

Final Supplemental Environmental Assessment

Fire Road Restoration Helen Putnam Regional Park

Sonoma County

FEMA-DR-1628-CA, PW #2482

August 2008



FEMA

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Supplemental Environmental Assessment to the Programmatic Environmental Assessment (PEA) for Typical Recurring Actions Resulting From Flood, Earthquake, Fire, Rain, and Wind Disasters in California as Proposed by the Federal Emergency Management Agency

County of Sonoma

Fire Road Restoration at Helen Putnam Regional Park

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1. INTRODUCTION

The County of Sonoma (COS) has applied for funds from the Federal Emergency Management Agency (FEMA), through the State of California Governor's Office of Emergency Services (OES), to re-grade and armor an existing park trail for use as a fire access road in Helen Putnam Regional Park in Petaluma, California. The new fire road is needed because a pre-existing fire road was washed out during the severe storms of the 2005-2006 rainy season. The storms resulted in the presidential disaster declaration FEMA-DR-1628-CA. FEMA is proposing to fund the project under the Public Assistance (PA) Program that was implemented in response to the presidentially declared disaster.

1.1 SCOPE OF DOCUMENT

FEMA has prepared a Final Programmatic Environmental Assessment for Typical Recurring Actions Resulting from Flood, Earthquake, Fire, Rain, and Wind Disasters in California (PEA), which assesses common impacts of the action alternatives that are under consideration at the proposed project site (FEMA, 2003). The PEA adequately assesses impacts from the action alternatives for some resource areas, but for the specific actions of this particular project, some resources are not fully assessed in the PEA.

Therefore, for this project to comply with the National Environmental Policy Act (NEPA), FEMA has prepared this Supplemental Environmental Assessment (SEA) to tier from the PEA and fully assess the additional impacts to resources that are not adequately addressed in the PEA. The SEA hereby incorporates the PEA by reference, in accordance with Title 40 Code of Federal Regulations (CFR) Part 1508.28.

1.2 PURPOSE OF AND NEED FOR ACTION

Under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended and Title 44 CFR, the PA Program provides supplemental aid to states and communities to help them recover from major disasters as quickly as possible. Specifically, the program provides assistance for the removal of debris, the implementation of emergency protective measures, and the permanent restoration of public infrastructure. The program also encourages protection from future damage by providing assistance for mitigation measures during the recovery process. Therefore, the purpose of this project is to

provide PA funding to COS to replace the fire road that was damaged during the presidentially declared disaster.

COS operates the 216-acre Helen Putnam Regional Park, outside of Petaluma, California (Figure 1, Appendix A). The 2005-2006 winter storms washed out a section of an 8 feet (ft) wide dirt fire road approximately 0.25 miles north of the Park parking lot off Chileno Valley Road in Petaluma, CA. The fire road travels from this parking lot north for approximately 0.6 miles, where it turns northeast to intersect the junction of the Panorama hiking trail and the Pomo hiking trail (Figure 2, Appendix A). At the site of the slip-out, there is a large knoll five ft east of the fire road and a privately-owned pasture five ft west of the fire road. The area of the slip-out extends from the knoll down to the adjacent pasture and is approximately 45 ft long x 11 ft wide x 11 ft deep. The fire roads in Helen Putnam Regional Park are necessary for maintenance purposes as well as for potential access to wildfires. Therefore, action is needed to replace the damaged fire road.

2. DESCRIPTION OF THE PROPOSED ACTIONS AND ALTERNATIVES

2.1 NO ACTION ALTERNATIVE

NEPA requires the inclusion of a No Action Alternative in the environmental analysis and documentation. The No Action Alternative is defined as maintaining the status quo with no FEMA funding for any alternative action. The No Action Alternative is used to evaluate the effects of not providing eligible assistance for the project, thus providing a benchmark against which action alternatives can be evaluated. The No Action Alternative is in conflict with FEMA's mission and the purpose of the PA Program. For the purpose of this alternative, it is assumed that COS would be unable to implement this project for lack of federal assistance, and the fire road would not be restored. The No Action Alternative would severely impact fire hazard and maintenance issues in Helen Putnam Regional Park.

2.2 PROPOSED ACTION ALTERNATIVE

As defined in Section 2.3.5 of the PEA, the proposed project falls under the action alternative of Constructing New Facilities or Relocating Existing Facilities. COS is proposing to leave the damaged fire road in its current state and re-grade and armor an existing hiking trail, the Panorama Trail, to vehicle-grade conditions so that it may be used as an alternate fire access road (Figures 2 and 3, Appendix A). This would require the following work:

- Re-grade 2130 linear ft of trail to 12 ft width and install cover to 3 inch (in) depth,
- Grade in four 20 ft x 12 ft rolling drain dips and install cover to 3 in depth,
- Grade in two armored 20 ft x 12 ft rolling drain dips and install cover with compacted 2 in minus blue shale,
- Grade in a 700 square feet (sq ft) Hammerhead fire access turn-around cover, and
- Remove one existing 4 in x 4 in post and move one existing trail maker on a 4 in x 4 in post.

The ingress/egress and project laydown area would occur on the existing Paved Ridge Trail Road, a paved road between the Panorama Trail and the parking lot.

2.3 OTHER ACTION ALTERNATIVES NOT CARRIED FORWARD

COS considered reconstructing the damaged fire road. However, the soils at the site of the damaged trail are on steep slopes and erode easily. As a result, the cost involved in stabilizing these soils would be higher than constructing a new trail to connect with existing roads. Therefore, the alternative was dismissed from further consideration.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The PEA has adequately described the affected environment and impacts of the proposed action for many resource areas, except for geology, seismicity, and soils; air quality; water resources; biological resources; cultural resources; noise and visual resources; and land use and planning. Therefore, the affected environment and environmental consequences for those resources are described in this section, which is intended to supplement the information contained in the PEA. Necessary avoidance and minimization measures, either stipulated in the PEA, or based on the results of the impact analysis in the SEA, that are appropriate for the proposed action, are discussed in Section 4.

