

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**CLEANUP AND ABATEMENT ORDER NO. R6T-2011-0011
REQUIRING SIERRA PACIFIC INDUSTRIES AND
FRUIT GROWERS SUPPLY COMPANY TO CLEANUP AND ABATE
DISCHARGES RESULTING FROM HISTORICAL OPERATIONS AT THE
FORMER SUSANVILLE SAWMILL AND COGENERATION PLANT,
SUNKIST DRIVE, SUSANVILLE**

LASSEN COUNTY

This Order rescinds and replaces Cleanup and Abatement Order (CAO) No. R6T-2010-0003 and CAO R6T-2010-0003A1 that were previously issued on January 14, 2010 and June 7, 2010, respectively.

The California Regional Water Quality Control Board, Lahontan Region (Water Board), finds:

FINDINGS

1. Sierra Pacific Industries currently owns and previously operated a sawmill, cogeneration plant and associated operations located within a 256-acre property on Sunkist Drive in the City of Susanville in Lassen County, further described as Lassen County Assessor's Parcel Numbers 107-28-02, 107-28-09 and 107-28-10. Fruit Growers Supply Company (Fruit Growers) previously owned and operated a sawmill, powerhouse, and associated operations from 1919 to 1963 at the above-referenced parcels. The Susan River abuts the property on the north. Hereinafter, the Sierra Pacific Industries and Fruit Growers will be referred to as the "Dischargers" and the above-referenced property as the "Facility."
2. The Dischargers are the responsible parties subject to this Order because, as the owners or previous owners of the Facility, they are ultimately responsible for the condition of the Facility, and as owners and operators of the Facility, the Dischargers knew or should have known of the discharges of waste and had the ability to control it.

Site History and Operations

3. The Facility has a long operational history. The historical operations occurred in two primary phases: operations prior to 1963 by Fruit Growers and operations between 1963 and 2004 by Eagle Lake Lumber Company/Sierra Pacific Industries.

Fruit Growers

4. Fruit Growers purchased 236 acres from the Lassen Townsite Company and an additional 20 acres from George and Pearl Bassett in 1919. Prior to the purchase, the land was undeveloped. Fruit Growers began constructing worker housing and a sawmill at the Facility in 1920. Sawmill operation began in 1921. Approximately half of the sawmill production was used for "box shook" (wooden pieces for making fruit packing boxes) and the other half for premium lumber. Sawmill processes included receiving logs via railcars, storing the logs in the mill pond prior to processing, cutting the logs in the sawmill, refining the rough lumber in the planing building and dry kilns, and storing finished lumber in the lumber yard. A conical burner, a wood fired powerhouse, a bark processing plant, a paint shop, a machine shop, various storage and equipment maintenance facilities, water storage and supply towers, locomotives for moving railcars from spurs to the main line, and three sewage ponds were used to support sawmill operations. Sawmill operations continued until May 13, 1963 when milling at the site ceased.

Eagle Lake Lumber Company/Sierra Pacific Industries

5. Fruit Growers sold the property and associated structures to the Emmerson family and J.B. Crook in June 1963, and the sawmill operations were restarted under the name Eagle Lake Lumber Company (Eagle Lake) for the production of premium lumber. In April 1965, Eagle Lake completed construction of a new sawmill, which replaced the former Fruit Growers sawmill. In June 1965, a fire destroyed many of the site structures, including the planing mill, dry kilns, and finished lumber; however, the new sawmill was undamaged. Following the fire, Eagle Lake re-built the planing mill and dry kiln and constructed a new office. Sawmill operations continued following the fire up until the sawmill was permanently shut-down on March 19, 2004.
6. Sawmill processes during this time period included receiving logs via railcars and trucks, storing the logs in the mill pond (or log deck) until the time of processing, cutting the logs in the sawmill, and refining the rough lumber in the planing building and dry kilns. Various other site operations existed to support the sawmill operations, including power generation, bark processing, equipment maintenance and repair, truck washing and refueling, and water storage and supply.
7. In 1969, Sierra Pacific Industries (SPI) was formed from numerous separate businesses, including Eagle Lake, that were owned by the Emmerson family and J.B. Crook.

8. SPI designed a new cogeneration plant to replace the existing power plant for electricity production at the site in 1984. Construction of the new cogeneration plant began in late 1984, with power generation from the new plant beginning in December 1986. The four smokestacks and other features of the old powerhouse were removed by April 1988. The cogeneration plant operated up until May 3, 2004.

