Draft Final Environmental Assessment for the Wildland Urban Interface Program Management Plan for The Morongo Band of Mission Indians

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Prepared for:

The Morongo Band of Mission Indians
12700 Pumarra Road
Banning, California 92220

Prepared by:

Tetra Tech, Inc.
4900 Pearl East Circle Suite 300W
Boulder, Colorado 80301

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APPENDIX

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Full Name or Phrase
°F	Degree Farehnheit
AHPA	Archaeological and Historic PReservation Act
ARPA	Archaeological Resources Protection Act
BIA	The Bureau of Indian Affairs
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOI	Department of Interior
DEA	Draft Environmental Assessment
EA	Environmental Assessment
ESA	Endangered Species Act
GIS	Geographic Information Systems
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
planning area	Area within the WUI boundary
PMP	Program Management Plan
PM_{10}	Particulate Matter less than 10 microns
$PM_{2.5}$	Particulate Matter less than 2.5 microns
Reservation	The Morongo Indian Reservation
SBNF	San Bernardino National Forest
SHPO	State Historic Preservation Office
Tribe	Morongo Band of Mission Indians
USC	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WWTP	Wastewater treatment plant
WUI	Wildland Urban Interface

CHAPTER 1
PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

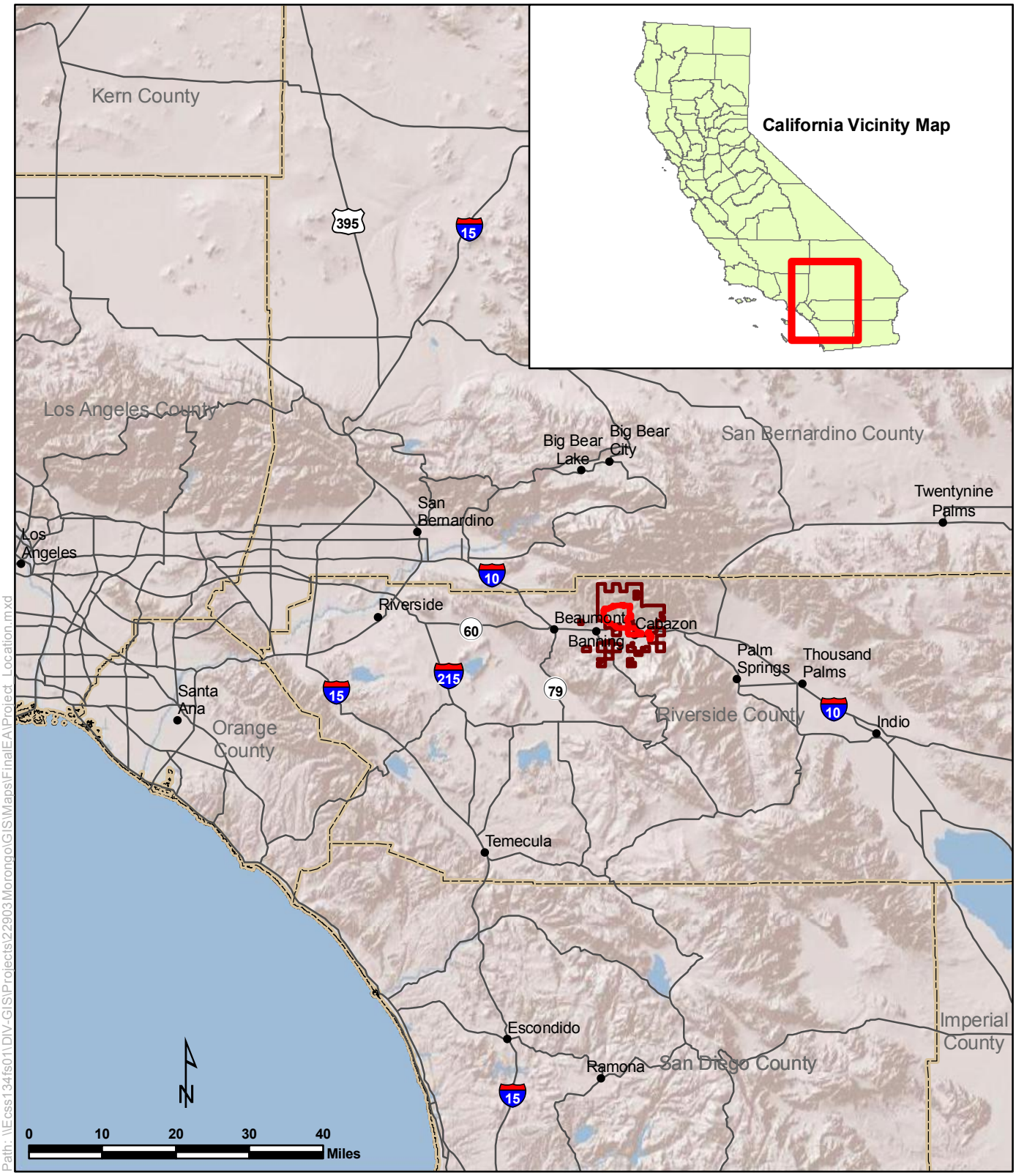
The Reservation for the Morongo Band of Mission Indians (Tribe), which encompasses over 36,000 acres, is located in southern California in Riverside County (Figure 1-1). The Tribe is committed to protecting lives and the environment through a comprehensive programmatic approach. A key element is the reestablishment of a Wildland Urban Interface (WUI) program and the development of a WUI Program Management Plan (PMP).

The WUI is that area or zone where structures and other human developments meet or intermingle with undeveloped wildland or vegetative fuels. The WUI planning area is composed of 6,800 acres within the Reservation and consists of dispersed low-density development with a checkerboard pattern (Figure 1-2). The Morongo WUI PMP provides a fuel management strategy to reduce and manage wildland fire hazard within the WUI planning area, and particularly to protect the developed portions of the planning area.

This Environmental Assessment (EA) is an analysis of any potential effects on the human environment that would result through a continuation of current fuel reduction activities or through implementation of the changes to fuel reduction activities outlined in the WUI PMP. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, because the Tribe anticipates federal funding for its fuel reduction activities.

1.2 BACKGROUND

Wildland fire is a natural part of the landscape in the WUI planning area. Historically, the average fire size has been 322 acres. On average, 1,359 acres have burned each decade since 1900. The 1970s are the exception, with 5,350 acres burned. Trends in average acres burned per year and average acres burned by decade appear to be stable. The number of fires each decade also was relatively stable, with only two fires occurring most decades until the 1970s, when 10 fires occurred. The 1980s also had a higher than average number of fires, with seven fires during that decade. In the 1990s, the number of fires dropped to three, which is almost as low as the typical number per decade at the beginning of the century.



Note: The project area is on the Morongo Indian Reservation, which is near the town of Banning in Riverside County, California.

Legend

- Cities
- Roads
- WUI Planning Area
- Reservation Boundary
- Counties

Project Location

Morongo Indian Reservation, California

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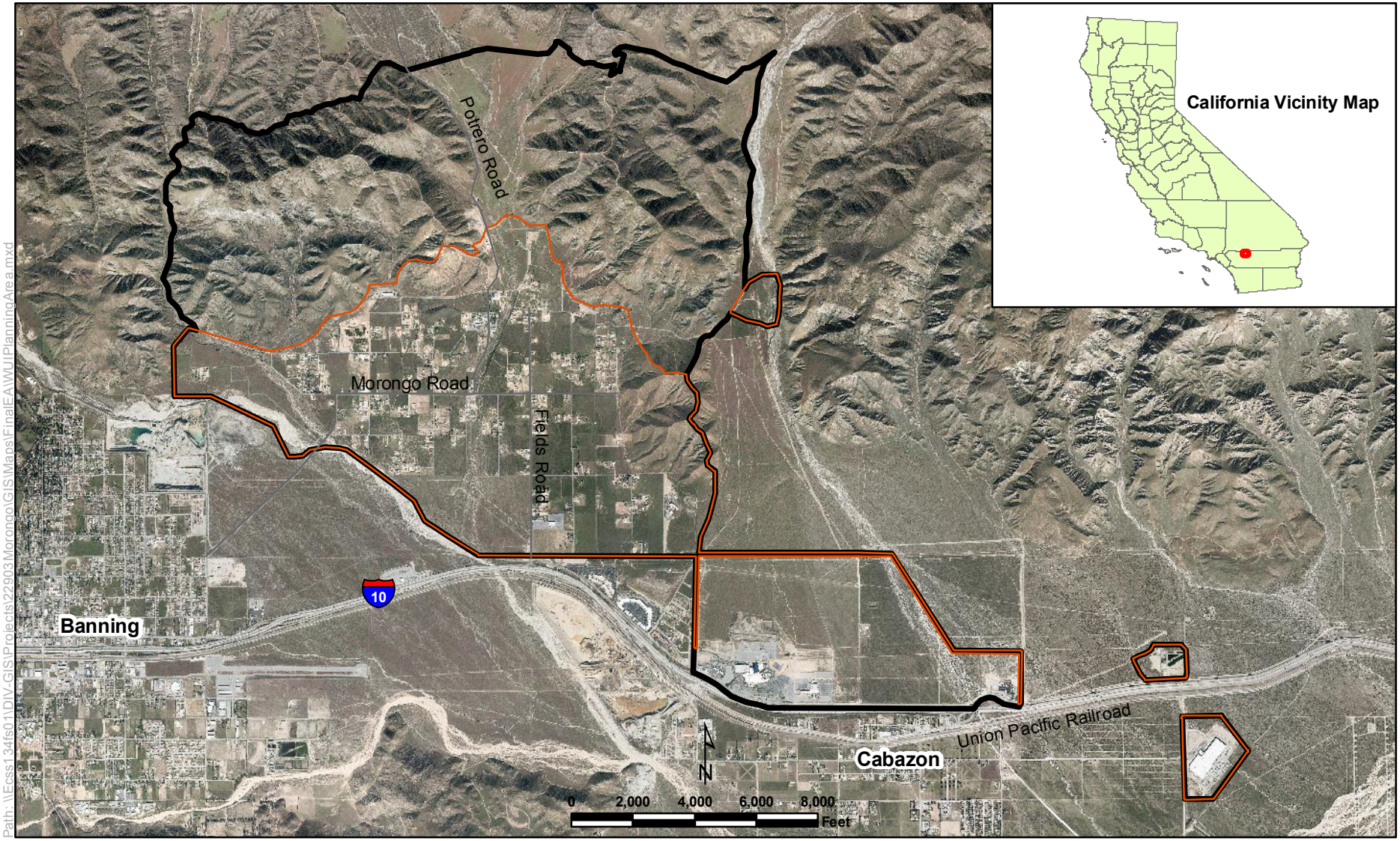
Figure 1-1



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Note: The wildland urban interface (WUI) Planning Area extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.

WUI Planning Area
Morongo Indian Reservation, California

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Figure 1-2

Improved fire suppression techniques and implementation of fuel reduction projects have contributed to a minor decline of fire since the 1980s. However, it is likely that after nearly 30 years of fire suppression, fuel loading in many communities has increased and with it the probability of extreme fire behavior. Furthermore, continued invasion of shrubland understory by nonnative herbaceous species has also increased fuel loads in the planning area. Vegetation communities that once acted as natural firebreaks may no longer stop or slow the spread of fire.

1.3 PURPOSE AND NEED FOR THE ACTION

The purpose of the WUI PMP is to develop and implement a programmatic approach to fuel reduction activities on the Morongo Reservation that will reduce the potential for wildland fire spread and will mitigate risks to lives, property, and other resources on the Reservation. The purpose of this EA is to assess the environmental, social, cultural, and cumulative effects of the activities described in the WUI PMP.

The WUI PMP and implementation of the fuel reduction activities it outlines are needed due to the risk of wildland fire in the area. The risk of wildland fires has increased over time due to increasing fuel loads, vegetation alteration, increased building and activity in the WUI, and potential changes in climate, all of which contribute to changes in fire behavior. The combination of these factors may result in larger fires with more extreme fire behavior. Consequently, a programmatic approach to implementing fuel reduction activities on the Morongo Reservation is needed to address the increased risk to lives, property, and other resources from wildland fire.

The EA is needed to comply with the NEPA, which requires that federal agencies analyze the potential effects of their actions on the human environment. Although the Tribe is not a federal agency, it does receives federal funding, thereby triggering the need for NEPA compliance.

1.4 RELEVANT STATUTES, REGULATIONS, AND OTHER PLANS

All federal statutes and implementing regulations that could potentially be applicable to the proposed project were considered during preparation of the EA; these statutes and regulations are described below and are as follows:

- National Environmental Policy Act of 1969, as amended;
- Council on Environmental Quality Regulations for implementing NEPA;
- The Department of Interior regulations for implementing NEPA;
- Endangered Species Act;
- Migratory Bird Treaty Act;
- Archaeological and Historic Preservation Act;
- Archaeological Resources Protection Act;
- Clean Air Act;

- Clean Water Act;
- Fish and Wildlife Conservation Act; and
- Historic Sites Act.

The National Environmental Policy Act of 1969, as amended, 42 United States Code (USC), Section 4321. The NEPA was enacted "to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment." NEPA requires all federal agencies to prepare environmental documentation that assesses the environmental, social, cultural, and economic impacts from project alternatives.

The Council on Environmental Quality (CEQ) Regulations for Implementing NEPA, 40 Code of Federal Regulations (CFR), Parts 1500-1508. The CEQ regulations are applicable to and binding on all federal agencies for implementing the procedural provisions of the NEPA.

Department of Interior Regulations. The Bureau of Indian Affairs (BIA) defers to Department of the Interior (DOI) regulations for implementing NEPA. This EA complies with DOI implementing regulations.

The Clean Air Act and Amendments (CAA), as amended 1970, 1990, 42 USC, Section 7609. The CAA was enacted in 1970 to address air pollution at the federal level. It requires the US Environmental Protection Agency (EPA) to set national ambient air quality and emission standards. The 1990 CAA amendment also created the framework for a permit program for large point sources of air contaminants.

The Clean Water Act (CWA), as amended, 1972, 1977, 1981, 33 USC, Section 1251. The CWA makes it unlawful for any person to discharge a pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA is the cornerstone of surface water quality protection in the United States. Section 404 of the CWA also regulates the discharge of dredge or fill material into wetlands and other waters of the US.

The Endangered Species Act (ESA) of 1973, 16 USC, Section 1536. The ESA protects threatened and endangered plants and animals and their habitats. The US Fish and Wildlife Service (USFWS) of the DOI implements the ESA at a national level. The law prohibits any action, administrative or real, that results in a "taking" of a listed species or that adversely affects habitat. Section 7 of the ESA mandates coordination with the USFWS on listed species.

The Migratory Bird Treaty Act of 1918, 17 USC, Section 703-712. This act decreed that all migratory birds and their parts (including eggs, nests and feathers) are fully protected. Under this act, killing, taking or possessing migratory birds is unlawful. The USFWS maintains of a list of bird species that are protected by the Migratory Bird Treaty Act.

Fish and Wildlife Conservation Act of 1980, 16 USC, Sections 2901-2912. This act authorizes financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

Historic Sites Act of 1935, 16 USC, Sections 461-467. The Historic Sites Act establishes a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the American people. The act authorizes the designation of national historic sites and landmarks, authorizes interagency efforts to preserve historic resources, and establishes a maximum fine of $500 for violations of the act. It also authorizes surveys of historic and archaeological sites, buildings, and objects to determine which are significant and provides for the restoration, reconstruction, rehabilitation, preservation, and maintenance of historic or prehistoric properties of national significance.

National Historic Preservation Act of 1966, as amended, 16 USC, Section 470. The NHPA directs federal agencies to integrate historic preservation into all activities that either directly or indirectly involve land use decisions. Section 106 of NHPA requires federal agencies to consider the impact that an action may have on historic properties that are listed on, or eligible for listing on, the National Register of Historic Places. The Section 106 review process is usually carried out as part of a formal consultation process that includes the State Historic Preservation Office (SHPO).

The Archaeological and Historic Preservation Act (AHPA) of 1974, 16 USC, Section 469 et seq. This act provides for the preservation of cultural resources if an activity may cause irreparable loss or destruction of significant scientific, prehistoric, or archaeological data. In accordance with the AHPA, the responsible official or the Secretary of the Interior is authorized to recover and preserve data.

The Archaeological Resources Protection Act (ARPA) of 1979, **16 USC, Sections 470aa-470mm**. The ARPA was enacted to protect archaeological resources on public and Indian lands. The primary impetus behind ARPA is the need to provide more effective law enforcement to protect public archaeological sites. Section 4 of the statute and Sections 16.5-16.12 of the uniform regulations describe the requirements that must be met before federal authorities can issue a permit to excavate or remove any archaeological resource on federal or Indian lands.

