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January 11, 2010

Mr. Mitch Stogner
North Coast Railroad Authority
419 Talmage Road, Ste. M
Ukiah, CA 95482

Dear Mr. Stogner:

Re: Comments on the Draft Environmental Impact Report for the proposed NCRA Russian River Division Freight Rail Project

I write on behalf of the membership of Californians for Alternatives to Toxics (CATs) regarding the documents named above-- which I shall refer to as March'09 DEIR and November '09 DEIR. Many members of CATs reside, work, attend school, practice cultural activities and undertake other activities in the counties affected by the presence of the Northwestern Pacific Railroad (NPR) and impacted by the decisions made by the North Coast Railroad Authority (NCRA).

As was the March '09 DEIR, the November '09 DEIR is insufficient and fails to fulfill the requirements of the California Environmental Quality Act (CEQA). NCRA makes unsupported assumptions; puts off until the future the development of plans and practices which must be assessed now, within the current CEQA process; is too vague when it does present plans; misrepresents or ignores critical scientific evidence; lists regulations and best management practices (BMPs) instead of analyzing potential impacts; and avoids the painful but necessary analysis of the environmental impacts of disturbing hundreds of miles of contaminated soil and treated wood and potentially adding more toxic chemicals to the already badly impacted rail corridor.

Railroad Viability and Authority

Moreover, the DEIR does not adequately disclose who actually will undertake this project. This is another way in which it fails to provide an adequate project description. At times the DEIR refers to the NCRA's intention to "resume" rail service; at other times it refers to NCRA and the "operator." This revised DEIR intentionally removes reference to the NWP as the operator, even though NCRA is joined at the hip with NWP through any number of contracts and agreements, which bind NCRA to NWP as the operator, and use as collateral for the loans NCRA property and lease rights. In the event of default, the viability of any railroad operations and facilities is at great risk. The DEIR does not disclose this very

8-1

reciprocal relationship, which is relevant to the viability of the project. The lease agreement (NCRA. NWP 2006) provides "after obtaining the necessary authority or exemption from the STB, NWP shall be the sole and exclusive provider of rail freight service to, from and across the premises."

8-1

If the project is not viable, it should not proceed. Because of the precarious financial status of the NCRA, the DEIR must disclose NCRA's capacity to fund this project, in order to determine whether the representations as to what will be done and how, particularly in terms of mitigation and timing, are reliable.

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This language effectively gives NWP a freight monopoly over what is referred to as "the premises," which covers the rail from Lombard to Willits at least, and if NWP exercises an option, then through the Eel River Canyon. To summarize: Approval of this project would enable the abuse of market power by NWP. Piecemealing the project has the effect of obscuring this potential abuse of market power.

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We question whether NCRA is the appropriate lead agency for this project. Based on representations made in the DEIR that the project is intended to relieve traffic congestion, etc, it appears that the California Department of Transportation is the more appropriate lead agency. Additionally, because the NCRA does not have a funding source, and must seek funds from the Transportation Commission for work completed, it would seem that a project of this scope should be undertaken by the transportation agencies as lead. The California Department of Transportation has oversight of the NCRA, and given the multi-county project, it does not appear that the NCRA, as a local agency, is the appropriate agency to undertake the lead role for this environmental review. Moreover, at a minimum this project is subject to joint state and federal review, and the federal transportation agencies should be in a leadership role with this environmental review effort. This DEIR fails to include the required NEPA analysis.

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DEIR Fails to Identify Significant Effects

"The purpose of an [EIR] is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." (§ 21002.1, subd. (a).) CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment." (§§ 21068, 21000, subd. (d).) The term "environment" refers to "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna" (§ 21060.5.)

The DEIR, however, fails to identify the significant effects because it only names potential problem as general subjects. For example, for all but the four sites deemed significant, the Novato Consent Decree work and operations, no site specific information is provided. For example, although the DEIR states that there are 121 bridges located between Willits and Lombard, neither bridge locations or site conditions are provided nor is their size, type of wood treatment used for the structural components nor current condition of treated wood present at the sites (weathered, broken) described. Identification of location is critical

8-6

because individual waterways have differing features that must be described so that analysis can occur that will identify significant effects: Some waterways are rivers, others creeks or ephemeral streams.

These features can impact the analysis that's needed to identify significant effects because, for example, at times work can be done when there is no water present or, for others, water is present year around, possibly presenting significant effects for certain situations that are not present for others. Some of the waterways are salmon-bearing streams, or are within the habitat of the California tiger salamander or another listed threatened or endangered species. Hospitals or schools may be located nearby. How can sufficient analysis take place to identify the level of effect if these factors are unknown?

For these reasons and more, the sites where bridges will require any rehabilitation or maintenance during which soil or sediment may be disturbed, new materials introduced, and other actions undertaken, must be described under CEQA, yet the DEIR fails to do so. A description of structural materials is necessary because the wood used in these bridges is treated with toxic chemicals that have emitted into the watercourses below for decades and have likely contaminated to varying degrees, depending on site-specific characteristics and the type of chemical used, the soil and sediment at the site (see the Legacy Chemicals section of these comments). During rehabilitation and operational maintenance, if treated wood replaces structural components and ties on wood bridges, more chemicals will be added to soil, sediment and the waterway.

The addition of new toxic chemicals to these environments must be analyzed for significance and as a cumulative effect. But this level of analysis cannot be undertaken because the underlying information that is provided about the project location, type and nature of chemicals in the treated wood already at the site, current contamination levels, type and nature of structural replacement materials and other pertinent information is not provided in the DEIR.

Rehabilitation and maintenance activities on the 121 bridges in this part of the railroad, (and there are many more across the entire project, i.e. the entire line) are used as an example of how the DEIR cannot identify significant effects because it is too vague and general and does not provide the level of information needed for much of the proposed project.

The courts have determined that discussion of impacts is acceptable if it provides sufficient information and analysis to allow the public to discern the basis for the agency's impact findings. (*Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397.) Thus the EIR should set forth specific data, as needed to meaningfully assess whether the proposed activities would result in significant impacts. (See *Berkeley Keep Jets Over the Bay Com. v. Board of Port Cmrs.*, *supra*, 91 Cal.App.4th at pp. 1381-1382.) NCRA's impact analysis falls far short of these standards.

Specific data are missing on almost every part of the proposed project. Even when specific sites are described, such as the swing bridges, information is far from sufficient about the

8-6

affected environment and the various impacts that may result from the proposed project. Therefore mitigations are also insufficient. Lacking sufficient data, the DEIR's discussion of effects is not acceptable.

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An Environmental Impact Report is not intended to be encyclopedic but it must be supported with sufficient information so that mitigations can be prepared and from which appropriate alternatives can be developed. Because so much of the necessary supporting documentation is not provided in the DEIR, virtually every proposed action is potentially significant. Not enough information is provided to make a determination of what is significant and what is not.

The CEQA process devised by NCRA has created a level of confusion demonstrated in the misguided attempt to deny analysis of rehabilitation activities by dropping its analysis in NOVEMBER '09 DEIR almost completely. NCRA cannot erase the earlier draft of the DEIR. With it, NCRA established that rehabilitation must be analyzed.

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“Piecemealing” the CEQA Process

NCRA is impermissibly segmenting, or piecemealing, in two separate ways: 1) by only analyzing a limited geographic scope of the whole project; and 2) by analyzing only operations and not all rehabilitation.

Evidently the entire railroad, not just the Russian River Division or any section of the Russian River Division, such as the “southern portion,” is one project. Instead, the railroad corridor is ONE PROJECT and should be covered in one environmental analysis, not piecemealed as it is again with NOVEMBER '09 DEIR.

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The DEIR fails to include an adequate description of the entire project and its potential impacts. In this way, it not only fails to provide the necessary environmental analysis, but it segments elements of the overall project, in violation of CEQA. Others have raised the failure to include the scope and impacts of the project for the Eel River Division, and we will not restate those valid issues. We focus on the failure to now include the rehabilitation actions to be taken in the RRD. These actions were included in the former DEIR issued in March 2009, yet are absent from revised DEIR, with no valid explanation. These actions have not gone away; they still exist. Moreover, these actions do have impacts, as identified in the DEIR and other materials, which must be evaluated. NCRA may not simply delete reference to these activities in an effort to avoid analysis, or circumvent CEQA. (See Stanislaus Audubon Society Inc. v. County of Stanislaus (1995) 33 Cal.App.4th 144, 152-154 [the agency may not ignore the evidence in its record, and an attempt to replace evidence will not remove the evidence of potential impact].)

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CEQA does not allow a project to be divided into parts for purposes of analysis. NCRA incorrectly divides the rail line into geographic segments for purposes of CEQA analysis despite many examples over the years of describing the entire railroad corridor as one entity. NCRA's Strategic Plan calls for the eventual reopening of the entire line (*NCRA 2006 STRATEGIC PLAN and PROGRESS REPORT, prepared for the California Transportation Commission*). In a letter from the California Transportation commission (CTC) summarizing

8-8

comments made to the NCRA the CTC states that the "NCRA should acknowledge that from an environmental standpoint, we are working on a single project, with potentially multiple phases within this single project" and that a full EIS/EIR is needed for the entire line(CTC, 2001).

From an article in the Eureka Times-Standard in 2006, the commission also approved \$3.9 million to begin an environmental review of the Eel River Canyon north of Willits. NCRA Chairman Allan Hemphill said he believes the funding is a state endorsement of the authority's mission to restore the entire line. He said more funds will need to come through Proposition 1B to further that work. "Our job is not done until trains are running the entire 316 miles from the connection to the national rail system east of Novato all the way north to Humboldt Bay," Hemphill said."

Resumption of rail service from Lombard to Willits has the very real potential to reduce the capital and operational costs of resuming rail service from Willits to Arcata. For example, due to a relatively fixed number of administrative and management positions (HBHRCD 2003), or possible bulk discounts on car leases, the cost of shipping per unit freight from Willits to Arcata may be less than if the proposed project section were not already in service.

Perhaps more importantly, the potential revenues associated with rail service from Willits to Arcata could prove decisive in the financial sustainability of the railroad as a whole. As the HBHRCD study states, "[t]he railroad has to operate the entire 300 miles in order to have a positive cash flow" (HBHRCD 2003). Reasons for these increased profits include the presence of commodities near the northern end of the line, which are in relatively short supply near the southern end of the line. The HBHRCD study exemplifies: "[I]t is clear that the addition of new commodities such as aggregates or new activity from the Port of Humboldt Bay, (which represent 45% of the high demand), could have a profound impact on the feasibility of the railroad" (HBHRCD 2003). This claim is further substantiated by Figure S-3 of HBHRCD (2003), which shows the annual cash flow for the Northwestern Pacific Railroad using a 2.85% annual increase in tariff and inflation and a "Most Likely Scenario" with different aggregate car volumes. From the graph, with 10,000 cars hauling aggregate, the projected cash flow in 2020 is approximately \$1M; with 20,000 cars hauling aggregate, the projected cash flow in 2020 is approximately \$2.5M; with 30,000 cars hauling aggregate, the projected cash flow in 2020 is approximately \$9.5M.

From these numbers it is clear that railroad operations represent an economy of scale, such that increasing the freight capacity of the railroad would increase the profit per unit of freight transported. Thus, NCRA would have a financial incentive not only to extend the line to Arcata, but also to increase its shipping capacity. Despite this, however, NCRA claims that operations at full capacity will consist of nothing more than one 60-car and one 25-car round trip per day from Lombard to Willits. But this is contrary to good business sense. It would seem, rather, that NCRA is attempting to piecemeal a project—railroad operations from Lombard to Arcata—into two separate projects. This is not allowed under CEQA.

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Growth Inducing Impacts

Under CEQA, a DEIR must discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. (p.460 cf. Pub. Resource Code, §21100, subd. (b)(5); CEQA Guidelines, §§15126, subd. (d), 15126.2, subd. (d)).

According to section 3.5 of the current DEIR, "[r]esuming freight rail service would not have a significant impact on population growth or the construction of additional housing. Because the railroad is existing and will not involve the construction of new facilities such as passenger stations, the proposed project will not encourage development of new housing along the railroad." However, according to section 3.2.12 of the Initial Study, NCRA indicates that the proposed project could potentially "induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)." Thus, the two documents appear to contradict one another. NCRA should clarify this apparent contradiction.

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The entire Air Quality impact analysis assumes that resumption of rail service will displace long-haul freight trucks from the highways. Implicit in this assumption is the notion that rail service will be able to beat out the cost of trucking, such that distributors of commodities are compelled to choose rail over truck transport. A 2003 study for the Humboldt Bay Harbor, Recreation and Conservation District (HBHRCD) states as much: "Additionally it will be critical for the railroad to be price competitive with the trucking industry" (HBHRCD 2003). If the railroad is to be price-competitive with the trucking industry, shipping prices for rail customers will need to be less than those for truck customers. In particular, the market prices of commodities expected to be shipped by rail will have to be lower than today's trucking prices, *ceteris paribus*. According to the HBHRCD study, these commodities include forest products, feed mills, aggregate and solid waste. These lower prices could eventually find their way to the consumer, who would pay less for the same product after the introduction of rail service. One of the most influential "pull factors" in defining human migration is a lower cost of living. It seems likely, then, that reintroduction of the railroad would result in *migratory* population growth within the region of the railroad. Population growth has many associated environmental impacts, none of which are addressed in the DEIR. NCRA should discuss the impacts of, and associated mitigation measures for population and resource extraction increases as a result of the resumption of rail service.

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For instance, as noted above, the prospect of transporting aggregate greatly improves the financial feasibility of the railroad. Moreover, in a letter dated August 14, 2006, John Alan Jelichich of the Trinity County Planning Department proposed that NCRA become the CEQA Lead Agency for the Island Mountain Mine Project (Trinity County Planning Dept. 2006). It is clear, therefore, that increased mining of gravel represents a growth-induced impact that NCRA is obliged to address in a detailed environmental impact analysis.

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SMART plus NCRA

Detailed discussion was included in the cumulative section of the MARCH '09 DEIR regarding the operating agreement between NCRA and SMART. Many of these details are still being discussed; therefore, they have been removed from the cumulative section. The combined operations of the passenger and freight trains will be in compliance with FRA safety regulations (Initial Study).

The NCRA has been attempting to piecemeal the project into discrete segments, and it appears to be trying to “piggyback” onto SMART. In the revised DEIR, NCRA removed the section discussing the cumulative impact of operating with SMART. Although that original section was inadequate, it is now gone rather than revised and improved. Now it’s said “many of these details are still being discussed (section 1.2.4)” so that cumulative impacts of sharing the tracks with SMART are not included in the revised EIR. That alone renders the DEIR inadequate. An analysis must include the potential cumulative impacts of sharing the track with SMART.