Regulatory History

9. Water Board regulation of the Facility began on June 23, 1950 when waste discharge requirements were established for the treatment and disposal of domestic sewage by Fruit Growers. This was followed by the adoption of Resolution No. 59-8, which was issued to Fruit Growers for the discharge of waste water into the Susan River related to sawmill operations.
10. When Eagle Lake purchased the Facility, it filed to continue to operate the sawmill and domestic sewage collection, treatment and disposal system, which was approved in Water Board Resolution Nos. 63-19 and 63-23. The Water Board subsequently adopted Board Order No. 6-74-67 for SPI, which described the continued operation of the sawmill. Board Order No. 6-85-55 included requirements related to the operating sawmill and for the recently constructed cogeneration plant. Board Order No. 6-90-28 contained similar conditions as the previous order but also required SPI to cease discharges to the evaporation/percolation ponds until they met standards for Class II surface impoundments. On July 25, 1994, the Water Board adopted Monitoring and Reporting Program (MRP) No. 90-28A1. MRP No. 90-28A1 required quarterly sampling of Pond 5, two locations along the Susan River, and five groundwater monitoring wells, and monthly ash sampling. On June 13, 2001, the Water Board adopted Board Order No. 6-01-44 and MRP No. 01-044. MRP No. 01-044 replaced MRP No. 90-28A1. MRP 01-044 contained similar requirements as the previous MRP, but also included requirements for an expanded groundwater and wastewater monitoring analytical suite. In addition, Board Order No. 6-01-44 requires SPI to evaluate and respond to Facility operations responsible for elevated total dissolved solids (TDS) concentrations detected in groundwater on-site. The Order also requires SPI to submit an Evaluation Monitoring Program (EMP) for the purpose of developing a Corrective Action Plan for the Facility. SPI prepared an EMP in March 2002 and submitted a revised EMP in January 2003. Components of the revised EMP were implemented, including monitoring well repair and construction; however, SPI stopped operating the sawmill and cogeneration plant prior to the completion of all of the components required in the revised EMP. Following the shut-down of the sawmill and cogeneration plant, SPI performed multiple phases of soil and groundwater investigations, which are described in the subsequent sections.

11. The Facility is still regulated under Board Order 6-01-44, although operation of the sawmill and cogeneration plant have ceased. SPI submitted a Proposed Revised Monitoring and Reporting Program on March 16, 2009 that recommended changes to existing MRP No. 01-044 which were approved in Revised MRP No. 01-044A1 issued on July 1, 2009.

12. Water Board issued Cleanup and Abatement Order No. R6T-2010-0003 to SPI on January 14, 2010. CAO R6T-2010-0003 requires SPI to submit work plans, technical reports, and time schedules related to eight different areas of concern located at the Facility. On February 8, 2010, SPI submitted a remedial action plan for the former fueling and maintenance area, which was one of the eight areas of concern, as required in CAO R6T-2010-0003 Orders 3.1.1 through 3.1.3. Water Board staff provided comments on the remedial action plan in a letter dated April 22, 2010. SPI met with Water Board staff on May 17, 2010 to discuss the requirements contained in CAO R6T-2010-0003 and to discuss Water Board staff comments on the remedial action plan. During the meeting, Water Board staff agreed that they would consider revisions to the existing CAO to address inaccuracies, provide additional clarity related to the various areas of concern, and to revise submittal dates and requirements to reflect a more reasonable schedule. On May 23, 2010, SPI requested a deadline extension for the corrective action plan (CAP) submittal required in Order 3 of CAO R6T-2010-0003. Water Board issued Amended CAO R6T-2010-0003A1 on June 7, 2010 that extended the deadline for CAP submittal until September 15, 2010. Water Board staff approved the remedial action plan for the former fueling and maintenance area in a September 7, 2010 letter after receiving no significant public comments.

13. On September 13, 2010, SPI submitted comments to Water Board staff for the proposed CAO revision. On September 14, 2010, SPI requested an extension to the September 15, 2010 CAP submittal deadline to June 15, 2012. In response to the comments received and the extension request, Water Board staff met with SPI on October 18, 2010. At the meeting, SPI and Water Board staff discussed the proposed CAO revisions and the overall strategy to accomplish investigation and remedial goals. As a result of the discussions, it was determined that Water Board staff would work with SPI and its consultant to revise CAO R6T-2010-0003, including revisions to deadlines for items discussed in Order 3 of CAO R6T-2010-0003. The purpose of the revised CAO is to clarify findings and requirements for each respective area of concern and to revise submittal deadlines to reflect a more reasonable schedule, that is appropriate due to the scope and magnitude of the investigations required.

Beneficial Uses and Water Quality Objectives

14. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) establishes beneficial uses of water and water quality objectives to ensure the protection of those beneficial uses. The Facility is located within the Susan River Hydrologic Area and the Honey Lake Valley groundwater basin. The Facility is adjacent to the Susan River and overlies groundwater that is less than 15 feet below ground surface.

