NORTH COAST RAILROAD AUTHORITY
RUSSIAN RIVER DIVISION
BEST MANAGEMENT PRACTICES

Prepared for:

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November 2009

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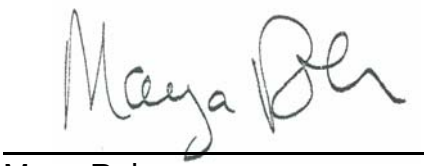
BEST MANAGEMENT PRACTICES
NORTH COAST RAILROAD AUTHORITY
RUSSIAN RIVER DIVISION
FREIGHT RAIL PROJECT

Kleinfelder Project No. 78207



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1.0 BMPS FOR NATURAL RESOURCE AREAS

1.1 AIR QUALITY (AQ)

AQ-1: Ensure that you have received the appropriate training to conduct railroad activities involving potential emission sources in accordance with the local and state air quality regulations. (See Environmental Compliance Program Plan (ECPP)).

AQ-2: During dry conditions, sufficiently water all active work areas that could generate dust as appropriate to minimize dust. Take care to prevent over-watering. Stop work when winds are strong enough to prevent dust control measures from eliminating visible emissions of dust.

AQ-3: Conduct herbicide spraying in accordance with Brushing and Herbicide Spraying BMPs.

AQ-4: Restrict use of gasoline and diesel powered equipment to required duration. Verify that equipment meets CARB emission standards (See ECPP).

AQ-5: Cover open trucks or rail cars hauling soil, sand, or other loose earthen materials, and maintain a minimum two feet of freeboard.

AQ-6: Prevent the tracking of soil or mud from the railroad right-of-way to paved ingress and egress roadways by removing earthen material from equipment before it leaves a work site. Remove visible soil, sand, fine gravel/ballast or other loose earthen materials that is tracked onto the paved roadways by railroad vehicles.

AQ-7: Prevent dispersion of dust from stockpiled loose material by covering, enclosing, applying soil stabilizers, or watering.

AQ-8: Limit vehicle speeds on unpaved roads to 15 mph.

AQ-9: Replant disturbed areas with appropriate herbaceous species or maintain disturbed areas to minimize dust.

AQ-10: Minimize locomotive idling time to less than 15 minutes; shut down two of three engines when idling Tier 3 locomotives.

AQ-11: Ensure that you have received the appropriate training to use and maintain equipment properly to minimize emissions.

1.2 BIOLOGICAL RESOURCES (B)

B-1: The Site Work Supervisor shall receive the appropriate training to identify sensitive natural areas and species, to conduct work safely around sensitive species and to be in compliance with regulatory requirements. (See ECPP)

B-2 Ensure that you have received the appropriate training to conduct your required tasks in accordance with all appropriate permit conditions, BMPs, Storm Water Pollution Prevention Plans (SWPPP), Waste Discharge Requirements (WDRs) and direction from the Site Work Supervisor. (See ECPP)

B-3: Locate site access, staging, storage and parking areas on ruderal (weedy), disturbed or developed land not containing native vegetation.

B-4: Do not drive or travel into wetlands, riparian or other sensitive areas. Stay on existing roads or designated access paths in these areas.

B-5: At work sites, conspicuously mark sensitive natural communities such as wetlands, surface water, oak woodlands, and riparian zones. Limit work outside of these areas as directed by the Site Work Supervisor.

B-6: Wherever possible, keep vehicles and mechanical equipment outside the drip line of protected trees, such as but not limited to heritage oak trees.

B-7: If activities will be conducted in sensitive areas or the work includes significant repair and maintenance activities, NCRA or its representative will obtain the necessary permits and agency approvals before work starts, and obtain a qualified biologist to monitor activities as appropriate or required by permit.

B-8 If a listed or protected species is encountered, stop work and notify the Site Work Supervisor and NCRA, who will notify the appropriate regulatory agencies. Resume work only with approval from the Site Work Supervisor, NCRA and regulatory agencies. (See ECPP)

B-9: If work such as trimming or removing trees and shrubs and repair of a bridge or tunnel may disturb a nest, the site NCRA will schedule work to be conducted between September 1 to January 31 (which is outside of the nesting period). If it is necessary to conduct this type of work during the nesting period (February 1 to August 31), NCRA will obtain a qualified biologist to conduct a survey for nests prior to the work activity. If a nest is found during work activities, notify NCRA and the Site Work Supervisor.

Appropriate actions will be identified by the site biologist and Site Work Supervisor.