Not discussing the cumulative impacts with SMART distorts the analysis of the project through all the potentially significant impacts. For example, air quality cannot be adequately addressed without the total load of SMART emissions considered in the analysis. SMART’s contributions of various other environmental impacts in combination with those of the NCRA must be brought together in a meaningful cumulative impact, but SMART is separated out as if it barely exists. (CATs comment letter to SMART SEIR, 2008)

Also of potential high significance is the condition of the Petaluma River Bridge and repairs that are needed there. (Caltrans. Yuralshami. 2001) By “piggybacking” on SMART, NCRA assumes that it can avoid analysis of whole sections of the project when, in fact, it appears from the SMART EIR and SEIR (both incorporated here by reference) that NCRA will have to bring the rail line up to freight standards before SMART invests in what is needed to bring it to passenger standards. Obviously there is a responsibility to disclose the activities that are needed to do this job so that significant impacts can be identified and mitigations developed.

In the segment from Lombard to Windsor (“Russian River Division Phase 1”), where SMART owns the rail line and NCRA holds a freight easement, the NCRA may be trying to conduct track repairs and construction under the SMART EIR process, which only covers that segment of the rail line and apparently only covers construction for passenger and not freight travel. In all the confusion the Petaluma Bridge and other potentially significant impacts are ignored although the NCRA is as likely to run this route as any other and the Petaluma Bridge is in

NCRA must complete an EIR that properly considers the “whole project.” NCRA violated CEQA by filing disputed Notices of Exemption of this segment of the line before project approval and by entering into contracts and allowing work to commence before performing the required CEQA analysis.

NCRA has attempted to avoid environmental review by claiming that an EIR was not necessary for the construction work on the tracks, but rather only for the planned

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operation of the trains. This violates the requirement that they consider the “whole project.” “The ‘whole’ project - whether broken up geographically, by phases of construction and operation, or otherwise - must be considered in one CEQA analysis.”

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A further question has been raised by the recent discovery that the SMART draft EIR contained a provision that NCRA would provide \$30 million for track repairs from Cloverdale to Larkspur. This is further evidence that the NCRA is trying to hide behind SMART in order to avoid doing required CEQA analyses. NCRA should include those repairs in its own analysis rather than hide behind the more limited scope of the SMART analysis that does not include freight service.

While SMART board members have been wrangling over which rail vehicles to purchase, the funds to run SMART have been drying up due to the current severe economic downturn. (Press Democrat. May 23, 2009) Just what effect can be anticipated from the loss of SMART money from the picture has not been analyzed? We are concerned that without income or expense-sharing from SMART, the NRCA will not be able to properly maintain the track or other infrastructure of the line, yet the potential for such impacts is never mentioned. It’s assumed somewhere that the NCRA will be able to afford the maintenance of the line so that sensitive areas will not be impacted again, as they are now, by lack of maintenance. Please explain how NCRA will be able to keep the rail right-of-way from falling apart and harming the environment after it completes the work it plans in the DEIR.

8-14

Project Description

Aside from piecemealing the project, CATs finds section 2.0, the overarching description of the proposed plan, to be deficient in exactly what it proposed to do—describe the project. There are very few specifics in the project description and thus corrupts the analysis of the entire document. For example, page 2-15 reads “ it is planned that NCRA’s operator will use some of the existing areas located within their potential rail customers’ facilities for the parking of engines and rail cars, switching and the light running maintenance and fueling of diesel engines and support equipment”. These activities present potential environmental impacts especially those associated with hazardous materials yet specifically where, when and what is likely to occur is missing.

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NCRA should assess the condition of the railroad prior to proposing a DEIR. That said, readers of the DEIR must assume that NCRA has conducted a thorough assessment of the integrity of all five tunnels along the line. This assumption becomes particularly important in light of the fact that the tunnels were constructed in 1899 and reinforced over time in an *ad hoc* fashion. NCRA provides no literature to support this assumption. Nor does NCRA address the possible impacts of routine maintenance to these tunnels, or the risk associated with continued use, or the mitigation measures adopted to alleviate the latter. NCRA needs provide evidence of the current condition of the tunnels, address impacts associated with routine maintenance and continued use, and provide mitigation measures to lessen these impacts.

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In doing research on trains and rail corridors, CATs came across a significant term: “Derailment”. Nowhere in the DEIR is the potential for, or the past experience of derailments described. CATs asserts that this is yet another gap in description.

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From section 2.1: “The proposed project does not propose the transport of hazardous waste, dangerous, highly flammable or explosive material.” However, simply because NCRA does not *plan* to transport hazardous waste does not imply that NCRA will not *in fact* transport hazardous waste. Municipal solid waste (MSW) landfills in California are required to have loadchecking programs, whereby co-disposed hazardous waste can be separated from municipal solid waste and rerouted to an appropriate disposal facility. However, loadchecking programs are implemented on site—that is, at the landfill or transfer station, rather than at the source. Thus, NCRA could be loading, unloading and shipping hazardous waste 142 miles, over 121 water crossings, from Willits to Lombard before the actual contents of the waste have been identified.

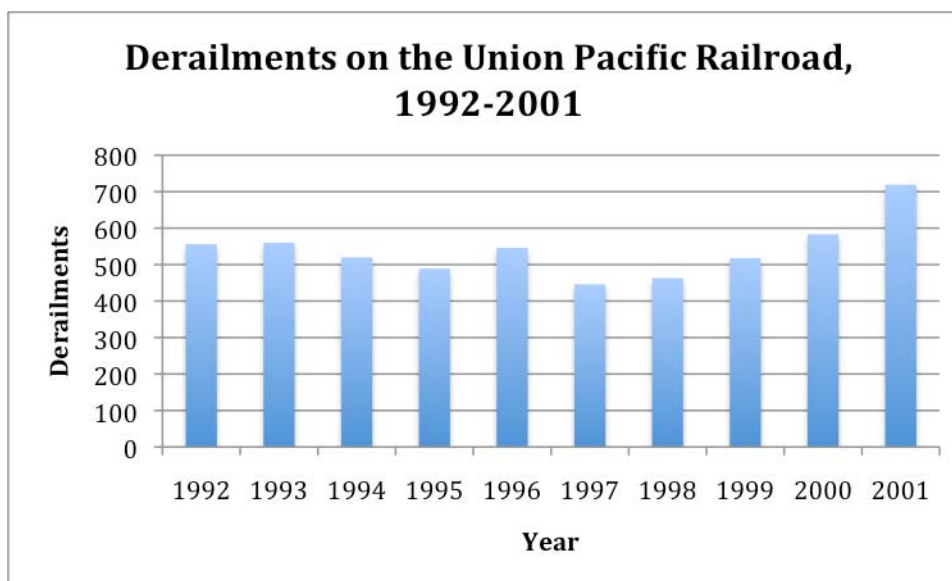
There is limited information regarding the fraction of waste destined for MSW landfills that is classified as hazardous waste, even though that fraction is considered anecdotally to be quite high. However, in a study of the composition of leachate in MSW landfills, Slack et al. (2005) were able to link the presence of xenobiotic substances with household hazardous waste (HHW) streams. Furthermore, citing a survey of 128 California households, the California Integrated Waste Management Board (CIWMB 2002) found that, although consumers appear to be aware of what constitutes HHW (72%) and of the existence of HHW facilities (56%), less than a third of all respondents had ever taken their waste to an HHW facility.

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HHW contains corrosive, toxic, ignitable, or reactive ingredients, which if released into the environment, could have significant impacts on air and water resources, biological resources, and public health and safety. Despite the gravity of potentially transporting HHW, NCRA provides no risk assessment in the DEIR of transporting such waste. NCRA should analyze the severity of potential HHW spill events and the probability of occurrence of each event. As part of this risk assessment, NCRA should indicate the design life of the railroad, and the associated return period of events with potentially significant impacts.

For example, NCRA should provide a risk assessment of derailments from Lombard to Willits, keeping in mind the possibility that the trains are carrying hazardous waste in addition to municipal solid waste. Figure 1 shows the annual derailments on the Union Pacific Railroad—including those contributed by the Northwestern Pacific Railroad (NWP)—between 1992 and 2001. It is evident from Figure 1 that in 2001—the year in which operations of the NWP line ceased—derailments had been steadily increasing over the previous five years. CATs was easily able to obtain this information and it should be included in the DEIR. Derailments along the NWP line are a very real possibility. Coupled with the fact that containers may be hauling hazardous and municipal waste, derailments represent a significant environmental impact.

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Figure 1. Derailments on the Union Pacific Railroad (UPRR) between 1992 and 2001 (FRA 2010). The data include derailments on the Northwestern Pacific Railroad (NWP), which are not separable from UPRR data using the FRA query available at <http://safetydata.fra.dot.gov/officeofsafety>. Data retrieved January 12, 2010.

Furthermore, the NCRA is fully capable with the information we have found on their website and in public records, for the agency to do a detailed description of the proposed plan along with site specific rehabilitation, toxicity characterization, potential impacts to specific biological resources and species, etc (please see <http://www.northcoastrailroad.org/consent.html> along with NCRA. HNTB 2005 and NCRA.Kleindelder, Inc 2002).

Air Quality

As discussed in Section 3.1, Air Quality, the proposed project would result in a net air quality benefit and a decrease in GHG. As this is currently written this analysis misinforms and cannot be relied upon for establishing a lack of significant effect.

The Air Quality section (3.1) does not mention the need for drayage service thus failing to analyze a critical component of the project. Drayage by short-haul trucks is required to transfer freight from source pickups to rail terminals and from rail terminals to final destinations (Marlok and Spasovic 1994). Long-haul trucking does not require drayage via short-haul trucks because freight is delivered directly to the destination. Thus, drayage increases the distance a container must travel in order to reach its final destination. In addition, rail service requires an intermediate loading/unloading of freight. For instance, a

8-19

long-haul truck would need to be loaded at the source and then unloaded at the destination. Rail freight, however, would need to be loaded onto the train at the source, unloaded at the destination station, loaded onto a short-haul truck, and drayed to the final destination where it is unloaded. The added loading and unloading of rail service requires cargo-handling equipment with associated emissions (Lindhjem 2008). Thus, even if an equivalent number of trucks were *required* to be taken out of service (displacement), the emissions associated with the introduction of the railroad would come from the train itself, the drayage trucks and the extra loading and unloading of freight. However, it is not apparent that drayage and loading/unloading were incorporated into the emissions simulation. The emissions results, therefore, are underestimates and therefore the DEIR does not adequately address potential significant impacts and sequential mitigations.

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But the above begs the question: Does the introduction of rail service represent the displacement of an equivalent number of trucks from the roads? The entire air quality analysis is predicated on the assumption that rail service will in fact displace an equivalent number of trucks, and allows NCRA to conclude that "the project will result in a net decrease in emissions due to displacing existing truck traffic hauling freight on roadways with a more efficient means of hauling freight by rail using state-of-the-art locomotives." However, this conclusion rests on an important assumption that is not addressed:

It is assumed that the demand for goods at any destination is currently met by the long-haul trucking industry, and that rail service would represent a more economical alternative to trucking, such that the supply of goods would simply be shared by the two modes of transportation. However, it is possible that the demand for goods currently exceeds the capacity of the trucking industry to supply them, such that the introduction of rail service would represent an increase in total supply, rather than an alternative mode of transporting a fixed supply. A 2005 study prepared for the American Trucking Association states that the number of jobs available in the trucking industry exceeds the number of employed truck drivers (ATA 2005).

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Using a model comparing employment and output indices, the same study projects that the national demand for truck drivers will increase by 320,000 by 2014, not accounting for turnover, while the supply of truck drivers over the same period is expected to increase by 209,000. This shortage of 111,000 truck drivers suggests an inability in the trucking industry to satisfy market demands for its services. Thus, rail service might represent an added emissions cost rather than a net benefit, since its introduction would increase the currently insufficient capacity to ship freight by the shipping industry, rather than displace a portion of that capacity from the highways.

Therefore, it is not accurate to associate the introduction of rail service with a reduction in overall emissions; because it is not evident *a priori* that rail service reduces the overall emissions from the trucking industry.

For the reasons enumerated above, locomotive emissions should not be subtracted from equivalent long-haul trucking emissions when determining whether air quality thresholds are met. For instance, Table 3.1-7 indicates that resumption of rail service at project

capacity will reduce the overall percent of threshold of NO_x emissions by over 1633%, assuming BAAQMD standards apply. However, because NCRA cannot claim to displace trucks from the roads as a result of resuming rail service, the percent of threshold NO_x emissions resulting from rail service alone would be 168% of the BAAQMD threshold (134.281 lb/day ÷ 80 lb/day). Furthermore, this analysis does not include the added emissions associated with either drayage service or loading/unloading operations (see Comments on Executive Summary). Were the analysis to include these added emissions—which it needs to—impacts would likely be even less optimistic. As stated in Section 3.1.3, "The significance thresholds are regulatory based values for which a project's unmitigated emissions are considered significant if exceeded." Therefore, NO_x emissions must be considered a significant impact, with other pollutants potentially contributing significant impacts pending a more thorough air quality analysis.

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In the Executive Summary, NCRA claims that "[a]pproximately 800 to 880 truck trips per day would be removed from the Highway 101 corridor. This represents a 20% to 25% reduction of truck traffic and is a beneficial impact on the transportation in the project area for congestion relief and pavement wear." However, as discussed above, resumption of rail service does not imply the displacement of trucks from the highway. Additionally, Caltrans has begun construction on its Route 101 Widening and High-Occupancy Vehicles (HOV) Projects, which aim to increase capacity and decrease commute times for drivers on US Highway 101. The projected completion date of the project is January, 2011—likely well before NCRA would be able to resume operations. Finally, as indicated by Figure 3.10-6 of the DEIR, traffic delays at grade crossings could last over two minutes. Therefore, resuming rail operations would actually contribute to congestion rather than relieve it. NCRA, then, cannot claim that resumption of rail service will be a benefit to existing traffic conditions; rather, resuming rail service would represent a negative externality.

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Regarding air quality, section 3.7.3.2 states: "As discussed in Section 3.1, "Air Quality," the proposed project will either result in a decrease or will not exceed any air criteria pollutant significance thresholds." However, as discussed in the above air quality comments, the proposed project would result in a significant impact by contributing NO_x emissions that exceed prescribed thresholds. Thus, the DEIR is inconsistent with the general plans of both Marin and Napa Counties. This potential significant effects need to be evaluated in the DEIR to enable decision makers to make informed decisions.