The beneficial uses of the Susan River include:

- a. Municipal Supply
- b. Agricultural Supply
- c. Industrial Service Supply
- d. Ground Water Recharge
- e. Freshwater Replenishment
- f. Navigation
- g. Water Contact Recreation
- h. Non-contact Recreation
- i. Commercial and Sportfishing
- j. Warm Freshwater Habitat
- k. Cold Freshwater Habitat
- l. Wildlife Habitat
- m. Migration of Aquatic Organisms
- n. Spawning, Reproduction, and Development

The beneficial uses of the Honey Lake Valley groundwater basin include:

- a. Municipal Supply
- b. Agricultural Supply
- c. Industrial Service Supply
- d. Freshwater Replenishment
- e. Wildlife Habitat

15. The Basin Plan establishes narrative and numerical water quality objectives for the protection of beneficial uses. Pursuant to Chapter 3 of the Basin Plan, "Water Quality Objectives Which Apply to All Ground Waters" the following objectives for Bacteria, Coliform; Chemical Constituents; and Taste and Odor apply to the Facility (excerpted for clarity):

Bacteria, Coliform

In ground waters designated as Municipal Supply, the median concentration of coliform organisms over any seven day period shall be less than 1.1/100 milliliters.

Chemical Constituents

Ground waters designated as Municipal Supply shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in....Title 22 of the California Code of Regulations which are incorporated by reference into this plan.

Waters designated as AGR [agricultural supply] shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Taste and Odor

Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground water designated as Municipal Supply, at a minimum, concentrations shall not exceed adopted secondary maximum contaminant levels specified in ...Title 22 of the California Code of Regulations which is incorporated by reference into this plan.

Groundwater that contains substances in concentrations above MCL and SMCLs or that cause adverse tastes or odors may be considered to be impaired with respect to beneficial uses associated with drinking water use (municipal or domestic supply).

The Basin Plan also specifies:

In determining compliance with water quality objectives for the Agricultural Supply beneficial use, the Water Board will refer to water quality goals and recommendations from sources such as the Food and Agricultural Organization of the United Nations, University of California Cooperative Extension, Committee of Experts, and McKee and Wolf's "Water Quality Criteria."

16. Pursuant to Chapter 3 of the Basin Plan, under State Water Board Resolution 68-16, the *Statement of Policy with Respect to Maintaining High Quality Waters in California*:

Whenever the existing quality of water is better than that needed to protect all existing and probable future beneficial uses, the existing high quality shall be maintained until or unless it has been demonstrated to the State that any change in water quality will be consistent with the maximum benefit of the people of the State, and will not unreasonably affect present and probable future beneficial uses of such water. Therefore, unless these conditions are met, background water quality concentrations (the concentrations of substances in natural waters which are unaffected by waste management practices or contamination incidents) are appropriate water quality goals to be maintained. If it is determined that some degradation is in the best interest of the people of California, some increase in pollutant level may be appropriate. However, in no case may such increases cause adverse impacts to existing or probable future beneficial uses of waters of the State.

Historical Monitoring - Constituents of Concern in Groundwater

17. Groundwater monitoring has been conducted under various monitoring and reporting programs, including MRP No. 85-55, MRP No. 09-28, MRP No. 90-28A1, and MRP No. 01-044. The Facility is now regulated under MRP No. 01-044A1.
18. Historical monitoring has indicated that dissolved arsenic, TDS, dissolved molybdenum, petroleum hydrocarbons, and volatile organic compounds (VOCs) are the constituents of concern at the Facility. Elevated concentrations of boron, magnesium, manganese, potassium, and sodium relative to up-gradient monitoring well WQ1 are also consistently reported. Sawmill, power plant, and cogeneration operations, along with the associated historical disposal areas and irrigation with waste water, are likely responsible for the elevated levels of these constituents of concern in groundwater. Some of these constituents (e.g., arsenic, and TDS) occur naturally at elevated concentrations in the Honey Lake Basin. The Department of Water Resources, California Groundwater Bulletin 118 (DWR, 2004) cites TDS concentrations in the Honey Lake Basin up to 2,500 milligrams per liter. However, the distribution of constituents across the Facility (e.g. lower concentrations are detected in up-gradient background monitoring well WQ1 relative to former operational areas and disposal areas) suggests that

historical operations are the most likely sources for the constituents of concern.