B-10: If significant repair or maintenance work is being conducted near cliffs and during the nesting season of cliff swallows (March 1 – July 31), NCRA will obtain a qualified biologist to inspect for swallow nests prior to the start of work. If a nest is found, appropriate actions will be identified by the site biologist and Site Work Supervisor.

B-11: 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 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).

B-12: Follow the procedures below in order to avoid the spread of exotic invasive plants (weeds and non-native species):

- Avoid vehicle travel through weed-infested areas.
- Avoid soil disturbance and the removal of existing vegetation (exotic or native) during work activities that are outside the track structure (approximately 10 feet from centerline).
- Use only certified weed-free straw and mulch or weed-free fiber roll barriers or sediment logs.
- Use only certified weed-free seed mixes and native plants that are appropriate to the pre-existing or adjacent natural habitat for re-vegetation.

B-13: If pile installation is required, NCRA or its representative will obtain the necessary permits and agency approvals. Use a vibrating hammer where feasible instead of a drop hammer or other methods of pile installation to minimize noise levels and disturbances to wildlife and impacts on fish species.

B-14: If sheet piling is being placed within the mean high water level, NCRA or its representative will obtain the appropriate permits and approvals prior to work.

B-15: Prior to any work activity within a tunnel, NCRA or its representative will obtain a qualified biologist to conduct a bat survey. If the investigation reveals bat roosts, then NCRA will consult the California Department of Fish and Game (DFG) and identify appropriate mitigation measures and eviction procedures as necessary.

B-16: Apply herbicides in accordance with the Brushing and Herbicide Spraying BMPs.

B-17: Where feasible, conduct work with track-mounted equipment.

1.3 CULTURAL RESOURCES (CR)

CR-1: Ensure that you have received the appropriate training to identify potential sensitive cultural, historical and/or archaeological (cultural) resources.

CR-2: The NCRA or it representative will review the inventory of potential significant cultural/historical resources prior to work that may impact resources. The NCRA will contact the State Historic Preservation Office (SHPO) prior to the start of work if an identified resource is located within or adjacent to the railroad right-of-way.

CR-3: If a potentially significant cultural resource is identified during work activities, stop work immediately and notify the Site Work Supervisor. The Site Work Supervisor will notify NCRA and the SHPO and obtain a qualified cultural resource specialist to monitor the site. Do not resume work until notified by the Site Work Supervisor.

1.4 HAZARDOUS MATERIALS & WASTE (HMW)

HMW-1: Ensure that you have received the appropriate training necessary to identify and properly manage potentially hazardous materials, hazardous waste and universal waste. (See ECPP)

Examples of potentially hazardous materials used in association with the railroad include (but is not limited to) the following:

- Oil (lubricating, engine, etc.)
- Grease
- Petroleum products
- Ethylene glycol (antifreeze)
- Solvents

- Cleaning solutions
- Fuel (diesel, gasoline, propane, etc.)
- Cooling water with de-scaling additives
- Chemical additives
- Adhesives/glues

Examples of potentially hazardous or regulated waste that may be generated by railroad activities include (but are not limited to) the following:

- Used oils
- Waste oils
- Waste fuels
- Used oil filters
- Used rail ties
- Lead acid batteries
- Used or discarded chemicals (solvents, cleaning solutions, etc.)
- Used descaling chemicals and water
- Paint/coating waste
- Spilled chemicals and hazardous materials
- Contaminated soil and water from spills, leaks, etc.
- Used rags (oily, cleaning solvents, greasy, etc.)
- Spilled or discarded fuels
- Empty containers that held hazardous materials or waste
- Asbestos
- Lead-based paint waste
- Used personal protective equipment (gloves, tyvek coverings, etc.)

Examples of potential universal waste that may be generated by railroad activities include (but not limited to) the following:

- Fluorescent light tubes and bulbs
- Batteries (other than lead acid batteries)
- CRT and other electronic waste (cell phones, telephones, printers, etc.)

- Non-empty aerosol cans
- Mercury switches, thermostats, thermometers, gauges
- Rubber flooring

HMW-2: Control and contain minor leaks and/or spills (<55 gallons) of hazardous materials or hazardous waste immediately upon discovery. Properly collect and temporarily store waste in an authorized location at the site. Notify the Site Work Supervisor of the leak and/or spill. The Site Work Supervisor will coordinate the transfer of waste off site to a secured storage area or to a permitted Transfer, Storage and Disposal Facility (TSDF). (See ECPP)

HMW-3: Notify the Site Work Supervisor of major leaks, spills, fires, explosions that could result in the release of a hazardous material or waste as identified in the ECPP. The Site Work Supervisor will notify the appropriate emergency response authorities and regulatory agencies.

