Final Programmatic Environmental Assessment

South End Alternative

North Coast Railroad Authority

FEMA-1203-DR-CA

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FEMA

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The North Coast Railroad Authority (NCRA) has requested funding from the Federal Emergency Management Agency (FEMA) through the California Governor's Office of Emergency Services (OES) for partial repairs to the portion of the Northwestern Pacific Railroad (NWP) between Lombard, Napa County (Mile Post [MP] 1), and Willits, Mendocino County (MP 142.5) (Figure 1). This segment of the NWP constitutes NCRA's Russian River Division. Throughout this document, the portion of the NWP between Willits and Lombard is referred to as the Russian River Segment.

The NWP, including the Russian River Segment, is not currently operational. NCRA has identified a series of actions (described in Section 2.2 of this document as the Proposed Action Alternative and also listed in Appendix A) that would partially repair the railroad infrastructure along the Russian River Segment. If the Proposed Action Alternative is implemented, FEMA would provide Public Assistance Program funding through OES for the identified actions.

Since the exact scope, location, and time frame for individual actions to be undertaken for the Proposed Action Alternative are currently undefined, FEMA has prepared this Programmatic Environmental Assessment (referred to hereinafter as the South End Alternative PEA). The South End Alternative PEA has been prepared pursuant to:

- The National Environmental Policy Act (NEPA);
- The Council on Environmental Quality's regulations implementing NEPA (Title 40 of the Code of Federal Regulations [40 CFR] Parts 1500–1508); and
- FEMA's implementing regulations (Title 44 of the Code of Federal Regulations [44 CFR] Part 10).

The South End Alternative PEA evaluates general environmental effects of the Proposed Action Alternative and provides the framework for additional evaluation under NEPA for specific actions, as appropriate. As and when NCRA develops plans for a specific action, FEMA would have an opportunity to review that action within the context of the South End Alternative PEA to determine if more site-specific analysis and documentation would be required to comply with NEPA and its implementing regulations. If the level of analysis provided by the South End Alternative PEA is insufficient for the specific action, then additional analysis would be tiered from this PEA, in accordance with 40 CFR Part 1508.28.

1.1 BACKGROUND

The NWP, which began operation in 1907, extends approximately 317 miles from Lombard to Arcata, Humboldt County. In 1984, ownership of the NWP was split at Willits between two organizations. The Southern Pacific Railroad operated the Russian River Segment, while the portion between Willits and Arcata was sold to the Eureka Southern Railroad. Because this northern segment of the NWP constitutes NCRA's Eel River Division, throughout this document the portion of the NWP between Willits and Arcata is referred to as the Eel River Segment. Between 1984 and 1996, the Eel River Segment of the NWP and the Russian River Segment of the NWP were operated independently as two distinct rail lines.

NCRA was formed in 1989 by the California Legislature under the North Coast Railroad Authority Act to ensure continuation of railroad service in northwestern California. Although it was chartered by a state mandate, NCRA was not funded by the state. In 1992, the state

purchased the Eel River Segment of the NWP. A separate transaction in 1995 added the portion of the Russian River Segment between Healdsburg (Sonoma County) and Willits to NCRA's holdings. In 1993, NCRA; the Golden Gate Bridge, Highway, and Transportation District (Bridge District); and Marin County set up a joint-powers authority called the Northwestern Pacific Railroad Authority (NWPRA). This public-private partnership took over the ownership of rail facilities and tracks along the Russian River Segment of the NWP between Healdsburg and Schellville (Sonoma County) where the railroad then feeds a 12-mile short-line through Napa County that ultimately connects to the Union Pacific mainline at Fairfield-Suisun (Solano County). Freight service and related maintenance of this portion of the NWP became the responsibility of NCRA under an agreement with NWPRA**.** Until 1998, freight service operated twice daily along the NWP, carrying mainly natural resource products.

Both the Russian River and Eel River Segments of the NWP became inoperable as a result of damage sustained during the winter storms of 1997–1998. President William Clinton declared a major disaster (FEMA-1203-DR-CA) for the counties through which the NWP passes. Consequently, NCRA applied through OES to FEMA for funding under the Public Assistance Program to repair the Russian River Segment and Eel River Segment of the NWP to pre-disaster conditions. Because only disaster-related portions of the proposed repairs were eligible for Public Assistance Program funding, NCRA was responsible for repairing sections of the rail lines that were unstable or in deferred maintenance before the disaster. Nonetheless, both the Russian River Segment and Eel River Segment of the NWP were in operation at the time of the disaster declaration.

Given the substantial differences in the magnitude and nature of the partial repairs required for the Russian River Segment of the NWP and the Eel River Segment of the NWP, and in consideration of the historic independent utility of the respective sections, FEMA evaluated the environmental effects of the partial repairs separately. Only minor repairs were anticipated for the Russian River Segment, and FEMA determined that these partial repairs were categorically excluded from further review under NEPA, pursuant to 44 CFR 10.8 (d)(2)(xvi). FEMA determined that an Environmental Assessment (EA) was required for the partial repairs to the Eel River Segment. FEMA completed a Draft EA for partial repairs to the Eel River Segment in 2000.

Once NCRA completed essential disaster-related repairs to the Russian River Segment of the NWP, commercial freight service resumed between Lombard and Penngrove, Sonoma County, in January 2001. However, service was discontinued in September 2001 due to lack of funds for operation and completion of further rehabilitation work. Subsequently, NCRA identified additional repairs, and maintenance and infrastructure improvements that would be necessary to restore facilities on the Russian River Segment. Meanwhile, the repair of the Eel River Segment of the NWP continued to be delayed.

In June 2003, NCRA requested, through OES, that FEMA approve a transfer of the Public Assistance Program funds intended to partially repair facilities on the Eel River Segment to an Alternate Project. Per FEMA's regulations, a subgrantee (in this case, NCRA) can request the reallocation of up to 75 percent of eligible Public Assistance Program funds for an Alternate Project. Eligible Alternate Projects must benefit the public, serve the same general area as the damaged public facility, not include any actions already funded by FEMA, and meet other general requirements codified at 44 CFR 206.203(d)(2). The damaged public facility that was the

subject of the original grant must also have been eligible for Public Assistance Program funding. Pursuant to these eligibility requirements, NCRA identified partial repairs to the Russian River Segment of the NWP that were not previously undertaken and that were not already funded by FEMA. FEMA and OES determined that NCRA's request for an Alternate Project met the eligibility criteria.

1.2 CONCURRENT PROJECTS IN THE VICINITY

1.2.1 SMART Commuter Rail Project

In 1998, the Sonoma-Marin Rail Transit Commission (SMART Commission) was established as a ten-member consortium of county and city government representatives from Sonoma and Marin counties. The SMART Commission was charged with developing a 75-mile commuter rail service between Cloverdale in Sonoma County and a San Francisco-bound ferry terminal in Marin County. Technical and environmental studies are currently underway for the proposed passenger rail service with plans for up to 14 stations along its route. Based on the proposed plans, the SMART Commission commuter rail service would share approximately 60 miles of track with NWPRA, over which NCRA maintains an exclusive freight easement.

In 2002, California Assembly Bill 2224 (AB 2224) created a new entity, the Sonoma Marin Area Rail Transit District (SMART II). The new rail district, which became effective on January 1, 2003, intends to consolidate the SMART Commission, NWPRA, and the Bridge District's authority and assets owned by those bodies into a single rail district. SMART II has also inherited the former SMART Commission's work of developing a commuter rail system and placing funding initiatives before district voters to help fund implementation and operation of the transit system.

As indicated above, AB 2224 anticipates the transfer of ownership of NWPRA assets to SMART II. As such, tracks and rail facilities that NCRA has owned historically (including the Russian River Segment of the NWP) would be owned by SMART II. Under the transfer, however, NCRA will continue to have an exclusive freight easement over the Russian River Segment right-of-way.

1.2.2 NCRA Eel River Segment Reopening Project

As noted in Section 1.1 above, the reopening of the Eel River Segment of the NWP is completely independent of the Proposed Action Alternative and repairs to the Eel River Segment of the NWP will be undertaken separately by NCRA. The types of activities proposed for the Eel River Segment include the following:

- Culvert repair, including culvert installation in drainage areas and culvert replacement;
- Raising, ballasting, and realigning the track, and restoring ties, plates, spikes, and rail;
- Repairing street/road crossings;
- Repairing and constructing retaining walls;
- Fill and stabilization activities;

- Excavation and slide removal work;
- Pulling down loose rock from rock faces;
- Mechanical and chemical vegetation control using Rodeo™; and
- Removing riprap from upslope.

1.2.3 NCRA Environmental Consent Decree Project

In 1999, the California Department of Fish and Game (CDFG), California Department of Toxic Substances Control, North Coast Regional Water Quality Control Board, and NCRA entered into an Environmental Consent Decree (ECD) in an effort to resolve claims in a complaint alleging violations of the California Fish and Game, Health and Safety, and Water Codes. The ECD requires that NCRA and its contract operators perform corrective actions and adhere to prescribed environmental management practices along both the Russian River Segment and the Eel River Segment of the NWP to provide appropriate injunctive relief. NCRA is responsible for full compliance with the ECD regardless of whether or not NCRA implements the Proposed Action Alternative. The ECD project is completely independent of the Proposed Action Alternative.

1.3 SCOPE OF DOCUMENT

The South End Alternative PEA tiers from the *Final Programmatic Environmental Assessment for Typical Recurring Actions Resulting from Flood Disasters in California* (hereinafter referred to as the Flood PEA) (FEMA 1998) and hereby incorporates the Flood PEA by reference, in accordance with 40 CFR Part 1508.28. The Flood PEA can be accessed through FEMA's website at: http://www.fema.gov/regions/ix/env/nhpapa.shtm.

The Flood PEA covers, in broad terms, the actions and alternatives described in this document. The South End Alternative PEA further describes the effects of certain categories of actions associated with the partial repair of the Russian River Segment (as described in Section 2.2). However, as specific actions are identified, additional environmental review may be warranted.

The South End Alternative PEA describes the potential environmental impacts of undertaking the Proposed Action Alternative (defined in Section 2.2). The Proposed Action Alternative consists of actions toward which FEMA funds may be directly applied under the purview of the Alternate Project. The South End Alternative PEA also evaluates impacts that may result from maintaining the status quo and leaving the railroad in its current state (No Action Alternative). FEMA anticipates that this South End Alternative PEA will ensure compliance with NEPA for most of the activities associated with the Proposed Action Alternative, as project components primarily involve repair to pre-disaster conditions and would be carried out within the existing railroad right-of-way.

If a component of the Proposed Action Alternative is not fully addressed in the South End Alternative PEA, the South End Alternative PEA will serve as a general document from which Supplemental Environmental Assessments (SEAs) and their corresponding Findings of No Significant Impact would tier to ensure compliance with NEPA. If FEMA determines, during the preparation of an SEA, that a more detailed environmental review is warranted, FEMA will

prepare a full EA. If the EA indicates that the action would have significant impacts, FEMA will prepare an Environmental Impact Statement (EIS), as required by NEPA.

Based on information provided by NCRA, the Russian River Segment of the NWP is economically viable. Therefore, it is likely that the Russian River Segment of the NWP would operate at sometime in the future. However, before NCRA could operate the Russian River Segment of the NWP, NCRA would have to retain an operator. NCRA would also have to obtain a variety of state and federal permits, including permits from the California Department of Transportation (Caltrans) for at-grade crossings as well as certification from the Federal Railroad Authority (FRA) for Class I standards. Further, the FEMA-funded repairs would only cover a portion of the work required to bring the Russian River Segment to FRA Class I standards. Currently, NCRA does not have funding sources for the remainder of work necessary to obtain FRA Class I certification. Because the eventual operation of the NWP Russian River Segment depends on a variety of factors that could greatly influence the details of railroad operation, impacts associated with the operation and maintenance of the Russian River Segment of the NWP are beyond the scope of the PEA. If a future-identified FEMA-funded activity would result in the Russian River Segment of the NWP obtaining FRA Class I certification, then FEMA would evaluate the impacts associated with operations and maintenance, as described above, in future SEAs, an EA, or an EIS. Otherwise, FRA would analyze these impacts as part of its NEPA compliance documentation.

1.4 PURPOSE OF AND NEED FOR ACTION

The Purpose of and Need for Action are described in Section 1.4 of the Flood PEA. The purpose of FEMA's Public Assistance Program is to assist states and local governments with the response to, and recovery from, natural and human-caused disasters. Under the Public Assistance Program, the federal government provides supplemental assistance with work to protect life and property, remove debris, and restore disaster-damaged facilities and infrastructure. NCRA has determined that action is needed to protect public health and safety, repair damaged railroad facilities on the Russian River Segment of the NWP, minimize flood impacts, and reduce future risks associated with damage to the Russian River Segment of the NWP.

1.5 COMPLEMENTARY PROGRAMMATIC DOCUMENTS

FEMA has executed programmatic documents and interagency coordination that support the material contained in the South End Alternative PEA. These documents are described in Section 1.5 of the Flood PEA.

In compliance with NEPA, FEMA is responsible for evaluating reasonable alternatives to meet the Purpose of and Need for Action (as described in Section 1.4) and the No Action Alternative. The range of alternatives, however, is limited by the very nature of FEMA's Public Assistance Program. Under the Public Assistance Program, FEMA only has the ability to fund or not fund projects developed by subgrantees and submitted though OES; FEMA cannot formulate projects or select projects for subgrantees. When a subgrantee has requested a reallocation of funds for an Alternate Project, the subgrantee has "determine[d] that the public welfare would not be best served by restoring a damaged public facility or the function of that facility" [44 CFR Part 206.203(d)(2)]. If FEMA were to consider funding an alternative in a different project area or one that serves a different purpose from the subgrantee's request, FEMA would contradict the basis of the request and the project would be ineligible for funding under the Public Assistance Program. As the restoration of the Eel River Segment of the NWP does not meet the Purpose of and Need for Action, it was eliminated from consideration as an alternative in the South End Alternative PEA.[1] Similarly, a project involving the use of FEMA funds to ensure NCRA compliance with the ECD does not meet the Purpose of and Need for Action and is not eligible for Public Assistance Program funding. Therefore, it was eliminated from consideration as an alternative in the South End Alternative PEA.

For the reasons described above, two alternatives have been put forth for discussion: the No Action Alternative and the Proposed Action Alternative. Because the intent of this document is to assess the environmental impacts associated with NCRA's request for a specific eligible Alternate Project (the Proposed Action Alternative), no other alternatives were identified.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative is discussed in Section 2.3.1 of the Flood PEA. The No Action Alternative is defined as maintaining the status quo; FEMA would not provide funding for any actions. Under this alternative, no FEMA funds would be available to implement partial repairs on the Russian River Segment of the NWP, and the Proposed Action Alternative would not be conducted. Certain facilities associated with the Russian River Segment of the NWP would remain vulnerable to future deterioration and damage. Although this alternative is inherently inconsistent with FEMA's mission and the Public Assistance Program (if a project is otherwise eligible for FEMA funding), the No Action Alternative provides a benchmark against which the Proposed Action Alternative may be evaluated.

As stated in Section 1.2.2, NCRA plans to make necessary repairs to restore service to the Eel River Segment of the NWP, regardless of any decision that NCRA makes regarding the No Action Alternative or the Proposed Action Alternative. As stated in Section 1.2.3, NCRA must comply with the ECD, independent of any decision that NCRA makes regarding the No Action Alternative or the Proposed Action Alternative. Therefore, the eventual repair and operation of the Eel River Segment would occur under the No Action Alternative. Compliance with the ECD for the Eel River Segment and the Russian River Segment would also occur under the No Action Alternative.

[1] If NCRA were to withdraw its request for an Alternate Project, the Purpose of and Need for Action would change and the partial repair of the Eel River Segment would be a valid alternative. If NCRA were to select this option, FEMA would prepare an SEA that tiers from this PEA with the partial repair of the Eel River Segment as the Proposed Action Alternative.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative is generally described in Section 2.5.1.3 of the Flood PEA.

The Proposed Action Alternative would include the following types of activities on the Russian River Segment of the NWP:

- Replace and dispose of damaged ties using on-track mounted railroad equipment;
- Clean and reshape drainage ditches as necessary to restore to pre-disaster condition;
- Replace several at-grade crossing signal electronic components, replace gates that have been removed, upgrade the crossing surface if necessary, and reactivate the crossing protection equipment;
- Replace ballast that has been washed away or inundated with floodwaters;
- Remove flood debris from drainage culverts or replace culverts that may have been damaged by flooding;
- Perform other structural upgrades such as upgrading fixed bridge structural components within the railroad right-of-way; and
- Transport material and equipment, as well as debris and other materials being disposed, using on-track mounted railroad equipment and railroad cars.

Performing services (such as preparing contract documents) and procuring materials (for example, railroad equipment), which would also be completed under the Proposed Action Alternative, as described in Appendix A, may be categorically excluded from further NEPA review pursuant to 44 CFR 10.8 (d)(2) and are not addressed in the South End Alternative PEA. As NCRA formulates these activities, FEMA would evaluate each activity to determine if it complies with a categorical exclusion. If the activities are not categorically excluded from further NEPA review, FEMA would prepare a SEA, an EA, or an EIS as discussed in Section 1.3 for other components of the Proposed Action Alternative.

All work associated with the Proposed Action Alternative would be limited to existing rail lines. No new freight lines or connections would be built as part of this alternative.

As stated in Section 1.2.2, NCRA plans to make necessary repairs to restore service to the Eel River Segment of the NWP, independent of any decision that NCRA makes regarding the No Action Alternative or the Proposed Action Alternative. As stated in Section 1.2.3, NCRA must comply with the ECD, independent of any decision that NCRA makes regarding the No Action Alternative or the Proposed Action Alternative. Therefore, the eventual repair and operation of the Eel River Segment would occur under the Proposed Action Alternative. Compliance with the ECD for the Eel River Segment and the Russian River Segment would occur under the Proposed Action Alternative.

3.1 GEOLOGY, GEOHAZARDS, AND SOILS

3.1.1 Affected Environment

The affected environment and regulatory framework for geology, geohazards, and soils is described in Section 3.1 of the Flood PEA. The study area is located within the northern California Coast Ranges province (Section 3.1.1.2 of the Flood PEA).

3.1.1.1 Slope Instability

The northern California Coast Ranges region is primarily underlain by rocks of the Franciscan Complex. This region is an area of active landform creation synonymous with widespread landsliding. The Franciscan Complex comprises a suite of rocks that form the remains of an ancient ocean floor environment, including sandstone, chert, and mélange. The last rock type is an often-chaotic mixture of blocks of sediments and ocean floor volcanic rocks. Where the rocks are weak (in particular the deeply weathered mélange) large, deep landslides are common. Landslides create a lumpy, uneven topography, and vegetation is dominated by grasslands. Remnant unweathered blocks and more resistant rock types commonly form isolated rocky knobs or "knockers" in these areas of landsliding.

Mass wasting is downward movement of soils and rock under gravity. This phenomenon includes landslides, rockfalls, and debris flows. Mass wasting requires source materials, a slope, and a triggering mechanism. Source materials include fractured and weathered bedrock and loose soils. Triggering mechanisms include earthquake shaking, heavy rainfall, and erosion. Slides and earth flows are landslides that can pose serious hazard to property in the hillside terrain of the Coast Ranges. They tend to move slowly and thus rarely threaten life directly. When they move—in response to such changes as increased water content, earthquake shaking, addition of load, or removal of downslope support—they deform and tilt the ground surface.