3.1 GEOLOGY, SEISMICITY, AND SOILS

Helen Putnam Regional Park is located in Sonoma County, three miles south of the city of Petaluma and approximately five miles north of the border with Marin County. The park is located near the top of the Petaluma River valley, which flows southeast from Petaluma and empties into the tidal flats of the San Pablo Bay. The park lies within the California North Coast Range and is bordered to the north by the Mayacama Mountains and to the east by the Sonoma Mountains. The park terrain consists of moderately steep rolling hills, ranging from 280 ft to 558 ft in elevation. The park has a generally east-west trending ridge, with the steepest portion of the park at the northeastern section.

It is a seismically active area, with the San Andreas Fault lying approximately twenty miles to the east. The rocks in this area were originally part of the Franciscan Complex, a mix of ocean crust rocks which formed on the ocean floor about 140-142 million years ago as the oceanic plate slid under the continental plate. Subsequent uplift, erosion, and sedimentation formed weakly cemented, fine-grained sandstone known as the Merced Formation, which is located in the Petaluma area near the proposed project location. The landscape in the area is generally rounded, but rocky knobs and low cliffs protrude in scattered places where the sandstone contains tuff and is strongly cemented. The soils in this area were formed in material weathered from this sandstone and are generally well drained loams and clay loams of the Steinbeck-Los Osos Association (Miller 1972).

The project would cause temporary impacts to the ground surface around the project location. The re-grading and armoring of the Panorama Trail would result in short-term soil loss through water and wind erosion due to disturbance of soil structure and removal of vegetation. Construction would entail grading, compaction, and digging along a 12 ft wide and 2130 ft long section of the Panorama Trail. Section 4.1 of this SEA describes best management

practices (BMPs) that would minimize erosion and prevent runoff. Construction activities associated with the repair work would not exceed two ft in depth. The ingress/egress and staging areas would occur on the existing Paved Ridge Trail Road, a paved road between the Panorama Trail and the parking lot.

Implementation of the proposed action would result in negligible long-term impacts. Excavated materials would be permanently removed from the site and disposed in accordance with applicable federal, state, and local laws. Project implementation would minimally alter site topography. Therefore, FEMA has determined that with the implementation of the avoidance and minimization measures described in Section 4.1 of the SEA, the proposed action would not result in adverse, long-term impacts to geology, soils, and seismicity.

3.2 AIR QUALITY

The Federal Clean Air Act (CAA) of 1970 was enacted to regulate air emissions from area, stationary, and mobile sources. This law authorized the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The six criteria pollutants regulated by the CAA are carbon monoxide (CO), lead (Pb), nitrogen oxides (NO_x), ozone (O₃), particulate matter (less than 10 micrometers [PM₁₀] and less than 2.5 micrometers [PM_{2.5}]), and sulfur dioxide (SO₂).

Additionally, the State of California set California Ambient Air Quality Standards (CAAQS) for ten criteria pollutants including CO, Pb, PM₁₀, PM_{2.5}, NO_x, O₃, SO₂, sulfates, hydrogen sulfide (H₂S), and visibility reducing particles. CAAQS are the same or more stringent than the NAAQS.

Under the 1977 amendments to the Clean Air Act, states with air quality that does not achieve the NAAQS are required to develop and maintain state implementation plans (SIPs). These plans constitute a federally enforceable definition of the state's approach (or plan) and schedule for the attainment of the NAAQS. Air quality management areas are designated as "attainment," "non-attainment," or "unclassified" for each individual pollutant depending on whether or not they exceed an applicable NAAQS or CAAQS. Areas that have been re-designated from non-attainment to attainment are called maintenance areas.

Prior to approval of any Federal action, the General Conformity Rule (GCR) (Title 40 CFR Part 51.853) states that a "a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a non-attainment or maintenance area caused by a Federal action would equal or exceed" (40 CFR 51.853 b) any of the threshold screening rates specified in the GCR. This requires the responsible Federal agency of a Federal action to determine the following:

- Does the proposed action generate emissions of criteria pollutants or their precursors;
- Does the proposed action generate emissions of criteria pollutants or their precursors in a federally designated nonattainment or a federally designated maintenance area for each pollutant;
- Is the proposed action exempt based on criteria listed in the GCR;

- Are emissions of criteria pollutants or their precursors resulting from the proposed action below applicable screening threshold rates (hence, exempt from conformity determination requirements); or
- Are emissions of criteria pollutants or their precursors resulting from the proposed action above applicable screening threshold rates (hence, conformity determination requirements apply to, and a formal conformity determination would be needed for the proposed action).

The project area is located within the San Francisco Bay Air Basin, which covers Marin, Napa, Alameda, San Francisco, Contra Costa, San Mateo, and Santa Clara counties, the western portion of Solano County, and the southern portion of Sonoma County. The air basin consists primarily of urban areas with some rural areas along the outskirts of the basin. The climate in the air basin is a typical coastal climate with cool, moist air and moderate temperatures year-round. The summers are dry, and most of the year’s precipitation occurs during the winter (28-20 inches per year). Specifically, the project area is under the jurisdiction of the Bay Area Air Quality Management District (AQMD). The primary sources of air pollution within the district are personal motor vehicles and industrial facilities.

If the proposed project is in a federally designated non attainment or maintenance area, direct and indirect project emissions must be compared to applicable GCR screening threshold rates to determine whether or not a formal conformity determination is required. The southern portion of Sonoma County is:

- Federally designated as non-attainment for the O₃ NAAQS, but is in attainment or unclassified for all other NAAQS (EPA 2007).
- Federally classified as a CO maintenance area; and
- Designated as non-attainment for the O₃, PM₁₀, and PM_{2.5} CAAQS, but is in attainment or unclassified for all other California criteria pollutants (California Air Resources Board 2007).

Therefore, a comparison must be made to demonstrate that the proposed action’s emissions would be below the applicable screening threshold rates listed in the GCR. A summary of the applicable GCR emission threshold rates for Sonoma County is presented below.

Applicable GCR Emission Threshold Rates

Pollutant	GCR Guidance
	Non-Attainment (ton/yr)
CO	100 (maintenance area) *
NOx	100 (marginal non-attainment, O ₃ precursor) *
PM ₁₀	100
PM _{2.5}	100
SO ₂	100
VOC	100 (marginal non-attainment, O ₃ precursor) *

* Note: Please note that GCR determinations are based on federal attainment designations, not state. The project area is federally classified marginal non-attainment for the 8-hr O₃ NAAQS. The area is federally classified as a maintenance area for CO.