CHAPTER 2
DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVE

2.1 INTRODUCTION

The Morongo Band of Mission Indians is proposing to implement a WUI PMP to protect lives, property, cultural and religious resources, and other key resources on the Morongo Indian Reservation. Three objectives have been identified to help achieve the goal of protecting life and property: to provide safe and effective locations for fire suppression, to reduce the amount of fuel around structures in the planning area, and to reduce the spread of noxious weeds that contribute to fuel hazards.

The planning process included collaboration with representatives of the Tribe, especially the Morongo Environmental Protection Department. The first step of the planning process involved data gathering and identification of plans, studies, reports, and other technical documents previously prepared for the Morongo Indian Reservation. Then, the current fire environment was documented for use in the No Action Alternative. To address the Tribe's desire to meet goals and reduce the visual impacts, the current management was reviewed and modifications were suggested that resulted in the Proposed Action.

The following section is a description of the alternatives considered and provides rationale for developing the Proposed Action, which also illustrates the differences between the current management (No Action Alternative) and the Proposed WUI PMP.

The analysis area for this document is the WUI Planning Area, defined in the Draft WUI PMP. "Fuels" refer to vegetation that burns in wildland fires.

2.2 NO ACTION ALTERNATIVE

The No Action Alternative is a continuation of current management. Ongoing activities would include maintaining firebreaks on an as needed basis, disking roadsides and public areas, and chemically treating or removing weeds near homes and other structures to reduce the accumulation of fine fuels. Current management would be implemented as funding and

time allows. In addition, the current levels of community outreach and education on weed identification and wildland fire awareness would continue.

2.2.1 Firebreaks

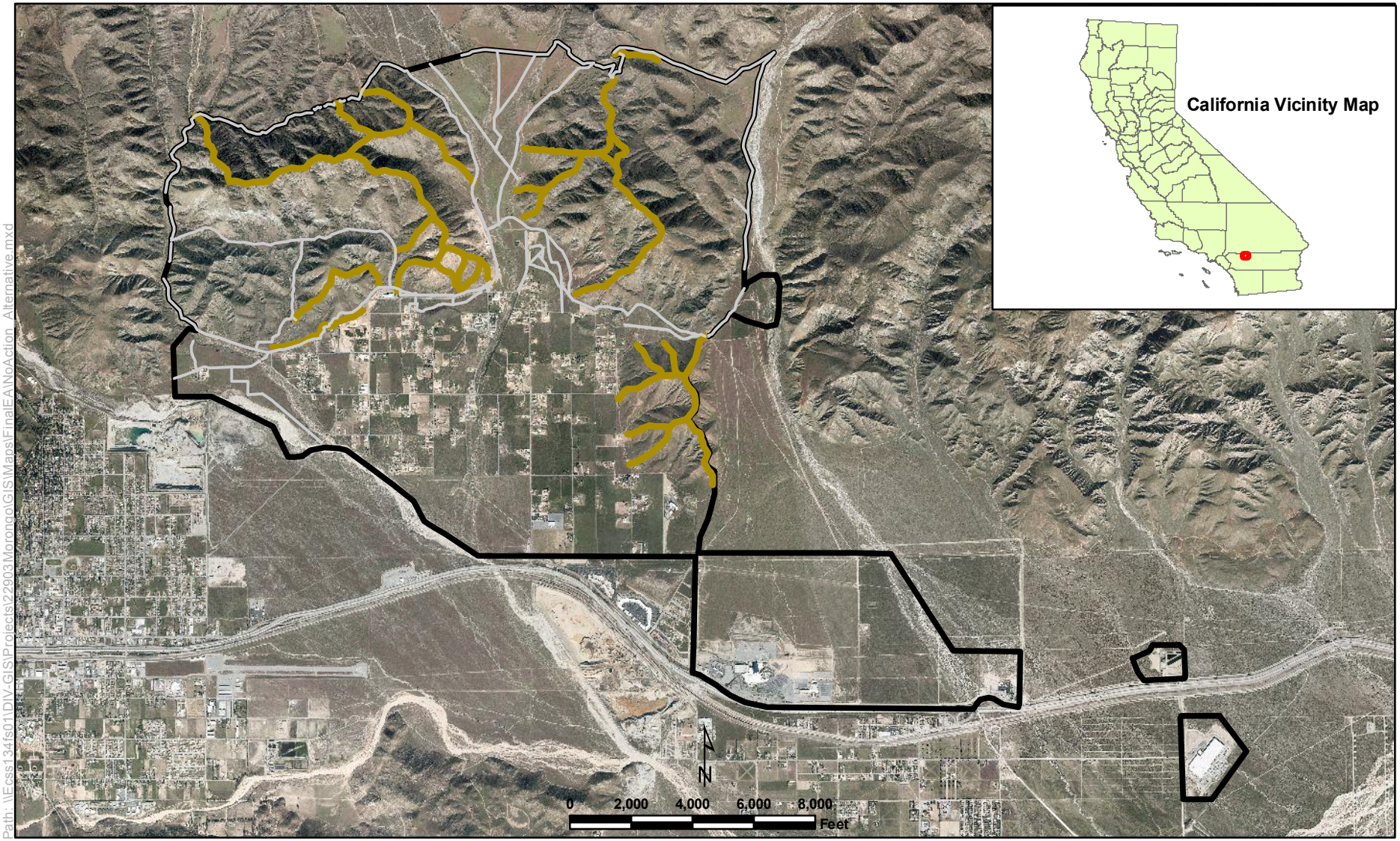
Under the No Action Alternative, approximately 13.85 miles (42.0 acres[1]) of firebreaks would continue to be maintained (Table 2-1). Figure 2-1 presents the firebreaks to be maintained under the No Action Alternative.

Under the No Action Alternative, all firebreaks would be maintained once every four years on average. Maintenance typically involves using a bulldozer or similar equipment to remove surface vegetation and expose mineral soil. Maintenance would be necessary to ensure that shrubs, forbs, and grasses do not become reestablished and that fine fuels do not accumulate in designated firebreaks. These areas are intended to slow or stop the progression of a fire (by eliminating fuel), to provide access for fire suppression, and to provide a safety zone for firefighters.

Table 2-1
Firebreaks to be Retained under the No Action Alternative

Firebreak Number	Length in Miles
13	2.67
14	0.47
15	0.21
16	0.24
17	0.23
18	0.80
19	0.34
20	0.30
21	0.33
30	1.15
31	0.20
32	0.43
52	0.29
53	0.67
54	0.15
55	0.13
56	0.48
57	0.53
58	0.24
59	1.24
60	0.25
61	0.42
62	0.23
63	0.34
64	0.79
65	0.27
66	0.47
Total Length	13.87

[1]Assumes firebreaks are an average of 25 feet wide.



Note: The wildland urban interface (WUI) extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.

No Action Alternative
Morongo Indian Reservation, California

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Figure 2-1

2.2.2 Weed Control

Weed control in the form of disking of public areas and roadsides would continue as resources allow. Mechanical treatment (i.e., weed whacking and pulling) of weeds would continue, as well as spot application of herbicide to reduce fine fuels. No formal inventory of species or treatment schedule would be developed, with random treatment continuing to occur annually. However, without an inventory of existing noxious species, disking would not be optimally timed; that is, if disking were to occur after the species had gone to seed, it would contribute to the establishment and likely success of noxious species in the disked areas.

Ongoing fine fuel reduction measures include disking open public areas and roadsides, weed whacking and hand pulling weeds and grasses near structures, and occasional use of herbicides for spot application. Areas within a 150 foot radius of residences would be subject to weed control activities. Areas of concern for treatment would be identified through complaints from neighbors or observation by the Public Works Department.

2.3 PROPOSED ACTION

The Tribe is proposing to implement a WUI PMP. The PMP proposes prioritizing the need and effectiveness of firebreaks for prolonged maintenance, establishing a timely maintenance schedule for firebreaks and weed control, and beginning an education program using materials and information from the National Firewise Communities (Section 2.3.3). The Tribe is concerned that some of the firebreaks are unattractive and unnecessary.

2.3.1 Firebreaks

Under the Proposed Action, the Tribe would retain 9.61 miles (29.06 acres[1]) of firebreaks and would abandon about 4.0 miles of firebreaks. Table 2-2 indicates the proposed management of the existing firebreaks. In addition to firebreaks, 23 miles of maintained paved or dirt road in the WUI Planning Area act as firebreaks. Figure 2-2 shows the location and management of firebreaks and roads under the Proposed Action. Identification of the firebreaks to maintain under the Proposed Action considered the following factors:

- Firebreaks should tie into an existing anchor point (a road or existing firebreak);
- Firebreaks should be located at the head of drainages and along ridgelines; and
- Redundant firebreaks should be avoided.

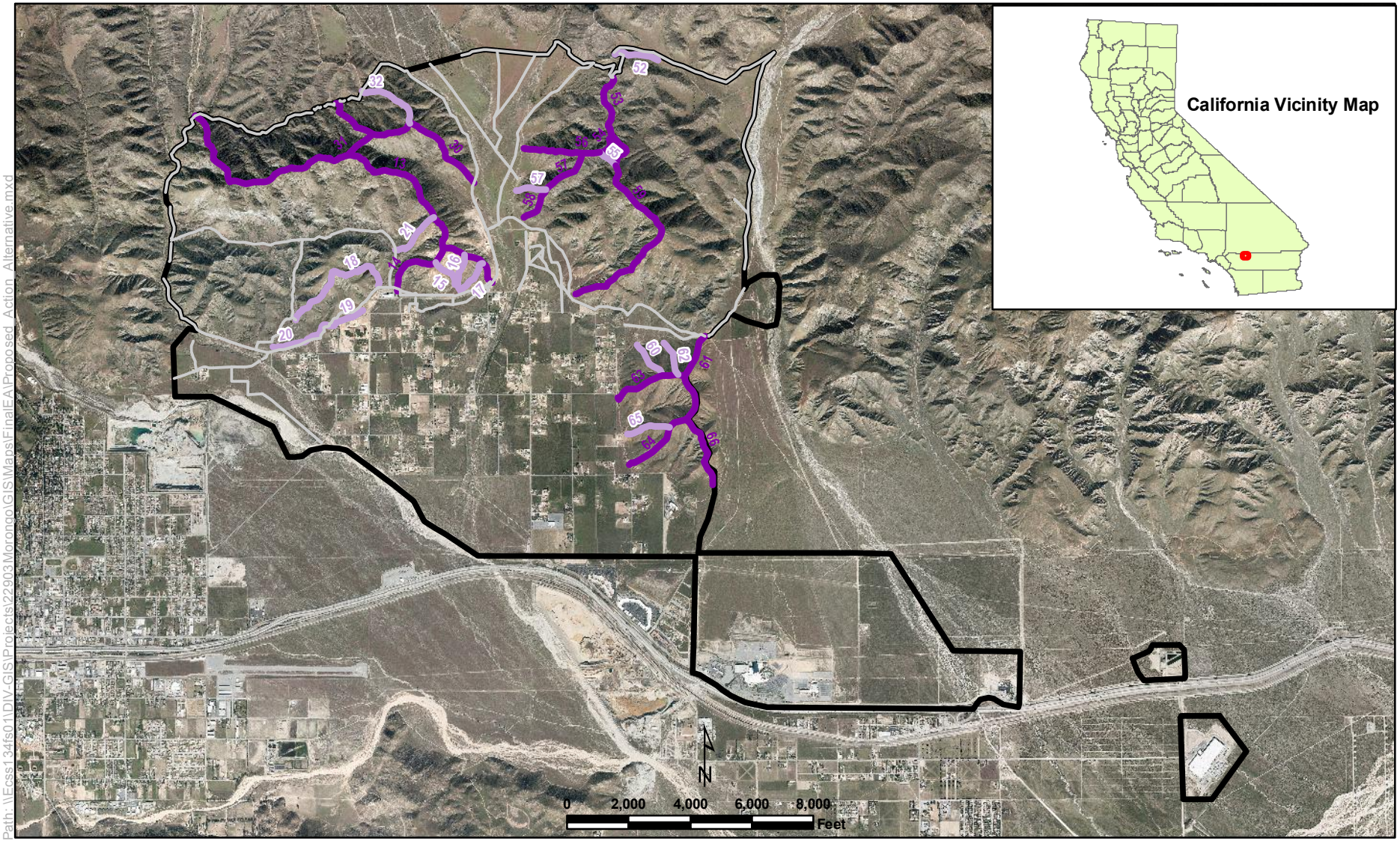
Table 2-2 presents the rationale for retaining or abandoning existing firebreaks, based on the criteria listed above. Most firebreaks that would be abandoned are redundant and therefore do not provide additional protection. Abandoned firebreaks would be left to revegetate naturally.

Table 2-2
Firebreaks to be Retained under the Proposed Action Alternative

Firebreak Number	Length in Miles	Proposed Action Alternative
13	2.67	Retain—long ridgeline location, good anchor.
14	0.47	Retain—ridgeline location, good anchor.
15	0.21	Abandon—one of many firebreaks in a small area.
16	0.24	Abandon—one of many firebreaks in a small area.
17	0.23	Abandon—one of many firebreaks in a small area.
18	0.80	Abandon—appears to duplicate fuel breaks created by roads.
19	0.34	Abandon—appears to be on or adjacent to maintained dirt road.
20	0.30	Abandon—appears to be on or adjacent to maintained dirt road.
21	0.33	Abandon—Duplicated by Firebreak 13.
30	1.15	Retain
31	0.20	Retain—abandoning this short break will provide a long stretch of a draw ,which can act as a "chimney," funneling fire from the east. If this firebreak is retained, the northwestern portion of Firebreak 30 could be eliminated.
32	0.43	Abandon—duplicative with Firebreak 30.
52	0.29	Abandon—duplicated by road.
53	0.67	Retain—part of ridgeline firebreak.
54	0.15	Retain—part of ridgeline firebreak.
55	0.13	Abandon—duplicated by Firebreaks 53, 56, and 59.
56	0.48	Retain—tie into road.
57	0.53	Retain all but the end where Firebreak 58 comes in (retain .34 mile, abandon .19 mile).
58	0.24	Retain—Firebreak 58 appears to tie into the road at a better location and protects more area next to the road.
59	1.24	Retain—long ridgeline firebreak.
60	0.25	Abandon—does not provide much additional protection than Firebreak 61, does not have an anchor.
61	0.42	Retain—ridgeline firebreak near residential area.
62	0.23	Abandon—duplicates Firebreaks 61 and 64.
63	0.34	Retain—tie into road.
64	0.79	Retain—tie into road.
65	0.27	Abandon—duplicates Firebreak 64.
66	0.47	Retain—ridgeline firebreak.
	9.61	Total Miles of Retained Firebreak

Assumes firebreaks are an average of 25 feet wide.

Most vegetation communities in the WUI Planning Area are well adapted to fire and species readily reestablish following fire or other disturbance. Maintenance would be necessary to ensure that shrubs, forbs, and grasses do not reestablish and that fine fuels do not accumulate in designated firebreaks. Under the Proposed Action, roughly half, or 4.8 miles, of the firebreaks would be maintained one year and the other half would be maintained the following year. This would result in a two-year maintenance rotation for all firebreaks, which would allow annual grasses to recolonize following disturbance but would inhibit perennial shrubs from reestablishing. While some shrub species readily sprout from the root crown or underground buds following fire, semi-annual disking and scarifying firebreaks to expose bare soil would impede their reestablishment, and eventually most of the shrubs would be removed from the firebreaks. Maintaining firebreaks every four years (as is the current management, described under the No Action Alternative) may not be adequate to produce highly effective firebreaks.



Note: The planned management of firebreaks is as initially determined by the Tribe.

Proposed Action Alternative
Morongo Indian Reservation, California

Firebreaks
- Retain
- Abandon
- WUI Planning Area
- Dirt Roads Acting as Firebreaks

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Figure 2-2

Monitoring would occur annually to ensure that firebreaks and road sides are not becoming overgrown and that treatments are effective. Following fire in the area, firebreaks would be evaluated to determine if they served their intended purpose for access and for stopping or slowing fire progress.

2.3.2 Weed Control

Weed control around structures and near travel corridors is ongoing in the WUI Planning Area and would continue under the Proposed Action. Annual weed buildup provides a source of fine flashy fuels with the potential to carry wildland fires. Removing weeds from open fields and from around structures decreases the fire hazard in those areas. Therefore, identification and treatment of areas in need of fuel reduction would occur twice annually during spring and fall. Spring treatments would reduce emergence and fall removal would reduce or eliminate seed production. While weed control is part of the No Action Alternative, scheduled treatments are not part of the current management.

In addition to the ongoing fine fuel reduction measures described under the No Action Alternative (disking open public areas and roadsides, weed whacking and hand pulling weeds and grasses near structures, and occasional use of herbicides for spot application) high-risk areas prone to fine fuel buildup would be documented and monitored annually. Furthermore, the Tribe would encourage private landowners to offer weedy or fallow areas for disking to reduce fine fuel loads and to eliminate a source of weed seed in the community.