Deep-seated landsliding, often occurring on slide planes located hundreds of feet below the surface and involving several square miles of hillside, is a result of the weak nature of the Franciscan bedrock and the oversteepening of slopes due to relatively rapid downcutting of rivers as the Coast Ranges are uplifted. Such landslides are perpetually moving, as river erosion is an ongoing process removing material from the base of these slopes, maintaining slope instability. Examples of ongoing slope movement are common throughout the study area, especially between Cloverdale and Hopland. Smaller-scale slope movements also occur on an almost annual basis as winter rains saturate shallow soils and colluvial deposits. As these materials become water logged, they often lose mechanical strength and develop into shallow debris flows or soil slides. These landslides are common where a cover of unconsolidated material occurs over relatively intact bedrock.

3.1.1.2 Subsidence

Land surface subsidence can result from both natural and human-made phenomena. Natural phenomena include subsidence resulting from tectonic deformation and seismically induced settlements, soil subsidence due to consolidation, subsidence due to oxidation or dewatering of organic-rich soils, and subsidence related to subsurface cavities. Subsidence or settlement related

to human activities includes subsidence caused by decreased pore pressure due to the withdrawal of subsurface fluids, including water and hydrocarbons.

The potential for subsidence in the study area has not been documented in detail. Potential areas of concern may be along the northern shore of San Pablo Bay where historic subsidence, resulting from compaction of peat and water-saturated sediment, has been noted. Evidence also indicates that this area is undergoing tectonic subsidence; however, this phenomenon is unlikely to have a major impact over time spans of engineering concern.

3.1.1.3 Seismic Hazards

The Coast Ranges is a region of moderate to high seismic activity. With the exception of ongoing swarms of seismic activity in the geothermal area near Healdsburg known as The Geysers, present day seismicity is relatively low-level and associated with the known active faults. The most significant earthquakes in this region historically have been the 1906 Great San Francisco earthquake on the San Andreas Fault and the 1969 Santa Rosa earthquake on the Rodgers Creek Fault. The latter event resulted in approximately $7 million damage in and around Santa Rosa. Several brick and wood frame buildings in Santa Rosa were damaged beyond repair.

3.1.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.1.1 of the Flood PEA. Under the No Action Alternative, erosion and the resulting loss of soil would continue to occur in areas where drainage ditches and culverts have been damaged or are blocked by debris. Erosion and soil loss could cause slope failures and subsidence, resulting in deterioration of, or damage to, existing railroad facilities. Failure to remove debris generated by prior railroad operation and maintenance could result in soil contamination as hazardous substances, such as lubricants, leach into the soil.

3.1.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.1.3 of the Flood PEA. Repair activities may result in the disturbance of soils through excavation, heavy equipment use, debris clearing, vegetation removal, or similar actions. Soil loss would occur directly from disturbance or indirectly via wind or water. NCRA would implement best management practices, such as developing and implementing an erosion and sedimentation control plan, using silt fences or hay bales, revegetating disturbed soils, and maintaining soil stockpiles, to prevent soils from eroding and dispersing off-site. Conversely, cleaning and repairing culverts and drainage ditches would reduce the potential for uncontrolled erosion and soil loss.

In some cases, slope failures could be triggered by some ground-disturbing actions occurring on steep slopes. To mitigate this potential, NCRA would review landslide potential before engaging in ground-disturbing actions. NCRA would mitigate potential effects by appropriate siting of facilities and using proper geotechnical construction practices.

The Proposed Action Alternative would not have an impact on seismic hazards, nor would the activities undertaken alter the effects of seismic hazards to the facility. The level of risk due to seismic activity would remain unchanged.

3.2 AIR QUALITY

3.2.1 Affected Environment

The affected environment and regulatory framework for air quality is described in Section 3.2 of the Flood PEA. The South End Alternative Project falls within the San Francisco Bay Area, Northern Sonoma, and Mendocino air quality management districts.

3.2.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.2 of the Flood PEA. The No Action Alternative would have no effect on air quality because no construction activities would be implemented.

3.2.3 Proposed Action Alternative

Impacts associated with the Proposed Action Alternative are discussed in Section 4.1.2 of the Flood PEA. Short-term, local impacts to air quality from repair activities would likely include fossil fuel use for heavy equipment, use of materials containing volatile organic compounds (VOCs), and emissions of particulate matter smaller than 10 microns in diameter (PM_{10}) from soil disturbance and debris removal. Fossil-fuel use for heavy equipment would produce emissions of carbon monoxide, nitrogen oxides, PM_{10}, particulate matter smaller than 2.5 microns in diameter, sulfur dioxide, VOCs, and hazardous air pollutants. VOCs and hazardous air pollutants emissions could also occur at work sites from the use of paints, thinners, or solvents.

The modification of previously permitted facilities or the construction of a new facility that includes new or modified stationary sources (for example, fossil fuel-fired electrical generators) would have the potential to increase the level of air pollutants beyond the threshold established by the local air quality district. If this situation occurs, NCRA would apply for and obtain a pre-construction permit from the local air quality district and use best available control technologies, if required.

NCRA would also be responsible for applying for and obtaining permits required under New Source Review and Prevention of Significant Deterioration review, if required. Railroad ties would not be burned without special air emission controls.

Regardless of whether a permit is needed, NCRA would employ minimization measures to limit emissions, fugitive dust, and exhaust. These measures may include:

- Watering disturbed areas;
- Spraying dirt roads with water during dry and windy days;
- Maintaining and covering spoil piles;

- Scheduling staging area siting to minimize fugitive dust;
- Capping or carefully maintaining locomotive sanding towers to prevent sand loss;
- Using crusting compounds to contain open hopper cars; and
- Keeping heavy equipment properly tuned.

Some local air quality districts enforce general prohibitory rules under the Clean Air Act that require these types of good housekeeping measures to be implemented.

Before approval of any federal action, the General Conformity Rule (GCR) requires that the responsible federal agency make a determination of conformity with the State Implementation Plan. NCRA would review all actions on behalf of FEMA to determine whether they qualify for one of the exemptions listed in the GCR. The activities to be completed under the Proposed Action Alternative would likely qualify for an exemption either because the action would be one of the specifically exempted activities under the GCR, or because expected emissions from the activity would fall below specific emission thresholds at which a conformity analysis is required.

The following activities under the Proposed Action Alternative are assumed to be exempt according to GCR Applicability (40 CFR Part 51.853) Item (c)(2)(iv): routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities. Nevertheless, FEMA conducted an analysis of pollutant emissions, using U.S. Environmental Protection Agency (USEPA) emission factors and conservatively assuming that activities would take place each weekday for 4 months. The analysis assumed the equipment used in the repair activities would include one switch-type locomotive and one tracked loader. Based on the analysis, the resulting emissions were deemed to be far below the de minimis levels for which a conformity analysis would be required.

In the event that a specific action goes substantially beyond what was assumed for the current analysis, or is found not to be exempt, NCRA would conduct an air quality analysis in conformance with GCR requirements to demonstrate that the specific action would not:

- Adversely affect or delay air quality plan maintenance;
- Contribute to any new violations of an air quality standard;
- Increase the frequency or severity of an existing violation; or
- Delay achieving attainment or emission reductions in any area.

FEMA would document the results of this air quality analysis in an SEA for the action in question.

3.3 HYDROLOGY AND WATER QUALITY

3.3.1 Affected Environment

The affected environment and regulatory framework for hydrology and water quality are described in Section 3.3 of the Flood PEA. The study area lies mostly within the Russian River watershed, with the exception of the southern quarter of the study area, which lies within watersheds that drain into San Pablo Bay and the northernmost section near Willits, which lies

within the Eel River watershed. The main stem of the Russian River, bordered to the west by the Coast Range, is approximately 110 miles long. From its headwaters north of Ukiah, the river flows in a southeastward direction, turning to the west south of Healdsburg before emptying into the Pacific Ocean at Jenner. Major tributaries to the Russian River include the East and West forks of the main stem, Robinson Creek, Feliz Creek, Pieta Creek, Big Sulphur Creek, Dry Creek, Maacama Creek, Mark West Creek, and Austin Creek. The Petaluma River, Sonoma Creek, Novato Creek, and San Antonio Creek flow south into San Pablo Bay. Tributary streams in all watersheds are both perennial and ephemeral.

3.3.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.3.1 of the Flood PEA. Under the No Action Alternative, hydrology and water quality have the potential to be negatively affected by future floodwaters coming into contact with existing pollutant sources. Existing conditions along the railroad include areas of potential erosion that may cause sedimentation of waterways. Drainage ditches and culverts containing flood debris will slow and/or block future floodwaters if they are not cleaned or replaced, causing a backup of water out of the floodplain that may come into contact with pollutants.

3.3.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.3.3 of the Flood PEA. Most of the activities to be conducted under the Proposed Action Alternative would not occur within rivers, streams, or wetlands. However, repair activities may result in the disturbance of soils, which if transported into water bodies could affect water quality. Best management practices would be employed to reduce erosion and prevent or reduce the amount of sediment entering water bodies.

The following activities may result in work in or near water bodies:

- Removing flood debris from culverts and replacing culverts damaged by flooding;
- Upgrading structural components of bridges; and
- Rebuilding the fender system on the Black Point Bridge over the Petaluma River.

The minimization measures described in Section 3.5.3.1 would reduce or eliminate the impacts of these activities to water quality. The cleaning, repair, and replacement of culverts and the cleaning of drainage ditches would improve water quality by reducing erosion and soil loss and eliminating debris that provides potential sources of contaminants.

Prior to implementing specific actions affecting water bodies, NCRA must obtain the following permits, as appropriate:

- Section 10 permit from the U.S. Army Corps of Engineers, for construction activities within navigable waters of the United States;
- Section 404 permit from the U.S. Army Corps of Engineers, for construction activities within Waters of the United States;

- Section 401 water quality certification or waiver from the North Coast Regional Water Quality Control Board; and
- Streambed Alteration Agreement from the CDFG, for work affecting the stream banks and channels.

3.4 FLOODPLAIN MANAGEMENT

3.4.1 Affected Environment

The affected environment is described in Section 3.4 of the Flood PEA. In compliance with Executive Order 11988, Floodplain Management, and FEMA's implementing regulations (44 CFR Part 9), FEMA must avoid short- and long-term impacts associated with the occupancy and modification of floodplains to the extent practicable. According to Flood Insurance Rate Maps published by FEMA, parts of Russian River Segment of the NWP are located within the 100-year floodplain or border the floodplain.

3.4.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.4.1 of the Flood PEA. Under the No Action Alternative, no direct impact would occur to the floodplain. Drainage ditches would not be cleared, and culverts would not be repaired or cleaned. By not maintaining or improving drainage, the railroad would continue to be subject to damage during storms that cause heavy runoff and flooding.

3.4.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.4.3 of the Flood PEA. Because portions of the railroad tracks are located in the 100-year floodplain, the railroad would continue to be susceptible to damage caused by floods. However, it is not practicable to move the railroad alignment from the floodplain. Additionally, the partial repair activities are minor in nature and do not increase the impact of the facility on the floodplain.

Under the Proposed Action Alternative, drainage along the railroad would be improved by clearing drainage ditches and repairing and cleaning culverts, reducing the potential for future damage during storms. However, none of the activities in the Proposed Action Alternative is expected to change the function of the floodplain or change base flood elevations. The proposed culvert modifications are not expected to affect downstream discharges during a 100-year flood event. Because the crossings would be overtopped by larger flood events, clearing, repairing, or replacing culverts at these crossings would have no substantial effect on downstream discharges, provided that culvert sizes are not substantially increased. This condition would be consistent with that of the current crossings, which in most cases are similarly overtopped by smaller, more frequent flood events.

In compliance with Executive Order 11988 and 44 CFR Part 9, FEMA would publicly circulate a notice describing the Proposed Action Alternative and reasons for undertaking certain activities in the floodplain.

3.5 BIOLOGICAL RESOURCES

3.5.1 Affected Environment

The affected environment is described in Sections 3.5 and 3.6 of the Flood PEA. A U.S. Fish and Wildlife Service (USFWS) list of federally listed endangered, threatened, proposed, and candidate species was compiled for the 27 U.S. Geological Survey (USGS) 7.5-minute quadrangles covered by the study area. In addition, a California Natural Diversity Data Base (CNDDB) search was conducted for a 5-mile radius of the study area. Using these resources, a comprehensive table listing the special-status species with potential to occur in the vicinity of the study area has been prepared. The table is presented in Appendix B.

3.5.1.1 General Habitat Types

Annual Grasslands

Grasslands are herbaceous communities dominated by annual or perennial grasses and forbs (broad-leaved plants). Annual grasslands are dominated by a sparse to dense cover of annual grasses interspersed with native annual and perennial forbs. Dominant species include soft chess (*Bromus hordeaceus*), wild oats (*Avena* spp.), slender fescue (*Vulpia bromoides*), hare barley (*Hordeum murinum* ssp. *leporinum*), silver hair grass (*Aira caryophyllea*), dogtail (*Cynosurus echinatus*), and ripgut brome (*Bromus diandrus*). Annual forbs interspersed among the grasses include blue-eyed grass (*Sisyrinchium bellum*), clover (*Trifolium* sp.), common fiddleneck (*Amsinckia intermedia*), Pursh's lotus (*Lotus purshianus* var. *purshianus*), tarplant (*Hemizonia congesta* ssp. *clevelandii*), baby blue-eyes (*Nemophila menziesii* var. *menziesii*), and johnny tuck (*Triphysaria eriantha* var. *eriantha*). Perennial species include narrow-leaved onion (*Allium amplectens*), elegant harvest brodiaea (*Brodiaea elegans* ssp. *elegans*), self heal (*Prunella vulgaris* ssp. *lanceolata*), yarrow (*Achillea millefolium*), common soap plant (*Chlorogalum pomeridianum* var. *pomeridianum*), and California oat grass (*Danthonia californica*).

Oak Woodlands

Woodland communities are dominated by deciduous hardwood trees and usually support herb and shrub layers. Oak woodlands are regionally common and are found in Marin, Sonoma, and Mendocino counties.

Oak woodlands generally contain various mixtures of Oregon oak (*Quercus garryana*), black oak (*Q. kelloggii*), Garry oak (*Q. garryana*), California buckeye (*Aesculus californica*), California bay (*Umbellularia californica*), bigleaf maple (*Acer macrophyllum*), madrone (*Arbutus menziesii*), and Douglas fir (*Pseudotsuga menziesii* var. *menziesii*). To a lesser extent, valley oak (*Q. lobata*) is found in the study area. The shrub layer varies from dense to sparse and consists of common manzanita (*Arctostaphylos manzanita*), poison oak (*Toxicodendron diversilobum*), deer brush (*Ceanothus integerrimus*), and ocean spray (*Holodiscus discolor*). Herbaceous cover is typically 40 to 80 percent, depending on shrub and canopy density, and is usually dominated by perennial grasses.

Woodland structure and species compositions appear to vary with different site conditions. For example, on rocky south-facing slopes with shallow soils, oak woodlands have sparse tree, shrub, and herb layers. On moist, undisturbed sites, oak woodland has a nearly closed tree canopy with a dense understory of shrubs, perennial grasses, and forbs.

Mature oak woodland in the study area are especially attractive to wildlife because they provide important forage and cover for a large number of ground-, shrub-, and tree-nesting species, including raptors such as golden eagles (*Aquila chrysaetos)*, Cooper's hawks (*Accipiter cooperii*), sharp-shinned hawks (*Accipiter striatus*), and white-tailed kites (*Elanus leucurus*).

Woodpeckers excavate nestholes in live and dead oaks. These cavities are subsequently used by other cavity-nesting species, such as American kestrels (*Falco sparverius*), western screech-owls (*Otus kennicottii*), tree swallows (*Tachycineta bicolor*), ash-throated flycatchers (*Myiarchus cinerascens*), white-breasted nuthatches (*Sitta carolinensis*), plain titmice (*Parus inornatus*), and western bluebirds (*Sialia mexicana*).

Riparian Communities

Riparian communities are found along creeks, rivers, drainages, fence rows, and at other scattered locations throughout the study area, on tributaries of the Eel, Russian, Petaluma, and Napa Rivers. Riparian communities are characterized by plant communities ranging from multilayered woodlands to dense scrub thickets. Within the same plant community type, some riparian communities occur in moister soils and support more hydrophytic species in the shrub and herbaceous layer than other areas in the same plant community. The dominant species in the canopy layer are cottonwood (*Populus* sp.), California sycamore (*Platanus racemosa*), and valley oak. Subcanopy trees are white alder, boxelder (*Acer negundo* ssp. *californicum*), and Oregon ash (*Fraxinus latifolia*). Typical understory shrub layer plants include poison oak, buttonbrush, and willows (*Salix* sp.). The herbaceous layer consists of sedges, rushes, grasses, miner's lettuce, poison hemlock, and hoary nettle.

Riparian habitats support the most dense and diverse bird communities in Northern California and in the study area. The variety of plant species, multilayered vegetation, perennial surface waters, and variety of foods make riparian habitats especially attractive to wildlife (Warner 1979). Mature tree willows (*Salix* sp.), valley oaks, black oaks, and Oregon ash (*Fraxinus latifolia*) provide high-quality nesting habitat for raptors, such as red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus)*, and white-tailed kites, and for cavity-nesting birds that require mature stands of trees, such as Nuttall's woodpeckers (*Picoides nuttallii*), downy woodpeckers (*Picoides pubescens*), northern flickers (*Colaptes auratus)*, plain titmice (*Parus inornatus*), and white-breasted nuthatches (*Sitta carolinensis)*.

Scrub/shrub willows are dominated by low-stature plants and lack the multilayered vegetation of most other riparian types. Although scrub/shrub willow communities tend to support fewer wildlife species than mixed riparian woodland communities, they do offer important cover for deer and a variety of breeding and migratory songbirds, such as flycatchers, vireos, and warblers.

California grapevines (*Vitus californica*), blackberries (*Rubus* sp.), blue elderberries (*Sambucus mexicana*), valley oak, and black oaks produce important fall and winter foods for birds and mammals. Common wildlife species that depend on the nectar, fruits, and seeds of these riparian plants include Anna's hummingbirds (*Calypte anna*), black-headed grosbeaks (*Pheucticus*

melanocephalus), rufous-sided towhees (*Pipilo erythrophthalmus)*, California towhees (*Pipilo crissalis)*, raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), gray foxes (*Urocyon cinereoargenteus*), and western gray squirrels (*Sciurus griseus*).

Because many riparian communities are relatively scarce compared to their historic extent and because they provide important foraging and nesting habitat for many resident and migratory wildlife species, these communities qualify as sensitive natural communities.

Mixed North-Slope Forest

This habitat type is mostly found in Little Lake Valley near Willits. Forest communities are dominated by tree species with canopy cover that generally exceeds 60 percent and is often nearly 100 percent. Forests are distinguished from woodlands by their more densely vegetated canopies, well-developed shrub layer, and scant herbaceous layer. The mid- and upper-canopy layers provide foraging, nesting, and roosting substrates for a diversity of wildlife, including several special-status species such as northern spotted owls.