19. Elevated dissolved arsenic concentrations in groundwater are found in the former operational areas. However, due to the naturally occurring arsenic detected in soil, it remains unclear if the majority of elevated dissolved arsenic concentrations in groundwater are a direct result of historical discharges (e.g. process water directed to unlined ponds) or an indirect result of historical discharges (e.g. petroleum hydrocarbon spills) that have caused an anaerobic environment that is conducive to mobilizing naturally occurring arsenic. Dissolved arsenic concentrations as high as 750 micrograms per liter ($\mu\text{g/L}$) have been detected from grab groundwater samples (boring SB-114) on-site. Dissolved arsenic in groundwater monitoring wells at the site has been detected up to 230 $\mu\text{g/L}$ (well WQ15). Well WQ15 is located within an area of historical petroleum hydrocarbon releases and the elevated arsenic in this well may be due to the anaerobic conditions described above. Arsenic has an MCL of 10 $\mu\text{g/L}$. Background dissolved arsenic concentrations in up-gradient Monitoring Well WQ1 consistently remain below 10 $\mu\text{g/L}$. The concentrations of dissolved arsenic detected in groundwater at the Facility exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of the arsenic in groundwater, therefore, constitute pollution as defined in Finding 49.
20. TDS concentrations in groundwater have been shown to be decreasing since the shutdown of the sawmill and cogeneration plant. However, TDS in the former operation area and in the non-operations area remain above concentrations observed in background monitoring well WQ1. During the Third Quarter 2009 monitoring event, SPI reported TDS concentrations of 380 milligrams per liter (mg/L) in WQ1, and 1,200 and 1,000 mg/L , in on-site monitoring wells WL3 and WQ2, respectively. TDS has an SMCL of 500 mg/L as a recommended level and 1,000 mg/L as an upper level. The concentrations of TDS detected in groundwater at the Facility exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of TDS in groundwater, therefore, constitute pollution as defined in Finding 49.
21. Molybdenum has been consistently detected in groundwater at the Facility. The Food and Agricultural Organization of the United Nations' *Water Quality for Agriculture* identifies a maximum recommended concentration of molybdenum in irrigation water of 10 $\mu\text{g/L}$. Multiple monitoring wells currently exceed and have exceeded this 10 $\mu\text{g/L}$ water quality objective for protection of the agricultural supply beneficial use. The Third Quarter 2009 groundwater monitoring event indicated a molybdenum concentration of 60 $\mu\text{g/L}$ in monitoring well WL3. The concentrations of molybdenum detected in

groundwater at the Facility exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of molybdenum in groundwater, therefore, constitute pollution as defined in Finding 49.

22. Groundwater sampling conducted in the former fueling and maintenance area of the Facility has indicated that petroleum constituents and VOCs are present in groundwater. The petroleum constituents and VOCs are not naturally occurring and exceed water quality objectives specified in the Basin Plan. Groundwater samples collected from monitoring well WQ15 during the most recent monitoring event indicated concentrations of 36,000 µg/L, 11,000 µg/L, and 620 µg/L of Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, and 1,2-dichloroethane, respectively. The concentrations of petroleum constituents and VOCs detected in groundwater at the Facility exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of petroleum constituents and VOCs in groundwater, therefore, constitute pollution as defined in Finding 49.

Historical Monitoring- Constituents of Concern in Surface Water

23. Surface water monitoring of the Susan River has been conducted under various monitoring and reporting programs, including MRP No. 85-55, MRP No. 09-28, MRP No. 90-28A1, and MRP No. 01-044. The Facility is now regulated under MRP No. 01-044A1. Historical surface water monitoring results have not indicated significant impacts to the Susan River although increases in chloride and sulfate are consistently reported from upstream station Susan River 1 to downstream station Susan River 3. The current surface water sampling program is not designed to evaluate potential threats for all the specified beneficial uses of the Susan River. Beneficial uses of the Susan River that are not adequately evaluated and require biological integrity assessment of Warm Freshwater Habitat; Cold Freshwater Habitat; Migration of Aquatic Organisms; and Spawning, Reproduction, and Development. Evaluation of these beneficial uses is necessary to confirm that historical activities at the Facility do not threaten or have not resulted in impacts to the specified beneficial uses of the Susan River.

Investigations Following Facility Shutdown

24. Following the shut-down of the sawmill and cogeneration plant, SPI's consultant prepared the July 19, 2005 Preliminary Environmental Site Assessment (ESA) in preparation of potential residential development at the Facility. The July 19, 2005 ESA identified areas of potential concern based on historical operations. Using the information obtained from the ESA, SPI performed multiple investigations from 2005 to present in the areas of

concern identified. The results of the soil and groundwater investigation activities are summarized in the May 2007 *Eastern Property Site Investigation Report*, the November 2007 *Former Operations Area Site Investigation Report*, the August 2008 *Additional Investigation Report- Former Fueling and Maintenance Area*, and the March 2009 *Additional Chlorinated VOCs Investigation Report-Former Fueling and Maintenance Area*.