HMW-4: Inspect, maintain and repair all valves, pipes, tanks, containers associated with hazardous materials or hazardous waste. (See ECPP)

HMW-5: Store hazardous materials in secured hazardous materials lockers. Store hazardous waste in a secured storage area. Make readily available all necessary spill and emergency equipment at storage areas and ensure that sufficient aisle space is provided between containers to allow for emergency equipment. Other than the temporary (satellite) storage of hazardous waste generated during site work, hazardous materials and waste can be stored only at the Willits, Cloverdale, Schellville storage areas.

HMW-6: Inspect storage areas weekly and maintain inspection and maintenance records. (See ECPP)

HMW-7: Label all hazardous materials appropriately and have the MSDS on site and available. Label and date all hazardous waste at the point of storage/accumulation. The Site Work Supervisor will provide instructions regarding the time limit that hazardous waste can be stored in the secured storage areas (it is dependent on the annual quantity of hazardous waste that is generated.) (See ECPP)

HMW-8: Ensure that all hazardous material and waste containers are closed and in good condition. Repackage materials and waste that are in containers that are in poor condition. (See ECPP)

HMW-9: Transport hazardous waste off site to an approved TSDF with appropriate manifests or shipping records. (See ECPP)

HMW-10: Do not treat hazardous waste. This includes any type of treatment in containers such as neutralization/pH adjustment, solidification, filtration, phase separation or burning of waste. (See ECPP)

HMW-11: Do not dispose/discharge any hazardous or regulated materials or wastes onto the ground or in the water.

HMW-12: If asbestos is discovered on structures such as bridges, or if grading of naturally occurring asbestos is required, manage and dispose of asbestos containing materials (ACM), naturally occurring asbestos (NOA), or lead based paint (LBP) using the procedures established by EPA, OSHA, and the air districts. (See ECPP)

HMW-13: If fill material is obtained from a quarry, it must be from a permitted quarry with certified 'clean' material.

HMW-14: Wear appropriate personal protection equipment (PPE) when handling hazardous materials and waste. (See ECPP)

1.5 NOISE AND VIBRATION (NV)

NV-1: When working in residential areas or near sensitive receptors, NCRA and the Site Work Supervisor shall not schedule work activities that generates noise in excess of the CNEL limit (typically 50 db) between 7:00 pm and 7:00 am or on weekends and holidays, except in emergencies or where not feasible.

NV-2: If a residence is within 90 feet of the work activity that generates significant noise and/or vibration, notify the Site Work Supervisor so that alternative construction techniques can be evaluated and if feasible implemented to minimize the noise/vibration.

NV-3: Ensure that all internal combustion engines are equipped with a functional muffler per the manufacturer's recommendations.

NV-4: Minimize locomotive idling time to less than 15 minutes whenever feasible. Shut down two of three engines if idling Tier 3 engines.

NV-5: Locate stationary noise generating equipment away from sensitive biological areas and residential areas.

NV-6: Ensure that you have received the appropriate training to use and maintain equipment properly to minimize noise and vibrations.

1.6 STORM WATER (SW)

SW-1: Ensure that you have received the appropriate training on storm water pollution and prevention techniques and conduct construction and/or maintenance/repair activities in accordance with the site specific SWPPP.

SW-2: Control storm water and/or sheet flow runoff from disturbed areas using ditches, berms, weed free wattles, straw bales, silt fencing and/or other approved techniques.

SW-3: Cover loose soil and/or exposed slopes from construction prior to the onset of the rainy season (approximately October 15 – April 15) or at any time that there is a 50% probability of rain forecasted within 24 hours.

SW-4: Use protective mats to minimize ground damage if vehicle travel is necessary through saturated soil areas.

SW-5: Apply gravel to a depth of three (3) inches to construction work area access roads/areas during the rainy season (approximately October 15 – April 15) to control mud and silt runoff.

SW-6: Cover, install silt fencing, and/or install fiber rolls around work area soil and gravel stockpiles in the rainy season (approximately October 15 – April 15) to prevent sedimentation in nearby waterways, wetlands and sensitive areas.

SW-7: Stabilize stream banks in work areas prior to the rainy season (approximately October 15 – April 15) with riprap, native planting, willow wattles or other biotechnical slope stabilization technique.