Implementation of the proposed action would result in temporary impacts to the existing air quality in the area. These impacts include temporary increases of fugitive dust (PM₁₀ and PM_{2.5}) and combustion emissions (CO, NO_x, PM₁₀, PM_{2.5}, SO₂, and volatile organic compounds or VOC). Fugitive dust emissions would be generated by vehicle movement over paved and unpaved roads, dirt tracked onto paved areas from unpaved areas at the access point, and particulate matter that is suspended during construction. Combustion emissions would be generated from the operation of construction equipment during the construction process.

It is important to note that there are no NAAQS or CAAQS for VOCs. However, VOCs are a precursor to O₃, which has both a Federal and State ambient air quality standard. The formation of O₃ occurs in the troposphere as precursor pollutants react in the presence of sunlight. Therefore, the only way to regulate/reduce O₃ is through the control of its reactive precursors, one of which is VOC.

Unmitigated emission estimates were determined using the following guidance and assumptions:

- 50 construction days/year.
- 10 working hours/day.
- Assumed 0.6 acre of ground disturbance
- Emissions were estimated using the equipment loading for a permitted construction project with 38 acres of ground disturbance scaled down to the assumed 0.6 acres of this project; and
- US EPA AP-42 and AQMD Guidance.

Based on the above assumptions, the following unmitigated emissions are expected for this project:

Estimated Emissions Rates of Proposed Action

Pollutant	Emission Rate ^a (ton/yr)
CO	0.5
NO _x	0.2
PM ₁₀ ^b	0.1
PM _{2.5} ^b	0.02.3
SO ₂	0.0004.6
VOC	0.1
^a Emissions include contributions from construction equipment and employee vehicles	
^b Includes particulate from fugitive dust and combustion activities	

Even without mitigation measures, the proposed projects emissions are below the applicable GCR threshold emission rates. Therefore, no further analysis is required to establish conformity with the State Implementation Plan; air quality impacts as a result of implementation of this action would be temporary. Mitigation measures to minimize air quality impacts are outlined in Section 4.2 of the SEA.

3.3 WATER RESOURCES

The project is located within the Petaluma River watershed, which collects water from the low hills surrounding the Petaluma River valley and drains into the tidal flats of the San Pablo Bay. Surface water resources in Helen Putnam Regional Park include a small stock pond (Cattail Pond) and several intermittent or ephemeral streams. One stream channel runs parallel to the Arroyo Trail and crosses the Paved Ridge Trail in the vicinity of the gazebo and picnic area near the parking lot at the entrance to the park. Another stream runs parallel to the Paved Ridge Trail along the eastern edge of the park and drains into Cattail Pond.

The Panorama Trail is not located close to any stream or tributary; therefore, the re-grading and armoring of the trail would have no long-term impact to surface water resources in the area. Construction would have no effect on groundwater recharge or groundwater quality.

Temporary impacts to surface water resources in the area may occur due to soil erosion caused by the use of heavy equipment on unpaved areas around the Panorama Trail. Section 4.3 of the SEA outlines BMPs which would be utilized to minimize sedimentation into nearby surface waters. With the implementation of these BMPs, and because access and equipment staging would be limited to the paved surface of the Paved Ridge Trail, no adverse impacts to water resources are anticipated as a result of construction activities.

3.3.1 Floodplain Management

In compliance with Executive Order 11988, Floodplain Management, FEMA considered the proposed action's impacts to the floodplain. The site of the proposed action was examined to determine if the new fire road would be located in either the 100-year or 500-year floodplain. The site is not within the 100-year or 500-year floodplain, so construction of the fire road would not affect the floodplain. Therefore, the proposed action complies with EO 11988.

3.3.2 Protection of Wetlands

In compliance with Executive Order 11990, Protection of Wetlands, FEMA considered the proposed action's impacts to wetlands. The site of the proposed action was examined to determine if it contained wetlands. The site does not contain wetlands. Therefore, the proposed action complies with EO 11990.

3.4 BIOLOGICAL RESOURCES

The project area is confined to the north side of the park in an area of grassland with patches of forest dominated by coast live oak (*Quercus agrifolia*). The grassland is typical annual type but contains local areas with relatively high proportion of native perennial grasses. Plant species observed during an October 2006 site visit include thimbleberry (*Rubus parviflorus*), cow-parsnip (*heracleum lanatum*), poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), sweet fennel (*Foeniculum vulgare*), coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), California laurel (*Umbellularia californica*), western sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), willow (*Salix* spp.), Eastwood manzanita (*Arctostaphylos glandulosa*), blue gum (*Eucalyptus globules*), and California coffeeberry (*Rhamnus californica*).

Animal species observed visually or by sign and calls during the site visit include Beechey ground squirrel (*Spermophilus beecheyi*), Columbia blacktail deer (*Odocoileus hemionus columbianus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), California quail (*Callipepla californica*), northern flicker (*Colaptes auratus*), western scrub-jay (*Aphelocoma californica*), barn swallow (*Hirundo rustica*), western bluebird (*Sialia mexicana*), American robin (*Turdus migratorius*), savannah sparrow (*Passerculus sandwichensis*), song sparrow (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), western meadowlark (*Sturnell neglecta*), red-winged blackbird (*Agelaius phoeniceus*), and purple finch (*Carpodacus purpureus*). There are no fish streams present within the project action area.

The action area provides habitat suitable to support one federally listed species: the California red-legged frog (*Rana draytonii*)(CRLF). The CRLF is listed as threatened and under the jurisdiction of the United States Fish and Wildlife Service (USFWS). The California Natural Diversity Database indicates that there are several records of CRLF existing within less than one mile of the action area. In addition, suitable breeding habitat exists for CRLF in Cattail Pond, which is approximately 600 feet from the action area. Since CRLF are known to migrate up to one mile from their breeding ponds, the upland areas surrounding these breeding ponds represent suitable dispersal habitat for CRLF. Therefore, the grassland areas and oak woodlands surrounding the action area provide suitable dispersal habitat for CRLF.

