

Project 184

Hazardous Substances Plan

April 2008

Version 3.0

This study plan is a collaborative effort and has been developed to satisfy the hazardous substances requirements set forth in the Project 184 Federal Energy Regulatory Commission License Appendix A Condition No. 13 (USFS 2003), and the Appendix B California State Water Resources Control Board Section 401 Clean Water Act Water Quality Certification Condition No. 16 (SWRCB 2006). The Hazardous Substances Plan (Plan) is necessary to identify and manage any hazardous substances within the project boundary.

The scope of this plan has been defined by the hazardous substances language set forth in these documents and has been agreed to by El Dorado Irrigation District (EID).

1.0 Background

Project 184 area (Project) lies within the South Fork American River portion of the Sacramento River Basin. The Project operates as a run-of-river project and consists of four alpine reservoirs (Lake Aloha, Echo Lake, Silver Lake, and Caples Lake) some with small boat house facilities, diversion dams and several smaller diversions on tributaries to the SFAR with gaging stations, 22-mile-long water conveyance system of canals, flumes, tunnels and siphons starting about 1.5 miles downstream of the town of Kyburz along with several spillway huts, and forebay, which regulates consumptive water and also sends water into a surge tank and through a penstock into the El Dorado Powerhouse. The powerhouse contains two turbine generator units and two tailraces which lead back to the South Fork American River. Many of these facilities as identified in the *Hazardous Substances Locations Map* involve the storage and handling of hazardous substances. The Project occupies both private lands and land administered by the Eldorado National Forest.

2.0 Study Plan Goals and Objectives

The purpose of this Oil and Hazardous Substances Plan is to provide structure and procedures to minimize damage resulting from the release of oil and hazardous substances, pollutants, and/or contaminants. This plan describes response protocols and addresses specific needs in the event of a release or spill that poses a threat to the environment or to human health and welfare. The plan will identify and meet the following objectives.

The study plan objectives are:

1. Maintain in the Project area, a cache of spill cleanup equipment suitable to contain any spill from the Project;
2. To periodically inform the FS and SWRCB of the location of the spill cleanup equipment on National Forest System lands and/or Project 184 and of the location, type, and quantity of oil and hazardous substances stored in the Project area (Appendix A);

3. To inform the FS and the State Water Resources Control Board (SWRCB) immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands and licensee adjoining property (Appendix B); and
4. Include measures to address findings from the relicensing study¹ regarding sampling of structures/soils to determine whether leaks or contamination exist.

3.0 Hazardous Substance Storage

Specific requirements applicable to the storage of hazardous substances are found in the California Code of Regulations, Title 8, §5164. A list of locations and hazardous materials can be found in Appendix A, Table 1. EID will store and maintain hazardous substances based on the following regulations:

- (a) Substances which, when mixed, react violently, or evolve toxic vapors or gases, or which in combination become hazardous by reason of toxicity, oxidizing power, flammability, explosibility, or other properties, shall be evaluated for compatibility before storing. Incompatible substances shall be separated from each other in storage by distance, or by partitions, dikes, berms, secondary containment or otherwise, so as to preclude accidental contact between them.
- (b) Hazardous substances shall be stored in containers, such as those approved by the U.S. Department of Transportation (DOT), which are chemically inert to and appropriate for the type and quantity of the hazardous substance.
- (c) Containers of hazardous substances shall not be stored in such locations or manner as to result in physical damage to, or deterioration of, the container. Containers shall not be stored where they are exposed to heat sufficient to rupture the containers or to cause leakage.
- (d) Containers used to package a substance which gives off toxic, poisonous, corrosive, asphyxiant, suffocant, or anesthetic fumes, gases, or vapors in hazardous amounts (e.g., fuming sulfuric acid, hydrofluoric acid, nitrous oxide, chlorine, or other compressed or liquefied toxic gases) shall not be stored in locations where it could be reasonably anticipated that employees would be exposed. This requirement shall not apply to small quantities of such materials kept in closed containers, or to tank cars or trucks.

Along with utilizing the correct storage container, EID will label, tag or mark each substance with overall signage including the name of the substance, the hazard warning (e.g. corrosive, poison, etc.), and the manufacturer's contact information.