Education and awareness programs would be focused on identifying weed species and reducing fuels around structures (see Firewise Communities for more resources, at www.firewise.org). The University of California Cooperative Extension Weed Research and Information Center (http://wric.ucdavis.edu/) provides online resources and numerous training opportunities. For example, the Tribe council could facilitate a community forum on weed identification and identification of areas of concern for fine fuel buildup in the community. This exercise would inform participants as to the local weeds in the area and the importance of clearing fine fuels from around structures in weedy areas.

In addition, monitoring would be done each fall to ensure that weed control treatments are effective. After a fire, treated areas should be evaluated to assess whether they served their intended purpose for stopping or slowing the progress of a fire.

2.3.3 Firewise Communities

Firewise communities are those that have taken responsibility for planning and implementing safer home construction and design, landscaping, and maintenance, as well as better organizing emergency response in case of wildland fire. As part of the National Fire Protection Association, the Firewise Communities program encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks (Firewise 2012). Under the Proposed Action, the Tribe would strive to implement the principles of a firewise community by increasing awareness and by implementing wildland

fire safety techniques on private property. Some important features of a firewise community that would reduce risk to firefighters, the public, and natural resources are as follows:

- Improve each "home ignition zone," which is the house and surrounding area up to 100 feet;
- Plant only fire-resistant ground covers, shrubs, and trees within 30 feet of a home or structure;
- Use construction materials that are one-hour fire rated (fire-resistant) or noncombustible, such as stucco and brick;
- Install a Class-A roof assembly of asphalt shingle, clay tile, or slate roofing materials;
- Provide wide and easy access to homes for emergency response vehicles; and
- Ensure that streets and addresses are clearly marked.

CHAPTER 3
AFFECTED ENVIRONMENT

3.1 INTRODUCTION

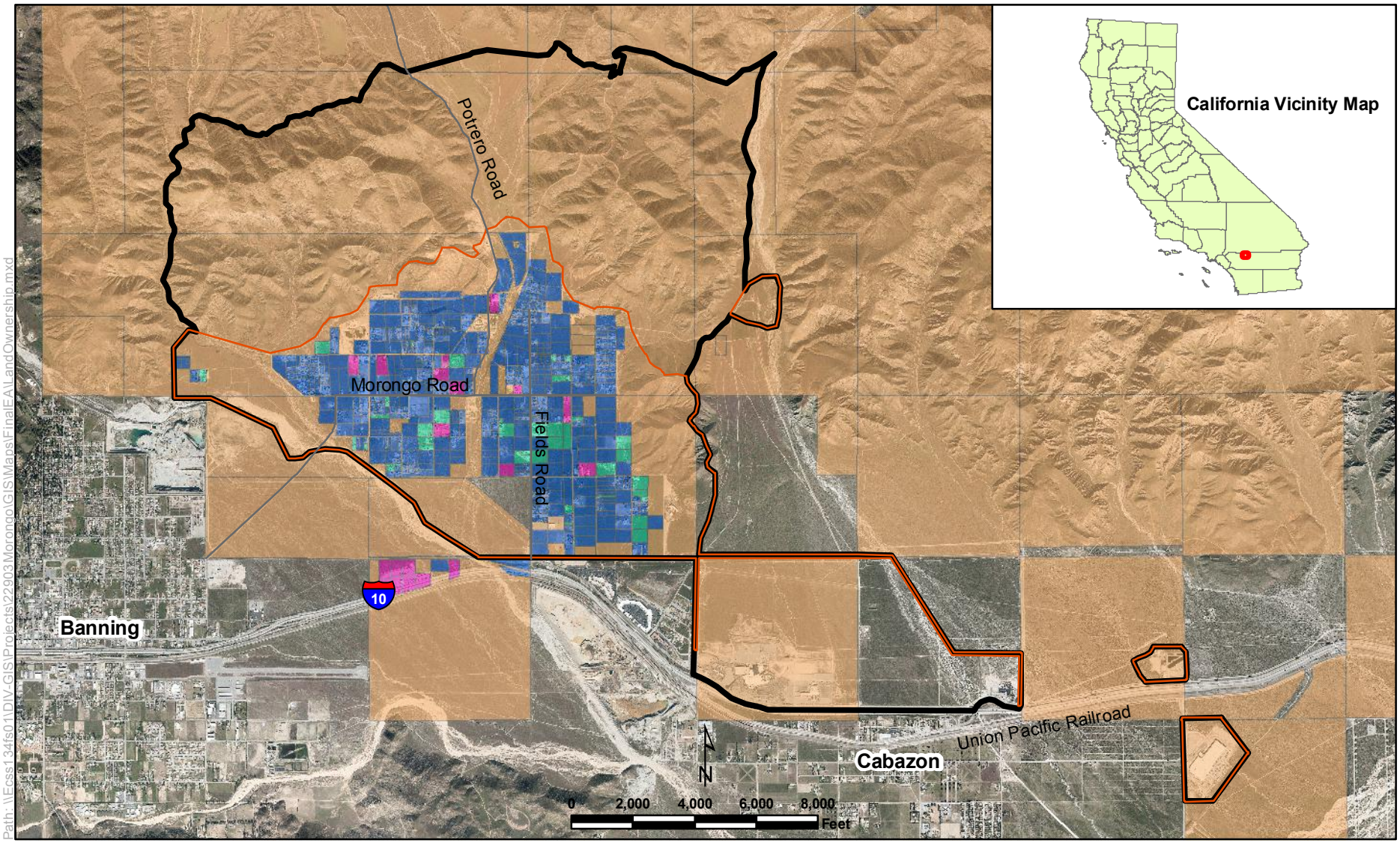
This chapter is an overview of the existing environment within the WUI planning area. It summarizes investigations of the condition of each resource. Most information was provided by the Tribe, with additional information compiled from public and private sources. Data included published and unpublished reports, maps, and digital file format (Geographic Information System). Some data were based on field investigations.

3.2 LAND USE

The Morongo Indian Reservation was established through a series of Executive Orders issued in 1876 and 1877. The Reservation is composed of over 36,000 acres bordering both the San Bernardino and San Jacinto Mountains. The Morongo Reservation lies primarily within the foothills and lower portions of the San Bernardino Mountain Range.

The WUI planning area is 6,800 acres (Figure 1-2), approximately 21 percent of the total area of the Reservation. The general land use pattern within the planning area is dispersed low-density development. A large portion of the planning area remains undeveloped, although much of the land in the foothills of the San Bernardino Mountains, north of Interstate 10 has been cleared by development (NRCS 2003). Portions of the planning area have specialized uses, including the wastewater treatment plant (WWTP) and the Arrowhead Bottling Plant.

Developed land in the planning area that is used primarily for housing covers approximately 2,400 acres. This centralized community area is north of Interstate 10 in the foothills of the San Bernardino Mountains (NRCS 2003). The four types of lands in this area are tribal land (915 acres), individually allotted land (1,280 acres), mineral allotted land (110 acres), and fee land (95 acres) (NRCS 2003) (Figure 3-1). The tribal lands are primarily open lands, with the predominant ground cover of grass and shrubs. The individually allotted and fee lands contain parcels that range from five to twenty acres and contain mostly single-family dwellings (houses and mobile homes) and various other buildings. Some of these parcels also have irrigated pastures with livestock (primarily horses) and horse paddocks (NRCS 2003).



11Note: The wildland urban interface (WUI) Planning Area extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.

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Land Ownership
Morongo Indian Reservation, California

Figure 3-1

The San Bernardino National Forest (SBNF) northwest of the planning area is managed by the US Forest Service (USFS). The SBNF is historically one of the most wildland fire prone forests in the country (USFS 2008). The USFS implements the National Fire Plan and other specialized prevention, restriction, and response plans to deal with fire threats in the SBNF.

Communities surrounding the planning area include the cities of Banning and Cabazon. Banning is less than a mile from the western portion of the planning area and Cabazon is next to the southern portion of the planning area, south of Interstate 10. Banning is an incorporated city while Cabazon is unincorporated and serviced by Riverside County.

There are no local land use management plans for the planning area. The Tribe makes all land management decisions within the boundaries of the planning area. In addition, there are no specific zoning regulations for the planning area. Riverside County has adopted a general plan to guide development and land use decisions in the county, but the general plan and its policies do not apply to Indian lands.

In general, there is only limited development and conversion of land for use in the planning area. Residential development is generally slow and is limited by a set amount of available allotments (Mandly 2008). There is no current trend for residential development near the WUI boundary, although development could occur at any point in the future (Mandly 2008). Development in the planning area is mostly confined to established areas of residential and commercial use. Development of commercial, business, and government uses tends to occur near portions of the WUI boundary that are close to Interstate 10, such as the Morongo Casino and the new Administrative Building.

3.2.1 Structures/Density

Virtually all of the built structures in the planning area are north of Interstate 10. Dwelling areas and other structures within the planning area are generally dispersed, with a low density and in pocket areas of development.

There were 357 housing units on the Morongo Reservation in 2009, the most predominant of which were single-unit detached homes (266 units) and mobile homes (91 units). Most housing units (77 percent) were built since 1970 (US Census Bureau 2010).

Construction methods vary widely within the planning area, with no distinguishable pattern for specific styles (Mandly 2008). Materials used for roofing, siding, and other components also vary in the planning area and are likely to represent the full range of available materials. Landscaping in residential areas is generally nonintensive, with each house representing the preferences of the individual owner.

3.2.2 Businesses/Commercial/Community

All commercial and business structures on the Morongo Indian Reservation are within the planning area. In general, service and administration structures are dispersed within the housing areas, along Fields Road, Foothill Road, Pumarra Road, and Potrero Road (Figure 1-2).

The 27-story Morongo Casino, Resort and Spa occupies 44 acres just north of Interstate 10. The casino was completed in 2004 (Morongo Tribe 2008a). The casino is one of the largest in California and offers a variety of entertainment activities, included gaming, shows, live music, and sporting events. The casino attracts visitors from around the world and helps support the local economy on the Reservation.

The Arrowhead Bottling Plant occupies 22.7 acres south of Interstate 10 in the eastern portion of the planning area. The plant was completed in 2002 (McCarthy 2002). When the plant is fully built-out, it is expected to be the largest water bottling plant in the United States (Inland Empire Business Journal 2002). The plant was designed to meet US Green Building Standards and won an award in 2004 from the national Leadership in Energy and Environmental Design program, which recognizes environmentally responsible buildings.

The Morongo WWTP is in the eastern portion of the planning area, north of Interstate 10, across from the Arrowhead Bottling Plant. The WWTP treats sewage and waste from businesses in the planning area, including the casino, Tribal Enterprises, and the Arrowhead Bottling Plant (Mandly 2008).

The recently completed Morongo Administrative Building is approximately 6,000 feet northwest of the casino, just north of Interstate 10 and has been occupied since November 2008. The Administrative Building is the new location of tribal government and staff offices.

The Morongo Community Center is 2,000 feet north of Interstate 10 on Fields Road. The Tribe uses the Community Center for a variety of purposes, including community activities, meetings, and other functions.

Tribal government and community service structures are generally located in the developed portion of the planning area near the foothills of the San Bernardino Mountains, on Pumarra and Potrero Road. Structures in this area include tribal offices and the Tribal Health Care Center.

3.2.3 Infrastructure

Interstate 10 provides road access to the planning area from surrounding regions and traverses the planning area in an east-west direction. Interstate 10 is a major artery for travel to and from the metropolitan areas of southern California. Emergency and fire response personnel and equipment from Banning and Cabazon would most likely access the planning area via the interstate.

Smaller roadways within the planning area are a mix of paved and unpaved accessory roads. Roadways leading off Interstate 10 and in the central community area are predominantly paved. Unpaved roadways run throughout the planning area and are more predominant in the northern portions of the planning area in the San Bernardino Mountains and the foothills. All roads within the wildland areas of the planning area are dirt roads and receive relatively little maintenance, besides grading after the rainy season on backcountry extensions of Potrero Road and Millard Canyon Road. Within the central community area, the roads are typically paved and well maintained, although a few are unpaved and usually

receive a low volume of traffic. Roads near the casino receive moderate to high amounts of traffic, depending on time of year and events being held at the casino (Mandly 2008).

The planning area is crossed by a main line of the Union Pacific Railroad (formerly the Southern Pacific Railroad). The railroad runs parallel to Interstate 10 across the planning area in an east-west direction. The Union Pacific Railroad transports freight, and Amtrak operates passenger trains.

Potable water in the planning area comes from private wells. Four water storage tanks in the planning area provide water for drinking and fire suppression. The Morongo Water Department installed a Supervisory Control and Data Acquisition system in March 2006 to monitor, control, and archive components of the domestic water system operation. The system monitors and controls well equipment, water levels, pumping and flow rates, and pressure regulating valve stations and also has the ability to turn valves on and off automatically.

Fire hydrants in the planning area have been installed according to American Water Works Association Standards. The water supply and pressure is adequate for fire suppression in times of lower precipitation, such as in the late summer and fall (Mandly 2008).

Telephone and Internet service for residents in the planning area is provided by Verizon. There are no known limitations on the telephone and communication systems during times of heavy use, such as during a crisis (Mandly 2008).

Electricity for residents and most businesses in the planning area is provided by Southern California Edison. The casino has its own Cogeneration Facility to provide its own power. Natural gas is primarily provided by the Gas Company.

3.3 AIR QUALITY

The climate of the planning area is classified as semiarid, although the air near the surface is occasionally moist due to a shallow marine layer. The humidity is typically in the 50 to 60 percent range as a result of this layer. Temperatures typically average 64 degrees Fahrenheit (°F) throughout the year. Average summer highs are approximately 95 °F in July, with extremes as high as 112 °F. Winter lows average 38 °F, with extremes as low as 21 °F. Precipitation is almost always in the form of rainfall, which is seasonal and extremely variable from year to year. Nearly all the rain falls from November through April. Summer rainfall is normally restricted to widely scattered thunderstorms, while winter precipitation may occur over the entire area. Rainfall averages around 12 inches annually (McGill 2004). Prevailing winds are from the southeast, and the mean hourly wind speed is six miles per hour (NRCS 2003). Santa Ana winds blow from the east, bringing dry winds from the Great Basin, and are caused by high pressure systems that force hot and dry air westward over the mountains to the coast. Their low relative humidity of 10 to 20 percent and gusty winds quickly dry out vegetation (Fovell, 2002).

The planning area is in nonattainment status for ozone and particulate matter with aerodynamic diameters less than 10 microns and less than 2.5 microns (PM_{10} and $PM_{2.5}$). On the Reservation, the air quality is regulated under the Clean Air Act (Mandly 2008).

3.4 TOPOGRAPHY, SLOPE, ASPECT, ELEVATION

The San Bernardino Mountain Range rises approximately 10,600 feet above mean sea level (AMSL) and is north of the Reservation. The San Jacinto Mountain Range rises to 10,800 feet AMSL and is south of the Reservation. The planning area is in the San Gorgonio Pass near the foot of the San Bernardino and San Jacinto Mountains (Figure 1-1). Typically, the aspect of the site is to the south and southeast, but the aspect varies greatly in the mountainous northern portion of the planning area. The slope of the planning area is near zero just north of the interstate and remains relatively level in the southern portion with a slope generally under 10 percent. Moving northward, the slope increases gradually toward the central portion of the planning area where the residential area is located. Then the slope increases greatly from the northern edge of the residential area into the northern-most mountainous portion of the planning area, where it becomes very steep with a slope of about 66 percent. The elevation of the planning area ranges from approximately 1,560 feet AMSL at the Arrowhead Bottling Plant in the southern portion of the planning area to approximately 3,600 feet AMSL in the mountains on the northern boundary of the planning area. The following picture provides an overview of the mountainous terrain in the northern part of the Reservation.

Photograph 1. The general topography of the northern portion of the Reservation.

