

## 4.4 HAZARDS, HAZARDOUS WASTE AND MATERIALS

### 4.4.1 ENVIRONMENTAL SETTING

#### *HAZARDS*

The project site is surrounded by undeveloped forest lands within the Shasta-Trinity National Forest. It is not within an airport land use plan or within two miles of a public airport or private airstrip. The area is, however in an area that is subject to wildland fires. The road surface is prone to flooding at times. Flood hazards are addressed in Section 4.3 *Hydrology, Water Quality, and Stormwater Runoff*. The surrounding slopes are generally subject to landslide hazards, although no evidence of deep-seated failures was observed along the segment of Hyampom Road that lies within the project area (Taber Consultants, 1999; FHWA, 2001). See Section 4.2 *Geology, Soils, and Seismicity* for a discussion of landslides and seismic hazards.

The first responder to a wildland fire in this area would be the U.S. Forest Service, Hayfork Ranger District. The Hayfork Ranger District has a station in Hayfork, and a substation in Hyampom. The Hayfork Fire Protection District and the Hyampom Community Services District have a mutual aid agreement with the U.S. Forest Service. The local fire districts are also often the first responders in a medical emergency, although Trinity Ambulance Service also has a substation in Hayfork.

#### *HAZARDOUS WASTE AND MATERIALS*

Hazardous waste is defined as any waste material that is a potential threat to human health and environment, having the capacity to cause serious illness or death. Hazardous materials are materials considered dangerous to people or the environment that are still in use. The use, transport, storage and disposal of hazardous waste and hazardous materials are subject to numerous laws and regulations at all levels of government. A summary of the most pertinent regulations and their administering agencies is provided in the following subsections.

#### *FEDERAL*

At the federal level, exposure of humans, and in some cases the environment and wildlife, to hazardous chemical agents is regulated primarily by four regulatory agencies: the U.S. Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Consumer Product Safety Commission (CPSC). The CPSC plays a limited role (primarily the labeling of consumer products) in regulating hazardous materials as they pertain to the proposed project. The FDA primarily regulates food additives and contaminants, human drugs, medical devices, and cosmetics. Similarly, the FDA plays a limited role in regulating hazardous

materials as they pertain to the proposed project. In addition to these regulatory agencies, the Federal Department of Transportation (DOT) regulates the interstate transport of hazardous materials.

The EPA and OSHA administer several critical congressional statutes, with varied emphasis on the protection of human health and subsequent economic costs of such protection. For instance, under separate statutes, the EPA and OSHA may be mandated to regulate exposure to an identical substance using different significance thresholds based on the exposed individuals and the agency represents, healthy workers being the primary focus of OSHA and the general public and environment being the primarily focus of the EPA. These differences often reflect the Congressional objective of the statute, the ability of the administering agency to regulate the substance of concern, and the economic costs and benefits of the subject regulation.

#### *STATE*

At the state level, hazardous materials are regulated through a number of statutes and regulations. These laws, many similar to their federal counterparts, regulate the use, storage, disposal, and transport of hazardous chemicals. The primary state regulatory authorities, the California Environmental Protection Agency (CalEPA), State Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB) and California Occupational Safety and Health Administration (CalOSHA), administer many of these laws.

The California State Highway Patrol under CCR Section 1150-1194, and the Code of Federal Regulations, Title 49 regulates transport of hazardous materials. When a hazardous material/waste spill originates on a highway, the California Highway Patrol is responsible for direction of cleanup and enforcement (CCR Section 2450-2454b). "Highway" is defined as a way or place of whatever nature, publicly maintained and open to the use of the public for purposes of vehicular travel. Highway includes streets and county maintained roads.

#### *POTENTIAL FOR ONSITE HAZARDOUS MATERIALS*

The project area is located within an undeveloped rural environment, and a site reconnaissance revealed no evidence of previous use of hazardous materials (FHWA, 2001; HEC, 1999). The project site is not included on any list of hazardous materials sites (i.e., the NCRWQCB's Active Toxic Sites List; the Department of Toxic Substances Control's Toxic Release Inventory, the California Hazardous Waste Generators or Transfer, Storage, and Disposal Facilities List; or the Cortese list of Hazardous Waste and Substances Sites).