Implementation of the proposed action could affect dispersing frogs. Therefore, the proposed action requires consultation with USFWS, under Section 7 of the Endangered Species Act (ESA). To expedite the review process under Section 7 of the ESA, FEMA has developed programmatic compliance documents with the USFWS. In order for the proposed action to qualify under this expedited review process, COS would be required to fully and correctly implement the appropriate conservation measures described in Appendices B and C of FEMA's May 2006 Programmatic Biological Assessment (PBA) for FEMA-Funded Disaster Assistance Projects in California, as amended, for species under USFWS jurisdiction.

In a letter dated November 21, 2007, FEMA described the conservation measures necessary to protect the CRLF, as listed in the PBA, and requested assurance that COS would implement these measures as a stipulation of funding. On June 23, 2008, COS agreed to implement these measures (Appendix B). These conservation measures are outlined in Appendix B of the SEA.

No other federally listed species or appropriate habitats for potential listed species were observed within the project area. Because the action area does not provide habitat for species under NMFS jurisdiction, no consultation with NMFS is necessary. Therefore, with implementation of the appropriate minimization and avoidance measures pertaining to CRLF that are described in Appendix B of this SEA, this project would have no adverse impact on any federally listed species or their critical habitat and is thus in compliance with the ESA.

3.5 CULTURAL RESOURCES

FEMA subjected the project area to a cultural resources records review at the Northwest Information Center (NWIC) of the California Historical Resources Information System on October 18, 2006. According to the data provided by the NWIC, there are no recorded sites within the project area, and there are three historic, and one prehistoric, sites within one-half mile of the project area. There were no previous studies of the project area, and five previous

studies within one-half mile of the project area. According to the NWIC, none of these sites are listed in, or have been determined eligible for, listing in the NRHP.

In addition, the California Native American Heritage Commission (NAHC) was contacted for a review of its Sacred Lands File and a list of Native American groups and individuals that the Commission believes should be contacted about the project. The Sacred Lands File search was negative. On October 20, 2006, FEMA sent letters to those groups and individuals listed by NAHC, but no responses have been received to date. An archaeological survey of the project area was undertaken on August 9, 2007 by a NISTAC archaeologist, as a consultant to FEMA. The results of the survey were negative.

As described earlier, no properties eligible for the NRHP were identified through a literature review or pedestrian survey of the project area. Therefore, the proposed project is not expected to have any effect on historic properties. Therefore, FEMA has determined that there would be no historic properties affected as described in Stipulation VII, C of the First Amended Programmatic Agreement among FEMA, the State Historic Preservation Officer (SHPO), OES, and the Advisory Council on Historic Preservation.

FEMA informed the SHPO of its determination in a letter dated August 14, 2007. The SHPO failed to object to FEMA's determination or otherwise comment on FEMA's findings. Therefore, in accordance with Stipulation VII.C of the First Amended Programmatic Agreement among FEMA, SHPO, OES, and the Advisory Council on Historic Preservation, FEMA will complete the historic review of the proposed project and may authorize funding. Thus, with implementation of the appropriate minimization and avoidance measures described in Section 4.5 of the SEA, this project complies with Section 106 of the National Historic Preservation Act.

3.6 NOISE

The project area is generally quiet due to its rural location within a regional park. The park is located on Chileno Valley Road, which is a rural road and is not a significant source of noise for the project area. Noise-sensitive receptors within and near the existing site include people using the park for recreational purposes. Noise associated with implementation of the proposed action includes the operation of equipment such as backhoes, loaders, and excavators, which generate noise levels ranging from about 70 to 95 dB at 50 feet from the source.

Noise associated with project activities would not occur for more than a period of two months, which is the time required re-grade the Panorama Trail. With implementation of the minimization and avoidance measures described in Section 4.6 of the SEA, impacts to noise-sensitive receptors would be minimal and temporary.

3.7 VISUAL RESOURCES

The scenic qualities of the landscape within the action area mainly consist of a vegetated environment with grasses, shrubs, and trees. Because the proposed action would only widen a pre-existing trail and would not remove vegetation, the visual context and visual quality of the project area would not change. No new viewsheds would be created and existing views of the action area would not be deteriorated. Short-term impacts to views within the action area

would occur during construction when crews are working within the action area. The visual resources of the action area would not change once the proposed action has been implemented.

3.8 RECREATION

Helen Putnam Regional Park provides trails for hiking, biking, and horseback riding. During construction, these recreational activities would be halted along the Panorama Trail. Parking and traffic flow could also be affected by the presence of construction crews and equipment. However, in the long term, recreational activities along the Panorama Trail would not be impacted. With implementation of the minimization and avoidance measures outlined in Section 4.8 of the SEA, all impacts to recreation activities would be minimal and temporary.

3.9 CUMULATIVE IMPACTS

Cumulative impact is the impact on the environment, which results from the incremental impact of the proposed action when added to other past, present, and reasonable future actions regardless of the person or group that undertakes the other actions. FEMA knows of no other projects planned in the vicinity of the proposed project sites. Cumulative impacts are not expected to occur as a result of the proposed action.

4. MINIMIZATION AND AVOIDANCE MEASURES

The following minimization and avoidance measures applicable for the proposed action have been extracted from the PEA Section 4, or from measures developed for this SEA based on site specific impacts.

4.1 GEOLOGY, SOILS AND SEISMICITY

To avoid adverse impacts to geology, soils, and seismicity, COS would be responsible for implementing construction BMPs to minimize soil loss from the re-grading and armoring of the Panorama trail. Examples of BMPs include the following measures: developing and implementing an erosion and sedimentation control plan, installing and maintaining silt fences or hay bales, mulching cleared areas, revegetating with native species when construction is completed, covering soil that is stockpiled on-site, and constructing a sediment barrier around stockpiles to prevent sediment loss.

4.2 AIR QUALITY

COS would be responsible for implementing the following BMPs to reduce potential short-term air quality impacts from construction activities:

- Watering disturbed areas;
- Scheduling the location of the staging areas to minimize fugitive dust;
- Keeping construction vehicles tuned properly;
- Requiring all trucks to cover their loads;

- Sweeping adjacent roads if visible soil is carried over to these areas from the construction site; and
- During high-wind periods, curtailing activities to the degree necessary to prevent fugitive dust from construction operations from being a nuisance or hazard on- or off-site.

All construction activities would comply with all Bay Area AQMD rules and standards.