SW-8: Apply hyrdoseed or place erosion control materials on graded areas in work areas to avoid the deposition of sediment into adjacent waterways or roadways.

SW-9: Prevent the tracking of soil or mud from the railroad right-of-way to paved ingress and egress roadways by removing earthen material from equipment before it leaves a work site. Remove visible soil, sand, fine gravel/ballast or other loose earthen materials that is tracked onto the paved roadways by railroad vehicles.

SW-10: Cover all construction stockpiles (soil, gravel, ballast, etc) located near waters of the State, including wetlands and install runoff diversions such as silt fencing and filter socks in accordance with the site specific SWPPP.

1.7 WATER RESOURCES (WR)

WR-1: Ensure that you have received the appropriate training to identify waters of the State and wetlands, to conduct work safely around these areas and to be in compliance with all permit and regulatory requirements. (See ECPP)

WR-2: Do not store or discard hazardous materials or waste in the right-of-way, on the ground or in any location where it may enter into the waters of the State, including wetlands. (See HMW-1)

WR-3: Do not discard non-hazardous regulated waste, municipal waste, or debris such as (but not limited to) cans, bottles, rubbish, empty containers, railroad ties, steel rails, culverts or parts of culverts, dirt, sediment, gravel, rock or other earthen materials in any location where it may enter into the waters of the State, including wetlands. (See HMW-1)

WR-4: If work activities could obstruct the natural flow or substantially change a streambed or stream bank notify NCRA and the Site Work Supervisor prior to initiating the work. NCRA will notify the DFG and obtain a streambed alteration agreement and/or other measures imposed by the regulatory agencies prior to the work activities. Once the appropriate permits/agreements have been obtained, ensure that the work is conducted in accordance with the agency and regulatory requirements. (Note: NCRA and any contractors who perform work under a streambed alteration agreement must be signatories of the agreement)

WR-5: Do not conduct work in streambed or water courses during the rainy/wet season (approximately October 15 to April 15), unless it is an emergency and appropriate approvals/permits have been obtained by NCRA.

WR-6: Do not use heavy equipment in waterways and wetlands unless appropriate permits and approvals have been received and implemented.

WR-7: Where feasible, conduct work within the right-of-way or by using track-mounted equipment.

WR-8: Cover all construction stockpiles (soil, gravel, ballast, etc) located near waters of the State, including wetlands and install runoff diversions such as silt fencing and filter socks in accordance with the site specific SWPPP.

WR-9: Apply hydroseed and place erosion control materials on graded areas in work areas to avoid the deposition of sediment into adjacent waters of the State, including wetlands in accordance with the site specific SWPPP.

WR-10: Cover, install silt fencing and/or install fiber rolls around soil and gravel construction stockpiles in the rainy season (approximately October 15 – April 15) to prevent sedimentation in nearby waterways, wetlands and sensitive areas.

WR-11: Conduct all work in compliance with appropriate permit conditions, storm water BMPs, WDRs and site specific SWPPPs. (See ECPP)

2.0 BMPS FOR SPECIFIC RAILROAD ACTIVITIES

2.1 TRACK & TIE MAINTENANCE AND REPAIR (TTM)

TTM-1: Perform inspections of the track and bridges in accordance with FRA regulations.

TTM-2: Place ballast and replace railroad rail and ties using on-track equipment (ballast undercutters, tampers, tie inserters, etc.) wherever feasible.

TTM-3: If ballast is to be re-used, remove debris, organic material, and silt ('contamination') from re-used ballast prior to transporting to the new location.

If the residual material contains silt, sand, and other non-organic matter, be sure to test, transport, and dispose of the material as appropriate (based on laboratory tests) in a permitted landfill.

TTM-4: Store new railroad ties in railroad freight cars or railroad work equipment, when possible.

TTM-5: If new railroad ties are stored on the ground, minimize contact with the ground by stacking them on top of concrete surfaces, blocks, track mats, tarps, or other non-treated materials, wherever possible.

TTM-6: Manage used railroad ties in accordance with the used railroad ties BMPs.

TTM-7: Do not conduct work in waters of the State including wetlands with out the necessary permits and agency approvals. Contact NCRA and the Site Work Supervisor to obtain the permit and regulatory requirements.

TTM-8: Do not excavate native soils beyond the right-of-way without the necessary permits and agency approvals. Most grading will be re-grading of existing railroad materials within the right-of-way. Contact NCRA and the Site Work Supervisor to obtain the permit and regulatory requirements.