¹ This study could not be located during preparation of this Plan and therefore, this Plan will be adopted without further reference to the relicensing study.

Material safety data sheets (MSDS) will be available for all hazardous substances being bought, stored, handled, or used in the 184 Project Area and will be located both with EID safety officer and at each location where hazardous substances are stored. Additionally, hazardous substances will be stored and protected from rain and runoff to avoid contaminated soil or transferred to a water source.

4.0 Spill Prevention Measures

EID will ensure that all practicable measures are taken to minimize the potential for and consequences of a spill in the Project Area. EID will comply with applicable environmental and safety laws and regulations and will provide training to personnel to prevent spills and pollution. The proper use of materials and equipment greatly reduces the potential of any contamination along with proper storage. EID is will reduce the potential of spills by following these general preventative practices listed below:

- Spill kits containing a sufficient quantity of absorbent and barrier materials to adequately contain and recover potential spills of fuels or oils. These kits may include, but not limited to, drip pans, buckets, absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, heavy plastic sheeting, plastic bags, shovels, and sealable containers.
- Train personnel to follow spill prevention procedures and to readily and effectively contain and cleanup all spills. Job site briefings will be given to personnel to discuss more specific measures for spill prevention, reporting and clean-up.
- Fuels and lubricating oils for vehicles or heavy equipment will not be stored near water or sensitive biological habitats. Designated fueling areas will be provided with appropriate absorbent materials readily available.
- Vehicles will be monitored for leaks and receive regular maintenance to reduce the chance of leaks. Vehicle maintenance wastes, including used oils and other fluids will be handled and disposed of properly. Further, inspection of all EID and/or contractor equipment will be made prior to the commencement of work on Forest Service land to identify any leaks or equipment malfunction.
- Storage containers will display labels that identify the contents of the container and whether the contents are hazardous. Copies of all MSDS will be maintained and provided to any person immediately upon request.
- Storage of oils and or other hazardous substances on site will require Forest Service notification and approval.
- Periodic inspection of the construction site by EID personnel and a final site inspection after construction completion in order to certify that no unreported spills have occurred.

5.0 Spill Response Cleanup Procedures

Spill cleanup equipment and an Oil & Hazardous Substances Spill Notification Form (Appendix B) will be located next to the MSDS sheets at each site identified in Appendix A. If a spill of any fuel, oil, hazardous substance or other regulated substance should occur, EID will immediately begin the following spill response cleanup procedures:

- Identify the source of a spill and take all necessary measures to prevent further material from being spilled and to contain the spill, if applicable. For spills that occur on land, earthen berms can be constructed with available equipment to physically contain spills and absorbent materials can be applied to soak up the spill.
- If it is safe to do so, remove all potential ignition sources if the spilled material is combustible or flammable.
- Notify appropriate EID personnel and all regulatory agencies. All appropriate phone numbers will be posted at each location with the MSDS sheets.
- Assess the situation and determine subsequent cleanup activities and responsibilities.
- If the spill is beyond the capability of the on-site equipment and personnel, immediately notify the proper emergency response agencies.

For spill that may occur near or in water, regardless of size the following conditions shall apply in addition to the above measures:

- For spills in standing water, floating boom, skimmer pumps, and holding tanks can be used to recover and contain materials on the surface of the water.
- For a spill moving towards a water source, berms and trenches can be constructed to contain the spill prior to entry into the water source. Deployment of booms, skimmers, and absorbent can also be used if the spill reaches the water.
- Spilled material will be immediately and completely contained and cleaned up if it is safe to do so. The material manufacturer's methods for spill cleanup will be followed as described on the material MSDS.
- Restock any items used from the spill kits prior to continuing on-site work.
- Contact State Certified Laboratory to provide water quality sampling and analysis to verify the presence/ absence of contaminants.

All contaminated soils, vegetation, absorbent materials, and other contaminated wastes shall be handled, contained, and disposed of in accordance with applicable local, state, and federal regulations. Documentation of such handling will be retained in accordance with regulations.

