

MENDOCINO COUNTY
INITIAL STUDY
FOR
**TOMKI ROAD PROTOTYPE VENTED LOW WATER CROSSING /
SEDIMENT REDUCTION & HABITAT IMPROVEMENT PROJECT**
TOMKI ROAD, CR 237D AT M.P. 6.17
DRAFT – 12/05/07 -- DRAFT

Section I – Project Overview.

- 1. Project title:** Tomki Road Prototype Vented Low Water Crossing / Sediment Reduction & Habitat Improvement Project
- 2. Lead agency name and address:** Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, Calif. 95482
- 3. Contact person and phone number:** Alex Straessle, (707) 467-2542
- 4. Project location:** Project is located on Tomki Road, CR 237D at mile post 6.17.
NE ¼, Sec. 30, T 18N, R12W, MDB&M
Latitude 39° 23' 22", Longitude 123° 13' 45", Foster Mountain 7.5 min. quad.
- 5. Project sponsor's name and phone number:** Project will be constructed by the Mendocino County Department of Transportation (707-463-4363) with project funding made possible by the State Water Resources Control Board (North Coast Regional Board 707-576-2468) through the 2005-2006 Consolidated Grants Program, Proposition 40-Integrated Watershed Management Plan Implementation Grants Program.
- 6. General Plan Designation:** RL160 - Range Lands (160 acres)
- 7. Zoning:** Rangeland (160 acres)
- 8. Description of Project:**

Background

Tomki Road is a gravel county road connecting Redwood Valley to Little Lake Valley and is adjacent to Cave Creek. This road has nine stream crossing fords through Cave Creek and tributary side creeks, which are impassable during parts of some winters. These ford crossings generate significant turbidity in the creek, lead to the introduction of oils and grease into the system and may result in direct fish mortality from vehicles. According to nearby landowners, nearly every year vehicles are stranded in the creek when drivers attempt to cross the creek and become stuck mid-stream. Biologists from the National Marine Fisheries Service (NMFS), and California Department of Fish and Game have expressed concern over the fisheries impact of this road and Regional Water Quality Control Board (RWQCB) staff have expressed concern over the turbidity and sedimentation issue.

June 18, 2001- A field meeting initiated by Forestlands Inc. & Wildlife Inventory Systems was held to address concerns of water pollution and fisheries impacts to Cave Creek as a result of the use of Tomki Road. Those present were; Wildlife Inventory Systems, Forestlands Inc., Mendocino County Department of Transportation, Mendocino County Water Agency, North Coast Regional Water Quality Control Board, and California Department of Fish and Game. It was at this meeting that two of the major landowners tentatively offered an existing alternative route on their property along the ridge past the first low water crossing.

August 31, 2001- Letter received by Department of Transportation from North Coast Regional Water Quality Control Board stating that impacts to cold water fish habitat are in violation of Water Quality Control Plan for the North Coast and pursuant to Section 13267(b) of the California Water Code the Department shall submit a technical report that includes a plan correct the sediment pollution associated with Tomki Road. The Department of Transportation has been submitting biannual progress reports to the Regional Water Board since that time.

March 13, 2002- The Department of Transportation held a well-attended meeting with landowners to gauge support for various options. The landowners expressed support for significant changes to the existing road condition. The options discussed included: 1) total road relocation to a ridge position, 2) partial road relocation to avoid some crossings, 3) road abandonment by the County, 4) seasonal closure of the road, 5) installing bridges, 6) upgrading the crossings with alternative designs such as vented or un-vented low water crossings.

February 12, 2003- An on-site meeting was held with the 5 Counties fisheries biologist, Mendocino County Department of Transportation, North Coast Regional Water Quality Control Board and California Department of Fish and Game. The purpose of the field meeting was to discuss the ongoing erosion and sediment issues, discuss the short-term and long-term options to correct the problems, and examine the nine crossings. As a result of this meeting a report was prepared that addressed the impacts as pertains to fish habitat and life cycle requirements, and discussed both short term and long term actions with recommendations.

February 25, 2003- Letter received by Department of Transportation from NOAA Fisheries Enforcement Division recommending that the Department of Transportation continues to cooperate with CDFG and RWQCB, and consider options to current road use as discussed during a recent meeting with both agencies.

In order to address impacts to Cave Creek as a result of Tomki Road, the Department has decided to;

- 1) prepare a feasibility study,
- 2) construct a prototype vented low water crossing at the most southerly crossing that may be used at the other crossing locations if proved successful.

The Feasibility Study is in the process of being prepared to evaluate alternatives for relocating Tomki Road from Cave Creek, either wholly or in part.