TTM-9: Use the following pollution prevention controls during servicing and fueling of railroad work equipment and construction vehicles:

- Perform fueling and servicing in designated areas located no less than 100 feet from streams, creeks, wetlands and any other native waterway.
- Do not "top off" tanks when fueling.
- Ensure that spill containment kits are readily available.

- Use a secondary containment system such as a drip pan, drain cloth or track mat when refueling to catch spills.
- Report fluid spills to the Site Work Supervisor and in accordance with the ECPP.
- Take appropriate action to contain spills and remove impacted media (soil) as soon as feasible in accordance with the ECPP.
- Collect confirmation samples of soil impacted by major spills to verify removal of impacted soil.

TTM-10: Follow the site specific SWPPP procedures and the storm water BMPs.

TTM-11: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

TTM-12: Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.2 BRUSHING AND HERBICIDE SPRAYING (BH)

BH-1: Obtain a herbicide spraying contractor certified by the California Department of Pesticide Regulation (CDPR), and licensed to apply herbicides within Napa, Sonoma, and Marin counties. Require the Contractor to obtain permits from the appropriate jurisdictions and provide NCRA with copies of the permits and their conditions before beginning work. It is understood that currently permits would include but not be limited to the best management practices listed below:

- Apply herbicides using a rail mounted truck, equipped with low-pressure, low-mounted booms and spray equipment to ensure that the prescribed herbicide is controlled and does not drift into surrounding areas. Use a truck-mounted tank that is installed, secured, and inspected by the Agricultural Commissioner's office of the local counties along the railroad line.
- Follow instructions on product labels regarding application, mixing, storage, and transport.
- Transport herbicides in accordance with Department of Transportation (DOT) regulations.
- Do not mix, store, or apply herbicides in galvanized steel or unlined steel (except stainless steel) containers or spray tanks.

- Transport herbicides in their original containers and tank mix after arriving at the railroad right-of-way to avoid transport of mixed herbicide on public highways and city streets. Herbicides shall be mixed according to individual labeling instructions.
- Read the chemical label and follow PPE instructions specific to the particular herbicide, including pre-emergent pellets. No chemicals shall be applied in a way that will contact workers or other persons, either directly or through drift.
- Spray herbicides only within the appropriate seasonal windows identified by the product manufacturer.
- Do not spray when raining or within 24 hours of a forecast of one inch or more of rain. Restrict spraying to those times of the day in which the weather conditions allow spray without significant risk of spray migration. Do not spray on paved areas including driveways, walks, or similar areas. Do not spray in or on irrigation ditches or canals including their outer banks.
- Do not spray when winds are at or above 10 miles per hour.
- Do not apply at excessive speeds or pressures to avoid splatter of fine particles (mist) and drift.
- Follow guidelines for the total amount of herbicide that should be sprayed, as indicated on each individual herbicide label. Mix batches in amounts sufficient to spray the planned length of railroad line right-of-way without the need for disposal of extra material.
- Perform tank mixing on the railroad right-of-way to prevent the need to transport a full tank of herbicide on public highways and city streets. Acquire water under permission or permit from public utilities, private irrigation well owners, or agricultural irrigation well owners situated along the railroad line. Do not clean or rinse tanks on the railroad right-of-way.
- Apply herbicides upon the ground 11 feet on each side of the rails measured on a horizontal basis. Apply herbicides upon the ground more than 11 feet on each side of the rails as necessary to ensure clear visibility of railroad signs, signals, and at rail-highway crossings and to keep switches and walkways clear for train crews. These widths ensure that adequate area around the track is kept clear of weeds, trees, and shrubs, as required by the Federal Railroad Administration Track Safety Regulations (49 CFR § 213.37) and CPUC General Order No. 118.
- Do not apply herbicides directly to water, areas where surface water is present, or to intertidal areas below the mean high water mark.

- Do not apply herbicides to any water crossings or in a sensitive area. Stop the hi-rail application equipment upon reaching an NCRA-marked water crossing or sensitive area setback. Hand-spray from the edge of the setback to the edge of the high-water mark. Where feasible and equally effective for vegetative control, use rail mounted brush cutting equipment along the rail line and hand cutting where rail mounted equipment can not reach. Spray bridge components manually. Rail mounted truck boom spraying can be resumed after the marked setback area has been passed.
- Monitor the application of herbicides along track segments.
- Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).
- Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.3 CROSSING AND SIGNAL MAINTENANCE (CS)

CS-1: Park all vehicles and place equipment on the railroad right-of-way away from the street and as close to the work area as possible.