3.5 ECOLOGY

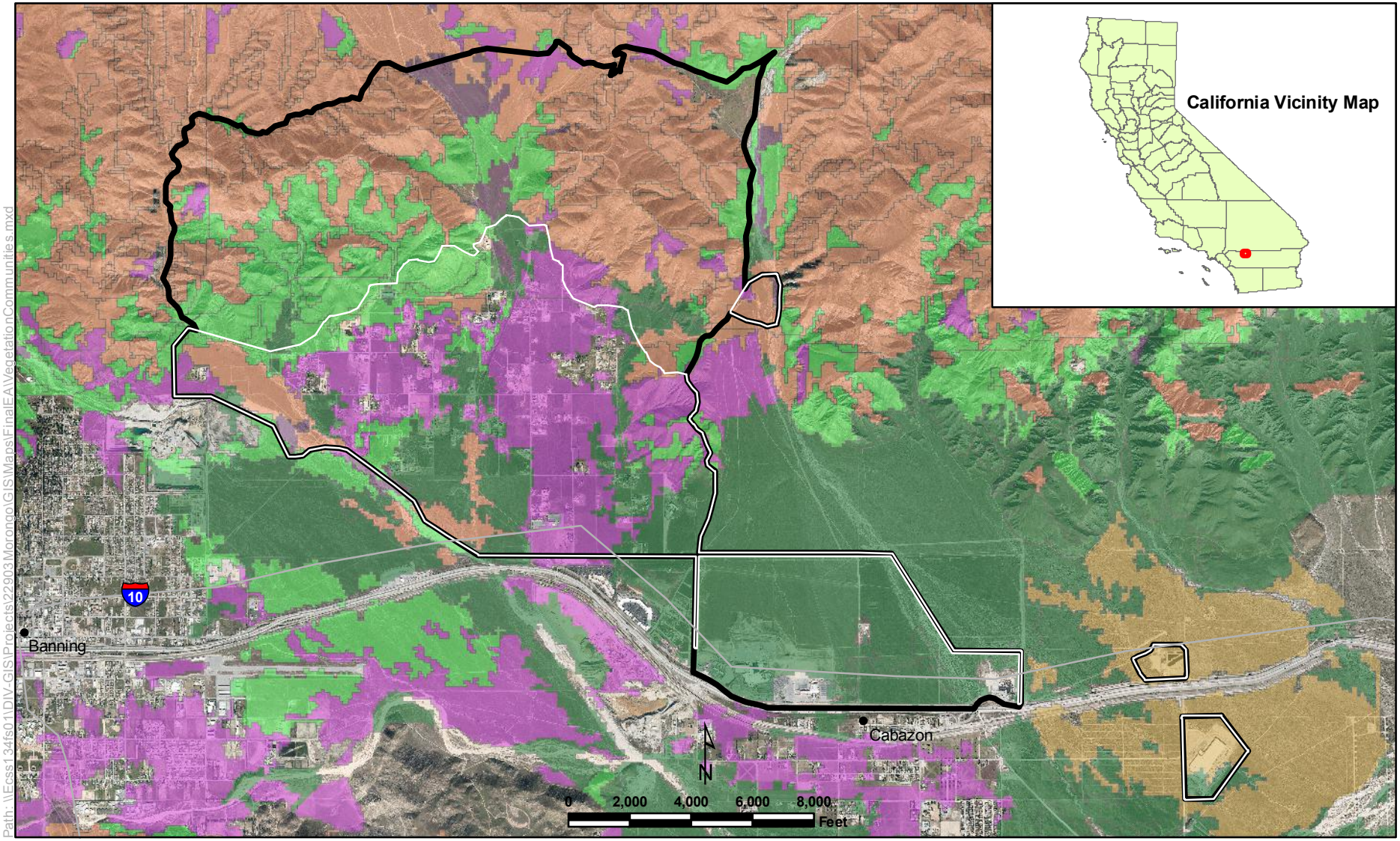
3.5.1 Vegetation

The planning area contains several vegetation communities (Table 3-1, Figure 3-2).

Table 3-1
Vegetation Communities in the WUI Planning Area

Vegetation Community	Acres
Chaparral Plant Community	2,106
Desert Scrub Community	1,591
Nonnative/Annual Grassland Community	1,268
Coastal Sage Scrub Community	1,173
Riparian Woodland Community	140
Sonoran Creosote Bush Scrub Community	92
Total	**6,370**

The chaparral community is the most widespread plant community, making up 2,106 acres (33.1 percent) of the planning area (Morongo Tribe 2012). It occurs on the hillsides and mountains throughout the planning area and is characterized by dense collections of woody evergreen shrubs that are adapted to drought and burn/regrow cycles. At lower elevations, the chaparral transitions into sage scrub. Common plants associated with the planning area's chaparral plant community include chamise (*Adenostoma fasciculatum*), several species of manzanita (*Arctostaphylos* spp.), scrub oak (*Quercus berberidifolia*), interior live oak (*Q. wislizenii*), wild lilac (*Ceanothus* spp.), and California buckwheat (*Eriogonum fasciculatum*) (McGill 2004).



Vegetation Communities
Morongo Indian Reservation, California

Vegetation Communities

- Chaparral Plant Community
- Coastal Sage Scrub Community
- Desert Scrub Community
- Non-native/Annual Grassland Community
- Riparian Woodland Community
- Sonoran Creosote Bush Scrub Community
- WUI Planning Area
- WUI Boundary

Tetra Tech

Figure 3-2

Near Interstate 10 on the southern edge of the planning area, both the coastal sage scrub and the chaparral communities transition into desert scrub. The desert scrub community is the second most common vegetation community, covering 1,591 acres, or 25.0 percent of the planning area (Morongo Tribe 2012). This plant community can be found on well-drained slopes and alluvial fans. Beavertail cactus (*Opuntia basilaris*), Mojave yucca (*Yucca shidigera*), and cholla (*Cylindropuntia* spp.) occur in more abundance. Catclaw (*Acacia greggii*) is also a dominant shrub in this community (McGill 2004).

Nonnative/annual grasslands are often an early stage of revegetation and are often associated with recent disturbances. Nonnative/annual grassland communities are the third most common vegetation community in the planning area, comprising 1,268 acres, or 19.9 percent, of the planning area (Morongo Tribe 2012). This plant community is dominated by dense to sparse cover of annual grasses and is often associated with numerous species of native, annual forbs (wildflowers), especially in years of favorable rainfall. Nonnative grasslands are usually found on fine-textured clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. Dominant characteristic species observed within this community include slender oats (*Avena barbata*), red brome (*Bromus madritensis*), and ripgut grass (*B. diandrus*) (McGill 2004).

The coastal sage scrub community is the fourth most common vegetation community and comprises constitutes 1,173 acres, or 18.4 percent, of the planning area (Morongo Tribe 2012). Typical stands are fairly open and are dominated by coastal sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), Yerba santa (*Eriodictyon californicum*), and California buckwheat (*Eriogonum fasciculatum*). This vegetation community occurs on dry sites, such as steep slopes, severely drained soils, or clays that release stored soil moisture only slowly. At higher elevations it begins to transition into the chaparral plant community (McGill 2004). It occurs primarily in the mountainous regions north of the housing area.

Riparian vegetation covers only 140 acres, or 2.2 percent, of the planning area (Morongo Tribe 2012). Riparian plant communities typically consist of one or more deciduous tree species, with an assorted understory of shrubs and herbs. Depending on the community type, a riparian community may be dominated by any of several trees and shrubs, including coast live oak (*Q. agrifolia*), white alder (*Alnus rhombifolia*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), California walnut (*Juglans californica*), mule fat (*Baccharis salicifolia*), or any of several species of willow (*Salix* spp). The riparian communities are found in the canyons, canyon bottoms, and alluvial fans in the mountainous areas. Riparian communities occur along Hathaway Creek along the western boundary of the planning area, Potrero Creek in the north-central portion of the planning area and along the San Gorgonio River along the southwest edge of the planning area (McGill 2004). The least common vegetation community is the Sonoran creosote bush scrub community, which covers 92 acres (1.4 percent) of the planning area (Morongo Tribe 2012). This community is dominated by creosote bush (*Larrea tridentata*) and characterizes the vast intermountain alluvial fans, reaching greatest development on coarse well-drained soil with a total salinity of less than 0.02 percent. Creosote bush is commonly found with burrobush (*Ambrosia dumosa*), a much shorter shrub (McGill 2004). The easternmost parcels of land surrounding

the Arrowhead Bottling Plant and the water treatment facility are the only locations of Sonoran creosote bush scrub in the planning area.

The central portion of the planning area has a mixture of desert scrub vegetation, sage scrub vegetation, ornamental trees and shrubs, and weedy annual grasses and forbs. The hills surrounding the community area include the same variety of vegetation and gradually merge with chaparral plant communities. The casino and resort area is dominated by desert scrub, with annual grasses and forbs filling in the gaps (Morongo Tribe 2012). This area is several miles from the base of the foothills.

3.5.2 Invasive Weeds

Most of the central planning area has been cultivated and disturbed by development in the past. Open spaces in the canyons, particularly Potrero and Millard, have been grazed by livestock for years, which have led to the removal of native species and the introduction of nonnative grasses, forbs, and ruderals. Ruderals are weedy species that have adapted to conditions that may include compacted or loose soils, high temperatures, intense sunlight, and low moisture content. The grasslands include a variety of annual grasses, such as red brome (*B. rubens*), ripgut, and cheatgrass (*B. tectorum*), as well as a dense cover of annual forbs that feature showy flowers in the spring. Larger herbaceous plants in the nonnative grasslands community include bull thistle (*Cirsium vulgare*), yellow star thistle (*Centaurea solstitialis*), Russian thistle (*Salsola kali*) and short-podded mustard (*Hirschfeldia incana*)(McGill 2004). Typically, invasive weeds and other nonnative species are well adapted to recolonize an area after a disturbance, including fire.

3.5.3 Wildlife

Wildlife within the planning area is typical of the area. Common wildlife species that could be encountered are common raven (*Corvus corax*), California quail (*Callipepla californica*), scrub jay (*Aphelocoma californica*), black-tailed hare (*Lepus californicus*), cottontail (*Sylvilagus audubonii*), and the western fence lizard (*Sceloporus occidentalis*). Larger mammals that occur on the Morongo Reservation and that could occur within the planning area are mule deer (*Odocoileus hemionus*) and black bear (*Ursus americanus*). Both of these species are hunted on the Reservation, but it is unlikely that they are hunted within most of the planning area. Mule deer and black bear are more likely to occur in the northern portion of the planning area and are therefore more likely to be hunted there (McGill 2006).

3.5.4 Threatened and Endangered Species

The planning area contains potential habitat for 11 federally threatened or endangered, and proposed or candidate state-listed sensitive species, which are listed in Table 3-2. There are no federally proposed or candidate species within the planning area. Information on the status of threatened, endangered or sensitive species was provided through tribal resources (e.g. planning documents, resource management plans, etc).

Table 3-2
Federally Threatened and Endangered Species that May Occur in the Planning Area

Common Name	Scientific Name	Listing Status Federal/State	General Habitat	Potential for Occurrence
Arroyo toad	*Anaxyrus californicus*	Endangered/None	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian	Low
Casey's June beetle	*Dinacoma caseyi*	Proposed/None	Found in sandy soils in a small area of southern Palm Springs	Low
Coachella Valley fringe-toed lizard	*Uma inornata*	Threatened/Endangered	Limited to sandy areas in the Coachella Valley	Low
Coachella Valley milk-vetch	*Astragalus lentiginosus var. coachellae*	Endangered/None	Sonoran desert scrub, sandy flats, washes	Low
Desert tortoise	*Gopherus agassizii*	Threatened/Threatened	Desert scrub, desert wash and Joshua tree habitats, occurs in almost every desert habitat	Low
Least Bell's vireo	*Vireo bellii pusillus*	Endangered/Endangered	Summer resident of Southern California in low riparian in the vicinity of water or in dry river bottoms	Low
Peninsular bighorn sheep	*Ovis canadensis nelsoni DPS*	Endangered/Threatened	Open desert slopes below 4,000ft, steep walled canyons and ridges	Low
Sierra Madre yellow-legged frog	*Rana muscosa*	Endangered/Candidate Endangered	San Jacinto, San Gabriel and San Bernadino Mountains, always within a few feet of water	Low
Slender-horned spineflower	*Dodecahema leptoceras*	Endangered/Endangered	Chaparral, coastal scrub, flood deposited terraces	Low
Stephens' kangaroo rat	*Dipodomys stephensi*	Endangered/Threatened	Annual and perennial grasslands , prefers buckwheat, chamise, brome grass and filaree	Low
Triple-ribbed milk-vetch	*Astragalus tricarinatus*	Endangered/None	Joshua tree woodland, Sonoran desert scrub	Low

Sources: California Natural Diversity Database (CNDDB) 2012

3.6 SOILS AND WATER RESOURCES

There are three predominant mapped soils within the planning area. The area east of the Potrero Creek drainage is classified as Crafton rocky sandy loam. The typical profile is brown to dark yellowish-brown sandy loam, about 26 inches thick and underlain by light

yellowish-brown, weathered rock with fractures and cleavage planes. This soil occurs on slopes of 25 to 50 percent and its permeability is moderately rapid. The available water-holding capacity is 1.5 to 3.0 inches.

Runoff is rapid and the hazard of erosion is high. The root zone is 20 to 36 inches deep. The area west of the Potero Creek drainage is divided into two dominant soils. On the southern edge of the planning area near the interstate, the soil is classified as Hanford coarse sandy loam. Rills, shallow gullies, and areas of deposition occur on this soil. A typical profile of the Hanford Series is 18 inches of grayish-brown coarse sandy loam underlain by brown, stratified, coarse sandy loam and loamy sand. This soil occurs on 8 to 15 percent slopes and is somewhat excessively drained. Runoff is medium and the hazard of erosion is moderate.

The last soil type in the planning area is Gorgonio gravelly loamy fine sand. This soil occurs predominantly on alluvial fans in the mountains north of Interstate 10. A typical profile is 15 inches of grayish brown to very dark grayish brown to brown gravelly loamy sand to gravelly loamy fine sand, underlain by 29 inches of light grayish-brown to brown stratified gravelly loamy sand to very gravelly loamy fine sand, underlain by stratified gravel or cobbles or both stratified gravel and cobbles. This is a somewhat excessively drained soil that has rapid permeability. Runoff is slow to medium, and the hazard of erosion is slight to moderate. The available water-holding capacity is 3.0 to 4.0 inches. The root zone is greater than 60 inches deep (NRCS 2003).

Within the planning area there is only one natural perennial source of water. Millard Creek constitutes the eastern boundary of the main portion of the planning area and runs year round. This creek provides water for wildlife and supports riparian vegetation. No other natural perennial sources of water exist within the planning area. Several ephemeral washes and dry river beds exist, the largest of which is the San Gorgonio River. This river forms the southwestern boundary of the planning area. Potrero Creek runs from the north to the south and bisects the main portion of the planning area. Hathaway Creek runs from the northwest and has flowing water outside of the planning area but dries up before entering the planning area. Numerous other unnamed dry creek beds occur throughout the planning area. The various dry river beds and creek channels, as presented in the following pictures, contain flowing water only during precipitation events, which occurs primarily from November through April.


Photographs 2 & 3. Dry creek bed on the Reservation. Photos taken Oct 2012.

Peak flows at specific locations on the alluvial fans cannot be estimated because of the way that floods contribute to development of the fans. There is no way to predict where flows will occur from one major storm to another. Periods of high intensity rainfall, in combination with effects of sparse vegetation, bare soils, and steep terrain, result in debris and sediment-laden floodwater. The debris and sediment begin to drop out where the gradient becomes flatter on the fan. As a result, the channel will often change course and will flood areas that have not been flooded before (NRCS 2003).

Several man-made permanent sources of water within the planning area include a number of swimming pools within the residential section and permanent water bodies around the casino. There are also numerous cattle water troughs throughout the planning area, both in the open space areas and on private properties. Several of these water troughs are located along the upper parts of Hathaway Creek and Millard Creek.

3.7 RANGE

Some cattle grazing occur within the planning area. Most grazing occurs around the canyons and the northern edge, particularly the northeastern corner of the planning area and in the open lands north of the casino. The rangeland conditions within the planning area are heavily grazed, bordering on overgrazed (Mandly 2008).

3.8 RECREATION –

Various types of dispersed recreation occur within, and in close proximity to, the planning area, including off-highway and all-terrain vehicle use, target shooting, hiking, exercise walking, hunting, horseback riding, and camping. Most outdoor recreation occurs in and around the San Bernardino Mountains, away from the central community portion of the planning area. However, all-terrain vehicle use does occur on and off existing dirt roads and fire breaks near the central community of the planning area. The following picture presents all-terrain vehicle use occurring off existing roads and firebreaks. Recreational walking and horseback riding sometimes occur within the central community areas on Potrero Road, Foothill Road, and other roads and trails (Mandly 2008).

Photograph 4. All-terrain vehicle tracks off existing roads or firebreaks.

The largest indoor recreation attraction within the planning area is the Morongo Casino, Resort, and Spa, which offers a variety of indoor and outdoor recreational facilities, including indoor gaming and an indoor/outdoor pool. Canyon Lanes, just east of the Morongo Casino, offers indoor bowling year-round (Morongo Tribe 2008b).

The Morongo Community Center offers indoor recreation to Tribe members, including sports and fitness activities and other games.