6.0 Reporting Procedures

If a spill should occur within the Project Area, the FS will be notified immediately of the nature, time, date, location, and action for any spill affecting the National Forest System lands and/or any applicable agencies will also be notified as to the type, day and time, and response to all spills under their jurisdiction. In the event of a major spill significantly affecting plant or animal resources or creating public health concerns, notification will be immediate. A list of agencies requiring notification with current phone numbers will be kept at each site identified with hazardous substances. All spills will be documented using the Oil & Hazardous Substances Spill Notification Form found in Appendix B.

Future storage facilities with fuels and lubricating oils for vehicles or heavy equipment will not be stored near water or sensitive biological habitats, preferably not within the Riparian Conservation Area (RCA) width which is 300 feet from perennial streams, lakes, wet meadows, bogs, fens, wetlands, and springs, and 150 feet from seasonal streams, when applicable and providing it does not interfere with project operations.

During planning or prior to any new construction or maintenance not addressed in this Hazardous Substances Plan, the FS and SWRCB will be notified and shall make a determination whether a more extensive Plan is required. If a Project specific plan is deemed necessary for FS and SWRCB, an additional copy will be filed with FERC.

7.0 Literature Cited

State Water Resources Control Board of California. 2006. Clean Water Act Section 401 Technically-Conditioned Water Quality Certification for Federal Energy Regulatory Commission El Dorado Hydroelectric Project (FERC No. 184).

United States Forest Service. 2003. Forest Service Final Terms and Conditions Provided Under 18 CFR 4.34(b)(1) In Connection With the Application for Relicensing of The El Dorado Hydroelectric Project (FERC No. 184). October 31, 2003.

APPENDIX A

Summary of hazardous substances stored/used within project boundaries

Hazardous substances have been identified at the following locations within the Project 184 FERC license boundaries. However, materials and locations may change over the course of the license; therefore the table will be updated periodically to reflect the most current locations along with an updated materials list.

Facility	GPS/APN	Materials/Storage/Spill Prevention
Caples Lake Tender House (FS)	Volcano Tel 209-258-8514 38-42-30 120-02-40	Propane tank / concrete slab (to be removed by 2010)
Silver Lake Gate house (EID)	Volcano Tel 209-258-2263 38-40-20 120-07-30	Batteries and gas powered generator / housed in concrete building and spill response kit
Echo Lake gage house (FS)	9299 Echo Lake Rd, Twin Bridges 38-50-05 120-02-40	Batteries/ concrete building and spill response kit
Diversion Facility (EID)	530-293-3582 13160 Hwy 50, Silver Fork	2 Propane generator/ concrete slab, lean-to building and spill response kit
Intake House @ Diversion (EID)	13160 Hwy 50, Silver Fork	Propane tank/ concrete slab
Spillway #10 (FS)	38-45-53 120-22-13	Hydraulic fluid; batteries; propane generators/ steel cabinet with spill containment and spill response kit
Camp 1 House (FS)	3101 Alder Creek Rd. Pollock Pines	Propane tank/ concrete slab
Alder Siphon (FS)	3101 Alder Creek Rd. Pollock Pines	none
Spillway #20 (FS)	38-45-58 120-25-38	Hydraulic fluid; batteries/ cinderblock building with oil leak indicator and packaged hydraulic fluid containment and spill response kit
Spillway #20A (FS)	38-45-56 120-25-38	Batteries/ steel cabinet with spill containment and spill response kit
Plum Creek Siphon (FS) (Camp 2 House)	2905 Hazel Valley Rd. Pollock Pines	Propane tank; propane generator/ concrete slab, lean-to building and spill response kit
Spillway #23 (FS)	38-45-56 120-26-54	Hydraulic fluid; batteries; propane generators/ concrete slab, steel building, steel cabinet, packaged hydraulic fluid containment and spill response kit
Spillway #27 / Camp #3 (EID)	38-45-47 120-28-13	Hydraulic fluid; batteries; propane generators/ steel cabinet on concrete
Spillway #32 / Camp #4 (FS)	38-45-18 120-29-39	Hydraulic fluid; batteries/ steel cabinet, lean-to with spill containment and spill response kit
Spillway #37 (Private)	38-45-19 120-31-31	Hydraulic fluid; batteries; propane generators/ steel cabinet, lean-to with spill containment and spill response kit
Spillway #42 (Private)	38-45-52 120-32-36	Hydraulic fluid; batteries/ steel cabinet with spill containment and spill response kit
Camp 5 facility (EID)	7225 US Hwy 50, Pollock Pines, 38-45-54 120-32-50	Gasoline and Diesel w/UST, oil, grease, pesticides, paint, batteries; propane pesticides locked in building concrete floor, propane concrete, metal building, and spill response kit
Spillway #44 (EID)	38-46-00 120-33-00	Hydraulic fluid; batteries; propane generators/ cinderblock building with oil leak indicator and packaged hydraulic fluid containment and spill response kit
Spillway #47C (EID)	38-45-57 120-34-26	Hydraulic fluid; batteries/ steel cabinet with