Area of Concern: Former Fueling and Maintenance Areas

25. Structures in the former fueling and maintenance areas include the forklift shop, former paint shop, truck shop, truck wash, former refueling area, and a paint and oil storage building. SPI has performed multiple investigations from 2005 to 2008 in this area. The investigations included the collection of soil and groundwater samples from over 50 borings, test pits and groundwater monitoring wells. Analytical results of groundwater samples indicated concentrations of multiple petroleum and solvent constituents including benzene, toluene, ethylbenzene, xylene, methyl tertiary butyl ether (MTBE), 1,2-dichloroethane (1,2-DCA), and tetrachloroethylene (PCE). All of the constituents were detected above relevant water quality objectives with the following maximum concentrations detected:

Contaminant	Maximum Concentration (µg/L)	MCL (µg/L)
Benzene	40,000	1
Toluene	33,000	150
Ethylbenzene	4,100	300
Xylene	21,000	1,750
MTBE	200,000	13
1,2-DCA	1,500	0.5
PCE	63	5

The concentrations of the petroleum hydrocarbons and solvents detected in groundwater at the Facility exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of the petroleum hydrocarbons and solvents in groundwater, therefore, constitute pollution as defined in Finding 49. Adequate investigation activities have been performed in this area in order to evaluate future remedial options. A corrective action plan was submitted on February 1, 2010 and conditionally accepted by Water Board staff on Sept 7, 2010 for this area of concern.

Area of Concern: Former Sawmill, Planer Building and Sorter Building

26. Ten soil samples from six different locations, at depths ranging from 0.5 to 3 feet bgs, were collected from areas around the former sawmill, sorter building, and east of the planer building to evaluate site soils for the presence of dioxins and furans. No groundwater sampling was conducted in these areas for dioxins and furans. Soil sample results indicated the presence of dioxins and furans in all of the collected samples; however, the concentrations in soil did not exceed Environmental Screening Levels (ESLs) or California Human Health Screening Levels (CHHSLs). According to the ESA, the site elevation in the sampled areas had been raised approximately four feet since 1978 and a layer of charred wood, most likely debris from the 1965 fire, was encountered during trenching activities in the vicinity of the planer building. Since soil samples were not collected below three feet bgs and the site elevation had been raised by approximately four feet since 1978, soil samples were not collected at depths where the highest dioxin and furan concentrations would be expected i.e., within the 1965 fire debris. Soil sampling for TPH in SB-102, located along the northwest side of the sorter building, indicated a 5,000 mg/kg TPH as diesel concentration. TPH as diesel has an ESL of 83 mg/kg. Concentrations above the ESLs or CHHSLs are considered to be above thresholds of concern for risks to human health and the environment. Insufficient information currently exists to fully evaluate the threat to, or impairment of, beneficial uses from this area of concern since the dioxin and furans soil sampling conducted may not be representative of subsurface conditions.

Area of Concern: Ponds

27. According to the ESA, a total of six ponds have been located at the Facility throughout its history (Ponds 1 through 5 and the former mill pond). The former mill pond was filled in the late 1970s. Ponds 2 and 3 were filled between 1985 and 1991. Lined Pond 5 was constructed in 1993 in response to Board Order 6-90-28, which required ponds used for wastewater storage to meet requirements for Class II surface impoundments. Pond 5 has not been closed as a prior Class II surface impoundment and still needs to meet the closure standards specified in California Code of Regulations, title 27, section 21400. Pond 1 is maintained for fire emergencies and Pond 4 is used for storm water collection.

28. Prior to 1993, process wastewater from the sawmill and cogeneration plant operations, storm water runoff, and log deck runoff were directed into unlined evaporation/percolation Ponds 1 through 4. Between 1993 and 2004, approximately 8,000 gallons of waste process water was pumped to Pond 5 every one to two weeks instead of to the unlined ponds. Pond 5 also received storm water runoff and log deck runoff during this time. Historical

monitoring indicated that the log deck runoff and wastewater directed to the unlined ponds and Pond 5 consistently contained TDS and arsenic concentrations above the MCLs and molybdenum concentrations above the water quality objective for protection of the agricultural supply beneficial use. The historical waste discharge into unlined Ponds 1 through 4 and lined Pond 5 has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance.