4.3 WATER RESOURCES

To avoid and minimize any adverse impacts to water resources, COS would be responsible for implementing construction BMPs that would prevent soils from eroding and resulting in sedimentation in the project vicinity. Examples of BMPs include the following measures: developing and implementing an erosion and sedimentation control plan, installing and maintaining silt fences or hay bales, mulching cleared areas, re-vegetating with native species when construction is completed, covering soil that is stockpiled on-site, and constructing a sediment barrier around stockpiles to prevent sediment loss.

4.4 BIOLOGICAL RESOURCES

COS would be responsible for implementing the general conservation measures described in FEMA's May 2006 PBA for FEMA-Funded Disaster Assistance Projects in California, as amended, for species under USFWS jurisdiction. COS would also be responsible for implementing the appropriate conservation measures required to protect CRLF. These conservation measures are described in a November 21, 2007, letter from FEMA to COS. This letter is attached to the SEA in Appendix B.

4.5 CULTURAL RESOURCES

If unanticipated resources are discovered during construction, COS would stop project activities in the vicinity of the discovery, take all reasonable measures to avoid or minimize harm to the property, and notify OES and FEMA as soon as practicable so that FEMA can re-initiate consultation with the SHPO, in accordance with the First Amended Programmatic Agreement among FEMA, SHPO, OES, and the Advisory Council on Historic Preservation. If the discovery appears to contain human remains, COS would also contact the Sonoma County Coroner immediately. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she would contact the NAHC by telephone within 24 hours.

4.6 NOISE

COS would be responsible for implementation of the following measures to reduce noise levels associated with construction equipment:

- Project activity would not be conducted between 7:00 p.m. and 7:00 a.m. on weekdays,
- Project activity would not be conducted between 9:00 p.m. and 6:00 a.m. on Saturdays,
- No project related activity would be allowed on Sundays or Federal holidays, and

- All noise-producing project equipment and vehicles using internal combustion engines would be equipped with properly operating mufflers and air inlet silencers, where appropriate, that meet or exceed original factory specification.

4.7 VISUAL RESOURCES

No minimization or avoidance measures are required for visual resources.

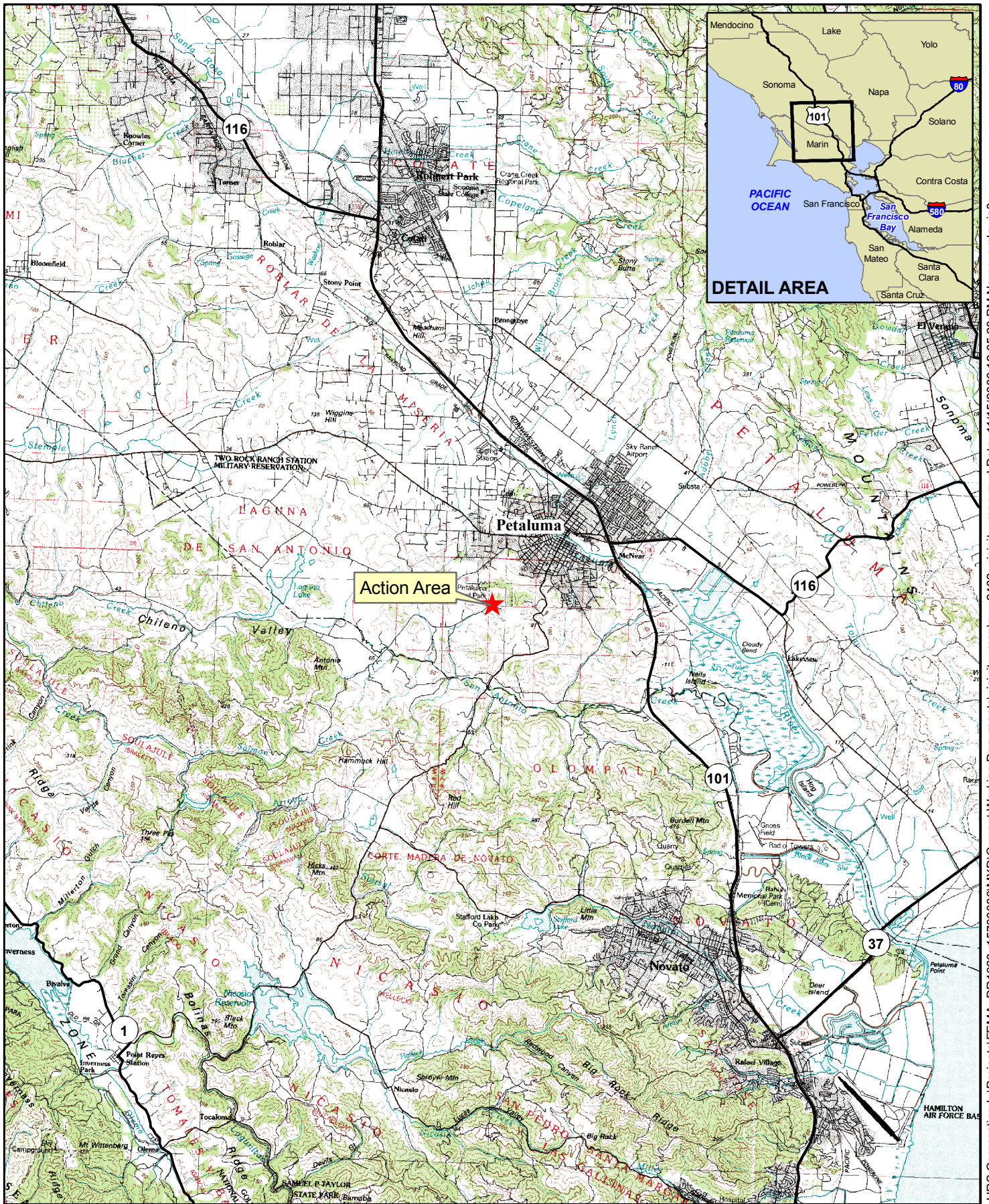
4.8 RECREATION

COS would be responsible for notifying the public prior to implementation of the proposed action and providing educational materials to the public, such as the posting of fliers at the entrance to the park.