MCDOT proposes construction of one prototype vented, low water crossing at the most southerly crossing for the following reasons: 1) Likely road realignment options are on the easterly side of Cave Creek; thus, the first crossing is likely needed. 2) Should the prototype

prove successful it could be proposed as a long-term solution to improve water quality for the existing crossings on the present road alignment, 3) it is likely to be needed whether or not the road is realigned in the future. The proposed prototype vented low water crossing will replace the water ford at MP 6.17 with a 20' wide x 4' high x 60' long pre-manufactured bottomless concrete arch structure designed to allow anadromous fish passage at all life stages and pass stream bed material using natural streambed geomorphology. The proposed structure will also be designed to accommodate the 10-year, or 10% probability storm event without overtopping, and pass the 100-year storm event, 1% probability of occurrence, without structural damage.

The project will reduce fish mortality from being directly run over and improve in-stream habitat conditions by reducing turbidity, sedimentation and vehicle fluid deposits caused by vehicles passing directly through the stream.

Construction will involve excavation for two strip footings located at the approximate limits of the bankfull channel and set below the anticipated scour depth. The location of the structure is at the existing ford crossing which is seriously impacted due to vehicle traffic. Once footings have cured, the structure components will be lowered into place with a crane. Once set, water proofed and grouted, the structure will be backfilled with material from footing excavation and import material to the desired finished road grade. The roadway will be protected with concrete to prevent erosion during high flow events and structure embankments protected with grouted rip-rap. The stream channel within the immediate area will also be reconfigured so as to conform to the anticipated stable channel grade and bank full dimensions. Upstream and down stream segments will further be protected against erosion pursuant to Regional General Conditions for NWP 13 - Bank Stabilization and NWP 14 - Linear Transportation Projects. The existing road above the crossing will need to be realigned for approximately 200 feet in order to reduce skew for hydraulic considerations, allow for an elevated road elevation for structural and hydraulic considerations, and meet minimum road width and turning radii requirements. All disturbed areas will have erosion control BMPs applied prior to the winter period

The project will require a road closure and detour during the 30-day construction period. For environmental reasons, the construction window will generally be sometime between July 15 and October 15 of the year of construction, or as permits allow. The prototype vented low water crossing is scheduled for construction between July 15 and October 15 of 2008.

9. Surrounding land uses and setting:

The Cave Creek sub-watershed of the Upper Main Eel River Watershed is 11,627 acres in size. Predominate land uses within the Cave Creek sub-watershed and immediate surrounding areas are designated as Range Land, Forest Lands, Remote Residential, and includes minor inclusions of Public Lands. Forest Lands are the predominate designation within the western portions of the Cave Creek sub-watershed, with Range Lands predominating in the eastern portions. Remote Residential is the primary land use designation within the watershed area located south east from the project location, this area is also known as the Cave Creek Ranch Subdivision.

Tomki Road is functionally classified as a rural minor collector with gravel surface. It is used primarily by passenger vehicles, with an average daily traffic (ADT) of less than 50. The ford

crossings have existed since the creation of Tomki Road in the 1800's. The right-of-way enjoyed by the users of Tomki Road in this area is by fee title right-of-way. During extreme high water flows, the water in the fords reaches such depths and velocities that the road becomes impassable at times. In the event of road closure of U. S. Highway 101 between Ukiah and Willits, Tomki Road (if passable) provides the only local public detour route in the area. Up to the 1960's-70's, Tomki Road was designated by CalTrans as its official alternate route to Highway 101 in an event of a highway closure between Willits and Ukiah. Although this designation is no longer official, Tomki Road is still utilized by locals on a year-round basis as an alternate route to Highway 101 and Willits. CALTRANS officially designates state highways 20, 1, & 253 as detours, rather than Tomki Road.

Carcass surveys were conducted in 1984-1997 by Jones and 1998-2000 by Harris. Both carcasses and live Chinook and steelhead were observed each year and appreciable silt and sediment generated by the road was noted by Jones (*California Coastal Salmon and Steelhead, Current Steam Habitat Distribution Table*, Jones 2000).

“Because the wet fords are located at pool tails, these areas have the substrate sizes, water depths, and water velocities consistent with chinook salmon and steelhead spawning requirements. In past years, CDFG biologists have observed adult chinook have spawning at several of these fords (Harris, pers. comm.). Completed redds in these locations have a high likelihood of being crushed by vehicles using the fords. In one instance, the CDFG biologist observed a four-wheel drive truck crossing a Cave Creek ford while chinook salmon were spawning (Harris, pers. comm.).” (*Tomki Road in Mendocino County – Impacts to Salmonid Habitat and Management Options to Reduce Impacts*, Report by Ross Taylor and Associates)

10. Other public agencies whose approval is required:

Public agencies whose approval is required for this project include;

North Coast Regional Water Quality Control Board- for project review, input and approval as part of the grant agreement that helped fund this project.

North Coast Regional Water Quality Control Board- 401 Water Quality Certification.

California Department of Fish and Game- 1600 Streambed and Lake Alteration Agreement.