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Geology, Soils and Seismicity

Within section 3.4, CATs has found several examples that illuminate a critical failure of the DEIR- the mitigation measures are not adequate under CEQA. NCRA makes no effort to discuss proposed mitigation measures in relation to the impacts they presumably mitigate. However, as stated in CEQA Guidelines §15126.4 (a)(1)(B): "Where several measures are available to mitigate an impact, each need to be discussed and the basis for selecting a particular measure should be identified." Thus, NCRA must discuss each mitigation measure in some detail and indicate how and to what extent each will address its associated impact.

For instance, Impact GEO-OP1 states: "If the rail embankment has not been graded properly or the drainage system (ditches and culverts) has not been properly engineered or maintained, water can pond and run off the slope, causing severe erosion." The associated mitigation measures proposed by NCRA would involve the inspection and maintenance of drainage ditches, culverts, embankments and the entire rail line both regularly and after severe storm events. However, it is not evident what these maintenance activities would include. In the case of ballast erosion and deposition into adjacent water bodies, for instance, would NCRA propose simply rebuilding the embankment, or cleaning up ballast from the water body as well? As defined by CEQA Guidelines §15370 (c), *mitigation* includes "[r]ectifying the impact by repairing, rehabilitating, or restoring the impacted environment." NCRA must adequately describe how and to what extent *maintenance* will rectify the impacts of severe erosion. Similarly for Impacts GEO-BC1, GEO-FC1, GEO-LS1, GEO-OP3, NCRA must adequately describe how and to what extent the associated mitigation measures will rectify the impacts of improperly placed fill.

8-22

Regarding soils and seismicity, section 3.7.3.2 states: "As described in Section 3.4, "Geology, Soils, and Seismicity," the prescribed mitigation measures involve design measures to withstand the effects of seismic-related hazards and reducing geology and soils impacts to less than-significant levels. Accordingly, the proposed project is consistent with applicable local land use policies." However, it is not evident that railroad infrastructure, such as bridges and embankments are designed to withstand the effects of seismic-related hazards. For instance, as noted in section 3.4.3.3, impacts due to erosion, flow impedance, landslides and slope movement would be mitigated by regular inspections and maintenance. However, the mitigation measure makes no mention of design criteria that would allow the infrastructure to withstand seismic-related impacts, such that maintenance would not be necessary. NCRA does not describe, for example, the seismic stability of the Black Point Bridge and any retrofits required to make the project consistent with Marin County General Plan EQ-2.63. These serious omissions in the description of the project make it impossible to identify significant impacts.

8-23

Hazardous Materials

CATs has several concerns about the proposed project's analysis of hazardous materials both present from historical operations and from proposed operations. The largest concern is the lack of specific description of exactly what hazardous materials have been found within the rail corridor and what are proposed for use in the future. Without specifics the decision makers and the public are left in the dark.

8-24

The small analysis that is present (Treated Wood Waste) for example is described in the terms of regulations and potential disposal. This is not adequate within CEQA. Potential environmental impacts resulting from using specific hazardous materials (including worst case scenario) and the disturbance of hazardous material already present needs to be addressed. Regulations and BMPs do not replace defined mitigation specific to the project's significant impacts.

Legacy Chemicals

Residual contamination including herbicides, petroleum products and byproducts, metals, and creosote, is often present as a result of the former railroad operations and associated industrial activities. Many historical problems affecting NCRA's railroad corridor since it was in operation came about long before environmental laws and regulations were passed. Based on what is commonly found in rail yards and corridors (see Eureka site detail found in "Documentation of Completion Waste and Debris Cleanup"), historical soil, surface water and groundwater contamination are present from treated wood, pesticide application, coal and petroleum-based products, heavy metals and other industrial contaminants. Much of NCRA's rail corridor is located in industrial settings, as seen by the existing soil and groundwater conditions typically present at the site as well as adjacent properties. (CA Dept. of Justice, et al 2009) As a result of the industry's long history and the practices common before regulation, the railroad corridor and yards are at high risk for environmental exposures.

Activities associated with the railroad track, yards, water stations and maintenance facilities throughout the corridor created many opportunities for the release of hazardous wastes and the misuse of toxic chemicals. What's more, leakage caused by poor maintenance and outright spills of oils, hazardous materials, creosotes, paints and solvents have contaminated many areas of the rail line.

The DEIR almost completely ignores this legacy of toxic contamination although it is likely to affect every rehabilitation and maintenance activity it undertakes. Each time soil is disturbed, treated wood removed and/or replaced, ballast is moved, culverts cleaned and any of the other activities involved with rehabilitation and maintenance, toxic chemicals already present and affecting the environment are made more available to cause significant and cumulative impacts.

The main contaminants of concern include:

- Residues of herbicides and other pesticides including dioxin contamination from 2,4,5-T used for vegetation control.
- Creosote (US DHHS 2002), pentachlorophenol (PCP) (US DHHS 2001) with associated dioxin contamination and copper chromate arsenic (CCA) (Hutton 2000) in waste of weathered debris and direct chemical leeching from railroad ties or bridge timbers. Improper disposal of spent treated ties and timbers.
- Improper handling and disposal of spent solvents, sludges, spent acids and caustics from the maintenance of equipment and buildings.
- Polychlorinated Biphenyls (US HHS. ATSDR, 2000) are likely to have contaminated soils and associated storm water runoff from electrical transformers, coolants and lubricants used within the rail corridor.
- Contamination by petroleum, including gasoline and diesel PAHs (US DHHS 1995) and

8-24

solvents as a result of leaks from engines and other equipment (Verick declaration), above- and below-ground storage tanks, railcar and locomotive machine and repair shops, and improper disposal.

- Improperly directed storm water runoff and inadequate wastewater treatment systems for wash water, spent acid and caustic solutions from railcar cleaning operations.
- Contamination with heavy metals as a result of railcar maintenance, improper disposal of used engine oil (CAL/EPA 2004) and batteries, paints and primers containing heavy metals, braking and other train operations. Heavy metals and other contaminants in coal and the disposal of coal ashes (). Soils contamination associated with burn piles and other incineration of toxic materials (TJ's declaration).
- Improper management and disposal of coolants (US HHS. ATSDR, 2000) and engine descaling chemicals.
- Hazardous materials contamination due to leaking valves, leaking container doors, improper loading or unloading from a railcar transporting the materials as freight.

Legacy environmental contaminants include: engine cleaners, detergents and degreasers; cutting oils, hydraulic fluids and lubricants; paint thinners, mineral spirits and epoxies; solvents of various kinds; non-recyclable lead acid and nickel-cadmium and nickel-iron batteries; welding emissions; pitch, tar and derivatives.

8-24

Treated Wood

The description of the sampling and analysis study on treated wood waste, i.e. old railroad ties, conducted by Department of Toxic Substances Control in September 2008 is badly misrepresented in the DEIR (p. 3.6-5). In reality, the document states that wood treated by ACQ-C and CA-B contain copper exceeding California criteria and have the potential to be hazardous waste when disposed. It also concludes that creosote-treated ties have the potential to fail California's acute aquatic bioassay, with survival of less than 50% in the 500 mg/l bioassay, therefore may be regarded as non-RCRA hazardous waste.

What's more, the study did not analyze wood treated by arsenic/arsenate because data already exists concluding that such treated wood is hazardous to humans and the environment and because chromated copper arsenate (CCA) falls under California's hazardous waste definition.

The DEIR fails to provide information on which to base an analysis of the impacts of CCA-treated wood products that will be removed and thus become hazardous waste or any that will remain in place and must be considered within the realm of cumulative effects. This is obviously an impermissible gap in the description of the project that renders identification of significant impacts impossible.

The DEIR fails to take into consideration evidence that pentachlorophenol (PCP) was used to treat an unknown quantity of railroad ties throughout the nation. For example, Union

Pacific Railroad operated a tie-treatment plant in The Dalles, Oregon that distributed railroad ties throughout the northwestern states. Both creosote and pentachlorophenol were used at the plant. Although DTSC did not find PCP in ties that it analyzed, it did not consider that PCP would have migrated into ballast, soil and water due to the effects of time and environmental conditions and some may have already degraded to other chemical constituents. What DTSC did not take into consideration and did not test for was dioxin, a chemical contaminant of PCP that does not generally migrate and does not biodegrade over extremely long periods of time.

Dioxin (<http://www.atsdr.cdc.gov/toxprofiles/tp104.pdf> and <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=209690> These assessments of dioxin hyperlinked here due to the size of the documents) is also an extremely toxic chemical for which no level of what's termed a no adverse effect level has been found. The rail corridor is almost undoubtedly contaminated with dioxin in at least some areas due to the use of PCP-treated wood and also due to another legacy chemical, 2,4,5-T herbicide, discussed below.

Dioxin IS a RCRA listed contaminant. It has demonstrates reproductive toxicity for organisms and is a particular consideration for endangered species. (Lappe & CATs. 2003) NCRA has not demonstrated that dioxin may be present in the project area although the evidence is that it most likely exists there. The DEIR is deficient until dioxin contamination is taken into consideration.

8-24

2,4,5-T was likely to have been used for decades within the project area (US EPA. 1975. Economic Impact of Restriction of 2,4,5-T for Right of Way Use, Final Report, Volume II) 2,4,5-T was contaminated with dioxin, therefore, dioxin contamination of the project area must be taken into consideration in proposing activities for rehabilitation, waste handling and disposal, soil and materials disturbance impacts on biological resources and water and other considerations.

Creosote

Probably the most ubiquitous contaminant of the project area is creosote. It's presence is likely to be felt throughout the area due to its use in railroad ties, bridge structures and other treated wood. According to the Agency of Toxic Substances and Disease Registry (ATSDR) Department of Health and Human Services' Toxicological Profile for Creosote (Update 1996), coal tar creosotes (creosote) have been used for over 100 years to preserve railroad ties.

Creosote-soaked ties have been used in the ROW for ninety years and ties have been treated on-site in the past to extend their utility, thus these chemicals are present in the ROW and need to be quantified, discussed and their toxicity evaluated.

An oily liquid which is distilled from coal tar waste-products of coal carbonization to produce coke or natural gas, creosote is made up of 300 identified and up to 10,000 yet-to-be identified chemicals. Included are some of the most toxic chemicals known: aromatic hydrocarbons, anthracene, naphthalene, and phenanthrene derivatives, many of which are scientifically recognized as genotoxins and carcinogens. (ATSDR 1992, 1995, 1996, 1998) Because these chemicals cause birth defects and cancers along with other deleterious health effects, activities that cause exposure to them even in minute quantities are significant environmental impacts.

Approximately 85% of creosote consists of polycyclic aromatic hydrocarbons (PAHs); the remainder is composed of phenolics and cresols. Its composition depends on the source of the coal and the method of preparation, thus the chemical profile of creosote is widely variable across lots and manufacturers. An analysis of several PAHs in four creosotes found 2-fold to nearly 20-fold differences in concentrations. (ATSDR 1996)

Any number of extremely toxic chemicals are in the soil of the ROW as a result of creosote contamination, creating a significant potential for adverse environmental effects that must be evaluated in an EIS. These chemicals cannot be ignored. Though they are often invisible, creosote chemicals can cause devastating effects in the environment.

Creosote components are slowly released from railroad ties into soil by oil exudation, rainwater leaching and by volatilization of the lighter fractions. Losses of creosote from impregnated wood are dependent on the kind of coal used to produce the coal tar, the type of oven used to make it, and the conditions under which the wood is used. (ATSDR 1996)

Rainwater leaching of creosote is an established route of soil contamination. There is a tremendous amount of rain in the project area for six months each year (p4-51 EA) and, because the ROW is almost entirely within or adjacent to the floodplain, water washes the rail ties and soil around the tracks frequently. This could exacerbate the release of creosote to soil in the ROW causing significant pollution of the soil and significant environmental impacts when the soil is disturbed.

In well-oxygenated and/or anaerobic conditions, the lighter fractions of creosote can break down quickly. (ATSDR 1996) However, rail bed conditions are not likely to be well-oxygenated due to severe impactation or anaerobic due to sterile conditions maintained on the ROW with herbicides for several decades and the presence of creosote and diesel chemicals.

The most toxic fractions of creosote are highly persistent in soil. Even under manipulated and enhanced conditions of bioremediation, an average of just 50% reduction of PAHs (by weight) in creosote can be expected (Hughes et al 1998), the higher molecular weight 3- and 4-ring PAH are degraded at slower rates, and there is no real change in concentrations of 6-ring PAH. (Brooks 1998, ATSDR 1996) Under other soil nutrient enrichment conditions, no 4- or 5-ring PAHs are degraded. (Sharak 1997) Similar results with

8-24

incubated indigenous microorganisms indicate that natural soil organisms cannot be relied on to effectively remove these compounds in a reasonable amount of time. (Mueller 1991) According to the USDA's 2007 Encyclopedia of Wood (readily available at amazon.com for less than \$16), creosoted timber can be ignited and burn easily. This factor has certainly contributed to the numerous tunnel fires that have been experienced by NCRA. The DEIR does little to describe the condition of the five tunnels within the project area and which have burned. Based on what's known about the amplification of effects in certain PAHs upon burning, it can be assumed that creosote fire-generated contaminants within the tunnels may be significant and that these chemicals may have a significant impact on the environment.

Thus the most toxic creosote components that have migrated into the soil on the project area mostly don't just go away after awhile. These chemicals are highly persistent and are present in the soil now, and will provide a significant environmental risk as a direct result of activities of the project that must be addressed in the CEQA procedure.

Contaminated Wood and Soil

NRDC tries to regulate away an analysis of creosote and PCP by referring to sections 25150.7 and 25150.8 to the Health and Safety Code. It's a good thing that this law exists because prior to it the situation was even more dire. But regulations, even if followed, do not excuse NCRA from identifying the significant effects of the project, including, and perhaps especially, the effect of the toxic chemicals that contaminate the rail corridor and adjacent properties and water due to the use of treated wood.

Contaminated wood and soil are widespread in the railroad right-of-way and in some areas are highly concentrated. The 1999 consent decree addresses the demands of three state agencies to address toxic chemicals in the railroad right-of-way (though a decade of waiting for action has not yet seen relief. See the Press Democrat OpEd 5/19/09 for more details, and Deputy Attorney General Fua letter to the NCRA, 2/26/09)

Another legacy contaminant of the right-of-way is dioxin, there from years of pesticide use in the past, when 2,4,5-T herbicide was sprayed (X I will add cite) and also present as a constituent of creosote when pentachlorophenol was added to the mix (Politics of Penta. Van Strum & Merrill). These chemicals must be analyzed for the EIR (CATs' CEQA citation). Field sampling must be planned for where soil or wood will be disturbed, moved, transported and disposed of from within the right-of-way. These toxic chemicals may also have been transported out of the right-of-way into adjacent land and water, which also must be sampled, considered and analyzed. We provide here information on the toxicity of these chemicals to support our claim that the presence of these chemicals in wood, soil and water is a highly significant potential impact that must be analyzed.