		spill containment and spill response kit
Forebay facility and Upper Butterfly Valve house (EID)	530-647-5159 2540 Forebay Road, Pollock Pines	Hydraulic fluid, batteries/ concrete bunker and steel structure with safety fencing, and spill response kit
Forebay house (EID)	2601 Forebay Road, Pollock Pines	Propane tank/ concrete
Lower Butterfly Valve house (FS)	530-647-5187 2101 Moon Lane, Pollock Pines	Hydraulic fluid; batteries; oil/ concrete building, and spill response kit
El Dorado Powerhouse 530-644-1495	100 Forebay Road, Pollock Pines Actually located bottom of Powerhouse Road 38-47-37 120-37-05	Hydraulic fluid; lubricating oil; batteries/ Packaged hydraulic fluid containment, oil indicator, concrete building, and spill response kit

APPENDIX B

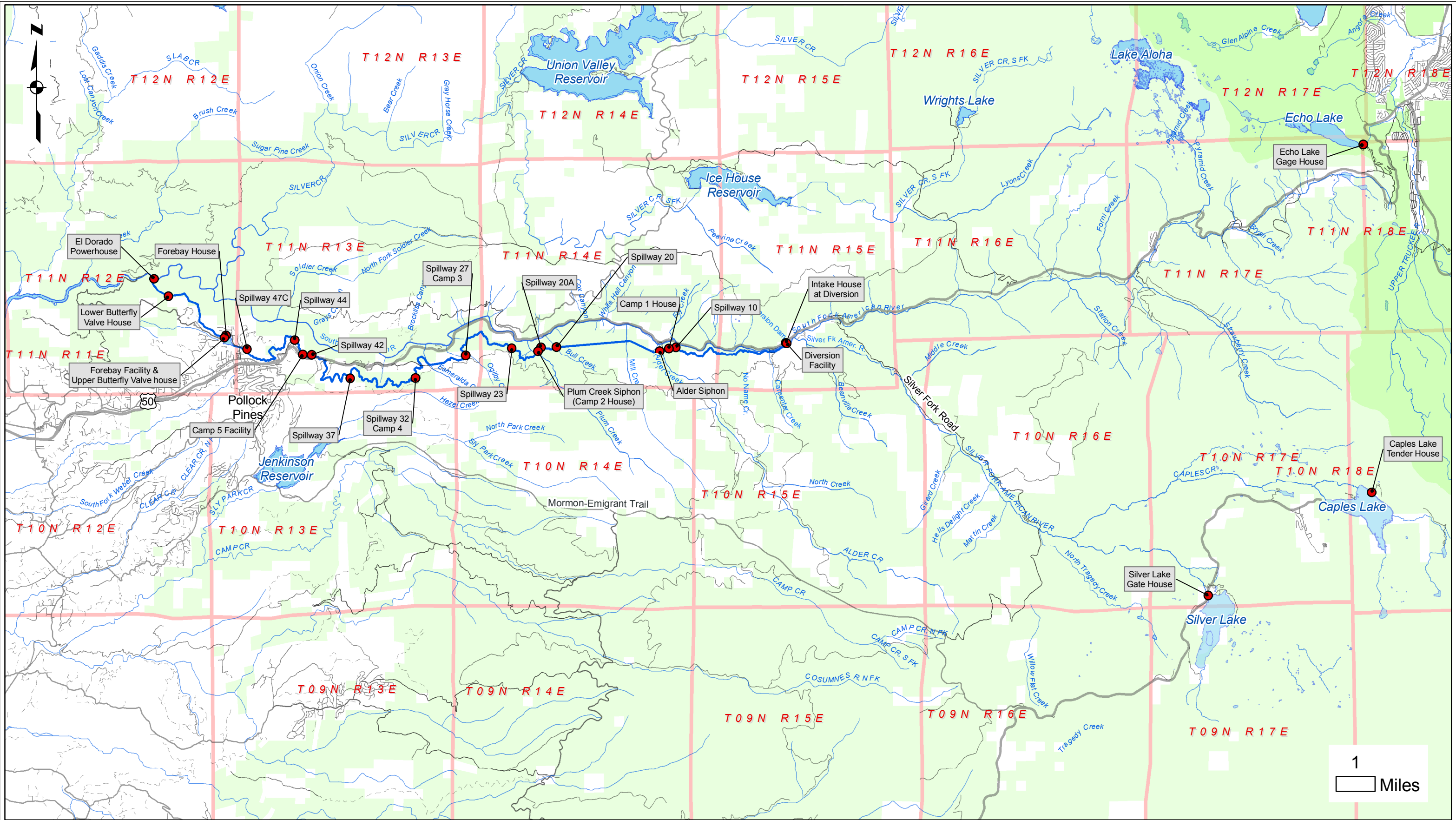
OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

