a wavy edge to help blend into the untreated shrubs.

   Additional fuel reduction can be implemented from the access road to the north on the western boundary and along the northern boundary, but defense in this location from a fire moving up canyon does not provide an escape route for on-the-ground fire fighters. Currently there are no structures in the vicinity of the northern boundary on the private lands and the vegetation is sparse. No treatment is included on the eastern boundary because the private property is naturally protected from fire by a rocky bluff on the eastern side.

   Treatment in this unit will be contingent on fire management determining that firefighters could safely defend the area. Because of the narrow one way in, one way out road, the safety of the entry and exit to the unit greatly limits the options for defending the homes from wildfire. The access road is an Inyo County road and maintenance or improvement is not a Forest Service decision. In addition, treatment in this unit will only be implemented after collaboration with adjacent property owners and if private property owners agree to treatment that ensures the fuel reduction is effective and can be safely used by firefighters during an incident.

5. **Bitterbrush Campground, ~6 acres**
   Vegetation types: Upland shrubs with scattered pinyon-juniper, Riparian
   Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads. Create 20-25 foot buffer along either side of the access road. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. All slash will be chipped or hauled away.

   A mosaic of additional fuel reduction can be done in the shrubs and in the riparian area at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

6. **Hwy 168 pinyon fuelbreak, ~43 acres**
   Vegetation types: Upland shrubs and Pinyon-juniper
   Action: Create a fuelbreak on either side of Highway 168 where there are heavy fuels by thinning pinyon and cutting brush in order to make exit from the upper parts of the watershed

safer in the event of a fire. Slash will be treated with any of the approved methods in the methods section but piling will be required where hauling slash to the road is not practical. The area of the fuelbreak extends from the private lands at Dutch Johns Meadow to the Forks Fire just below the confluence of the forks of Bishop Creek. Thinning and fuel reduction will occur for a distance of at least 100 feet on either side of the highway but wider in areas of heavy fuels or steep slopes. Clumps of trees will be left on a minimum of 10% of the area.

7. **Plant 2. ~2 acres**
   Vegetation types: Upland shrubs and Pinyon-juniper
   Action: Create a minimum of 100 feet of defensible space around the structures at Plant 2. Fuels will be reduced in a 100 foot buffer around the structures using mowing and hand cutting of shrubs and thinning of trees (mostly pinyon-juniper but also includes some planted non-native Cyprus). Slash will be treated with any of the methods discussed in the methods section.

8. **Sewage treatment plant, ~5 acres**
   Vegetation types: Upland shrubs and Pinyon-juniper
   Action: Create a minimum of 100 feet of defensible space around the structures at the sewage treatment plant. Fuels will be reduced in a 100 foot buffer around the structures using mowing and hand cutting of shrubs and thinning of pinyon-juniper. Slash will be treated with any of the methods discussed in the methods section.

9. **Big Trees Campground, ~3 acres**
   Vegetation types: Upland shrubs and Pinyon-juniper, Riparian, Timber
   Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. Jeffrey pine will be limbed to raise the canopy height. Slash will be chipped or hauled away.

   A mosaic of additional fuel reduction can be done in the shrubs and in the riparian area at a distance from the sites while still maintaining vegetation for screening, in order to reduce likelihood of a fire originating in the campground from spreading.

10. **Forks Campground. ~6 acres**
    Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)
    Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. Jeffrey pines will be limbed to raise canopy height. Slash will be chipped or hauled away.

A mosaic of additional fuel reduction can be done in the shrubs and in the riparian area at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

11. Four Jeffreys Campground, ~26 acres

Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads and remove dead and down vegetation from the aspen stands and riparian vegetation in which all the lower camp sites are nested. On the steep slopes at the upper edge of the campground the cut buffers around sites will be increased to 25 feet wide. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. Jeffrey pines will be limbed to raise canopy height. Slash will be chipped or hauled away.

A mosaic of additional fuel reduction can be done in the shrubs and pinyon-juniper at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

12. Intake 2 Day Use Area, ~4 acres

Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Mow or hand cut buffers (10-15 feet wide) around parking and structures, along internal roads, and along the access road. Remove dead and down vegetation from the heavily used riparian vegetation between the parking area and the water. All cut material will be chipped or hauled away. Jeffrey pines will be limbed to raise canopy height.

A mosaic of additional fuel reduction can be done in the shrubs and pinyon-juniper at a distance from the parking area while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the day-use area from spreading.

13. Intake 2 Campground, ~3 acres

Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. Jeffrey pines will be limbed to raise canopy height. All the material will be chipped or hauled away.

A mosaic of additional fuel reduction can be done in the shrubs and pinyon-juniper and riparian areas at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

14. Aspendell and Bishop Park Campground and Group Site, ~85 acres

Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Create defensible space and a fuelbreak on Federal lands along the public-private boundary in Aspendell and tie into natural features such as rocky slopes. A minimum of 100 feet of defensible space will also be created around the recreation residence cabins along the Cardinal Lodge Road. See the attached maps for the location of the fuelbreaks.

Shrubs will be hand cut or mowed. Jeffrey pines and other timber species will be limbed to raise canopy height. Dead and down material will be removed from aspen stands and riparian areas. In the outer portion of the fuelbreak, up to 20% of the vegetation will be left in clumps and the far edge will be wavy to help blend into the untreated shrubs.

Within the campgrounds buffers (10-15 feet wide) will be mowed or cut around sites, structures, and along internal roads. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. In the campgrounds all the material will be chipped or hauled away, but in the remainder of the treatment area any slash treatment will be used, as described in the methods section.

Prior to treatment, the noxious weed spotted knapweed (*Centaurea stoebe* ssp. *micranthos*) occurring on Federal lands will be treated by hand pulling or other available methods (see "covering" method described in Unit 1 for hairy whitetop). The co-located population of curlytop gumweed (*Grindelia squarrosa* var. *serrulata*) will also be treated.

15. North Lake Campground, ~3 acres

Vegetation types: Timber, Riparian

Action: Reduce fuels in and around the North Lake Campground by thinning the lodgepole stand from below and removing dead and down vegetation from the riparian area. The understory is relatively clear around the camp sites so currently no mowing or cutting of shrubs is necessary around the camp sites. Additional thinning can be done up to the wilderness boundary 100-200 feet from the campground. No live whitebark pine will be cut or limbed.

16. Sabrina Campground, ~4 acres

Vegetation types: Upland shrubs, Riparian (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads. In order to maintain screening between individual sites, the width of the treatment will be reduced where sites are close together to prevent the treatment from each site overlapping. Jeffrey pines and other timber species will be limbed to raise canopy height.

A mosaic of additional fuel reduction can be done in the surrounding riparian and shrubs at a distance from the sites to help prevent a fire originating in the campground from spreading.

17. Sabrina Rec Residence Tract, ~3 acres

Vegetation types: Timber, Riparian, some Upland shrubs

Action: Provide a minimum of 100 feet of defensible space around the cabins by thinning trees and shrubs and limbing remaining trees to raise canopy height. Cut material will be treated with any of the approved methods.

18. South Fork Community, ~31 acres

Vegetation types: Riparian, Upland shrubs

Action: Create defensible space and a fuelbreak on Federal lands along the public-private boundary in the community of South Fork. A complete fuelbreak will depend on cooperative actions by private land holders since the valley bottom is private for some distance at either end of the community. The fuelbreak will be a minimum of 100 feet along the pubic-private boundary on the eastern side of the community. At the northern (downstream) side of the community it will be designed to tie into the narrowest part of the riparian area where additional fuels reduction could be done across the valley bottom on private land. On the southern side of the community a small portion is on public lands and fuels reduction will be designed to tie into some existing fuelbreaks on private lands on the west side of the road. On the western public-private boundary, no fuel reduction is required due to the discontinuous fuels and the excessive distance between the structures and public land.

In the outer portion of the fuelbreak, up to 20% of the vegetation will be left in clumps and the far edge will be wavy to help blend into the untreated shrubs. In the riparian vegetation dead and down material will be cut and removed from the riparian area. Slash will be treated with any of the methods discussed in the methods section.

19. Mountain Glen Campground, ~2 acres

Vegetation types: Riparian, some Upland shrubs

Action: Mow or hand cut buffers (10-15 feet wide) around sites, structures, and along internal roads and remove dead and down vegetation from the surrounding riparian vegetation. All cut material will be chipped or hauled away.

Additional fuel reduction can be done in the riparian area and shrubs at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

20. Utter Rec Residence Tract, ~7 acres

Vegetation types: Riparian, some Upland shrubs

Action: Cut and remove dead and down vegetation in the riparian vegetation for a minimum of 100 feet around the cabins. All slash will be chipped or removed from the site since there is almost no upland vegetation in the project area.

21. Table Mountain Group Campground, ~2 acres

Vegetation types: Riparian, some Upland shrubs, (some widely spaced mature Jeffrey pine which will not be a target for removal)

Action: Cut and remove dead and down vegetation in the riparian vegetation around the camp sites. Cut brush from 10-15 foot buffers around the parking and camp site areas if needed. All slash will be chipped or removed from the site since there is almost no upland vegetation in the project area.

Additional fuel reduction can be done in the riparian and shrubs at a distance from the sites while still maintaining vegetation for screening in order to reduce likelihood of a fire originating in the campground from spreading.

22. Willow Campground, ~4 acres

Vegetation types: Riparian, some Mountain mahogany

Action: Remove dead and down vegetation around the camp sites and along the access road. All material will be chipped or removed.

23. Parchers Resort and Rainbow Pack Station, ~12 acres

Vegetation types: Timber, Riparian

Action: Create defensible space around the structures at Parchers Resort and Rainbow Pack Station by thinning lodgepole pine stands from below and removing dead and down vegetation from the riparian area. Remaining trees will be limbed to raise the canopy height except whitebark pine. No live whitebark pine will be cut or limbed. Where vegetation is dense the fuels reduction will be increased up to 300-400 feet. No piles will be created close to structures or in the riparian area but Slash will be treated with any of the methods discussed in the methods section..

24. South Fork Rec Residence Tract – Lower, ~4 acres

Vegetation types: Timber, Riparian, some Upland shrubs

Action: Provide a minimum of 100 feet of defensible space around the cabins by thinning trees and shrubs and removing dead and down from riparian areas. Remaining trees will be limbed to raise the canopy height except whitebark pine. No live whitebark pine will be cut or limbed. Cut material will be treated with any of the methods discussed in the methods section.

25. South Fork Rec Residence Tract – Upper, ~ 2 acres

Vegetation types: Timber, some Riparian

Action: Provide a minimum of 100 feet of defensible space around the cabins by thinning trees and shrubs and removing dead and down from riparian areas. Remaining trees will be limbed to raise the canopy height except whitebark pine. No live whitebark pine will be cut or limbed. Cut material will be treated with any of the methods discussed in the methods section.

REASONS FOR CATEGORICALLY EXCLUDING THE DECISION

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I took into account resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist. This document contains a summary of effects (described below). Further analysis of relevant resources can be found in the specialist reports: Biological Evaluation and Assessment, MBTA and MIS analysis (Schlick 2016); Hydrologist Specialist Report (Brill and Noesser 2016); Biological Evaluation for Threatened, Endangered, Proposed and Sensitive Plans (Leppert and Slaton 2016); Noxious Weed Risk Assessment (Leppert 2016); Visual Analysis Report (Rich 2014); and Heritage Resources Report (Kerwin 2016).

- Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species – The project will have no effect on any federally listed threatened or endangered wildlife species, their critical habitat, species proposed for listing or proposed habitat, or Forest Service sensitive species because there is not suitable habitat for any of these species within the project area. While there is some suitable habitat for goshawk, a sensitive species, within ¼ mile of the project area, and the project area is within the range of the species, the project's design features that require leaving trees over 24 inches dbh will protect the large decadent trees in the project area and will maintain potential for nesting habitat in the future.

  Some species, such as mule deer, may utilize the treatment areas as temporary resting refugia; however the project area provides only low to marginal habitat for any resident wildlife. The riparian zone offers trails and cover for deer and other species to use as a corridor. The Sherwin mule deer herd generally winters in the Round Valley, which is over 5 miles from Bishop Creek, and about 4 miles from the Pine Creek project site. The treatment areas are not high quality wildlife nesting, roosting, denning, holding or fawning areas or quality key deer habitat.

  Analysis of habitat suitability and effects to wildlife species is in the project record (Schlick 2016).

  The project would also not affect any special status plant species. There are no endangered, threatened, or petitioned plant species or their critical habitat within the project area. There is one Forest Service sensitive plant species known to occur within the project area, *Pinus albicaulis* (whitebark pine). The project will have negligible to no impact on whitebark pine populations within the project area because no live whitebark pine will be cut or limbed if it occurs within the project area, and whitebark pine will be flagged and avoided (Leppert 2016).

  There are no extraordinary circumstances related to special status animal or plant species.

- Floodplains, wetlands, or municipal watersheds – The entire project area is within a municipal watershed, and small portions of the project are within floodplains of Bishop Creek and its tributaries. However, there will be no effects to flow, flood risk, or water quality from the project because ground disturbance activities would be minimal with hand treatment or mowers, and the area treated is relatively small on a watershed scale.