The existing paint on the Nine-mile Bridge contains lead, chromium and zinc. The bridge will be sanded and repainted with a less toxic paint system.

#### 4.4.2 PLANNING DOCUMENT GOALS, OBJECTIVES, AND POLICIES

##### *TRINITY COUNTY GENERAL PLAN SAFETY ELEMENT*

The Trinity County General Plan Safety Element contains the following applicable goals, objectives, and policies related to wildland fire hazards and hazardous waste and materials:

- S.5 Structural and Wildland Fire Safety Goal: Reduce fire hazards in wildland, wildland/urban interface and developed areas.
- S.5.1 Objective: Accessibility: Ensure emergency accessibility to development through proper road construction and signage
  - Policy A. Roads shall be constructed to provide adequate width, grade, and turn-around space for emergency vehicles by complying with appropriate federal, state and local adopted standards. Construction of roads shall protect water quality, slope stability and threat to natural and cultural resources.
- S.3 Hazardous Material/Waste Safety Goal: Reduce threats to the public health and the environment caused by the use, storage, and transportation of hazardous materials and hazardous waste.
- S.3.1 Objective: Proper regulation of transportation and storage.
  - Policy A. Transport of hazardous materials shall be regulated by the California State Highway Patrol under the California Code of Regulations, Title 13:1150-13:1194, and the Code of Federal Regulations, Title 49.
- S.3.2 Objective: Ensure adequate cleanup of hazardous materials and hazardous waste.
  - Policy A. The County should encourage cooperation between all agencies involved in the cleanup and regulation of hazardous materials.

##### *TRINITY COUNTY REGIONAL TRANSPORTATION PLAN*

The Trinity County Regional Transportation Plan contains the following goals, objectives, and policies related to hazards, hazardous materials and hazardous waste:

- Goal 1.4: Maintain and upgrade the existing transportation system to prevent costly deterioration, to ensure that the efficiency of the system does not decline and to preserve access into communities for residents and emergency service providers.
  - Objective 1.4.1: Use available funds for eligible programs that will ensure the most efficient use of existing facilities.

- Policy 1.4.1.E: Provide for surfaced, all-weather roads where year-round public access is needed into communities for education, mail, medical, fire protection, law enforcement and cultural activities.
  
- Goal 7.1: To coordinate this plan with adopted environmental goals and policies addressed in the Trinity County General Plan and other documents. These goals and policies include, but are not limited to air, water, timber, and land management plans.
  
- Objective 7.1.1: Support those social, economic, recreational, safety, and service needs of the people in Trinity County which will preserve the quality of life outlined in the County General Plan.
  - Policy 7.1.1.F: Prohibit the use of herbicides along State highways and County roads.
  - Policy 7.1.1.J: The transporting of nuclear waste materials through Trinity County should be discouraged.

#### **4.4.3 SIGNIFICANCE CRITERIA**

Appendix G of the CEQA *Guidelines*, the CEQA Environmental Checklist, poses the following questions to be considered in determining whether the project would cause significant hazards to the public or the environment:

Would the project:

- Expose people or structures to a 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?
  
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
  
- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
  
- Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
  
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- 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?

#### 4.4.4 IMPACTS AND MITIGATION MEASURES

##### *PERMANENT IMPACTS AND MITIGATION MEASURES*

Rehabilitation of the existing road will not increase the risk of wildland fires in the area. The completed project will provide a wider roadway that is less subject to closure due to flooding, landsliding and slipouts. The result would be a more reliable two lane emergency ingress and egress to and from Hyampom for emergency use. The two full lanes and proposed turnouts will better accommodate fire trucks accessing the site and evacuees escaping the site. In the event a fire occurs on the roadside, there will be new turnouts where fire trucks could stage equipment while keeping the road open for evacuees and other emergency vehicles. Permanent affects on wildland fire hazards are therefore beneficial.