PERSON REPORTING		PHONE NUMBER	REPORTED HOW?	
DATE/TIME OF SPILL		DATE/TIME DISCOVERED		DATE/TIME REPORTED
LOCATION/ADDRESS		LAT		SUBSTANCE/PRODUCT
		LONG		
QUANTITY SPILLED <input type="checkbox"/> Gallons <input type="checkbox"/> Pounds	QUANTITY CONTAINED <input type="checkbox"/> Gallons <input type="checkbox"/> Pounds	QUANTITY RECOVERED <input type="checkbox"/> Gallons <input type="checkbox"/> Pounds	QUANTITY DISPOSED <input type="checkbox"/> Gallons <input type="checkbox"/> Pounds	
POTENTIAL RESPONSIBLE PARTY		FACILITY TYPE		
SOURCE OF SPILL				
CAUSE OF SPILL (List Primary Cause First)			<input type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
CLEANUP ACTIONS				
DISPOSAL METHODS AND LOCATION				
RESOURCES AFFECTED/THREATENED (Water sources, wildlife, wells, etc.)		<input type="checkbox"/> Air <input type="checkbox"/> Land <input type="checkbox"/> Water	SURFACE AREA AFFECTED	SURFACE TYPE
COMMENTS AND AGENCIES NOTIFIED				

MANAGER USE ONLY

SPILL NAME, IF ANY		NAMES OF STAFF RESPONDING		
RESPONSE <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field Visit <input type="checkbox"/> Took Report		CLEANUP CLOSURE ACTION		
STATUS OF CASE (Circle One) OPEN CLOSED CLOSED _____		DATE CASE		
COMMENTS				
REPORT PREPARED BY			DATE	

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El Dorado Irrigation District

Hazardous Substances Locations

- Hazardous Location
- El Dorado Canal
- Rivers & Streams
- El Dorado National Forest
- Private Land
- Lakes

123 FERC ¶ 62,207
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

El Dorado County Irrigation District

Project No. 184-153

ORDER APPROVING HAZARDOUS SUBSTANCES PLAN
UNDER ARTICLE 401, AND 4(e) CONDITION NO. 13

(Issued June 9, 2008)

On April 17, 2008, El Dorado County Irrigation District (licensee) filed a hazardous substances plan (plan) to fulfill its requirements under article 401, and U.S. Forest Service (FS) section 4(e) condition no. 13 of the license for the El Dorado Hydroelectric Project, FERC No. 184.¹ The project is located on the South Fork of the American River and its tributaries in El Dorado, Alpine, and Amador Counties, California, and occupies federal lands administered by the FS.