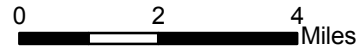
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APPENDIX A
FIGURES



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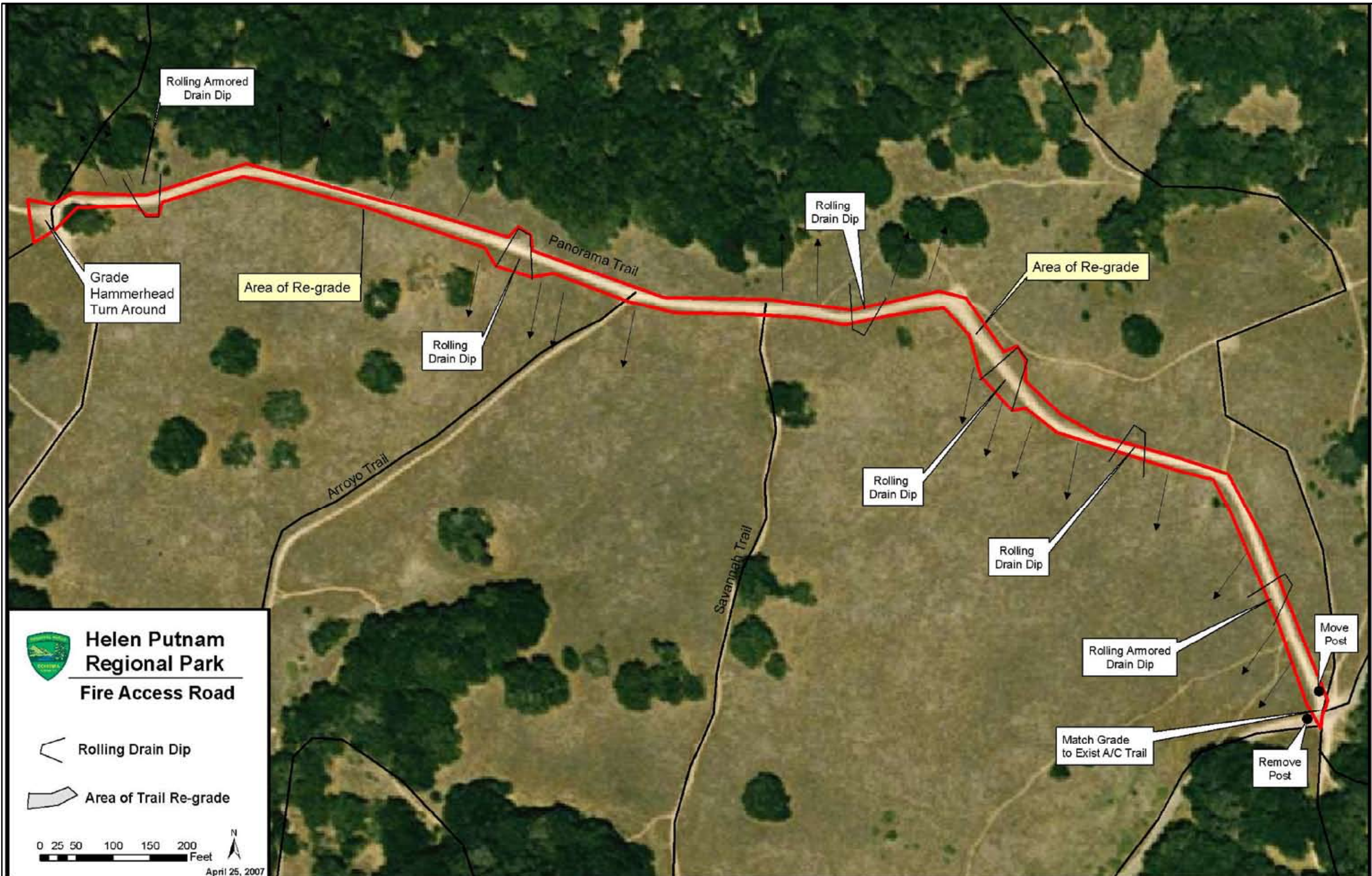
FEMA DR-1628 PW #2482

Vicinity Map

Figure 1



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Helen Putnam Regional Park
Fire Access Road

Rolling Drain Dip

Area of Trail Re-grade

0 25 50 100 150 200 Feet

April 25, 2007

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APPENDIX B
CORRESPONDENCE REGARDING CONSERVATION MEASURES
TO PROTECT THE CALIFORNIA RED-LEGGED FROG

RODNEY A. DOLE
AUDITOR-CONTROLLER
TREASURER -TAX COLLECTOR

Auditor-Controller
Treasurer-Tax Collector
County of Sonoma
585 FISCAL DRIVE
SUITE 101F
SANTA ROSA, CALIFORNIA
95403-2819
(707) 565-2631
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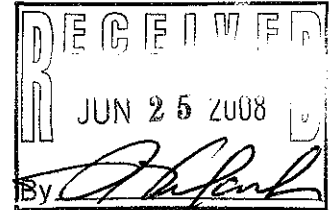
DONNA M. DUNK
ASSISTANT
AUDITOR-CONTROLLER

ROBERT BOITANO
ASSISTANT
TREASURER

PAM JOHNSTON
ASSISTANT
TAX COLLECTOR / AUDITOR

June 23, 2008

Alessandro Amaglio
U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052
FEMA

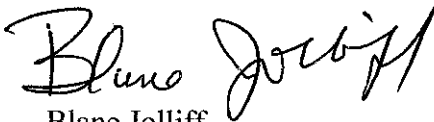


RE: Concurrence of conservation measures, FEMA-1628-DR-CA, PW2482

Dear Mr. Amaglio:

Attached is a letter dated November 21, 2007 requesting a signature of concurrence which has been provided indicating the County of Sonoma's agreement with the conservation measures described as a stipulation of the funding for PW 2482. This letter was initially sent to Brian Todd and later forwarded to Jarrod King with the county's Regional Parks department. Project Worksheet 2482 is related to the damaged fire road at Helen Putnam Regional Park.