CS-2: Handle, transport, and dispose of or recycle signal batteries (spent lead acid and Ni-Cr batteries) in accordance with regulatory requirements. (See ECPP)

CS-4: If work activities encroach upon local, state, or county traveled ways the NCRA will require that an encroachment permit be obtained from the impacted agency. All work within the traveled way will conformance with the approved encroachment permit.

CS-5: Follow the resource area BMPs as identified in Table 1: BMP Cross Reference.

CS-6: Ensure you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.4 CULVERT AND DRAINAGE SWALE MAINTENCE (CDS)

CDS-1: 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. They shall be inspected on annual bases and after major storm events. Routine maintenance of the culverts and drainage ditches shall be performed during the dry season per NCRA's or its representative's water quality permit.

2.5 DERAILMENTS AND OTHER EMERGENCIES (D)

D-1: If there is a train derailment or any other emergency of significance, notify the NCRA Emergency Coordinator.

D-2: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

D-3: Ensure that you have received the appropriate training to conduct your specific work activities.

2.6 FLANGE LUBRICATORS (FL)

FL-1: Compile and maintain the flange lubricator inventory. If additional flange lubricators are identified in the field, notify the Site Work Supervisor so that they can be added to the inventory.

FL-2: When flange lubricators are removed, collect confirmation soil samples in accordance with the Site Work Supervisor's instructions and permit or agency requirements.

FL-3: Place track mats under each flange lubricator that is in service.

FL-4: Repair and certify as functioning properly before reusing flange lubricators.

FL-5: Replace traditional mineral oil based lubricating grease with alternative environmentally adapted lubricants.

FL-6: Inspect flange lubricators monthly.

FL-7: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

FL-8: Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.7 LOCOMOTIVE FUELING AND INSPECTIONS (LF)

LF-1: Conduct daily and periodic locomotive inspections as required by FRA regulations.

LF-2: Routine locomotive fueling by tank truck at the Schellville Yard will be conducted, and it may also be conducted at Cloverdale Yard and/or the Willits Yard once freight operations reach these locations. Non-routine/emergency fueling will be conducted in accordance with the following LF BMPs.

LF-3: Shut down and appropriately secure locomotives prior to fueling.

LF-4: Install railroad track mats over the track bed to capture any fuel or oil seepage that may occur while the locomotive is being fueled or stored.

LF-5: Record the date of installation of the track mats and replace after the outdoor life of the track mats has expired.

LF-6: Properly manage and dispose of used track mats and other waste (spills, contaminated rags, etc.) generated during fueling and storage activities in accordance with the HMW BMPs. If generated, store hazardous waste in one of the designated secured storage areas (Willits, Cloverdale, or Schellville) for transport offsite to an approved disposal facility with appropriate shipping papers (hazardous waste manifest).

LF-7: Do not store diesel fuel on-site. Transport fuel via tanker trucks. Fueling must be conducted by an appropriately trained contractor to safely manage hazardous materials and waste.

LF-8: Use drip buckets under the hose connection to catch drips from the hose couplings.

LF-9: Perform fueling in areas located no less than 100 feet from streams, creeks, wetlands and any other native waterway.

LF-10: Do not “top off” tanks when fueling.

LF-11: Ensure that spill containment kits are readily available.

LF-12: Report spills to the Site Work Supervisor and in accordance with the ECPP.

LF-13: Take appropriate action to contain spills and remove impacted media (soil) as soon as feasible in accordance with the ECPP.

LF-14: Collect confirmation samples to verify removal of impacted soil from major spills.

LF-15: Monitor fuel capacities so that sufficient fuel is available to arrive at the designated fueling location and minimize the need for emergency fueling.

LF-16: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

LF-17: Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.8 LOCOMOTIVE MAINTENANCE AND REPAIR (LMR)

LMR-1: Do not conduct heavy/major locomotive engine repairs on the rail line or at the designated light maintenance facilities. Conduct heavy/major engine repairs at an established railroad maintenance facility operated by another railroad/contractor off the railroad line.

LMR-2: Light locomotive maintenance and repairs will be conducted at Schellville Yard but may be conducted at the Willits Yard and/or Cloverdale Yard once freight service reaches these locations.

LMR-3: Light locomotive maintenance and repairs include the following types of activities:

- Minor engine repairs, lubrication, and adjustment.
- Battery change out.
- Brake repairs.