Further, as needed, project design features (Appendix B) would be implemented to provide erosion control and protection from any potential erosion (Brill and Noesser 2016). There are no extraordinary circumstances related to this resource.

- Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas – The project is not within any wilderness, wilderness study area, or national recreation area. There are no extraordinary circumstances related to congressionally designated areas.
- Inventoried roadless areas or potential wilderness areas – A small portion of the project (from 5-23 acres) is within inventoried roadless areas (IRAs). These areas are on the edges of four separate IRAs, and all of the project areas are along roads or adjacent to buildings or other recreation areas. Therefore, these areas already lack roadless character, and thinning trees or mowing brush will have no effect to the roadless character. There are no extraordinary circumstances related to IRAs.
- Research natural areas – The project area is not within or adjacent to any research natural area. There are no extraordinary circumstances related to this resource.
- American Indians and Alaska Native religious or cultural sites –The forest consulted with three American Indian tribes with interest in the area regarding the proposed project; the Utu Utu Gwaitu Paiute Tribe, Benton Paiute Reservation; the Big Pine Tribe of Owens Valley; and the Bishop Paiute Indian Tribe. In August, 2016, two tribes, the Big Pine and Bishop Tribes, met in the field with the project lead and District Ranger to discuss the project. The tribes did not express any concerns with religious or cultural site impacts, and therefore there are no extraordinary circumstances related to this resource.

  Archaeological sites, or historic properties or areas –Surveys were completed within the project's area of potential effect (APE), and those surveys identified a total of 34 sites that are either eligible for the National Register of Historic Places (NRHP), or have not been evaluated for eligibility. Heritage resources report R2016050402082 (Kerwin & Blythe 2017) found that there would be no adverse effect from the project, because the project will be implemented using Standard Protection Measures for Historic Properties. Those standard measures are detailed in the heritage report. Measures include avoiding piling, directional felling to avoid standing structures, and avoiding ground disturbance in specific areas as shown on maps in that report. Prior to project implementation, the Heritage Program Manager or delegate shall be contacted to review the standard protection measures with theproject manager to ensure all information is appropriately carried forward in any documentation necessary to begin activity in each unit.Under stipulations of the programmatic agreement among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the processes for compliance with Section 106 of the National Historic Preservation Act for the Management of Historic Properties by the National Forests of the Pacific Southwest Region, the Mandatory Section 106 requirements for this project have been met.

PUBLIC INVOLVEMENT

This action was originally listed as a proposal on the Inyo National Forest Schedule of Proposed Actions on October 2013 and updated periodically during the analysis. A scoping letter was sent to 154 individuals, organizations, and agencies by email and hard copy mail in late August, 2016. The mailing list included all of the property owners with property adjacent to the project, all of the permittees including pack station owners, recreation resident owners, and utility companies, regulatory agencies and other resource agencies such as California Department of Fish and Wildlife, and organizations with interest in environmental issues and fuels treatment projects. A list of all parties contacted is in the project record.

The project lead worked extensively with community members to develop the proposed action and address their concerns. During project development, representatives of the new South Fork and Aspendell Joint Volunteer Fire District reached out to the Forest Service regarding the project and the project lead met with them on September 9, 2015. She met with residents of the South Fork Community at their request at a meeting hosted by one of the residents on September 9, 2015 to discuss the proposal. She presented the project at the community association/water company annual meetings for the South Fork Community and Aspendell on July 2, 2016. She also met with two homeowners at the project site adjacent to their home on September 2, 2016, in response to their scoping comments and request for a meeting. She discussed the project on the phone with residents of South Fork who commented in support but had questions about why treatment was not being done on private lands. She clarified that this decision is only for federally managed lands, but that cooperation between the Forest Service and private landowners would be critical to effective defensible space. One of the Inyo County Supervisors who is a resident of one of the affected communities also called during the scoping period for more information about the public outreach. The project lead assured him that all adjacent landowners had been contacted. The Forest subsequently received a comment letter from the Board of Supervisors expressing support for the project, thanking the agency for engaging the community prior to and during project development, and requesting that the Agency notify affected communities and businesses well in advance of activities.

The Forest received 13 individual comments regarding the project. Most comments were supportive, or generally supportive with specific requests such as hand pulling weeds, leaving cut trees on the ground, or treating specific areas or trees. In these cases, the Forest Service incorporated these suggestions into the proposed action where they were consistent with the project's purpose and need. For example, the suggestion to leave cut trees on the ground to protect soil is not consistent with the proposed action because it would increase the fire hazard. However, when possible while still meeting the project goals, the Forest added these suggestions into the proposed action.

Of the 13 comments received, five raised concerns with the proposed action. One was specifically focused on the actions in Unit 4 and while supportive of some fuels treatment, raised concerns with disturbance and visual effects. The District Ranger and the project lead met with the commenters at the site and discussed their concerns. At the conclusion of the meeting, the District Ranger agreed to modify the site specific treatment description for Unit 4 to state; "Treatment in this unit will only be implemented after coordination with adjacent property

owners and if private property owners agree to treatment that ensures the fuel reduction is useful and creates safe defensible space for fire fighters during an incident."

Two other comments raised concerns specific to Unit 3 regarding the risk of the project spreading weeds and effects to reptiles. In response to those comments, the following were added to the description of treatments at Unit 3: "Hand cutting shrubs will be the preferred treatment, but where there is no nearby vehicle access to facilitate chipping or hauling the slash away, mowing will be necessary to avoid the need to pile and burn. When possible, mowing will be implemented during times of day or seasons with cool temperatures to limit impact to reptiles. Treatment will be done in the least weed infested portions of the unit first progressing to the more weed infested areas to mitigate spread of nonnative species." The practice of implementing treatment within a unit from low to high weed infestation was also added as an overall project design feature.

One other comment requested that the Forest add limited operating periods for a variety of wildlife species. The wildlife BE explains that because this area does not provide high quality habitat for mule deer or other species, limited operating periods would not be necessary to protect wildlife species.

The final letter reminded the Forest that the project may need a timber waiver from the State Water Resources Control Board. While the project is mostly hand work and use of low-pressure ground equipment near structures, and should not require submission of a timber waiver, the Forest will apply for this waiver if necessary.

Findings Required by Other Laws and Regulations

This decision is consistent with the Inyo National Forest Land Management Plan. The project was designed in conformance with land management plan direction relevant to project activities.

As explained in the Background section of this document, the project also conforms with California State law regarding fire hazard reduction, and with the Inyo County Community Wildfire Fire Protection Plan.

Administrative Review (Objection) Opportunities

This decision is not subject to objections pursuant to 36 CFR 218.

Implementation Date

The Bishop and Pine Creek Fuels Reduction Project is expected to be implemented beginning in Fall 2016, and can be implemented upon signature of this decision.

CONTACT

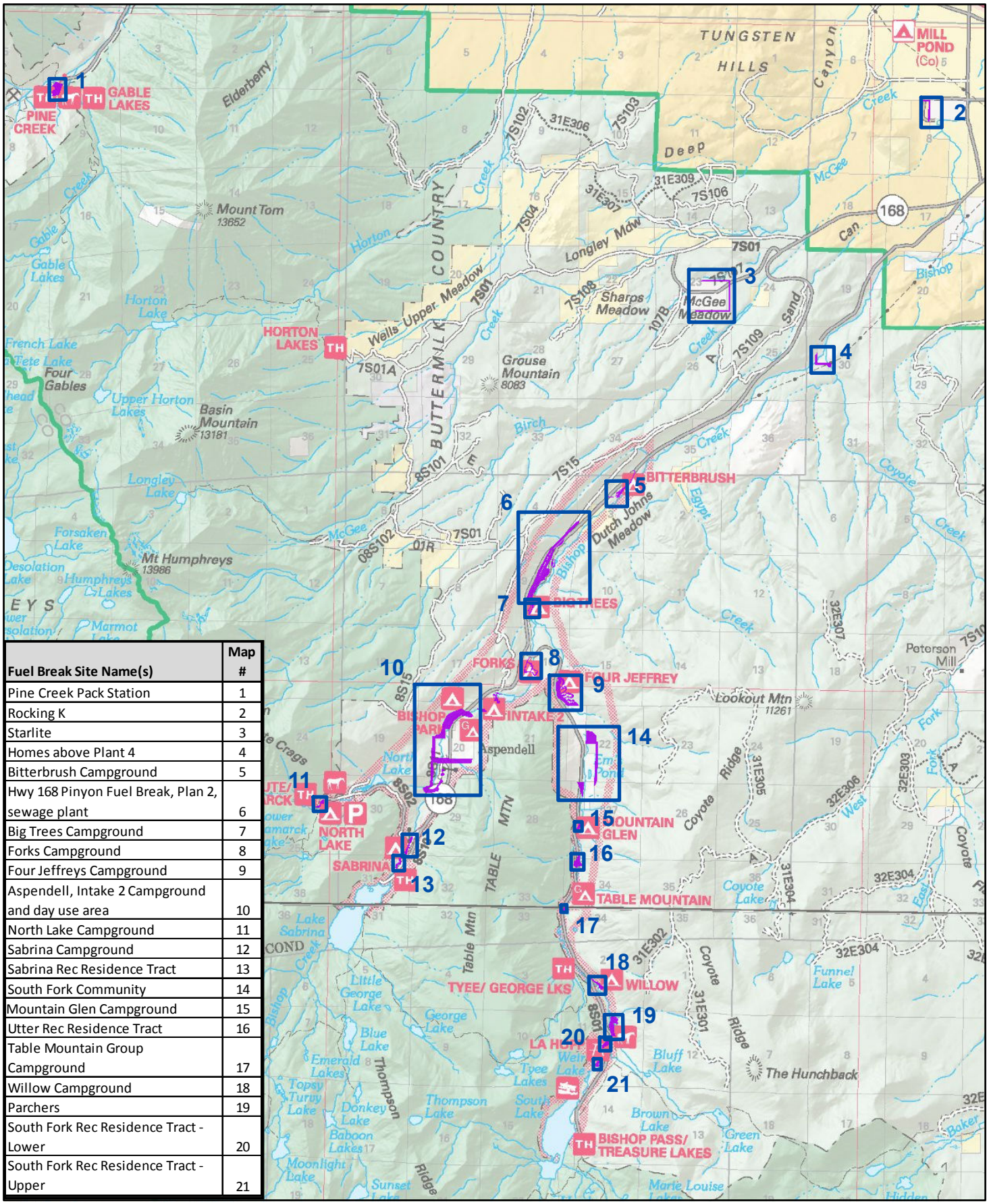
For additional information concerning this decision, contact: Heather Stone, Interagency Fuels Planner, at (760)873-2561 or by email at hestone@fs.fed.us.

