



Kashia Round House
Founded in 1916

*Kashia Band of Pomo Indians
Of the Stewarts Point Rancheria*

MEMORANDUM

Date: 01/08/2018

To: Kashia Tribal Community

From: Kashia Department of Environmental Planning

Re: Environmental Protection Agency (EPA) Tribal Environmental Plan (ETEP)

The Kashia Department of Environmental Planning is taking comments on its draft Environmental Protection Agency (EPA) Tribal Environmental Plan (ETEP).

The Department has worked collaboratively with other Tribal programs to develop this draft ETEP. The ETEP is required under the General Assistance Program (GAP) Guidance that was developed by EPA in 2013.

The purpose of the ETEP is to develop the complete picture of the particular environmental issues facing the Tribe, establish a shared understanding of the issues the Tribe will be working on, and a shared understanding of those issues that Environmental Protection Agency (EPA) will address consistent with its responsibility to protect human health and the environment. The ETEP is meant to be an agreement between EPA and the Tribe. The issues addressed in the ETEP will be used to set work plans for future funding requests. The ETEP can be revised as often as needed.

Please direct comments to: comments@stewartspoint.org. Please put ETEP in the Subject Line. We are taking comments until January 31, 2018.

Yawhee

KASHIA BAND OF POMO INDIANS

STEWART POINT RANCHERIA



EPA-Tribal Environmental Plan

Prepared by:



Kashia Department of Environmental Planning
1420 Guerneville Road, Suite 1
Santa Rosa, California 95403

Approved by Tribal Council
XX-XX-XXXX

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Section 1.0

Introduction

The purpose of this Tribal Environmental Plan is to develop the complete picture of the particular environmental issues facing the Kashia Band of Pomo Indians Tribe, establish a shared understanding of the issues the Tribe will be working on, and a shared understanding of those issues that Environmental Protection Agency (EPA) will address consistent with its responsibility to protect human health and the environment. The goal of the Kashia Department of Environmental Planning is to ensure the health and safety of all people who live, work and/or visit Kashia Land (KL) by monitoring and enforcing of applicable Tribal, Federal, and State laws and regulations.

1.1 Kashaya History

The Kashaya, the first people known to have lived in the area now known as Fort Ross, still live in this region. The local native people consider their name to be “people from the top of the land.” The name Kashaya, which means “expert gamblers,” was given to them by a neighboring Pomo group. The Kashaya are one of seven individual groups of people who speak what linguists have labeled as the Pomoan Languages.

The Kashaya occupied lands extending about thirty miles from the Gualala River in the north to Duncan’s Point a few miles south of the Russian River. West to east, the Kashaya territory reached from the Pacific coastline over four coastal ranges, down the Warm Springs Creek to the confluence of Dry Creek, some thirty miles inland. The important old village site of Metini situated near the Russian Fort (Fort Ross) was central to the Kashaya territory. The population of pre-contact Kashaya is estimated to have included 1,500 persons living in large villages over the different environmental zones within their territory. The Kashaya, as a group, consisted of principal and subsidiary villages politically and socially link to each other. The large villages were the main residences of headmen and women. These individuals were sharply attuned to the activities of the group. A religious and political leader was at the center of Kashaya ceremonial and social life. (Full version appendix X) *Otis Parrish, Tribal Elder, retired Tribal Historic Preservation Officer*

1.2 Cultural Resources

The Kashia Band of Pomo Indians has maintain a strong sense of cultural tradition and continuity quite unique for indigenous peoples. The past is well documented by Tribal members, archeologists and scholars. While many documents exist in the public domain, some documents reviewed and oral accounts received by the Department of Environmental Planning regarding sites on the Rancheria are confidential. Accordingly, the status of sensitive cultural resources

and appropriate recommendations are covered in Tribal Confidential Document between the Cultural and Environmental Planning Departments.

In 1978, the entire Rancheria was archaeologically surveyed by Sonoma State University. The report, King and Fredrickson 1978, noted three resources of significance: the burial grounds, the Old Roundhouse and New Roundhouse. The first home that was built on the Rancheria was not included in the report but has tribal historic significance and is considered an important tribal historic property.

The Tribal Historic Preservation Officer (THPO) is conducting surveys on the Tribes Coast Reserve property to identify and evaluate for the presence of historic sites and resources and to ensure their protection as per Tribal and Federal Laws and regulations.

1.3 Demographics

There are 17 residential homes on Tribes Trust Lands with an approximate population of 97 full time residents based on the Housing Departments Annual Community Survey. This number changes given the time of year with ceremonial gatherings and other events.

There is limited economy and production within the Rancheria boundaries. There is some employment off Reservation at local businesses that cater to the tourists of the Sonoma Coast. Most other jobs are through the Housing and Environmental Departments. They are typically short, part-time positions for scheduled projects. Jobs on site include: Public Works and Utilities, Roads Planner, Community Center Coordinator, Maintenance and road crews and various other temporary labor positions.

1.4 Tribal Jurisdiction

Tribal versus State Jurisdiction: There is a distinction regarding Tribal environmental compliance requirements between Federally-held Tribal lands and Tribal land held in fee. Lands held in Trust by the BIA (Tribal Community Trust lands) are blanketed under federal law. Compliance with environmental regulations, such as the Clean Air Act and Clean Water Act, is under the jurisdiction of the USEPA. State, county, and local laws and regulations do not apply to these lands. Tribal lands held in fee title (Tribal Community Fee lands), must comply with local jurisdiction. Environmental regulation is under the jurisdiction of the State and corresponding State agencies, or where the State has conferred compliance responsibility to local jurisdictions (counties, cities, special districts), Tribal actions must comply with local laws, regulations, and plans.

Tribal Jurisdiction over Non-Members: Generally, Indian tribes may retain inherent power to exercise civil authority when conduct of non-tribal members on fee lands within the boundaries of the Reservation threatens or has some direct effect on the political integrity, the economic security, or the health and/or welfare of the Tribe [Montana v. United States, 450 U.S. 544, 566

(1981); see also *Atkinson Trading Co. Inc. v. Shirley*, 532 U.S. 645 (2001)]. In relation to Tribal environmental compliance, rulings of the US Supreme Court have maintained that tribe's have the authority to exercise jurisdiction over non-tribal member actions that may result in noncompliance with Tribal ordinances of Federal statutes relating maintenance of the Reservation's environment.

The Tribes Lands encompass both jurisdiction types: Trust Lands and Fee Lands.

Kashia Trust Land (KTL)

The tribal trust lands are held in whole, meaning the benefit of use of the land is decided by the Tribe. There are no individual tribal trust land allotments. There are homes built on lots that have been designated by the tribe for housing. These are overseen by the Housing Department Staff according to the Land Assignment Ordinance April 1979. The land is used for domestic housing, location of water and waste water treatment buildings, a community center, maintenance building, ceremony and natural and cultural resource use. These lands fall under Tribal and federal jurisdiction.

Two county roads, Skaggs Springs/Stewarts Point and Tin Barn Roads run through the Rancheria, along with a network of tribal dirt roads that were established as far back as 1916. There are 16 homes, 2 roundhouses, a maintenance building (old firehouse), water distribution and treatment buildings, a waste water facility (leach-field) and lift station, a cemetery and a Community Center. There is also a school on an adjacent property that serves the Rancheria. Basic rural utilities service the Rancheria and there is an electrical transmission corridor just east of Rancheria. It runs north to south and transects Tin Barn Road.

- The jurisdiction includes a 41.85 acre trust parcel here after referred to as Kashia Trust Property, Stewarts Point Rancheria located at 31455 Skaggs Springs Rd, Unincorporated Sonoma County, CA 95480. The Legal description is SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 5, T9N, R13W, MDB&M within Annapolis Quadrangle. APN: 123-160-003
- The jurisdiction includes a 510 acre trust parcel, adjacent to Stewarts Point Rancheria here after referred to as Kashia Trust Property, located at 38500 Tin Barn Rd, Unincorporated Sonoma County, CA, 95480. The Legal description is SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 5, T9N, R13W; SE $\frac{1}{2}$ of SW $\frac{1}{4}$ of Section 5, T9N, R13W; SE $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 5, T9N, R13W; SE $\frac{1}{4}$, Section 5, T9N, R13W; NE $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 8, T9N, R13W; SW $\frac{1}{2}$ of SW $\frac{1}{4}$ of Section 4, T9N, R13W, MDB&M within Annapolis Quadrangle. APN: 123-160-005

Jurisdiction trust parcels are contiguous to one another and are located in the California Coast Range on a ridge crest, Miller Ridge, about five miles east of the Pacific Ocean. Elevation of the residential area is fairly uniform at approximately 1,050 feet as it straddles a ridgeline that runs roughly north south.

Kashia Coast Reserve (KCR)

Kashia Coast Reserve Property is located adjacent to Salt Point State Park on Pacific Coast Highway 1 just five miles southwest of Kashia Trust Lands. The Kashia Coast Reserve Lands are in a fee status and subject to land use easements. This Coastal Reserve Property is not currently open to the public; permission to use this property must be approved by Tribal Council. The intent of this land is to be used for natural and cultural resource use. There is only one home, a garage, two barns and a few smaller buildings on the property. This land will be used for natural and cultural resource mechanisms and recreation. These lands fall under tribal and state jurisdictions.