The Nine-mile Bridge will have a new non-lead based paint system, removing the lead-based paint hazard from the area. This is a beneficial effect. Once construction is complete, there will no longer be petroleum products located on site. There are therefore no permanent hazardous materials hazards resulting from this project.

##### *TEMPORARY IMPACTS AND MITIGATION MEASURES*

#### **Hazards Impact – 1: Road closures and lane closures during construction could interfere with emergency response or emergency evacuation, including response to wildland fires.**

At least one lane will be kept open to controlled traffic whenever possible. However, there will be times during construction when the road will be completely closed for up to four hours at a time. When necessary, the road will be completely closed from approximately 8 a.m. to 11 a.m.; from 11:30 a.m. to 12:30 p.m.; from 1 p.m. to 3:30 p.m.; and from 4:00 p.m. to 5:15 p.m. during the school year. When school is not in session, the road may be closed for more extended periods in the afternoon, from 1:00 p.m. to 5:00 p.m. During the brief periods when the road is open during the day, traffic will be controlled by pilot cars on a single travel lane through the construction site. This schedule is based on accommodating the current school bus and mail carrier schedules, and may be revised if the school bus or mail carrier schedules change.

During the scoping period, the Hayfork Fire Protection District expressed its concern regarding access for vehicles providing fire suppression or emergency medical services during construction. Since this is a rural area with limited alternative routes for ingress and egress, this is a concern for area residents.

Hyampom has a County airport, and there are Forest Service roads from Hyampom to SR 3, SR 36 and SR 299 that are maintained and kept open during the summer months, when major

earthmoving activities on Hyampom Road will be occurring. No formal detour will be designated, but local residents and emergency service providers are aware of these alternate routes.

TCDOT Resident Engineers are in radio contact with emergency services. In the event of an emergency, the emergency response agency (Hayfork Fire District, Trinity Ambulance, Trinity County Sheriff's Department, etc.) will dispatch over the same radio frequency that the TCDOT Resident Engineer is monitoring. In the case of wildland fires, the U.S. Forest Service will contact TCDOT through the County Sheriff's office. Upon receiving notification of an emergency, crews will stop construction and immediately begin clearing a safe passage through the construction site. At most times, even during complete road shutdown, there will be a pathway available for construction vehicles to access various portions of the construction site, or a pathway can be cleared quickly (within 10 minutes) by removing small piles of material. Rarely, when large slopes are being excavated, it could take up to an hour to clear a pathway or grade a debris pile so that an emergency vehicle or vehicles can drive over it.

During fire season, the alternate Forest Service routes would be open and clear of snow. The Forest Service firefighters are familiar with these routes and accustomed to using these and similar Forest roads for fire access. During the late fall and early spring, these alternate routes may be snowed in. However, at these times construction will be limited to non-earth disturbing activities, such as retaining wall construction. These activities, such as drilling and pile driving, may require complete road closure at times, but will lend themselves to speedy reopening for emergency access.

Because of the possibility of lengthy delays of emergency vehicles this is a potentially significant impact on wildland fire safety.

**Significance: Potentially Significant, but mitigated**

**Hazards Mitigation – 1: The TCDOT will coordinate closely with emergency service providers before and during construction. A Fire Plan will be developed between the TCDOT, USFS, Hayfork Fire District, Hyampom Community Services District, Trinity County Sheriff's Office and Trinity Ambulance Service. The plan shall establish lines of communication so that the construction crew receives notification of an emergency need to open the road prior to the arrival of emergency vehicles at the site. Procedures will also be established to keep emergency service providers advised of the location of construction crews, the activities going on at the time and the estimated time to clear the road for each activity. Communication shall also include current information on the status and passibility of alternate routes. The emergency service providers will use this information to determine the fastest way to reach the emergency site under the present circumstances.**

**Significance after Mitigation: Less than significant.**

**Hazards Impact – 2: Sanding and painting of nine-mile bridge will disturb existing lead-based**

**paint, potentially exposing construction workers and the environment to lead, chromium and zinc.**

Bridge sanding and painting methods are described in the Project Description in Section 3.16.13 of this EIR. The Specifications will include these methods, which include the construction of a containment system around the bridge (i.e., the bridge will be encapsulated during sandblasting and painting), monitoring the soil and air around the work area to verify the effectiveness of the containment system, and disposal of debris in conformance with all applicable federal, state, and local hazardous waste laws (e.g., Health and Safety Code, Division 20, Chapter 6.5; Title 22, California Code of Regulations, Division 4.5; and Title 8, California Code of Regulations).