29. Pond sediment samples were collected from Pond 1, which was dry at the time of sampling, at approximately six inches below the sediment surface, and from Ponds 4, and 5, at approximately six inches below the sediment surface near the edge of ponded water. The pond samples were collected to evaluate the potential threat to water quality and risks to human health from the historical discharges to the ponds. No pond sediment samples, soil samples, or groundwater samples were collected within former pond 2 and former pond 3; and the pond sediment samples that were collected from ponds 4 and 5 may not be representative of actual conditions since the sediment samples were collected at the edges of the ponds during a time when water was present in the ponds. Analytical results from the pond sediment sampling indicated TPH concentrations above ESLs in the areas sampled, but the investigation activities conducted have not fully evaluated potential risk to human health and the environment since the collected samples were not taken from the most representative locations. Concentrations of 360 milligrams per kilogram (mg/kg) TPH as diesel and 1,900 mg/kg TPH as motor oil were detected in Pond 1 sediments. A total chromium concentration of 160 mg/kg, an order of magnitude above all other reported total chromium soil concentrations at the Facility, was also reported in Pond 1 sediments; however, no chromium speciation was performed so it remains unclear if chromium (VI) ESLs or CHHSLs are exceeded. Soil and groundwater samples were also collected from multiple areas adjacent to the former ponds. Soil sample B-13, collected down-gradient of Pond 3, indicated concentrations of 250 mg/kg TPH as diesel and 580 mg/kg TPH as motor oil. Soil sample SB-4, collected from a former ash storage area in the vicinity of former Pond 3, indicated dioxin and furans in soils above CHHSLs for residential land use. TPH as diesel and TPH as motor oil have ESLs of 100 mg/kg and 500 mg/kg, respectively. Concentrations above the ESLs or CHHSLs are considered to be above thresholds of concern for risks to human health and the environment. Insufficient information currently exists for Ponds 1 through 4 to fully evaluate the potential risk to human health and the environment.
30. Soil and groundwater investigation activities conducted in the areas of Pond 1 through 4 have not fully evaluated the potential threat to water quality from the current and former pond areas due to a limited analytical suite or absence

of representative sample locations. Additionally, the current monitoring well network has never been adequate to monitor the potential effects of the current and historical discharges to unlined Ponds 1 through 4. No groundwater monitoring wells exist within approximately 500 feet of Pond 1, and no monitoring wells exist down-gradient of Pond 4. However, the limited groundwater sampling did identify areas of groundwater contamination in the areas sampled around Ponds 1 through 4. No groundwater sampling was performed within or down-gradient of Pond 1 with the exception of two borings that only evaluated the potential of site soils to contribute to increasing TDS concentrations in groundwater. One of those borings, B-20-10, the closest sample location to Pond 1, indicated a 2,300 mg/L TDS concentration following a WET test with deionized water, and a groundwater sample collected from that boring contained TDS at 750 mg/L. No groundwater samples were collected within or around former Pond 2; however, borings SB-26 and SB-27, located down-gradient of former Pond 2 and directly adjacent to the Susan River, indicated TPH as diesel groundwater concentrations of 93 and 200 $\mu\text{g/L}$, respectively. Groundwater sample SB-49, located down-gradient of former Pond 3, indicated TPH as diesel and motor oil concentrations of 2,000 $\mu\text{g/L}$ and 5,600 $\mu\text{g/L}$, respectively. Groundwater sample SB-50, collected down-gradient of Pond 4, indicated dissolved molybdenum and arsenic concentrations of 42 $\mu\text{g/L}$ and 32 $\mu\text{g/L}$, respectively. The water quality objectives for TPH as diesel, molybdenum, and arsenic are 100 $\mu\text{g/L}$, 10 $\mu\text{g/L}$, and 10 $\mu\text{g/L}$, respectively. Concentrations above water quality objectives adversely affect the groundwater for its beneficial uses. The levels of the TPH as diesel, molybdenum, and arsenic in groundwater, therefore, constitute pollution as defined in Finding 49. The existing monitoring well network is not adequate to evaluate currently identified contamination and the investigation activities conducted to date have not determined the full lateral and vertical extent of identified contamination or potential source areas so that appropriate future remedial options can be determined.

31. The former mill pond was filled in the late 1970s using a variety of bark, ash, and imported rock. Interviewees in the ESA indicated that the City of Susanville also deposited waste concrete into the former mill pond. During the time of the ESA inspection, waste bark used as fill was in the process of being excavated from the former mill pond for use as a soil amendment. Small amounts of metal, tires, and rocks were encountered while excavating the bark. Four test pits were dug to ten feet below ground surface within the former mill pond to evaluate subsurface conditions and four groundwater samples were collected along the eastern perimeter of the former mill pond to evaluate impacts to water quality. No groundwater samples were collected within the former mill pond, and no monitoring wells currently exist in or down-gradient of the former mill pond area. Contamination by metals, polycyclic

aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and volatile organic compounds was not detected in the test pit soils.