Sincerely,


Blane Jolliff
Accounting Manager

Jarrod

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052



FEMA

November 21, 2007

PPRKS

Helen Putnam Regional
Park Fire Road Repair

Brian Todd
County of Sonoma
585 Fiscal Drive
Room 101F
Santa Rosa, CA 95403

Re: County of Sonoma, Damaged Fire Road, FEMA-1628-DR-CA, PW #2482

Dear Mr. ^{King}Todd:

The County of Sonoma, through the Governor's Office of Emergency Services (OES), has applied to the Federal Emergency Management Agency (FEMA) for funding under the Public Assistance Program to repair a damaged fire road. To expedite the review process under Section 7 of the Endangered Species Act (ESA), FEMA has developed programmatic compliance documents with the U.S. Fish and Wildlife Service (USFWS or Service). In order for Project Worksheet (PW) #2482 to qualify under this expedited review process, the County of Sonoma must fully and correctly implement the appropriate conservation measures described in Appendices B and C of FEMA's May 2006 Programmatic Biological Assessment (PBA) for FEMA-Funded Disaster Assistance Projects in California, as amended, for species under USFWS jurisdiction. This includes General Conservation Measures 3 through 18 from Appendix B of the PBA and Proposed Conservation Measures for the California red-legged frog (*Rana aurora draytonii*) from Appendix C of the PBA. These Proposed Conservation Measures have been specifically tailored for this PW. FEMA biologists have already conducted General Conservation Measures 1 and 2 and have determined that the only species with suitable habitat present is the California red-legged frog. FEMA biologists have assumed presence of this species; therefore, the County of Sonoma does not need to complete surveys per the most recently available USFWS-approved survey guidance. The appropriate conservation measures are enclosed with this letter. The PBA is posted on the FEMA Region IX website: www.fema.gov/about/regions/regionix/index.shtm.

If the County of Sonoma accepts implementation of these conservation measures as a stipulation of funding, please sign the enclosed copy of this letter and return it to me in the pre-addressed envelope. If the County of Sonoma cannot comply with these conservation measures, please notify me at the earliest opportunity, so that FEMA can initiate Section 7 consultation with USFWS for this project. Additionally, if the County of Sonoma cannot comply with these conservation measures, the County of Sonoma is advised not to proceed with project implementation prior to official notification from FEMA that this consultation has been completed or funding may be jeopardized.

Brian Todd
November 21, 2007
Page 2

If you should require any additional information regarding Section 7 consultation, the PBA, or FEMA's request, please contact Dennis Castrillo of OES at (916) 845-8270. Thank you in advance for your assistance.

Sincerely,



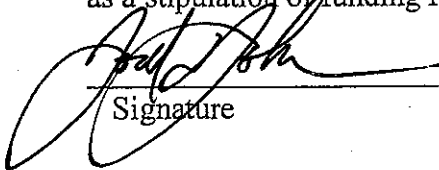
Alessandro Amaglio
Environmental Officer

Attachments

cc:
Dennis Castrillo, OES
Doug Lashmett, OES

Concurrence

The County of Sonoma accepts implementation of the conservation measures described in this letter as a stipulation of funding for PW #2482.

	<u>TODD HOLMES</u>	<u>PARK PLANNING MGR.</u>	<u>6/20/08</u>
Signature	Printed Name	Title	Date

Conservation Measures

General Conservation Measures (from PBA Appendix B)

1. To determine the likelihood that a federally-listed species may be present in the areas that may be directly or indirectly affected by project activities, a qualified biologist will conduct a thorough review of all existing data regarding federally-listed species and their habitats prior to the implementation of any project. This review will include not only a review of the California Department of Fish and Game's California Natural Diversity Database (CNDDDB), but all other sources of information and data available within the public domain including, but not limited to, reports submitted to the Service, California Department of Fish and Game, or other public agencies; peer-reviewed publications in scientific journals, internet resources such as California Native Plant Society website, books or other published literature, and all other sources as appropriate. FEMA will consider that a federally-listed species is likely to occur on a project site if (a) it is within the dispersal distance of a documented sighting of the species, and (b) suitable habitat is present in the area.
2. To determine whether suitable habitat is present, and to further inform determinations of the likelihood that a federally-listed species occurs in areas that may be directly or indirectly affected by project activities, a qualified, Service-approved biologist will conduct pre-activity surveys for federally-listed species and habitats prior to the implementation of any project, unless a species has already been assumed to be present, then no surveys are necessary. Surveys will follow the most recently available Service-approved guidance and they will be conducted during the most appropriate times of the year to identify a species' presence. For example, plant surveys will be conducted during the flowering period following the most recently available, Service-approved survey guidance; reptile and amphibian surveys will be conducted during the animal's active periods following the most recently available, Service-approved survey guidance, not during their aestivation periods, *etc.*
3. Project proponents will ensure that, in addition to the general conservation measures proposed herein, that all species-specific conservation measures outlined in Appendix C are implemented for each federally-listed species and their habitats at each project site, as appropriate;
4. A qualified, Service-approved biological monitor will be present on site during all activities related to the project. The biological monitor will provide guidance to the project proponents and crew about federally-listed species and their habitats. The biological monitor will monitor all activities to ensure that no federally-listed species is harassed, killed, or injured and to ensure that the project otherwise conforms to the conservation measures outlined throughout this document and the subsequent programmatic consultation documents. The biological monitor will have the authority to stop any aspect of the project that will result in unauthorized take of federally-listed species;
5. Project proponents will ensure that all work will be conducted in an area, from a location, or in such a manner that it will not directly or indirectly kill or injure a listed species, will not intentional or negligently harass a listed species to such an extent as to significantly disrupt normal behavioral patterns, or will not adversely modify listed species habitats. Project planning must consider not only the effects of the action itself, but also all ancillary activities associated with the actions, such as equipment staging and refueling areas, topsoil or spoils stockpiling areas, material storage areas, disposal sites, routes of ingress and egress to the project site, and all other related activities necessary to complete the project;
6. Disturbance to existing grades and vegetation will be limited to the actual site of the project and necessary access routes. Placement of all roads, staging areas, and other facilities shall avoid and

limit disturbance to federally-listed species and their habitats to the maximum extent practicable. When possible, existing ingress or egress points will be used and the contours of the project site will be returned to pre-construction condition or better;