US Army Corps of Engineers- Clean Water Act Section 404 Permit for discharges to waters of the United States.

Mendocino County Board of Supervisors- Adoption of Resolution supporting a Negative Declaration pursuant to CEQA for the project.

Section II – Evaluation of Environmental Impacts.

“Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change, may be considered in determining whether the physical change is significant (CEQA Guidelines, Section 15382).

Will the project result in the following environmental effects:	No Impact	Less than Significant Impact	Less than Significant with Mitigation Incorporated	Potentially Significant Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	X			
	No designated scenic vistas are with in or adjacent to the project area.			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
	This is not a state scenic highway, nor is the project area viewable from a state scenic highway.			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
	Visual character or quality of the site will not be significantly impacted due to the proposed structure. In-stream visual quality will be improved as a result of reductions in stream turbidity.			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			
	No reflective materials or lighting is proposed.			
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the	X			

California Resources Agency, to non-agricultural use?	No farmland conversion is proposed.			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
	No conflicts with existing zoning are anticipated as a result of the project.			
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	X			
	No changes of existing land uses are anticipated as a result of the project.			
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
	No foreseeable obstructions to implementation of an air quality management plan are anticipated.			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
	The project area is within a State Designated Naturally Occurring Asbestos Area (NOA). The Mendocino County Air Quality Management District uses a 1 acre or 1 linear mile threshold for projects requiring a permit for construction and grading operations. (<i>Personal communications with office staff by personal visit on 21 November 2007</i>) The proposed project is less than 1 mile long and will not be one acre or greater in size and not subject to permit. However, potential air quality violations as a result of fugitive dust will be minimized through a Water Pollution Control Program per CALTRANS standards that utilized Best Management Practices (BMPs) to minimize the potential for fugitive dust. No asbestos containing materials (dirt) will be incorporated within the project.			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
	No criteria pollutants by federal, state or local standards are associated with the project. (<i>Personal communications with office staff by personal visit on 21 November 2007</i>)			

d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?	X			
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on	X			

<p>federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</p>	<p>No substantial adverse effects on wetlands are anticipated. Existing wetlands surrounding the project area are in small patches generally less than 0.01 acres in size. Ten patches of wetland features were delineated for a total of 0.05 acres.</p> <p>One wetland feature immediately below the existing crossing was 0.02 acres in size and is believed to be there as a result of sediment deposition as a result of vehicular activity across the stream in this area. This localized high spot / wetland feature will be removed as part of the hydraulic design for the project to help establish stable stream channel parameters such as grade, and active channel and bank-full widths.</p>			
<p>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</p>			X	
<p>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</p>	X			
<p>f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</p>	X			
<p>V. CULTURAL RESOURCES -- Would the project:</p>				
<p>a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?</p>	X			
<p>b) Cause a substantial adverse change in</p>	X			

<p>the significance of an archaeological resource pursuant to § 15064.5?</p>	<p>Two archaeological and historical resource assessments of the project area have been performed. One in November 2003 particular to the proposed crossing. The other in late 2007 as part of a more comprehensive feasibility study to evaluate options for relocating Tomki Road. No archaeological resources have been identified within the project study area.</p>			
<p>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</p>	<p>X</p>			
	<p>No unique geologic features are associated with the project. The potential for encountering paleontological resources are not anticipated to be encountered due to the nature and topography of the site. If paleontological resources are encountered during construction, encountered materials and there context will not be altered until a qualified paleontological resource professional has evaluated the situation and determined an appropriate course of action.</p>			
<p>d) Disturb any human remains, including those interred outside of formal cemeteries?</p>	<p>X</p>			
	<p>No archaeological or historical artifacts or structures have been identified within the project study area. If any cultural or historical resources are encountered during construction, encountered materials and there context will not be altered until a qualified professional archaeologist has evaluated the situation and determined an appropriate course of action.</p>			
<p>VI. GEOLOGY AND SOILS -- Would the project:</p>				
<p>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p>				
<p>i) Rupture of a known earthquake fault, as</p>	<p>X</p>			

<p>delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</p>	<p>There are no known or mapped active faults delineated within the Division of Mines and Geology Special Publication 42 that pass through the project area. The nearest known potentially active fault is the Macamma Fault that runs in a northerly direction through Willits approximately 5 miles to the west. "Several pre-Quaternary faults are mapped within 5 miles of the site, but no "active" faults (defined as showing evidence of surface displacement within the past 11,000 years) are shown within the project alignment." (<i>Preliminary Soils and Geologic Assessment, Tomki Road Feasibility Study, Mendocino County, California, By Blackburn Consulting</i>)</p>			
<p>ii) Strong seismic ground shaking?</p>	<p>X</p>			
<p>iii) Seismic-related ground failure, including liquefaction?</p>	<p>X</p>			
<p>iv) Landslides?</p>	<p>X</p>			
<p>Due to project location, local topography, and soils, the project is not anticipated to result in a significant impacts due to the liquefaction and ground failure. Structure footings will be founded in bedrock that is approximately two feet deep at the project location. Compliance with the Uniform Building Code will ensure that any potential impacts due to liquefaction and seismic induced ground failure are reduced to a less than significant level.</p>				