Mixed north-slope forests are characterized by a multilayered overstory dominated by black oak, madrone, and California bay, intermixed with occasional Douglas fir and canyon live oak (*Quercus chrysolepis*). The shrub layer is dominated by deer brush, poison oak, common manzanita, mountain mahogany (*Cercocarpus betuloides*), creeping snowberry (*Symphoricarpos mollis*), and ocean spray. The shrub layer is dominated by species that also inhabit the nearby mixed chaparral community. Some mixed north-slope forests contain dense understory stands of manzanita (*Arctostaphylos* sp.) and poison oak. This community is similar in species composition to mixed evergreen forests, except the former has a canopy with greater than 40 percent deciduous oak cover and the latter has a canopy with a greater percentage of madrone, tan oak (*Lithocarpus densiflorus*), California bay, and Douglas fir.

Wet Meadow

Wet meadows are found in both natural and artificial settings in the study area. They develop in areas where the soil and vegetation have remained undisturbed (or only minimally disturbed) for many years. Under natural conditions, wet meadows in the foothill and valley portions of the study area are found in swales, drainages, areas of springs and seeps, and along terraces and alluvial fans. In artificial settings, this herbaceous community is found in drainage ditches and in depressions created by excavation.

Sedges and rushes comprise approximately 40 to 80 percent of the total hydrophytic vegetation in wet meadows. Other dominant species include redtop (*Agrostis stolonifera*), meadow-foxtail (*Alopecurus pratensis*), California oatgrass, creeping ryegrass, Kentucky fescue, pennyroyal (*Mentha pulegium*), Timothy grass (*Phleum pratense*), western buttercup (*Ranunculus occidentalis*), curly dock (*Rumex crispus*), common velvet grass (*Holcus lanatus*), and bird's-foot trefoil (*Lotus corniculatus*). In addition, ash and valley oak trees are found sporadically in some wet meadows.

These wetlands receive water from various sources, including agricultural field and pasture irrigation, creek floodplain aquifers, overbank flooding and sheet drainage from excessive runoff, groundwater springs, and shallow groundwater during winter, spring, and early summer.

The high plant diversity and variable hydrologic characteristics of wet meadows make them attractive foraging, nesting, and resting habitat for many wetland-dependent birds, reptiles, and amphibians. The mosaic of dry meadows, marshes, and open water near most of these wet meadows enhances their value for wildlife; however, because wet meadows are associated with saturated soils, they receive limited use by most species of small mammals and their predators.

Vernal Pools

Vernal pool plant communities are restricted to particular landforms and soil profiles in the valley portions of the study area. The habitat develops primarily within depressions on high terraces with heavy clay subsoil horizons. Vernal pools are small, internally drained basins that collect rainfall and surface runoff from a surrounding grassland watershed. An impervious layer of subsoil prevents water from infiltrating the soil profile, causing it to form shallow, perched water tables that are exposed in small depressions. The frequency and duration of ponding and saturation vary among vernal pools due to the size of the basin and its watershed, depth to the impervious subsoil layer, and the timing and amounts of rainfall during each wet season.

Characteristic annual hydrophytes include bracteate popcornflower (*Plagiobothrys bracteatus*), purslane speedwell (*Veronica peregrina* ssp. *xalapensis*), speedwell (*Veronica anagallis-aquatica*), downingia (*Downingia* sp.), Bolander's water-starwort (*Callitriche heterophylla* var. *bolanderi*), common toad rush (*Juncus bufonius* var. *bufonius*), Baker's meadowfoam, Douglas' meadowfoam (*Limanthes douglasii* ssp. *nivea*), semaphore grass (*Pleuropogon californicus*), and field owl's clover (*Castilleja campestris*). Herbaceous perennials include spreading rush (*Juncus patens)*, slender-beaked sedge (*Carex athrostachya*), green-sheath sedge (*Carex feta*), meadow-foxtail (*Alopecurus pratensis)*, Timothy grass (*Phleum pratense*), pennyroyal (*Mentha pulegium)*, and curly dock (*Rumex crispus)*.

Vernal pools provide foraging habitat, breeding habitat, and cover for a small number of vernal-pool-dependent wildlife species. Although vernal pools are ephemeral aquatic habitats, many invertebrates and amphibians have adapted to, and are dependent on, this resource.

Vernal pools are identified as sensitive natural communities because they provide habitat for a variety of special-status plant and wildlife species and have been heavily degraded and greatly diminished in area as a result of agricultural and urban development, water projects, and grazing. Many of the remaining vernal pools in California are threatened by conversion to agricultural and urban uses. CNDDB designates this type of wetland as a community of highest inventory priority because of its value to wildlife and because of ongoing threats to its existence in many areas (CNDDB 2003).

Stream Channels

Stream channels in the study area are typically rocky and unvegetated. This community type includes intermittent and perennial stream channels. These stream channels may provide habitat for migrating adult and juvenile salmonids, although some spawning and seasonal rearing may occur. These areas lack hydrophytic vegetation but are considered jurisdictional waters of the United States.

Tidal Salt Marshes

San Francisco Bay, including San Pablo Bay, contains the largest salt marsh systems in the state (CNR 2003). Salt marsh plants are adapted to a harsh, semiaquatic environment and saline soils. Species diversity is low. Stout stems, small leaves, and physiological adaptations for salt excretion and gas exchange characterize the inhabitants of the salt marsh, which are mostly grasses and low perennial herbs. The tangle of marsh plant roots and stems helps to stabilize the muddy bottom, as well as to trap debris and dissolved nutrients with each tidal cycle. Bacteria convert this oasis of detritus into food resources for microscopic algae, invertebrate larvae, and larger animals.

Species composition and zonation in the salt marsh are governed by salinity gradients in combination with the amount of intertidal exposure. Eelgrass (*Zostera marina*) occupies the lowest or most marine zone because it cannot tolerate a freshwater environment or intertidal conditions that would expose its roots to air. Cordgrass (*Spartina foliosa*) occurs in the marine-to-terrestrial transition zone, characterized by lower salinity and periodic exposure to the air. Inland, where conditions are even drier, pickleweed species (*Salicornia* sp.) are common. On higher ground, where tidal intrusions are rare, jaumea (*Jaumea carnosa*), shoregrass (*Monanthochloe littoralis*), sea arrowgrass (*Triglochin maritima*), and the endangered salt marsh bird's beak (*Cordylanthus maritimus*) are found (CNR 2003). Saltgrass (*Distichlis spicata*) is widespread, occurring from the middle to high marsh, as well as in dunes and on salt flats. The orange, parasitic dodder (*Cuscuta salina)* frequently invades and covers large areas of vegetation (CNR 2003).

Developed Areas

Developed areas include road and railroad corridors and areas dominated by residential, commercial, and industrial development.

3.5.1.2 Regional Areas

The habitat types described above are found in the geographic regions described in this section.

Little Lake Valley

Little Lake Valley is dominated by annual grasslands, oak woodlands, mixed north-slope forest, riparian communities, wet meadows, streams, and channels. The City of Willits is located in Little Lake Valley.

Ukiah Valley

Ukiah Valley historically supported a rich diversity of oak woodlands and forests. Valley oaks commonly exist in this valley. At the present time, no valley oak woodland remains in Ukiah Valley (Mendocino County 2003). A few patches of valley oak riparian woodland are found on some creeks in the area, but this plant community no longer exists along the Russian River in Ukiah Valley (Mendocino County 2003). Interior live oak woodlands remain in the eastern hills of the valley. Healthy stands of black oak woodlands are found in the western portions of the

City of Ukiah and the western hills. Even the chaparral community, a complex of trees and shrubs, includes shrub interior live oak, scrub oak, and leather oak (Mendocino County 2003).

Russian River Valley from Hopland to Healdsburg

The area surrounding the Russian River from Hopland through Healdsburg is dominated by annual grasslands, oak woodlands, and riparian corridors. Agricultural areas dominated by vineyards are also found within the Russian River floodplain and the adjacent low elevation hillsides. Grape production in the area has increased dramatically in the past decade and has resulted in the conversion of land not previously used for agriculture. The transition from agricultural areas to other habitat types is typically abrupt, but occasionally individual oak trees are left intact within or near the edges of vineyards. Seeps, seasonal wetlands, and irrigation ponds may also be found in this area.

In Mendocino County, grasslands are often maintained by cattle grazing in areas that might otherwise develop forest or chaparral communities. Grasslands commonly grade into various shrub and tree habitats.

Blue oak woodland is an increasingly rare habitat found in California's foothills (Mendocino County 2003). However, it is common east of State Route 101 from Ukiah to the Sonoma County line, including the area east of Hopland. Blue oak communities normally occur on dry, rocky slopes in infertile soils where others oak species do not flourish. Conditions are typically too harsh to support other hardwood or oak species.

Santa Rosa Plain

Santa Rosa Plain is characterized by open grassland with scattered stands of oak. This plain is an area of dense, impervious clay soil, naturally interconnected shallow ponds and vernal pools, and scattered oaks. This area contains unique vernal pool habitats that support one of the highest rates of endemic species of any habitat type in Sonoma County (CNPS letter 2003).

Petaluma Valley

Petaluma Valley contains grassland, oak woodland, riparian communities, small vernal pools, and marsh habitats. It contains the largest remaining intact tidal marsh within the San Francisco Bay estuary (Wetland Campaign 2003). Many of its natural features are characteristic of the estuary's historic marshes. Petaluma Marsh presents nursery habitat for young salmon, trout, and other fish and aquatic species native to the bay. The Petaluma River flows into northwestern San Pablo Bay. Large vernal pools are also known to exist in the Petaluma vicinity (CDFG 2003).

San Pablo Bay Shoreline

The area from Ignacio to Schellville includes open grasslands and pasture, limited oak woodlands, extensive paved areas, and residential and commercial development. It also contains salt marshes and sloughs near San Pablo Bay, and riparian communities along streams and creeks. However, the pristine landscape and its associated vegetation cover (such as oak woodland, savanna, and open grassland) have been almost completely displaced in the study area, first by agriculture and more recently by residential and commercial development. Weedy,

nonnative annual grasslands are abundant. Extensive salt marshes exist along the lower Petaluma River.

Napa River Area

Within the study area, the Napa River area includes a series of streams, sloughs, and tidal salt marshes. The lower Napa River area is surrounded by the Napa-Sonoma Marshes Wildlife Area on the west side. Skaggs Island is located southwest of the NWP alignment. The area north of the NWP alignment includes nonnative grasslands, limited oak woodlands and riparian areas, and paved areas.

3.5.1.3 Special-Status Species

The table in Appendix B provides information regarding special-status species with potential to occur in the study area.

Fish

Special-status fish species include:

- Green sturgeon (*Acipenser medirostris*)
- Tidewater goby (*Eucyclogobius newberryi*)
- Southern Oregon/Northern California coho salmon (*Oncorhynchus kisutch*)
- Central California coast coho salmon (*Oncorhynchus kisutch*)
- Central California coast steelhead (*Oncorhynchus mykiss*)
- Northern California steelhead (*Oncorhynchus mykiss*)
- California coastal chinook salmon (*Oncorhynchus tshawytscha*)
- Sacramento splittail (*Pogonichthlys macrolepidotus*)

The National Marine Fisheries Service (NOAA Fisheries) is currently reviewing its critical habitat designations for some anadromous fish. Currently, no critical habitat designations exist for chinook salmon and steelhead in California (NOAA Fisheries 2003). Designated critical habitat for Southern Oregon/Northern California coho salmon and Central California Coast coho salmon still apply. Critical habitat for the Southern Oregon/Northern California coho salmon is designated to include all river reaches accessible to listed coho salmon between Cape Blanco and Punta Gorda, in California and Oregon (NOAA Fisheries 2003). A small portion of the southwestern corner of this Evolutionarily Significant Unit (ESU) critical habitat is within the study area. Critical habitat for the Central California coast coho salmon is designated to include all river reaches accessible to listed coho salmon from Punta Gorda in Northern California south to the San Lorenzo River in Central California (NOAA Fisheries 2003). This ESU critical habitat is within the study area. In both cases, the areas above dams or longstanding, naturally impassable barriers (i.e., natural waterfalls in existence for at least several hundred years) are excluded.

Along its entire length, the Russian River Segment of the NWP crosses numerous water courses, both perennial and ephemeral, most of which have historically supported anadromous fish. Additionally, between Schellville and Petaluma, the NWP alignment crosses or lies adjacent to sloughs and other water bodies associated with the estuaries and salt marshes of San Pablo Bay. Special-status fish species are likely to occur in the areas described in Table 1.

Table 1
NWP Portions in Areas with Potential to Support Special-Status Fish Species

NWP Portion	Watershed	Special-Status Fish
From Willits to approximately 5 miles south	Eel River and its tributaries (Baechtel, Sherwood, and Outlet Creeks)	• Northern California steelhead • Southern Oregon/Northern California coast coho salmon • California coastal chinook salmon
Approximately 5 miles south of Willits through Cotati	Russian River	• California coastal chinook salmon • Central California coast coho salmon • Central California coast steelhead
From Penngrove to Ignacio	Petaluma River, San Antonio Creek, and Novato Creek	• Central California coast steelhead • Green sturgeon (Petaluma River only)
San Pablo Bay shoreline from Ignacio to Sonoma Creek	Sloughs, coastal lagoons, and lower stream reaches	• Sacramento splittail • Tidewater goby
Sonoma Valley to Schellville	Sonoma Creek	• Central California coast steelhead
Schellville to Lombard	Napa River	• Central California coast steelhead • Green sturgeon • Tidewater goby • Sacramento splittail

The Magnuson-Stevens Conservation and Management Act as amended by the Sustainable Fisheries Act established requirements for Essential Fish Habitat (EFH). The Russian River and its tributaries contain EFH for coho and chinook salmon, which are managed under the federal Fishery Management Plan.

Amphibians

Two special-status amphibians have the potential to occur in the study area: the California red-legged frog (*Rana aurora draytonii*) and the California tiger salamander (*Ambystoma californiense*). Both species require freshwater resources, such as streams, rivers, vernal pools, stock ponds, or seasonal ponds, in which to breed. The tiger salamander may disperse through annual grasslands. Red-legged frogs disperse upstream and downstream in search for suitable estivation sites, such as riparian areas (CDFG 2003). These two amphibians may occur within portions of the study area. Figure 2 shows the areas in which the California tiger salamander is listed as a proposed threatened species. The California red-legged frog is listed as endangered in the Central Valley hydrographic basin (including the Sacramento, San Joaquin, Kings, Kaweah, and Kern River systems) and from the Santa Clara River system south to the Mexican border; it

is listed as threatened in the remainder of its range in California (CDFG 2003). The red-legged frog's historical range extends through the Pacific slope drainages from the Redding vicinity (Shasta County) inland and at least to Point Reyes (Marin County) southward to the Santo Domingo River drainage in Baja California, Mexico (CDFG 2003). Red-legged frogs are still locally abundant within portions of the San Francisco Bay area.

As shown in Figure 2, a known California tiger salamander breeding population exists in Santa Rosa east of Highway 101 but west of Highway 116, near Highway 12 (USFWS 2002). The breeding population occurs mostly near Highway 12, but salamanders are known to disperse through surrounding areas as well. Migrations to and from breeding ponds may exceed 1,000 meters (3,300 feet) (CDFG 2003).

Birds

Special-status bird species include:

- Marbled murrelet (*Brachyramphus marmoratus*);
- Western snowy plover (*Charadrius alexandrinus nivosus*);
- Western yellow-billed cuckoo (*Coccyzus americanus*);
- Bald eagle (*Haliaeetus leucocephalus*);
- California clapper rail (*Rallus longirostris obsoletus*); and
- Northern spotted owl (*Strix occidentalis caurina*).

Critical habitats for the marbled murrelet and the northern spotted owl have been designated in the Willits vicinity.

Locations of habitat that may support these species are given in Table 2.

Table 2
Locations with Potential to Support Special-Status Birds

Likely Locations Within Study Area	Habitat	Special-Status Bird
Little Lake Valley	Mature, coastal coniferous forest for nesting	Marbled murrelet
Little Lake Valley	Nests in upper canopy of large trees, usually conifers. Also nests on bridges and buildings in urban areas. Winters near lakes, reservoirs, river systems, and coastal wetlands on protected cliffs.	Bald eagle
Little Lake Valley	Old-growth forests or mixed stands of old-growth and mature trees	Northern spotted owl
Ukiah, Russian River, Petaluma, and Napa valleys	Deciduous riparian thickets or forests	Western yellow-billed cuckoo

Table 2, continued
Locations with Potential to Support Special-Status Birds

Likely Locations Within Study Area	Habitat	Special-Status Bird
San Pablo Bay shoreline	Sandy beaches, salt pans, coastal dredged spoil sites, dry salt ponds, salt pond levees, and gravel bars	Western snowy plover
San Pablo Bay shoreline	Tidal salt marshes near tidal sloughs	California clapper rail

Mammals

The table in Appendix B lists one mammal species – the salt marsh harvest mouse (*Reithrodontomys raviventris)* with the potential to occur in the study area. This species' preferred habitat is pickleweed saline emergent wetlands. This species is known to occur in San Francisco Bay and its tributaries, on the Marin Peninsula, through Petaluma, Napa, and Suisun Bay marshes.

Invertebrates

Four special-status invertebrates have the potential to occur in the study area: vernal pool fairy shrimp (*Branchinecta lynchi*), Callippe silverspot butterfly (*Speyeria callippe callippe*), Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*), and California freshwater shrimp (*Syncaris pacifica*).

Plants

As listed in Appendix B, 18 plant species have the potential to occur in the study area. Four special-status plants occur nowhere else except in the Santa Rosa plain: Baker's stickyseed (*Blennosperma bakeri*), Sebastopol meadowfoam (*Limnanthes vinculans*), Burke's goldfields (*Lasthenia burkei*), and many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*) (CDFG 2003). Critical habitat for the Baker's larkspur has been proposed (but not designated) in the Petaluma vicinity.

3.5.2 No Action Alternative

Relevant impacts associated with the No Action Alternative are discussed in Sections 4.1.5.1 and 4.1.6.1 of the Flood PEA. No federal undertaking would occur under this alternative; therefore, compliance with Section 7 of the Endangered Species Act (ESA-7) would not be required. Federally listed threatened or endangered species would not be adversely affected, nor would suitable habitat for such species be adversely affected, except where degradation of the environment (including critical habitat) continues to occur.

3.5.3 Proposed Action Alternative

Relevant impacts associated with the Proposed Action Alternative are discussed in Sections 4.1.5.3 and 4.1.6.3 of the Flood PEA.

If NCRA proposes to undertake activities that could affect federally listed species as described below, NCRA would notify FEMA before these activities commence. As the lead federal agency for compliance with ESA-7, FEMA would consult with either USFWS or NOAA Fisheries as appropriate. FEMA's strategy for consultation with these agencies is described below.

3.5.3.1 Potential Impacts to Fish

FEMA and NOAA Fisheries completed an informal Programmatic Consultation in October 2003, which covers many of the activities planned under the Proposed Action Alternative. The following activities qualify as Category 1 projects (no effect to protected anadramous species or habitat) under the Programmatic Consultation and no ESA-7 consultation is required if the activity is not located near streams or waterways and would not result in introduction of sediment through erosion or runoff:

- Replace and dispose of damaged ties using on-track mounted railroad equipment;
- Replace at-grade crossing signal electronic components, replace gates that have been removed, upgrade the crossing surface if necessary, and reactivate the crossing protection equipment;
- Replace ballast that has been washed away or inundated with floodwaters; and
- Transport material and equipment, as well as debris and other materials being disposed, using on-track mounted railroad equipment and railroad cars.