Treated Wood Waste and Water Resources

The primary chemicals used for wood preservation are; creosote, PCP, copper naphthenate,

8-24

ammoniacal copper arsenate, ammoniacal copper zinc arsenate and chromated copper arsenate.

There are 121 bridges and 5 tunnels located between Willits and Lombard. Most of the bridges are small wood trestle structures that span drainage channels or creeks feeding the Russian River, Petaluma River, and San Pablo Bay.

Any use of treated wood in aquatic settings has the potential for adverse environmental effects because of the nature of the pesticides used to treat the wood. Pentachlorophenol is a disastrous example of this. Hodson and Blunt (1981) found that the toxicity of PCP on rainbow trout (*Salmo gairdneri*) was greater at higher water temperatures than at lower water temperatures. Specifically, they found that fish in a warmer temperature regime were affected at lower concentrations of PCP than those in colder regimes. Several of the water bodies the railroad crosses have a high potential as habitat for threatened and endangered species. Furthermore, several of these water bodies have temperature as a CWA 303(d) priority pollutant (e.g. Russian River). In other words, these rivers and the habitat they support suffer from high water temperatures and their related impacts. Thus, the introduction of PCP into these waters would serve to exacerbate existing environmental problems—even more so than in the case of PCP entering water bodies with no associated priority pollutants. It is necessary, therefore, that NCRA not only assess the impacts of extant and continued use of PCP on water bodies and habitat affected by the project, but also consider those impacts synergistically, in the context factors exogenous to the project which may influence the integrity of said waters and habitat.

8-24

According to a 2000 report, “Guidelines to Protect Fish and Fish Habitat From Treated Wood Used in Aquatic Environments in the Pacific Region” by Canada’s department of Fisheries and Oceans; creosote leaches rapidly in freshwater and “throughout the life of the structure” thus the department is likely to “significantly limit the freshwater use of creosote-treated wood given that alternatives are readily available”.

The Canadian report makes supported claims that CATs finds compelling and points to potential significant impact for the project which will utilize large amounts of new treated wood in and around waterways and disrupt, move about and dispose of large amounts of deteriorating creosote-treated wood. One of these claims is that polycyclic aromatic hydrocarbons (PAHs) will be released into water from creosote treated wood as long as the wood is present. Volatile, low molecular PAHs are likely to be acutely toxic to aquatic life and the higher weight PAHs are known carcinogens and compound in sediment and marine animal bodies.

The “Guidelines to Protect Fish and Fish Habitat From Treated Wood Used in Aquatic Environments in the Pacific Region” concludes with 15 points to be considered in the review of proposals to use treated wood in water. The NCRA needs to consider these points for the proposed project and incorporate into improved (and hopefully approved) BMPs:

1. *There will be an impact on fish habitat from the presence of a structure, whatever the construction material;*
2. *Alternatives to treated wood should be used wherever practicable;*
3. *Only wood treated to BMP specifications will be acceptable in or adjacent to aquatic areas;*
4. *The volume of treated wood used in water should be minimized by utilizing alternative materials and designs;*
5. *For most projects, creosote-treated wood is not required or recommended for use in freshwater;*
6. *Proposals to use exposed creosote-treated wood for above-water structures should be carefully evaluated, and only accepted when there is no alternative. Every effort must be made to shield the creosote-treated wood from exposure to solar heating and to prevent entry of the pesticide into the aquatic environment;*
7. *In areas where the water pH is less than 5.5, or where high background copper levels are present, the use of metal-oxide or waterborne preservatives may not be appropriate;*
8. *In areas with anaerobic sediments and low organic content, creosote-treated wood should not be used;*
9. *Timing restrictions on projects are generally required to ensure that particularly-sensitive biota are not exposed to the first flush of chemical released after installation of treated-wood products. In addition, the non-routine prewashing of metal oxide-treated wood at the treatment plant may be necessary;*
10. *Absorbent booms must be deployed and maintained during installation of all structures using oil-borne wood treatments. These booms should remain in place and operational until such time as visible evidence of wood-treatment chemicals on the water surface is no longer apparent;*
11. *All cutting and boring of treated wood should take place in upland areas; all waste materials must be kept out of the aquatic environment and be properly disposed of upland. Such work that must be done in situ is to be fully contained so that no waste materials are deposited into water or onto aquatic sediments;*
12. *Any cut wood, chips or sawdust that enters the aquatic environment is to be promptly collected and later disposed of at an acceptable upland site;*
13. *In situ application of wood-treatment chemicals is generally not acceptable. In the event that minor application of wood-treatment chemicals is required after construction of a treated- wood structure, all application areas must be contained or tarped so that no chemicals are deposited into the water or onto aquatic sediments;*
14. *Due to the availability of alternate chemicals, pentachlorophenol-treated wood should be discouraged for use in water; and*
15. *Railway ties are not covered by these Guidelines, nor should they be used in aquatic structures.*

8-24

Legacy Chemicals and Cumulative Impacts

The scope of the Hazardous Materials section in the November DEIR is insufficient because it does not contain known legacy chemicals that are present along the rail corridor despite their mention in the document itself (pg 3.6-15) and other NCRA documents.

The scope of the Hazardous Materials section only takes into account the potential impacts associated with the “management of hazardous materials resulting from the resumption of operation of the railroad, routine maintenance and repair of the rail line during operations (pg 4-17)” and the four rehabilitation sites. This scope is inadequate because it fails to analyze the potential cumulative impacts of legacy chemicals known to already be within the rail corridor when new chemicals are added to the toxic mix already present in the project area. Disturbing and re-releasing legacy chemicals into the environment from the proposed project, the rehabilitation of the line and the compounding toxicity of adding new hazardous materials from operations must be described and analyzed by the DEIR.

In the document “Documentation of Completion Waste and Debris Cleanup” prepared for the NCRA by Kleinfelder, Inc. nine sites owned and managed by the NCRA are reported to have had above ground hazardous waste and debris cleaned up. The report was revised in December of 2005 (the only copy available to CATs) and is restricted to reporting of toxic waste at the Eureka and Scotia sites. While sites within the current proposed project are mentioned explicitly in the report, a detail of what was tested, sampled and cleaned up is missing. This leaves the public and the decision makers to assume that hazardous materials similar to the ones found in Eureka and Scotia were found at the sites within the proposed project (example: Willits Yard).

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The work summarized in the “Documentation of Completion Waste and Debris Cleanup” was initiated due to the provisions of the 1999 Environmental Consent Decree. While the Hazardous Materials Section does mention the ECD in reference to what will be done with the resumption of rail service (pg 3.6-9), it does not analyze legacy chemicals found at each site during work that has already been completed or the cumulative impact of these hazardous materials and their disturbance in rehabilitation and maintenance yet to come. In light of the extreme toxicity demonstrated by dioxin, PCP, creosote, CCA, this deficiency is one of the most glaring of all CATs has pointed out in the DEIR.

Alternative (Non-chemically treated) Building Materials for Proximity to Water

After research on both treated wood ties and alternatives such as concrete and recycled composite ties, CATs finds that the use of non-chemically treated materials for the project (for both ties and bridges) would greatly reduce the potential for significant impact and must be thoroughly addressed as an alternative by the NCRA for the length rail line within the project area.

Alternatives to treated-wood ties, ballasts and supports are viable, environmentally sound and are currently being used for Class 1 rails and bridges within the United States and all over the world. The use of more sustainable and least toxic ties is currently an area of

study and implementation by other railroad agencies and should be considered by the NCRA (for an example please see the Metropolitan Transportation Authority Sustainable Railroad Tie Task Force Report attached).

Composite ties are used in a variety of heavy-load bridge applications especially to span ecologically sensitive areas such as wetlands and impaired rivers. They do not degrade, splinter or release chemical compounds as treated-wood ties are proven to do.

Treated wood alternatives for bridges and tracks are already being implemented on railways in California based on the controversy of using creosote treated wood and growing concern from the CA Water Quality Control Board (see NCRWQCB's comment letter in response to MARCH '09 DEIR) about these chemicals and their discharge into surface and ground water. In 2009, Union Pacific replaced a 1440 foot long, fire damaged treated timber trestle structure with a precast concrete bridge in just 11 days (<http://www.bphod.com/2009/10/union-pacific-bridge-3.html>). Not only is this an example of a viable, least-toxic alternative, the project was approved by the Regional Water Quality Control Board.

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Composite ties are another example of modern rail rehabilitation. An example of a composite rail tie company is the U.S. based TieTekk (Tie Tekk pdf) which makes recycled material ties and cross supports out of plastic bottles, plastic bags and scrap vehicle tires. The ties last longer, are not treated with dangerous pesticides and reduce waste. These composite ties are already in successful use in the U.S. and in other parts of the world. The Chicago Transit Authority recently replaced 20 miles of deteriorated creosote-treated wood ties with Tietek. A press article released by the Chicago Transit Authority from 2004(CTA 2004) stated:

"CTA began replacing its wooden creosote-soaked railroad ties with recycled plastic ties in 1998. The plastic ties offer both performance and environmental advantages.

Wood ties require creosote treatments to extend the service life of wood, especially in certain harsh climates. The plastic ties resist decay, insect attack and water absorption and are free of chemicals used as preservatives.

Upon project completion, commuters will enjoy a quieter, faster, smoother and safer ride along the entire Chicago Blue Line. Train speed that is currently moving as slow as 15MPH will be increased to 65 - 70MPH".

Composite and non-wood ties and rail building materials have been used in many countries due to the world wide reduction of timber, the growing concern over treated-wood chemicals and their toxicity and a desire to apply recycled materials for other purposes. A report written by the Indian Railway Institute of Civil Engineering on composite ties for railway bridges lists the many benefits of utilizing non-treated wood which include:

- High Strength and having a life of 40 to 50 years.
- Low weight
- High corrosion resistance
- Fire resistant

- Low thermal conductivity
- Low electrical conductivity
- Non magnetic properties
- Good attenuation of sound and vibration
- Excellent design flexibility
- Low life cycle cost
- Resistance to hydrolysis, greases and oils
- Environmentally friendly and completely recyclable
- Reuse of waste resources (consumes the waste plastic which has disposal problem)

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Herbicide Analysis

The almost complete lack of analysis for herbicide use within the rail right-of-way is perplexing in light of the decision in *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1 which CATs pointed out in comments to MARCH '09 DEIR.

The California Supreme Court recently invoked the outcome of a lawsuit brought by CATs regarding the need for state agencies to analyze their use of pesticides for projects that they undertake or develop:

“Regarding the plans’ reliance on the Department of Pesticide Regulation’s registration of herbicides, we agree with plaintiffs that the fact a sister agency had assessed the environmental effects of various herbicides in general and registered them for use did not excuse CDF from assessing those herbicides’ use as part of a particular timber harvest plan. The court in Californians for Alternatives to Toxics v. Department of Food & Agriculture (2005) 136 Cal.App.4th 1 recently addressed this issue, holding that the existence of the Department of Pesticide Regulation’s registration program did not remove the environmental impacts of pesticide use from the proper scope of an EIR on a Department of Food and Agriculture plan to control an agricultural pest: “We acknowledge that DFA’s [Department of Food and Agriculture] duty under CEQA to analyze the effects of pesticide use must necessarily take into account the distinct regulatory scheme of the DPR [Department of Pesticide Regulation]. However, sole reliance on DPR’s registration of pesticides and its regulatory program, including safety regulations for employees handling pesticides (Cal. Code Regs., tit. 3, § 6720 et seq.), is inadequate to address environmental concerns under CEQA.

8-25

DFA is responsible for analyzing the environmental impacts of proposed pesticide use under the [pest control plan], notwithstanding that DPR must also register pesticides before they can be used in this state. DPR’s registration does not and cannot account for specific uses of pesticides in the [plan], such as the specific chemicals used, their amounts and frequency of use, specific sensitive areas targeted for application, and the like.” (Id. at p. 16.) In registering a pesticide for use in California, the Department of Pesticide Regulation does not necessarily fully assess its use in every application, such as silviculture, where it may bear potential for particular environmental effects, nor does it guarantee that the pesticide’s use will never have significant environmental effects.

CDF therefore had no grounds to state in its response to public comments that because of the Department of Pesticide Regulation's registration program "we do not have the authority to approve or disapprove any project regarding the use of chemicals." To the contrary, as the lead agency evaluating timber harvests, CDF has not only the authority but also the duty to approve, disapprove, and impose mitigation measures on timber harvest plans, including measures to address the foreseeable use of herbicides in planned silvicultural operations. (See Californians for Alternatives to Toxics v. Department of Food & Agriculture, supra, 136 Cal.App.4th at p. 17 ["Nor is there legal authority for the proposition that using registered pesticides according to their labels never results in significant adverse effects"]; cf. Oregon Environmental Council v. Kunzman (9th Cir. 1983) 714 F.2d 901, 905 ["the mere fact that a program involves use of substances registered under FIFRA [federal pesticide law] does not exempt the program from the requirements of NEPA [federal environmental law]"].)

NCRA didn't go as far as to claim that registration of the herbicides it might use would suffice for its CEQA analysis. The DEIR doesn't name the herbicides that would be used and doesn't analyze them as the Court of Appeal has ruled (and with which the Supreme Court apparently agrees). This must be remedied to comply with CEQA. We described this potential significant effect in our comments to the first DEIR, which we have incorporated into this record, and are surprised to see the revised DEIR has little more to offer even in light of the published ruling on the necessity to analyze herbicides in the context of the project.

Some of the toxic effects of herbicides that are registered for use within rights-of-way are discussed below for the purpose of demonstrating the toxicity of these chemicals and the need to identify significant effects that may be associated with their use in the project area. Children are especially vulnerable to the effects of pesticides because they are growing, they metabolize toxins less effectively than adults due to physical immaturity and because their size relative to an exposure makes exposures much more hazardous to children. (Pesticides in the Diets of Infants and Children. National Research Council. National Academy Press. 2002)

Significant effects to children are almost completely ignored in the DEIR despite the fact that there are 47 schools within one-half mile of the rail corridor and 9 within 500 feet! Noise, lights and vibration are all issues for these children, not to mention air quality, which can particularly affect children where diesel is a causative of asthma. The effects to school children and other sensitive human populations needs to be analyzed for the effects of the individual constituents and for their cumulative impacts.

To demonstrate that herbicides are problematic and must be analyzed for impacts to children and others as well as to the environment and wildlife so that mitigations can be developed and adequate alternatives developed, CATs has identified four herbicide active ingredients commonly used in right-of-ways: glyphosate, imazapyr, 2,4-D, and triclopyr. Again: as with all pesticides, these have site specific and project specific impacts that must be analyzed for significance.