	<p>The project site is located within the southwestern corner of the Foster Mountain 7.5 minute USGS quadrangle. The Foster Mountain quadrangle has not been inventoried for landslides by the California Geological Survey Index to Landslide Maps in California (<i>internet research, December 2007</i>). No slides are associated with the project area from landslide inventory maps maintained by the County Planning Department. Several small features characteristic of unstable soils along the north-eastern slope adjacent to the project area have been observed and confirmed by a certified engineering geologist. Unstable features of this nature are common within the area and no site disturbing activities are proposed on or directly adjacent to these features. The project will not result in a significant increases of geologic hazards.</p>			
<p>b) Result in substantial soil erosion or the loss of topsoil?</p>	<p>X</p>			
	<p>Purpose of the project is to reduce sediment inputs to Cave Creek from Tomki Road. Construction activities will implement standard Best Management Practices to reduce sediment imputes as a result of construction through adherence to the Five County’s Water Quality and Habitat Protection Manual for County Road Maintenance and other commonly accepted guidance documents and standards.</p>			
<p>c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</p>	<p>X</p>			
	<p>The project site is underlain by the Yorkville-Yorktree-Squawrock soils complex (<i>Soil Survey of Mendocino County, Eastern Part, and Trinity County, Southwestern Part, California</i>). Topography is gentle and dept to bedrock at the crossing is shallow, up to two feet at the project site and exposed within stream bottoms, the project site is not located in the path of a known landslide.</p> <p>Building design and construction in conformance with the Uniform Building Code will result in a less than significant geologic impacts.</p>			
<p>d) Be located on expansive soil, as</p>	<p>X</p>			

defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Soils have classified as silty sandy gravel with cobbles (GP-GM). Foundations for the proposed structure will be founded into bedrock that is approximately 2 feet deep below stream grade at the crossing. Due to soils and being founded into bedrock, the potential for failure as a result of expansion is very low.			
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	X			
		No septic tanks or waste water disposal systems are proposed as part of the project.		
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
		This project is for sediment reduction and instream habitat improvement by reducing vehicle traffic impacts on the stream system. The routine transport, use, or disposal of hazardous materials is not applicable to this project.		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
		Tomki Road is classified as a rural minor collector that does not serve industries of a legal nature that depend upon the transport of hazardous materials. Conventional guardrails and borders, typically 2 to 3 feet high, are not recommended for low water crossings. Low curbs or boarders in conjunction with delineators will help to ensure that vehicular traffic stays within the designated roadway.		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
		No facilities are to be constructed that will emit hazardous emissions or acutely hazardous materials.		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
		The project is located in an area of undeveloped timberland and rangelands, as such the likely hood of contaminated or hazardous sites as a result of legal activities is not likely. No dumping of byproducts of methamphetamine manufacture have been identified to date.		

<p>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?</p>	X			
<p>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</p>	X			
<p>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</p>	X			
<p>h) Expose people or structures to a</p>	X			

There are no public use airports within two miles of the project area.

No private airstrips within two miles of the project area have been detected (*Google Earth, December 7, 2007*). The proposed low water crossing is not anticipated to result in any safety hazards for people residing or working in the project area as a result of private airstrips.

During extreme high water flows, the water in the fords reaches such depths and velocities that the road becomes impassable. In the event of road closure of U. S. Highway 101 between Ukiah and Willits, Tomki Road (if passable) provides the only local public detour route in the area. Up to the 1960's-70's, Tomki Road was designated by CalTrans as its official alternate route to Highway 101 in an event of a highway closure between Willits and Ukiah. Although this designation is no longer official, Tomki Road is still utilized by locals on a year-round basis as an alternate route to Highway 101. CALTRANS officially designates state highways 20, 1, & 253 as detours, rather than Tomki Road.

The proposed prototype vented low water crossing, if proved successful, may be considered a viable alternative to be used on the eight other remaining stream ford crossings to improve emergency response and evacuation within this remote area.