The following activities qualify as Category 2 projects (not likely to adversely affect protected anadromous species or habitat), if specific conditions (described below) are met:

- Replace and dispose of damaged ties using on-track mounted railroad equipment (for sites located near a stream or a waterway);
- Replace several at-grade crossing signal electronic components, replace gates that have been removed, upgrade the crossing surface if necessary, and reactivate the crossing protection equipment (for sites located near a stream or a waterway);
- Replace ballast that has been washed away or inundated with floodwaters (for sites located near a stream or a waterway);
- Remove flood debris from drainage culverts or replace culverts that may have been damaged by flooding;
- Perform other structural upgrades such as upgrading fixed bridge structural components within the railroad right-of-way; and
- Transport material and equipment, as well as debris and other materials being disposed, using on-track mounted railroad equipment and railroad cars (for sites located near a stream or a waterway).

To qualify as Category 2 projects, these activities must meet the following conditions:

- Work in a channel is performed only between June 15 and October 15;
- Work is performed only in a dry channel;

- No heavy equipment is operated in flowing water; and
- Avoidance and minimization measures specified in Attachment 2 of the *Programmatic Biological Assessment—Typical Recurring Actions in California* (FEMA 2003) are implemented.

For projects that NCRA believes meet the conditions of Category 2, NCRA would provide FEMA with a summary of each project including details on construction techniques, stream conditions at the time of the proposed work, and proximity and connectivity to known salmonid habitat. NCRA would provide this information to FEMA prior to conducting the work. FEMA would forward this information to NOAA Fisheries, which would review the projects and respond in writing within 30 days with additional conditions to avoid adverse impacts, a request for more information where it is needed to make a NLAA determination, or a letter of nonconcurrence for projects that are believed not to meet the specified guidelines. FEMA would consult with NOAA Fisheries in compliance with ESA-7 for each individual project that does not meet Category 2 specifications, as determined by NOAA Fisheries.

Activities involving cleaning and reshaping drainage ditches qualify as Category 3 projects and are thus likely to adversely affect protected anadramous species or habitat. For these projects, FEMA would consult with NOAA Fisheries in compliance with ESA-7 for each individual activity, after being notified of the activity by NCRA. Similarly, for activities with the potential to adversely affect green sturgeon, tidewater goby, or Sacramento splittail, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

Activities designated as Category 1 and Category 2 above would have minimal adverse effect on EFH of chinook and coho salmon in the Russian River. As part of the consultation process for individual Category 3 projects, FEMA would also consult with NOAA Fisheries for impacts to EFH resulting from these projects.

3.5.3.2 Potential Impacts to Amphibians

Activities undertaken in or adjacent to streams or other aquatic resources that may provide habitat for California red-legged frog and California tiger salamander could result in adverse impacts. For activities with the potential to adversely affect California red-legged frog and California tiger salamander, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

3.5.3.3 Potential Impact to Birds

Birds may be affected through noise disturbance associated with repair activities. USFWS considers the potential effects of noise disturbance on birds up to 0.25 mile from the noise source (Watkins 1999). Noise disturbance can disrupt nesting activities, which could result in a take if fledglings are abandoned as a result. Noise disturbance can also reduce breeding success and disrupt foraging activities. Although noise generated from repair activities would be transient and nonpermanent, it could adversely affect special-status birds if it causes a specific adverse long-term or irreversible effect on the species. For activities with the potential to adversely affect avian species, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

3.5.3.4 Potential Impact to Mammals

The proposed project has the potential to adversely affect the salt marsh harvest mouse, where salt marshes are found within the study area. This habitat type may occur along the San Pablo Bay shoreline. For activities with the potential to adversely affect salt marsh harvest mouse, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

3.5.3.5 *Potential Impact to Invertebrates*

If repair activities and staging areas are limited to the existing NWP alignment, no adverse effects to vernal pool fairy shrimp, Callippe silverspot butterfly, or Myrtle's silverspot butterfly are anticipated. However, activities occurring outside the existing NWP alignment have the potential to affect these species. Vernal pool habitats may occur in the entire study area, but are more likely to occur in the Santa Rosa Plain. The butterfly species may be adversely affected by the Proposed Action Alternative if its host plant (*Viola* sp.) is removed or destroyed. This plant occurs in areas immediately adjacent to the coast, such as dunes, scrub, and grasslands along the San Pablo Bay shoreline. Impacts to the California freshwater shrimp would be avoided if no work is conducted in vernal pools or perennial freshwater streams. For activities with the potential to adversely affect invertebrate species, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

3.5.3.6 Potential Impact to Plants

Similarly, if repair activities and staging are limited to the NWP alignment and no vegetation is removed or destroyed, repair activities would not adversely affect special-status plants. However, activities undertaken outside the NWP alignment and resulting in the removal of vegetation, such as use of staging areas, access areas, or areas planned for disposal of material, could affect special-status plant species. If these activities are undertaken in areas that provide suitable habitat for these species, FEMA would consult with USFWS in compliance with ESA-7 for each individual activity after being notified by NCRA.

3.6 CULTURAL RESOURCES

3.6.1 Affected Environment

The affected environment is described in Section 3.7 of the Flood PEA. FEMA has determined that the area of potential effect for the project is defined as the railroad right-of-way on the Russian River Segment of the NWP.

A Programmatic Agreement (PA) is in place among FEMA, OES, and the State Historic Preservation Officer (SHPO) for FEMA-1203-DR-CA. Appendix 1 of the PA specifies certain activities that are programmatically excluded from further review by the SHPO. These actions include "replacement-in-kind" projects and those projects where activities are confined to areas previously disturbed.

The NWP, including all of its associated components, is itself a cultural resource that passes through regions of California that vary in sensitivity for both prehistoric and historic cultural resources.

3.6.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.7.1 of the Flood PEA. Under this alternative, no action would be undertaken to repair damage to the railroad infrastructure. Therefore, compliance with Section 106 of the National Historic Preservation Act would not be required.

3.6.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.7.3 of the Flood PEA. Repair activities that are ground disturbing in nature would have the potential to impact cultural resources located in the APE if they involve excavation in previously undisturbed soil or if items being repaired or replaced have attained a historic significance of their own.

For the purpose of the South End Alternative PEA, no archival or literature reviews, field surveys, or Native American consultations have been conducted for the Proposed Action Alternative. Nevertheless, based on the governing PA, activities such as the replacement and disposal of ties, cleaning drainage ditches, replacing ballast, and replacing damaged drainage culverts (where the work is substantially in-kind and the surrounding structures are not of historic significance) in previously disturbed areas would not require further review by the SHPO. Repair of traffic control devices (such as signals) using in-kind systems and the procurement of materials and equipment would also not require further SHPO review. These activities comprise the majority of the Proposed Action Alternative components.

Structural upgrades, such as bridges, and any activities undertaken outside of the existing NWP alignment in undisturbed areas, such as construction of staging sites, may require further review depending on the specific location and footprint. For these actions, NCRA would evaluate the action based on the criteria set forth in Appendix 1 of the PA to determine whether further SHPO consultation is necessary. NCRA would conduct appropriate archival research, field surveys, and Native American consultation on behalf of FEMA to help satisfy FEMA's Section 106 compliance responsibilities. FEMA would then conduct formal consultation with the SHPO for each individual activity. Any additional actions precipitated by this consultation would be the responsibility of NCRA to complete (for example, site evaluations and subsequent treatment or mitigation).

All activities to be undertaken as part of the Proposed Action Alternative are subject to the provisions of the PA. In the event of an unanticipated discovery during any activity funded by FEMA, NCRA would stop work and notify FEMA immediately. FEMA would then consult with the SHPO in accordance with Section VII of the PA. Should human remains be encountered, work in the vicinity would halt and NCRA would notify the County Coroner immediately. If the remains were determined to be Native American, the coroner would contact the Native American Heritage Commission.

3.7 SOCIOECONOMICS

3.7.1 Affected Environment

The regulatory framework and affected environment are described in Section 3.8 of the Flood PEA. The study area covers portions of Mendocino, Sonoma, and Marin counties. At its southeastern end, the NWP also crosses a 12-mile distance through Napa County, connecting the NWP line to the Union Pacific mainline at Fairfield-Suisun in Solano County.

According to 2000 Census data, Mendocino County has an estimated population of 86,265, a growth of 7.4 percent from 1990. The top employers by industry are professional services (nearly 30 percent), sales and office occupations (23 percent), and other service jobs (19.5 percent). The per capita income in the county in 2000 was $19,443 and the median household income was $35,996; the unemployment rate for the county was 4.5 percent, and 15.9 percent of the population fell below the poverty level. In 2000, the median home price in Mendocino County was $170,200.

Sonoma County experienced the highest population growth in the area – up to 458,614 in 2000 from 388,222 in 1990 (an 18 percent increase). As in Mendocino County, the top employer was the professional services industry (35 percent), followed by sales and office occupations (26.6 percent). In addition, other services employed nearly 15 percent of the workforce. The unemployment rate in 2000 was 2.8 percent, and 8.1 percent of the population was below the poverty line. The per capita income was $25,724, and the median household income was $53,076. The median home price in Sonoma County was $273,200.

Marin County had a population of 247,289 in 2000, a growth of 7.5 percent from 1990. Among the counties in the study area, Marin County had the highest income with a per capita income of $44,962 and a median household income of $71,306. Over 20 percent of the labor force was employed in the professional services industry, followed by over 18 percent in the educational services sector. Only 6.6 percent of individuals were recorded as being below the poverty line, and the unemployment rate was 1.9 percent. The median home price in 2000 was $514,600.

Napa County had a population of 124,279, a per capita income of $26,395, and a median household income of $51,738 in 2000. Over 80 percent of the population was White, with the Hispanic group representing the largest ethnic minority. Only 8.3 percent of individuals in Napa County fell below the poverty line in 2000.

3.7.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.8.1 of the Flood PEA. Under this alternative, no activities would be undertaken. Therefore, the socioeconomic environment of the region would not be altered.

3.7.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.8.3 of the Flood PEA. In compliance with Executive Order 12898 (Environmental Justice), FEMA determined that implementation of the Proposed Action Alternative is not expected to result in any adverse and/or disproportionate impacts on minority or low-income persons.

3.8 LAND USE AND ZONING

3.8.1 Affected Environment

The affected environment is described in Section 3.9 of the Flood PEA. The NWP is a pre-existing railroad, and NCRA has an exclusive freight easement along its route.

3.8.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.9.1 of the Flood PEA. The No Action Alternative would not affect land use or zoning.

3.8.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.9.3 of the Flood PEA. No impact to land use or zoning would result from the Proposed Action Alternative. All project activities would occur within the existing NWP railroad right-of-way.

3.9 PUBLIC SERVICES

3.9.1 Affected Environment

The affected environment is described in Section 3.10 of the Flood PEA. Public services include fire protection, police protection, public schools, parks, and other services at public facilities. Guidelines and statutes regarding public services are generally found at the local level. Local jurisdictions frequently prescribe requirements for local police and fire protection. Local planning agencies may establish goals or ordinances for parks or keeping areas undeveloped. Although the state and federal governments constrain aspects of school policy decision making, local school boards determine school operations.

3.9.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.10.1 of the Flood PEA. Under the No Action Alternative, no improvements would be made to the railroad infrastructure, and no public services would be affected.

3.9.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.10.3 of the Flood PEA. No impacts to public services are expected to result from the partial repair of the railroad facilities. All associated work is within the NWP right-of-way. Any temporary impacts that could restrict the access of emergency services in the study area would be avoided. Mitigation measures to avoid temporary impacts to public services would include timing repair activities to minimize impacts to public utility users. NCRA would be responsible for implementing such measures.

3.10 TRANSPORTATION

3.10.1 Affected Environment

The affected environment is described in Section 3.11 of the Flood PEA. The study area is located alongside Highway 101 for much of its length.

3.10.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.11.1 of the Flood PEA. Under the No Action Alternative, FEMA would not assist with actions that would partially repair the railroad; therefore, benefits to transportation would not be realized.

3.10.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.11.3 of the Flood PEA. In general, the implementation of the Proposed Action Alternative may result in some temporary, minor impacts to transportation. To minimize adverse impacts to traffic and circulation, NCRA would be required to implement the following mitigation measures or more stringent measures, if so required by local law or ordinance:

- Traffic along adjacent roadways would be temporarily rerouted as necessary during repair activities. Traffic lane closures would be coordinated with appropriate community officials.
- To the maximum extent feasible, large equipment-related vehicles would be prohibited from parking on residential streets.
- Heavy equipment and vehicle staging would be located to hinder the traffic flow as little as possible in the areas where the actions are implemented.

Adjacent residential neighborhoods and commercial/industrial areas would be notified by NCRA in advance of repair activities and any rerouting of local traffic. Notification would identify a local contact. If any rehabilitation work or work affecting traffic control is carried out within the state right-of-way, NCRA would obtain an encroachment permit from Caltrans, following the appropriate permitting procedures.

3.11 Noise

3.11.1 Affected Environment

The affected environment and regulatory background is described in Section 3.12 of the Flood PEA.

3.11.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.12.1 of the Flood PEA. Under the No Action Alternative, no permanent changes to noise levels are expected because repair activities would not occur.

3.11.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.12.3 of the Flood PEA. Repair activities would typically result in temporary noise from equipment. Repair activities would comply with local noise ordinances and state and federal standards and guidelines. Special precautions may be required around noise-sensitive receptors such as residencies, schools, or hospitals. These precautions, which would be implemented by NCRA, may include special work hours or public notification.

3.12 HAZARDOUS MATERIALS AND WASTES

3.12.1 Affected Environment

The affected environment is described in Section 3.13 of the Flood PEA. Hazardous materials and wastes are grouped into the following four categories based on their properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases) (California Code of Regulations Title 22, Division 4.5, Chapter 11, Article 3). Although petroleum products are not considered a hazardous material under federal regulations, they are regulated as hazardous materials in California.

A hazardous material is defined in many ways according to different federal and state regulations. In California, hazardous material is defined as:

- Any substance designated pursuant to Clean Water Act Section 311(b)(2)(A), as amended (33 United States Code [USC] Section 466 et seq.);
- Any element, compound, mixture, solution, or substance designated pursuant to the Comprehensive Environmental Response, Compensation and Liability Act Section 102, as amended (42 USC Section 9601 et seq.);
- Any substance as defined by California Health and Safety Code Chapter 6.5, Hazardous Waste Control;
- Any toxic pollutant listed under Clean Water Act Section 307(a), as amended (33 USC Section 466 et seq.);
- Any hazardous air pollutant listed under Clean Air Act Section 112, as amended (42 USC Section 1857 et seq.); and
- Any imminently hazardous chemical substance or mixture with respect to which the USEPA has taken action pursuant to Toxic Substance Control Act Section 7, as amended (15 USC Section 2601 et seq.).

A hazardous material in California includes petroleum, natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel. A hazardous waste is any hazardous material that is discarded, abandoned, or transported and stored prior to being recycled. The criteria that render a material hazardous also make a waste hazardous. Hazardous materials and wastes can result in public health hazards if released to the soil or groundwater or through airborne releases in vapors, fumes, or dust. Hazardous wastes must be disposed of in accordance with all federal and California hazardous waste regulations.

Hazardous materials and wastes are likely to be part of the affected environment of the Russian River segment of the NWP. In general, actions that are foreseen to involve hazardous materials or wastes include demolition or modification of:

- Replaced ballasts;
- Replaced creosote-coated railroad ties; and
- Removed debris that may contain chemical or other potentially hazardous materials.

3.12.2 No Action Alternative

Impacts of the No Action Alternative are described in Section 4.1.13.1 of the Flood PEA. Maintaining the status quo would not involve the transport, use, or disposal of hazardous materials or wastes and would not result in creation of a public health hazard.

3.12.3 Proposed Action Alternative

Impacts of the Proposed Action Alternative are described in Section 4.1.13.3 of the Flood PEA. The partial repair of the Russian River Division of the NWP is not expected to directly impact hazardous materials and wastes. In general, hazardous materials at the sites of potential actions (for example, underground storage tanks [USTs] and toxic release sites) would not be altered from their existing conditions under the Proposed Action Alternative. In circumstances where hazardous materials and wastes are involved in repair activities, NCRA would follow all applicable local, state, and federal regulations for use, storage, handling, and disposal of these substances.

Specific activities may disturb hazardous materials present at the site of an action. NCRA would conduct a site assessment (such as a Phase I Environmental Site Assessment) to determine if such materials are present. USTs would also be identified as part of this study. NCRA would follow local, state, and federal regulations for the handling and disposal of hazardous materials or for removing USTs. NCRA would coordinate with the Air Quality Management District, State Water Resources Control Board, California Air Resources Board, and USEPA, as appropriate.

Actions undertaken in compliance with the ECD on the Russian River Segment of the NWP would contribute to cumulative impacts, when added to impacts resulting from the Proposed Action Alternative. Localized adverse noise and air quality impacts would likely result from repair activities associated with the Proposed Action Alternative and implementation of the ECD in the Russian River Segment of the NWP. However, these impacts would be temporary and negligible. These short-term, minimal adverse impacts would be outweighed by the beneficial impacts to biological resources and water quality resulting from implementing the ECD.

Actions undertaken along the Eel River Segment of the NWP have the potential to contribute to cumulative environmental effects in the study area if these activities occur contemporaneously. However, NCRA currently lacks funding to repair the Eel River Segment of the NWP and has no schedule for these repairs to commence. Therefore, the Proposed Action Alternative would likely be complete before repair, operation, or ECD-related activities occur on the Eel River Segment. Thus, cumulative impacts from the Proposed Action Alternative and repair, operation, or ECD-related compliance activities on the Eel River Segment are not anticipated. Similarly, the Proposed Action Alternative would likely be completed before construction or operation activities associated with SMART II commence. Thus, cumulative impacts from the Proposed Action Alternative and SMART II construction or operation are not anticipated.

FEMA is the lead federal agency for conducting the NEPA compliance process of NCRA's Alternate Project. It is the goal of the lead agency to expedite the preparation and review of NEPA documents to be responsive to NCRA's request for the Alternate Project.

The Draft South End Alternative PEA was distributed for public review and comment on November 21, 2003. Copies of the Draft South End Alternative PEA were mailed to agencies and the other interested parties listed in Appendix C. In addition, an advertisement was placed in the *Santa Rosa Press Democrat,* the *Marin Independent Journal,* the *Ukiah Daily Journal,* the *Eureka Times-Standard,* and the *Oakland Tribune* publicizing the availability of the Draft South End Alternative PEA in area libraries and on FEMA's web page. A 2-week public comment period followed the distribution of the Draft South End Alternative PEA, and was extended to 1 month to accommodate agency requests. Written comments submitted to FEMA were reviewed and incorporated into this Final South End Alternative PEA, as appropriate. These comments and FEMA's responses are presented in Appendix D.