BACKGROUND

Article 401 requires the licensee to file various plans for Commission approval. These plans include those found in the FS section 4(e) conditions, as set forth in appendix A of the license. Condition no. 13 requires the licensee, within one year of license issuance, to file with the Commission a plan approved by the FS for oil and hazardous substances storage, spill prevention, and cleanup.² In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the licensee is to notify the FS, and the FS is to make a determination whether a plan approved by the FS for oil and hazardous substances storage, spill prevention, and cleanup is needed. Any such plan is to be filed with the Commission. Condition no.16 of the California State Water Resources Control Board's (SWRCB) water quality certification for the project (appendix B of the license) contains a similar requirement.

The licensee is also required by condition no. 13 to include in the plan provisions to: (1) maintain in the project area a cache of spill cleanup equipment suitable to contain any spill from the project; (2) periodically inform the FS of the location of the spill-cleanup equipment on National Forest System lands, and of the location, type, and quantity of oil and hazardous substances stored in the project area; and (3) inform the FS

¹ 117 FERC ¶ 62,044 (2006)

² A Commission order issued on October 31, 2007, granted an extension of time, to April 18, 2008, to file the hazardous substances plan.

Project No. 184-153

2

immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and licensee adjoining property.

LICENSEE'S PLAN

The licensee would ensure that all practicable measures are taken to minimize the potential for, and consequences of a spill of hazardous substances in the project area. The licensee would comply with applicable environmental and safety laws and regulations, and would provide training to personnel to prevent spills and pollution. The licensee states that the proper use of materials and equipment greatly reduces the potential of any contamination, along with proper storage. The licensee would reduce the potential of spills by adhering to the following the general preventative practices.

Spill cleanup equipment, and an Oil & Hazardous Substances Spill Notification Form, would be located next to the material safety data sheets at each site identified in the plan. If a spill of any fuel, oil, hazardous substance or other regulated substance should occur, the licensee would immediately begin the following spill-response cleanup procedures, as outlined in the plan.

Future storage facilities with fuels and lubricating oils for vehicles or heavy equipment would not be stored near water or sensitive biological habitats, preferably not within the Riparian Conservation Area width, which is 300 feet adjacent to perennial streams, lakes, wet meadows, bogs, fens, wetlands, and springs, and 150 feet adjacent to seasonal streams, when applicable, and providing it does not interfere with project operations.

During planning or prior to any new construction or maintenance not addressed in this plan, the FS and the SWRCB would be notified, and would make a determination whether a more extensive plan is required. If a project-specific plan is deemed necessary for the FS and SWRCB, an additional copy would be filed with the Commission.

If a spill should occur within the project area, the FS would be notified immediately of the nature, time, date, location, and action for any spill affecting National Forest System lands and any applicable agencies would be notified as to the type, day and time, and response to all spills under their jurisdiction. In the event of a major spill significantly affecting plant or animal resources, or creating public health concerns, notification would be immediate. A list of agencies requiring notification, with current phone numbers, would be kept at each site identified with hazardous substances. All spills would be documented using an Oil & Hazardous Substances Spill Notification Form.

Project No. 184-153

3

DISCUSSION AND CONCLUSION

The hazardous substances plan was developed to provide structure and procedures to minimize damage resulting from the release of oil, hazardous substances, pollutants, or contaminants. The plan describes response protocols and addresses specific needs in the event of a release or spill that poses a threat to the environment, or to human health and welfare. The plan identifies and meets the following objectives:

1. To maintain in the project area a cache of spill cleanup equipment suitable to contain any spill from the project;
2. To periodically inform the FS and SWRCB of the location of spill cleanup equipment on National Forest System lands, and/or the project, and of the location, type, and quantity of oil and hazardous substances stored in the project area; and
3. To inform the FS and the SWRCB immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and licensee adjoining property.

By letter dated October 15, 2007, the FS approved the plan without additional comment. And by letter dated April 17, 2008, the SWRCB also approved the plan without additional comment. The plan fulfills the requirements of condition no. 13, and article 401, and should be approved.

The Director orders:

(A) The licensee's hazardous substances plan, filed April 17, 2008, to fulfill the requirements under article 401, and U.S. Forest Service section 4(e) condition no. 13 of the license for the El Dorado Hydroelectric Project (FERC No. 184), is approved.

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

Robert J. Fletcher
Chief, Land Resources Branch
Division of Hydropower
Administration and Compliance