LMR-4: Manage and properly dispose of hazardous waste (spent oil, spills, contaminated rags, etc.) generated during light maintenance and repair. If generated, store hazardous waste in one of the designated secured storage areas (Willits, Cloverdale, or Schellville) for transport offsite to an approved disposal facility with appropriate shipping papers (hazardous waste manifest).

LMR-5: Manage hazardous materials associated with maintenance and repair in accordance with the Hazardous Materials and Waste BMPs.

LMR-6: Ensure that appropriate contingency and spill response equipment are readily available.

LMR-7: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

LMR-8: Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.9 USED RAILROAD TIE MANAGEMENT (URT)

In the event that DTSC determines that treated railroad ties are non-hazardous waste, then the URT BMPs will be adjusted accordingly. If DTSC determines that the treated railroad ties are TWW, then the AMS requirements will be implemented, as follows. Prior to DTSC making a determination, NCRA or its operator will conduct representative sampling and analysis to confirm whether the railroad ties are hazardous waste.

URT-1: Unless appropriately tested and proven to be non-hazardous waste, handle, store, transport, and dispose of railroad ties as TWW in accordance with the alternative management standards (AMS) developed by the Department of Toxic Substance Control (DTSC) (see ECPP).

URT-2: Store railroad ties off the ground by placing on blocks, tarps, containment pads, concrete surfaces, or in containers wherever possible. Store railroad ties within the regulatory allowed limits (90 days – block and tarp, 180 days – containment pad, 1 year – container and storage building).

URT-3: Ensure that you have received the appropriate training in railroad tie management.

URT-4: Design storage sites along the rail line right-of-way per the following criteria:

- Sited in pre-determined locations.
- Sited more than 100 feet away for any water course or wetland.
- Sited no closer than 100 feet from a rail highway grade crossing.
- Sited away from public access.
- Must not restrict the minimum side clearances from all tracks.
- Must not be placed in any location where they might interfere with the visibility of train crew members in the performance of their duties.
- When the temporary site is located uphill from a water course or wetland, the site will be located on the uphill side of the track.
- Ties will be neatly stacked, blocked and covered with tarps or plastic during inclement weather to prevent contact with rain water.

URT-5: Do not burn railroad ties. Transport railroad ties to a facility which is permitted to incinerate rail ties.

URT-6: Transport railroad ties on the railroad right-of-way using rail-mounted equipment wherever possible until transferred to an appropriately certified waste hauler for transport to a landfill.

URT-7: Do not mix railroad ties with other waste, and dispose of at a facility permitted to accept TWW and with the appropriate shipping papers and record keeping.

URT-9: Record and maintain documentation on the quantity of railroad ties/TWW generated.

URT-10: Follow the resource area BMPs as identified in BMP Cross Reference Table (Appendix A).

URT-11: Ensure that you have received the appropriate training to conduct your specific work activities in accordance with the ECPP.

2.10 SAFETY PROCEDURES (SP)

SP-1: All railroad employees and operating/maintenance contractors must comply with all applicable regulations of the Federal Railroad Administration (FRA) and California Public Utilities Commission (CPUC) with special reference to:

FRA 49 Code of Federal Regulations, Parts:

- 213 Track Standards
- 214 Railroad Workplace Safety
- 215 Freight Car Safety Standards
- 217/218 Railroad Operating Rules and Practices
- 219 Random Alcohol and Drug Testing
- 220 Railroad Communications
- 221 Rear End Marking Device
- 222 Use of Horns at Public Highway- Rail Grade Crossings
- 225 Railroad Accidents and Reporting
- 228 Hours of Service
- 229 Railroad Locomotive Safety Standards
- 231 Railroad Safety Appliance Standards
- 232 Railroad Power Brakes and Drawbars
- 234 Grade Crossing Signals
- 240 Qualifications and Certification of Locomotive Engineers

CPUC General Orders:

- 26D Railroad Horizontal and Vertical Clearances
- 72B Construction and Maintenance of Grade Crossings
- 75D Protection of Crossings at Grade
- 95 Overhead Electric Line Construction

- 118 Maintenance of Walkways Adjacent to Trackage

SP-2: All employees and operating/maintenance contractors must comply to the extent applicable with the General Code of Operating Rules (GCOR) and with all General Orders, Rules, Timetable, and Special Instructions issued by NCRA's Operator.