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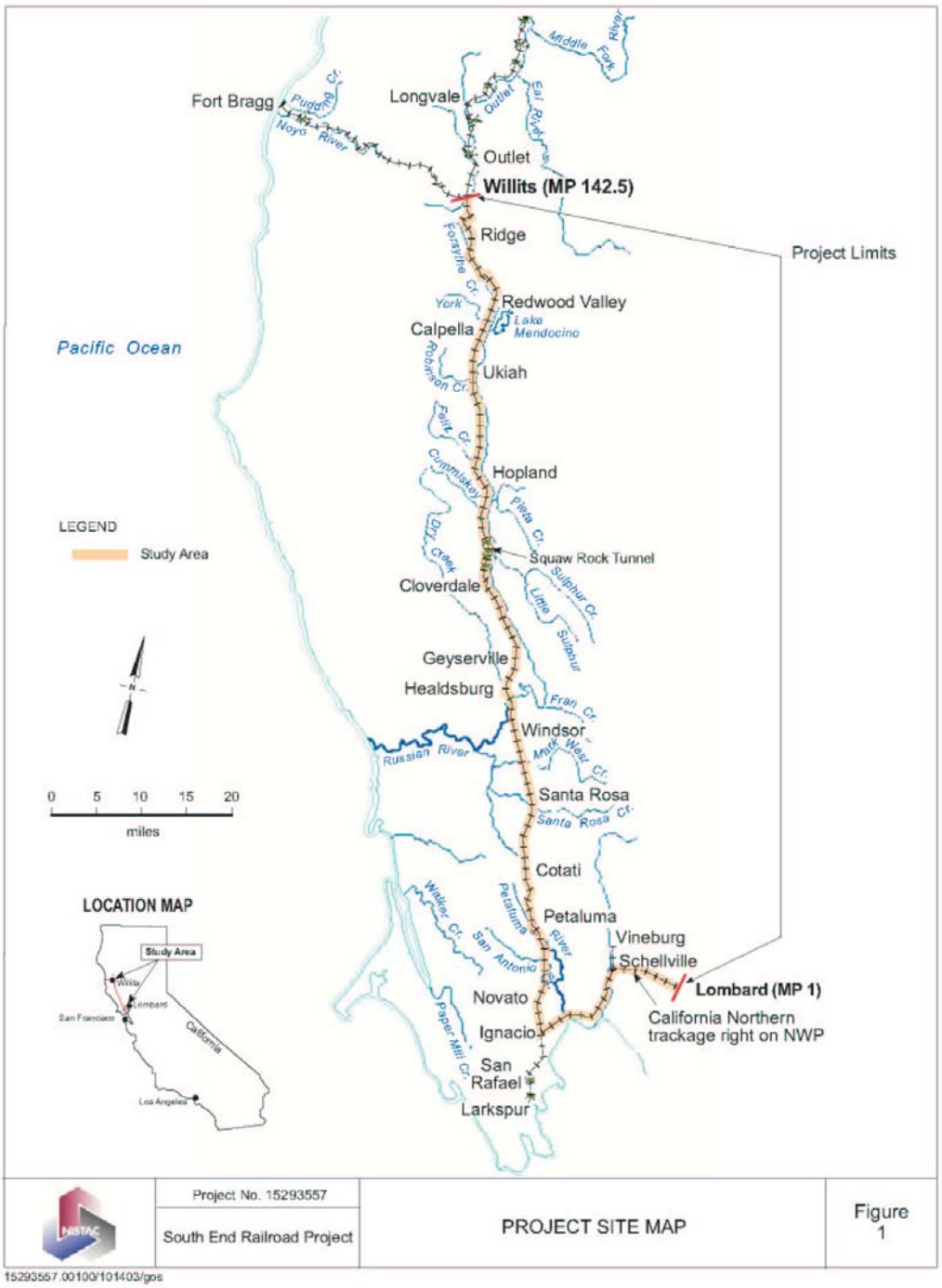
Figures


Fort Bragg
Pudding Cr.
Noyo River
Longvale
Outlet
Eel River
Middle Fork
Outlet
Willits (MP 142.5)
Ridge
Project Limits
Forsythe Cr.
York
Redwood Valley
Lake Mendocino
Calpella
Pacific Ocean
Robinson Cr.
Ukiah
Feitt Cr.
Cummiskey
Hopland
Pieta Cr.
LEGEND
Study Area
Squaw Rock Tunnel
Cloverdale
Sulphur Cr.
Little Sulphur
Geyserville
Healdsburg
Fran Cr.
Windsor
Russian River
Mark West Cr.
Santa Rosa
Santa Rosa Cr.
0 5 10 15 20
miles
Cotati
LOCATION MAP
Study Area
Petaluma
Walker Cr.
Petaluma River
San Antonio
Vineburg
Schellville
Lombard (MP 1)
California Northern
trackage right on NWP
Novato
Ignacio
Paper Mill Cr.
San
Rafael
Larkspur
Project No. 15293557
South End Railroad Project
PROJECT SITE MAP
Figure
1
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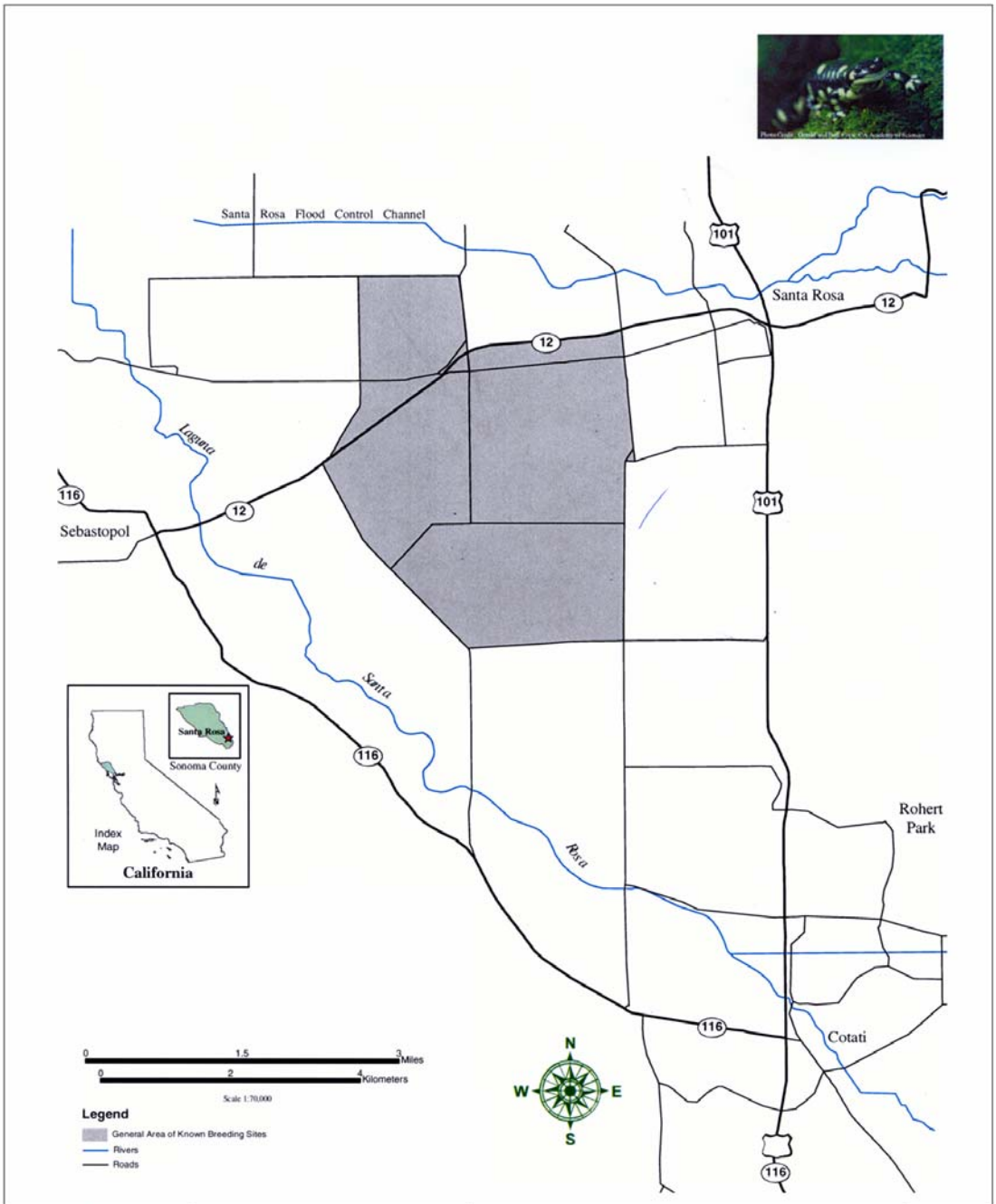

NISTAC	Project No. 15293557 South End Railroad Project	SONOMA POPULATION OF THE CALIFORNIA TIGER SALAMANDER	Figure 2

Source: U.S. Fish and Wildlife Service

Appendix A
NCRA Request for Alternate Project

North Coast Railroad Authority
419 Talmage Road, Suite M
Ukiah, CA 95482

June 3, 2003

Nancy Ward, Director Region IX
Federal Emergency Management Agency
Response and Recovery Division
1111 Broadway Suite 1200
Oakland, California 94607-4052

Re: Request for Alternate Project
FEMA-1203-DR-CA, P.A.ID: 000-91024
Sub grantee: North Coast Railroad Authority (NCRA)
OES: 90596; FEMA: 19815

Dear Ms. Ward:

Please accept this letter as the North Coast Railroad Authority's (NCRA) application for FEMA's Alternate Project based upon the premise of an independently operated rail line on the southern half of the railroad between Willits and Lombard (Russian River Division). Attached is the NCRA Board Resolution Number 2003-01 unanimously passed on May 21, 2003 that endorses the use of Alternate Project funds to support a south end independently operated railroad. It is our understanding that this document serves as FEMA's record of review under the National Environmental Policy Act (NEPA). The Code of Federal Regulation requires that FEMA take into account environmental considerations when authorizing or approving actions and applying the NEPA guidelines for environmental studies.

The Russian River Division of the NCRA extends from Lombard in Napa County (MP 1) to Willits in Mendocino County (MP 142.5). The Russian River Division is currently not operating and has fallen out of Federal Railroad Administration (FRA) Class 1 standards. The NCRA has performed repair work between Willits and Lombard subsequent to the storm damage of 1998. The proposed work scope to create an independently operated freight railroad to conform to FRA Class 1-3 standards is as follows:

Replacement and disposal of ties; clean drainage ditches by removing debris, soil and reshaping to before flood condition; replace ballast that has been washed away and ballast that was inundated by flood waters including soil which destroyed the functionality of the ballast; replace drainage culverts that have been damaged by flooding and debris; perform structural upgrades, upgrades to public at grade crossings (signals, gates, surface), purchase materials and equipment to support the above upgrades, purchase railroad equipment and construct fueling/sanding facilities which will be used to support subsequent resumption of commercial freight rail operations. All of these upgrading activities will be accomplished within the existing railroad rights of way.

Phone: (707) 463-3280 Fax: (707) 463-3282 ncra_dmc@sbcglobal.net

To accomplish the above activities the NCRA, utilizing best management practices as agreed upon with the parties of the Environmental Consent Decree (CD), proposes the following:

1) Issue a Task Order to the Consultant Team to prepare Contract Documents for the repairs, prepare purchase documents for materials and equipment, pre-qualify contractors, accept bids, evaluate and make recommendations to the NCRA. After contract awarding and material/equipment procurement, inspect the material, inspect the equipment, inspect and document the Contractors activities, review all invoices and payment requests; Report and make recommendations to the NCRA on all of these activities.

2) Use NCRA personnel on the project to provide consultant oversight and ensure the project conforms to the original scope and conditions set forth in the Alternate Project.

3) Purchase railroad equipment such as: locomotives, air-dump hopper cars, flat cars, gondola cars, ballast regulators, tampers, cabooses, crane(s), air compressor(s), excavators, bulldozers, loader/backhoe(s), equipment trailers, on-road pickups, on-road utility trucks, on-road crew-cabs, on-road welder truck(s), on-road mechanics service truck(s), tie inserter/extractor(s), boom truck, personnel communication equipment and small tools, etc.

   The on-road equipment will be fitted with hi-rail equipment for use in accessing the work locations and railroad facilities.

4) Clean the drainage ditches with on-track mounted equipment and place the material in railroad cars for removal from the site.

5) Remove flood debris from drainage culverts or replace culverts that may have been damaged by flooding.

6) Use on-track mounted railroad equipment to replace ties by removing existing damaged ties, replacing with new ties, and properly disposing replaced ties and other track material (OTM).

7) Use on-track mounted railroad equipment to deliver material and equipment to and from the work areas.

8) Replace a majority of the at-grade crossing signal electronic components, replace the gates which have been removed, reactivate the crossing protection equipment and upgrade the crossing surface where required.

9) Upgrade the fixed bridge structural components as necessary to comply with FRA track classes 1-3.

10) Upgrade moveable bridge structural components as necessary to comply with FRA track classes 1-3. Rebuild the fender system at Blackpoint Bridge spanning the Petaluma River.

Once a task order has been executed per Item 1 above, the process of procuring equipment and material can begin immediately. After the construction contract is awarded, it is estimated that the upgrade work can be performed within 3 to 4 months. All of this work will be accomplished within existing railroad rights of way.

If you need additional information, or require a face-to-face meeting for clarification, please contact me immediately at 707-463-3280.

Sincerely,

Douglas M. Christy
Executive Director
North Coast Railroad Authority

Cc: Royce Saunders, OES
Sandro Amaglio, FEMA
Daryl Wait, FEMA
Michael Sabbaghian, OES
NCRA Board of Directors
Chris Neary, NCRA Counsel

Appendix B

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Project Vicinity

To prepare this table, species information was obtained from the U.S. Fish and Wildlife Service for the geographic area covered by the following U.S. Geological Survey 7.5-minute quadrangle maps: Burbeck, Willits, Laughlin Range, Redwood Valley, Orrs Springs, Ukiah, Elledge Peak, Purdys Gardens, Yorkville, Hopland, Cloverdale, Asti, Geyserville, Jimtown, Guerneville, Healdsburg, Mark West Springs, Sebastopol, Santa Rosa, Two Rock, Cotati, Glen Ellen, Petaluma, Petaluma River, Novato, Petaluma Point, and Sears Point.

Federally Listed, Proposed, and Candidate Species
With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Amphibian				
Ambystoma californiense	California tiger salamander	PT	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges, need vernal pools, meadows, seeps, stock ponds or other seasonal water resources for breeding. This species occurs from near Petaluma (Sonoma County) east through the Central Valley to Yolo and Sacramento counties and south to Tulare County, and from the vicinity of San Francisco Bay south at least to Santa Barbara County.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Bufo canorus	Yosemite toad	C	Small montane toad, endemic to the Sierra Nevada Mountains from Ebbetts Pass, Alpine County to south of Kaiser Pass and Evolution Lake, Fresno County. Species occurs from 6,400 to 11,300 feet elevation, with the majority of sites between 8,500 and 10,000 feet; found in open montane meadows near lodgepole pine forests.	No potential to occur within the study area given the species elevation requirements and species range.
Rana aurora draytonii	California red-legged frog	T	Dense, shrubby riparian vegetation associated with deep (> 0.7 meter), still or slow-moving water.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.3 mile from the study area.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Birds				
Brachyramphus marmoratus	Marbled murrelet	T	Occurs year-round in marine subtidal and pelagic habitats from Oregon border to Point Sal, Santa Barbara County. In summer forages close to shore; in nonbreeding season forages farther from shore. Breeders require mature, coastal coniferous forest for nesting and nearby coastal waters for feeding.	Potential to occur if suitable habitat exists within the study area. Critical habitat is found in four USGS quadrangles in the study area.
Charadrius alexandrinus nivosus	Western snowy plover	T	Habitats used by nesting and nonnesting birds include sandy coastal beaches, salt pans, coastal dredged spoil sites, dry salt ponds, salt pond levees, and gravel bars.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1.7 miles from the study area.
Coccyzus americanus	Western yellow-billed cuckoo	C	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1 mile from the study area.
Haliaeetus leucocephalus	Bald eagle	T	Winters throughout most of California at lakes, reservoirs, river systems, and some rangelands and coastal wetlands on protected cliffs and ledges. Also nests on bridges and buildings in urban areas. Nests are normally built in the upper canopy of large trees, usually conifers.	Potential to occur if suitable habitat exists within the study area.
Pelecanus occidentalis californicus	California brown pelican	E	Found in estuarine, marine subtidal, and marine pelagic waters along the California coast. In Northern California, fairly common to common June to November. Usually rests on water or inaccessible rocks (either offshore or on mainland), but also uses mudflats, sandy beaches, wharfs, and jetties.	Not likely to occur because study area lacks suitable habitat.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Rallus longirostris obsoletus	California clapper rail	E	Tidal salt marshes near tidal sloughs; perennial inhabitant of tidal salt marshes of the greater San Francisco Bay.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Sterna antillarum (=albifrons) browni	California least tern	E	Nests in flat, open areas along the coast near inshore estuaries, river mouths, or shallows, sandy ground with little or no vegetation, bays, freshwater ponds, channels, lakes.	Not likely to occur within the study area.
Strix occidentalis caurina	Northern spotted owl	T	Old-growth forests or mixed stands of old-growth and mature trees; occasionally in younger forests with patches of big trees. Ranges through the Cascade and Sierra Nevada mountains, primarily on the west slope, from Shasta County south to Kern County, Tehachapi Range, and the mountains of Southern CA.	Potential to occur if suitable habitat exists within the study area. Critical habitat is found in two USGS quadrangles surrounding Willits.
Mammals				
Reithrodontomys raviventris	Salt marsh harvest mouse	E	Coastal salt marsh, dense stands of pickleweed.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 300 feet from the study area.
Fish				
Acipenser medirostris	Green sturgeon	C	A demersal (bottom dwelling) species, mostly seen from inshore waters to 60 meters (197 feet). Spawn in the main stem of large river systems in relatively fast water flows and probably in depths greater than 3 meters. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock. Spawning has been confirmed in recent years only in the Sacramento and Klamath rivers, although spawning probably once occurred in the Eel River as well.	Potential to occur if suitable habitat exists within the study area.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Eucyclogobius newberryi	Tidewater goby	E	Brackish shallow lagoons and lower stream reaches where the water is fairly still but not stagnant; found in water with salinity levels from zero to 10 ppt, temperature levels from 35 to 73 degrees Fahrenheit, and water depths from 5 to 7.5 feet. Historically, this species occurred in coastal lagoons from San Diego County to Humboldt County, but it has disappeared from most of these sites.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Hypomesus transpacificus	Delta smelt	T	Euryhaline species, but for a large part of its life span, it is associated with the freshwater edge of the mixing zone (saltwater-freshwater interface). Spawning habitats are side channels and sloughs in the middle reaches of the Delta. Spawn in shallow freshwater from December through July (Goals Project 2000). Pelagic feeder. This species occurs only in Suisun Bay and the Sacramento-San Joaquin estuary (known as the Delta) near San Francisco Bay area.	Unlikely to occur. Would only occur as strays.
Oncorhynchus mykiss	Central Valley steelhead	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Unlikely to occur. This ESU is defined outside of the study area, but is located within a 5-mile radius of the alignment.
Oncorhynchus mykiss	Central California coast steelhead	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is approximately 0.4 mile from study area.
Oncorhynchus mykiss	Northern California steelhead	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Potential to occur if suitable habitat exists within the study area.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Oncorhynchus kisutch	Central California coast coho salmon	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is approximately 0.4 mile from study area located in the Russian River at Highway 101 bridge in Healdsburg.
Oncorhynchus kisutch	Southern Oregon / Northern California coho salmon	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Potential to occur if suitable habitat exists within the study area.
Oncorhynchus tshawytscha	California coastal chinook salmon	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles.	Potential to occur if suitable habitat exists within the study area.
Oncorhynchus tshawytscha	Central Valley spring-run chinook salmon	T	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles. Spring-run chinook salmon are primarily found in four tributaries to the Sacramento River (Butte, Big Chico, Deer, and Mill creeks), but other waters may also contain them.	Unlikely to occur. This species is primarily found in the Sacramento River. Therefore, it occurs outside of the study area, but it is located within a 5-mile radius of the alignment.
Oncorhynchus tshawytscha	Central Valley fall/late fall-run chinook salmon	C	Pacific Ocean, spawns in coastal streams and rivers, over gravel beds. Pool depth, volume, amount of cover, and proximity to gravel for spawning play key roles. Found mainly in the Sacramento River, and most spawning and rearing of juveniles takes place in the reach between Red Bluff and Redding.	Unlikely to occur. This species is primarily found in the Sacramento River. Therefore, it occurs outside of the study area, but it is located within a 5-mile radius of the alignment.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Pogonichthlys macrolepidotus	Sacramento splittail	T	Euryhaline species, but prefers freshwater. Primarily found in backwater sloughs of the Sacramento-San Joaquin Delta and Suisun Marsh. They are now largely confined to (1) the Delta, (2) Suisun Bay, (3) Suisun Marsh, (4) Napa River, (5) Petaluma River, and (6) other parts of the Sacramento-San Joaquin Estuary. Upstream spawning migration occurs from November through May into freshwater habitats (Goals Project 2000).	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Invertebrates				
Branchinecta lynchi	Vernal pool fairy shrimp	T	Vernal pools; small swales, earth slumps, or basalt-flow depression basins with grassy or occassionally muddy bottom, in unplowed grassland (Eriksen and Belk 1999).	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1.3 miles from the study area.
Speyeria callippe callippe	Callippe silverspot butterfly	E	Coastal scrub. Host plant is violet, including *Viola purpurea, V. pedunculata, V. beckwithii, V. douglasii,* and *V. nuttalli*	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1 mile from the study area.
Speyeria zerene myrtleae	Myrtle's silverspot butterfly	E	Restricted to areas immediately adjacent to the coast, such as dunes, scrub, and grasslands. The eggs are laid only on species of *Viola*, possibly only *Viola adunca*. This species is only known from a few sites in northern Marin County.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1 mile from the study area. This occurrence is located west of Sears Point, approximately 2 miles north of the junction of Lakeville Highway and Black Point Road.