Linda Riddle 1/23/18

LINDA RIDDLE Date

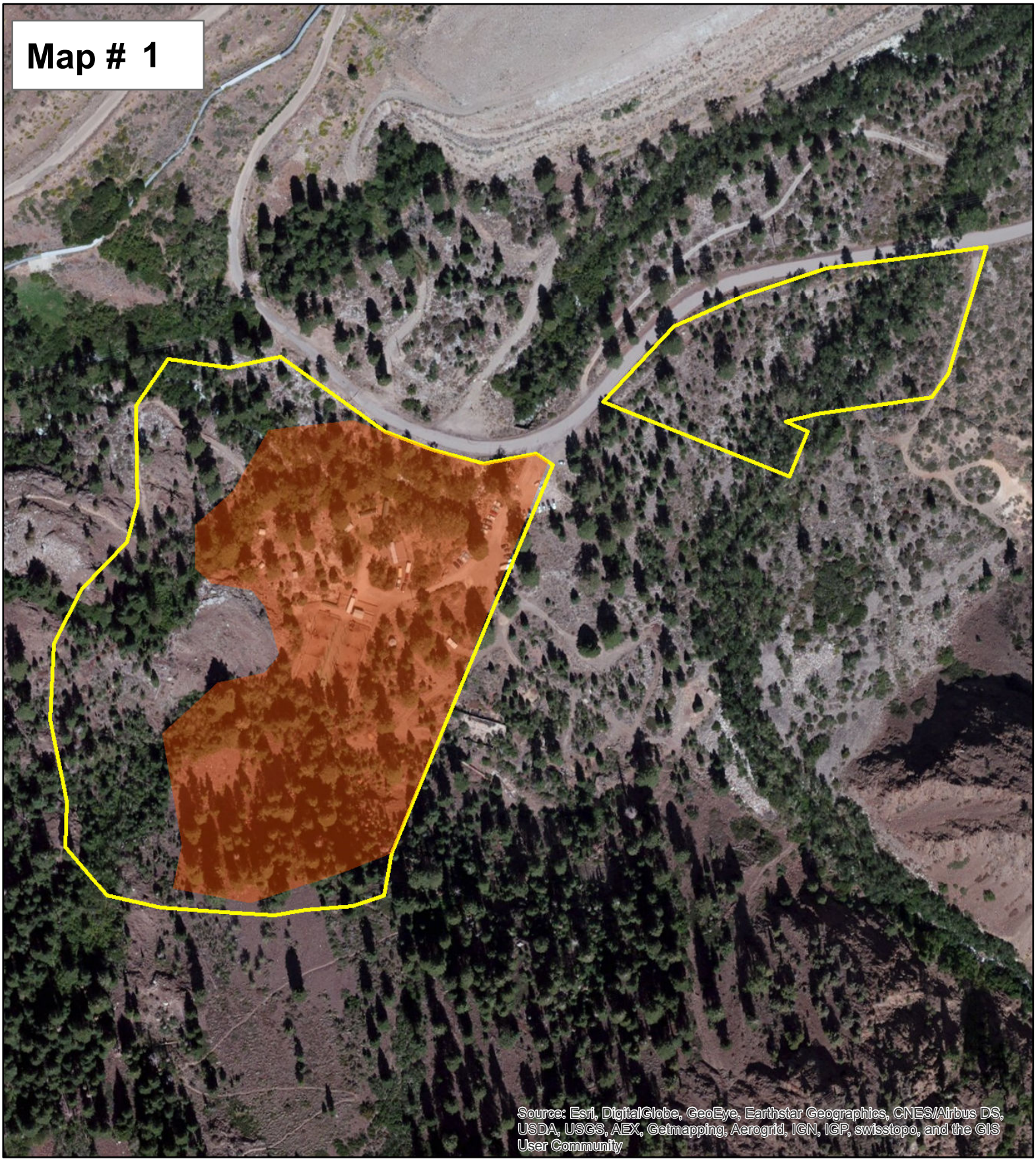
District Ranger

Appendix A: Project Maps



Fuel Break Site Name(s)	Map #
Pine Creek Pack Station	1
Rocking K	2
Starlite	3
Homes above Plant 4	4
Bitterbrush Campground	5
Hwy 168 Pinyon Fuel Break, Plan 2, sewage plant	6
Big Trees Campground	7
Forks Campground	8
Four Jeffreys Campground	9
Aspendell, Intake 2 Campground and day use area	10
North Lake Campground	11
Sabrina Campground	12
Sabrina Rec Residence Tract	13
South Fork Community	14
Mountain Glen Campground	15
Utter Rec Residence Tract	16
Table Mountain Group Campground	17
Willow Campground	18
Parchers	19
South Fork Rec Residence Tract - Lower	20
South Fork Rec Residence Tract - Upper	21

Proposed Bishop and Pine Creek Fuel Reduction Project Map Index



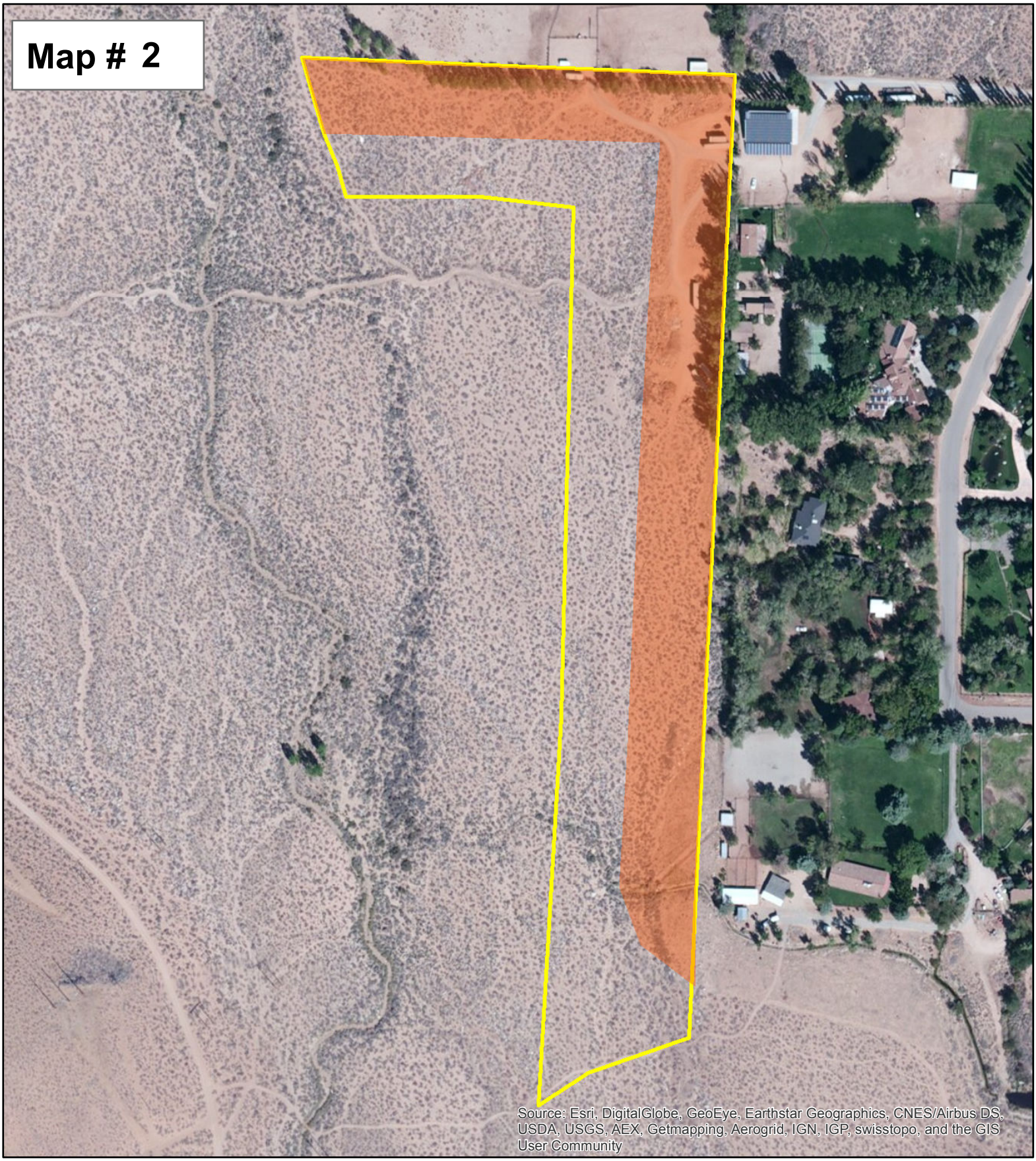
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Pine Creek Pack Station**
Unit Number(s): **1**
Inital Fuelbreak Design Acres (approx): **10**

Feet
0 145 290 580

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Rocking K** (BLM - decision to be made separately)

Unit Number(s): **2**

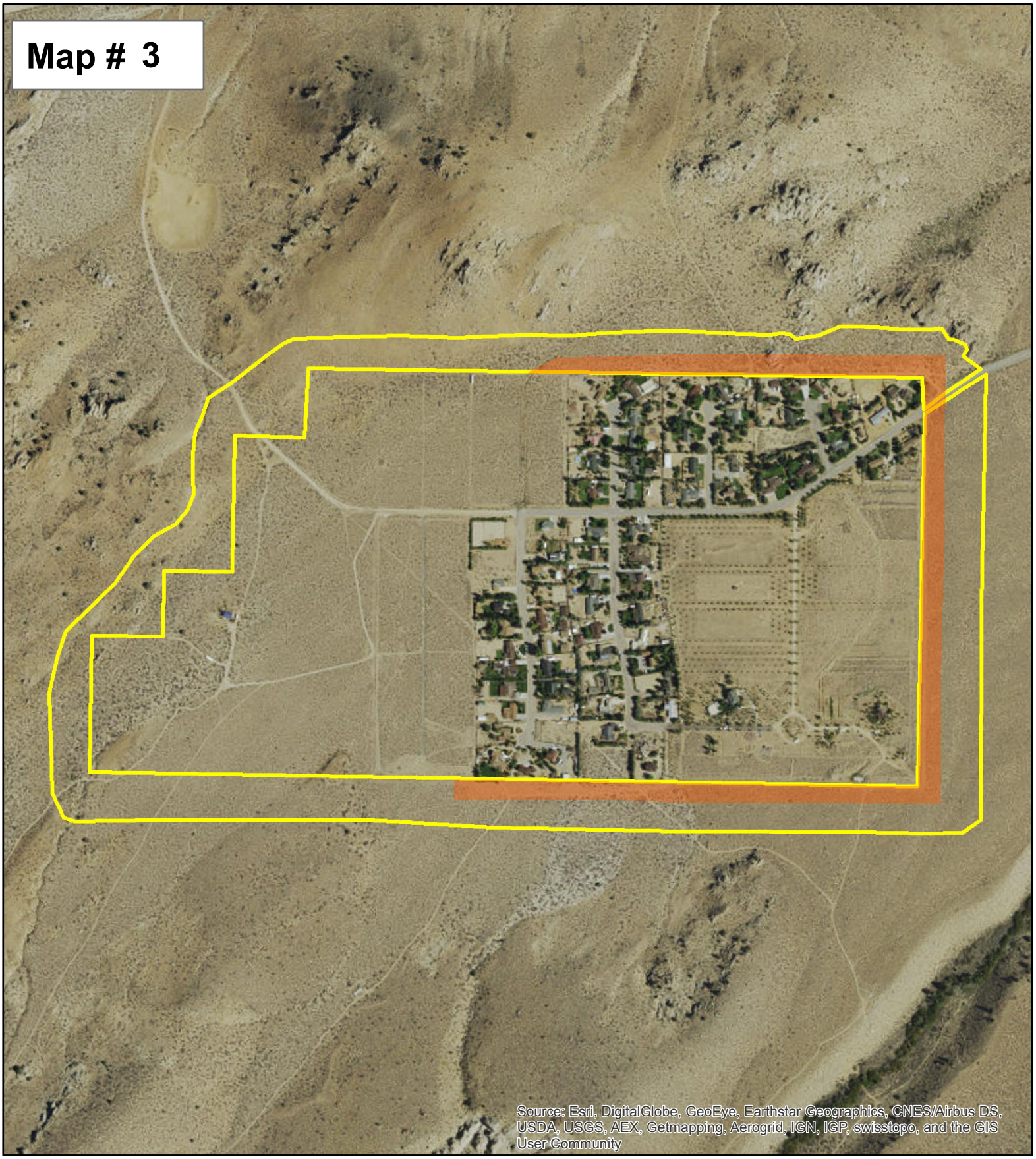
Inital Fuelbreak Design Acres (approx): **6**

0 120 240 480 Feet

N

Initial Fuelbreak Design

Allowable Treatment Area



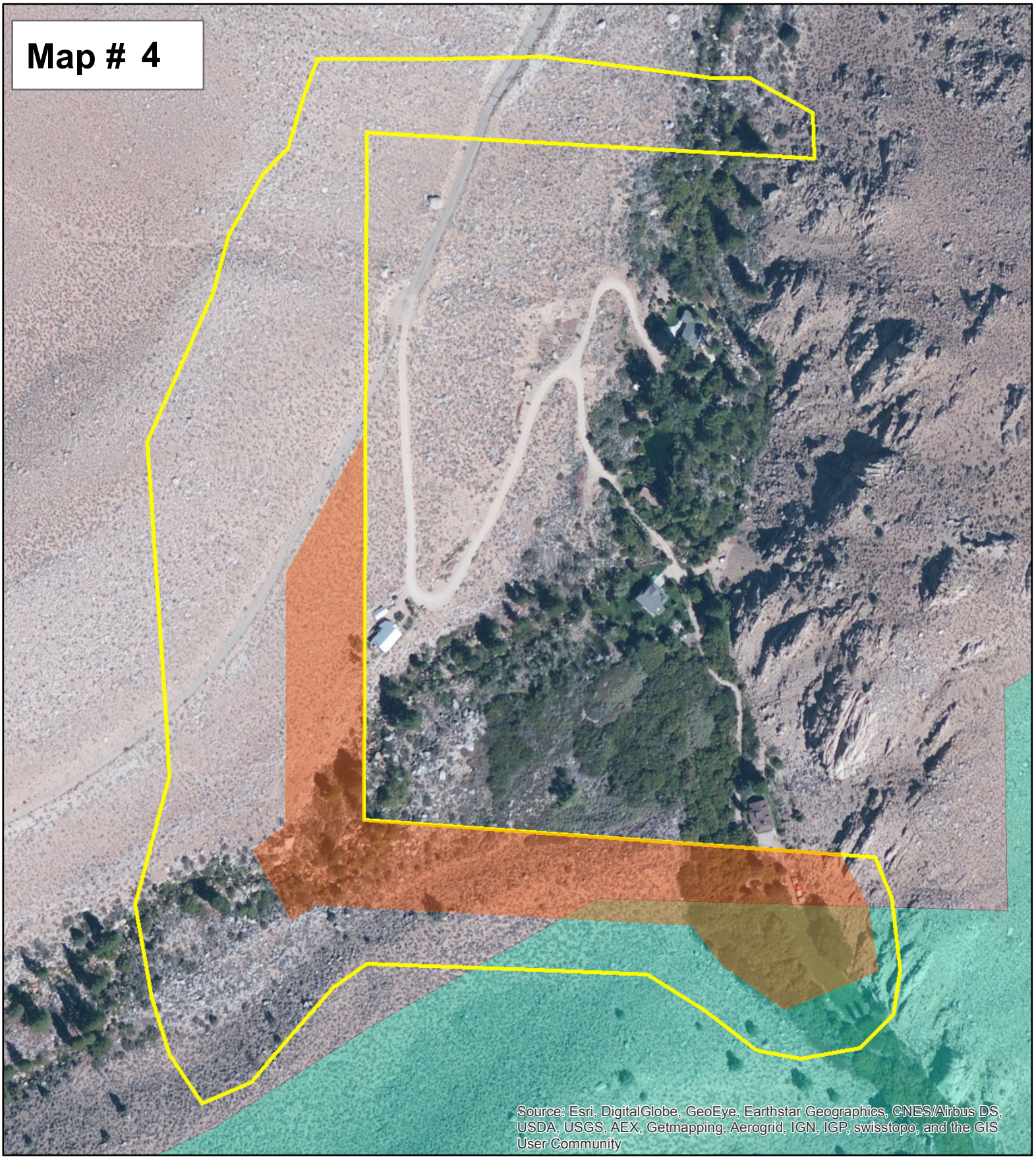
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Starlite**
Unit Number(s): **3**
Inital Fuelbreak Design Acres (approx): **14**