The containment system will prevent airborne heavy metals from escaping into the surrounding air during sandblasting, and will prevent paint chips, sandblast shot and new paint from dropping into Hayfork Creek or the surrounding earth. It will also protect the public from exposure when traveling through the jobsite. To protect construction workers from exposure, the contractor will be required to follow OSHA and Cal-OSHA procedures, including proper training and use of personal protection equipment, including respirators and protective clothing. The worker safety compliance program must be reviewed and signed by a Certified Industrial Hygienist.

Because the practices required by law and included in the project plans, specifications and contract documents will be fully implemented, and will protect the public, construction workers and the environment from toxic exposure to hazardous materials, the impact will not be significant.

**Significance: Less Than Significant Impact**

**Mitigation Measures: None Required**

**Hazards Impact – 3: Construction and operation of the proposed project could result in the exposure of the public or construction workers to contaminated soils or groundwater.**

Because of the rural nature of the project location, and the lack of current or past industrial activities in the vicinity, construction of the project is not expected to result in the uncovering or releasing of underground hazardous materials that could be hazardous to the environment, construction workers or public health. No evidence of hazardous materials or hazardous waste was noted in the field during numerous field visits. The low risk of this exposure makes this impact less than significant. However, as a precaution, standard mitigation measures are included to cover the unlikely possibility that contaminated soils and groundwater are encountered.

**Significance: Less Than Significant Impact**

**Hazards Mitigation – 2: If obvious signs of contamination in soils or groundwater are encountered during excavation (odors, sheens or discolored soil), work in that**

**excavation will stop immediately. The TCDOT and the Trinity County Division of Environmental Health will be notified. The soils and/or groundwater will be sampled and tested for suspected contaminants. A Workplan and Site Safety Plan will be prepared addressing safety procedures for completing the excavation, and disposal of the spoils and wastewater generated by the excavation. The workplan shall be approved by the Trinity County Division of Environmental Health and/or the NCRWQCB. Only workers with current Hazardous Waste Operations and Emergency Response (HAZWOPER) training shall be permitted to work in this area. Grading and construction on uncontaminated sections of the project may continue. Remediation of the contaminated soil and or groundwater in the surrounding area shall be the responsibility of the party responsible for the contamination.**

**Hazards Impact – 4: Fuels, oils, greases, solvents or other hazardous materials used in construction or construction equipment could be accidentally released to the environment.**

The heavy equipment used during construction of the proposed project will be powered by diesel fuel. No major equipment repairs will be done at the construction site, but maintenance and fueling will occur at designated staging areas. This will involve the transfer and storage of fuels, oils, greases and solvents. The contractor must be prepared for the possibility of an accidental release of these materials.

As described in Section 3.6.17 of the Project Description, the Specifications will require the contractor to implement water pollution control measures that conform to Section 7-1.01G of Caltrans Standard Specifications. These include preparing and implementing a Water Pollution Control Program containing specific requirements for the handling, storage, and cleanup of an accidental spill of hazardous materials, including petroleum-based products, cement, or other construction pollutants.

Construction practices will also comply with Best Management Practices found in the Caltrans Construction Site Best Management Practices Manual (Caltrans 2000), which will be incorporated into the Plans and Specifications. TCDOT or its contractor will also be required to prepare a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the National Pollutant Discharge Elimination System (NPDES) program (Section 402[p], Clean Water Act [CWA]). The SWRCB and Federal Law (40 CFR Parts 122-124) require that best available technology that is economically achievable (BAT) and best conventional pollutant control technology (BCT) be used to reduce pollutants. The SWPPP, which would include information on runoff, erosion control measures to be employed, any toxic substances to be used during construction activities, and spill prevention and control measures, including, but not limited to, those found in the Caltrans Storm Water Quality Handbooks. A monitoring program would be implemented to evaluate the effectiveness of the measures included in the SWPPP.