8-25

GLYPHOSATE Glyphosate, best known commercially as “Roundup” is the isopropylamine salt of N-(phosphonomethyl) glycine. It is a non-selective post-emergence herbicide for controlling weeds in agriculture (cropped and non cropped), forestry, rights-of-way and aquatic systems. It is generally distributed as water-soluble concentrates and powders, and is one of the most often used pesticides worldwide. Glyphosate disrupts plant growth and eventually causes death by inhibiting amino acid synthesis.

Human Health Risk Summary: Acute Effects: Some formulations of glyphosate have been shown to cause extreme irritation of the skin and eyes, such as blurred vision, burning eyes, rashes and skin blisters. Other symptoms reported following acute exposures, include: nausea, sore throat, dizziness, gastrointestinal and respiratory tract injuries.

Chronic Effects: Carcinogenicity: Though evidence that glyphosate causes cancer is yet to be established, several animal and human epidemiological studies have indicated a potential correlation. In these studies, there was an indication that glyphosate may increase the risk of non-Hodgkin’s lymphoma, multiple myeloma, pancreatic, thyroid and testicular cancers. *Reproductive & Developmental Toxicity:* Glyphosate exposure has been associated with several manifestations of reproductive and development impairment in both animals and humans. In animal studies, high dose or prolonged exposures have resulted in skeletal malformations, disrupted organ development, and reduced sperm volume and quality. In human epidemiological studies, exposure to glyphosate has been connected to an increased rate of miscarriage, reduction in sex hormone production, and disruptions to endocrine system development. *Mutagenicity:* Several studies on both animals and humans have suggested that exposure to glyphosate can cause chromosomal aberrations, DNA breaks, and other genetic mutations.

Ecological Hazard Summary Environmental Fate: Glyphosate tends to bond strongly to soil particles, and therefore will not appreciably leach from terrestrial systems to aquatic environments. However, it may be translocated to surface water from drift following aerial application or from movement of soil particles by wind, erosion, or storm runoff; and, has been frequently been detected in surface water nation-wide. Glyphosate is moderately to highly persistent with a half life of approximately 60 days in soil,ⁱ though depending on soil conditions, it may persist for at least six months. In aquatic environments, its half-life is expected to be from several weeks to several months.

Risk to Non-Target Flora & Fauna: Because of drift from inappropriate application methods, as well as offsite movement from wind and rain, glyphosate poses a considerable risk to non-target plant and animal species. Studies have shown that a significant amount of spray applications drift off-site (from 14% to 78%) It has been documented to affect plants 130 feet away, and residues have been detected up to 1,300 feet downwind. Glyphosate has been shown to disrupt the immune systems and cause genetic abnormalities in fish. Similarly, it has been shown to cause genetic, developmental and reproductive mutations in

8-25

amphibians. This should be of concern to the NCRA and included in the DEIR as there are several special status species within the drift zone and the rail right of way.

Toxicity of Inert Ingredients: commercial glyphosate products (such as Roundup) are composed of an active ingredient (approximately 40% of the solution) and other ingredients (approximately 60% of the solution). Some of these “surfactants” or “adjuvants” include: polyethoxylated tallowamine (POEA), isopropylamine, and diethanolamide. Each of these compounds has been shown to exhibit toxicity at much higher levels than glyphosate alone. For example, POEA has been shown to be three times as acutely toxic to humans as glyphosate alone. One surfactant commonly used in Rodeo (similar to Roundup) was found to be 100 times more toxic to aquatic invertebrates than glyphosate alone.ⁱⁱ Other inert ingredients have been shown to be genotoxic, carcinogenic, teratogenic and disruptive to reproductive function in both humans and animals.

Glyphosate and commercially available products containing this compound are of particular concern to human health and the environment, due to: 1) some evidence of carcinogenicity, reproductive/developmental toxicity, endocrine system toxicity, and genetic toxicity to humans; 2) potential adverse effects to non-target plant and animal species due to overspray, drift, and translocation; and 3) the potentially severe impact of many of its additives such as POEA, which have been identified as extremely hazardous to both humans and animals.

Examples of other research regarding the unintended effects of exposure to glyphosate: Glyphosate has a substantial direct negative effect on tadpoles, reducing total tadpole survival and biomass by 40%. These results make it evident that pesticides can have both direct and indirect effects in natural communities and that these effects critically depend upon the composition of the community. (Relyea et al. Pesticides and Amphibians: the importance of community context Ecological Applications. 2005)

Research was conducted to verify the effect of a glyphosate-based herbicide on Jundiá hormones (cortisol, 17 β -estradiol and testosterone), oocyte and swim-up fry production. A similar number of oocytes were stripped out from females from both groups; however, a lower number of viable swim-up fry were obtained from the herbicide exposed females, which also had a higher liver-somatic index (LSI). The results indicate that the presence of glyphosate in water was deleterious to reproduction, altering steroid profiles and egg viability. (Chronic exposure to sub-lethal concentration of a glyphosate-based herbicide alters hormone profiles and affects reproduction of female Jundiá (*Rhamdia quelen*) Environ'l Toxicol. & Pharmacol. (May 2007):23:Pages 308-313 Auren Benck Soso, et al.)

The objective of another study was to analyze toxic effects of the herbicide Roundup in rat liver. Sub-chronic treatment, starting from the low and high doses of Roundup, it was observed that there were mild effects on activity of ALT, AST and LDH enzymes indicating the hepatic toxicity induced by Roundup. It was found that the mild effects were different on the enzymes in male and female rats of treatment groups. Also it was found some difference in serum lipoprotein (LDL, HDL) and t-cholesterol. There was no difference

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creatinine value between control and treatment groups but it was observed that degenerative formation such as mononuclear cell infiltration and congestion of the liver tissues of treatment groups. (The effect of sub-acute and sub-chronic exposure of rats to the glyphosate-based herbicide Roundup Environ'l Toxicol. & Pharmacol. (Jan 2008):25:Pages 57-62. Sinan Çağlara and Dürdane Kolankaya, a Hacettepe University, Science Faculty, Department of Biology, Beytepe Campus, Ankara, Turkey)

Pesticides are widely spread in the environment and there is a lack of knowledge concerning the impact of these substances on the human cell. In one study, the effect of low doses of the pesticides bentazon, metalaxyl and glyphosate on the cellular metabolism of glutathione and cysteine was examined in HeLa and hepatoma cell cultures. No effect was observed when the cells were exposed to bentazon or metalaxyl. However, significant changes in the intra- and extracellular concentration of cysteine, a precursor for glutathione synthesis, were detected when glyphosate was added to the medium. This finding was observed in the presence of micromolar concentration range of glyphosate, and is relevant when compared to concentrations observed in monitoring programmes. (Cysteine turnover in human cell lines is influenced by glyphosate. Environ'l Toxicol. & Pharmacol. (Jul 2007):24:Pages 19-22 Malin Hultberg)

To prevent health risk from environmental chemicals, particularly for progeny, research has been conducted into the effects of the herbicide glyphosate on several enzymes of pregnant rats. Glyphosate is an organo-phosphorated nonselective agrochemical widely used in many countries including Argentina and acts after the sprout in a systemic way. The results suggest that maternal exposure to agrochemicals during pregnancy induces a variety of functional abnormalities in the specific activity of the enzymes in the studied organs of the pregnant rats and their fetuses. (Environmental Research 81 (03-'01) Effect of the Herbicide Glyphosate on Enzymatic Activity in Pregnant Rats and Their Fetuses. Pages 226-231. Jorgelina Daruich, et al)

Imazapyr Imazapyr does not selectively kill plants. It damages non-target plants, which can make them more susceptible to disease. It is highly persistent, with a half-life of more than a year, a factor that enhances its toxicity in the environment.

<http://www.alt2tox.org/pdfs/Kegley-Feb08.pdf>ⁱⁱⁱ The U.S. EPA found that the California Red-Legged Frog (CRLF) may be adversely affected by the depletion in habitat resulting from spraying Imazapyr. (US EPA 2007)

The United States Environmental Protection Agency (EPA) states that imazapyr has a May Affect (MA) and a Likely to Adversely Affect (LAA) the CRLF by "effects on habitat and/or primary productivity (i.e., ecosystem structure and function for both the aquatic plant community and riparian vegetation). Critical habitat may also be modified, based on direct effects of aquatic vascular plants and terrestrial plants." (US EPA 2007)

The EPA has concluded that "imazapyr is a a Toxicity Category I primary eye irritant." It also caused stomach ulcers in rabbits when it was orally administered, in differing doses. (Cox,1996)

2,4-D 2,4-D exposure has been linked to cancer. According to the World Health Organization (WHO), "Epidemiological studies have suggested an association between

8-25

exposure to chlorophenoxy herbicides, including 2,4-D, and two forms of cancer in humans: soft-tissue sarcomas and non-Hodgkin lymphoma.”

Testing in small mammals has shown that 2,4-D has “high acute toxicity.” (US EPA 2000)

The EPA has determined that 2,4-D as a may affect and likely to adversely affect the endangered Californian Red-Legged Frog (US EPA 2009). In addition the EPA has concluded that there is “potential for modification of CRLF-designated critical habitat form the use of 2,4-D.” (US EPA 2009)

The Re-registration Eligibility Decision (RED) from 2005 determined that there is a risk for birds in areas where 2,4-D has been used. In the EPA’s preliminary and revised risk assessments, “the estimated acute and short-term exposures exceeded the Agency’s level of concern [LOC].” Also birds that eat, “fruit and large insects, acute endangered LOCs are exceeded for non-cropland, forest, and cranberry scenarios.” (US EPA Re-registration Decision) The pH values change the composition of 2,4-D, making it into 2,4-D which is “more toxic than the original herbicide.” (Calbral, Science Direct article)

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Herbicides will also need to be addressed in light of cumulative impacts for an adequate DEIR since these are another source of toxic chemicals added to the environment of the project area.

Water Resources

From Figure 3.11-1 in the DEIR, it is evident that the proposed railroad will run through large swaths of floodplain. Executive Order 11988, Floodplain Management, requires federal agencies to “avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.” NCRA has failed to propose practicable alternatives, much less evaluate said alternatives against the proposed project in terms of floodplain management.

8-26

A losing stream is a river or stream that loses water to the sub-surface as it flows downstream. This loss occurs when the water surface sits at a higher elevation than the sub-surface water table, and is due to both anthropogenic and natural causes, such as groundwater pumping or drought. As noted in section 3.11.2.1, “[i]n developed locations, stormwater runoff that does not infiltrate into the subsurface is directed into constructed stormwater drainage systems consisting of crowned streets, curbside gutters and drainage inlets. These drainage systems ultimately connect to creeks, streams and rivers.” Thus, stormwater runoff from within the railroad right-of-way, as well as that runoff re-routed due to the presence of the railroad, eventually flows into natural water bodies. This runoff may contain sediment, wood preservatives, toxic herbicides, hydrocarbons, and other compounds dangerous to native flora and fauna. Furthermore, in the case of losing streams, this runoff could easily migrate into the saturated zone of unconfined aquifers, which are frequently pumped for potable end-uses. NCRA must examine the potential impacts of stormwater runoff on both surface and ground waters, and discuss proposed mitigation measures in detail.

8-26

Mitigation measure WR-BC1b states: "The proposed project shall comply with all requirements necessary for a Streambed Alteration Agreement from the California Department of Fish and Game." What are these requirements? How exactly does NCRA intend to comply with these requirements? What are the impacts associated with compliance? What are the mitigation measures?

Regarding mitigation measures WR-BC1b and WR-LS3, the measures are really compliance measures, i.e. they do not address the impacts in any detail, but rather defer to regulations as proof of no impact. However, *Californians for Alternatives to Toxics v. Department of Food and Agriculture* [38 Cal Rprt. 3d 638] indicates that NCRA has an obligation to examine the impacts of the project (rehabilitation, operation, and maintenance), independent of whether the project meets federal, state and local regulations: "Compliance with the law is not enough to support a finding of no significant impact under CEQA." NCRA must examine the actual impacts of the project in detail, and propose mitigation measures to alleviate those impacts, throughout the entirety of the DEIR.

Mitigation measures WR-BC2 and WR-FC2 state: "Construction activities shall be restricted to the approved work window (dry season) as designated by the regulatory agencies. NCRA shall implement procedures, BMPs, and monitoring programs as required by the regulatory agencies." Similar to the above, the "dry season", as designated by regulatory agencies, may not correspond to the actual dry season, since daily climatic conditions are stochastic when viewed from afar. Thus, NCRA needs to either address the impacts of working during the "wet season", or provide a detailed account of how they will stem the release of hydrocarbons and similar pollutants, given climatic variability.

NCRA plans to use riprap on the creek-side base of the embankment at Foss Creek. Did they not consider vegetative alternatives to increase fish habitat? As noted in section 3.2.3.11, "Foss Creek is considered habitat for the endangered Steelhead Trout and Chinook and Coho Salmon." Why would NCRA not take measures to improve upon an already stressed habitat? 8-27

From section 2.5.3, "Planned repairs to the [Black Point B]ridge would modify and replace the mechanical and electrical systems of the swing span in order to automate the bridge." Although NCRA claims that no work will be performed in or from the water, work *will* need to be performed above the water. Depending on the extent of modifications to the electrical and mechanical systems, it is conceivable that hazardous materials could fall into the water. NCRA must discuss the potential impacts of modifications to the Black Point Bridge in greater detail—the current content is simply insufficient. 8-27

The Lombard Siding construction project will replace 5,300 feet of track. Does replacing "track" include replacing railroad ties? If so, will the ties be made of treated lumber? If so, what compound will NCRA choose to treat the ties? Is the compound a health hazard? Is it a recalcitrant or conservative species? How easily does it volatilize? What's the half-life? Has its presence in groundwater been simulated? Does it pose a threat to habitat? Does it act synergistically with NCRA-preferred herbicides? 8-27

Regarding the filling of wetlands for the Lombard Siding project, mitigation measure WR-LS1 states: "The wetlands and mudflats will be fully evaluated and confirmed in coordination with permitting and resource agencies. Losses of the habitats will be mitigated by creation of an equivalent habitat at a 1:1 ratio, or other compensatory mitigation determined appropriate by the permitting agencies." How does NCRA propose to create a habitat equivalent to the one lost to the Lombard Siding project? Where will the land come from? Will it provide equivalent habitat connectivity? This mitigation measure is far too sparse, and therefore unacceptable. NCRA should develop its mitigation plans more fully.

8-28

In its comment letter for MARCH '09 DEIR, the North Coast Regional Water Quality Control Board states that 401 certifications will be required: these, too, need to be pursued prior to circulation of an EIR due to the changes to the project that may be required by the regulator. NCRA can't put off to the future important components of its plans to protect the environment; these must be included in the EIR. NCRWQCB also may impose waste discharge requirements and NPDES general stormwater permits. The changes to the current project that are likely to come about due to permit requirements must be reviewed in the EIR.