0 360 720 1,440 Feet

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Homes above Plant 4**

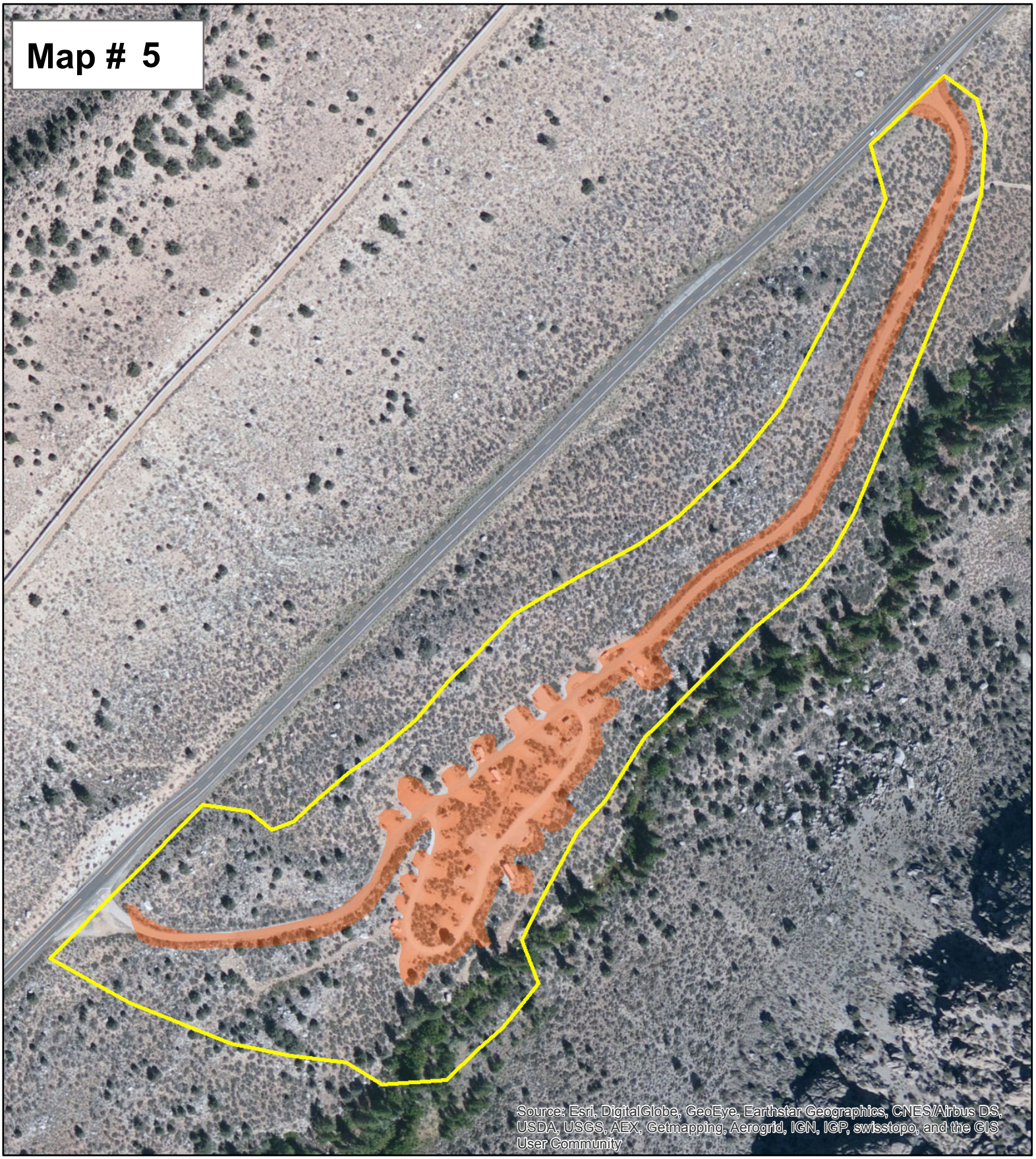
Unit Number(s): **4**

Inital Fuelbreak Design Acres (approx): **7**

Feet
0 140 280 560

Initial Fuelbreak Design
Allowable Treatment Area
Inventoried Roadless Area

N



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

0 162.5 325 650 Feet

N

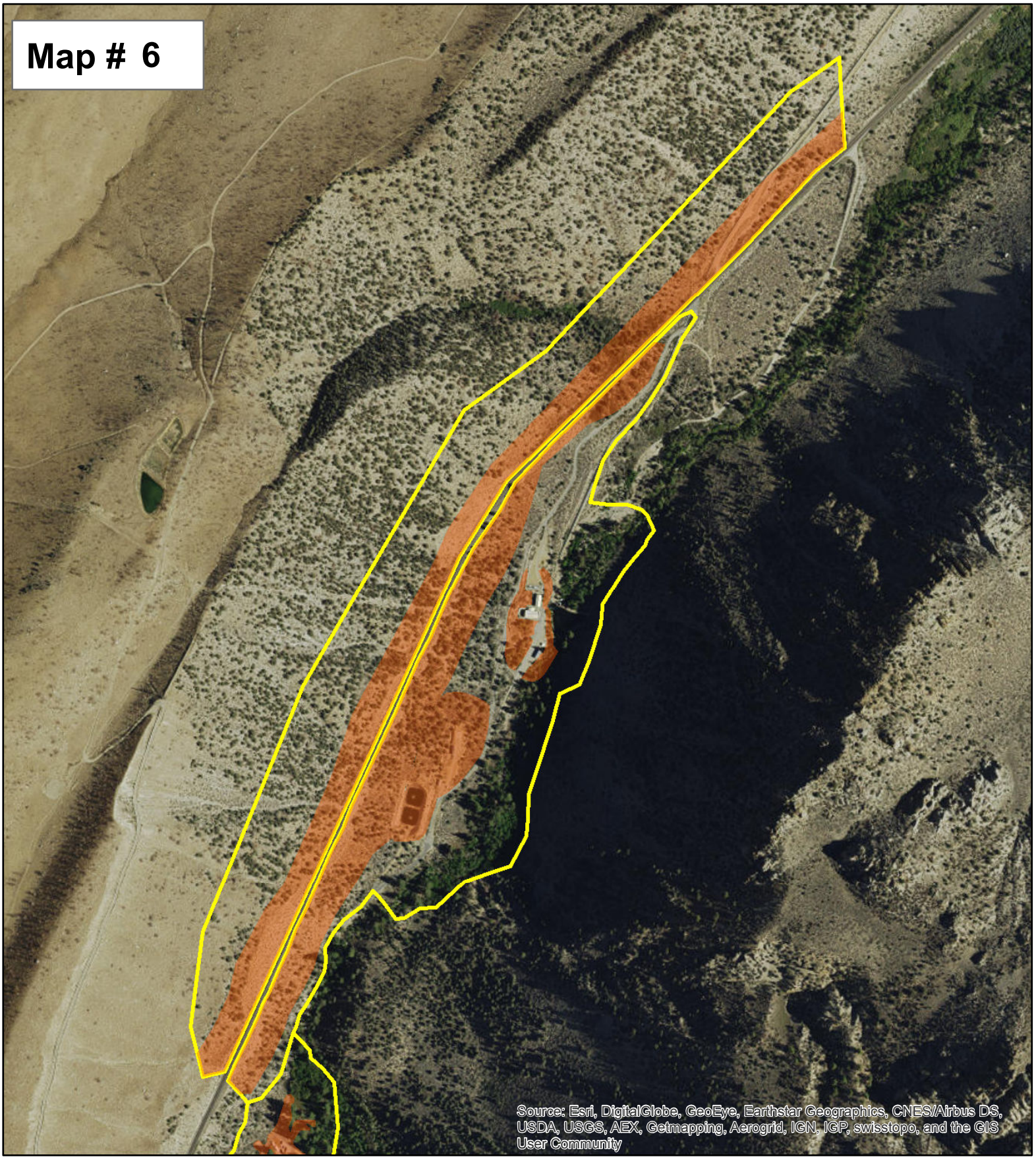
Unit Name(s): **Bitterbrush Campground**

Unit Number(s): **5**

Inital Fuelbreak Design Acres (approx): **6**

Initial Fuelbreak Design

Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

0 420 840 1,680 Feet

N

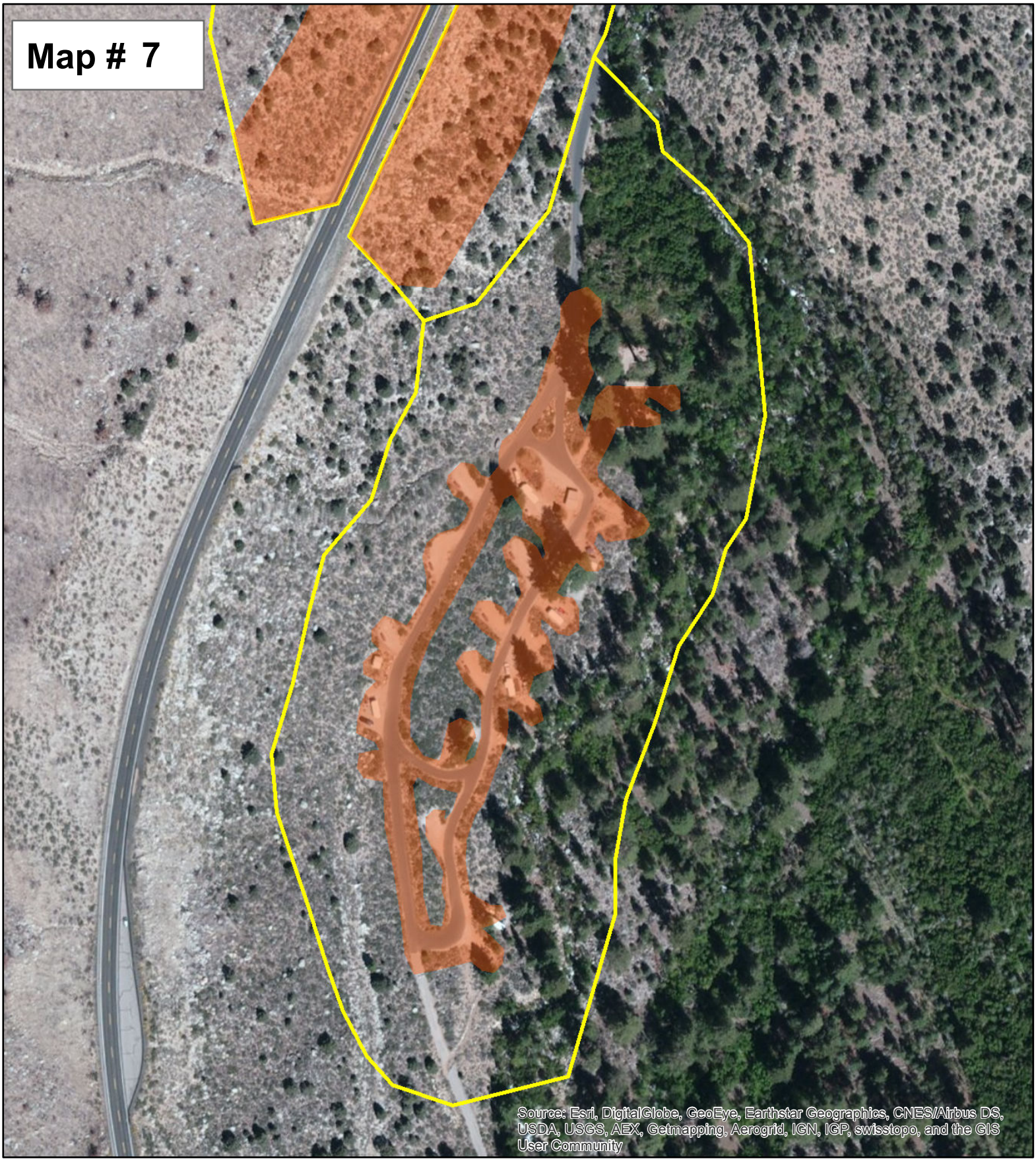
Unit Name(s): **168 Pinyon, Sewage Treatment Plant, Plant 2**