The Pacific Coast Highway 1 traverses the western portion of the Kashia Coastal Reserve property. Infrastructure consists of a single-family house, a detached two-car garage, a shed/workshop, an older barn, and an old chicken coop. There is a small cemetery just north of the residence where several members of the Anderson family are buried (west of the shed/workshop). A paved driveway provides access to the residence from Highway 1. There is a network of interior dirt logging roads and crossings that were established between the 1950's and 1970's. The logging road along the eastern ridge leads to the adjacent property to the east. There are no gates at the property line. There is deteriorating wood property boundary fence along the north and south portions of the property lines and along Pacific Coast Highway 1. There is also some interior wood and wire livestock fencing in poor condition, including an old wooden pig corral near the residence. The eastern perimeter of the land is not fenced. Basic rural utilities serve the property. Water is provided by a developed spring. The property has an older septic system. There is a utility line corridor (both above and below ground) along the west side of Highway 1.

- The Tribes Kashia Coastal Reserve Property includes a 678.2 acre fee parcel, located at 29000 CA-1, Jenner, CA 95450. The legal description is: T9N, R14 W MDB&M within Plantation, Annapolis, and Stewarts Point Quadrangles. APN: 122-290-001, and 122-290-002

The Tribes Coast Reserve Lands are located on State Highway 1 directly within the Coastal Zone, on the west side of Miller Ridge on the Pacific Coast. It is approximately 4 miles from jurisdiction trust lands to the north east. The Coast Reserve is approximately rectangular in shape and is bisected by Coast Highway 1.

1.5 Environmental Characteristics

Climate

Sonoma County has a Mediterranean climate with typically dry summers and mild, wet winters. The tribal lands are located on the border between two climates zones in Sonoma County: the Marine Zone that lies directly to the west and the Coastal Cool Zone on the east. Precipitation in the area consists mainly of rain and averages approximately 45 per year (**Attachment x – show rainfall**). Winter temperatures are generally mild with occasional cold

spells. Mean minimum temperature is 42 degrees and summer temperatures remain cool due to the marine influences. Typical summer temperatures for the trust lands on the east side of the South Fork of the Gualala River have daily maximums in the 70s with nights in the 50s. The climate near the Sonoma coast is heavily influenced by the Pacific Ocean and is characterized by mild seasonal temperatures, strong prevailing northwest winds, with low clouds and fog during the summer months. The rugged topography of the Property along with the coastal influence creates localized microclimates that are determined by elevation, aspect, and vegetation. Heaviest precipitation occurs from November to April.

Climate Outlook

Sonoma County acknowledges that climate change is already happening (Sonoma County Regional Climate Protection Authority, March 11, 2015 SCTA Press Release). It has been noted by the Tribal Members in various conversations that they are seeing:

- Hotter, drier weather with longer summers. This means increased heat events, longer and more frequent droughts, greater frequency and intensity of wildfires and fewer nights that freeze and no snow in areas on the coastal mountains where it used to snow in the winter.
- Variable rains. This means that there are larger storms and more variable flooding.
- Ocean warming. Examples are frequent red algae tides, large die offs of abalone, and the time when surf fish runs occur has shifted because of warming waters. They also notice the increased erosion along the sea bluffs from the larger storms.
- Change in available resources. This means important natural resources that are an integral part of Tribal uses are either harder to find, impacted by invasive species, or not of good quality to use.

Biotic Resources

KTL: The Tribes Trust Lands east of the South Fork of the Gualala River, along Miller Ridge, are located in the Coastal Forest Zone. This zone includes redwood trees with Douglas fir that predominate the upper canopy and oak woodlands. The shrub layer includes huckleberry, California hazel, salal, and sword fern. The ground cover is mainly redwood sorrel, violet, and wild ginger. Big leaf maple and red alder border stream banks. Bay Laurel and tan bark oak occur in forest openings.

KCR: The Tribes coast reserve land is characterized by Perennial Grassland, Annual Grassland, Closed-Cone Pine-Cypress, and Redwood habitat types. The Redwood vegetation type occurs along some of the more mesic drainages and on some of the north-facing slopes. Coast redwood creates the majority of the over-story, with tan oak being the most common understory tree species. The redwood vegetation type intergrades with the Closed-Cone Pine-Cypress habitat type on the property. The closed-cone Pine-Cyprus habitats are typically found on sites that are more rocky and infertile than the surrounding soils. Closed-cone pines are fire dependent, retaining their seeds in serotinous cones which remain on the branches. The heat of fire, or hot days causes the cones to release seeds, often creating even-aged stands with little understory. Bishop pine,

referred to by locals as "bull" pine, is the species of closed-cone pine found on the coast reserve. The habitat type intergrades into both perennial and annual grassland, as well as redwood.

The Perennial Grassland habitat type is often referred to as coastal prairie and, in general, is quite diverse and varies with respect to elevation, aspect, soil moisture, and historical usage. Coastal prairie is influenced by a persistent marine layer during the summer months. This habitat type is dominated by perennial grasses and forbs and intergrades with annual grasses and Bishop Pine in the drier, more upland areas.

Geology

The Coast Range is a series of mountains and valleys paralleling the Pacific Ocean coastline of California. Geologists believe the Coast Range is created by the continuing collision, approximately 10 cm/year, of the North American continental plate (western movement) and the Pacific oceanic plate (northward movement). Crustal pressures from this collision result in the subduction of the Pacific plate beneath the North American plate.

Under the trust lands is the Franciscan Complex, one of the oldest bedrock formations in the county. The Franciscan Complex is a tectonically disrupted subduction complex composed of diverse rock types. Parts of the Franciscan Complex are considered *mélange*, which consists of a chaotic mixture of fragmented rock masses in a shaly matrix. These rock types include sandstone, shale, conglomerate, greenstone, chert, limestone, metagraywacke, schist, gabbro, serpentinized peridotite.

The Coast Reserve is located on the west side of the San Andreas fault on an active portion of the continental crust called the Salinian block, part of the Pacific Ocean tectonic plate. The rocks of the Salinian block were formed approximately 40 – 60 million years ago in a marine basin that originated approximately 200–260 miles to the south and have moved slowly north along the San Andreas fault line over the past 20 million years (Hirschfeld 2001). The rocks consist of tilted and folded sedimentary rock consisting of sandstone with interbeds of conglomerates and mudstone. The San Andreas fault is located along the South Fork Gualala River, less than one mile northeast of the coast reserve.

A geologic map was compiled by Koenig (1963) for the California Division of Mines and Geology. A more detailed geologic reference was compiled by Wagner and Bortugno (1982) of the California Division of Mines and Geology for Sonoma County (Map 4). Based on Wagner and Bortugno all of the Stewarts Point Rancheria is underlain by Tertiary sediments of the Ohlson Ranch Formation. These sediments are the remnants of an ancient marine terrace which has been uplifted to their present position in the Miller Ridge area. The thickness of the Tertiary sediments on the site is not known but is probably several hundred feet thick. The core of Miller Ridge in this area consists of rock types belonging to the Cretaceous to Jurassic Age (65 million to 195 million years old) Franciscan Assemblage. The Franciscan Assemblage in this area consists principally of arkosic sandstone. Slopes underlain by rocks of the Franciscan Assemblage are often unstable and have

numerous landslides. The Ohlson Ranch Formation is generally a more stable geologic unit and has less landslide activity.

Data collected by Topozada, Branum, et al. (2002), on California Earthquake history since 1800, indicates that there has been very little seismic activity with epicenters located in the vicinity of the Rancheria. The greatest concentration of seismic events in this area appears to have taken place off Cape Mendocino in the Gorda Escarpment and further south in the San Francisco Bay Area along the San Andreas, Calaveras, and Hayward Fault Systems. The largest seismic events recorded since 1906 in the vicinity of the Rancheria have occurred near Santa Rosa, called the Great Santa Rosa Earthquake. In 1969, two moderate earthquakes with magnitudes of 5.6 and 5.7 Richter occurred. The epicenters for these earthquakes were located approximately 37 miles to the southeast of the Stewarts Point Rancheria. The Santa Rosa earthquakes and the smaller aftershocks were part of a swarm of earthquakes that appeared to be related to activity along the Healdsburg–Rogers Creek Faults. There has been little seismic activity along the portion of the San Andreas Fault near the Rancheria since 1906. It is possible that the San Andreas in this region has been storing crustal strain and, thus, there may be a potential for larger magnitude earthquakes along this portion of the San Andreas in the future.

The geologic map, prepared by USGS 1997, for the Sonoma County report indicates a number of landslides in this portion of the coastal region. The majority of the landslides near Stewarts Point Rancheria appear to be located along fault shear zones. The rock along these zones is fractured and more susceptible to slides. A number of relatively large slides are located along the western slopes of Miller Ridge. The headwall for one of these slides is mapped approximately one—quarter of a mile west of the Stewarts Point Rancheria. Huffman has mapped another questionable slide to the immediate north of the Rancheria. The headwall for this slide as he had mapped it lies within the northernmost portion of the Rancheria. The landslides shown on his map are based primarily on photo interpretation.

Soils

Soils in the area of the Rancheria belong to the Hugo–Josephine–Laughlin Association. These soils are well drained, gently sloping to very steep gravelly loams and loams; on mountains. Slopes range from 2% to 40% on the Rancheria. These soils have a moderate shrink–swell potential, moderate to high erosion potential, slow to very rapid runoff potential based on amount of vegetation and severe constraints to septic tank operations (Map x). The soils on the Coast Reserve belong to the Casper–Rohnerville–Empire–Hugo–Maymen–Mendocino–Noyo–Terrace types. Slopes range from 9% to 50% on the Coast Reserve.