8-29

As noted in section 3.11.2.2, "There are approximately 184 bridge and culvert crossings of the rail line along the proposed project corridor, with over half of them within the FEMA floodplain designation of a 100-year flood event." Debris from flooding can easily accumulate and block culverts, leading to water damming and embankment breaches. Such events can flood areas beyond the railroad right-of-way that would not have flooded had there been no culvert. In other words, the continued operation of the railroad could very likely exacerbate the impacts of flooding due to the continued presence of water-crossing structures. NCRA must address these impacts, and develop mitigation measures to dampen them. This includes, but is not limited to a physical, biological and toxicological impact assessment.

8-30

Alternative (Non-chemically treated) Building Materials for Proximity to Water

After research on both treated wood ties and alternatives such as concrete and recycled composite ties, CATs finds that the use of non-chemically treated materials for the project (for both ties and bridges) would greatly reduce the potential for significant impact and must be thoroughly addressed as an alternative by the NCRA for the length rail line within the project area.

8-27

Alternatives to treated-wood ties, ballasts and supports are viable, environmentally sound and are currently being used for Class 1 rails and bridges within the United States and all over the world. The use of more sustainable and least toxic ties is currently an area of study and implementation by other railroad agencies and should be considered by the NCRA (for an example please see the Metropolitan Transportation Authority Sustainable Railroad Tie Task Force Report attached).

Composite ties are used in a variety of heavy-load bridge applications especially to span

ecologically sensitive areas such as wetlands and impaired rivers. They do not degrade, splinter or release chemical compounds as treated-wood ties are proven to do. Treated wood alternatives for bridges and tracks are already being implemented on railways in California based on the controversy of using creosote treated wood and growing concern from the CA Water Quality Control Board (see NCRWQCB's comment letter in response to MARCH '09 DEIR) about these chemicals and their discharge into surface and ground water. In 2009, Union Pacific replaced a 1440 foot long, fire damaged treated timber trestle structure with a precast concrete bridge in just 11 days (<http://www.bphod.com/2009/10/union-pacific-bridge-3.html>). Not only is this an example of a viable, least-toxic alternative, the project was approved by the Regional Water Quality Control Board.

Composite ties are another example of modern rail rehabilitation. An example of a composite rail tie company is the U.S. based TieTekk (Tie Tekk pdf) which makes recycled material ties and cross supports out of plastic bottles, plastic bags and scrap vehicle tires. The ties last longer, are not treated with dangerous pesticides and reduce waste. These composite ties are already in successful use in the U.S. and in other parts of the world. The Chicago Transit Authority recently replaced 20 miles of deteriorated creosote-treated wood ties with Tietek. A press article released by the Chicago Transit Authority from 2004(CTA 2004) stated:

"CTA began replacing its wooden creosote-soaked railroad ties with recycled plastic ties in 1998. The plastic ties offer both performance and environmental advantages. Wood ties require creosote treatments to extend the service life of wood, especially in certain harsh climates. The plastic ties resist decay, insect attack and water absorption and are free of chemicals used as preservatives".

Upon project completion, commuters will enjoy a quieter, faster, smoother and safer ride along the entire Chicago Blue Line. Train speed that is currently moving as slow as 15MPH will be increased to 65 - 70MPH".

Composite and non-wood ties and rail building materials have been used in many countries due to the world wide reduction of timber, the growing concern over treated-wood chemicals and their toxicity and a desire to apply recycled materials for other purposes. A report written by the Indian Railway Institute of Civil Engineering on composite ties for railway bridges lists the many benefits of utilizing non-treated wood which include:

- High Strength and having a life of 40 to 50years.
- Low weight
- High corrosion resistance
- Fire resistant
- Low thermal conductivity
- Low electrical conductivity
- Non magnetic properties
- Good attenuation of sound and vibration
- Excellent design flexibility

8-27

- Low life cycle cost
- Resistance to hydrolysis, greases and oils
- Environmentally friendly and completely recyclable
- Reuse of waste resources (consumes the waste plastic which has disposal problem)

8-27

Cumulative Impacts

CATs finds several inadequacies with the Cumulative Impact section of the proposed plan. The first of these inadequacies is a blatantly unsupported statement in regards to rehabilitation of the rail line from Lombard to Windsor on page 4-42 to 4-43 of the November DEIR that reads:

“The routine maintenance and repair activities are located within the railroad right-of-way, conducted from the rail using rail mounted equipment and performed in accordance with NCRA’s BMPs. None of the maintenance and repair activities involve any expansion of prior use and will not change the purpose or weight bearing capacity of the structures being repaired. There will be no placement of sediment within waters of the State. There will be no excavation or fill in the waters of the State and no alteration of the streambeds. There will be no work conducted in waterways and wetlands and there will be no excavation of native soils. Grading will only involve the re-grading of existing railroad ballast.”

8-31

It appears that the NCRA plans to rely on the BMPs to guarantee that there will be no placement of sediment within waters, no excavation or fill placed in water and no work conducted in waterways and wetlands, etc. CATs finds this to be completely insufficient support for the above claim.

8-29

CATs finds this statement so lacking based on several observations. The BMPs located in Appendix A Operations Plan do not support the claim on page 4-42 and 4-43 and in several places contradict it. For example Biological Resource BMP B-11 reads:

“If work needs to be conducted in sensitive areas, including but not limited to wetlands, surface water, stream banks, or stream channels, the NCRA or its representative will obtain the necessary permits and the agency approvals. Specific requirements may include, but not limited to the following activities:

- *Return all temporary disturbed natural areas to the original contours*
- *stockpile and replace the top six inches of native topsoil in wetlands, and reestablish wetland and riparian vegetation as appropriate.*
- *Stabilize all affected wetlands, stream banks or stream channels prior to the rainy season (approximately October 15-April 15).*

8-31

This BMP is in direct contradiction to the statement on page 4-42-43 that there will be “no work conducted in waterways and wetlands” and there will be no excavation of native soils, etc. If this statement were true and supported by BMPs, then the BMPs would explicitly explain how work would be done to guarantee the highly optimistic and unrealistic claim above (4-42 to 4-43).

It is these types of contradictions found throughout this section that rise to a significant level of concern for CATs and show how the document fails to adequately describe and analyze the potential cumulative environmental impacts and thus fails to mitigate for them. Other BMPs that contradict the above statement on page 4-42 and 4-43 include SW-3, WR-4, WR-5, WR-6, WR-10 and TTM-8.

Another inadequacy to show true potential cumulative impact from rehabilitation and construction of the rail line and analyze it in a meaningful way is highlighted in the discrepancy between the statement on 4-42-43, the general description of work covered by the Categorical Exemption and Table 2.3-1 "Rehabilitation, Construction and Ongoing Maintenance Activities" from the March '09 DEIR.

For example, page 4-42 and 4-43 state ". There will be no work conducted in waterways and wetlands". This is contradicted several times in Table 2.3-1 from the March '09 DEIR and is evident in the description of culvert and bridge work on and around rivers, streams, creeks and wetlands. This inadequacy is perhaps most notably at Milepost 67-68 which explicitly states at "*Bridge (MP67.62) work will be limited to deck work consisting of replacement of timber in-kind, possible repair of steel truss members, and repair of scour at concrete piers located in the water. The scour repair at the concrete piers will require placement of 20 to 30 cu yds of grout. A temporary cofferdam will be required to be placed in the river to complete this work*".

CATs is also not assured that statements in the Cumulative Impacts section are adequately supported such as the statement that "there will be no excavation of native soils". Table 2.3-1 mile-by-mile rehabilitation chart shows various situations where slope failure will require excavation and grading. For example, MP 85-86 specifically states "*Slope Failure repair (MP 85.6) work will include: grade uphill drainage ditch to drain. Will impact wetlands*". This is a perfect example of how the cumulative impacts and known potential impacts have not been adequately or accurately described or mitigated for throughout the entire proposed project. It says it right there. "*Will impact wetlands*"(page 2-64 Table 2.3-1).

The general description of work covered by the Categorical Exemption described in the Cumulative Impacts section is vague and insufficient in analysis as well as being contradictory to Table 2.3-1 from the March '09 DEIR and the highly unrealistic and unsupported claim on page 4-42 and 4-43. For example, page 4-43 states "*No work is planned in wetlands or in waters of the U.S. or state of California. NCRA's BMP's will be employed to minimize the effects of this work*". CATs asserts that not only is this statement and others like it confusing and untrue, but it also skews the analysis that rehabilitation and construction activities (even those covered by the Categorical Exemption) do not add up to a significant environmental impact. CATs argues that this section is misleading to decision makers and the public. A reliance on BMPs and contradictory statements appears to be the basis of the conclusion that there will be no cumulative impacts associated with this project.

In sections of the November DEIR, the NCRA admits potential significant impact from

8-31

ongoing maintenance activities, repairs and the four analyzed rehabilitation sites. An example of a potential impact found in Table 3.0-1 reads:

“Impact BIO-BC4: There could be temporary disturbance of wetlands/waters of the United States at the Bakers Creek site. Construction activities could impact wetlands and other waters at the rehabilitation work site. Operation of vehicles and equipment in these areas could adversely affect wetland and stream habitat by disrupting soil and damaging or removing wetland and riparian vegetation. Ground disturbance and other activities within and adjacent to stream zones could result in increased erosion, water turbidity and sediment transport into waterways”.

8-31

How are the potential impacts associated with these activities not probable or likely in the rehabilitation and construction covered by the Categorical Exemption and detailed in Table 2.3-1 from the March DEIR? CATs asserts that these potential impacts are indeed possible throughout the large-scale rehabilitation already underway and yet to be done. CATs does not believe that the NCRA can claim that there are no cumulative impacts associated with the currently proposed plan and Rehabilitation of the line. Potential impacts that arise in operations repairs after the initial start up are even more likely to occur in the rehabilitation and re-construction of the line prior to trains running.

The Cumulative Impacts Section of the November DEIR also fails to take into account the many repair and construction activities undertaken by the NCRA to reinstate rail service including, for example, waste a debris clean-up done as partial compliance with the ECD or rail-tie replacement funded by FEMA monies. While the November DEIR does address the rehabilitation of the line from Lombard to Windsor it does not include description or analysis of work from Windsor to Willits nor provide a description of repairs done that do not fall under the Categorical Exemption.

8-32

Furthermore, the Cumulative Impact Section describes the rehabilitation work in vague and generalized terms such as “bridge work, tunnel work, signal work, etc. and fails to describe actual repairs needed by milepost. A mile-by-mile description of current status, repairs needed, repairs completed, and site-specific potential impacts are needed to make an informed cumulative impact section with site-specific mitigation measures.

8-33

Best Management Practices

As in MARCH ‘09 DEIR, BMPs are heavily referenced in NOVEMBER ‘09 DEIR. While in this version the BMPs actually exist, CATs has identified several areas in which they are lacking. These insufficiencies will need to be addressed for the document to comply with CEQA.

NCRA states in its Notice of Availability for NOVEMBER ‘09 DEIR that BMPs presented in NOVEMBER ‘09 DEIR will be reviewed by the agencies prior to operations. This plan fails CEQA because the BMPs actually must be reviewed prior to publication of the EIR; the BMPs that ultimately are implemented by NCRA post-agency review may be substantially

8-34

different from BMPs as they are currently written. In it's comment letter for MARCH '09 DEIR, the North Coast Regional Water Quality Control Board states that 401 certifications will be required: these too need to be pursued prior to circulation of an EIR due to the changes to the project that may be required by the regulator. NCRA can't put off to the future important components of its plans to protect the environment; these must be included in the EIR. NCRWQCB also may impose waste discharge requirements and NPDES general stormwater permits. The changes to the current project that are likely to come about due to permit requirements must be reviewed in the EIR. Essentially the BMP cart is before the project description pony so that an adequate description is not achieved.

8-34

2.1 Track and Tie Maintenance and Repair

The BMPs make no mention of the tie material used in replacing damaged or worn railroad ties, whether it be wood, concrete, steel or plastic. Thus, it is assumed that all of these represent possible choices. NCRA, then, should delineate the best management practices associated with *each* of these materials. For instance, in a report for the USDA, Brooks (2004) recommends reducing "the probability of significant creosote loss from deep checks in the wood or from excess surface deposits" when replacing ties with creosote-treated wooden ties. On the other hand, if concrete ties are chosen, NCRA should ensure that onsite washout is performed at least 50 feet away from storm drains, open ditches or water bodies, and that portland cement or asphalt concrete wastes are collected and properly disposed of, to name only a few practices (CASQA 2003).

8-35

2.2 Brushing and Herbicide Spraying

Sub-section BH-1 states: "No chemicals shall be applied in a way that will contact workers or other persons, either directly or through drift." Please enumerate measures taken to avoid herbicide exposure to workers and other people.

8-36

2.3 Crossing and Signal Maintenance

Field test new and repaired equipment to ensure it is fully operational.

8-37

2.4 Culvert and Drainage Swale Maintenance

As the BMPs state, "all existing culverts and swales shall be properly maintained to ensure they provide for the proper conveyance of storm water without causing flooding or erosion." On the other hand, the Russian River Watershed Council associates the loss of woody debris from streams with impacts on "all aspects of a stream's structure and function including water temperature, flows and habitat" (RRWC 2002). Similarly, the California Department of Fish and Game (CDFG) recommends the retention of large woody debris in salmon-bearing streams, as it provides shelter and rearing habitat for migrating salmonids. Bakers Creek, a tributary of the Russian river, has documented observations of

8-38

threatened Central California Coast Steelhead (*O. mykiss*), and "should be managed as an anadromous, natural production stream" (CDFG 2006). How does the NCRA plan to manage these competing interests associated with new and existing culverts?

8-38

CDFG publishes Steelhead Trout Management Tasks, which are designed to improve steelhead trout populations throughout the state. CDFG states that "a cumulative impact analysis of existing and proposed diversions needs to be completed for the Russian River tributaries and mainstem" (CDFG 2010). It appears that the NCRA EIR fails to include this analysis.

The EIR Project Description states that a new concrete arch culvert will be installed at the Bakers Creek crossing. However, concrete waste management practices have not been enumerated in the BMPs. It is recommended that NCRA adopt suitable concrete waste management practices in order to prevent the discharge of pollutants into Bakers Creek.

8-39

2.6 Flange Lubricators

A report by the US Department of Energy notes that "inefficiencies in lubrication need to be avoided for economic and environmental reasons" (USDOE 2000). Furthermore, sub-section FL-5 requires the use of an "environmentally adapted lubricant". What constitutes an "environmentally adapted lubricant"?