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Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Syncaris pacifica	California freshwater shrimp	E	Small, perennial coastal streams. Excellent habitat conditions include streams of 12 to 36 inches in depth, with exposed live roots of trees such as alder and willow, along undercut banks greater than 6 inches, with overhanging overhanging woody debris or stream vegetation and vines such as stinging nettles, grasses, vine maple, and mint. Historically, this shrimp was probably common in low elevation, perennial freshwater streams in Marin, Sonoma, and Napa counties. Today, it is found in 16 stream segments within these counties, in four general geographic regions: (1) tributary streams in the lower Russian River drainage, which flows westward into the Pacific Ocean; (2) coastal streams flowing westward directly into the Pacific Ocean; (3) streams draining into Tomales Bay; and (4) streams flowing southward into northern San Pablo Bay.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.5 mile from the study area.
Plants				
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	E	Freshwater marshes and swamps; riparian scrub. The blooming period extends from May through July.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 2 miles from the study area.
Astragalus clarianus	Clara Hunt's milk-vetch	E	Chaparral, cismontane woodland, valley and foothill grassland; grows in serpentinite or volcanic, rocky, clay.	Potential to occur if suitable habitat exists within the study area.
Blennosperma bakeri	Baker's stickyseed	E	Valley and foothill grassland; vernal pools. The blooming period extends from March through May.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.3 mile from the study area.

Federally Listed, Proposed, and Candidate Species With Potential to Occur in the Vicinity of the South End Alternative Project

Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Carex albida	White sedge	E	Meadows and seeps; freshwater marshes and swamps. The blooming period extends from May through July.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Chorizanthe valida	Sonoma spineflower	E	Coastal prairie. The blooming period extends from June through August.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Clarkia imbricate	Vine Hill clarkia	E	Chaparral, valley and foothill grassland. The blooming period extends from June through August.	Potential to occur if suitable habitat exists within the study area.
Cordylanthus mollis ssp. Mollis	Soft bird's beak	E	Coastal salt marshes and swamps. The blooming period extends from July through November.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.4 mile from the study area.
Cordylanthus tenuis ssp. Capillaris	Pennell's bird's-beak	E	Coniferous forest, chaparral; serpentinite. The blooming period extends from June through September.	Potential to occur if suitable habitat exists within the study area.
Delphinium bakeri	Baker's larkspur	E	Coastal scrub, valley and foothill grassland. The blooming period extends from March through May.	Potential to occur if suitable habitat exists within the study area. Critical habitat has been proposed (but not designated) in the Petaluma USGS quadrangle.
Delphinium luteum	Yellow larkspur	E	Chaparral, coastal prairie, coastal scrub. The blooming period extends from March through March.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.7 mile from the study area.

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Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Hesperolinon congestum	Marin dwarf-flax (=western flax)	T	Chaparral, valley and foothill grassland; serpentinite. The blooming period extends from April through July.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1.4 miles from the study area.
Lasthenia burkei	Burke's goldfields	E	Meadows and seeps; vernal pools. The blooming period extends from April through June.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is near the alignment.
Lasthenia conjugens	Contra Costa goldfields	E	Cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools. The blooming period extends from March through June.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 1 mile from the study area.
Lilium pardalinum ssp. Pitkinense	Pitkin Marsh lily	E	Cismontane woodland, meadows and seeps, freshwater marshes and swamps. The blooming period extends from June through July.	Potential to occur if suitable habitat exists within the study area.
Limnanthes vinculans	Sebastopol meadowfoam	E	Wetlands, meadows and seeps, valley and foothill grasslands, and vernal pools. The blooming period extends from April through May.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.3 mile from the study area.
Navarretia leucocephala ssp. Plieantha	Many-flowered navarretia	E	Vernal pools. The blooming period extends from May through June.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.9 mile from the study area.

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Legend: **E** = federally listed as endangered; **T** = federally listed as threatened; **PT** = federally proposed threatened; **C** = candidate

Scientific Name	Common Name	Federal Status	Preferred Habitat	Likelihood of Occurring in the Study Area
Potentilla hickmanii	Hickman's potentilla (=cinquefoil)	E	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, freshwater marshes and swamps. The blooming period extends from April through August.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 4.5 miles from the study area.
Trifolium amoenum	Showy Indian clover	E	Coastal bluff scrub, valley and foothill grassland; sometimes serpentinite. The blooming period extends from April through June.	Potential to occur if suitable habitat exists within the study area. Closest known occurrence is located approximately 0.2 mile from the study area.

Source: USFWS species lists for 27 USGS quadrangles and a CNDDB search surrounding the railroad alignment using 5-mile radius.

Appendix C

List of Agencies and Individuals to Receive Copies of the Draft and Final Programmatic Environmental Assessments

Appendix C
List of Agencies and Individuals to Receive Copies of the Draft and Final Programmatic Environmental Assessments

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Willits Library
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Willits, CA 95490

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Healdsburg, CA 95448

Santa Rosa Central Library
Third and E Streets
Santa Rosa, CA 95404

Appendix D

Agency and Public Comments on Draft Programmatic Environmental Assessment and FEMA's Responses

Alessandro Amaglio, Department of Homeland Security, EP&R/FEMA Region IX
Environmental and Historic Compliance Officer 1111 Broadway, Suite 1200, Oakland,
California 94607-4052 Fax: (510) 627 7270, alessandro.amaglio@dhs.gov

To: Alessandro Amaglio, Environmental Officer, Federal Emergency Management Agency (FEMA)
From: Peter Galvin, Environmental Protection Information Center (EPIC)
Re: Comments on Programmatic Environmental Assessment (PEA) for the South End Railroad Project

December 22, 2003

Dear Mr. Amaglio:

We appreciate the opportunity to comment on the Programmatic Environmental Assessment for the South End Railroad Project. Please accept the following comments on behalf of EPIC regarding the project.

1. The project is not eligible for FEMA disaster relief funding for a variety of reasons. The railroad had already been ordered to shut down by Federal Railroad Authority (FRA) at the time of the disaster in question. One of the reasons FRA suspended NCRA's authority to operate was the inadequate maintenance and substandard condition of the railroad.

A December 8, 1998 letter from FEMA Region IX Disaster Field Office to Ms. Nancy Ward, Governor's Office of Emergency Services, states:

> "...literature is replete with evidence (including statements made to the press by NCRA and Rail-Ways, Inc. representatives) that the majority of the NWP line has not been maintained to Class I Standards for many years. A review of several years of FRA inspections confirms that the NCRA has not performed the maintenance required by applicable regulations. In fact, our inspections and evaluation of the damage leads us to conclude that the NCRA's failure to perform required maintenance exacerbated the effects on the NWP line."

1. Section 1.1 addresses the eligibility of the Proposed Action Alternative; FEMA and OES have determined that the Proposed Action Alternative meets eligibility criteria.

2. The line was already not in operation at the time of the disaster and is not eligible for FEMA funding. A thorough analysis the FEMA funding in relation to the issue of the non-operability of the railroad at the time of the disaster must be included in the NEPA document. The negligence of the operated in relation to the disasters presents a bar to FEMA funding.

2. See response to Comment #1.

3.	FEMA has already given funding to NCRA from this disaster. FEMA gave NCRA funds to re-open after the disaster. NCRA was not able to successfully resurrect its operations from that funding and there is no evidence that NCRA will not be able to do so from current additional proposed FEMA funding. The project is ineligible as even with new additional infusion of FEMA funds the project will still not be able to achieve operational status.	3. See endnote 1.
4.	The EA does not contain an adequate range of alternatives. There are only two alternatives offered. The proposed action and the no action alternative. The no action alternative is not given genuine consideration. Additionally, FEMA has not offered any rationale or analysis for why it refused to analyze other perfectly reasonable alternatives.	4. See endnote 2.
5.	The EA makes a fundamental flaw in that it operates on the assumption that unless the Proposed Action is adopted, that the NCRA will not comply with the Consent Decree ordering them to clean up the numerous toxic sites along the railroad. This false assumption creates an impression throughout the EA that only selection of the proposed alternative will result in compliance with the consent decree for the South End of the railroad. The EA should contain an alternative that calls for spending the FEMA funds on ensuring compliance with the Consent Decree.	5. See endnote 3.
6.	The EA fails to adequately address issues associated with the recent California Legislature action in transferring ownership of the portions of the line to SMART. The relationship between the NCRA and the new passenger service mandate on the southerly portion are not explored. How will this project be compatible with that project. How will these actions interact with each and the environment?	6. Sections 1.2.1 and 4 describe the relationship between SMART II and the NWP.
7.	On page 5 of the EA it states "Operation of independent freight service along the corridor may involve additional actions not described in the South End Railroad Project. Such actions would be undertaken separately by NCRA, and are beyond the scope of this document." NEPA, CEQ and FEMA policy require in NEPA documents that reasonably foreseeable actions associated with the project be analyzed. The failure to assess these issues violates NEPA.	7. See endnote 4.
8.	The project violates CEQA. Related to this project is the state Office of Emergency Services (OES) share of the FEMA funding. There is no CEQA document corresponding to the NEPA document FEMA has prepared. The project violates CEQA.	8. See endnote 5.
9.	The project crosses through or drains to numerous highly ecologically important wetlands. There is no discussion of the environmental impacts of the operation and maintenance of the project on the environment. There is also no discussion of the possibility of toxic releases or other pollution from operation and or accidental release from operation of the railroad and the effect of this on the environment, particularly the aquatic environment. There is no discussion of the impacts from the use of pesticides and herbicides associated with the railroad operation. The EA does not contain any level of detail needed to analyze the environmental impacts of the proposed action. There is insufficient specificity in the EA for the public and the decision maker to employ a meaningful analysis.	9. Wetland habitats are discussed in Section 3.5.1.1. See endnote 4.

10. The EA acknowledges there will be cumulative effects from operating the northern part of the rail line yet offers no discussion or analysis of such impacts. The cumulative effects section is also deficient in not analyzing the effects of the construction work and associated work and operation of the railroad. FEMA's attempt to assert that those impacts will not be addressed in any manner in this document is illegal and violates NEPA.

11. An EIS should be conducted on the project as the EA acknowledges that cumulative effects will occur in association with the project but fails to explore address or analyze these impacts.

The Programmatic EA is an attempt at an analytical shell game designed to allow distribution of more federal funds to this project while forestalling or avoiding any genuine environmental analysis of the effects of the project on the environment. The Programmatic EA is flawed and should be withdrawn and the project is not eligible for funding.

Thank you for your consideration of our concerns.

Sincerely,

Peter Galvin

10. See endnotes 6 and 4.

11. An EIS is only warranted if impacts are significant. If cumulative impacts are not considered significant, then FEMA will make this determination in the FONSI. If cumulative impacts are considered significant, then FEMA will issue a Notice of Intent to prepare an EIS.

Endnotes:

1. The Proposed Action Alternative does not include any actions previously funded by FEMA. Section 1.1 addresses the issue of eligibility. The economic viability of the NWP is not an environmental issue under NEPA, and is therefore beyond the purview of this analysis. Concerns over the viability of the railroad should be addressed at the state as well as the federal agencies' level to determine whether the Proposed Action Alternative can be pursued by NCRA. As described in Section 1.3, if a future-identified FEMA-funded activity would result in the Russian River Segment of the NWP becoming operational, then FEMA would evaluate the impacts associated with operations and maintenance in future SEAs, an EA, or an EIS, as appropriate.
2. The No Action Alternative is described in Section 2.1. An explanation of the alternative selection process is provided in the introduction to Section 2.
3. Sections 1.2.3 and 2.1 describe the effect of selection of an alternative other than the Proposed Action Alternative on the ECD. NCRA would continue to be fully responsible for compliance with the ECD. The introduction to Section 2 explains the alternative selection procedure and the elimination of alternatives from consideration.
4. Section 1.3 explains the omission of operation-related impacts and the strategy for analyzing impacts resulting from operations in future environmental studies. Further, the assertion that "reasonably foreseeable actions associated with the project [should] be analyzed" is inconsistent with the suggestion in Comment #3 that "…the project [Proposed Action Alternative] will…not be able to achieve operational status."
5. FEMA is the lead Federal agency for NEPA compliance. CEQA compliance is the responsibility of NCRA and other relevant state agencies.
6. The introduction to Section 4 explains why cumulative effects from the Eel River Segment of the NWP are not anticipated.

California Regional Water Quality Control Board
North Coast Region
William R. Massey, Chairman

Terry Tamminen
Secretary for Environmental Protection

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5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
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Arnold Schwarzenegger
Governor

December 22, 2003

Mr. Alessandro Amaglio
Environmental Officer
Federal Emergency Management Agency
1111 Broadway Suite 1200
Oakland, CA 94607-4052

Dear Mr. Amaglio:

Subject: Comments on the Programmatic Environmental Assessment for the North Coast Railroad South End Alternative Project

File: North Coast Railroad Authority

Thank you for the opportunity to comment on the Programmatic Environmental Assessment (PEA) for the South End Railroad Project (Alternative Project). This letter transmits comments on behalf of the North Coast Regional Water Quality Control Board (Regional Water Board).

The Regional Water Board is a party to an Environmental Consent Decree (Consent Decree) with the North Coast Railroad Authority (NCRA), the agency that will be implementing the South End Alternative Project. The Consent Decree resulted from an environmental enforcement case filed by the Regional Water Board, California Department of Fish and Game, and the California Department of Toxic Substances Control to address various discharges, such as hazardous materials and sediment that threaten natural resources held in trust for the People of the State of California. The Consent Decree requires NCRA to cleanup and abate these discharges along the entire rail line from Lombard to Samoa as well as to prevent future discharges by implementing appropriate operational practices.

The Alternative Project analyzed in the PEA drastically departs from the prior destination for disaster relief monies from FEMA. As described in the PEA, FEMA originally targeted these funds ($9 million) to the North End of the rail line. That section of the rail line, located along the highly erosive and steep sides of the Eel River canyon, suffered extensive damage from slope failures and landslides. At NCRA's request, FEMA changed course, proposing to divert the disaster funds to improvements on the South End comprising the Alternative Project.
1. Considering that the North End was seemingly hardest hit by storm damage, the decision to not spend the monies fixing that part of the rail line merits justification. Moreover, the economic

1. See endnote 1.

viability of the South End rail line alone is not explored. In sum, no meaningful explanation of the reasons justifying the alternative project is contained in the PEA.

Moreover, the PEA contains an insufficiently detailed analysis of the Alternative Project. The National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.) requires that an environmental assessment "include brief discussions of the need for the proposal, of alternatives as required by [42 U.S.C. § 4332(2)(E)], of the environmental impacts of the proposed action and alternatives, and a listing of the agencies and persons consulted." (40 C.F.R. § 1508.9(b).)

As discussed in detail below, the PEA is too abbreviated to fulfill its purpose of informing the public and other agencies of the scope, purpose, and impact of the Alternative Project, nor does it present a proper evaluation of alternatives.

Failure to Evaluate A Reasonable Range of Alternative Projects

As written, the PEA does not contain an adequate discussion of alternatives.

2. As a programmatic environmental document, the PEA evaluates a proposed action from a macroscopic perspective. As such, a key purpose of the PEA is to identify and evaluate broad-brush alternatives to the proposed action. At "the 'programmatic level' [an agency] develops alternative management scenarios responsive to public concerns, analyzes the costs, benefits and consequences of each alternative in an [EIS], and adopts an amendable [management] plan to guide management of multiple use resources . . . ." (*Friends of Yosemite Valley v. Norton* (9th Cir. 2003) 348 F.3d 789, 800.)[1] This exercise is perhaps the most important one in preparing a NEPA document. "The alternatives analysis is central to an environmental analysis. 40 C.F.R. §1502.14. It should 'present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public." (*Border Power Plant Working Group v. Department of Energy* (S.D. Cal. 2003) 260 F.Supp.2d 997; see also *Simmons v. U.S. Army Corps of Engineers* (7th Cir. 1997) 120 F.3d 664, 666 ("No decision is more important than delimiting what the[] 'reasonable alternatives' are.").)

3. By contrast, the PEA only identifies one alternative to the proposed action, the no action alternative. Since the no action alternative must legally be evaluated in every NEPA document (40 C.F.R. § 1508.25(b)), the PEA effectively has not identified even one alternative way to spend the disaster relief funds it has earmarked for the South End of the rail line.

4. This lack of alternatives probably results, at least in part, from an improperly formed purpose and need for the proposed action. Careful development of an appropriate purpose and need is crucial to proper identification of a reasonable range of alternatives. "To make that decision, the first

[1] Although this case concerns an Environmental Impact Statement, the requirements of EAs mirror those of EISs. (*See, e.g., North Cascades Conservation Council v. U.S. Forest Service* (W.D. Wash. 1999) 98 F.Supp.2d 1193, 1197.)

2. The introduction to Section 2 explains the alternative selection procedure and the elimination of alternatives from consideration.