Unit Number(s): **6, 7, 8**

Inital Fuelbreak Design Acres (approx): **50**

Initial Fuelbreak Design

Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

0 110 220 440 Feet

N

Initial Fuelbreak Design

Allowable Treatment Area

Unit Name(s): **Big Trees Campground**

Unit Number(s): **9**

Inital Fuelbreak Design Acres (approx): **3**

Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Feet
0 120 240 480

N

Initial Fuelbreak Design
Allowable Treatment Area

Unit Name(s): **Forks Campground**
Unit Number(s): **10**
Inital Fuelbreak Design Acres (approx): **6**

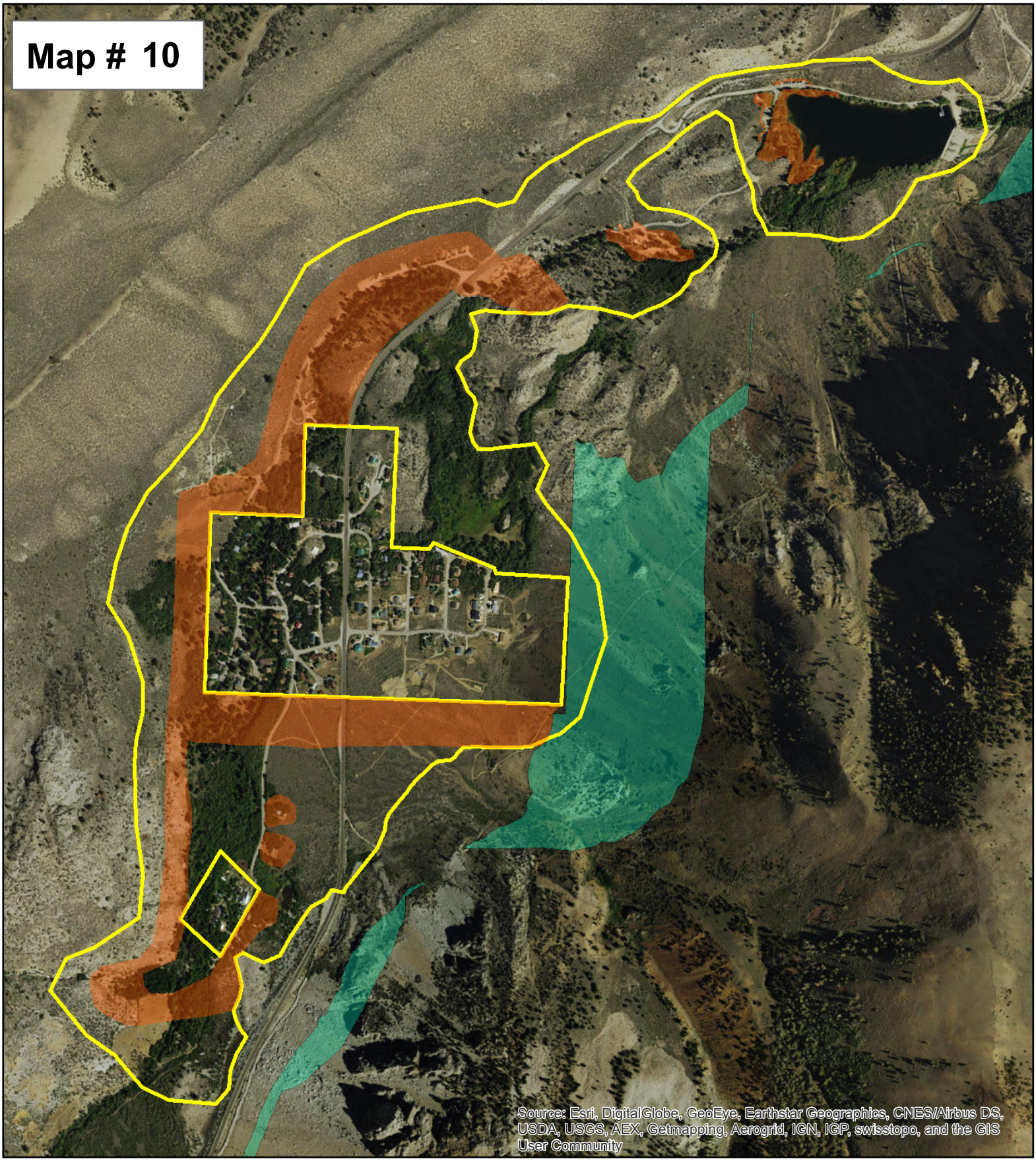
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Four Jeffreys Campground**
Unit Number(s): **11**
Inital Fuelbreak Design Acres (approx): **26**

Feet
0 165 330 660

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Aspendell, Intake 2 Campground & Day Use**

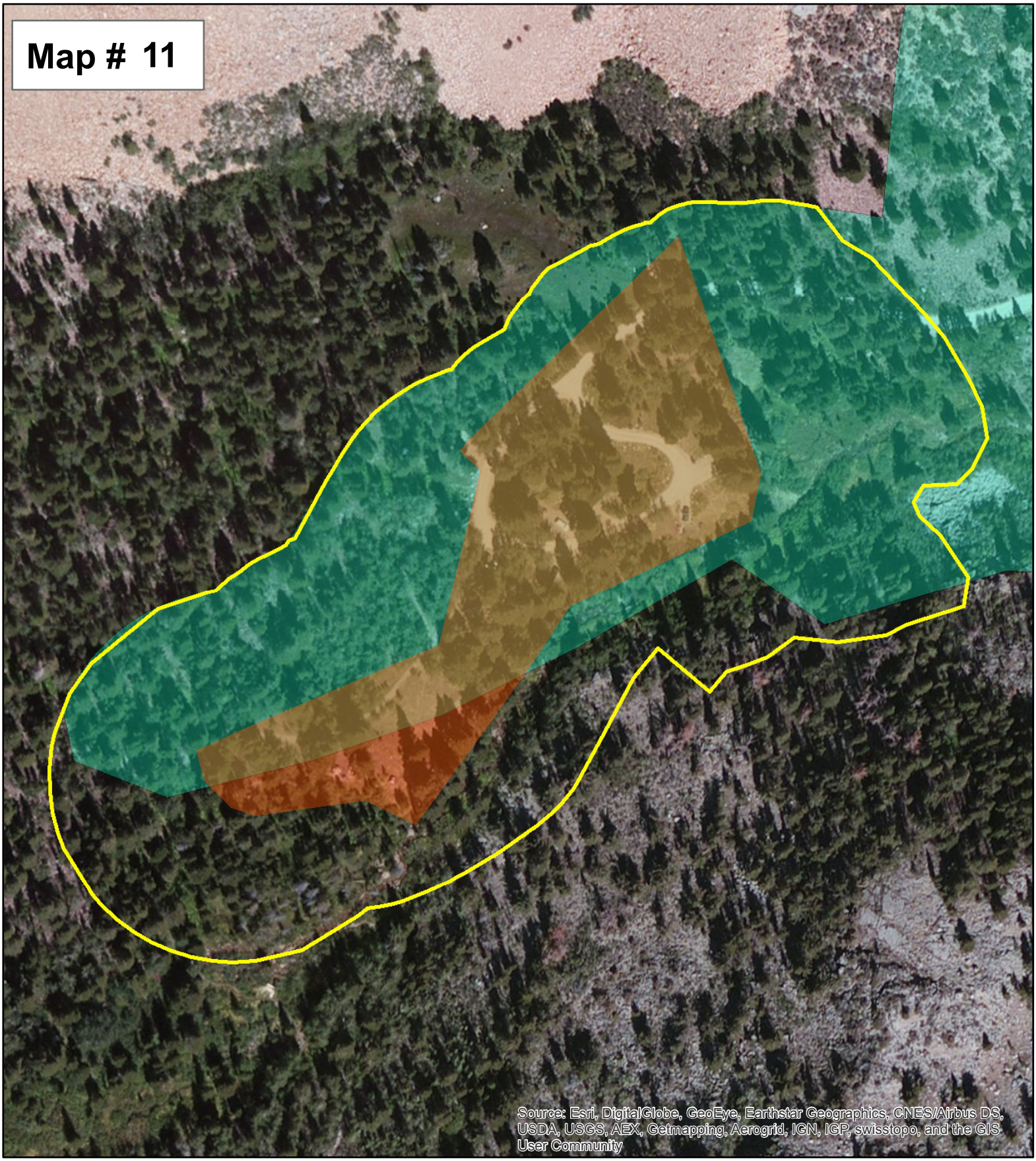
Unit Number(s): **12-14**

Inital Fuelbreak Design Acres (approx): **92**

Feet
0 500 1,000 2,000

- Initial Fuelbreak Design
- Allowable Treatment Area
- Inventoried Roadless Area

N



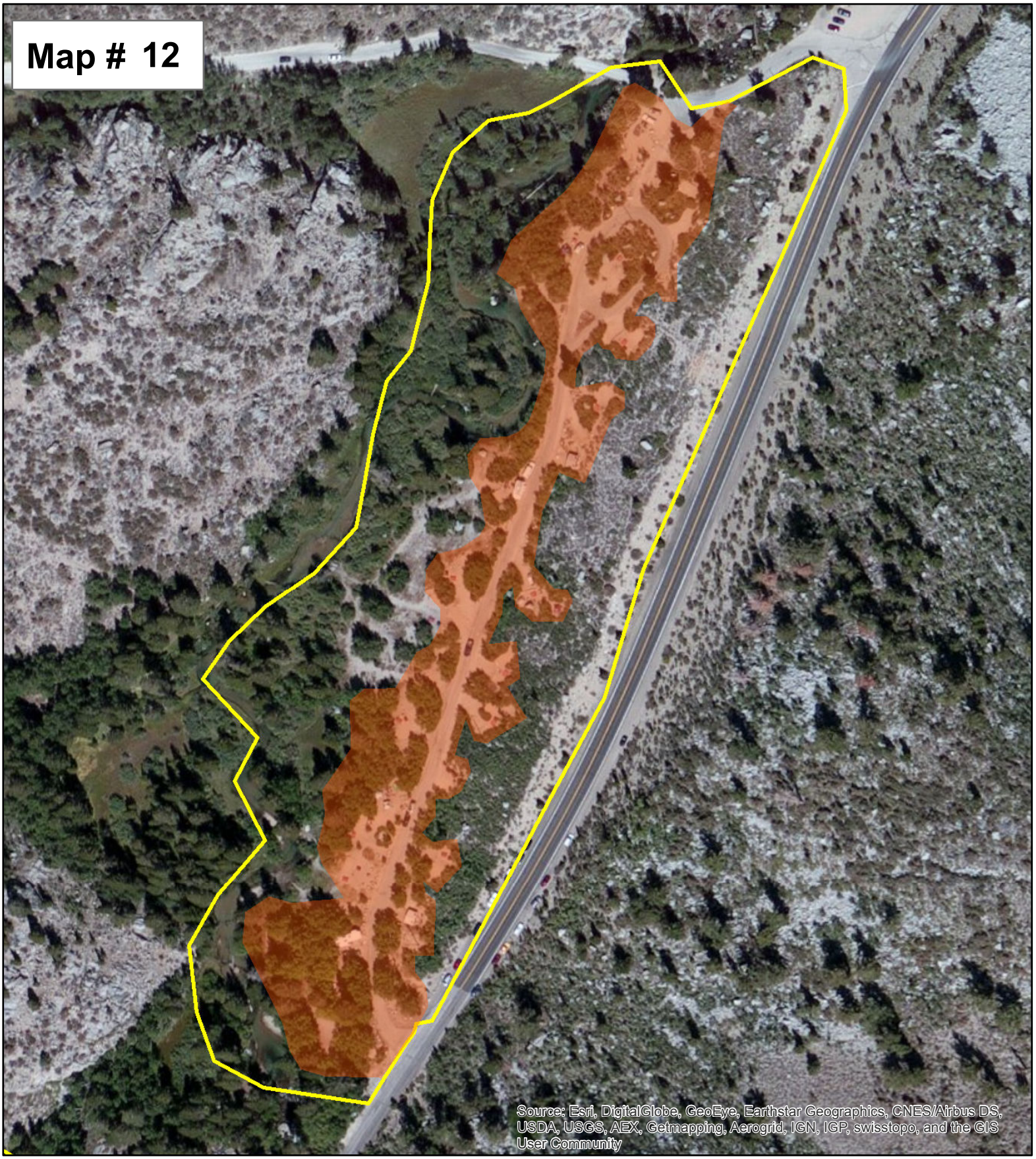
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **North Lake Campground**
Unit Number(s): **15**
Inital Fuelbreak Design Acres (approx): **3**