8-40

Are flange lubricators track-mounted or train-mounted? In either case, how will NCRA ensure that the correct amount of lubricant is applied? Will lubricant be applied according to a schedule, or as needed based upon physical indicators? If track-mounted, where will lubricators be located relative to waterways? How and where will lubricant be stored and handled?

2.7 Locomotive Fueling and Inspection

Sub-section LF-2 implies that the subsequent fueling BMPs apply only to non-routine and emergency fueling. Routine fueling, as stated in the NCRA Inspection and Maintenance Plan, "will occur from tank trucks at the designated maintenance areas on the RRD." What are the best management practices for routine fueling? For instance, locomotive fueling operations often involve replenishing supplies of sand for on-board sanders. Should the operators employ sanders along the Russian River Division, sand stockpiles may need to be stored at the designated maintenance areas. In such cases, sand stockpiles should be located to minimize erosion from wind and storm water. Repeatedly, please indicate whether and where sanders will be used along the RRD and what their environmental impacts will be.

8-41

8-42

Sub-section LF-9 requires that fueling take place no less than 100 feet from streams, creeks, wetlands or other native water bodies? How is this guaranteed in emergency situations? For example, it is conceivable that a train will need an emergency refueling during a flood event, or that a train runs out of fuel while traversing one of the 121 water-crossings situated along the line. NCRA should specify how this guarantee will be satisfied.

8-43

The following BMPs are adopted from the *California Stormwater Handbook* and should be

8-44

incorporated into the NCRA BMPs to reduce or eliminate contamination of stormwater (CASQA 2003):

- Fueling operations must not be left unattended.
- Nozzles used in vehicle and equipment fueling must be equipped with an automatic shutoff to control drips.
- Use vapor recovery nozzles to limit pollution from volatile organic compounds (VOCs).
- Fueling must take place on level-grade areas.

2.9 Used Railroad Tie Management

The following BMPs are adopted from the *California Stormwater Handbook* and should be incorporated into the NCRA BMPs to reduce or eliminate contamination of stormwater (CASQA 2003):

- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Ensure that adequate hazardous waste storage volume is available.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.

8-44

Loading and Unloading BMPs

Section 4.2.3.4 of the EIR (*Cumulative Impacts*) states: "If a contract is entered into and when the details of the loading and unloading operation are identified, the potential impacts will be evaluated in a separate environmental document." As the loading and unloading of freight would represent a routine activity during the operational phase of the project, it is necessary to have on-hand a set of best management practices for this activity in order to reduce or eliminate contamination of storm water. See, for instance, the best management practices for rail loading and unloading of solid and liquid freight in King County, WA (KCDNRP 2009). Loading and unloading BMPs may include, but not be limited to the following practices:

- Clean up any material that is spilled during transfer operations immediately. Never wash spilled material or debris to the storm drains or the street.
- Ensure employees are trained in and follow proper loading and unloading procedures.
- Conduct loading and unloading operations under cover if possible.
- Install a curb or dike, or slope the area to prevent stormwater from running on to the loading/unloading area and washing away spilled material.
- Store and maintain appropriate spill cleanup materials in a location known to all.

- Ensure that employees are familiar with the site’s spill control plan and/or proper spill cleanup procedures.
- Follow LF and LMR BMPs for fueling and repairing loading and unloading equipment.

8-44

Other Comments, Concerns and Questions

November '09 DEIR

Regarding visual qualities and views, section 3.7.3.2 states: "Visual qualities and the view potential of the natural and built environment shall be considered in any project or operation review. Tree-cutting and damage shall be avoided wherever possible." Resumption of the railroad includes a 60-car and 25-car train conducting a round-trip voyage through Marin County every day, six days a week. The voyage passes through land with open space, residential, mixed-use, and commercial land-use designations. The DEIR does not address the visual impact of the actual train on the natural and built environment. Thus, NCRA cannot assume that the project is consistent with Marin County General Plan EQ-3.11.

8-45

Regarding noise impacts, section 3.7.3.2 states: "Accordingly, the proposed project would not likely generate noise in excess of County exterior noise thresholds, and therefore is consistent with applicable local land use policies." This should read: "Accordingly, the proposed project would not likely generate noise in excess of County exterior noise thresholds, and therefore would not likely be inconsistent with applicable local land use policies."

8-46

March '09 DEIR

Deferment:

“biologists performed several reconnaissance level surveys of the entire rail line to broadly assess vegetation communities and key habitat areas. This assessment was used to acquire a broad understanding of the diversity of habitats and to identify specific sections of the railroad to be further surveyed” Section 3.2 biological resources pg 3-85-86.

“In the absence of site specific information, the presence of sensitive species and resources was inferred using the survey results and existing information obtained from the literature review, resource agency sponsored databases, and the NCRA Updated Capital Assessment Report (CAR) which includes a preliminary biological investigation (prepared by Mad River Biologists, Arcata, California in 2005)”. Section 3.2 biological resources pg 3-86.

8-47

CATs inquires: How can appropriate agency permitting be done without complete environmental assessment? There are many federally and state listed endangered species mentioned in the DEIR within the study area—if species-specific surveys have not been done how can there be a relatively accurate analysis of the potential environmental impact? Species-specific surveys should be done before the EIR because the presence of special status species will change the permitting required, the activities allowed at the site and the mitigation required. These statements point out that the surveys

which have been conducted on behalf of NCRA only “broadly assess” habitat and plant communities along the rail line. Without an adequate environmental assessment of the current habitat, plant communities and wildlife present in the area how is the public to fully understand the ramifications of the project and the project alternatives?

Special Status Species

In table ES-1 (pg. ES 19-54) from the executive summary summarizes potential impacts and mitigation measures for the entire project- These mitigation measures can be seen as deferment. Example: “*a qualified biologist shall conduct pre-construction surveys for nesting birds...*” Has the NCRA not surveyed for nesting birds despite the fact that there are several special status birds found within the railway?

3.2.4.3 Impacts and Mitigation Measures, Rehabilitation and Construction Activities

-potential impacts for the four main activities in the proposed project were assessed separately for each site. “*Additional agency consultation will be conducted during the permitting phase for these sites*”

-if additional agency consultation will be sought for permitting, how do we know that these are the mitigation measures in the DEIR will be those are implemented. If adequate analysis is not done in the first place, mitigation measures are, in-step, lacking. What are the other potential changes to the project that could come about from the consultation and permitting process?

Bakers Creek-the mitigations in this section state “all work shall be conducted in compliance with specific permit conditions. How will they get permits and comply with them if they have not done complete environmental assessment? Example *Impact Bio-BC6: rehabilitation work could potentially affect Clara Hunt’s milkvetch and/or Colusa layia, a listed special status species...*but protocol surveys have not been completed at the site. Mitigation for *Bio-BC6: prior to rehab, a plant survey shall be conducted in any area that will be disturbed, pursuant to protocols established in consultation with appropriate agencies prior to the initiation of work activities.* What type of rehabilitation work could potentially affect these plants? How will they be affected? What is the environmental impact? What mitigation may be required? If surveys for this specific site (one of the four noted for potential significant impact) have not been done, how is this document adequately analyzing the potential for environmental impact? This section does not provide adequate information for the public or decision makers.

Foss Creek- “As in the case of Bakers Creek, *the final engineered plans for repair of the embankment will not be finalized until appropriate consultation with the regulatory agencies is completed*”. Pg 3-133 Mitigation: “*all work shall be conducted in compliance with specific permit conditions*” If they don’t even have the plans done and don’t know what they are doing to the embankment how can they the impacts of the activities cannot be understood by the public or even be analyzed by the agency themselves? They are not providing adequate info.

**Operations- once the train starts up again, includes maintenance and repairs- “activities associated with the resumed operation of the railroad will occur within railroad right of way and will not directly impact adjacent biological resources”. “Since the habitat conditions are poor, no significant impacts should result from operations within the railroad right-of-way” pg 3-146*

8-47

-The NCRA cannot claim that “resumed operation” of the train will not “directly impact adjacent biological resources” In a FEMA letter from February 17, 2000 quotes a Biological Opinion from the USFWS states that “project generated noise from the use of construction... and the eventual operation of the train may affect bald eagles and marbled murrelets” also “Project generated noise and activity could adversely affect nesting and roosting listed bird species in the project area, as previously described” This seems like a very direct biological impact.

8-47

Table 3.2-5 Rehabilitation, Construction and Ongoing Maintenance Activities by Mile Post-description of activities, notes related to biological resources and the agency to be consulted and/or permitting.

-Removal of deteriorated ties will be conducted in conformance with the Environmental Consent Decree

-how will waste such as rail ties be removed, transported and disposed of and is there a plan in place? They can’t just defer to the consent decree. This need to be adequately described in the EIR. If they are bringing the ECD into the EIR they need to describe in detail their plans to comply with the ECD and the environmental impacts associated along with mitigations and alternatives.

8-35

-NCRA BMPs heavily referenced in this table and in other parts of document... but where are they described? Are the BMPs referred to in the DEIR available for review?

8-48

3.6.3.3 Impacts and Mitigations-Rehabilitation and Construction Activities

Bakers Creek: *Impact HM-BC1: there is the potential that hazardous materials and waste could be mismanaged during the rehabilitation activities and potentially impact the surrounding resources. Mitigation HM-BC1: Agency approved operations plans and BMPs for the management of hazardous materials and waste shall be implemented during the rehabilitation activities.*

8-49

-what hazardous materials and waste will be at this site? What is currently there? How could they potentially impact the surrounding resources? These questions need to be answered by the DEIR under CEQA.

Biological Resources

(pg 3-96) Riparian and Oak Woodland Sensitive Communities- this section has a very brief discussion and seems inadequate compared to Wetlands and Waters section on pg 3-96 *Riparian and Oak Woodland Sensitive Communities should be thoroughly discussed and potential impacts described.* Sonoma County Tree Ordinance- Chapter 26, article 67 of Sonoma County Code provides for protection and enhancement of valley oak and valley oak woodland. Santa Rosa 2020 General Plan Contains policies to preserve and regenerate native oak trees. City of Petaluma General Plan 2003 promotes conservation of oak woodlands and the Heritage Tree Ordinance requires a permit prior to removing trees within public right of way. Table 3.2-2 Regulations and Policies, Vegetation and Wildlife (biological resources section) *What are the potential impacts from train operations, rail maintenance and construction to oak woodlands?*

8-50

Appendix D- Biological Field Report '08 (Lombard to Willits)

- Observations in surveys made by hy-rail vehicle as it traveled at 1-5mph down track
- in “areas of interest” walking surveys were conducted (water crossings)
- between MP 138 and MP 99 survey conducted to look for signs and habitat of burrowing owls. Nesting raptors also documented within the NCRA corridor. developed and urban parts of the rail were excluded from this survey because burrowing owls are not likely to live in populated areas. How is urban defined? There are many potential impacts to the urban environment that need analysis and mitigation under CEQA
- what about other special status species birds that have adapted to live in urban and developed areas such as the Peregrine Falcon and the Oak Titmouse?
- MP 99 to MP 85 (Hopland to Cloverdale) Serpentine soil in this area with many endemic plants on the ESA list of special status plants. Also over 30 estimated potential wetlands or vernal features were noted in this section. See: Table 3.2-2 Observed Flora and Fauna for the Section Between MP 99 and MP 85

specific impacts from this project on this rich and diverse area were not adequately discussed. It is noted that there are many special status plants yet the individual impacts or necessary mitigations to the potential harm is not analyzed. How can the public and governing agencies make an informed decision without adequate assessment?

8-50

3.2.4.3 Impacts and Mitigation Measures, Rehabilitation and Construction Activities: Yet another example of a gap in information and environmental assessment. The mitigation suggested is completely inadequate

Lombard Siding- Presence of mudflats and seasonal wetlands noted in document but they have not been evaluated completely...only states likely presence of some special status species. Mitigation for disturbing mudflat and wetlands: “they will be fully evaluated and confirmed in coordination with permitting and resource agencies. Losses of the habitats will be mitigated by creation of an equivalent habitat at a 1:1 ratio, or other compensatory mitigation determined appropriate by the permitting agencies”. Pg 3-132-138

Blackpoint Bridge- only nesting birds are noted for potential impacts... water quality, aquatic life, salt marsh vegetation, and other habitat and special interest species that were mentioned in earlier biological resource summaries for this particular site are not mentioned or analyzed for potential harm or mitigation. Pg 3-139

3.6 Hazardous Materials Gap

- What hazardous materials are present in the project area? How will NCRA deal with them? Have they tested for hazardous materials and waste? What hazardous materials and waste will be generated by construction activities and future operations?

8-51

Naturally Occurring Asbestos- CA Air Resources Board Section 93105: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations, requires specific control measures when any portion of the area to be disturbed has naturally-occurring asbestos, serpentine, or ultramafic rock pg 3-348– which the RR does, serpentine is

8-52

noted in the DEIR between Windsor and Hopland- do they have specific control measures planned?

Herbicide Gap

-Impact BIO-OP2: Maintenance and repair activities associated with the operations could result in disturbance to stream zones, special-status species and/or nesting birds. “these activities could cause ground disturbance in stream channels and banks and could affect water quality by increasing turbidity, sedimentation or discharging oil, gas or other pollutants into watercourses. Use of herbicides for vegetation control, particularly near wetlands and watercourses, could have adverse effects on fish and wildlife species. Individual fish or wildlife, including special-status species could be harmed or temporarily displaced by these activities” pg3-147-148 Mitigations- use BMPs and if herbicides are used it shall be conducted in accordance with NCRWQCB herbicide spraying procedures outlined in NWP Operations Plans

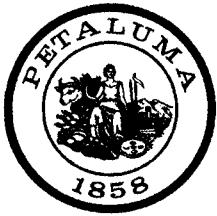
-What herbicides are they planning on using? What plants are they targeting? Where do they plan on using herbicides?

In conclusion, we urge the NCRA to return to the drawing board and revise the EIR again especially regarding environmental resources and human populations and the toxic chemicals in its right-of-way and which it will be added to its right-of-way through its actions.

Regarding the full record of CATs’ comments for this DEIR, we have sent 5 CDs containing copies of supporting documents, emails with 28 supporting documents by way of amy@alt2tox.org, and a few documents that have been hyperlinked with this letter. Please consider all these documents to be part of CATs record of comments to the DEIR. We look forward to your response to our comments.

Sincerely,

Patricia M. Clary
Executive Director



9

CITY OF PETALUMA

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Teresa Barrett
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Councilmembers

January 11, 2010

North Coast Railroad Authority
ATTN: Mitch Stogner
419 Talmage Road, Suite M
Ukiah, CA 95482

RECEIVED
JAN 13 2010

BY:.....