3. See response to Comment #2.

4. The purpose of and need for the project, and consequently the range of alternatives, are limited to an evaluation of the subgrantee's request for an Alternate Project. As outlined in the introduction to Section 2, FEMA does not have the ability to execute a broader range of alternatives than those that address subgrantee's request.

thing an agency must define is the project's purpose. [Citation.] The broader the purpose, the wider the range of alternatives; and vice versa. (*Simmons, supra,* 120 F.3d at p. 666.) The range of alternatives is derived directly from the purpose and need. Accordingly, in framing that section "an agency cannot define its objectives in unreasonably narrow terms." (*City of Carmel-by-the-Sea v. U.S. Dept. of Transp.* (9th Cir. 1997) 123 F.3d 1142, 1155.) The PEA states: "The purpose of the Proposed Action Alternative is to rehabilitate the railroad infrastructure so that the South End of the NWP may eventually be restored as an independently operated freight railroad." (PEA, p. 6.) This formulation so precisely defined, there is virtually no latitude to identify a range of alternative proposals. For the PEA to properly contain a range of reasonable alternatives, the purpose and need must be broadened.

5. An appropriate purpose and need would, for example, allow FEMA to discuss a North End alternative. The repair of that severely damaged section of the line was the original purpose of the FEMA funds, making it an eminently logical alternative.

5. See response to Comment #4 above.

6. The PEA must also present a full discussion of the impacts of abandoning the repair of the North End. Without work on this part of the rail line, it will remain inaccessible for any purpose, including cleanup as required by the Consent Decree and will remain a significant threat to the surrounding environment. By not committing disaster funds to the North End, landslides, rock and dirt debris, and other items such as rail ties, culverts, that are located in the railroad right-of-way will continue to discharge, or threaten to discharge, to waters of the State.

6. See endnote 2.

Failure to Adequately Describe Proposed Project

7. As written, the proposed Alternative Project is insufficiently described. The description of the proposed action provides a "to do list" rather than a comprehensive sense of the activities involved and their location.

7. See endnote 3.

8. The purpose and need does not discuss the viability of the South End rail line. While the proposed Alternate Project description states that the Alternate project is "based upon the premise of an independently operated rail line" on the South End, it fails to explain the need for this independently operated railroad line as required by NEPA. The PEA also does not discuss the legal eligibility of the Alternate Project for funding based on, among other things, a demonstration of economic viability. (See 44 CFR Parts 13 and 206.) The PEA discloses that NCRA has already performed storm damage repair work on the South End of the line. Despite those earlier repairs and an attempt to run an independent operating freight railroad, the line was discontinued after a mere eight months "due to lack of funds for operation and completion of further rehabilitation work." (PEA, at p. 4.) Given that the proposed Alternate Project would divert funds originally intended to repair storm damage to the North End section of the railroad to the South End, as well as the earlier unsuccessful attempt to create an independent freight line on the South End, the very project being proposed now, the PEA must explain why the Alternate Project is necessary and why it should be chosen over other uses of the FEMA funds, including its original purpose.

8. See endnote 4. Section 1.1 addresses the Proposed Action Alternative's eligibility. See endnote 1.

9. The scope of the proposed Alternative Project also is improperly truncated. The action mentions only rehabilitation efforts, but does not acknowledge that the direct result will be an operating freight railway with its associated environmental impacts. How FEMA concluded it could omit any analysis of the freight railroad operations is unclear. It is well established that the expenditure of federal funds can "turn 'what would otherwise be' a state or local project into a 'major federal action.'" (*Ka Makani 'O Kohala Ohana, Inc. v. Water Supply* (9th Cir. 2002) 295 F.3d 955, 960; *Sierra Club v. U.S. Fish and Wildlife Service* (D.Or. 2002) 235 F.Supp.2d 1109, 1120 (state-initiated wildlife predation study federalized by proportion of funding).) The PEA states that the ultimate goal of disaster relief on the South End is an operating freight railway. FEMA will supply almost $8 million[2] for that purpose if it selects the Alternate Project. However, the PEA discusses only restoration activities on the South End, and does not disclose impacts of the operating railway that the Alternate Project will foster. The PEA must acknowledge and discuss these additional impacts.

9. Section 1.3 explains the omission of operation-related impacts and the strategy for analyzing impacts resulting from operations in future environmental studies.

Failure to Discuss Cumulative Impacts

10. The Cumulative Impact section of the PEA is less than a page long and admits that it fails to address the cumulative impacts of the proposed project.

The analysis of cumulative impacts is a mandatory component of an EA.

> "The regulations implementing NEPA require federal agencies to consider cumulative actions in the same EA. *See* 40 C.F.R. § 1508 .25(a)(2). Cumulative actions are those 'which when viewed with other proposed actions have cumulatively significant impacts.' *Id.; see Alpine Lakes Protection Soc'y,* 838 F.Supp. at 483. In determining whether a project will have a 'significant' impact on the environment, an agency must consider '[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts.' 40 C.F.R. § 1508.27(b)(7); *see Blue Mountains Biodiversity Project* [*v. Blackwood* (9th Cir. 1998) 161 F.3d 1208, 1214]. '*Cumulative impact* is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions....' 40 C.F.R. § 1508.7."

(*North Cascades Conservation Council v. U.S. Forest Service* (W.D. Wash 1999) 98 F.Supp.2d 1193, 1197; see also *Kern v. U.S. Bureau of Land Management* (9th Cir. 2002) 284 F.3d 1062, 1075-1076; *Davis v. Mineta* (10th Cir. 2002) 302 F.3d 1104 (highway project).)

10. The introduction to Section 4 addresses cumulative impacts resulting from projects in the vicinity, including SMART II.

2 The Regional Water Board understands that of the $9 million for the original North End rehabilitation, only $7.8 million would be available for the Alternative Project.

11. As written, the PEA does not provide a meaningful discussion of cumulative impacts. For example, it states, "[r]esumption of freight service along the railroad would have additional cumulative environmental effects not addressed in this document." It also states, "[d]etailed cumulative impacts are not addressed in the South End Railroad PEA because analysis of these impacts requires specific knowledge of actions occurring or proposed by SMART to occur within or near the study area." While these statements attempt to explain why the PEA omits any analysis of cumulative impacts, they are futile. The SMART project, which is certain enough to be foreseeable, exemplifies the type of project that must be considered. The analysis of the resulting cumulative impacts of this project and others must be fully evaluated in the PEA.[3]

11. See response to Comment #10.

Inadequate Significant Impact Analysis

12. A central purpose of the PEA is to inform the agencies and public of the environmental impacts of the proposed project. NEPA is designed to "ensure[] that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience. (*Blue Mountains Biodiversity Project, supra,* 161 F.3d at pp. 1211-1212 (internal quotation omitted, alterations in original).) The PEA does not clearly explain whether impacts from the Alternative Project impacts will be significant. For example, in the section dealing with "Geology, Geohazards, and Soils," the PEA states that the proposed action alternative may result in disturbance of soils and that NCRA would implement Best Management Practices to prevent soils from eroding and dispersing off site. This statement does not give the reader a sense of whether the impact from the disturbance of soil would be significant. The PEA must provide a clear explanation of the significance of impacts and the underlying rationale.

12. The PEA qualifies impacts and mandates mitigation measures on a programmatic basis. The determination of significance will be made when FEMA executes a FONSI or a Notice of Intent to prepare an EIS.

13. Moreover, the impact discussion is extremely narrow, only focusing on the temporary impact of construction and not the more permanent and foreseeable impact of having an operating train on the South End. NEPA requires that "indirect effects, which are caused by the action and are later in time or rather removed in distance, but are still reasonably foreseeable be analyzed." (40 C.F.R. § 1508.8(b).) In this case, as noted above, an operating train is arguably the direct effect as it is the purpose of the proposed action, yet its effect is not discussed at all. Moreover, the evaluation of indirect effects of an operating railroad, such as growth inducement, is missing from the PEA. NEPA requires that the PEA be revised to include that analysis. (*City of Davis v. Coleman* (9th Cir. 1975) 521 F.2d 661, 676-677.)

13. Section 1.3 explains the omission of operation-related impacts (such as growth inducement) and the strategy for analyzing impacts resulting from operations in future environmental studies.

[3] The cumulative impact section inexplicably implies that there is some connection between compliance with the Consent Decree and the failure to fund disaster-related repairs of the North End of the railroad. From previous discussions with FEMA, the state agencies involved with the Consent Decree were informed that these FEMA funds were not available for compliance with the Consent Decree. NCRA is responsible for compliance with the Consent Decree regardless of whether the railroad is operational or not and therefore it is unclear why a connection is being made.

In conclusion, the PEA needs to be revised in accordance with the comments above. Any questions regarding this matter can be addressed to our legal counsel Mr. Erik Spiess at (916) 341-5167 or Regional Water Board staff Ms. Jan Goebel at (707) 576-2676.

Sincerely,

Luis G. Rivera, Chief
Cleanups and Special Investigations

EKS:js/nepa comments

cc: Railroad IP List

California Environmental Protection Agency

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Endnotes:

1. The responsibility of requesting reallocation of disaster funds rests with NCRA. FEMA does not have the authority to reallocate disaster-related funds. The economic viability of the NWP is not an environmental issue under NEPA, and is therefore beyond the purview of this analysis. Concerns over the viability of the railroad should be addressed at the state as well as the federal agencies' level to determine whether the Proposed Action Alternative can be pursued by NCRA. As described in Section 1.3, if a future-identified FEMA-funded activity would result in the Russian River Segment of the NWP becoming operational, then FEMA would evaluate the impacts associated with operations and maintenance in future SEAs, an EA, or an EIS, as appropriate. The introduction to Section 2 explains the alternative selection procedure and the elimination of alternatives from consideration.
2. Neither alternative analyzed in the PEA anticipates the abandoning of the Eel River Segment of the NWP. Sections 1.2.2, 1.2.3, 2.1, and 2.2 describe how each of the alternatives would relate to the reopening of the Eel River Segment of the NWP and NCRA's compliance with the ECD.
3. FEMA has prepared a programmatic-level analysis because NCRA does not have specific details of the individual actions to be carried out under the Proposed Action Alternative. One of the initial actions is hiring a contractor to develop plans for individual actions. Because the various individual actions would have different effects, both on their own and cumulatively, these effects may be the subject of subsequent SEAs, depending on their nature, as discussed in Section 1.3.
4. The economic viability of the NWP is not an environmental issue under NEPA, and is therefore beyond the purview of this analysis. Concerns over the viability of the railroad should be addressed at the state as well as the federal agencies' level to determine whether the Proposed Action Alternative can be pursued by NCRA. As described in Section 1.3, if a future-identified FEMA-funded activity would result in the Russian River Segment of the NWP becoming operational, then FEMA would evaluate the impacts associated with operations and maintenance in future SEAs, an EA, or an EIS, as appropriate.

Department of Toxic Substances Control

Terry Tamminen
Agency Secretary
Cal/EPA

Edwin F. Lowry, Director
1001 "I" Street, 25th Floor
P.O. Box 806
Sacramento, California 95812-0806

Arnold Schwarzenegger
Governor

January 7, 2004

Mr. Alessandro Amaglio
Environmental Officer
Federal Emergency Management Agency
1111 Broadway, Suite 1200
Oakland, California 94607-4052

Dear Mr. Amaglio:

Thank you for the opportunity to comment on the Programmatic Environmental Assessment for the South End Railroad Project (Alternate Project). The Department of Toxic Substances Control (DTSC) is a party to the Environmental Consent Decree as described in the comments by the North Coast Regional Water Quality Control Board (NCRWQCB).

1. DTSC has reviewed the comments submitted by NCRWQCB and concurs with them.

If you have any questions, please feel free to contact me at (916) 323-9864 or by email at jgrace@dtsc.ca.gov.

Sincerely,

James J. Grace
Staff Counsel
Office of Legal Counsel

cc: Patricia Barni, Unit Chief
Statewide Compliance Division
Department of Toxic Substances Control
700 Heinz Avenue, Suite 210
Berkeley, California 94710-2737

Ms. Rose B. Fua
Deputy Attorney General
Office of the Attorney General
1515 Clay Street, Suite 2000
Post Office Box 70550
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1. See responses to North Coast Regional Water Quality Control Board comments.

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Office of Spill Prevention and Response
1700 K Street, Suite 250
Sacramento, CA 95814
Telephone: (916) 445-9338

December 22, 2003

Via United State Mail and
Facsimile (510) 627-7270

Mr. Alessandro Amaglio
Environmental Officer
Federal Emergency Management Agency
1111 Broadway Suite 1200
Oakland, California 94607-4052

Dear Mr. Amaglio:

Comments on the Programmatic Environmental Assessment for the North Coast Railroad South End Alternative Project

Thank you for the opportunity to comment on the Programmatic Environmental Assessment for the South End Railroad Project (Alternative Project). The Department of Fish and Game (DFG) is a party to the Environmental Consent Decree as described in the comments by the North Coast Regional Water Quality Control Board (NCRWQCB).

1. DFG has reviewed the comments submitted by the NCRWQCB and concur with them. If you have any questions, please feel free to contact me at (916) 324-9812.

Sincerely,

Stephen L. Sawyer
Staff Counsel III
Office of Spill Prevention and Response

cc: Ms. Patty Barni, Department of Toxic Substances Control
Ms. Rose Fua, Department of Justice
Mr. Jim Grace, Department of Toxic Substances Control
Mr. Luis G. Rivera, NCRWQCB
Mr. Christopher J. Neary, Attorney at Law
Mr. Erik Spiess, State Water Resources Control Board
Mr. Mitch Stogner, North Coast Railroad Authority

Conserving California's Wildlife Since 1870

1. See responses to North Coast Regional Water Quality Control Board comments.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-6528

Tel (707) 575-6057 Fax (707) 578-3435

In Response Refer To:
151422SWR03SR9009: DB

December 23, 2003

Alessandro Amaglio
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

Dear Mr. Amaglio:

Thank you for the opportunity to comment on the public review draft of the North Coast Railroad South End Alternative Project Programmatic Environmental Assessment (PEA). Your undated transmittal letter and the PEA were received on December 4, 2003.

The PEA tiers from the Final Programmatic Environmental Assessment (PEA) For Typical Recurring Actions Resulting from Flood Disasters in California as Proposed by the Federal Emergency Management Agency (Flood PEA), dated April 16, 1998. The Flood PEA acknowledges that National Marine Fisheries Service (NOAA Fisheries) "in accordance with section 7...has or will provide a [programmatic biological opinion] on the effects...on listed and proposed species." A programmatic section 7 consultation was completed informally October 14, 2003, and covers many of the activities planned in the North Coast Railroad project. However, some activities were identified that would not be covered, and would require separate consultation, either with the U.S. Army Corps of Engineers or Federal Emergency Management Agency (FEMA).

1. The PEA is preliminary in nature and lacks site specific project information that NOAA Fisheries would use to analyze the effects of repair activities. Activities such as returning drainage ditches to pre-disaster conditions, and replacing culverts, may adversely affect listed salmonids and require a separate biological opinion and Incidental Take Statement issued by NOAA Fisheries. These, and other activities are identified in the Programmatic Biological Assessment - Typical Recurring Actions in California, August 28, 2003, submitted during the section 7 consultation as "likely to adversely affect" (Section 4.3.4, page 4-4). The Biological Assessment places activities in one of three categories: no impact, not likely to adversely affect, and likely to adversely affect. Activities that are likely to adversely affect listed salmonids will require additional section 7 consultation to develop a biological opinion and Incidental Take Statement. Future supplemental

1. Section 3.5.3.1 describes activities that are covered by the Programmatic Consultation completed in October 2003 and how FEMA would address its ESA-7 responsibilities for activities not covered.

documents that are more site specific and detailed than the PEA should clearly identify which category FEMA places each project activity. NOAA Fisheries is prepared to assist FEMA in making the determination as to which specific project activities are included in the informal programmatic section 7 consultation, and which will require additional consultation.

2. The PEA contains an error regarding designated critical habitat. Contrary to the statement on page 21, designated critical habitat for Southern Oregon/Northern California coho salmon, and Central California Coast coho salmon is in place. Critical habitat designations for Chinook salmon and steelhead were withdrawn, but we expect new critical habitat designations will replace them in the near future.

2. Section 3.5.1.3 describes designated critical habitat of anadromous species.

3. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established requirements for Essential Fish Habitat (EFH), and require Federal agencies to consult with NOAA Fisheries on activities that may adversely affect EFH. Essential Fish Habitat for Pacific Coast salmon has been described in Appendix A, Amendment 14 to the Pacific Coast Salmon Fishery Management Plan. The Russian River and its tributaries contain EFH for coho salmon and Chinook salmon which are managed under the Federal fishery management plan. Some activities described in the PEA may affect EFH, and NOAA Fisheries may provide EFH conservation recommendations as project details are disclosed. Activities designated as Category 1, and Category 2 in the Programmatic Biological Assessment will have minimal adverse affect on EFH of Chinook and coho salmon in the Russian River. Future consultations for actions that "may adversely affect" listed species must also address impacts to EFH.

3. Section 3.5.3.1 describes activities that would not require EFH consultation and how FEMA would address its EFH responsibilities for other activities.

If you have questions or comments about this letter, please contact Mr. Dick Butler at (707) 575- 6058, or Mr. Jeffrey Jahn at (707) 575-6097.

Sincerely,

for Patrick J. Rutten
Santa Rosa Area Office Supervisor
Protected Resources Division

cc: Tim Price, NOAA Fisheries, Long Beach

SONOMA-MARIN SMART AREA RAIL TRANSIT

December 22, 2003

Alessandro Amaglio, Environmental Office
FEMA, Region IX
1111 Broadway, Suite 1200
Oakland, California 94607-4052

Mr. Amaglio:

1. Thank you for the opportunity to comment on the North Coast Railway Authority's Environmental Assessment for the South End Alternative Project. SMART is very supportive of the proposed project. SMART staff supports the NCRA's track way improvements in the southern end of the Northwestern Pacific corridor and looks forward to working with NCRA on the proposed upgrades.

We note, however, a few technical corrections to the text to accurately describe the current institutional environment in which the repairs will be made. On January 1, 2003 AB2224 established the SMART Rail District and although the intent of the legislation is to consolidate the multiple ownerships of the NWP to SMART, those efforts are currently underway and have not yet been finalized.

2. Toward this end, we suggest that on Page 4 of the EA, last paragraph, it would be correct to strike the word 'consolidated' and add 'is intended to consolidate'. Further, within the same paragraph, it would be correct to insert 'AB2224 also anticipates the transfer of ownership' as opposed to 'also transfers NWPRA assets to the new district.' Lastly, in the following sentence, it would be correct to insert 'will be owned by the SMART II Rail District' as opposed to 'are also owned by the SMART II Rail District'.

We appreciate the opportunity to comment on the Programmatic Environmental Assessment. Please don't hesitate to contact me directly with any questions you might have. I can be reached at 415.492.2855.

Sincerely,

Lillian Hames, Project Director

SMART Staff

Lillian Hames
Project Director
4040 Civic Center Drive
Suite 200
San Rafael, CA 94903
415-492-2855
Fax-492-2854
Email:LHames@sonomamarintrain.org

Cc: Tim Smith, Annette Rose, Sally McGough, Mitch Stogner

1. Comment noted.

2. Section 1.2.1 describes SMART II's legal status and ownership.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5900
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January 7, 2004

SON-General
SON000132
SCH# 2003114003

Mr. Alessandro Amaglio
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

Dear Mr. Amaglio:

North Coast Railroad Authority (NCRA) South End Railroad Project – Programmatic Environmental Assessment (PEA)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the proposed project. We have reviewed the PEA and have the following comments to offer:

1. 1. The report does not indicate whether the freight-rail line has any at-grade crossings with State highways, which are under the Department's jurisdiction. The report should evaluate traffic safety impacts of the freight-rail line on State highways at any at-grade crossings.