Feet
0 75 150 300

Initial Fuelbreak Design
Allowable Treatment Area
Inventoried Roadless Area

N



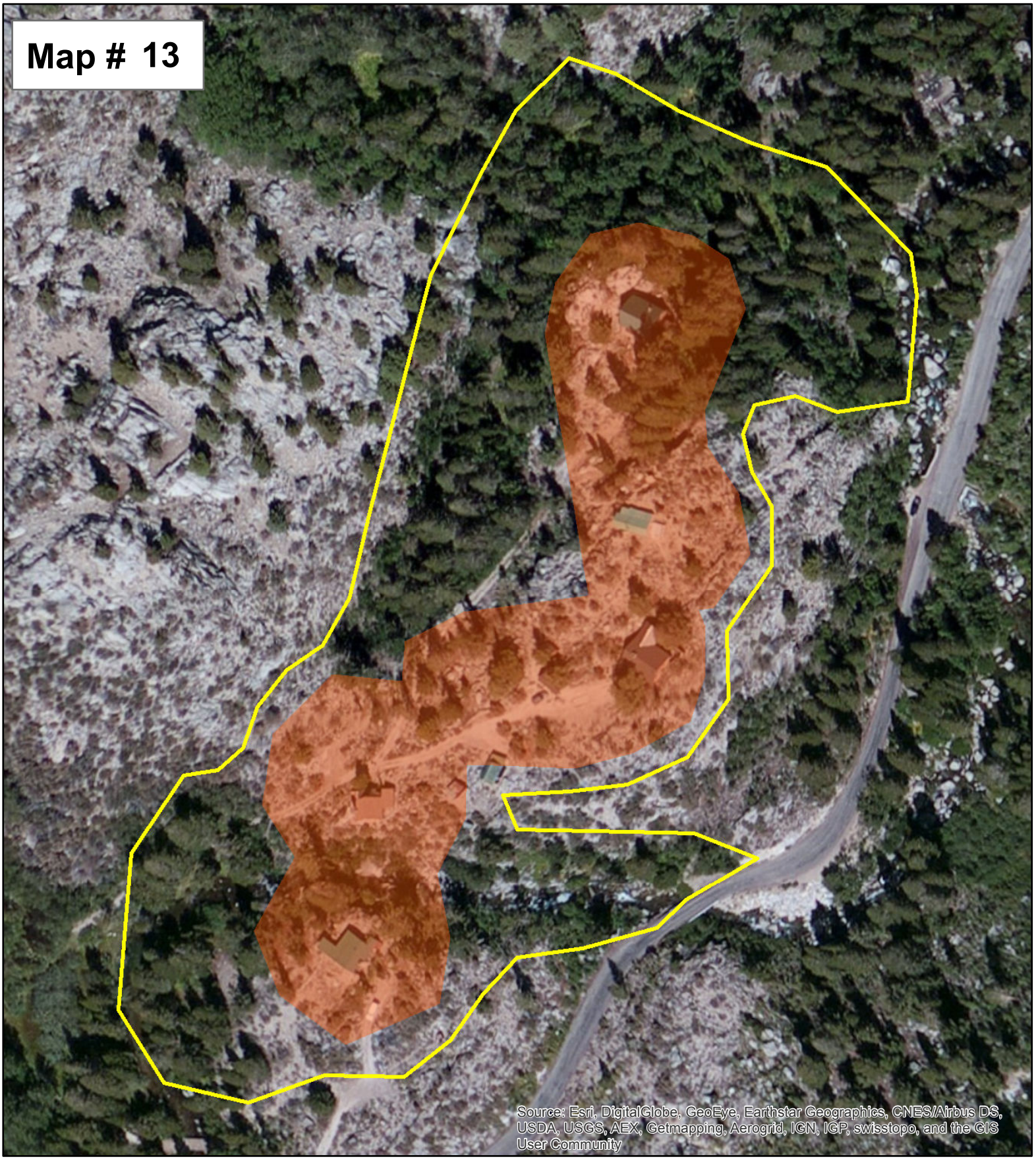
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Sabrina Campground**
Unit Number(s): **16**
Inital Fuelbreak Design Acres (approx): **4**

0 90 180 360 Feet

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

0 65 130 260 Feet

N

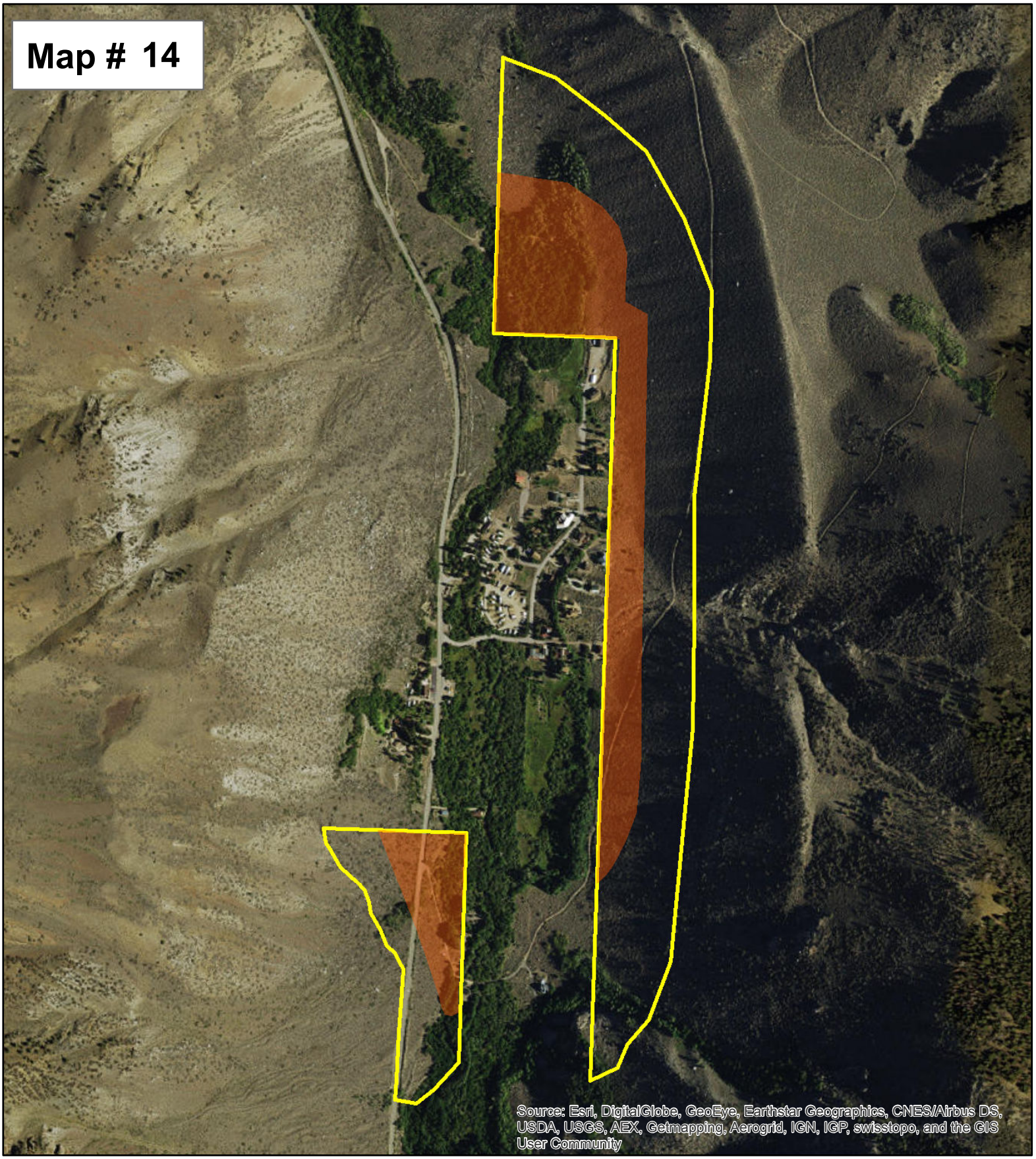
Initial Fuelbreak Design

Allowable Treatment Area

Unit Name(s): **Sabrina Rec. Residence Tract**

Unit Number(s): **17**

Inital Fuelbreak Design Acres (approx): **3**



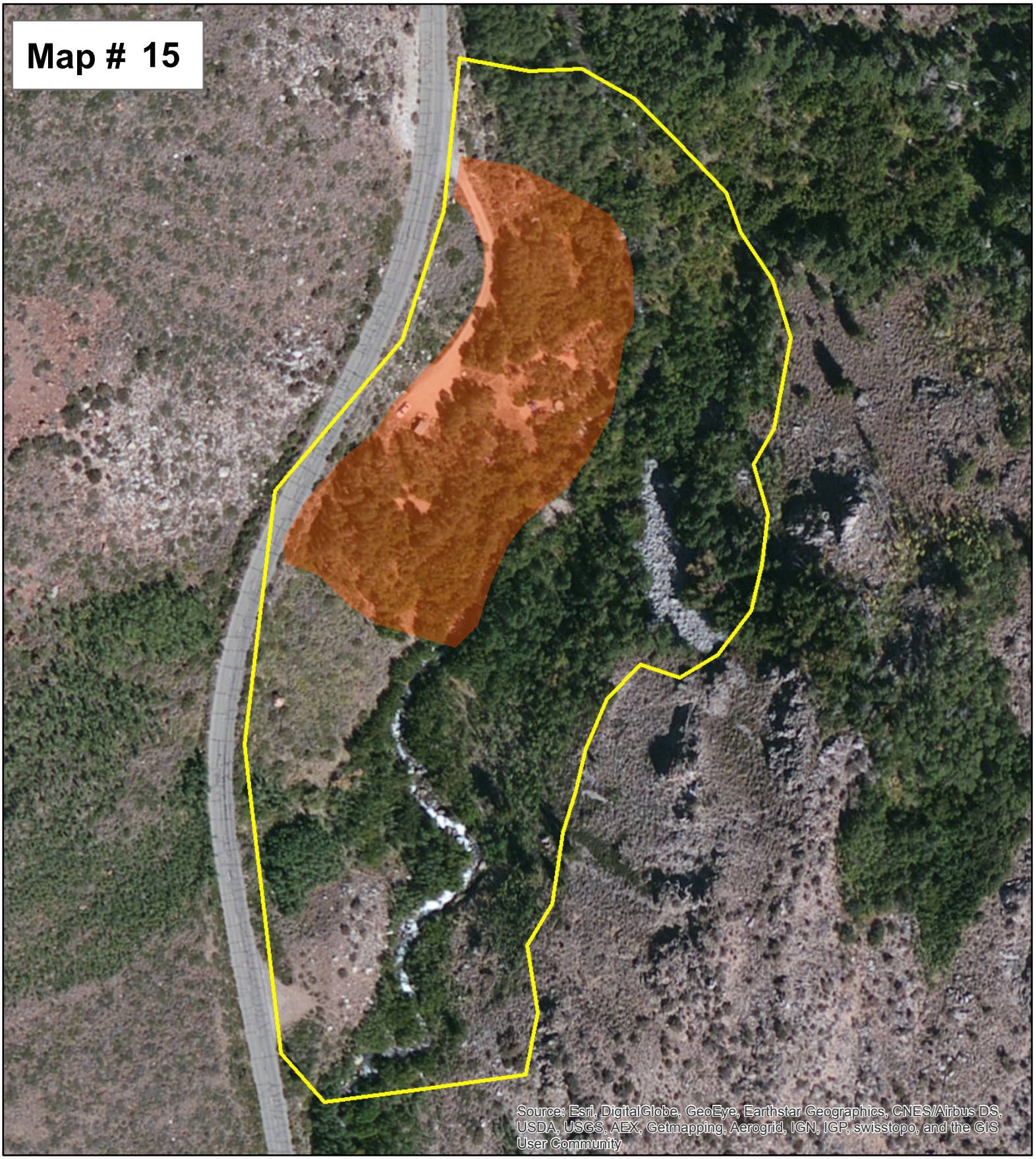
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **South Fork Community**
Unit Number(s): **18**
Inital Fuelbreak Design Acres (approx): **31**

Feet
0 395 790 1,580

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Feet
0 75 150 300

N

Initial Fuelbreak Design
Allowable Treatment Area

Unit Name(s): **Mountain Glen Campground**
Unit Number(s): **19**
Inital Fuelbreak Design Acres (approx): **2**