The Caspar series soils consist of well–drained sandy loams that formed in sedimentary marine terrace material. The hazard for erosion is high in areas with steep slopes. Bishop pine is the dominant tree species on Casper series soils on the Property. Empire series soils consist of well–drained loams with a silty clay loam subsoil, underlain by weathered soft sedimentary rocks and

marine terrace material. Runoff is rapid and the hazard for erosion is high. Vegetation on the Property in areas consisting of Empire soils consist primarily of Bishop pine and annual grasses.

Empire–Caspar soils are located in the areas dominated by redwoods in the northwestern and southeastern portions of the Property. Runoff is medium to rapid and the hazard of erosion is moderate to high.

Hugo soils are well–drained gravelly loams underlain by weathered fine–grained sandstone and shale. Runoff is very rapid and the hazard for erosion is very high. The vegetation on the Property in areas consisting of Empire soils consists primarily of Bishop Pine and redwood.

Maymen series soils consist of acidic, well–drained gravelly sandy loam underlain by sandstone and shale bedrock. Runoff is rapid and the hazard for erosion is high. The majority of the coastal prairie on the Property is located in areas with Maymen soils.

Mendocino series soils are moderately well–drained sandy clay loams underlain by coarse grained sandstone and shale. The area of the Property with Mendocino series soils is near the southwest Property corner. Bishop pine is the dominant tree species.

Noyo series soils are somewhat poorly drained coarse sandy loams with clay subsoil. They formed in old marine terrace deposits. The cleared area along the northeast property line consists of Noyo series soils.

Rohnerville series soils formed from material weathered from soft sandstone on marine terraces. They consist of moderately well–drained loams with a subsoil of primarily sandy clay. Runoff is medium and the hazard for erosion is moderate.

Terrace escarpments consist of narrow rocky areas that rise abruptly from the mean–tide line to the coastal plain terraces. They typically consist of fine–grained sandstone and shale. Erosion is a natural process along the coastline and several actively eroded sites were noted during the fieldwork for the report, including at the locations of two wood footbridges on the coastal bluff.

(Map x)

1.6 Community Infrastructure

Infrastructure within Kashia Trust Lands includes:

- Sixteen (17) residential homes – housing approximately 97 full–time residents;
- The Sù Nù Nù Shinal Community Center;
- Kashaya Utility District (KUD) consisting of: intake gallery, wet well, water distribution building, water treatment building, drinking water tank, raw water tank, lift station and septic field;

- Maintenance/workshop building (old fire house);
- Two (2) trash bin enclosures;
- Two (2) Roundhouses;
- 50 panel photovoltaic system; and
- 8 photovoltaic/battery backup/wind generated streetlights

Community Infrastructure are shown on Exhibit A and described below:

Sixteen (16) Residential Homes

The homes are not owned by the individual families. The homes are located on the 41.85 acres of the original Stewarts Point Rancheria. They are assigned by land assignments and remain the property of the Tribe. The age of the homes varies and was established with a combination of funds from Housing and Urban Development, Bureau of Indian Affairs Housing Improvement Program and Native American Housing Assistance and Self Determination Act of 1996. The last set of homes placed or replaced on the Stewarts Point Rancheria was in 2014.

Sù Nù Nù Shinal Community Center

This single story wood structure Community Center was completed in 2013 and houses a computer lab, library, small medical examination room, a small onsite Tribal Office and a small commercial kitchen. It also serves as a community safe site. This facility is located near the intersection of Skaggs Springs/Stewarts Point and Tin Barn Roads, in the center of the original 41.85 acres Stewarts Point Rancheria Community.

Kashaya Utility District (KUD)

a) **Community Water Well/Pump House/Intake Gallery**

The first construction on the water well/pump house/intake gallery began in September 1970, and is located off of Skaggs Springs Road on the south side of the Wheatfield Fork of the Gualala River on an easement acquired from Mendocino Redwood Company. The pipeline runs 1 mile uphill to Stewarts Point Rancheria Community to the KUD raw water tank. Currently, this is the only water source for the Stewarts Point Rancheria Community.

b) **Raw Water Tank - 5,000 gallon**

The 5,000 gallon raw water tank was built with the original sand filter water system in 1984. Water pumped from the water well is pumped here and called for from the water treatment house.

c) **Drinking Water Treatment House**

The water treatment house construction was completed in 2007 and is located in the center of the Rancheria Community on Skaggs Springs Road directly east of the Tribal Community Center. This water utility facility is where the raw water pumped from the

water well is filtered for sediment, and treated before being stored in the 67,000 glass lined drinking water tank before being distributed throughout the Community.

d) Water Distribution House

The distribution house was built in 1984 when the original sand filter system was built. It is located in the center of the community on Tin Barn Road directly north of the Tribal Workshop. This facility houses the electrical panels that power the controls and pumps that transports water from the river to the raw water tank and has 8 (eight) pneumatic tanks that distributes the water to the Community.

e) Waste Water Treatment Plant - Advantex/Orenco System

The Waste Water Treatment Plant was constructed in 1999–2000 and is located near the east edge of the Rancheria Community Boundaries on Mi Wuk Road just east of the Tribal Workshop. This waste water utility facility is where residential waste water is filtered, treated, and discharged into (underground) leach field chambers.

f) Lift/Pump Station

The Lift Station was constructed the same time as the Waste Water Treatment Plant, in 1999–2000, and is located near the south edge of the Rancheria Community on Tin Barn Road directly north of the East Side Rancheria dumpster enclosure. Wastewater/Sewage gravity feeds to the pump station where it is pumped, or lifted, to the Advantex/Orenco System, and dispersed to the septic field.

g) Septic Field

The Septic Field was constructed the same time as the Waste Water Treatment Plant and Lift/Pump Station, in 1999–2000, and is located near the east edge of the Rancheria just east of the Tribal Workshop. The pump station pumps or "lifts" the wastewater/sewer sludge to the Advantex/Orenco System, where it is dispersed to the septic field. This system sits at a higher elevation than the lift/pump station.

Maintenance Building/Workshop

This single story wood structure was originally built to house the community volunteer fire department. It currently is shared between the Tribes Housing and Environmental Planning Departments and houses both the Transportation Planning Crew and Housing Maintenance Crew. It is located directly east of the Drinking Water Treatment Plant.

Trash/Recycling Bin Enclosures

The waste disposal and recycling programs utilize two Trash/Recycling bin enclosures installed in 2003 for housing trash and mixed recycling bins that are picked up biweekly; trash on Friday and recycling on Tuesday by Pacific Coast Disposal. Both Bin enclosures are located within the original Rancheria Community, one near the west edge of the community on Skaggs Springs Road and one near the east edge of the community on Tin Barn Road.

Green Infrastructure (GI)

a) Photovoltaic Panels

There are 50 photovoltaic panels installed on the Treatment House and Firehouse/Maintenance Building. These panels help offset the costs of electricity to the Kashaya Utility District. Installation of the panels was completed in November 2014 by West Coast Solar.

b) Photovoltaic Streetlights

There are 8 photovoltaic streetlights throughout the Rancheria where the homes are located. The first four were installed in 2012 and the remaining four in 2013. They are located along the tribal and county roads.

c) Electric Charging Stations

In support of both sustainability and green infrastructure development the Tribe went after and received funds from the Metropolitan Transportation Commission's Climate Initiatives Grant to implement the Tribal Community Sustainable Transportation Pilot Project. The project was to deploy electric vehicles (EVs), plug-in electric hybrid vehicles (PHEVs) and the installation of Level 2 electric vehicle charging stations to ensure access to community services and use during cultural as well as environmental education trips in lieu of tradition gasoline-powered vehicles.

Through this project the Tribe has deployed two all electric RAV4 EVs and two Ford C-Max Energi Plug-In Electric Hybrids. The Tribe has also developed agreements and has completed the installation of five Level 2 EV Charging Stations located at the Kashia Tribal Office, Fort Ross State Park Visitors Center, the Stewarts Point Rancheria Community Center and the Santa Rosa Junior College's Shone Farm Facility. In addition to reducing GHG's and criteria pollutant emissions related to transportation, the project has also allowed the Tribe to establish a backbone of charging stations that both increase EV utilization and provide a model for EV deployment in a tribal community context.

In support of the pilot project the emissions and cost benefits of deployment were evaluated the table below summarizes the overall results from this evaluation.

Table 1: Summary of Evaluation Results

Analysis Area	Data Source	Results
GHG Emissions	Data from project team; data from government publications	Reduction of 31 tons of CO ₂ e over the 10-year lifetime of the EVs
Criteria Pollutant Emissions	Data from project team; data from government publications	Reduction over the 10-year lifetime of the EVs: 0.52-16 lbs of ROG; 1.0-18 lbs of NOx; and 0.52mlbs of PM
Project Costs Per Ton of GHG Emissions Reduced	Costs from Kashia Tribal Office; data from literature	Total estimated capital cost of \$409,676 for the project, resulting \$13,222/ton of GHG emissions reduced
Operations and Maintenance costs of EV and EVSE	Cost from Kashia Tribal Office; data from literature	Net estimated O&M savings of \$2,682 over 10-year of the EV and EVSE

This evaluation is preliminary as this project is still being implemented, with some significant tasks such as EVSE installation yet to be completed which will increase project benefits.

d) Rainwater Catchment System

The Kashia Department of Environmental Planning is currently worked with the Gualala River Watershed Council (GRWC) to install a 4–5000gallon tank rainwater catchment system on the reservation behind the Su Nu Nu Shinal Community Center. Grant funding was provided by the Watershed Council’s Flow Bank Program whose main purpose is to protect Steelhead and Salmonid habitat by reducing the amount of water withdrawn from the Gualala River watershed during summer months. The system also increases the Tribe’s storage capacity by nearly 30%, providing an alternative water source to be used for irrigation, emergency fire suppression and times of drought.