As discussed in the project description, construction debris will be kept out of Hayfork Creek and associated drainages. All debris will be disposed of off-site at a landfill or recycling facility. Liquid construction waste will also be disposed of off site in accordance with Waste Management and Materials Pollution Control Best Management Practices found in the Caltrans Construction Site Best Management Practices Manual (Caltrans 2000). Petroleum-based compounds will be contained and removed to an officially designated landfill authorized to accept that type of waste. Waste water from concrete work and other construction activities will not be allowed to drain into Hayfork Creek or any associated drainage channels.

In addition to the provisions disclosed in the Project Description and incorporated into the project Plans and Specifications, the following measures will be implemented.

**Significance**                      **Potentially significant, but mitigated**

**Hazards Mitigation – 3: The Contractor shall exercise every reasonable precaution to protect streams from pollution with fuels, oils and other harmful materials. The Contractor will be required to have adequate spill containment equipment on hand at all times. All waste petroleum products and empty petroleum product containers will be disposed of properly at a recycling or disposal site legally authorized to accept that type of waste. The Trinity County Environmental Health Department and NCRWQCB must be notified immediately in the event of a release of significant quantities of hazardous materials. In the event of a release into Hayfork Creek, CDFG must also be notified.**

**Hydrology Mitigation-1**                      **The following measures will be implemented:**

- **No contact of wet concrete with the live stream will be allowed. Groundwater that comes in contact with wet concrete, such as within bridge footing excavations will not be allowed to enter the creek but will be pumped to a truck or upland for disposal or treatment, or it may be discharged to a sediment-stilling basin on site and percolated back into the soil.**
- **If drilling muds are used to drill holes within the ordinary high-water zone, all drilling muds and fluid within all drilled holes will be pumped through a closed system, contained on-site in tanks, removed from the project area, and disposed of off-site at an appropriate facility.**
- **The TCDOT contractor will remove all spoils materials from the drilled pier holes and dispose of the material in a manner that will not result in discharge of runoff of sediment into Waters of the United States.**
- **Heavy equipment will not be operated in the active flow channel of any creek.**

- **Complete diversion or damming of surface flows will not be allowed. A cofferdam may be installed along the edge of the low flow channel of Hayfork Creek, but shall not result in complete dewatering or impedance of flows within the creek.**
- **Maintenance and refueling areas for equipment will be located a minimum of 100 ft away from the active stream channel. If equipment must be washed, washing will occur where the water cannot flow into the creek channel.**
- **Spill containment booms will be maintained on-site at all times during construction operations and/or staging or fueling of equipment.**

**Hydrology Mitigation-2** All staging areas will be established at least 50 feet from the top of the stream bank or 50 feet from the outer edge of the riparian habitat, whichever is farther. This buffer will be clearly identified on the design drawings and delineated in the field with orange construction barrier fencing. Sedimentation fencing or other erosion and sediment control measures will be installed between the staging area and the riparian area to prevent sediment and pollutant discharges to creeks and riparian areas. There will be no removal of riparian vegetation for staging purposes.

**Significance after Mitigation: Less than significant**

In addition to the measures described above, potential impacts will be further minimized by compliance with any additional conditions resulting from Section 7 consultation with NOAA Fisheries (formerly NMFS), or included in the conditions of the following state and federal permits:

- ACOE's Section 404 permit (Nationwide Permit No. 14)
- RWQCB's Section 401 water quality certification
- CDFG's Streambed Alteration Agreement (SAA)
- STNF's Special Use Permit

#### *CUMULATIVE IMPACTS AND MITIGATION MEASURES*

**Hazards Impact -5: The combined road rehabilitation projects proposed by TCDOT and CFLHD will result in similar delays for emergency vehicles during construction**

The proposed project will result in periodic road closures for two construction seasons, probably 2005 and 2006. Before that, another TCDOT project to be constructed between the

SR 3 intersection in Hayfork and the Forest Boundary at Post Mile 3.7 will cause delays during the 2004 construction season. The CFLHD anticipates rehabilitation of the section of Hyampom Road between these two segments, and major reconstruction of the existing one-lane section west of this project, over a two to three year period starting in 2006 or 2007. Therefore, emergency vehicles will be subject to obstacles to ingress and egress similar to those caused by this project, for up to six construction seasons.