7. Projects proponents will, to the maximum extent practicable, reduce the amount of disturbance at a site to the absolute minimum necessary to accomplish the project. Wherever practicable, existing vegetation will be salvaged from the proposed project area and stored for replanting after earthmoving activities are completed. Topsoil will be removed, stockpiled, covered, and encircled with silt fencing to prevent loss or movement of the soil into federally-listed species habitats. All disturbed soils will undergo erosion control treatment prior to the rainy season and after construction is terminated. Treatment typically includes temporary seeding with native species and sterile straw mulch. All topsoil will be replaced in a manner to as closely as possible represent pre-disturbance conditions. This is especially necessary for listed plants to preserve the integrity of the seed contained within the topsoil;
8. Project proponents will ensure that project sites are re-vegetated with locally-acquired sources of native seeds and plants in a manner that is not likely to adversely affect listed species and will return the site to at least its pre-existing condition or better. Plantings will be done during the optimal season for the species being planted and, if necessary, an irrigation system will be installed to ensure establishment of vegetation. An 80% or more survival rate over a period of 3-5 years for new plantings will be the target. Invasive exotic plant species will be controlled to the maximum extent practicable to accomplish the re-vegetation effort. Chemical control of invasive exotic plant species will be conducted by a certified pesticide applicator per labeled directions and all other federal, state, and local laws and regulations;
9. Projects being implemented within habitat known to support plant species or species that use underground retreat, escape, hibernacula, and/or aestivation areas (*e.g.*, snakes and amphibians, small mammals, burrowing owls, *etc.*) will require that vehicles and equipment be operated in a manner that does not result in the death or injury of an individual plant or animal and in a manner that does not unduly compact or disturb the soil. For example, temporarily removing topsoil in an area just large enough to allow heavy equipment access to a site (*e.g.*, a levee repair site) after the flowering and seed set period, then returning the topsoil to the area once the equipment work is completed;
10. For projects conducted in areas where species are known to use underground burrows as escape habitat, hibernacula, aestivation areas, or other purposes of retreat, project proponents will completely encircle the project area with exclusionary fencing fitted with one-way exit holes and buried a few inches below ground level. This fencing will allow species to passively leave the project site while at the same time preventing them from re-entering the work zone. Exclusionary fencing will be installed at least six weeks prior to the implementation of the project and it will be checked frequently to ensure the fencing is intact and functioning properly. The fencing will be maintained, in place, throughout the duration of the project, to prevent species from re-entering the project site until all work activities have ceased;
11. All standardized Best Management Practices (*e.g.*, per Regional Water Quality Control Boards, the California Stormwater Best Management Practice Handbooks, *etc.*) will be implemented for all projects, as appropriate to each project site;
12. Project proponents will ensure that sediment-control devices are installed and maintained correctly. For example, sediment will be removed from sediment controls once the sediment has reached one-third (1/3) of the exposed height of the control. The devices will be inspected frequently (*e.g.*, daily) to ensure they are functioning properly; controls will be immediately repaired or replaced or

additional controls will be installed as necessary. Sediment that is captured in these controls may be disposed of on site in an appropriate, safe, approved area, or off site at an approved disposal site;

13. Project proponents will consider design factors and other recommendations detailed in the most recently available publications (*e.g.*, NMFS stream crossing criteria, California Salmonid Stream Habitat Restoration Manual, *etc.*) when undertaking projects such as bridge or culvert replacement, for example, on fish-bearing streams (particularly anadromous fish);
14. Project proponents shall exercise every reasonable precaution to protect federally-listed species and their habitats from pollution due to fuels, oils, lubricants, and other harmful materials. Vehicles and equipment that are used during the course of a project will be fueled and serviced in a "safe" area (*i.e.*, outside of sensitive habitats) in a manner that will not affect federally-listed species or their habitats. Spills, leaks, and other problems of a similar nature will be resolved immediately to prevent unnecessary effects to listed species and their habitats. A plan for the emergency clean up of any spills of fuel or other material will be available on site and adequate materials for spill cleanup will be maintained on site;
15. Project proponents shall exercise every reasonable precaution to protect federally-listed species and their habitats from construction by-products and pollutants such as construction chemicals, fresh cement, saw-water, or other deleterious materials. Water containing mud, silt, concrete, *etc.* from construction activities shall be treated by filtration, retention in a settling pond, *etc.* Fresh cement or concrete shall not be allowed to enter flowing water of streams. Construction pollutants will be collected and transported to an authorized disposal area, as appropriate, and per all federal, state, and local laws and regulations;
16. All hazardous material will be stored in properly designated containers in a storage area with an impermeable membrane between the ground and the hazardous material. The storage area will be encircled by a berm to prevent the discharge of pollutants to ground water or runoff into federally-listed species habitats. A plan for the emergency clean up of any hazardous material will be available on site and adequate materials for spill cleanup will be maintained on site;
17. All construction material, wastes, debris, sediment, rubbish, vegetation, trash, fencing, *etc.* will be removed from the site once the project is completed and transported to an authorized disposal area, as appropriate, and per all federal, state, and local laws and regulations; and
18. All concrete or other similar rubble shall be free of trash and reinforcement steel. No petroleum-based products such as asphalt will be used as a stabilizing material (*i.e.*, riprap).

Proposed Conservation Measures (from PBA Appendix C)

California Red-Legged Frog

1. Consult a Service-approved biologist with expertise and permits specific to California red-legged frog.
2. Avoid all disturbances of ponds, streams, lakes, and other wetland or water courses, and their immediate adjacent upland habitats, that provide suitable breeding and foraging habitat for amphibians by maintaining an approximate 100-meter buffer around these areas.
3. Hand clear vegetation in areas where amphibians are suspected to occur and install exclusionary fencing with one-way exit funnels per Service-approved guidance at least one month before the start of the project to allow species to passively leave the area and to prevent species from entering work areas OR, if appropriate (i.e., CRLF are observed at the site by the biologist/monitor), obtain the services of a section 10(a)(1)(A) permitted biologist (preferable the same person monitoring) to conduct pre-activity trapping per Service-approved guidance at the project site to remove all individuals from the work areas. Any questions regarding the relocation of individuals from the project area should be directed to the appropriate Service jurisdictional field offices.
4. Cover all construction-related holes to prevent entrapment of individuals.
5. Schedule work at a time when it is least likely to affect amphibian species, i.e., after the migration period, after the breeding season if working in a wetland, while amphibians are concentrated at a wetland if working in upland areas, etc.