3.9 AESTHETICS

The visual character of the landscape generally follows the pattern of land use in the planning area. A large portion of the planning area remains undeveloped, although much of the land in the foothills of the San Bernardino Mountains north of Interstate 10 has been cleared for development. Most of the developed land is dispersed low-density development. The most noticeable scenic locations within the planning area are in the San Bernardino Mountains and the foothills northeast of the community. These mountains and foothills are visible from the community area as well as from Interstate 10. The foothills and mountains are dominated by dispersed low-lying vegetation with intermittent areas that are barren of vegetation and with exposed soil. Fuel reduction activities have created firebreaks in the mountains and foothills that are approximately 20 to 30 feet wide and with varying lengths (Figure 2-1, No Action Alternative). These firebreaks presented as linear clearings in the following pictures, have created visual scarring and strips of barren and exposed soil in the mountains and foothills.

Photograph 5. General aesthetic character of the central community of the planning area. Looking west.

Photograph 6.General aesthetic character of the central community of the planning area. Looking northwest

Photograph 7. General aesthetic character of the central community of the planning area. Looking east.

3.10 HISTORICAL AND CULTURAL RESOURCES

3.10.1 Cemeteries

Multiple cemetery sites within the planning area are generally small and surrounded by chain-link fencing. Groundcover within cemeteries is mostly cleared, with sparse vegetation consisting of small to medium trees and groupings of planted vegetation, including flowers. Small memorials, benches, brick enclosures, and other items are dispersed around gravesites.

The two largest cemeteries are near St. Mary's Indian Mission in the foothills of the San Bernardino Mountains, near the WUI boundary. Another cemetery is on the southeast corner of Ramon Road and Chino Road. A very small cemetery, with only a few identifiable gravesites, is on the north side of Chino Road.

3.10.2 Traditional Uses

A variety of religious and traditional use facilities are within the planning area, including three in different portions of the planning area near the WUI boundary: St. Mary's Indian Mission in the northern portion of the planning area, the Morongo Moravian Church just west of the mission, and the Morongo Christian Faith Chapel near the western portion of the planning area.

The Malki Museum is an important resource for local, traditional, and Native American history and is approximately one mile north of Interstate 10 on Fields Road. The museum researches, collects, and displays artifacts of the Indians of the San Gorgonio Pass and contains thousands of artifacts, including baskets, pottery, and other local Native American items. In addition, the museum also has an ethnobotanical garden featuring the plants used by southern California Indians for food, medicine, manufacturing, and the arts (Morongo 2008a).

3.11 COMMUNITY

The total population on the Morongo Indian Reservation was 677 in 2009. This reported population includes individuals from the Morongo Tribe, as well as any other individuals living within the planning area. The median age of individuals in the planning area was 34.8 in 2009 (US Census Bureau 2010).

The largest ethnic group within the planning area in 2009 was 448 American Indians, who made up 66.2 percent of the population. The second largest group in 2009 was the 131 White/Caucasians, at 19.4 percent of the population. The third largest group was the 63 individuals of two or more races. Individuals of Hispanic Origin comprised approximately at 5.3 percent (36 people) of the Reservation population (US Census Bureau 2010).

The Morongo Tribe operates one of the largest and oldest Indian government gaming facilities in California. As a direct result of the success of gaming operations, the Tribe has eliminated welfare on the Reservation. The Morongo Casino employs approximately 2,500 individuals, though most of these employees reside outside the planning area (Mandly 2008).

The opening of the Arrowhead Bottling Plant in 2004 allowed the Tribe to diversify its economy beyond gaming through the sale of spring water to the Arrowhead Mountain

Spring Water Bottling Company. At full build-out capacity, the plant is estimated to employ 260 workers and to create an additional 1,800 jobs throughout the economy (Inland Empire Business Journal 2002).

With its diversification into nongaming businesses, the Tribe has become the largest private sector employer in the Banning-Beaumont region and is a major contributor to the Coachella Valley economy. The Tribe employs more than 3,000 people (Morongo Tribe 2008a). The Tribe pays payroll taxes, unemployment benefits, and employee benefits and provides health care. The Tribe pays for a range of its community services, including water storage and distribution systems, waste management, road maintenance, public safety, college education funding, recreational facilities, and other services (Morongo Tribe 2001).

The three largest employment industries for individuals living within the planning area in 2000 were retail trade (41 people), education, health, and social services (40 people), and recreation, accommodation, and food services (33 people). More than two-thirds of the Morongo workforce is composed of residents from Banning and other nearby desert cities (Morongo Tribe 2008a).

3.11.1 Fire and Emergency Services

The Morongo Tribe has its own fire department, which serves the planning area and provides wildland fire suppression support to the California Department of Forestry. The Morongo Fire Department employs approximately 21 people and provides initial wildland fire attack services as well as additional support for the California Department of Forestry, if needed. The fire department has a Type 1 Engine (pumps a minimum of 1,000 gallons per minute and holds at least 400 gallons of water), a Type 2 Engine (pumps a minimum of 500 gallons per minute and holds at least 400 gallons of water), and a Type 3 Engine (pumps a minimum of 120 gallons per minute and holds a minimum of 500 gallons of water). It also has a ladder truck. Each day, the fire department is staffed with two chiefs, two engineers, and two firemen. Many of the personnel in the fire department are trained as emergency medical technicians. The Tribe also has an Emergency Services Department that maintains four trailers stocked with emergency supplies (Mandly 2008).

The Morongo Fire Department is supplemented by the Riverside County Fire Department as part of the California mutual aid agreement. Each California jurisdiction retains control of its own personnel and facilities, while giving and receiving help whenever it is needed during times of disaster, fire, and other crisis situations (Mandly 2008). The closest fire station to the planning area that is operated by the Riverside County Fire Department is Station 24, half a mile south of Interstate 10 in Cabazon, approximately one mile from the southern portion of the planning area.

The Morongo Public Works Department coordinates and carries out current fuel reduction activities related to fire prevention within the planning area, namely disking, bulldozing firebreaks, and removing noxious weeds. The Public Works Department employs approximately 45 people (Mandly 2008). Fire prevention equipment includes a bulldozer and a fleet of vehicles. The Tribe is considering purchasing two Mules (utility off-road vehicles) to add to the current fleet of vehicles that are used for fuel reduction.

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CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter is an assessment of the potential environmental effects of the two alternatives: No Action and a Proposed Action. This analysis includes likely adverse and beneficial effects on the human environment including direct and indirect effects, short-term and long-term effects, and cumulative effects. Detailed consideration was given to those resources that have a potential for effects. Effects are interpreted in terms of duration, intensity, and scale where possible.

4.2 NO ACTION ALTERNATIVE

4.2.1 Land Use

The No Action Alternative would have no effects on land use within the planning area because there would be no conversion of land use for new firebreaks and no additional land available due to abandonment of existing firebreaks.

Structures/Density

Current fuel reduction activities have had no significant adverse effects on structures or density in the planning area. Since there would be no changes in fuel reduction activities under the No Action Alternative, there would continue to be no significant adverse effects on structures or their density. These activities would continue to provide indirect beneficial effects on structures within the WUI planning area by reducing the potential for wildland fire spread.

Businesses/Commercial

Current fuel reduction activities including weed removal, disking, and firebreak maintenance have had no significant adverse effects on business or commercial areas. As a result, there would continue to be no significant adverse effects with implementation of the No Action Alternative. Under the No Action Alternative, continuation of fuel reduction activities would result in a potential beneficial effect to business and commercial areas by reducing the potential for damage to these structures due to a wildland fire.

Infrastructure

Disking and removal of weeds along roadsides and public areas and maintenance of firebreaks would likely have no significant adverse effects to the roads infrastructure by creating small amounts of traffic or potentially blocking traffic while the activities are being conducted. The continuation of fuel reduction activities would potentially benefit water and communications systems infrastructure by reducing the probability of a wildland fire spreading to, and damaging or destroying, those systems.

4.2.2 Topography, Slope, Aspect, Elevation

There would be no effects to topography, slope, aspect or elevation under the No Action Alternative.

4.2.3 Air Quality

There would be no significant adverse effects to air quality under the No Action Alternative. A short-term beneficial effect to air quality would result if the firebreaks limit the size of potential wildland fires, thereby reducing the amount of smoke and particulate matter that would be released into the air.

4.2.4 Ecology

Vegetation

Vegetation removal would continue to occur under the No Action Alternative from the continued maintenance of the 13.87 miles (approximately 42 acres) of firebreaks. This would have no significant adverse effect on vegetation. Maintenance would involve using heavy equipment to clear the firebreaks and ensure that no vegetation remains. Firebreak maintenance would continue to occur every four years on average with occasional more frequent clearing. Although the maintenance represents a disturbance to vegetation within the planning area, the number of acres affected is very minor and no significant adverse effects would occur. Additionally, maintenance would reduce the prevalence and spread of invasive weeds within and near the firebreaks, representing a beneficial effect. A potential long-term beneficial effect to vegetation would also result if the firebreaks limit the spread of wildland fires since the amount of vegetation that would be burned would be reduced. Recreational off-road vehicle use occurs on some firebreaks within the planning area. The use of these vehicles prevents the establishment of both native and non-native vegetation by crushing vegetation and increasing soil compaction.

Invasive Weeds

Under the No Action Alternative, the Tribe would continue to control invasive weeds within the planning area primarily through the use of mechanical treatment (e.g. cutting or pulling) and disking, with only occasional, spot applications of herbicides. Removal of vegetation during firebreak maintenance would also contribute to the control of invasive species, as discussed above under vegetation removal.

Disking, as a method of weed control, involves chopping up and burying weeds and grasses under the soil. This process reduces the amount of vegetation available as fuel during a fire and also reduces the spread of invasive weeds if it occurs before the weeds go to seed.

However, disking also removes native vegetation. Due to the limited acreage of native vegetation that will be impacted by disking, no significant adverse effect on native vegetation will occur within the planning area. In addition, invasive weeds are typically better suited than native vegetation to colonize an area after disturbance, thereby increasing the likelihood that disking would decrease the amount of native vegetation and increase the number of invasive weeds within disked areas.

Spot application of herbicides would continue; however, beneficial effects on noxious weeds or negative effects on vegetation would be very minor due to their limited application.

If the existing firebreaks succeed in limiting the spread of wildland fires, disturbance to existing vegetation would be reduced, thereby reducing the spread of invasive weeds.

Wildlife Habitat

Firebreak maintenance, disking, and invasive weed control would continue to disturb wildlife and existing vegetation in areas that wildlife use under the No Action Alternative, but would have no significant adverse effect on wildlife and wildlife habitat. Disturbances would be short-term, resulting in temporary displacement of wildlife during the conduct of activities. The effects on vegetation would be longer-term as discussed above. However, due to the small area affected (about 42 acres), effects to wildlife and wildlife habitat within the planning area would not be significant.

There is also a possibility for direct mortality of wildlife in the path of firebreak maintenance activities, disking, and weed control efforts. Mortality could result through the destruction of nests or burrows or by killing individuals. However, adult wildlife are typically mobile enough to leave the treatment area and avoid mortality. Young wildlife that are not as mobile or confined to a burrow or nest have the highest chance of mortality. Additionally, nests or burrows would potentially be lost if they are in a disturbance area, particularly for small mammals and reptiles since they commonly use the collected dirt and vegetation along roadsides and firebreaks to dig their burrows or use these areas as escape cover. Firebreak maintenance may crush the burrows or render them unusable. Because only 42 acres of firebreak maintenance would occur within the 36,000 acre planning area, these potential effects would not be significant. The number of acres disked annually is variable but is very small.

An indirect, beneficial effect on wildlife and wildlife habitat in the planning area would occur if the firebreaks controlled the spread wildland fires in the planning area. Less habitat would potentially be lost and less direct mortality of wildlife by wildland fire would occur. Less disturbance would also likely occur due to wildland fire suppression activities.

Threatened and Endangered Species

Eleven federally threatened or endangered species have the potential to occur within the planning area (Table 3-2). However, since there are no confirmed sightings of any of these species, effects would be limited to potential habitat, and those effects would be similar to the effects to wildlife habitat discussed above. Information on the status of threatened or endangered species was provided through tribal resources (e.g. planning documents,

resource management plans, etc). Of the eleven listed species, all four species of plants, one species of birds and two species of amphibians occur in or near riparian areas or washes and alluvial fans. As there will not be any work in those areas, there will be no effect to those listed species under the No Action Alternative. While the Stephens' kangaroo rat could potentially occur in areas where disturbance would take place, this species is nocturnal and would not be above ground during the activities. Additionally, this species have burrows that are at least 1.5 feet below ground so they would not be impacted by fire break maintenance or disking. Consequently, the effects of the No Action Alternative would not be significant to this species. Of the two species of reptiles that may occur in the project area, the Coachella Valley fringe-toed lizard occurs entirely on sand dunes. No activity will take place on sand dunes so there would be no effect on this species. The desert tortoises may potentially occur in areas where activities will take place however their burrows are typically greater than 2 feet deep and would not be significantly directly affected. Additionally, they are not usually found on steep slopes where the fire breaks are located, so there would be no significant effect on tortoises from the fire break maintenance.

4.2.5 Soils and Water Resources

Continued fuel reduction activities under the No Action Alternative would not have a significant adverse effect on soils in the treatment areas. Elimination of vegetative cover through firebreak maintenance and disking would eliminate or reduce vegetative cover and increase soil and water erosion in treated areas. Additionally, the use of heavy machinery in these areas would also cause soil compaction, erosion, and potential movement. The erosive effects, particularly from water, would be more severe in the steeper areas of the planning area where most of the firebreaks occur. Also, since the use of heavy equipment would loosen the top layer of soil, precipitation after firebreak maintenance resulting erosion may be more severe than if the soil remained undisturbed. Erosion from wind, particularly the Santa Ana winds, would remove the smaller and lighter soil particles and increase dust in the area, while erosion from precipitation events would remove larger particles of soil and would likely result in gully erosion over time. These effects would likely be localized and not significant since the firebreaks comprise only a small portion of the planning area, and disking occurs primarily on flatter areas where water erosion would be less severe when it occurs. If erosion control measures such as water bars or hay bales were used on or near the firebreaks or if active revegetation takes place, the impacts would be reduced.

A minor, long-term, beneficial effect would occur to soils in the planning area under the No Action Alternative if the fuel reduction limited the severity of wildland fires. Less severe fires would reduce vegetative loss and the extent of soil damage, thereby reducing the potential for erosion.

Continued fuel reduction activities would also continue to have a long-term but not significant adverse effect to water resources due to soil erosion. If soil is eroded through either wind, water or disturbance by vehicles and soil-moving equipment, increased sediment deposition could occur in water bodies within or near the planning area, particularly into Millard Creek. However, these effects would not be significant since there are only a few firebreaks near the creek and the amount of potential erosion and resulting

sediment deposition is low. The use of erosion control measures would help lessen the adverse effect on water resources.

4.2.6 Range

The effects on range resources throughout the planning area from the No Action Alternative are both adverse and beneficial. Livestock would be displaced during the maintenance of firebreaks and weed removal activities; however, this effect would not be significant. Disking would remove vegetation from the treated area including noxious weeds that might have been forage for livestock. Firebreak maintenance and fuel reduction would also have a potentially beneficial effect if they are successful in limiting the size and severity of wildland fires. If future fires are more easily contained and less severe, less forage would be lost.

4.2.7 Recreation

Under the No Action Alternative, activities including maintenance of fuel breaks, disking, and other mechanical methods of removing noxious weeks would temporarily displace recreational use while the activities are being conducted. These effects would not be significant as they would be localized to areas where fuel reduction activities would occur. Reducing the severity of wildland fire would potentially create minor, long-term, beneficial impacts by decreasing possible damage to outdoor areas that may be used for horseback riding, hiking, camping and other outdoor recreational activities.

4.2.8 Aesthetics

Under the No Action Alternative, continuing to maintain firebreaks within the planning area would continue the existing aesthetic impacts. These breaks in vegetation are particularly apparent in the steeper portions of the planning area such as the San Bernardino Foothills. Noxious weed control would also create minor aesthetic effects when the vegetation is initially cleared and until the area re-vegetates. However, disked areas that had a preponderance of noxious weeds would be improved visually by removal of that vegetation. Overall, there would be no significant adverse effects on the aesthetics.

4.2.9 Historical and Cultural Resources

The No Action Alternative would have no effects on historical or cultural resources in the planning area. Existing firebreaks and disked areas do not affect historical or cultural resources and no new firebreaks are proposed under the No Action Alternative. Areas targeted for disking are reviewed by the cultural resources specialist in the Morongo Cultural Heritage Program before the disking occurs to ensure that no historical or cultural resources are present or would be affected. As a result, disturbance of previously undiscovered or unmapped historical or cultural resources would be very unlikely.

Cemeteries

No effects would occur to cemeteries in the planning area because existing firebreaks and disked areas are not in or near cemeteries and no new firebreaks are proposed under the No Action. Newly disked areas would not be located in cemeteries.