<p>significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</p>	<p>Presently, the stream ford crossings are only passable to more robust vehicles such as trucks and vehicles with high ground clearance. The proposed prototype vented low water crossing, if proved successful, may be considered a viable alternative to be used on the eight other remaining stream ford crossings to improve access for wildland fire fighting and more reliable options for area evacuation.</p>
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VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

<p>a) Violate any water quality standards or waste discharge requirements?</p>	<p>X</p>			
	<p>The purpose of this project is to address violations to the Water Quality Control Plan for the North Coast (Basin Plan).</p> <p>The North Coast Regional Water Quality Control Board has become concerned about the water quality impacts on Cave Creek as a result of Tomki Road, stating that impacts to cold water fish habitat are in violation of Water Quality Control Plan for the North Coast, and pursuant to Section 13267(b) of the California Water Code the Department shall submit a technical report that includes a plan correct the sediment pollution associated with Tomki Road. The Department of Transportation submits biannual progress reports to the Regional Water Board to report on progress of reducing water quality impacts to Cave Creek.</p> <p>Construction activities will file for coverage under the Construction General Permit if the disturbed project area is equal to or greater than one acre in size. If project activities are less than one acre in size, Best Management Practices will be utilized to CALTRANS Water Pollution Control Program standards utilizing the Five County's Water Quality and Habitat Protection Manual for County Road Maintenance and other commonly accepted guidance documents and standards.</p>			
<p>b) Substantially deplete groundwater</p>	<p>X</p>			

<p>supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</p>	<p>Proposed project does not rely on groundwater resources, nor will proposed activities result in impacts to groundwater resources such as increased use or lowering of the groundwater table.</p>			
<p>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</p>	<p>X</p>			
<p>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</p>	<p>X</p>			
<p>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</p>	<p>X</p>			
<p>f) Otherwise substantially degrade water</p>	<p>X</p>			

Existing drainage patterns of the project site, as a result of road use, have resulted in increased siltation of instream habitat. The purpose of the project is to disconnect Tomki Road from Cave Creek to reduce siltation and improve instream habitat.

The present stream crossing is an unimproved ford stream crossing. Construction of the prototype vented low water crossing will need to be surfaced for scour and erosion protection. The small increase in impervious area is not considered to substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

As mentioned above, the small increase in impervious area is not considered to substantially increase the rate or amount of surface runoff which may exceed the capacity of an existing or planned stormwater drainage system.

Sources of pollution as a result of vehicle fluids have been identified as an issue of concern for the Tomki Road low water crossings. Construction of the prototype vented low water crossing will help to reduce vehicle pollution to Cave Creek at this one site, and if proved successful may be considered a viable cost effective alternative to reduce pollution on the other eight ford crossings.

quality?	Purpose of the project is sediment reduction and instream habitat improvement.			
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	X			
	No housing is proposed.			
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		X		
	The project is mapped as Zone C and not located within a designated special flood hazard area.			
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	X			
	<p>The project is mapped as Zone C and not located within a designated special flood hazard area.</p> <p>No local levees or dams that may put the structure or people at risk due to failure have been identified (<i>Google Earth, December 7, 2007</i>).</p> <p>The proposed structure will be designed to; pass the 100 year storm event without structural damage, be adequately posted per guidelines established by the Manual of Uniform Traffic Control Devices to warn motorists of hazardous conditions during high flow events, and be delineated with adequate markers for visibility of roadway limits during periods of over topping flows.</p>			
j) Inundation by seiche, tsunami, or mudflow?	X			
	<p>The project is not adjacent to or within close proximity to large bodies of water that may produce seiche's or tsunami's.</p> <p>In consideration of; the chance of occurrence of a mudflow event, low population density associated with agricultural land uses, and that this is not a critical facility, the impact is considered less than significant.</p>			
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established	X			

community?	<p>Predominate land uses within the Cave Creek sub-watershed and immediate surrounding areas are designated as Range Land, Forest Lands, Remote Residential, and includes minor inclusions of Public Lands. Forest Lands are the predominate designation within the western portions of the Cave Creek sub-watershed, with Range Lands predominating in the eastern portions. Remote Residential is the primary land use designation within the watershed area located south east from the project location, this area is also known as the Cave Creek Ranch Subdivision.</p> <p>Due to surrounding land uses and the nature of the project, no impacts are anticipated.</p>			
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	X			
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	X			
b) Result in the loss of availability of a	X			

locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	There are no foreseeable impacts to the availability of mineral resources as a result of the project.			
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
	Proposed structure will not emit noise. Normal automobile use does not result in noise in excess of noise standards. Temporary increases in background noise levels are anticipated during construction.			
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X			
	No groundborn vibration or groundborn noise is anticipated from the structure. Temporary minor increases in local groundborn noise may possibly be experienced during construction.			
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
	<p>Predominate land uses within the surrounding areas are designated as Range Land, Forest Lands, Remote Residential, and includes minor inclusions of Public Lands. Noise levels and patterns generally associated with these types of land uses are intermittent automobile traffic, motorcycle and OHV use, and discharge of fire arms.</p> <p>No significant increases in ambient noise levels as a result of the project are anticipated.</p>			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
	<p>Predominate land uses within the surrounding areas are designated as Range Land, Forest Lands, Remote Residential, and includes minor inclusions of Public Lands. Noise levels and patterns generally associated with these types of land uses are intermittent automobile traffic, motorcycle and OHV use, and discharge of fire arms.</p> <p>Very minor increases in temporary or periodic ambient noise levels above pre project conditions are anticipated as a result of improved road conditions.</p>			
e) For a project located within an airport	X			