Section 2.0

Environmental Planning Department

The goal of the Kashia Department of Environmental Planning is to protect all people who live, work and/or visit Kashia Land (KL) by monitoring and enforcing of applicable Tribal and Federal laws and regulations for protection of air, land and water from the impact of pollution and to ensure health and safety through a cleaner environment.

KDEP Priorities:

Priority 1: Address Long-Term Domestic Water Supply Needs

Priority 2: Increase Staff Capacity to Access Hydrological Conditions and their Impact on Kashia's Waters

Priority 3: Improve Waste Management by Identifying Opportunities to Reduce, Reuse, and Recycle Materials Commonly Found In Domestic Waste Stream.

Priority 4: Ensure the Safety of Chemicals and Prevent Pollution from Facilities and Activities on or with the Potential to Affect Kashia's Lands.

Priority 5: Increase Staff Capacity to Access Natural Resources (i.e. Forestland, Rangeland, Wildlife, etc.) and to Develop Resource Management Plans.

Priority 6: Increase Department Capacity Address Indoor Air Quality to Help Reduce the Risk of Indoor Health Concerns.

Priority 7: Increase Tribes Capacity to Manage Emergency Incidents and Mitigate the Effects of Known Hazards that have the potential to impact the Tribes Lands or Community.

Department Authorities

The Departments Authorities come from a set of ordinances duly enacted by the Kashia Tribal Council which include:

- Ordinance #6- Solid Waste;
- Ordinance #7- Prohibiting the Discharge of any Pollutant into the Waters of the Rancheria;
- Ordinance #10- Forest Products;

Department Staff

The Environmental Planning Department primarily consists of the following eight (8) staff:

- Environmental Planning Director
- Environmental Planner/Emergency Management Coordinator
- Water Quality Specialist

- Water Resources Technician
- Transportation Planner
- Roads Maintenance Technician (part-time)
- Special Projects Coordinator (part-time)

Department Grants

The Kashia Department of Environmental Planning received funding from a number of sources. Currently funding is received from:

- US EPA Performance Partnership Grant, consisting of:
 - US EPA General Assistance Program
 - CWA 106 Program
 - CWA 319 Program
- US EPA CWA Set-Aside Program
- BIA Water Resources Grant
- BIA Climate Change Grant
- BIA Indian Reservation Roads
- BIA Integrated Resource Management Grant
- Resource Legacy Fund
- Metropolitan Transportation Commission
- California Prop 1 Funding
- University of Michigan, CBPR Program
- US FWS Tribal Wildlife Grant

Environmental Planning Department Programs

This section is meant to describe both the characteristics and activities of the Departments Programs including non-recurring grant funded special projects.

For the purpose of this plan the Department Programs are those activities that have both recurring annual funding and at least one part-time staff member. Non-recurring grant funded activities are organized under the program with project management oversight for that grant. The Environmental Planning Department is broken into two programs which include;

- Environmental Planning Program
- Water Resources Program
- Transportation Planning Program

2.1 Environmental Planning Program

The Kashia Department of Environmental Planning (KDEP) is responsible for planning, developing and establishing environmental protection programs, and developing and maintaining of internal capacity to manage environmental protection programs.

The KDEP has unique program priorities and objectives that are guided by the Departments overarching mission to protect human health and the environment within a framework of Federal and Tribal Laws and Regulations that ensure that protection.

Program Plans

- *US EPA Tribal Environmental Plan- 2017*
 - *KDEP Environmental Assessment- 09/24/2013*
- *Forestry Management Plan- 2003-2017*
- *Local Operations Plan- 11/19/2015*
- *Solid Waste Management Plan- 10/08/2015*
- *Vehicle Abatement Plan- 05/06/2011*

Indian General Assistance Program (GAP): In 1992, Congress passed the Indian Environmental General Assistance Program Act. This act authorized EPA to provide General Assistance Program (GAP) grants to federally recognized tribes and tribal consortia for planning, developing and establishing environmental protection programs in Indian country, and for developing and implementing solid and hazardous waste programs on tribal lands.

The goal of GAP (CFDA 66.926) is to assist tribes and intertribal consortia in developing the capacity to manage their own environmental protection programs, and to develop and implement solid and hazardous waste programs in accordance with individual tribal needs and applicable federal laws and regulations.

The Tribe received its first non-competitive US EPA GAP assistance agreement in 1999 establishing its Department of Environmental Planning. KDEP staff submits quarterly progress reports to EPA and has maintained and is steadily increasing its capacity building with GAP assistance.

Legal Capacity Building GAP: The purpose of legal capacity building is to establish and/or strengthen the Tribes legal Framework of Ordinances and regulations for environmental protection and human health and safety. This work includes developing, updating and guiding ordinances and regulation through the Tribes legal review and approval process.

Staff Capacity Building GAP: Employees are a key determinant of a department/program success and are often the "face" of the department/program to agencies and stakeholders. Maintaining a well-trained, well-qualified workforce is a critical function of both individual directors and public agencies as a whole. The KDEP Director manages staff resources to ensure staffing is adequate to establish and maintain an organizational structure that meet the tribe's environmental protection program development needs. Training are intended to build capacity within the Department that enable staff to provide information supporting sound environmental management policy decisions.

In support of sustainability, priority is given to locally based training to minimize costs associated with travel even when non-local trainings are offered at no cost. And when opportunities arise, KDEP staff will work with local government agencies and NGO's to assist in the development of local trainings that can benefit regional tribal environmental programs.

Community Education & Outreach GAP: The goal of community education and outreach is to ensure that Tribal youth and adults receive information on environmental resource concerns that are most relevant to the Tribe and the Rancheria. The ability of the KDEP to be effective in building capacity for protecting resources is based on an informed Tribal Community. The objectives are to prioritize environmental concerns of interest, compile and prepare educational material and distribute through the Tribes well establish portfolio of outreach mechanisms including newsletters, website, social media, handouts and bulletin boards. Other outreach methods include conducting presentations and educational workshops at local and regional tribal events.

Baseline Needs Assessment GAP: Baseline needs assessment is a primary step to determine the environmental resources that need protection and the environmental and human health issues facing a particular tribal community. Such an assessment can help a tribe to identify and prioritize a tribes approach for undertaking protection and restoration efforts. Periodically, the baseline needs assessment should be updated in response to factors such as: new sources of pollution, changing environmental conditions, new development in the community, acquisition of land and changes to the environmental program.

The Department is currently updating its baseline needs assessment by evaluating existing best practices to identify capacity gaps. The Department is also updating the baseline assessment to address the Tribes acquisition of additional lands that have been given tribal trust status.

Other baseline assessment projects include collecting data to support improvement of waste diversion and recycling program, and pesticide use data acquisition and analysis to identify local pesticide concerns.

Technical Assistance GAP: Technical assistance (TA) is the process of providing targeted support to an organization with a development need or problem. It is commonly referred to as

consulting. TA may be delivered in many different ways, such as one-on-one consultation, small group facilitation, or through a web-based approach.

The KDEP Staff works with the Kashaya Utility District to provide technical support to ensure the utility meets public health standards and stays in compliance with federal laws and regulations. KDEP Staff work with the Kashaya Utility District to monitor well levels as the Tribe has one water source and monitoring water use is critical for developing mitigation actions for potential water shortage incidents.

Program Special Projects

US FWS Tribal Wildlife Grant Program (TWG) FY18-19: The Tribal Wildlife Grants (TWG) Program is part of a program providing wildlife conservation grants (known as the State Wildlife Grants Program) to States and to the District of Columbia, U.S. Territories, and Tribes under provisions of the Fish and Wildlife Act of 1956 and the Fish and Wildlife Coordination Act, for the development and implementation of programs for the benefit of wildlife and their habitat and species of Tribal cultural or traditional importance, including species that are not hunted or fished. TWG originates from the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 2002 (Pub. L. 107-63), when Congress first specified that the Service use a portion of the funds under the State Wildlife Grants Program to establish a competitive grant program available to federally recognized Tribes. This language allows the Secretary of the Department of the Interior, through the Director of the U.S. Fish and Wildlife Service (Service), to establish a separate competitive Tribal grant program, known as TWG, which would not be subject to the provisions of the formula-based State Wildlife Grant Program, or other requirements of the State Wildlife Grant Program portion.

The Tribe received project assistance from the US FWS for the development of a Tribal Wildlife Ordinance and Plan to promulgate standards for protection and management of Wildlife on 1231.85 Acre Tribal Lands. The tribe will also restore and protect approximately 30 acres of wildlife habitat on the on Kashia Tribal Lands, for the benefit of the fish, wildlife and Tribal Community. The goal of this project is to restore and enhance Kashia Lands to functioning forest and grassland habitat and open wildlife corridors that will be protected in perpetuity by the tribe through a long-term Wildlife Management Plan.