Groundwater sampling at the four borings along the eastern perimeter of the former mill pond did not indicate contamination by PAHs and volatile organic compounds. Groundwater sample SB-118, collected along the eastern perimeter of the former mill pond, showed a 59 µg/L dissolved arsenic concentration. Elevated dissolved arsenic concentrations at the perimeter of the former mill pond suggest that historical discharges and/or waste disposal either are currently impacting water quality or have caused the formation of anaerobic conditions within the former mill pond that result in the mobilization of dissolved arsenic. The MCL for arsenic is 10 µg/L. Concentrations above the MCL adversely affect the groundwater for its beneficial uses. The levels of arsenic in groundwater, therefore, constitute pollution as defined in Finding 49. The Dischargers have never been permitted to receive or dispose of waste in the mill pond. The unauthorized disposal of waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution as defined in Finding 49.

Area of Concern: Northwest Corner of Facility

32. No investigation activities were conducted adjacent to the former mill pond in the northwest corner of the Facility, to the northwest of Riverside Drive. Although this area was not identified as ever supporting sawmill and cogeneration operations, multiple disposal areas have been identified at the Facility in areas that were never authorized to receive waste. The proximity of this location to the sawmill and cogeneration area suggest that waste may have been historically disposed here. In addition, this area of concern borders the Susan River. Insufficient information currently exists to evaluate potential risks to human health and the environment from this area.

Area of Concern: Power Generation Area

33. Structures in the power generation area included the former power plant, the cogeneration plant, the fuel house, cooling towers, ash storage area, and two aboveground water tanks. A small storage building associated with the cogeneration plant was used to store various acids, bases, and other water additives for the boiler including a molybdenum-based additive that was used historically. A generator shed was also associated with the cogeneration plant. The shed housed four backup generators for the cogeneration plant; during operation, each generator held 80 gallons of fuel and needed to be refilled every few hours. Staining was observed in the generator shed. Prior to the demolition of the former power plant in 1985, an asbestos survey was performed and asbestos was identified. Interviewees in the ESA indicated

that demolition debris from the former power plant may have been disposed of east of the operations area in the vicinity of the old pump house. Ash generated from the former power plant was deposited at the eastern end of the former mill pond and in the non-operations area of the Facility. Various algaecides, biocides, corrosion and scale inhibitors were stored at various locations to treat the cooling tower water. Insufficient information is currently available to confirm the location and extent of the disposal areas for the ash in the non-operations area of the Facility and to determine if the ash disposal areas are contributing to the elevated TDS, arsenic, and molybdenum concentrations being reported in the non-operations area of the Facility.

34. Historical sampling has indicated that cooling effluent and samples from the ditch that received runoff directly from the log deck (known as the "lagoon") have contained levels of arsenic, molybdenum and TDS above water quality objectives. Groundwater sampling from borings SB113, SB114 and SB115, collected down-gradient of the cogeneration plant and cooling tower in May 2007, indicated molybdenum concentrations of 77 µg/L, 11 µg/L and 51 µg/L, and dissolved arsenic concentrations of 80 µg/L, 750 µg/L, and 290 µg/L, respectively. Monitoring wells, located over three hundred feet away from the closest boring in the cross and down-gradient direction of the Power Generation Area, have historically indicated concentrations of arsenic, molybdenum and TDS that are above water quality objectives. During the Third Quarter 2009 monitoring event, SPI reported 1,000 mg/L TDS in monitoring well WQ2 and 84 µg/L arsenic and 18 µg/L molybdenum in monitoring well WQ3. The concentrations of TDS, arsenic and molybdenum detected in groundwater exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of the TDS, arsenic and molybdenum in groundwater, therefore, constitute pollution as defined in Finding 49. Insufficient information exists around the former power house, cogeneration plant and cooling tower to determine what previous remedial actions have occurred and if this area is contributing to the arsenic and molybdenum pollution identified in down-gradient monitoring wells and groundwater sample locations.

Area of Concern: Train Shed Area

35. During the ESA inspection, various 55-gallon drums were noted outside of the train shed and an unlined maintenance trench running the entire length of the shed was present. Interviewees also noted that the herbicide Roundup had been used to control weeds along the train tracks since 1978. Soil sampling indicated low levels of polycyclic aromatic hydrocarbons from the three borings advanced in the train shed area, which is located adjacent to the southwest corner of the log deck. No chlorinated herbicides were detected in soils; however the analytical suite did not include glyphosate, the common

ingredient of Roundup. Groundwater sampling showed MTBE concentrations of 39 µg/L. MTBE has an SMCL of 5 µg/L and a primary MCL of 13 µg/L. The concentrations of MTBE detected in groundwater exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of MTBE in groundwater, therefore, constitute pollution as defined in Finding 49. Insufficient investigation activities have been conducted in this area since analysis of soil and groundwater in this area did not include the full suite of potential constituents that could result from the waste disposed in this area.