As mentioned above, there is a County Airport in Hyampom, and there are several U.S. Forest Service roads that are open during the spring, summer and fall. These roads are not winter-maintained (there is no snow removal), and they are frequently impassible due to snow from approximately November to May. There will be no formally designated detour during construction of these projects on Hyampom Road, but local residents are aware of these alternative routes.

Road closures similar to those scheduled for the proposed project will also be necessary on the other TCDOT and CFLHD projects. At least one lane will be kept open to controlled traffic whenever possible. However, there will be times during construction when the road will be completely closed for up to four hours at a time. The schedule will be based on accommodating the current school bus and mail carrier schedules. In the one-lane section, the CFLHD project will cause the longest road closures, and the longest potential delays to emergency vehicles. There is not sufficient room to keep a lane of traffic open, and blasting and large cuts will result in large quantities of debris on the road that would have to be cleared to allow access.

Emergency access during these other construction projects on Hyampom Road will be handled similarly to this project. Resident Engineers would be TCDOT employees for the TCDOT project, and CFLHD employees for the CFLHD projects. TCDOT Resident Engineers are in radio contact with emergency services. TCDOT is typically notified of fires on USFS lands by the County Sheriff's Department, on their shared radio frequency.

Hazards Mitigation – 1, above, shall apply to both TCDOT projects. For the CFLHD, similar measures will be implemented. The primary point of coordination of communications for the CFLHD projects would be the USFS. The specifications for the CFLHD will include, at a minimum, the language in the following mitigation measure.

**Significance: Potentially Significant, but mitigated**

**Hazards Mitigation – 4: CFLHD Resident Engineers will be in direct radio contact with the USFS. The CFLHD Contractor will be required to have a serviceable telephone, radiotelephone or radio system connecting each construction operation with the Contractor's headquarters. A radio-equipped fire patrolperson vehicle will satisfy this requirement if in operation during the time required. When such headquarters is at a location which makes communication to it clearly impractical, the Forest Service will accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between the Contractor's headquarters (or above stated alternative) and Forest Service via commercial or Forest Service telephone. The communications system shall be operable during Contractor's operation in the fire precautionary period and at the time fire patrolperson**

**service is required.**

**Significance after Mitigation: Less than significant.**

**Hazards Impact –6: The proposed project, combined with other temporary road construction projects in the project vicinity will result in exposure of the public, including construction workers, to hazardous materials.**

The operation and maintenance of construction equipment and the generation of construction waste during construction of this project will take place over the course of two construction seasons. Similar projects will occur before and after this project on Hyampom Road. Removal of the lead-based paint from the Nine Mile Bridge is unique to this project and will not be taking place elsewhere on Hyampom Road. However, a lead-based painted bridge will be removed from Hayfork Creek in Hayfork, upstream of the proposed project. Debris catchment will be in place during removal of this bridge to prevent lead-based paint chips from falling into the creek. There will be no on-site sandblasting for the bridge replacement project.

Construction projects along Hyampom Road are not likely to occur simultaneously, but one or both bridge replacements over Hayfork Creek in Hayfork may occur simultaneously with one or both of the TCDOT projects on Hyampom Road. The combined projects could increase the risk of release of hazardous materials within the vicinity of the proposed project. However, all of the proposed transportation projects will be subject to similar requirements to prevent and control discharges of hazardous materials to the environment. Because similar standard hazardous materials protection measures will be implemented for the other projects proposed for the vicinity, the risk that a release will occur is still very low. Cumulative hazardous materials impacts are therefore not considered significant.

**Significance: Less Than Significant Impact**

**Mitigation Measures: None Required**