Project Objectives:

1. Develop of a Tribal Wildlife Ordinance.
2. Develop long-term Wildlife Management Plan
3. Manually and mechanically remove and manage invasive plant species.
4. Collect data and GIS map project sites to aid with management decisions.
5. Education and outreach that supports staff and community capacity building

BIA Integrated Resource Management Program (IRMP): The Bureau of Indian Affairs provides Integrated Resource Management Planning (IRMP) managed locally by the Pacific Regional Office, Branch of Forestry. An Integrated Resource Management Plan is a long-range, strategic level plan that integrates the management actions applied to a tribe's trust natural resources. It is a tribal policy document; based on the mission the tribe has for its resources. It describes the type of management activities to be undertaken by BIA and tribal resource management personnel, and serve as an umbrella plan under which all resource planning and management activities are conducted.

The Tribe received project assistance from BIA for the development of an Integrated Resource Management Plan the covers the Tribes 41.85 acre and 510 acre trust status lands. This effort will help focus the Departments long-term strategic planning goals and objectives.

Resource Legacy Fund Program (RLF): California Conservation Innovations (CCI)—an RLF initiative with core funding from the David and Lucile Packard Foundation and additional support from other foundations and individuals—is focused on improving conservation outcomes in California. CCI's overarching goal is to strengthen conservation policies, increase long-term public funding for conservation, and engage younger and more ethnically diverse Californians in advancing CCI's policy and funding goals in ways that increase conservation benefits to their communities. CCI's bottom-line premise is that improving conservation policy and funding results by expanding the conservation constituency will transform decision making; yield policies, programs, and projects more pertinent to the needs of all Californians; and strengthen the overall conservation movement for generations to come.

The Tribe received project assistance from the Resource Legacy Fund for staff training in Traditional Ecological Knowledge (TEK) and modern scientific Marine Protected Area (MPA) management strategies and techniques, development of foundational education programs including educational aids such as posters, brochures and other informative literature, printed material and other media addressing coastal marine conservation.

University of Michigan, CBPR Program: Funded by the National Institutes of Health, the CBPR Partnership Academy is a multi-faceted training and mentoring program designed for new community-academic partnerships that are interested in exploring and engaging in a CBPR approach to eliminate health inequities in their communities. [Community-based participatory research \(CBPR\)](#) is widely recognized as an effective approach for understanding and addressing health inequities—and for giving communities an equitable stake in the process of doing so. As opportunities to use a CBPR approach increase so does the need for enhanced skills and knowledge to conduct effective CBPR. To this end, the Detroit Urban Research Center has established the CBPR Partnership Academy.

As part of the CBPR Partnership Academy, the Tribe received project assistance applying for a non-competitive \$1,500 Partnership Development Grant to help bring a community-based

participatory research initiative to fruition over the course of the one-year program. These grants are intended to support development of CBPR partnerships in, for example: relationship building, exploration of shared areas of interest, creation of partnership structure, identification of potential research collaborations, the development of specific new CBPR efforts, data collection and analysis (e.g., focus groups), analysis of existing data, prioritization of key issues to address, enhancing capacity to conduct CBPR, the dissemination and translation of research findings, and/or the evaluation of the partnership process.

Planned activities under this special project include;

- Receive guidance from the Kashia Tribal Council (TC) on forming the CBPR partnership for the diabetes project.
- Form a Steering Committee that may include TC members, other members from the Kashia Tribal community, the Tribal Epidemiology Center research community, medical professional community (e.g., nurse, dietitian), and others.
- Once a Steering Committee is formed, members will (1) develop a common framework and understanding for how to make decisions in a meeting; (2) how to document action items to be taken between meetings; and (3) use the common framework to jointly develop an effective research strategy. For example, our community partner suggested use of a consensus approach to decision-making in the partnership meetings because that is the process used for other types of meetings held by community members with a clear statement of decisions on action items documented in the meeting minutes/notes.
- Create joint institutional structures that can sustain the partnership

Conduct an initial discussion with Tribal Council members to obtain an early, informal assessment of community capacity (i.e., strengths and challenges) for addressing concerns about addressing diabetes prevention, management, and treatment in the community, confirm the need for a survey, and identify the best way to obtain community feedback for what questions to include in the survey.

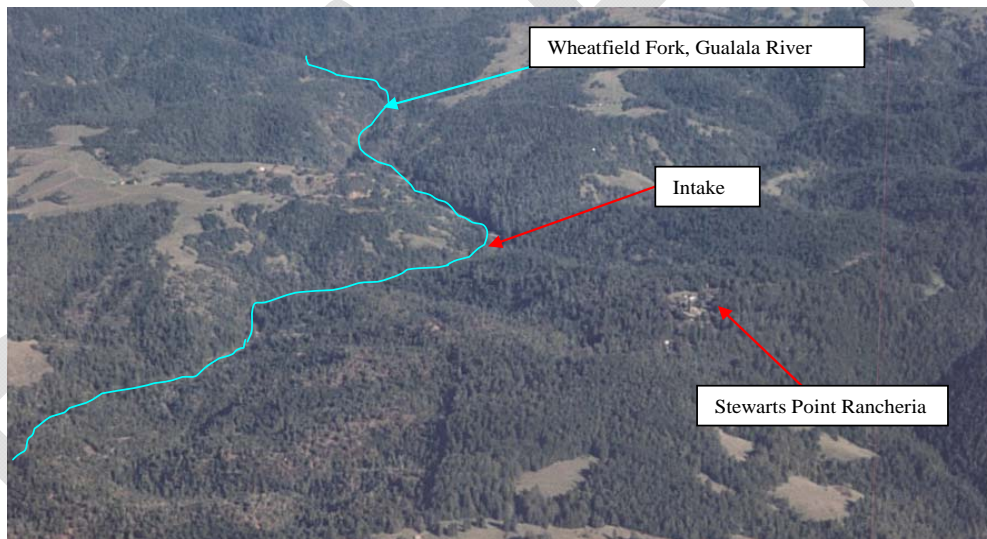
2.2 Water Resources Program

The Rancheria is located within the North Coast Regional Water Quality Control Board watershed #113.84031 that covers approximately 6,340 acres. This area is also located in EPA Index of Watershed indicators (IWI) No. 18010109 Gualala-Salmon. Most of the surface runoff from the Rancheria flows into the Wheatfield Branch of Gualala River. The Gualala River has been designated a "Protected Natural Riparian Corridor" and is a potential habitat for Coho salmon and steelhead trout. The Gualala River flows north along the trace of the San Andreas Fault and enters

the Pacific Ocean at the County's northern border. Haupt Creek, a tributary of the Gualala River, runs along the eastern edge of the Rancheria.

A number of seasonal creeks and cold water springs exist within the Rancheria. The main water resource is the Wheatfield Fork of the Gualala River. Groundwater under the influence of surface water from the Wheatfield Branch provides for the domestic water needs of the tribal community residing on the Rancheria. Previous attempts to locate groundwater have been unsuccessful. Investigations are currently in place to identify potential water sources on 510 acres of newly incorporated trust land.

Since Kashia has not established water quality standards of its own, the State of California's water quality standards are used for comparison. Potential contaminations that pose a threat to SPR's water sources include pollution from agricultural and timber operations, vineyard conversions, failing septic systems, household hazardous waste, watershed grazing, erosion from logging and ranch roads and potential future housing/infrastructure development. Contaminants that have presented themselves most frequently in water sources include E. coli, aluminum and nickel.



Ariel Photo of Wheatfield Fork of Gualala River

Program Plans:

- *Quality Assurance Project Plan(QAPP)- CWA 106 Water Quality Monitoring*
- *Non-Point Source Management Plan (NPSMP)- CWA 319 Non-Point Source Management*
 - *Non-Point Source Assessment Report (NPSAR)- CWA 319 Non-Point Source Management Assessment*

Clean Water Act Program (CWA) 319: The 1987 amendments to the Clean Water Act (CWA) established the Section 319 Nonpoint Source Management Program. Under Section 319, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer,

demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.

The Department received its first non-competitive Clean Water Act Section 319 grant to implement a Non-Point Source Management Program in Fiscal Year 2013.

Demonstration Projects CWA-319: The purpose of demonstration projects are to accelerate the local adoption of innovative technologies and practices for storm-water management, green infrastructure, low impact development and any other water related issues or topics relevant to the program. These efforts also help to improve local sustainability and environmental quality while reducing impacts of community development. Project information is gathered from these demonstration projects to share with local watershed partners and the water resources community.

Water Resource Assessments CWA-319: Water resource assessments are the process by which Water Resources Program staff identifies deficiencies and opportunities for improved sustainable management of the quantity and quality of water resources. Accurate water resource assessments are crucial to the development of successful Best Management Practices (BMP's) for improved development and management of and near water resources.

The Program maintains a Non-Point Source Assessment Report that is periodically updated when new data is collected, when parameters and/or methodologies are updated and any other time the program staff identify a need for revision. The goals of this Nonpoint Source Assessment Report are to identify tribal water sources and their potential non-point sources (NPS) of pollution and to provide guidance for future efforts to effectively and efficiently address nonpoint pollution sources in the watershed, which supplies drinking water to the Kashia Band of Pomo Indians at Stewarts Point Rancheria (SPR) and any NPS on SPR. The Tribe develops this assessment using both watershed-based Reservation-based approaches. The objectives are to document water quality and watershed conditions, to link upstream-downstream and channel-up-slope conditions and to outline a broad technical, policy and legal approach to address current conditions and protect future water sources.