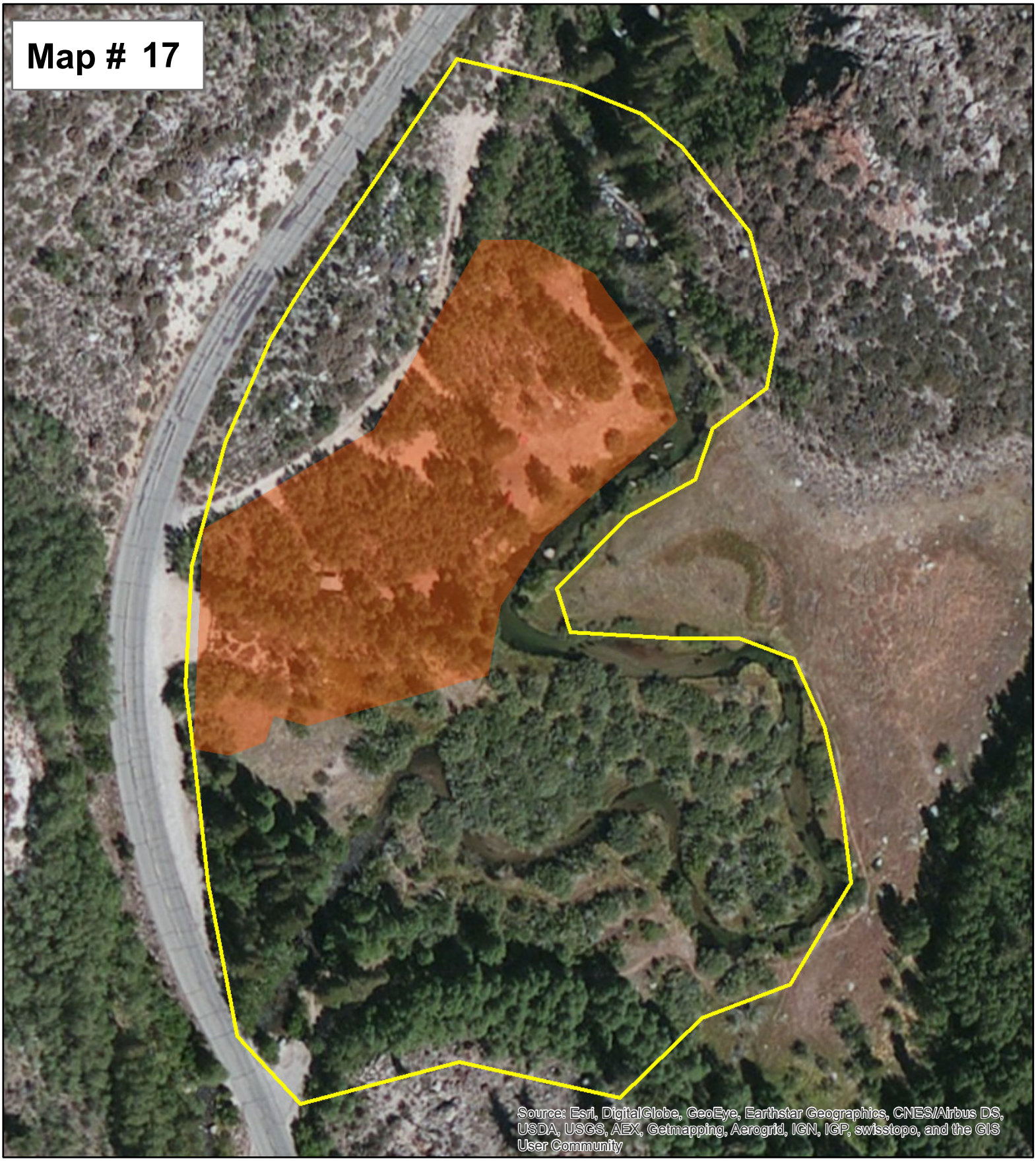
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Utter Rec Residence Tract**
Unit Number(s): **20**
Inital Fuelbreak Design Acres (approx): **7**

Feet
0 90 180 360

Initial Fuelbreak Design
Allowable Treatment Area
Inventoried Roadless Area

N



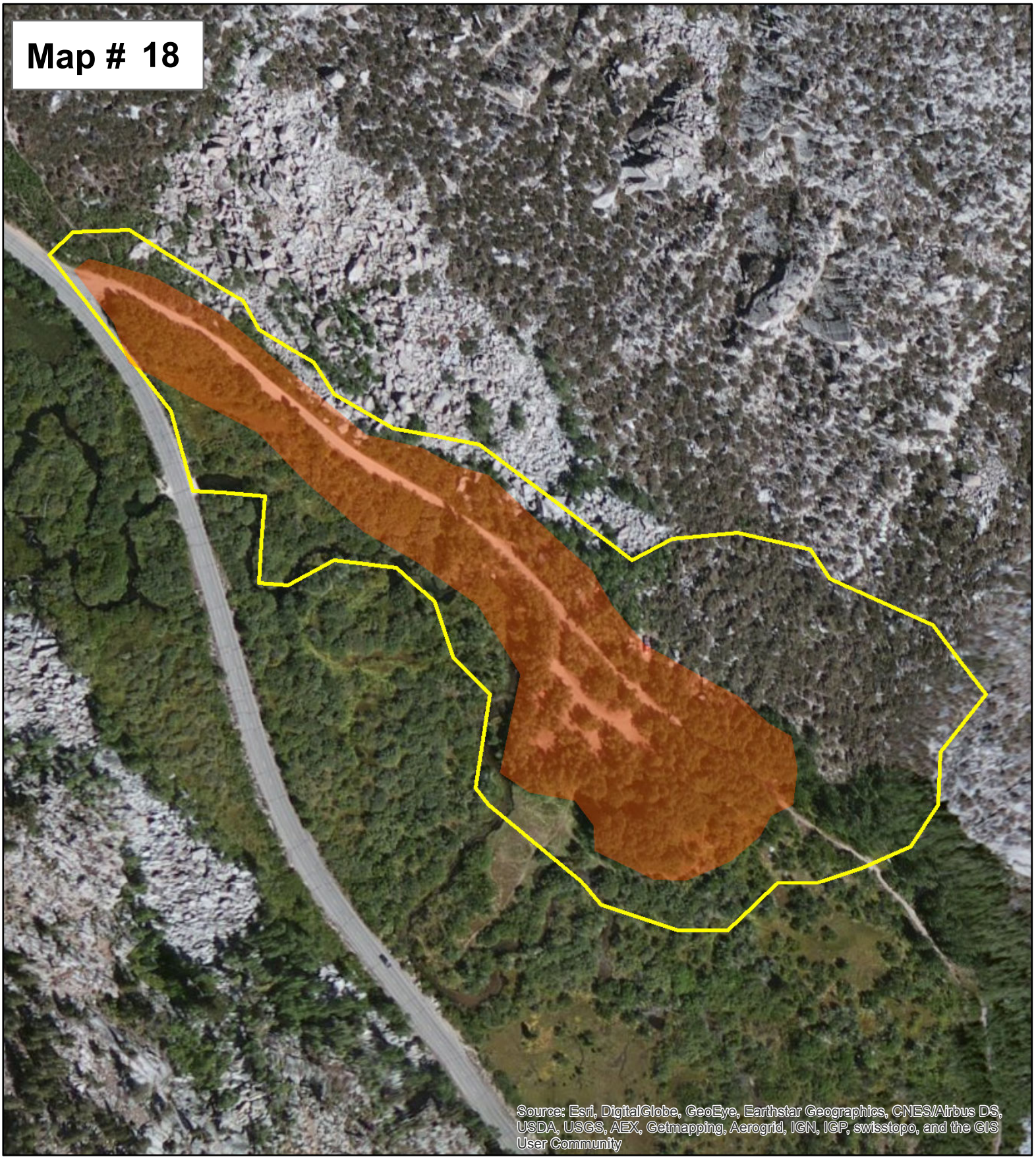
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Feet
0 50 100 200

N

Initial Fuelbreak Design
Allowable Treatment Area

Unit Name(s): **Table Mountain Group Campground**
Unit Number(s): **21**
Inital Fuelbreak Design Acres (approx): **2**



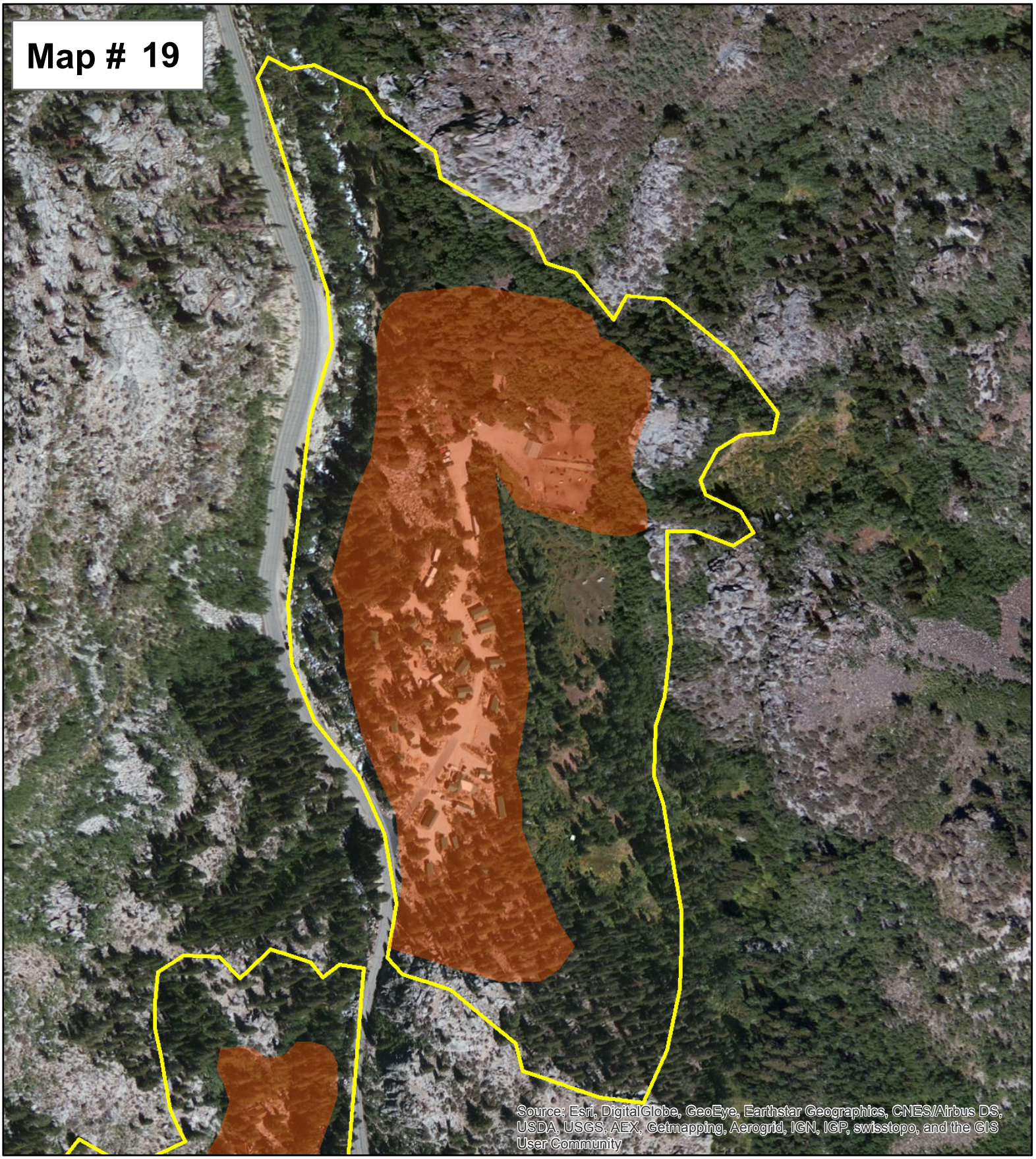
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Willow Campground**
Unit Number(s): **22**
Inital Fuelbreak Design Acres (approx): **4**