land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No significant increases in ambient noise levels as a result of the project are anticipated.			
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	X			
	No significant increases in ambient noise levels as a result of the project are anticipated.			
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	X			
	Predominate land uses surrounding the project area are designated as Range Land, Forest Lands, Remote Residential, and includes minor inclusions of Public Lands. As pertains to lands made more accessible by road improvements, Forest Lands and Range Lands predominate			
	Substantial population growth as a result of the proposed project is not anticipated.			
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	X			
	No housing will be displaced as a result of the project.			
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	X			
	No people will be displaced as a result of the project.			
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	X			
	No new fire protection services will be required.			

Police protection?	X			
No new police protection services will be required.				
Schools?	X			
No new school facilities will be required.				
Parks?	X			
No new parks or open space will be required.				
Other public facilities?	X			
No other public facilities will be required.				
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	X			
There are no neighborhood or regional parks within the surrounding area. Existing recreational activities within surrounding areas are as a result of trespassing on private lands.				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	X			
Project does not include recreation facilities or require the expansion or construction of additional facilities.				
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	X			
No substantial increases in traffic are expected as a result of the project.				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	X			
Level of service standards will not be exceeded.				
c) Result in a change in air traffic patterns,	X			

including either an increase in traffic levels or a change in location that results in substantial safety risks?	Air traffic patterns will not be affected by the proposed project.			
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
	The existing ford crossing becomes impassable at times due to high water. Hazards of traversing Cave Creek in winter months or periods of high flow will be reduced by the proposed project. The proposed structure will be; adequately posted per guidelines established by the Manual of Uniform Traffic Control Devices to warn motorists of hazardous conditions during high flow events, be delineated with adequate markers for visibility of roadway limits during periods of over topping flows, and be designed in accordance with existing County Road Standards.			
e) Result in inadequate emergency access?	X			
	Proposed project will improve emergency access by keeping traffic outside of the flowing stream and be designed according to County Road Standards and California Department of Forestry minimum requirements.			
f) Result in inadequate parking capacity?	X			
	Existing parking capacity will not be adversely impacted as a result of crossing improvements.			
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	X			
	Project will not conflict with adopted policies, plans or programs for alternative transportation enhancements.			
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	X			
	No wastewater will be generated from the prototype vented low water crossing. Concrete waste management BMPs will be utilized during construction.			
b) Require or result in the construction of	X			

new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	No wastewater treatment utilities or service systems will be required.			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
	No stormwater drainage facilities are proposed. Project will be designed and built using the Low Impact to Hydrology (LITH) design standards of the County Road Standards.			
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
	No water supplies or entitlements will be needed.			
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			
	No waste water will be generated requiring the services of a waste water treatment provider.			
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X			
	No solid waste disposal services will be required on the project has been built. All waste generated during construction will be disposed of in accordance with standard County operating procedures for waste disposal from construction projects.			
g) Comply with federal, state, and local statutes and regulations related to solid waste?	X			
	No solid waste will be generated by the completed project. All waste generated during construction will be disposed of in accordance with standard County operating procedures pursuant to federal, state and local regulations.			
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to	X			

<p>degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>	<p>As discussed in the preceding sections, the project does not have the potential to significantly degrade the quality of the environment, including effects on animals or plants and required habitat elements, or to eliminate historic or prehistoric sites.</p>			
<p>b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p>	<p>X</p>			
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<p>X</p>			
<p>Note: Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151, Public Resources Code; Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 Cal.App.3d 1337 (1990).</p>				

Section III – Mitigation Measures to Reduce Environmental Impacts of the Project to a Less than Significant Level.

The Mendocino County Department of Transportation (MCDOT) will be responsible for mitigation monitoring and ensuring that mitigation is carried out by the construction contractor during the project.

The following mitigation measures are to be implemented to reduce the environmental impacts of the project to a less-than-significant level:

III A. Guidance to Minimize Impacts to Fish and Amphibian Species During Stream Crossing Remediation and Construction

On a site-specific basis, project planners will incorporate the appropriate measures regarding: disturbance from in-stream construction, water quality impacts from soil disturbance and exposure, disturbance of riparian vegetation, de-watering the channel, fish relocation strategy, construction access and temporary stream crossings, and a late-season storm contingency plan.