Traditional and Religious Uses

The No Action Alternative would have no direct effects on traditional and religious uses in the planning area because fuel reduction activities would continue to occur in areas away from traditional and religious uses. The continuation of fuel reduction activities would continue to reduce the potential for damage or destruction of traditional and religious use areas from wildland fire.

4.2.10 Community

The small scale and intermittent nature of fuel reduction activities under the No Action Alternative would have no direct effects on the community. However, the fuel reduction activities would continue to reduce the potential for wildland fire to spread into the community, thereby continuing to increase the protection of life and property within the planning area. There would be no significant adverse effects to the community under this alternative.

Reducing the potential for wildland fire spread would also create multiple long-term, beneficial effects. The likelihood of revenue generating activities being affected by wildland fire would decrease. If fire were to spread into the planning area, the Casino would likely experience a decrease in visitation, resulting in decreased revenue for the community. The loss of the Casino would cause an even more substantial economic effect. Additionally, the loss of the Arrowhead Bottling Plant, administrative buildings, and other businesses would represent an economic impact to the Tribe. Residences within the planning area could also potentially be lost to wildland fire. Overall, continuing fuel reduction activities has the potential for a substantial beneficial effect on the Tribal community.

Fire and Emergency Services

Continuing fuel reduction activities would continue employment opportunities in the Morongo Public Works Department. Retention of firebreaks would also create a beneficial effect for firefighters by providing a cleared safety zone area. There would be no significant adverse effects under this alternative.

4.3 PROPOSED ACTION

4.3.1 Land Use

The Proposed Action would have a minor beneficial effect on land use due to abandoning 4.05 miles of firebreaks that could then be used for other uses. There would be no significant adverse effects to land use under this alternative.

Structures/Density

Implementing the principles of a Firewise community would beneficially affect structures in the planning area. Implementing principles that stress the importance of using certain types of construction materials, design elements, landscaping, and maintenance would potentially provide increased protection for structures in the event of a wildland fire.

Indirect beneficial effects to structures and density under Proposed Action would be the same as those described under the No Action Alternative including potentially reducing the

severity and spread of wildland fire. Scheduling of firebreak maintenance and other fuel reduction activities could potentially improve the effectiveness of retained firebreaks.

Businesses/Commercial

Implementing the principles of a Firewise community would beneficially affect business and commercial areas. Using certain types of construction materials, design elements, landscaping, and maintenance would potentially provide increased protection for business and commercial areas in the event of a wildland fire.

Other indirect effects to business and commercial areas under the Proposed Action would be the same as described under the No Action Alternative.

Infrastructure

Effects to infrastructure under the Proposed Action would be the same as those described under the No Action Alternative.

4.3.2 Topography, Slope, Aspect, Elevation

Like the No Action Alternative, there would be no effects to topography, slope, aspect, or elevation under the Proposed Action Alternative.

4.3.3 Air Quality

Just as with the No Action Alternative, no significant adverse effects to air quality would occur through implementation of the Proposed Action and a beneficial effect could occur if firebreaks limited the size of a wildland fire.

4.3.4 Ecology

Vegetation

The effects to vegetation under the Proposed Action Alternative would be similar to the effects under the No Action Alternative, with vegetation continuing to be removed from firebreaks, and disking and other weed removal activities. However, under the Proposed Action, 4.05 miles (about 12 acres) of firebreaks would be abandoned and would eventually revegetate, adding to the number of vegetated acres within the planning area. However, without active revegetation efforts, the spread of invasive weeds into these areas is likely. The continued use of these abandoned firebreaks by off road vehicles will also limit the revegetation of these areas as well. In areas where the abandoned firebreaks are showing serious signs of erosion, those areas would be actively revegetated. Overall, there would be no significant adverse effects to vegetation under this alternative.

Invasive Weeds

The Proposed Action would have a minor, long-term beneficial effect on invasive weeds. Efforts to control invasive weeds would be the same as under the No Action Alternative (disking and herbicide treatments with occasional spot application of herbicides). However, these actions would be scheduled during the spring and fall, and therefore, more likely to effectively control weeds over the long-term. Only non-persistent herbicides will be used for weed treatments under this alternative. Additionally, the Proposed Action would monitor

areas treated for weeds to assess the effectiveness of the weed control efforts. This would result in a long-term beneficial effect within the planning area by systematically removing weeds at advantageous times of the year and monitoring the need for, and locations of, future treatment areas. Overall, there would be no significant adverse effects under this alternative.

Wildlife Habitat

The Proposed Action would have no significant adverse effects on wildlife and their habitat as under this alternative. Firebreak maintenance, disking, and invasive weed control would potentially disturb wildlife and existing vegetation, disturb and temporarily displace wildlife, and could even result in some wildlife mortality. However, the effects would be somewhat less under the Proposed Action due to the abandonment of approximately four miles of firebreaks, which reduces the area where activities would occur and ultimately would result in about 12 additional acres of wildlife habitat.

Threatened and Endangered Species

The effects of the Proposed Action Alternative on threatened and endangered species (Table 3-2) would be the same as the effects under the No Action Alternative. The only difference between the two alternatives are the four miles of firebreaks that would be abandoned, which results in a larger amount of potential habitat available to these species over the long-term. Information on the status of threatened or endangered species was provided through tribal resources (e.g. planning documents, resource management plans, etc).

4.3.5 Soils and Water Resources

Continued fuel reduction activities would have no significant adverse on soils and water resources in the treatment areas, similar to the No Action Alternative. However, potential effects would be reduced by the abandonment of 12 acres of firebreaks. The eventual revegetation of those acres would reduce wind and water erosion and ultimate sedimentation of water bodies.

4.3.6 Range

Livestock would continue to be displaced during firebreak maintenance and weed removal activities but this effect would be lessened under the Proposed Action due to the abandonment of four miles of firebreaks. The eventual revegetation of these areas would result in more livestock forage over the long-term. Potential increased effectiveness of the firebreaks and other fuel reduction activities through scheduling could result in less forage lost from wildland fire. Overall, there would be no significant adverse effects to range resources under this alternative.

4.3.7 Recreation

Under the Proposed Action, firebreak activities would temporarily displace recreational use. These effects would be somewhat reduced due to the abandonment of four miles of firebreaks. Potentially reducing the spread of wildland fire would create minor, long-term, beneficial impacts by decreasing possible damage to recreational areas. Overall, there would be no significant adverse effects under this alternative.

4.3.8 Aesthetics

Continued fuel reduction activities under the Proposed Action would have the same effects to aesthetics as under the No Action Alternative. While vegetation would be removed from firebreaks more frequently under the Proposed Action, 12 acres would be abandoned and eventually revegetated, resulting in an overall beneficial effect to aesthetics under this alternative. Overall, there would be no significant adverse effects under this alternative to the aesthetics.

4.3.9 Historical and Cultural Resources

As with the No Action Alternative, no effects would occur to historical or cultural resources from the Proposed Action. Existing firebreaks and disked areas do not affect historical or cultural resources and no new firebreaks are proposed under this alternative. Areas targeted for disking would continue to be reviewed by the cultural resources specialist in the Morongo Cultural Heritage Program before the disking occurs to ensure that no historical or cultural resources are present or would be affected. As a result, disturbance of previously undiscovered or unmapped historical or cultural resources would be very unlikely.

Cemeteries

No effects would occur to cemeteries in the planning area under the Proposed Action because existing firebreaks and other fuel treatments do not occur in or near cemeteries.

Traditional and Religious Uses

The Proposed Action would have no direct effects on traditional and religious uses in the planning area because fuel reduction activities would continue to occur away from these areas.

4.3.10 Community

No direct effects would occur to the community from fuel reduction activities under the Proposed Action Alternative. However, the fuel reduction activities would continue to reduce the potential for wildland fire to spread into the community, thereby continuing to increase the protection of life and property within the planning area.

As with the No Action Alternative, reducing the potential for wildland fire spread would create multiple long-term, beneficial effects by reducing the likelihood of revenue generating activities being affected by wildland fires.

Fire and Emergency Services

Employment opportunities in the Morongo Public Works Department that are related to fuel reduction activities would continue under the Proposed Action. The potential for the reduction of wildland fire spread would be somewhat less than under the No Action Alternative.

The Proposed Action could have indirect beneficial impacts to fire and emergency services through implementation of the principles of a Firewise Community, which would likely reduce the risk to firefighters and emergency response personnel in the event of a wildland fire. The safety zone area that could be used for response to wildland fires would be slightly

reduced under this alternative due to the abandoned firebreaks. There would be no significant adverse effects under this alternative.

4.4 CUMULATIVE EFFECTS

Cumulative effects are the direct and indirect effects of the alternatives of a proposed project's incremental effects when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action (40 CFR Part 1508.7). Guidance for implementing NEPA recommends that federal agencies identify the temporal and geographic boundaries of the potential cumulative effects of a proposed action (Council on Environmental Quality 1997). For the purposes of this EA, the period of analysis is from 2001 to 2020 which encompasses a range within which data are reasonably available, forecasts can reasonably be made, and the timeframe for implementation of the WUI PMP.

Actions which may contribute to cumulative effects include the combined activities in the alternatives over time as well as other past, present and foreseeable future projects in the area. Other projects and activities that may contribute to cumulative effects include:

- USFS and other neighboring landowners' use of prescribed fire, vegetation removal, and other fuel reduction treatments on lands surrounding the Reservation;
- wildland fires on adjacent lands
- future development and growth of population on the Reservation and in adjacent communities;
- construction and operation of new structures on the Reservation (especially if new structures are located near the WUI boundary);
- additional activities which may cause surface disturbance in or near the planning area (recreation, grazing, etc.).

4.4.1 No Action Alternative

If fuel reduction activities within the planning area are effective in limiting the spread of wildland fires, it would reduce the likelihood of structures in or near the planning area and on adjacent lands being destroyed by fire. Air quality would also benefit from limiting the extent of wildland fires, both in the short and long-term. However, adverse effects to air quality could also occur due to wildland fires on lands surrounding the planning area and Reservation.

Removal of vegetation from fuel reduction activities combined with fire management actions on surrounding lands would have minor adverse cumulative effects to vegetation communities, wildlife habitat, and aesthetics. Minor adverse cumulative effects to soils and water resources would also result due to ongoing fuel reduction activities combined with off road vehicle use, grazing, and any other activities which would result in soil compaction or erosion. However, firebreak maintenance, disking, and weed removal would continue to reduce the prevalence and spread of noxious weeds, if such activities are performed at the most effective times of the year. No effects on historic or cultural resources, residences, businesses, or other structures would occur from fuel reduction activities. However, if

firebreaks did not successfully contain wildland fire, these resources and structures could be damaged or destroyed.

4.4.2 Proposed Action

Cumulative effects under the Proposed Action would be similar to those described under the No Action Alternative. Implementing the principles of a Firewise community would reduce the potential for damage or destruction of historic or cultural resources or structures located near the WUI boundary by decreasing wildland fire probability and spread. Implementing the fuel reduction activities under the Proposed Action, including firebreak maintenance on a fixed schedule of every two years, would also decrease the potential for damage or destruction of resources from wildland fire within the planning area. Adverse cumulative effects to vegetation, soils, water resources, and aesthetics associated with surface disturbance and removal of vegetation would be reduced under the Proposed Action due to the abandonment and eventual revegetation of four miles (about 12 acres) of firebreaks. Cumulative control of noxious weeds would be similar to the No Action Alternative since fewer miles of firebreaks would be maintained but control measures would be scheduled and therefore, likely more effective over time.

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CHAPTER 5
CONSULTATION AND COORDINATION

5.1 INTRODUCTION

Members of the Tribe, residents on the Reservation, and representatives of the Tribe were the primary stakeholders in developing this EA. The relatively small size of the stakeholder group is because the planning area is small, the land ownership on the Reservation is homogeneous, and the Tribe is a sovereign nation. The planning process included consultation and collaboration with the Tribal Council, Tribal members who reside on the Reservation, and representatives of the Tribe, including the Morongo Environmental Protection Department, Morongo Fire Department, and the Morongo Public Works Department. Due to the sovereign status of the Tribe, no consultation with federal, state, or local agencies was required. The Bureau of Indian Affairs (BIA) also had opportunities to comment on the EA during various stages of the process.

The consultation and coordination process to create a collaborative EA began with scoping and continued throughout the planning process by including opportunities to review and comment on drafts of the EA before a decision was reached. The drafts of the document included a Preliminary Draft EA, Draft EA, and Draft Final EA. Public involvement was limited by the small population on the Reservation, the sovereign status of the Tribe, and the limited interest of residents and other tribal members.

5.2 SUMMARY OF ACTIVITIES

5.2.1 Scoping Activities

The Morongo Environmental Protection Department determined the most appropriate and effective methods for involving stakeholders in the EA process. For scoping, three methods of tribal and public notification were prepared to solicit comments on the EA (see Appendix A, Advertisements and Announcements): 1) a scoping letter to the Tribal Council and representatives of the Tribe, 2) a flyer for residents, and 3) an advertisement on the Morongo public access television channel. The scoping period lasted for 30 days, beginning on November 3, 2008, and continuing through December 2, 2008.

The scoping letter was sent to the Tribal Council and representatives of the Tribe, including the Morongo Environmental Protection Department, Morongo Fire Department, and the Morongo Public Works Department. The letter described the activities being analyzed in the EA and included a map of the WUI planning area. The scoping letter also informed stakeholders that the EA would be assessing the physical, biological, cultural, religious, and historic preservation impacts that could result from implementing these activities. The letter requested comments on the EA and provided multiple methods of submitting comments to the Morongo Environmental Protection Department, including in-person delivery, interdepartmental mail, fax, phone, or e-mail.

In addition to the scoping letter, a flyer was prepared that contained the same information as the scoping letter, including a map of the WUI planning area. The scoping flyer was posted in various public areas on the Reservation.

The third method of soliciting scoping comments was an advertisement broadcast on the Morongo public access television channel. The scoping advertisement contained the same information as the letter and the flyer, was presented in a Microsoft PowerPoint format, and included a map of the WUI planning area. The scoping advertisement ran continuously on the public access channel during the 30-day scoping period, from November 3, 2008, through December 2, 2008.

No comments were received in response to any of the three types of scoping notifications.

5.2.2 Review and Comment on the Environmental Assessment and Decision Document

The Morongo Environmental Protection Department made the EA available for review and comment at multiple stages of the planning process. Three drafts of the EA and one draft of the decision document were produced and made available for comment before a final EA and final decision document were published. Comments were received and were addressed by revising the document to produce a subsequent version.

Electronic and hard copies of both the Preliminary and Draft EA and the decision document were disseminated within the Morongo Environmental Protection Department and to the Tribal Council, Morongo Fire Department, Morongo Public Works Department, Morongo Realty Department, Morongo Planning Department, and the Morongo Water Department for review and comment. A letter soliciting comments on the Draft EA was mailed to the above departments informing them of the opportunity to comment. The letter described the WUI and EA plans and the comment process. In addition, a hard copy Preliminary Draft EA was made available for review by tribal members and residents on the Reservation at the Morongo Environmental Protection Department. The Draft EA and decision document were also sent to the BIA for review and comment before final versions were produced.

The Final EA was available for comment for 30 days from April 1, 2009 through April 30, 2009. During that period XXX comments were received and addressed. The comments and responses are included in Appendix A.

CHAPTER 6
LIST OF PREPARERS

Table 6-1
List of Preparers for the EA

Name	Role/Responsibility	Background/Education
Contractor, Tetra Tech, Inc.		
Matt Loscalzo	Project Manager	MS Environmental Studies, University of Colorado – Boulder BA, Political Science, Binghamton University
Cameo Flood	Forestry/Fire Specialist Alternative development	BS, Forestry, University of Montana
Thad Jones	Forestry/Fire Specialist Alternative development	BS, Forestry, University of Montana MS, Forestry, University of Montana
Genevieve Kaiser	GIS Analyst Figures and calculations	BA, Economics, College of William and Mary, 1986 MS, Energy Management, University of Pennsylvania, 1988 GIS Certificate, University of Denver, 2001
Neil Lynn	Biologist Topography, Slope, Aspect: Air Quality, Ecological Resources; Soils and Water Resources; Range	BS, Wildlife Biology, Colorado State University
John Priecko	Environmental Planner Land Use; Recreation; Aesthetics Historical and Cultural Resources; Community; Cumulative Effects	MUEP, Master of Urban and Environmental Planning, Arizona State University BS, Environmental Studies BS, Biology

Table 6-1
List of Preparers for the EA

Name	Role/Responsibility	Background/Education
Cynthia Adornetto	Project Management Purpose and Need; Statutes and Regulations; Alternative Development; Consultation and Coordination; Cumulative Effects; QA/QC	MS, Environmental Policy & Management, University of Denver BS, Natural Resources Management, Colorado State University
Shannon Lindquist	Environmental Planner Vegetation	MS Environmental Studies, The Evergreen State College BS Ecology and Evolutionary Biology, Sonoma State University
Robert Evans	ASLA , Visual Resource Lead Aesthetics	MLA Landscape Architecture, Auburn University MA Regional Planning, Auburn University BA, Environmental Design, Auburn University

CHAPTER 7
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APPENDIX A

PUBLIC SCOPING AND INVOLVEMENT

A.1 Public Scoping Letter Sent to Stakeholders

Morongo Band of Mission Indians
11581 Potrero Rd.
Banning, CA 92220

November 3, 2008

Subject: Morongo Band of Mission Indians, Environmental Assessment (EA) for a Wildland Urban Interface (WUI) Program Management Plan for the Morongo Indian Reservation

Dear Interested Party:

The Morongo Band of Mission Indians (the Tribe) has begun work on the preparation of an Environmental Assessment (EA) for a Wildland Urban Interface (WUI) Program Management Plan for the Morongo Indian Reservation. The Tribe is soliciting comments on the EA during a 30 day period from November 3 through December 4, 2008.