APPENDIX A

BMP Cross Reference Table

Appendix A
BMP Cross Reference Table

	Track & Tie Maintenance	Brushing & Herbicide Spraying	Crossing & Signal Maintenance	Culvert & Drainage Swale Maintenance	Derailment & Other Emergencies	Flange Lubricators	Locomotive Fueling & Inspections	Locomotive Maintenance & Repair	Used Railroad Tie Management	Safety Procedures
AQ-1	X	X	X	X	X	X	X	X	X	X
AQ-2	X	X	X	X	X	X			X	X
AQ-3		X								X
AQ-4		X								X
AQ-5	X	X	X	X	X	X	X	X	X	X
AQ-6	X		X	X	X				X	X
AQ-7	X	X	X	X	X	X	X	X	X	X
AQ-8	X		X	X	X				X	X
AQ-9	X	X	X	X	X	X	X	X	X	X
AQ-10	X			X	X				X	X
AQ-11							X	X		X
AQ-12	X	X	X	X	X	X	X	X	X	X
B-1	X	X	X	X	X	X	X	X	X	X
B-2	X	X	X	X	X	X	X	X	X	X
B-3	X	X	X	X	X	X	X	X	X	X
B-4	X	X	X	X	X	X	X	X	X	X
B-5	X	X	X	X	X	X	X	X	X	X
B-6	X	X	X	X	X	X	X	X	X	X
B-7	X			X	X	X				X
B-8	X	X	X	X	X	X	X	X	X	X
B-9	X	X		X	X					X
B-10	X	X		X	X	X			X	X
B-11	X	X		X	X	X			X	X
B-12	X	X	X	X	X	X			X	X
B-13	X				X					X
B-14	X			X	X					X
B-15	X									X
B-16		X								X
B-17	X	X	X	X	X	X			X	X
CR-1	X	X	X	X	X	X			X	X
CR-2	X	X	X	X	X	X			X	X
CR-3	X	X	X	X	X	X			X	X
HMW-1	X	X	X	X	X	X	X	X	X	X
HMW-2	X	X	X	X	X	X	X	X	X	X
HMW-3	X	X	X	X	X	X	X	X	X	X
HMW-4	X	X	X	X	X	X	X	X	X	X
HMW-5	X	X	X	X	X	X	X	X	X	X

Appendix A
BMP Cross Reference Table

	Track & Tie Maintenance	Brushing & Herbicide Spraying	Crossing & Signal Maintenance	Culvert & Drainage Swale Maintenance	Derailment & Other Emergencies	Flange Lubricators	Locomotive Fueling & Inspections	Locomotive Maintenance & Repair	Used Railroad Tie Management	Safety Procedures
HMW-6	X	X	X	X	X	X	X	X	X	X
HMW-7	X	X	X	X	X	X	X	X	X	X
HMW-8	X	X	X	X	X	X	X	X	X	X
HMW-9	X	X	X	X	X	X	X	X	X	X
HMW-10	X	X	X	X	X	X	X	X	X	X
HMW-11	X	X	X	X	X	X	X	X	X	X
HMW-12	X				X					X
HMW-13	X		X	X	X	X				X
HMW-14	X	X	X	X	X	X	X	X	X	X
NV-1	X	X	X	X	X	X	X	X	X	X
NV-2	X	X	X	X	X	X	X	X	X	X
NV-3	X	X	X	X	X	X	X	X	X	X
NV-4							X	X		X
NV-5	X	X	X	X	X	X	X	X	X	X
NV-6	X	X	X	X	X	X	X	X	X	X
SW-1	X	X	X	X	X	X	X	X	X	X
SW-2	X	X	X	X	X	X	X	X	X	X
SW-3	X		X	X						X
SW-4	X	X	X	X	X	X	X	X	X	X
SW-5	X	X	X	X	X	X	X	X	X	X
SW-6	X		X	X	X	X	X	X	X	X
SW-7	X			X	X					X
SW-8	X		X	X	X	X				X
SW-9	X	X	X	X	X	X	X	X	X	X
SW-10	X		X	X	X	X	X		X	X
WR-1	X	X	X	X	X	X	X	X	X	X
WR-2	X	X	X	X	X	X	X	X	X	X
WR-3	X	X	X	X	X	X	X	X	X	X
WR-4	X			X	X				X	X
WR-5	X			X	X					X
WR-6	X			X	X					X
WR-7	X	X	X	X	X	X			X	X
WR-8	X	X	X	X	X	X			X	X
WR-9	X		X	X	X	X				X
WR-10	X	X	X	X	X	X	X	X	X	X
WR-11	X	X	X	X	X	X	X	X	X	X