Measures to Minimize Disturbance from Instream Construction:

- Construction should generally occur between July 15th and October 15th. Construct during the dry season if the channel is seasonally dry. This construction season may be extended or initiated sooner if warranted by low flow conditions and approved by permitting agencies.
- Prevent any construction debris from falling into the stream channel. Any material that does fall into a stream during construction should be immediately removed in a manner that has minimum impact to the streambed and water quality.
- Where feasible, the construction shall occur from the bank, or on a temporary pad underlain with filter fabric.
- Temporary fill should be removed in its entirety prior to October 15th.
- Areas for fuel storage, refueling, and servicing of construction equipment shall be located in an upland location.
- Prior to use, all equipment should be cleaned to remove external oil, grease, dirt, or mud. Wash sites should be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- All construction equipment should be in good working condition showing no signs of fuel or oil leaks.
- Petroleum products, fresh cement, or deleterious materials should not enter the stream channel.
- Operators should have spill clean-up supplies on site and be knowledgeable in their proper use and deployment.
- In the event of a spill operators should immediately cease work, start clean-up, and notify the appropriate authorities.

Measures to Minimize Degradation of Water Quality:

- Isolate the construction area from flowing water until project materials are installed and erosion protection is in place.
- Erosion control measures should be in-place at all times during construction. Do not start construction until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.
- Maintain a supply of erosion control materials onsite so that one can quickly respond to unanticipated storm events or emergencies.
- Minimize temporary stockpiling of excavated material by maximizing the use of end hauling.
- Use erosion controls to protect and stabilize stockpiles and exposed soils to prevent movement of materials. Use devices such as plastic sheeting held down with rocks or sandbags over stockpiles or silt fences or berms of hay bales to minimize movement of exposed or stockpiled soils.
- Stockpile excavated materials in areas where it cannot enter the stream channel. Prior to start of construction pre-determine if such sites are available at or near the project location. If unavailable determine location where end hauled material will be deposited. If feasible, conserve topsoil for reuse at project location or use in other areas.
- When needed, utilize in-stream grade control structures to control channel scour, sediment routing, and headwall cutting.
- Immediately after project completion and before October 15th, stabilize all exposed soil with mulch, seeding, or placement of erosion control blankets.
- If project construction continues after October 15th, disturbed soils should not be left exposed overnight. Contractors should obtain at least daily weather forecasts and be prepared to cease work and stabilize construction site prior to forecasted storms.

Measures to Minimize Impacts to Aquatic Habitat and Species during Dewatering of Project Site:

The breeding period of sensitive amphibians potentially impacted by the inchannel work extends from April to August; however, creek flows are significantly diminished by July, leaving the channel with isolated pools and minimal surface flow. Potential impacts to sensitive amphibians and to fisheries resources should be significantly diminished if work is limited to mid-summer through fall construction season previously defined as July 15th to October 15th.

When construction work must occur within a year-round flowing channel, the work site must be dewatered. Dewatering can result in the temporary loss of aquatic habitat, or the stranding, displacement, or crushing of fish and amphibian species. Increased turbidity may occur from disturbance of the channel bed. Generally, if the project activities are conducted according to the principles below, impacts may be sufficiently minimized.

- Prior to dewatering, on a site-specific basis, determine the best means to bypass flow through work area that minimizes disturbance to channel and avoids direct mortality of fish and other aquatic vertebrates.
- Coordinate project site dewatering with a fisheries biologist qualified to perform fish relocation activities.
- Minimize the length of dewatered stream channel and duration of dewatering.

- Bypass stream flow around work area, but maintain stream flow to channel below construction site.
- Utilize energy dissipators at clean water bypass outlets to safeguard against instream erosion and turbidity increases.
- When installing bridges or open-bottom arches set on concrete footings, the work area must often be periodically pumped dry of seepage. Place pumps in flat areas, well away from the stream channel. Secure pumps by tying off to a tree, or stake in place to prevent movement by vibration. Refuel in area well away from stream channel and place fuel absorbent mats under pump while refueling. Pump intakes should be covered with 3/32" mesh to prevent entrainment of fish or amphibians. Check intake periodically for impingement of fish or amphibians.
- Discharge waste water from the construction area to an upland location where it will not drain sediment-laden water back to stream channel.
- Utilize sediment control BMPs such as a silt sack with straw bail barrier underlain with filter fabric or other suitable methods to filter sediment laden construction site waters before discharging.

Measures to Minimize Injury and Mortality of Fish and Amphibian Species during Dewatering:

Prior to dewatering a construction site, fish and amphibian species should be captured and relocated to avoid direct mortality and minimize harassment. This is especially important if listed species are present within the project site. Generally, if listed species are presumed present, NMFS provides the project manager or contractor with a teirng letter and incidental take statement including a list of reasonable and prudent measures to minimize harassment and mortality of listed species. The following measures are consistent with those defined as "reasonable and prudent" by NMFS for completed projects concerning several northern California ESU's for coho salmon, chinook salmon, and steelhead.