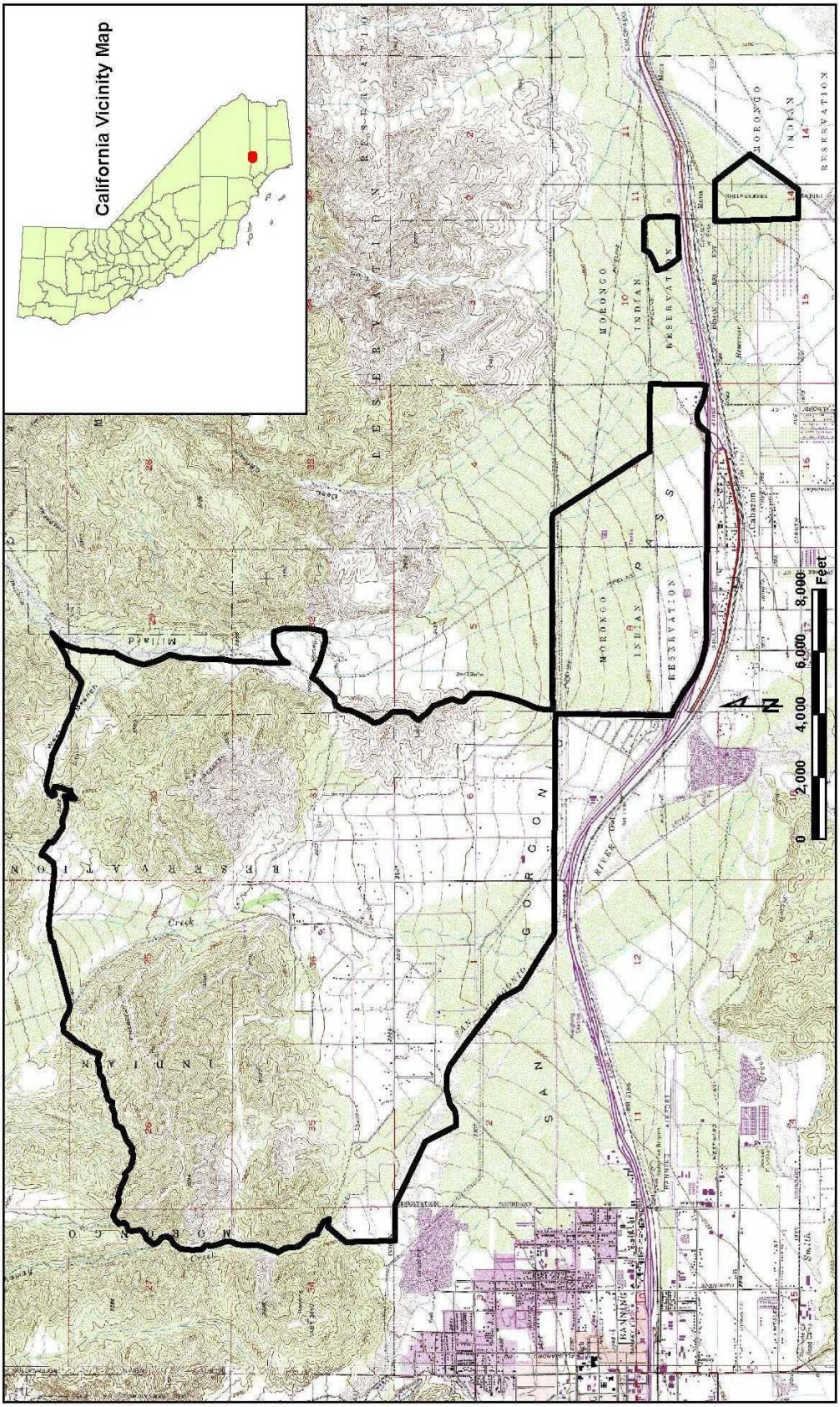
The WUI Program Management Plan is a comprehensive approach to managing and mitigating risks to human lives, property, and other key resources from fuel hazards and potential fire events. The WUI is the line, area, or zone where structures and other human developments meet or intermingle with undeveloped, wildland or vegetative fuels. The EA is being developed to evaluate the potential physical, biological, cultural, religious, and historical preservation impacts of the fuel reduction activities in the WUI Program Management Plan.

The fuel reduction activities implemented as a result of the WUI Program Management Plan would be largely a continuation of current fuel reduction activities. Those activities have included constructing and maintaining firebreaks, discing plant material, and removing noxious weeds.

The Tribe is requesting your comments on the EA from November 3 through December 2, 2008. Comments can be submitted to the Morongo Environmental Protection Department using one of the following methods: (1) deliver in-person to 47350 Foothill Rd., Banning, CA, between the hours of 8 am and 5 pm; (2) inter-department mail; (3) fax to (951) 755-5299; (4) by phone to Jason Mandly at (951) 755-5176; or (5) by e-mail to Jason_Mandly@morongo.org.

Sincerely,

Jason Mandly
Morongo Environmental Protection Dept.


California Vicinity Map
WUI Planning Area
Morongo Indian Reservation, California
WUI Planning Area
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Note: The wildland urban interface (WUI) Planning Area extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.
Tetra Tech

A.2 Stakeholder Letter for Public Scoping

Morongo Band of Mission Indians
12700 Pumarra Rd.
Banning, CA 92220

March 31, 2009

Subject: Morongo Band of Mission Indians, Soliciting Comments on the Draft Environmental Assessment (DEA) for a Wildland Urban Interface (WUI) Program Management Plan for the Morongo Indian Reservation

Dear Interested Party:

The Morongo Band of Mission Indians (the Tribe) has completed a Draft Environmental Assessment (DEA) for a Wildland Urban Interface (WUI) Program Management Plan for the Morongo Indian Reservation. The Tribe is soliciting comments on the DEA during a 30 day period from April 1 through April 30, 2009. We previously contacted you via letter on November 3, 2008 to solicit comments when we began the EA process.

As referenced in our November letter, the WUI Program Management Plan is a comprehensive approach to managing and mitigating risks to human lives, property, and other key resources from fuel hazards and potential fire events. The WUI is the line, area, or zone where structures and other human developments meet or intermingle with undeveloped, wildland or vegetative fuels (see attachment for WUI Planning Area). The DEA has been prepared to evaluate the potential physical, biological, cultural, religious, and historical preservation impacts of the fuel reduction activities in the WUI Program Management Plan.

The fuel reduction activities implemented as a result of the WUI Program Management Plan would be largely a continuation of current fuel reduction activities. Those activities have included constructing and maintaining firebreaks, disking plant material, and removing noxious weeds.

The Tribe is requesting your comments on the DEA from April 1 through April 30, 2009. The document is available for review at the Morongo Environmental Protection Department (MEPD) on the second floor of the Morongo Administration Building at 12700 Pumarra Road in Banning, CA 92220. Comments can be submitted to the MEPD using one of the following methods: (1) deliver in-person to the MEPD office in the administration building between the hours of 8 am and 5 pm; (2) inter-department mail; (3) fax to (951) 755-5299; (4) by phone to Jason Mandly at (951) 755-5176; or (5) by e-mail to jmandly@morongo-nsn.gov.

Sincerely,

Jason Mandly
Morongo Environmental Protection Department

Attachment: Map of WUI Planning Area

A.3 Flyer Posted on the Morongo Reservation for Public Scoping

SCOPING NOTICE

The Morongo Band of Mission Indians (the Tribe) has begun work on the preparation of an Environmental Assessment (EA) for a Wildland Urban Interface (WUI) Program Management Plan.

What is a WUI Management Plan?

The WUI Program Management Plan is a comprehensive approach to managing and mitigating risks to human lives, property, and other key resources from fuel hazards and potential fire events. The Wildland Urban Interface (WUI) is a line, area, or zone where structures or other developments meet or intermingle with undeveloped, wildland or vegetative fuels (see map).

What is the EA?

The EA is an analysis of the physical, biological, cultural, religious, and historical preservation impacts that could result from implementation of the fuel reduction activities proposed in the WUI Program Management Plan.

MORONGO BAND OF MISSION INDIANS

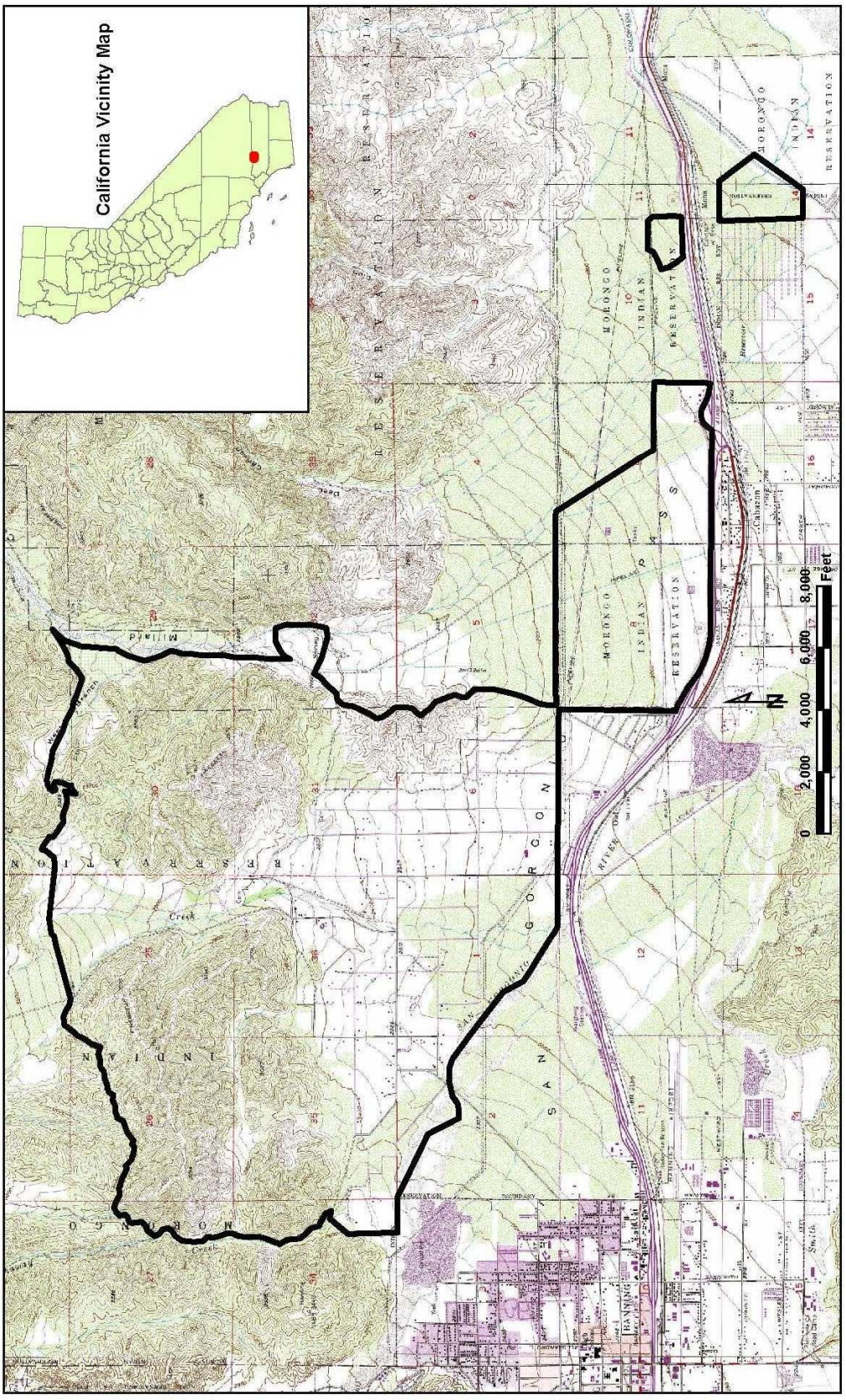
A SOVEREIGN NATION

Your Comments Are Requested Via One of the Following Methods:

Deliver in person to the Morongo Environmental Protection Dept., 47350 Foothill Rd., Banning, CA, between the hours of 8 am and 5 pm.