RE: DEIR for the North Coast Railroad Authority Project (SCH# 2007072052)

Dear Mr. Stogner:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the North Coast Railroad Authority Russian River Division Freight Rail Project and for the changes/additions made since the March 9, 2009 DEIR. Please see our comments below on the November 2009 DEIR.

Cultural Resources: While the DEIR notes that the planned improvements and operations will not have a direct or indirect impact on the resources outlined in Table 3.3-1 the City of Petaluma would note the following:

- The Petaluma Silk Mill, listed on the National Historic Register, and located directly across from the railroad right of way was not included in the table.
- The referenced Petaluma and Santa Rosa car barns burned down in 2001 and no longer exist.

9-1

Land Use and Planning: The Land Use and Planning section refers to the evaluation of information available in 2008 when the previous DEIR was under preparation. The DEIR evaluated Petaluma's 1987-2005 General Plan. The City of Petaluma adopted its new General Plan 2025 in May 2008. The new General Plan 2025 should be evaluated for consistency with the NCRA project, including updating the referenced Petaluma land use map incorporated in the NCRA DEIR as Figure 3.7-1n.

9-2

Thank you for your consideration.

Sincerely,

Scott M. Duiven, Senior Planner
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10

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January 11, 2010

RECEIVED
JAN 13 2010

BY:.....

Mr. Mitch Stogner, Executive Director
North Coast Railroad Authority
419 Talmage Road, Suite M
Ukiah, CA 95482

RE: Comments on Revised/Recirculated Draft Environmental Impact Report (DEIR) –
Russian River Division

Dear Mr. Stogner:

In response to your notice of December 14, 2009, the Mendocino Council of Governments is hereby submitting our staff comments on the revised/recirculated DEIR for the Russian River Division of the rail corridor.

We have reviewed our previous comments against the recirculated document and have the following comments for your consideration:

1. Executive Summary

a. The Executive Summary states that this project assumes no federal funding. This is a faulty assumption because:

- The project cannot be implemented without federal funding.
- The Novato Consent Decree requires that NCRA apply to FHWA and Caltrans for federal funding.
- The Nov. 20, 2008 letter from NCRA Chairman Hemphill to Congressman Thompson specifically requests \$26 million in federal economic stimulus funding for the Willits to Cloverdale segment.
- By assuming no federal funding, no NEPA review was done. By not completing NEPA now, this will put the NCRA in a difficult position to meet application deadlines (*and "shovel ready" status*) when you do apply for federal funding.
- Costs savings could have been achieved by completing CEQA and NEPA reviews concurrently.

10-1

b. Page ES – 46, Mitigation T-OP2 – Although the larger cities along the rail line may have fire stations or hospitals on both sides of the track, smaller cities (such as Ukiah and Willits) do not, and therefore the proposed mitigation measures for

10-2

an emergency hotline to the NWP Co. Dispatcher (so trains may be stopped or held back in an emergency) is of even greater importance to these smaller cities.

2. Project Description

Page 2-9 – this section indicates that “...NCRA has sufficient identified funding for restoration of the entire RRD which restoration is likely to be completed within a reasonable time following the preparation of the final EIR.” Since the DEIR previously states that no federal funding is assumed for this project, what is this “identified funding” source? Also, how could this possibly be done in a “reasonable time” if NEPA review has not even been started?

10-3

3. Transportation

a. Page 3.10-6 – The City of Willits should be added as an area with significant bottleneck.

10-4

b. Table 3.10-2 should include AADT at a key location in Willits, the northern terminus of the Russian River Division.

c. Page 3.10-9 – Table 3.10-3 – The Ukiah E. Gobbi Street crossing should be listed as a “key” at grade crossing. Gobbi Street is a significant corridor in the City of Ukiah, and even if the volumes are not as high as other key Ukiah crossings, the City’s addition of a stop sign near this at-grade crossing has the potential for causing queues to back up across the tracks.

10-5

4. Cumulative Impacts

Page 4-34 – Willits Bypass – Under Air Quality, it states that “...project will remove up to 800 heavy diesel truck trips from the area.” This section should be clarified to state that the 800 trips are along the entire project corridor – not just the Willits area.

10-6

5. Appendix I – Traffic Impact Analysis (Dowling Associates, Inc.)

Page 3 – indicates “...it is unlikely that freight service could operate along this section during peak-period SMART operation.” This comment directly disagrees with narrative throughout the DEIR which states that freight and passenger service could both run during peak periods.

10-7

Thank you for the opportunity to comment. If you have any questions, please feel free to contact me at 707-463-1859 or dowp@dow-associates.com.

Sincerely,



Phillip J. Dow
Executive Director

/e

cc: Dan Gjerde, MCOG Chairman
David Colfax, NCRA Board Member

11

RECEIVED
JAN 8 2010
13

BY:



City of Healdsburg
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(physical location: 435 Allan Court)
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Phone 707.431.3346
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January 12, 2009

Mitch Stogner, Executive Director
North Coast Railroad Authority
419 Talmage Road, Suite M
Ukiah, CA 95482

Subject: Comments on the Revised Draft Environmental Impact Report (DEIR) for the Resumption of Freight Train Operations, SCH No. 2007072052

Dear Mr. Stogner,

Thank you for revising the initial Draft Environmental Impact Report (DEIR) for this project to incorporate some of the information identified by the City of Healdsburg in its May 11, 2009 letter and for providing the City an opportunity to comment on the adequacy of the revised DEIR. The City of Healdsburg recognizes the beneficial impacts to traffic and air quality that will result from the resumption of freight train operations between Willits and Lombard; however, the resumption of freight service will have significant effects on Healdsburg due to its numerous at-grade crossings and the close proximity of noise-sensitive uses to the railroad tracks, as many residences and hotels are located immediately adjacent to the tracks and crossings.

We offer the following comments and recommended revisions to the EIR to ensure that it includes the most accurate information about the effects the project will have on the environment and to identify all feasible mitigations to minimize significant project impacts, as required by California Environmental Quality Act (CEQA) Guidelines Section 15126.4(a).

- 1. **The EIR's Project Description should clearly state that freight trains are expected to travel at night and this operational characteristic should be fully evaluated and properly mitigated throughout the document.**

11-1

It is likely that nighttime freight operations will occur¹, however, the DEIR does not evaluate this operational characteristic of the project. For example, the project's noise assessment (Appendix

¹ There are multiple references in the DEIR to possible or probable nighttime operations (emphases added):

"...NWP Co.'s common carrier status will permit it to operate trains at night, which appears to be necessary because of the limited track capacity proposed to be made available to NWP Co. by SMART and NWP Co.'s obligation to provide adequate service to its rail customers." (Cumulative Impacts section, Page 4-15)

"Without approved PTC technology, if light DMUs were selected as the SMART project vehicle, the effect would be to prevent any NWP Co. freight or excursion passenger train operations during the entire time period that SMART's rail commuter trains were actively operating on the NWP rail line; thus, NWP Co.'s freight operations would necessarily be shifted almost entirely to night operations, if this SMART scenario were implemented." (Cumulative Impacts section, Page 4-15)

"Coordination of freight service and passenger service will require freight trains to operate primarily during off-peak passenger service time periods during the day and night." (Cumulative Impacts section, Page 4-25)

City of Healdsburg Comment Letter
NCRA DEIR
January 12, 2009
Page 2 of 4

H) is based on noise modeling (Appendix A of Environmental Noise Assessment) that assumes all freight trips through Healdsburg will occur during the day, but the Cumulative Impacts section acknowledges that the noise impacts would be greater if there are nighttime operations (emphasis added). The EIR should clearly identify, analyze and mitigate where necessary

11-1

- 2. The EIR should describe how the siding tracks in the Healdsburg Depot area could be used by NCRA's operations, evaluate the potential impacts associated with these operations and include mitigation measures to reduce the impacts.

The Initial Study prepared for the DEIR stated that existing freight sidings could be utilized for the parking of engines and rail cars, equipment switching and light maintenance (e.g., brake repair, minor engine repair, oil changes) and fueling of diesel engines and support equipment. It is also possible that the depot sidings could be temporarily used by an idling freight train to allow a SMART train to pass in the opposite direction or to overtake the slower freight train, or for the storage of NCRA or SMART cars. Given the adjacent industrial uses, it is also possible that the sidings could be used to load or unload freight. Noise associated with train operations on sidings is not addressed in the DEIR even though the document's noise analysis² clearly notes that additional, site-specific analyses may be required if such activities would produce significant noise exposure. The EIR should require such an analysis and provide mitigation measures where necessary.

11-2

Additionally, use of the siding in the depot area at night would likely require the installation of lighting that could adversely affect nearby residences. The EIR should analyze this potential impact and identify mitigation measures that would reduce the impact.

- 3. The EIR's Project Description should clearly describe all planned rail improvements in order to ensure that they are incorporated into the project.

Mitigation 3 included in Appendix H, Environmental Noise Assessment, states that the project would "provide significant improvements to the rail and rail structure" and that these improvements may reduce the production of ground-borne vibration from train operations. These measures, including track welding, should be fully described in the Project Description and analyzed in the document, and mitigation measures identified where necessary.

11-3

Additionally, text should be added to explain the apparent conflict with Appendices A, B and C of the noise assessment, whose noise projections appear to be based on "no track improvements."

- 4. A mitigation measure should be included requiring the installation of traffic signal preemptions at three locations in Healdsburg.

The DEIR identifies several intersections in Healdsburg that will experience traffic delays due to train crossings. The intersection with the greatest anticipated delay is the so-called five-way intersection at Healdsburg Avenue/Vine Street/Mill Street, with an average delay of 51 seconds. The Dry Creek at-grade crossing between Grove Street and Healdsburg Avenue is expected to experience a 36-second delay.

11-4

The DEIR identifies 11 intersections where the traffic queue may exceed available storage areas and identifies the installation of traffic signal preemptions as the appropriate mitigation measure

¹The elimination of the midday [SMART] train would allow more flexibility for freight train operations although most freight train operations would be shifted to night. (Pages 4-25/26 of the Cumulative Impacts section)

² Appendix H Page 1, Project Description

City of Healdsburg Comment Letter
NCRA DEIR
January 12, 2009
Page 3 of 4

for these intersections. None of these intersections are located in Healdsburg. However, just because there may be sufficient storage for traffic queuing at a particular intersection does not relieve NCRA from identifying mitigation measures that would reduce the impacts at other locations. Given the traffic volumes at the five-way intersection, and the fact that anticipated delay is among the highest identified, representing a significant, unmitigated environmental impact, signal preemption should be a required mitigation measure at this location. The other locations where signal preemption is appropriate for safety purposes are at Healdsburg Avenue at Chiquita Road, and Healdsburg Avenue at the future Quaker Hill crossing, which also require identification, analysis and mitigation in the EIR.

11-4

- 5. The EIR should evaluate and mitigate the potential impacts on downstream flooding related to the proposed Foss Creek repairs and require consultation with the City of Healdsburg in the development and implementation of the repairs.

The repairs proposed by NCRA, which include realigning a portion of the creek and installing steel sheet piles and rip rap, could potentially have downstream flooding impacts. The DEIR should identify potential impacts and appropriate mitigation. Additionally, mitigation measures should be included that require NCRA to verify that the proposed channel improvements do not diminish the channel capacity for the 100-year design storm and require consultation with the City of Healdsburg in the development and implementation of the repairs. This consultation would give the City an opportunity to ensure that proposed repairs and measures would not adversely impacts downstream properties, as well to review the revegetation plans for consistency with the City's efforts to restore Foss Creek using methods and materials that will enhance its habitat.

11-5

- 6. The EIR should include all mitigation measures that could reduce the severity of significant environmental impacts that will adversely affect Healdsburg.

A number of mitigation measures are identified within individual sections of the DEIR, but are not included in Table ES-1, Summary of Findings. The failure to include these measures is apparently based on the premise that the mitigation measures would not reduce the impact to a less-than-significant level. However, CEQA³ requires agencies to also adopt feasible mitigation that would *lessen* such impacts.

11-6

Additionally, the following mitigation measures are among those that should be included in order to reduce adverse impacts:

- The establishment of "quiet zones" at Healdsburg's railroad grade crossings would eliminate noise from warning horns. The detailed analysis in the DEIR's Appendix G Environmental Noise Assessment acknowledges that, "The application of "Quiet Zones" in the most populated areas of the project corridor *would significantly reduce freight train noise exposure and the number of impacted uses and people*" (emphasis added) and lists quiet zones as a mitigation measure. However, DEIR Section 3.3 Noise does not include this acknowledgement and this mitigation measure is not listed in Table ES-1 as a mitigation measure.

11-7

The NCRA has committed to establishing quiet zones at crossings within the city of Novato. SMART has also committed to working with local jurisdictions to achieve quiet zone designations by the Federal Railroad Administration. Since NCRA's operation is independent of SMART and could actually commence before SMART service begins, the NCRA is

³ 14 California Code of Regulations (CEQA Guidelines), Section 15126.4

City of Healdsburg Comment Letter
NCRA DEIR
January 12, 2009
Page 4 of 4

required to work towards establishing as many quiet zones as are feasible in Healdsburg (include funding for the necessary improvements) and the project's Final EIR and Mitigation Monitoring Program should include this mitigation measure.

- Welding the ends of track rails to each other would reduce noise and vibration associated with rail "chatter." Section 2.5.5.2 of the DEIR's Project Description acknowledges that, "The purpose of welding the joints in the track is to minimize the potential noise and vibrations associated with the operation of the freight train." Therefore, this mitigation measure should be included in the EIR.

11-8

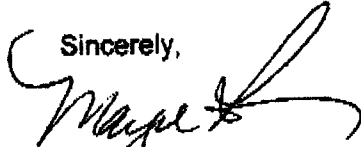
It should also be noted that the DEIR's noise assessment is based on noise measurements taken at locations with continuous welded rail (Appendix H, Environmental Noise Assessment). If it is not the intent of NCRA to continuously weld the rails, the noise assessment must be revised to accurately reflect future noise conditions without welding.

- Locomotive headlights associated with nighttime train operations will impact residents living directly adjacent to the tracks, possible causing a disturbance in sleep patterns. The DEIR does not propose any mitigation measures to reduce these impacts. However, trees and shrubs could be strategically planted to minimize glare from these lights. Therefore, this or similar mitigation measure(s) should be included in the project's Final EIR and Mitigation Monitoring Program.

11-9

We look forward to seeing the City of Healdsburg's concerns addressed in the Final EIR and the preparation of a project mitigation monitoring program, and urge NCRA to adopt all feasible mitigation measures that would lessen significant impacts identified in the DEIR.

Sincerely,



Marjie Pettus
City Manager

copies Mayor and Healdsburg City Council
Michael Gogna, City Attorney
Rick Tooker, Director, Planning & Building Department
Mike Kinn, Director, Public Works Department