0 90 180 360 Feet

N

Initial Fuelbreak Design
Allowable Treatment Area



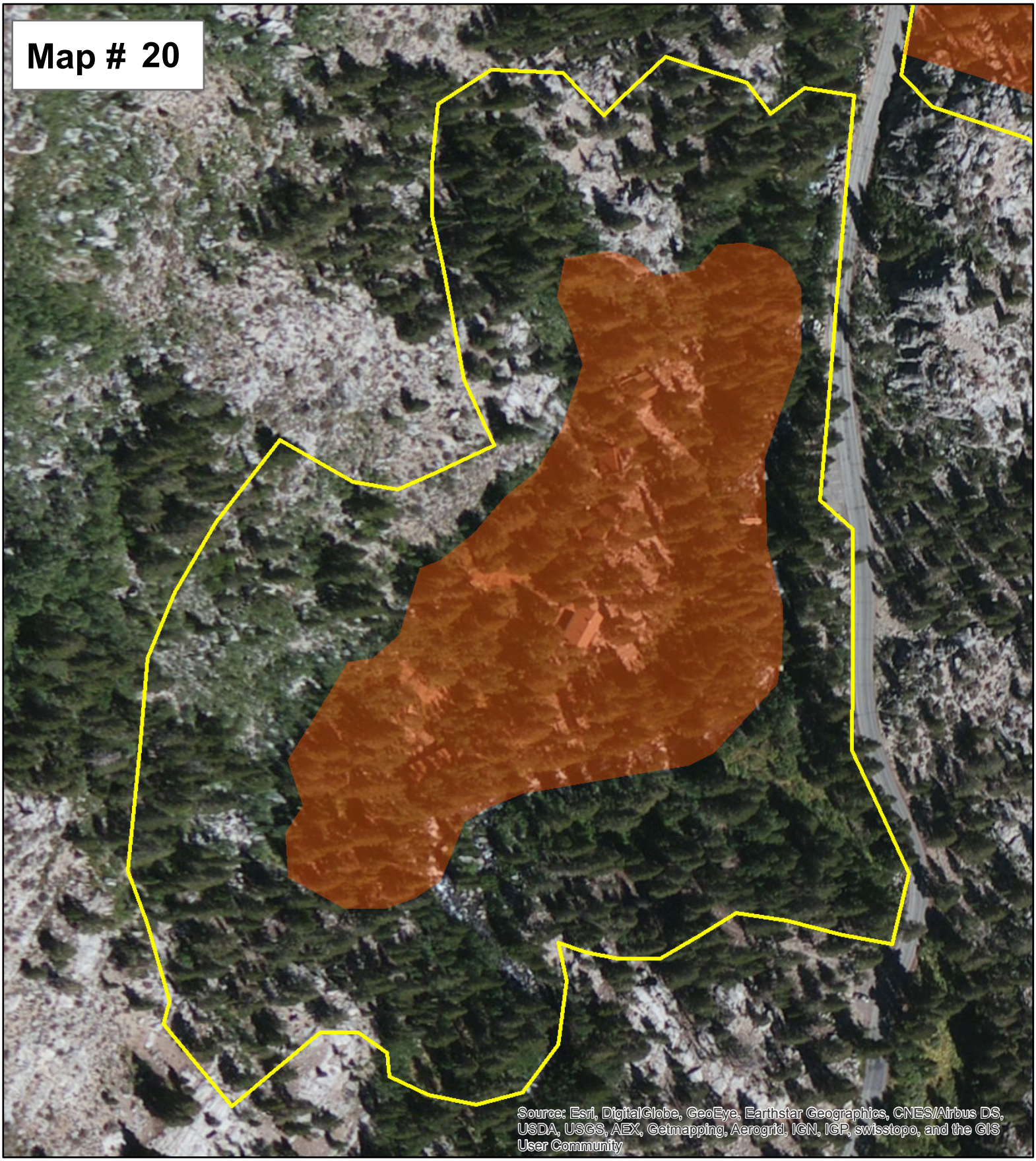
Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Unit Name(s): **Parchers Resort**
Unit Number(s): **23**
Inital Fuelbreak Design Acres (approx): **12**

Feet
0 145 290 580

N

Initial Fuelbreak Design
Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

0 70 140 280 Feet

N

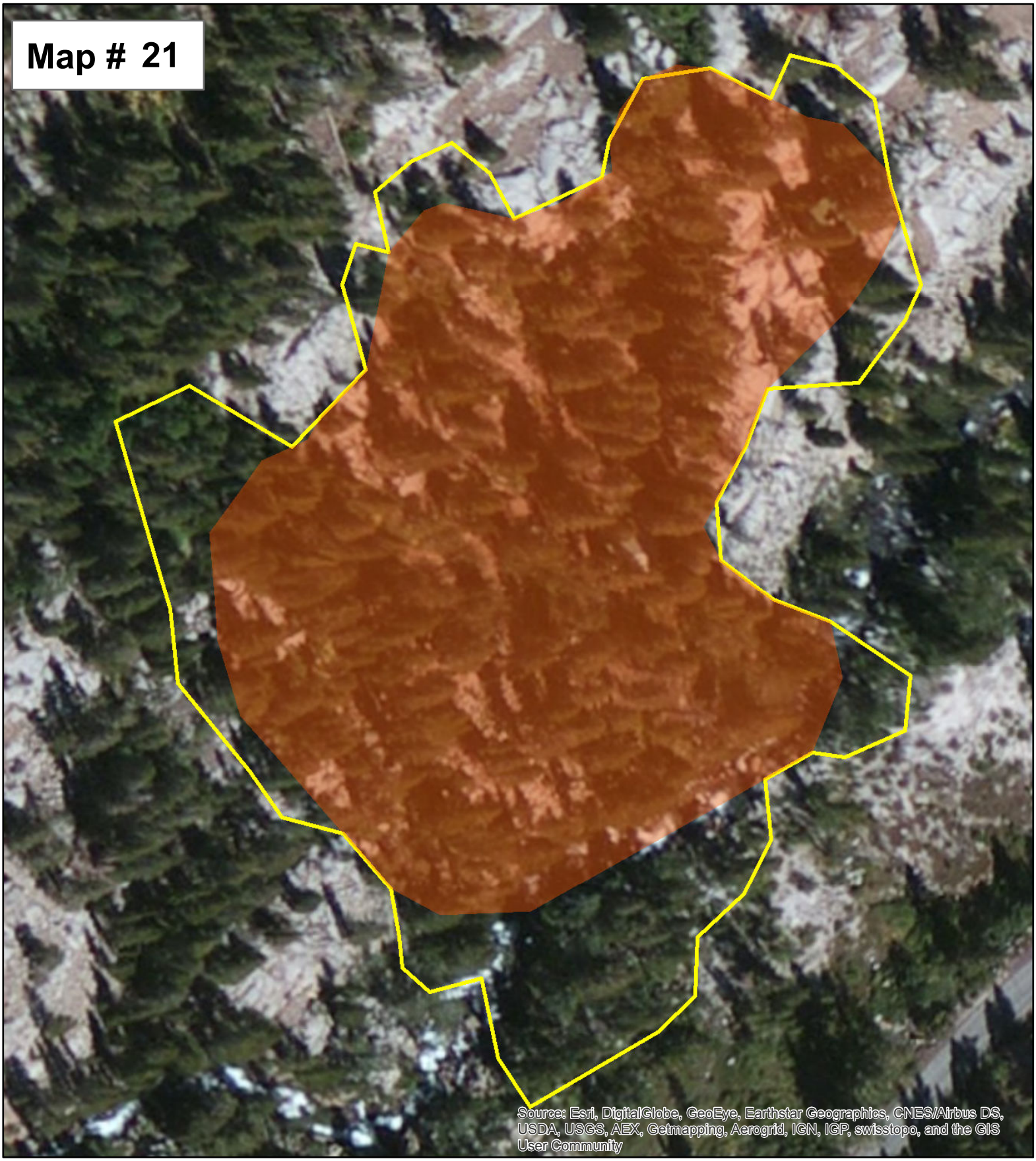
Unit Name(s): **South Fork Rec Residence Tract- Lower**

Unit Number(s): **24**

Inital Fuelbreak Design Acres (approx): **4**

Initial Fuelbreak Design

Allowable Treatment Area



Proposed Bishop and Pine Creek Fuel Reduction Project - Proposed Treatment Areas

Feet
0 37.5 75 150

N

Unit Name(s): **South Fork Rec Residence Tract - Upper**
Unit Number(s): **25**
Inital Fuelbreak Design Acres (approx): **2**

Initial Fuelbreak Design
Allowable Treatment Area

Appendix B: Bishop and Pine Creek Fuels Reduction Project Design Criteria

Air Quality

- Prior to prescribed fire operations (pile burning), appropriate permits will be obtained from Great Basin Unified Air Pollution Control Board (GBUAPCB).
- "Burn" or "No Burn" day conditions will be adhered to, as determined by the California Air Resources Board (CARB).
- Degradation of air quality in Class I Airsheds will be prevented by conducting prescribed fire operations when meteorological conditions favor smoke dispersal away from these areas.
- Prescribed fire operations will be conducted when meteorological conditions favor minimal nuisance smoke in nearby communities, recreation sites, and other developed areas.

Cultural Resources

- Identified cultural resource sites will be protected through the implementation of Approved Standard Protection Measures in accordance with the Programmatic Agreement among the USDA Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region (2013).
- Tribal concerns regarding treatment activities will be addressed throughout the course of project implementation as they become known.

Recreation

- Activities in recreational areas will be timed to have the least possible impact on visitors. Where possible, activities in campgrounds will be scheduled for after the campground closes or once use drops off in the fall.
- Personal fuelwood collection will be managed by a lottery system to control traffic and all wood will be decked in previously disturbed areas with good access. The public will not be allowed to drive off road.

Soils and Hydrology

- All work is being done to provide defensible space around structures or high use recreation sites and will be done with hand crews or low ground pressure equipment so the project qualifies for Category 1 and 2 of the Lahontan Water Quality Control Board 2014 Timber Waiver.
- All Riparian Conservation Objectives (RCOs) for Riparian Conservation Areas (RCAs are 300 feet from each perennial stream bank and 100 feet from each intermittent or ephemeral stream (SNFPA 2004)) and all applicable Best Management Practices (BMPs) for timber management, vegetative manipulation practices, and fuels management will be

implemented. The Waterbody Buffer Zone around class 1 streams is 75-150 feet depending on slope (If slope is <30%, the zone is 75 feet, if 30-50%, the buffer zone is 100 feet, if >50%, the buffer zone is 150 feet). RCOs, BMPs and Lahontan Water Quality Control Board Timber waiver criteria have been selected and combined to create a set of watershed mitigation measures for this project including the following:

- The project will not involve construction of new or widening of existing roads or watercourse crossings.
- Mechanical equipment (i.e. mower) will not be used during wet soil conditions that would adversely affect soil porosity, hydrologic function, or runoff potential. Mechanical equipment use shall be limited to slope less than 30% and when the soil is not saturated and is operable.
- The activities must not cause or create erosion, destabilization of stream banks, temperature increases in waterbodies, non-target disturbance to vegetation within WBZ, or concentrated surface runoff.
- Low ground pressure equipment will be used within Waterbody Buffer Zones (WBZs) but will not be driven across watercourse crossing (including dry ephemeral channels).
- Any generated slash will be removed, piled, and burned outside of the WBZs whenever possible. When burn piles must be placed within WBZs, they will be outside of the 100-year flood plain and over 25 feet from all water bodies.
- Chipped or slash material will not be discharged into waterbodies or deposited in locations where such material may discharge to a waterbody.
- Areas disturbed by this project will be stabilized when the operation is completed or prior to winter period.
- Fuel will not be used or stored within RCAs, except at administrative sites when it has proper containment. Equipment and vehicles will have a spill containment kit and should be inspected for fluid leaks regularly.
- Public wood gathering will not allow for driving off road.
- No landings will be constructed. All landings will be located by Forest Staff in previously disturbed areas (roads and parking lots).
- No pesticides will be used as part of this project. No Sporax™ will be used due to the lack of documented incidence of annosum root rot in or near the project area, the isolated nature of the Jeffery pine stands, and the small diameter of the Jeffery pine stumps expected (less than 14 inches).

Special Areas (Inventoried Roadless Area)

- In the four locations where there is a small overlap of treatment areas with IRA, the visual quality, recreation, wildlife, soils and hydrology, air quality and noxious weed standards will protect the characteristics of the IRA, including the hydrology design feature that prohibits any new road or landing construction or widening of existing roads.

Visuals

- Stumps will be low cut to make them less visible, less than 4 inches high where possible.
- Treatments will be designed to reduce visual contrast as much as possible. Shaded fuelbreaks will have a graduated thinning density to blend the outer edge into the unthinned stand. All fuelbreaks that have high visual sensitivity will have a wavy or

"feathered" outer edge and follow natural features as much as possible. In the outer half of shrub treatments islands of vegetation (including clumps of pinyon-juniper where it occurs) will be left to create a mosaic and reduce the visual impacts.
- In campgrounds, buffers cut around campsites will leave a strip of vegetation to maintain screening between sites as described in the site specific treatment descriptions for each campground.
- Slash piling will not occur in high use areas, including campgrounds.

Weeds

- To prevent introduction of non-native invasive plants, equipment that has operated in areas known to be infested with weeds will be cleaned prior to entering the project area. Operators will certify that equipment is weed free prior to starting operations in each unit.
- In units where localized weed populations are known or large differences exist in the abundance of weeds, treatment will be done first in the uninfested or low density areas and move to the most infested areas to prevent spread of propagules from high to low density or to completely uninfested areas.
- Post-treatment monitoring of the project area would occur to detect any new or spreading of existing noxious weed populations. If noxious weed treatment becomes necessary, the method, intensity and timing of such treatment will be analyzed, disclosed and documented in a separate environmental analysis.
- In lower elevation areas where cheatgrass is abundant, seeding with native herbaceous species will be used to compete with cheatgrass as described in the seeding native species method above.
- At the Pine Creek Pack Station site the known occurrence of hairy whitetop (*Cardaria pubescens*) will be treated by covering with a secure opaque cover such as plastic and geotextile before operations begin to attempt to eradicate it and prevent spreading during treatment.
- In the Aspendell unit spotted knapweed (*Centaurea stoebe* ssp. *micranthos*) occurring on federal lands will be treated by hand pulling or other available methods (see "covering" method for hairy whitetop described above) before operations begin. The co-located population of curlytop gumweed (*Grindelia squarrosa* var. *serrulata*) will also be treated.

Monitoring Plan

- A Vegetation Management specialist or qualified representative will visit the sites during and after implementation to verify that project specifications are met and to qualitatively assess if desired conditions were achieved.
- Treatment units will be entered into the pool for selection of a subset of project sites for fuel treatment effectiveness monitoring as a part of the Interagency Inyo National Forest and Bishop BLM Fuels Programatic Monitoring Program.
- Post treatment noxious weed monitoring will be conducted (see Noxious Weed Design Criteria above).