Staff Capacity Building CWA-319: Capacity Building activities ensure the program maintains and increases capabilities for sustainable program development; program staff attends conferences, meetings, workshops, and trainings relevant to program activities. The trainings targeted focus on nonpoint source pollution issues, watershed management and sustainable development. Implementing water non-point source pollution prevention programs will require continuous staff training and education on current technologies, techniques and management strategies for NPS pollution prevention.

Community Education & Outreach CWA-319: The goal of this task is to ensure that Tribal youth and adults receive environmental education and information on environmental non-point

source subjects that are most relevant to the Tribe and the Rancheria. The objectives are to identify NPS environmental topics of interest, compile and prepare educational information, distribute and present the information, plan, coordinate, and conduct educational activities, and develop plans on specific topics of interest.

Clean Water Act Program (CWA) 106: Section 106 of the Clean Water Act (CWA) authorizes EPA to provide financial assistance to states and eligible interstate agencies to establish and administer programs for the prevention, reduction, and elimination of water pollution. In 1987, Congress amended section 518(e) of the CWA to include provisions that allow EPA to treat an Indian tribe in a manner similar to a state (i.e., treatment in a manner similar to a state, or TAS) for the purpose of providing Section 106 funding.

The Department received its first non-competitive Clean Water Act Section 106 grant to implement a Water Pollution Prevention Program in Fiscal Year 2008 and have continuously managed a Water Quality Monitoring Program since that time.

Water Quality Monitoring CWA-106: The Water Quality Monitoring Program is designed to characterize both ground and surface water resources of the Stewarts Point Rancheria. It will conduct the basic water quality assessment and monitor the long-term health of all tribal water resources – ground water, water imported from the Wheatfield Fork of the Gualala River, and on-reservation ephemeral streams and springs. The intent is to collect and document the water quality data which included some field measurements, along with the collection of samples for laboratory analysis for basic water quality parameters. Since 2008, data has been collected and data that was generated from the first year of sampling will continue to serve as a baseline of past conditions of water resources. On-going monitoring will continue to help track changes in water quality over time and assess potential future impacts to the Tribe's water sources. Information gathered through this water quality monitoring program will help Stewarts Point Rancheria establish Tribal Water Quality Standards, regulations and ordinances governing the Tribe's water resources.

Watershed Level Collaboration CWA-106: The Tribe has developed a healthy relationship with the Gualala River Watershed Council (GRWC). The GRWC is the most active and influential watershed based organization in the Gualala River Watershed. The Tribe's recently increased land base in the watershed requires the Tribe to play a more active role in the GRWC. Current activities include attending GRWC meetings and events which help keep the program updated on activity in the watershed. The Program is also working with GRWC staff (biologist, water quality specialist,) to identify shared water quality goals and/or priorities for inclusion in the Programs Quality Assurance Project Plan (QAPP). The tribe is also working to identify project that can be implemented to support watershed level goals.

Staff Capacity Building CWA-106: Capacity building activities ensure the program maintains and increases capabilities for sustainable program development; program staff attends

conferences, meetings, workshops, and trainings; including webinars, on-line courses and conference calls relevant to program activities. The trainings targeted focus on water pollution and prevention, watershed management and sustainable development. Implementing water source pollution prevention programs will require continuous staff training and education on current technologies, techniques and management strategies for preventing, reducing, and eliminating water pollution.

Community Education & Outreach CWA-106: Community education and outreach is essential to ensure tribal members receive environmental education regarding water quality, and staff has an opportunity to address community and watershed level concerns. Program education and outreach consists of meetings with the local tribal community, neighbors, and community outreach committees, compiling and preparing educational information, distributing and presenting the information, planning, coordinating, and conducting educational activities, and developing plans addressing specific topics of interest.

Program Special Projects

US EPA Drinking Water Tribal Set-Aside Program Project FY18-20: This program provides funding for federally-recognized tribes within Region 9 (California, Nevada, and Arizona) for public drinking water system infrastructure. Funds are awarded through direct grants to tribes or interagency agreements with the Indian Health Service. The funding will be used to address the most significant public health threats for public water systems.

The Tribe received project assistance from the US EPA for an interagency agreement with IHS for the completion of a Preliminary Engineering Report that will evaluate supplemental water supplies for the Stewarts Point Rancheria Community.

The Tribe currently draws water from an infiltration gallery positioned on Wheatfield Fork of the Gualala River in the Gualala River Watershed. The water from the rivers is gravity fed into a 38 ft in depth x 6 ft inside diameter concrete wet well vault. The infiltration gallery and wet well vault were constructed in the 1980s. This system is the Tribe's sole source of drinking water to the community. Changing regional climate patterns that include severe heat and drought have given way to historic summer low water levels threatening the water utilities system's ability to deliver water to the community. Other considerations include community resiliency given that any prolonged operational disruption of water utilities leads to immediate water shortage and inevitable public health crisis due to lack of alternate water sources. This project is meant to develop a path to resiliency in the Tribes water utilities in support of public health and safety.

BIA Water Resources Program Project: The Water Management, Planning, and Pre-development Program (N3420)(Water Management) and the Water Rights Negotiation/Litigation Program (R3120)(Water Rights) provide funding for a wide variety of projects to support the litigation and negotiation of Indian water rights, studies to determine the quantity of surface-

water and groundwater supplies, identify arable lands, determine historical water use, water requirements for resources such as fish and wildlife and amounts of water required for irrigation agriculture, and related engineering and economic studies for water delivery.

The Tribe received BIA Water Resources Program assistance to inventory, map and access water resources within the boundaries of the Tribes Trust Status Lands. To increase the Tribes capacity to address current and future source water concerns on the Tribes trust status lands the Program is also developing relationships with watershed stakeholders and partnering with the Gualala River Watershed Council to achieve this effort.

The Tribe had a 510 acre parcel of land taken into trust in November of 2015 which has elevated the need to conduct an up to date assessment of the Tribes new and changing water resources.

BIA Climate Change Program Project: BIA Climate Change Program grants are designed to assist tribal communities on preparedness, including through planning projects and by supporting participation in federal initiatives that assess climate change vulnerabilities and develop regional solutions.

As a part of this project the both Tribal staff and council have attended various technical capacity-building opportunities through participation in interagency adaptation technical forums, meetings, trainings and workshops. The project has also included providing workshops and technical assistance to local Tribes as they began to consider their own local vulnerabilities to the effects of a changing climate. Continued work will support building resiliency to address the environmental and human health and safety impacts of a changing climate.

Due to the Tribe's limited municipal water resources and the State of California Historic Drought pressure, there is a need to encourage and promote low impact development including green building standards, use of low water landscaping, and fuels reduction, and other water sustainable water conservation efforts. In collaboration with the BIA and local Tribes, the Tribe is working to develop a Climate Change Adaptation Plan Template to support regional Tribes in the planning process. Objective of the Program are to:

- Conduct Climate change vulnerability assessments
- Assess the current/future impacts of Climate Change on Tribal Resources and human health and safety.

Development of coastal monitoring in Marine Protected Areas (MPA)

The Tribe is a coastal tribe that utilizes coastal marine resources for sustenance and other means. The implementation of the marine protected areas by the State of California has restricted the Tribe is its ability to teach traditional knowledge to its young people. The Tribe has

become engaged on what is occurring in the MPAs to provide education and review of scientific data collected. The objectives of this program include:

- Develop education materials to inform tribal members, other tribes and the general public; and,
- Work with federal, state and local entities on developing baseline data collection that will incorporate tribal concerns on protected resources.

2.3 Transportation Planning Program

The Kashia Transportation Programs are managed by Transportation Planner under the guidance and Administrative supervision of the Director of Environmental Planning.

Using the Bureau of Indian Affairs (BIA) roads functional classification system the Kashia Transportation Network includes primarily class 3 routes which are streets and roads that are located within communities serving residential or other urban setting. (These roads correspond to the Local Roads category in the state highway classification.) Along with these class 3 routes the Tribe also has two county roads that transect Kashia Trust Lands. These roads are class 2 routes consisting of major or minor arterial roads that provide an integrated network, serving traffic between larger population centers and links to smaller towns and communities as well.

An inventory of the Kashia Transportation Network is in table 1 and a map depicting that inventory is in appendix X.

Table 1. Roads Inventory

Route	Road Name	Route Class	Jurisdiction	Length
County 0001	Mi-Wuk Road	Class 3	Kashia	700 feet
County 0001	Shimi Road	Class 3	Kashia	
County 0001	Skaggs Springs Road	Class 2	Kashia & Sonoma County Transportation Authority	1,950 feet
County 3001	Pinola Way	Class 3	Kashia	1,600 feet
BIA 0137	Yellow Jacket Road	Class 3	Kashia	350 feet
BIA 0137	Ma-Ca Road	Class 3	Kashia	700 feet
BIA 0137	Un-Named Road	Class 3	Kashia	1,350 feet
BIA 0137	Tin Barn Road	Class 2	Kashia & Sonoma County Transportation Authority	750 feet

Outside of the current roads inventory the Tribe also has one mile of Pacific Coast Highway 1 (Caltrans Right of Way) that transect the Kashia Coastal Reserve. There are also miles of fire access roads, hiking trails and historic logging roads throughout the Tribes properties. These roads are currently in the process of being inventoried and analyzed for eventual inclusion in official inventory and Long Range Transportation Plans.