E-mail comments to: Jason_Mandly@morongo.org

The Comment Period Runs from November 3 through December 2, 2008


California Vicinity Map
WUI Planning Area
Morongo Indian Reservation, California
WUI Planning Area
Tetra Tech
Note: The wildland urban interface (WUI) Planning Area extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.
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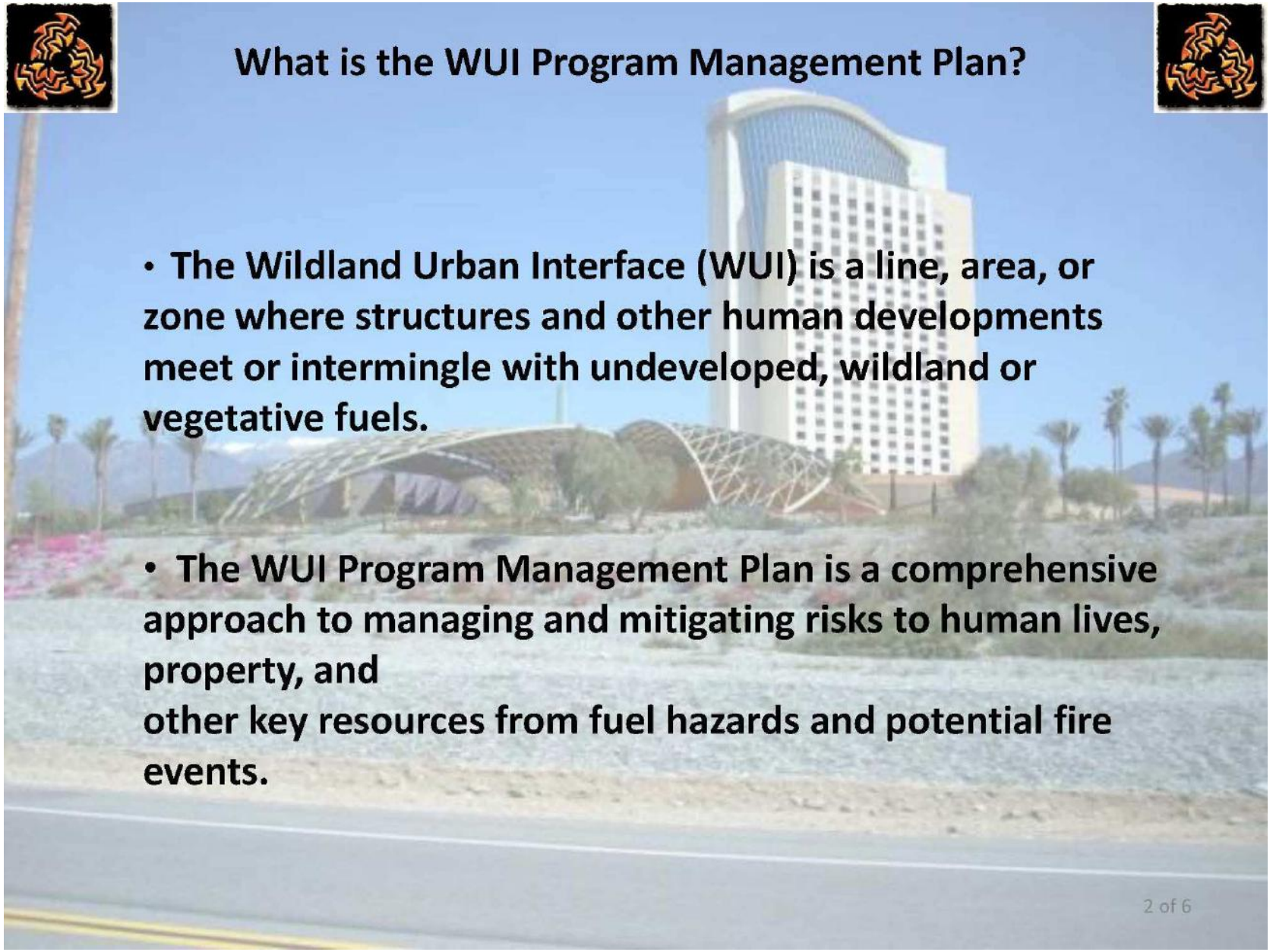
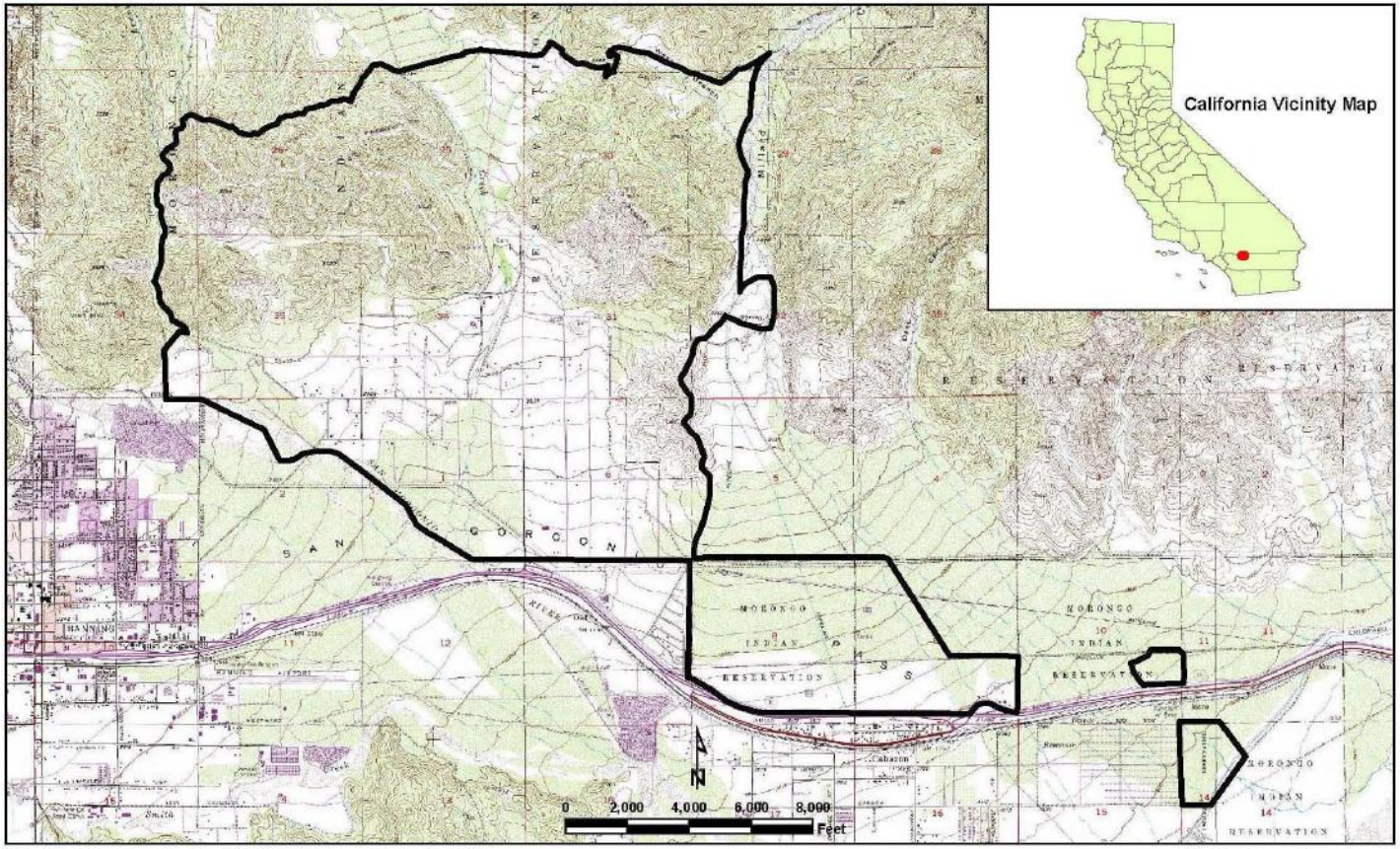
MORONGO INDIAN RESERVATION
SAN GORGONIO RIVER
SAN BERNARDINO NATIONAL FOREST
Millard Canyon
Potrero Creek
Noble Creek

A.4 Presentation Broadcasted on the Tribal Access Channel for Public Scoping


What is the WUI Program Management Plan?
• The Wildland Urban Interface (WUI) is a line, area, or zone where structures and other human developments meet or intermingle with undeveloped, wildland or vegetative fuels.
• The WUI Program Management Plan is a comprehensive approach to managing and mitigating risks to human lives, property, and
other key resources from fuel hazards and potential fire events.
2 of 6

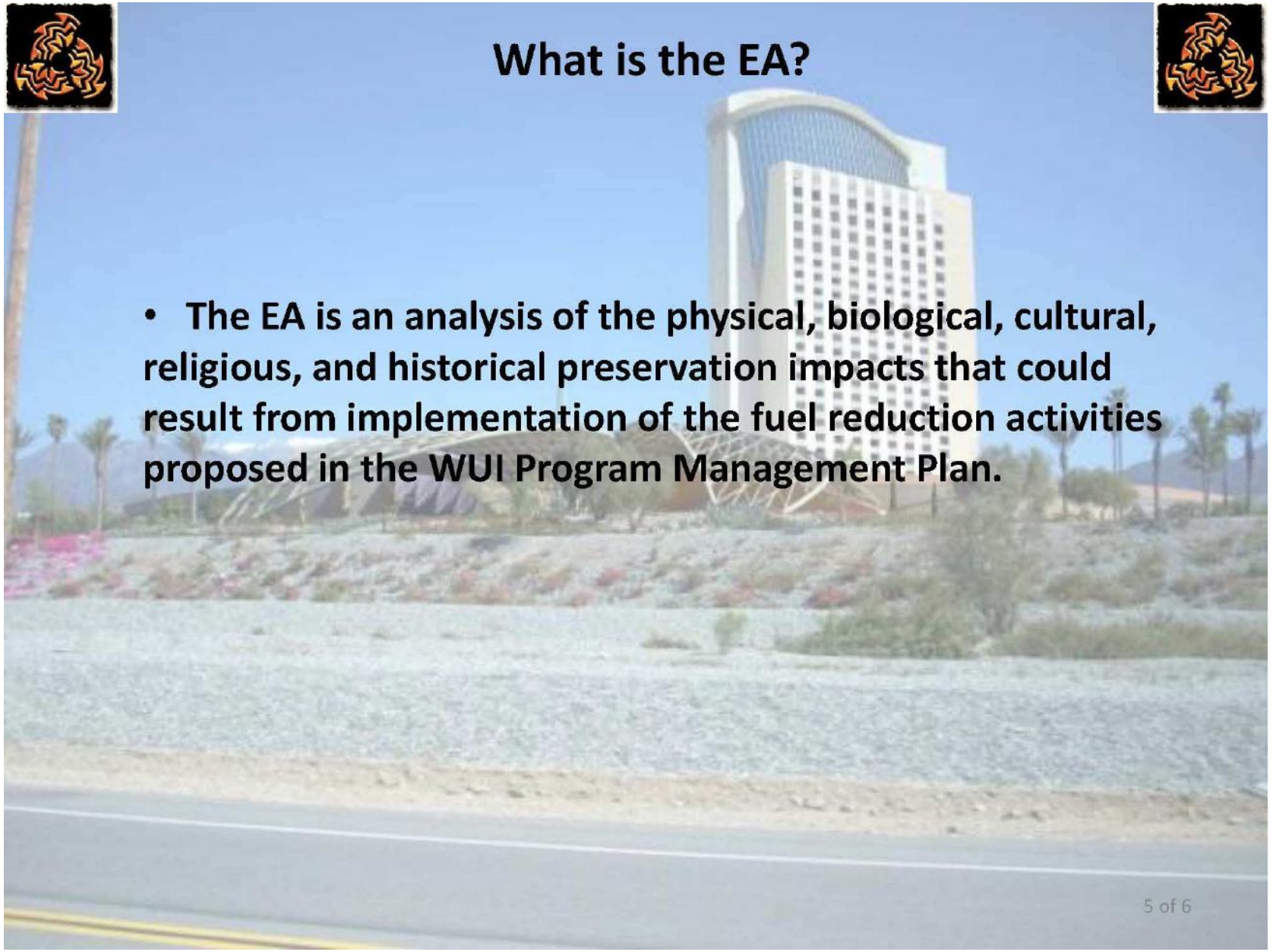


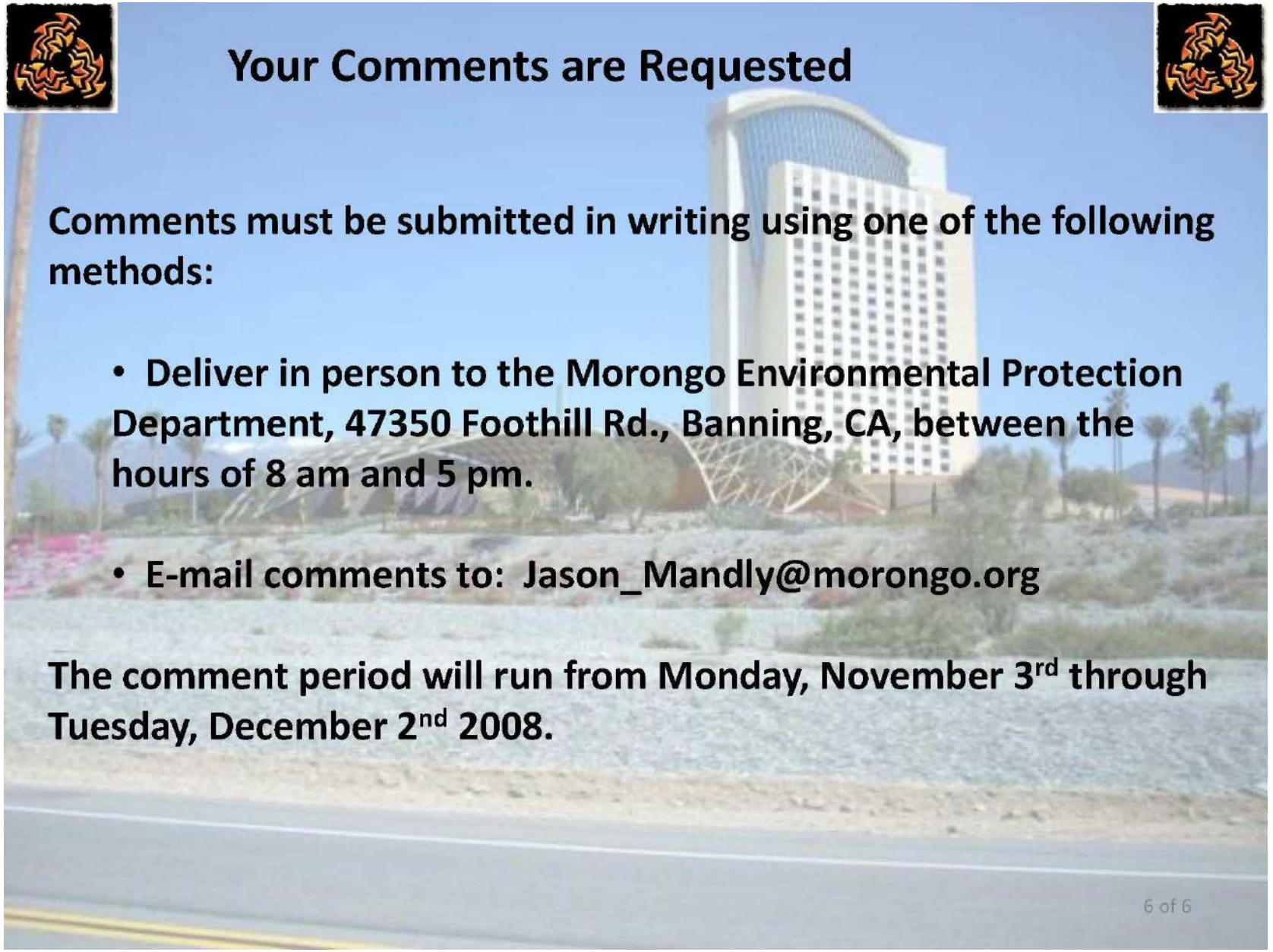
Note: The wildland urban interface (WUI) Planning Area extends eastward from the City of Banning, in Riverside County, California, across the Morongo Indian Reservation.

WUI Planning Area
Morongo Indian Reservation, California

Tetra Tech


What are the Proposed Fuel Reduction Activities in the WUI Program Management Plan?
• The activities implemented as a result of the WUI Program Management Plan will be largely a continuation of current fuel reduction activities.
• Those activities have included constructing and maintaining fire breaks, discing plant material, and removal of noxious weeds.
4 of 6


What is the EA?
• The EA is an analysis of the physical, biological, cultural, religious, and historical preservation impacts that could result from implementation of the fuel reduction activities proposed in the WUI Program Management Plan.
5 of 6


Your Comments are Requested
Comments must be submitted in writing using one of the following methods:
• Deliver in person to the Morongo Environmental Protection Department, 47350 Foothill Rd., Banning, CA, between the hours of 8 am and 5 pm.
• E-mail comments to: Jason_Mandly@morongo.org
The comment period will run from Monday, November 3rd through Tuesday, December 2nd 2008.
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A.5 Letter Sent to the BIA Soliciting Comments on the DEA

To be provided by the Tribe

A.6 Stakeholder List for Solicitation of Public Comments on the DEA

Morongo Tribal Council			
Last Name	**First Name**	**Title**	**Email Address**
Martin	Robert	Tribal Chairman	Robert_Martin@morongo.org
Hanson	Deb	Executive Assistant to Chairperson	Deb_Hanson@morongo.org
Andreas	Mary Ann	Vice Chairperson	MaryAnn_Andreas@morongo.org
Lyons	Maurice	Council Member	Maurice_Lyons@morongo.org
Mathews	Elaine	Council Member	Elaine_Mathews@morongo.org
Miller	Dennis	Council Member	Dennis_Miller@morongo.org
Martin	Charles	Council Member	Charles_Martin@morongo.org
Sandoval	Damon	Council Member	Damon_Sandoval@morongo.org
Acosta	Rocio	Executive Assistant to Council	Rocio_Acosta@morongo.org
Savage	Sharron	Executive Recording Secretary	Sharron_Savage@morongo.org
Burns	Marie (Sasha)	Administrative Assistant to Council	Marie_Burns@moronogo.org

Morongo Department Heads			
Last Name	**First Name**	**Title**	**Email Address**
Walker	Anona	Prevention Education Coordinator	Anona_Walker@morongo.org
Walch	Curt	Education Administrator	Curt_Walch@morongo.org
Lynch	Dan	Chief Financial Officer	Dan_Lynch@morongo.org
Munro	David	Emergency Services Director	David_Munro@morongo.org
Gandara	Debbie	Library Specialist	Debbie_Gandara@morongo.org
Steppe	Duke	Social Services Administrator	Duke_Steppe@morongo.org
Reyna	Ernie	Assistant Controller	Ernie_Reyna@morongo.org
Toro Jr.	Fred	Network and Communications Manager	Fred_Torojr@morongo.org
Covington	John	Water Manager	John_Covington@morongo.org
Woodard	Karen	Realty Administrator	Karen_Woodard@morongo.org
Helm	Kaylina	Reservation Services Administrative Assistant	Kaylina_Helm@morongo.org
Bogdanski	Liz	Environmental Director	Liz_Bogdanski@morongo.org
Milhiser	Michael	Chief Administrative Officer	Michael_Milhiser@morongo.org
Levine	Mike	Reservation Patrol Chief	Mike_Levine@morongo.org
Ferrell	Robert	Director of Human Resources	Robert_Ferrell@morongo.org
Seneff	Robert	Recreation Manager	Robert_Seneff@morongo.org
Meyer	Roger	CEO	Roger_Meyer@morongo.org
Morales	Roxanne	Public Works Manager	Roxanne_Morales@morongo.org
Plunk	Sandra	Tribal Operations Administrator	Sandra_Plunk@morongo.org
Schubert	Sandra	Director of Morongo Little Creators	Sandra_Schubert@morongo.org
Schaller	Scott	Elder's Director	Scott_Schaller@morongo.org
Beadle	Time	Fire Department Battalion Chief	Tim_Beadle@morongo.org
Linton	Tom	Planning Director	Tom_Linton@morongo.org