- All fish relocation activities must be performed only by a qualified fisheries biologist.
- If in regions of CA with high summer air temperatures, perform relocation activities during morning periods.
- Periodically measure air and water temperatures. Cease activities when water temperatures exceed 65-68°F.
- Qualified biologist must contact NMFS prior to capture and relocation of fish.
- Exclude fish from re-entering work area by blocking the stream channel above and below the work area with fine-meshed net or screens. Mesh should be no greater than 3/32". It is vital to completely secure bottom edge of net or screen to channel bed to prevent fish from re-entering work area. Exclusion fencing should be placed in areas of low water velocity to minimize impingement of fish. Screens should be checked periodically and cleaned of debris to permit free flow of water.
- Prior to capturing fish, determine most appropriate release location(s). Consider the following when selecting release site(s): similar water temperature as capture location, ample space for captured fish, low likelihood of fish re-entering work site or becoming impinged on exclusion fencing.
- On a site-specific basis, determine the most efficient means for capturing fish. Complex stream habitat generally requires the use of electrofishing gear, whereas in outlet pools,

fish may be concentrated by pumping-down pool and then captured by seining or dip-netting.

- If electrofishing equipment is utilized, minimize mortality by starting with unit at low settings and gradually increase settings until fish are immobilized for capture, yet readily recover when placed in buckets or the charge is ceased. Record all settings tried.
- Minimize handling of salmonids. However, when handling is necessary, always wet hands or nets prior to touching fish.
- Temporarily hold fish in cool, shaded, aerated water in a container of dark color with a lid. Provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release.
- Place a thermometer in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature.
- Avoid overcrowding in containers. Have at least two containers and segregate young-of-year (y-o-y's) fish from larger age-classes to avoid predation. Place larger amphibians, such as Pacific giant salamanders, in container with larger fish.
- If fish are abundant, periodically cease capture and release fish at pre-determined locations.
- Visually identify species and estimate year-classes of fish at time of release. Do not attempt to anesthetize and/or measure fish.
- Submit reports of fish relocation activities to appropriate agencies in a timely fashion. NMFS generally requires these reports within five working days of capture and release.
- If feasible, plan on performing initial fish relocation efforts several days prior to the start of construction. This provides the qualified fisheries biologist an opportunity to return to the work area and perform additional electrofishing passes prior to construction. In many instances, additional fish will be captured that alluded the previous day's efforts.
- If the fisheries biologist is unable to be onsite during construction period, personnel from the construction crew should be informed to look for, and relocate fish and amphibians from the construction area. Provide the construction crew with a dipnet, bucket, and notebook. Show them the appropriate release site and have them record any fish they relocate.
- Retain all mortalities and freeze in water. In some instances, the permitting agencies may require that mortalities are handed over to them.
- If mortality during relocation exceeds 5%, stop efforts and immediately contact the appropriate agencies.

III B. Guidance to Minimize Impacts to Riparian Vegetation During Stream Crossing Remediation and Construction

- Prior to construction, determine locations and equipment access points that minimize riparian disturbance without affecting less stable areas.
- Retain as much trees and under-story brush as feasible, emphasizing shade-producing and bank-stabilizing vegetation.
- Minimize soil compaction by using equipment with either a greater reach or that exerts less pressure per square inch on the ground – resulting in either less overall area disturbed or less compaction of disturbed areas.
- If riparian vegetation is to be removed with chainsaws, utilize saws currently available that operate with vegetable-based bar oil.

- Decompact disturbed soils at project completion as the heavy equipments exits the construction area.
- Revegetate disturbed and decompacted areas, preferably with native species specific to the project location that comprise a diverse community of woody and herbaceous species characteristic of the area.

III C. Guidance to Minimize Impacts to Birds During Stream Crossing Remediation and Construction

Fortunately with regard to birds species, the proposed work will be limited to the construction of the vented low water crossing and minor road realignment within an area that is already disturbed by the existing ford crossing and directly adjacent to the existing road, that will not result in the removal of a significant number of trees. The fact that this work will occur on a frequently used roadway makes it unlikely to disturb local birds that are long since habituated to the presence of humans and vehicles at this site. The seasonal restrictions of August 1st to October 15th recommended to protect amphibian and fisheries populations should further reduce the potential for this project to disturb any sensitive bird species nesting within the general project area.

- Forest edges adjacent to the culvert replacement site should be protected with construction fencing. No disturbance, parking, or equipment storage should be allowed within the fenced areas.
- Construction plans should clearly indicate the area of potential effect and note adjacent areas as non-disturbance areas to be fenced according to measure 1, above. In the event that riparian trees are to be removed, they should be clearly marked on plans and flagged at the site prior to construction.

Section IV – Determination.

On the basis of this initial evaluation, it has been determined that:

Although the project, as proposed, could have had a significant effect on the environment, there will not be a significant effect in this case because mitigation measures required for the project will reduce potentially significant effects to a less than significant level, therefore, it is recommended that a MITIGATED NEGATIVE DECLARATION be adopted