Program Plans:

- *Long Range Transportation Plan (LRTP)– BIA Indian Reservation Roads*
 - *Transportation Needs Assessment (TNA)– BIA Indian Reservation Roads*

BIA Indian Reservation Roads (IRR) Program: The Indian Reservation Roads Program mission is to provide safe and adequate transportation and public road access to and within Indian reservations in the Great Plains Region, Indian lands and communities for Native Americans, visitors, recreationists, resource uses and others while contributing to economic development, self-determination, and employment of Native Americans.

The IRR is part of the Federal-Aid Highway Program and is funded from the Highway Trust Fund. It is Authorized under the Federal Lands Highway Program, 23 United States Code (USC) 204. Use of IRR Program funds is defined in 23 USC. This program is jointly administered by the BIA and the Federal Highway Administration.

The Tribe receives funding from the Federal-Aid Highway Program through BIA to maintain and repair the roads on the Rancheria, maintain electric charging stations, and dual photovoltaic/wind powered street lights installed by the Tribe.

Planning & Assessment IRR: Planning and Assessment assists the tribe's transportation systems in pursuing continuous improvement. It guides Long Range Transportation Plan development by collecting and analyzing conditions and other system data. The goal of planning and assessment is to encourage and promote system improvement that is embraced by the entire community and includes staff, administration, and residents. The primary purpose driving transportation system assessment and planning is to assure program efficiency and sustainability.

With the Tribe having taken an additional 510 acre parcel of land into tribal trust status in November 2015 planning and assessment is currently focusing on road development and assessment on the new property.

Maintenance IRR: Routine maintenance which comprises small-scale work conducted regularly, aims "to ensure the daily pass ability and safety of existing roads in the short-run and to prevent premature deterioration of the roads" (PIARC 1994). Frequency of activities varies but is generally once or more a week or month.

Typical activities include roadside verge clearing and vegetation cutting, cleaning of silted ditches and culverts, patching, and pothole repair. The Tribes Solar/Wind generated battery back-up Street lights are also maintained by the Transportation Program. For gravel roads it includes re-grading periodically.

Transportation Projects IRR: The Transportation Program also conducts priority roads projects based on its Long Range Transportation Plan to improve and develop safe and environmentally sound transportation systems.

Program Special Projects

Metropolitan Transportation Commission (MTC): The Tribe received support for a green transportation demonstration project which included purchasing electric vehicles and constructing a network of vehicle charging stations to demonstrate EV value and promote adoption.

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Section 3.0

Program Development Objectives

This section describes the Tribes priority concerns and tasks that support that priority and will be conducted within the period of the ETEP.

3.1 Environmental Planning Program

The Department is currently building its capacity to manage environmental protection programs focusing on core information management, technical and analytical capacities for natural resource data management and utilization. With the Tribes acquisition of additional lands from 2014 to present it has become clear that the need to collect data and development of long-term natural resource management plans is the logical next step to protect environmental and human health. The Programs priorities objectives focus on; Natural Resource Management, Solid Waste Management, Emergency Management, Assessment of Indoor Air Quality, and Chemical and Pollution Prevention. These program areas have been prioritized because of the inadequacy of available data to support sound program decisions or other assessments and activities have identified capacity gaps.

Natural Resource Management:

- Use the development of the Tribes Integrated Resource Management Plan and Tribal Wildlife Management Plan as a capacity building exercise for resource assessments and plan maintenance. FY18–FY20 (Capacity Indicator–B.4.3, B.4.6, B.8.4)

Solid Waste Management:

- Collect Baseline Data of the Recycling and Garbage (R&G) Management Program for at least a six-month period.FY17–FY18(Capacity Indicator–B.5.1, E.3.6)
- Use Baseline R&G Management Program data and 2016–Solid Waste Characterization Assessment data to identify Solid Waste Management Program development need.FY18(Capacity Indicator–B.5.1, E.3.6)
- Use collected data and assessment to prioritize and seek funding to address identified concerns.FY18–FY20(Capacity Indicator E.3.4)

Chemical Safety and Pollution Prevention:

- Create Kashia Area of Interest (AOI) Specific Pesticide Use Report Summary. FY17–FY18(Capacity Indicator–G.3.4)
- Develop coordination agreements to establish a mechanism for receipt of Pesticide Use Reports within the Tribes AOI. FY18(Capacity Indicator–G.3.12)
- Develop Pesticide Ordinance FY18–FY19(Capacity Indicator–G.3.22)

Indoor Air Quality:

- Conduct an assessment of contributing factors in poor indoor air quality and the associated negative health outcomes (with an emphasis on sensitive group's children and elderly). FY19(Capacity Indicator–C.3.10, C.3.3)
- Use assessment to prioritize projects and seek funds to address and mitigate health disparities resulting from poor indoor air quality. FY19–FY20(Capacity Indicator–C.3.5)
- Develop an education and outreach initiative to increase community knowledge of factors effecting air quality and how to mitigate potential health concerns. FY19–FY20(Capacity Indicators– C.3.19)

Emergency Management & Coordination:

- Seek funding for the development of a Tribal Hazard Mitigation Plan (THMP). FY18(Capacity Indictor– F.3.8)
- Use Tribal Hazard Mitigation Plan to guide next steps. FY19(Capacity Indictor– F.3.14)

3.2 Water Resources Program

Long-term program development objectives include developing staff capacity to actively manage and expand the Water Quality Monitoring Program. To ensure staff has and maintains current knowledge on water quality issues and water quality management strategies, continuous training will be required. It's envisioned the program will develop effective ways to address NPS-pollution through capacity building that leads to implementing strategies that promote green infrastructure, low impact development, road maintenance and improvement, consider impacts of invasive flora and fauna activity and encourage waste clean-up through education and outreach. Water resource assessments will be conducted to locate water sources and determine viability of water sources for community use on the Tribes new 510 acre tribal trust property. Based on the water resource assessment, additional monitoring stations may be required to expand the Water Quality Monitoring Program to cover the Tribes new Tribal trust property. The Program will continue to seek financial and technical assistance to meet the goals and objectives of Water Resources Programs. Assistance will be sought from federal, state, county and local government and non-government organizations (NGO's) to support staff capacity building, procurement of equipment and program implementation and development.

CWA 106:

- Develop Quality Assurance Project Plan (QAPP) for 510 acre Tribal Trust Property (TTP) FY18(Capacity Indicator–D.3.11)
- Collect Baseline Water Quality Data for 510 acre Tribal Trust Property (3 years)FY18–FY20(Capacity Indicator–(D.3.12, D.3.9)
- Revise QAPP and monitoring strategy based on baseline data.FY20(D.3.11)

CWA 319:

- Build capacity to assess roads conditions (i.e. erosion, run-off, etc.). FY18(Capacity Indicator-D.3.5)
- Complete a baseline assessment of roads conditions. FY18-19(Capacity Indicator-D.3.15)
- Use roads assessment to prioritize and seek funding to address identified concerns. FY19-FY20(Capacity Indicator-D.3.4)

Water Resources:

- Conduct a hydrological assessment to identify development sites for an alternative source water supply. FY17-FY19(Capacity Indicator-D.3.34, D.3.35)
- Use hydrological assessment to seek funds for alternative source water supply infrastructure development.FY19-FY20(Capacity Indicator-D.3.4)

Climate Resilience:

- Conduct a climate change vulnerability assessment. FY18-FY20(Capacity Indicator-C.3.14)
- Develop an initiative that ensures climate vulnerability concerns are addressed within the management plans of every department and program of the Tribe in an integrated approach to adaptation planning.FY18-FY20 (Capacity Indicator-C.3.15)

3.3 Transportation Planning Program

The Transportation Planning Program (TPP) has the primary responsibility for the safety and management of the Tribes Roads System with all activities of the program being in support of that responsibility. With the Tribe having taken additional land into trust status in 2015 the TPP must consider both the assessment and inclusion of new roads and trails to ensure roads safety extends to these lands.

Indian Reservation Roads:

- Maintaining and make improvements to current road system for the benefit of improved safety, environmental conditions, historic resource protection and smart community transportation. FY18-FY23
- Expansion and assessment of the managed transportation system by adding roads to the RIFDIS from the Tribes 510 acre Tribal Trust property.FY18-FY23
- Update Long Range Transportation Plan. FY19-FY20

3.4 Sources of Assistance & Funding Opportunities

The Tribe anticipates that the majority funding of the Tribes priorities listed within this document can be met utilizing EPA media specific funding. For additional funding tribal staff shall prepare and submit grants from state, federal, and local granting agencies for program implementation. The Tribe may also use general funds to achieve certain priorities as well.

Technical assistance for priority implementation shall be sought through the Tribes existing relationships or the establishment of relationships with other tribes, state federal and local government and non-government organizations (NGO) and agencies. Where appropriate and available the Tribe may utilize EPA GAP funding to train staff in technical knowledge and skills to implement program priorities as well. Third party contractors will be hired for technical support and implementation when it is cost effective and benefits tribal programs.

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Section 4.0

Plan Distribution & Maintenance

Distribution

The Department of Environmental Planning staff is responsible for maintaining a list of appropriate federal, state, and local agency representatives for the dissemination of the EPA–Tribal Environmental Plan, were doing so will foster collaborative efforts and assist with achieving program development milestones.