1. See endnote 1.

2. 2. It is indicated on page 3 that previous freight service on the NCRA line was dedicated mainly to the transport of "natural resource products." Assuming the appropriate information is available, we suggest that this assessment briefly elaborate on the freight content that is anticipated for the proposed freight-rail service.

2. See endnote 1.

3. 3. We appreciate the inclusion in the report of the map (Figure 1) detailing the alignment specifics of the freight-rail project. It is not clear, however, whether the NCRA freight-rail service will connect with existing freight-rail lines to the south and east. Assuming that these connections are established, we suggest that the report briefly describe them and that these links be reflected on report maps.

3. See endnote 2.

4. 4. The statement on Page 4, Section 1.2.1 that "Assembly Bill 2224 (AB 2224) also transfers Northwestern Pacific Railroad Authority (NWPRA) assets to the new district" should be changed to "AB 2224 allows the transfer of NWPRA assets to the new district." Tracks and facilities over which NCRA plans to operate freight service through the South End Railroad Project have not yet been transferred at the time of this review; however, their transfer should be effected by early 2004.

4. Section 1.2.1 describes SMART II's legal status and ownership.

5. 5. Statements made on Pages 29 and 30, Section 3.8 about NCRA's right-of-way (ROW) ownership are inaccurate for portions of the project south of Healdsburg. NCRA owns the ROW north of Healdsburg; but the NWPRA owns the railroad ROW south of Healdsburg and will transfer this property to ownership of the Sonoma-Marin Area Rail Transit District.

5. Sections 1.2.1 and 3.8.1 describe ownership of the NWP right-of-way.

6. 6. Please be advised that any work or traffic control within the State right-of-way (ROW) will require an encroachment permit from the Department. To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans (in metric units) which clearly indicates State ROW to the following address:

6. NCRA will obtain required encroachment permits for any work or traffic control within the state right-of-way, as described in Section 3.10.3.

Mr. Sean Nozzari, District Office Chief
Office of Permits
California Department of Transportation, District 04
P. O. Box 23660
Oakland, Ca 94623-0660

Should you require further information or have any questions regarding this letter, please call Maija Cottle of my staff at (510) 286-5737.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

"Caltrans improves mobility across California"

Endnotes:

1. Section 1.3 explains the omission of operation-related impacts and the strategy for analyzing impacts resulting from operations in future environmental studies.
2. Section 2.2 describes the relationship between the Proposed Action Alternative and connections to existing rail lines. Work would be limited to existing rail lines.

Golden West Meteorology

914 Marietta Ct. Cordelia (Fairfield), California 94585
Phone (707) 864-6799 Fax (707) 864-8125
E-Mail weather@community.net

November 30th, 2003

Alessandro Amaglio
Environmental Officer
Federal Emergency Management Agency
Region IX, 1111 Broadway, St. 1200
Oakland, Calif. 94607-4052

Re: PEA for NCRA South end project.

Dear Sir:

My name is Mike Pechner, and I am a private Meteorologist in Solano County. I am the Staff Meteorologist for KCBS Radio and a Sierra Club member for over 30 years. I have a degree in Environmental Studies from San Francisco State University.

I am listed as an interested party in the above matter and I am writing you with review and comments. The report is very

1. thorough and does an excellent job of identifying the flora, fuana and habitat of any endangered species and repercussions due to the reopening of the N.W.P. Railroad. It should be noted that the railroad right of way is 125 years old and any impact by the r.o.w. was probably mitigated a long time ago by its very existence, and it would be hard to believe that any NEW negative impacts would result from its reopening. Any species around at the inception of the railroad would have adapted to its presence many years ago.

1. Comment noted.

There has been much talk from environmentalists, of which

2. I consider myself to be one, about the negative impact of the wetlands crossed by the railroad. Section 3.3, Hydrology and Water Quality adequately covers the importance of the r.o.w.

2. Comment noted.

It should be pointed out that a properly maintained r.o.w.

3. provides a extremely beneficial service to western portions of Marin, Sonoma and Mendocino Counties. The raised roadbed acts like a dike protecting the heavily urbanized portions of the

3. See endnote 1.

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INSURANCE CLAIMS AND LAWSUITS

Golden West Meteorology

914 Marietta Ct. Cordelia (Fairfield), California 94585
Phone (707) 864-6799 Fax (707) 864-8125
E-Mail weather@community.net

counties from flooding from creeks that drain into the Bay and from tidal overflow from the combination high tides and heavy winter rains.

4. The abandonment of the railroad would have an negative or adverse impact on those communities by contributing to winter time flooding or high winter. As you might be aware, the abandonment of the North end of the railroad in the Eel River Canyon would result in a similar environmental disaster. If the culverts and bridges are either removed or fall into disrepair than run-off from winter storms would cause sediment and debris to flow into the Eel River Canyon in violation of the California Regional Water Quality Board rules and its status as Federally protected Wild and Scenic River.

4. Section 1.2.2 of the Final PEA explains that the Eel River Segment of the NWP would not be abandoned under any alternative.

5. Under AIR QUALITY 3.2 there is a major omission by the contractor hired to do this report. An operating railroad on the South end would significantly improve air quality in Mendocino, Sonoma and Marin Counties by reducing the number of less efficient and polluting trucks on nearby U.S. 101 at the same time increasing capacity.

All of the sand, gravel, lumber and agricultural shipments now moving in and out of these Counties on trucks which take

6. up needed capacity on 101. On operating railroad would see many of these shipments return to the railroad because of the cheaper transportation costs. The efficiency of the steel wheel on steel rail can not be overlooked in terms of reducing air pollution and highway traffic congestion.

5. Section 1.3 of the Final PEA explains the omission of operation-related impacts and the strategy for analyzing impacts resulting from operations in future environmental studies.

6. See response to Comment #5.

I am mindful of that fact the Northwestern Pacific Railroad is under much greater scrunity because it is owned by a public agency and is subject to far more Federal regulation than privately

7. owned lines, however, it should be noted that railroads are viewed by the public at large as environmental friendly and delivers goods at a lower costs with greater efficiency.

7. Comment noted.

I hope these comments are helpful and feel free to contact me if you have any questions.

Sincerely, Meteorologist Mike Pechner Meteorologist Mc Pe

NEWSPAPER, TV AND RADIO FORECASTS & CONSULTING SERVICE
SPECIALIZING IN LONG RANGE FORECASTS, PAST WEATHER DATA, WEATHER RELATE
INSURANCE CLAIMS AND LAWSUITS

Endnote:

1. Under the National Flood Insurance Program, FEMA only recognizes levies that meet specific freeboard and structural requirements as providing protection from the base flood. Although FEMA recognizes that the railroad bed may provide nominal flood protection, without additional structural data FEMA does not consider the railroad bed as providing protection from the base flood to urbanized areas.

George E. White
Maj. USAR Ret.
3 Vulcan Stairway
San Francisco, CA 94114-1424

3 December 2003

Environmental Officer, FEMA, Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

ATTENTION: Alessandro Amaglio

Dear Sir:

1. Having completed the (PEA) review for the South End Railroad Project, I can see both advantages and shortcomings of the project study. Action alternatives outweigh the Non action alternatives in protecting the environment, natural habitates and public health concerns. Derelict facilities could be rehabilitated and community hazards removed. On this basis alone the (PEA) should receive a positive decision.

1. Comment noted.

2. However, noting only the southern 143 miles, of the railroad, is being considered by the (PEA). The question arises------Is this sound judgement, on the part of the NCR Authority to invest substantial sums of public monies and materials in 143 miles of a transportation system when 174 miles languishes in the wilderness? From an economic standpoint, unless there are present day sources, of regional industry and business, that will generate large numbers of daily carloadings, the southern portion, 143 miles, will not survive. Some historical edification pertaining to past operations of the whole system. Twenty years ago, with 317 miles of mainline, the system handled about 400 + cars per week with a train north and south three times a week. Even this volume, the balance sheet was far from promising. Over the past years the trucking organizations have made their inroads on industry and business along U.S 101 from Eureka to the Bay Region. This fact alone is a significant obstical to overcome.

2. See endnote 1.

3. From a pragmatic standpoint the whole 317 miles of railroad should be rehabilitated to its former Class-1 status, but with regional economics, todays financial climate and shortage of public monies, this seems very remote. Thank you for your time.

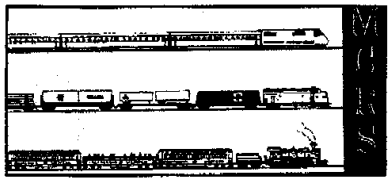
3. Comment noted.

Sincerely
George E. White

George E. White, Former S.F Representive
CAL TRAIN Citizens Advisory Committee

Endnote:

1. The economic viability of the NWP is not an environmental issue under NEPA, and is therefore beyond the purview of this analysis. Concerns over the viability of the railroad should be addressed at the state as well as the federal agencies' level to determine whether the Proposed Action Alternative can be pursued by NCRA. As described in Section 1.3, if a future-identified FEMA-funded activity would result in the Russian River Segment of the NWP becoming operational, then FEMA would evaluate the impacts associated with operations and maintenance in future SEAs, an EA, or an EIS, as appropriate.



Mendocino County Railway Society
P.O. Box 1179
Willits, California 95490
707-459-9220 707-459-6362

PROMOTERS OF ECONOMICALLY AND ENVIRONMENTALLY SOUND TRANSPORTATION

December 8, 2003

Allesandro Amaglio, Environmental Officer
Federal Emergency Management Agency
Region IX
1111Broadway Suite 1200
Oakland, California 94506-4052

Dear Mr. Amaglio:

We have reviewed the Programmatic Environmental Assessment (PEA) for the South End Railroad Project of the Northwestern Pacific Railroad. There is, of course, no question that we are supporting the Proposed Action Alternative.

1. Your agency has done a thorough job addressing the various environmental concerns connected with the planned project and we want to thank you for the effort you employed.

Even so, we were surprised that a repair job on an existing railroad that still operated just a few years ago requires such a detailed document before the physical work can begin. But we are very pleased that the process has finally reached the point where the North Coast Railroad Authority (NCRA) soon will receive the federal funds it anxiously has been waiting for.

2. Although the impacts studied in the document are specifically concerned with the active work during the rehabilitation, one cannot ignore how the completed project will positively impact the transportation for the region (3.10.3, page 31), making the points raised under 3.10.3. a minor inconvenience. The Northwestern Pacific Railroad is extremely important for the region, and we appreciate that your document addresses this point under 3.7.2, stating, "If no action is taken to restore the function of the freight railroad, the region would suffer an adverse economic impact." We absolutely agree with this opinion; each railcar that is carrying goods on the NWP trains will relieve the already heavily congested 101-corridor. Your PEA should smoothen the way for the NCRA to embark soon on the physical rehabilitation work of this urgently needed railroad.

Sincerely,

Richard Jergenson

Richard Jergenson, Chair

Richard Jergenson, Chairman – William Ray, Vice-Chairman – Johanna Burkhardt, Secretary/Treasurer
Jim Baskin, Director – Hans Burkhardt, Director – Bernard Kamaroff, Director – Jason Sadler, Director

TOTAL P.0

1. Comment noted.

2. Section 1.3 of the Final PEA explains the omission of operation-related impacts and the strategy for analyzing impacts resulting from operations in future environmental studies.

NORTH WESTERN PACIFIC SUPPORT COALITION

A Coalition of Civic Organizations supporting return of rail service to Humboldt County

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To ERS | From Kaye Strickland

Co./Dept. | Co. NWPSC/RR Co.

Phone # | Phone # 443-6[illegible]

Fax # 1-510-874-3268 | Fax # 444-93[illegible]

Dec. 8 2003

Federal Emergency Management A
Ragion IX
1111 Broadway, Suite 1200
Oakland, California 94607

Mr. Allesandro Amaglio
Environmental Manager

Re: DRAFT Programmatic Environmental Assessment
FEMA-1203-DR-CA

1. Thank you for this opportunity to review and comment on this DRAFT Programmatic Environmental Assessment (PEA) for the South End Alternative Project for the North Coast Railroad (NCRA).. We wholeheartedly support this alternative project, the Proposed Action Alternative (2.2) and urge your agency's final approval at the earliest possible date..

   1. Comment noted.

Our railroad has been out of service for too long, and balanced dependable transportation is sadly lacking. We are long aware of most of the issues you have covered, and correction of them has been our focus since the Coalition formed in early 2000. Most of these issues covered would pertain just as readily to the local highways, 101, 299, etal., as to the railroad. We are well

2. aware that the repair and refurbishing of this rail line must be done to meet the much more stringent environmenral requirements today, than were required in the past. We support these requirements.

   2. Comment noted.

3. We supported the letter by former Exec. Director, Doug Christy on June 3, 2003, included as Appendix A. This referred to NCRA Res. 2003-01 unanimously supporting this alternative, and specifies what NCRA promises to do...which we all knew they were/are willing to do...regarding environmental compliance...which they have no choice but to do anyway. The 'No Action Alternative' is not an option.

   3. Comment noted.

4. Resumption of both freight and passenger service to the south end must happen, and we (the Coalition) will continue our efforts to see our north section re-opened. This whole region needs balanced transportation; roads, rail, air and water. Our Port of Humboldt Bay needs the railroad as the Railroad needs the Port, for both to be fully able to improve our economic stability. And efforts are currently underway for cooperation between our Port and the Port of Oakland. This fully operating railroad is essential for this effort to be fully successful - and as previously stated..the 'No Action Alternative' is not an option..

   4. As described in Section 1.3, operation-related impacts are outside the scope of the Final PEA.

Sincerely,

Kaye Strickland

Kaye Strickland, Chair
NWPSC

cc: Coalition Members

Street - Bayside,Ca 95524 - voice 707-442-6166 - fax 707-825-8226 - E-mailnwpsc@arcatanet

HUMBOLDT BAY
HARBOR, RECREATION, AND CONSERVATION
DISTRICT
(707) 443-0801
P.O. Box 1030
Eureka, California 95502-1030

December 22, 2003

Allesandro Amaglio
Federal Emergency Management Agency
Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607

RE: Draft PEA FEMA –1203-DR-CA

Dear Mr. Amaglio,

I have reviewed the Draft Programmatic Environmental Assessment (PEA) for the project entitled the "North Coast Railroad South End Alternative Project" (SEA) dated November 2003 and have the following comments.

1. The Humboldt Bay Harbor, Recreation and Conservation District, as regional port authority, has been supportive of the restoration of rail service along the Northwestern Pacific Rail corridor for many years. Rail service is seen as a necessary mode of transportation in order for coastal Northern California to improve its economic development potential. Therefore, the Proposed Action Alternative described in the PEA, namely to repair the railroad between Lombard in Napa County to Willits in Mendocino County, is consistent with the Humboldt Bay Harbor, Recreation and Conservation District's strategic and legislative priorities.

Thank you for the opportunity to comment on this document. If you need any additional information with regard to the Humboldt Bay Harbor, Recreation and Conservation District's support of rail service, please do not hesitate to contact me.

Sincerely,

David Hull
Chief Executive Officer

C: Commissioners
NCRA

1. Comment noted.

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

IN REPLY REFER TO:
1-1-04-SP-605

January 12, 2004

Mr. Alessandro Amaglio
Environmental Officer
Federal Emergency Management Project
Region IX
1111 Broadway, Suite 1200
Oakland, California 94607

Subject: Species List for Programmatic Environmental Assessment for the South End Railroad Project, Lake, Mendocino, Marin, Napa and Sonoma Counties, California

Dear Mr. Amaglio:

1. We are sending the enclosed list (Enclosure A) in response to your December 30, 2003, notice. The list covers the following U.S. Geological Survey 7½ minute quad or quads: Sears Point, Petaluma River, Petaluma, Santa Rosa, Cotati, Glen Ellen, Sebastopol, Two Rock, Mark West Springs, Geyserville, Healdsburg, Asti, Hopland, Yorkville, Cloverdale, Ukiah, Elledge Peak, Purdys Gardens, Orrs Springs, Redwood Valley, Willits, Burbeck, and Laughlin Range Quads.

Please read *Important Information About Your Species List* (enclosed). It explains how we made the list and describes your responsibilities under the Endangered Species Act. Please contact Dan Buford at (916) 414-6625, if you have any questions about the attached list or your responsibilities under the Endangered Species Act. For the fastest response to species list requests, address them to the attention of Species Lists at this address. You may fax requests to 414-6712 or 414-6713. You may also email them to harry_mossman@fws.gov.

Sincerely,

for

Catrina Martin
Chief, Endangered Species Division

2. Enclosures

1. FEMA notes the receipt of the species list. As individual actions are developed, FEMA will undertake consultations with the U.S. Fish and Wildlife Service, as necessary, and as described in Section 3.5.3.

2. Enclosure omitted from the PEA.

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
333 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105-2197

JAN 09 2004

Regulatory Branch

SUBJECT: File Number 28448N

Mr. Alessandro Amaglio
Federal Emergency Management Agency
Region IX
1111 Broadway Suite 1200
Oakland, California 94607-4052

Dear Mr. Alessandro:

Thank you for your submittal of a draft Programmatic Environmental Assessment concerning the North Coast Railroad Authority's (NCRA) proposed South End Railroad Project. It is our understanding that the preliminary plan requests improvements to the southern portion of the Northwest Pacific Railroad from Willits in Mendocino County to Lombard in Napa County, California.

1. All proposed work and/or structures extending bayward or seaward of the line on shore reached by: (1) mean high water (MHW) in tidal waters, or (2) ordinary high water in non-tidal waters designated as navigable waters of the United States, must be authorized by the Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Additionally, all work and structures proposed in unfilled portions of the interior of diked areas below former MHW must be authorized under Section 10 of the same statute.

2. All proposed discharges of dredged or fill material into waters of the United States must be authorized by the Corps of Engineers pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands.

Based upon your preliminary plans, your proposed work appears to be within our jurisdiction and a permit will be required. Application for Corps authorization should be made to this office using the application form in the enclosed pamphlet. To avoid delays it is essential that you enter the file number at the top of this letter into Item No. 1. The application must include plans showing the location, extent and character of the proposed activity, prepared in accordance with the requirements contained in this pamphlet. You should note, in planning your work, that upon receipt of a properly completed application and plans, it may be necessary to advertise the proposed work by issuing a public notice for a period of 30 days.

1. See endnote 1.

2. As individual actions are developed, NCRA will undertake Section 404 permitting with the U.S. Army Corps of Engineers, as necessary and as described in Section 3.3.3.

-2-

If an individual permit is required, it will be necessary for you to demonstrate to the Corps that your proposed fill is necessary because there are no practicable alternatives, as outlined in the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines. A copy is enclosed to aid you in preparation of this alternative analysis.

However, our nationwide or regional permits have already authorized certain activities provided specified conditions are met. Your completed application will enable us to determine whether your activity is already authorized. You are advised to refrain from commencement of your proposed activity until a determination has been made that it is covered by an existing permit. Commencement of work before you received our notification may be interpreted as a violation of our regulations.

If you have any questions, please call David Wickens of our Regulatory Branch at telephone 415-977-8463. All correspondence should reference the file number at the head of this letter.

Sincerely,

Jane M. Hicks

Jane M. Hicks
Chief, North Section

3. Enclosure

Copy Furnished

Douglas Christy, North Coast Railroad Authority

3. Enclosure omitted from the PEA.

Endnote:

1. As individual actions are developed, NCRA will undertake Section 10 permitting with the U.S. Army Corps of Engineers, as necessary and as describe ed in Section 3.3.3.