Maintenance

The EPA–Tribal Environmental Plan is a living document that KDEP Staff is responsible for the maintenance, distribution, review and revision both periodically and on an as needed basis. Responsible officials in Federal, State and local agencies should recommend changes and provide updated information periodically (e.g., changes of personnel and available resources).

Plan maintenance will help to:

- Ensure that program development is implemented according to the plan.
- Provide the foundation for a sustainable environmental protection program for the community.
- Standardize long–term monitoring of environmental protection–related activities.
- Integrate program development objectives into daily job responsibilities and department roles.
- Maintain momentum through continued engagement and accountability in the plan’s progress.

Review

The ETEP and its appendices will be reviewed annually by the Department of Environmental Planning. Department staff tasked in each program area of the ETEP is responsible for conducting and annual review of their progress toward intended outcomes and make recommendations for updates and changes to the document. The KDEP must conduct a full review, update and approval process at least every five years but may require more frequent updates based on annual progress reviews.

Updates & Changes

Changes should be made to plans and appendices when the documents are no longer current. Plan updates provide the opportunity to consider how well the procedures and priorities established in the previously approved plan worked and revise them as needed. Changes in planning documents may be needed:

1. When human health or environmental risk areas change.
2. When the concept of operations for environmental protection changes.

3. When departments, agencies, or groups that perform environmental protection functions are reorganized and can no longer perform the environmental protective tasks laid out in planning documents.
4. When Department staff identify deficiencies in the planning documents for which they are tasked.
5. When additional environmental protection resources are obtained through acquisition or agreement, the disposition of existing resources changes or anticipated environmental protection resources are no longer available.
6. When a capacity building exercise, collected data or project reveals significant deficiencies in existing planning documents.
7. When Tribal or Federal planning standards for the documents are revised.

Methods of Updating Planning Documents

Plan Revision: A revision is a complete rewrite of an existing ETEP or appendix that essentially results in a new document. Revision is advisable when numerous pages of the document have to be updated, when major portions of the existing document must be deleted or substantial text added, or when the existing document was prepared using a word processing program that is obsolete or no longer available. Revised documents should be given a new date and require new signatures.

Formal Plan Change: A formal change to a planning document involves updating portions of the document by making specific changes to a limited number of pages. Changes are typically numbered to identify them, and are issued to holders of the document with a cover memorandum that has replacement pages attached. The cover memorandum indicates which pages are to be removed and which replacement pages are to be inserted in the document to update it. The person receiving the change is expected to make the required page changes to the document and then annotate the record of changes at the front of the document to indicate that the change has been incorporated into the document. A change to a document does not alter the original document date; new signatures on the document need not be obtained.

Section 5.0

Acronyms and Definitions

ACRONYMS

AR	Assessment Report
BIA	Bureau of Indian Affairs
BMP	Best Management Practice
CBPR	Community Based Participatory Research
CCI	California Conservation Innovation
CWA	Clean Water Act
EA	Environmental Assessment
EPA	Environmental Protection Agency
ETEP	EPA-Tribal Environmental Plan
EV	Electric Vehicle
FHA	Federal Highways Administration
FMP	Forest Management Plan
FWS	Fish & Wildlife Service
GAP	General Assistance Program
GRWC	Gualala River Watershed Council
IHS	Indian Health Service
IRMP	Integrated Resource Management Plan
IRR	Indian Reservation Roads
ISWMP	Integrated Solid Waste Management Plan
IWI	Index of Water Indicators
KL	Kashia Lands
KCR	Kashia Coast Reserve
KDEP	Kashia Department of Environmental Planning
KTL	Kashia Trust Land
MP	Management Plan
MPA	Marine Protected Area
MTC	Metropolitan Transportation Commission
NGO	Non-Government Organization
NPS	Non-Point Source
QAPP	Quality Assurance Project Plan
RLF	Resource Legacy Fund
SPR	Stewarts Point Rancheria
TA	Technical Assistance
TAS	Treatment as a State
TEK	Traditional Ecological Knowledge

DEFINITIONS

Assessment Report: An assessment report is the result of an environmental assessment that estimates and evaluates significant short-term and long-term effects of a programs or projects on the quality of the environment. It also includes identifying ways to minimize, mitigate, or eliminate these effects and/or compensate for their impact.

Best Management Practice: Best Management Practices are methods or techniques found to be the most effective and practical means in achieving an objective (such as preventing or minimizing pollution) while making the optimum use of resources.

California Conservation Innovation: California Conservation Innovations (CCI) is a program of Resources Legacy Fund (RLF), funded by the David and Lucile Packard Foundation. As the Foundation's primary form of grant making-focused investments in land conservation, the program seeks to advance sound conservation policies, increase conservation funding, and broaden engagement in conservation issues in California.

Climate: Climate is the composite or generally prevailing weather conditions of a region, as temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds, throughout the year, averaged over a series of years.

Climate Change: Climate change is a change in the typical or average weather of a region or locale. This could be a change in a region's average annual rainfall, for example. Or it could be a change in a locales average temperature for a given month or season. Climate change is also a change in Earth's overall climate. This could be a change in Earth's average temperature, for example. Or it could be a change in Earth's typical precipitation patterns.

Community Based Participatory Research: We define community-based participatory research as a partnership approach to research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process. It enables all partners to contribute their expertise, with shared responsibility and ownership; it enhances the understanding of a given phenomenon; and, it integrates the knowledge gained with action to improve the health and well-being of community members, such as through interventions and policy change (Israel, Schulz, Parker, and Becker, 1998).

County Roads: A county highway (also county road or county route; usually abbreviated CH or CR) is a road in the United States that is designated and/or maintained by the county highway department, for the purposes of this document Sonoma County Transportation and Public Works- Roads Division.

Cultural Resources: Cultural resources can be defined as physical evidence or place of past human activity: site, object, landscape, structure; or a site, structure, landscape, object or natural feature of significance to a group of people traditionally associated with it.

Easement: An easement is a non-possessory property interest that allows the holder of the easement to use property that he or she does not own or possess. An easement does not allow the easement holder to occupy the land, or to exclude others from the land, unless they interfere with the easement holder's use. In contrast, the possessor of the land may continue to use the easement and may exclude everyone except the easement holder from the land. Land affected or "burdened" by an easement is called a "servient estate," while the land or person benefited by the easement is known as the "dominant estate." If the easement benefits a particular piece of land, it is said to be "appurtenant" to the land.

Environmental Assessment: Environmental assessment (EA) is the assessment of the environmental consequences (positive and negative) of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.

Electric Vehicle: The electric car (also known as electric vehicle or EV) uses energy stored in its rechargeable batteries, which are recharged by common household electricity. Unlike a hybrid car—which is fueled by gasoline and uses a battery and motor to improve efficiency—an electric car is powered exclusively by electricity.

Fee Land: Fee land is land purchased by tribes – The tribe acquires legal title under specific statutory authority. Fee land owned by a tribe outside the boundaries of a reservation is not subject to legal restrictions against alienation or encumbrance, absent any special circumstances.

Management Plan: A management plan is a blueprint for the way organizational programs and projects operate, both day-to-day and over the long term. It includes the standard operating procedures that address implementation, organization roles and responsibilities and the overall philosophical and intellectual framework in which these methods operate. A management plan usually includes objectives, goals, standards and guidelines, management actions, and monitoring plans.

Non-Government Organization: An entity with an association that is based on interests of its members, individuals, or institutions and that is not created by a government, but may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. (Examples of NGOs include faith-based charity organizations and the American Red Cross.)

Non-Point Source: Nonpoint source pollution is generally the result of land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters.

Rancheria Community: For the purposes of this document "Rancheria Community" refers to residents within the jurisdictional boundaries of the Stewarts Point Rancheria.

Treatment as a State: The process through which resources first report to an incident. Check-in locations include the incident command post, Resources Unit, incident base, camps, staging areas, or

Traditional Ecological Knowledge: Traditional ecological knowledge (TEK) describes aboriginal, indigenous, or other forms of traditional knowledge's regarding sustainability of local resources. TEK has become a field of study in anthropology, and refers to "a cumulative body of knowledge, belief, and practice, evolving by accumulation of TEK and handed down through generations through traditional songs, stories and beliefs. [It concerns] the relationship of living beings (including human) with their traditional groups and with their environment." (Berkes, F. 2000)Such knowledge is commonly used in natural resource management as a substitute for baseline environmental data to measure changes over time in remote regions that have little recorded scientific data.(Freeman, M.M.R. 1992. The nature and utility of traditional ecological knowledge. Northern Perspectives, 20(1):9-12)

Trust Land: Tribal trust lands are held in trust by the United States government for the use of a tribe. The United States holds the legal title, and the tribe holds the beneficial interest. This is the largest category of Indian land. Tribal trust land is held communally by the tribe and is managed by the tribal government. Tribal members share in the enjoyment of the entire property without laying claim to individual parcels. The tribe may not convey or sell trust land without the consent of the federal government. Tribes may acquire additional land and have it placed in trust with the approval of the federal government.

Tribal Roads: A tribal highway is a road in the United States that is designated and/or maintained by the department, for the purposes of this document Sonoma County Transportation and Public Works- Roads Division.

Tribal Community: A series of command, control, executive, or management positions in hierarchical order of authority.