Area of Concern: Historical Disposal Areas – Near Pump House, East of Log Deck (“Boneyard”) and West of Ranch

36. The ESA identified the historical disposal area located immediately south of the Susan River in the vicinity of the former pump house as receiving waste up until 1980. At the time of the ESA inspection, various plastic and metal debris, old 55-gallon drums, concrete, batteries, shingles, saw blades, and paper wastes were observed. According to interviewees in the ESA, municipal waste from the City of Susanville may have been disposed of in the western portion of this area, in addition to the debris from the former powerhouse that may have included asbestos. Investigation activities in the historical disposal area near the pump house included the collection of soil and groundwater samples from approximately 14 borings and test pits. Analytical results indicate soil and groundwater contamination above ESLs. Lead, cadmium, furans and dioxins were detected in site soils above the CHHSLs for Residential Land Use. Concentrations above the ESLs or CHHSLs are considered to be above thresholds of concern for risks to human health and the environment. The Dischargers have never been permitted to receive or dispose of waste in the historical disposal area near the pump house. The unauthorized disposal of waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution.

37. The ESA identified the area south of Pond 5 and east of the log deck as the “boneyard” where metal debris was observed during the ESA inspection. Interviewees in the ESA noted that 186 drums (former contents unknown) had been removed from the boneyard areas of the site. South of the boneyard and the former SPI bark plant building is an old refuse area. This area was reported to be an aboveground pile of scrap materials generated from former sawmill operations; no municipal waste was reportedly deposited here. The Dischargers have never been permitted to receive or dispose of waste in these locations. The unauthorized disposal of waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance. Limited groundwater sampling has been conducted in and down-gradient of the

boneyard area. Analytical results indicate widespread concentrations of molybdenum above water quality objectives that extend down-gradient to the Facility boundary. Insufficient information exists related to the extent and disposal of remaining waste in the boneyard and former refuse areas to determine if soil and groundwater sampling has included the appropriate analytical suite, if the remaining waste has been removed and disposed of appropriately, and if the remaining waste is contributing to the currently identified contamination. The concentrations of molybdenum detected in groundwater exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of molybdenum in groundwater, therefore, constitute pollution as defined in Finding 49.

38. Areas west of the ranch and east of the log deck have received various refuse materials during site operations, including ash from the former powerhouse and cogeneration plant. Debris from the 1965 fire was also reportedly bulldozed into this area. Other material disposed in this area included scrap metal, tires, vehicle batteries, and drums of unknown material. Ash generated from the former power plant was deposited in this non-operations area of the Facility. Drums, corroded metal debris, and tires were observed in the vicinity of the ranch structures at the time of the ESA inspection. The Dischargers have never been permitted to receive or dispose of waste in these locations. The unauthorized disposal of waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance.
39. Two borings, B-2 and B-3, were advanced around the ranch structures and are the farthest down-gradient TDS sampling points. Groundwater samples B-2 and B-3 indicated TDS concentrations of 2,700 mg/L and 1,300 mg/L, respectively. Monitoring well WQ6, the closest monitoring well to the ranch structures, indicated an 890 mg/L TDS concentration during the Third Quarter 2009 monitoring event. TDS has an SMCL of 500 mg/L as a recommended level and 1,000 mg/L as an upper level. The concentrations of TDS detected in groundwater in this area exceed water quality objectives for groundwater specified in the Basin Plan and adversely affect the groundwater for its beneficial uses. The levels of TDS in groundwater, therefore, constitute pollution as defined in Finding 49. Insufficient information exists to determine why the highest TDS concentrations are being reported in the non-operations area of the site and if the elevated levels of TDS are related to historical sawmill and cogeneration activities or are a result of unauthorized disposal areas.

40. Soil and groundwater samples were collected in the area west of the three former sewage treatment ponds in a former ash disposal area. Groundwater sampling in this former ash disposal area was limited to one boring, SB-15, which indicated a 40 µg/L molybdenum concentration. Groundwater samples were also collected to the east of the three former sewage ponds. Analytical results indicated elevated molybdenum concentrations that ranged from 23 to 150 µg/L. Boring SB-02, located northeast of the ranch structures and the farthest down-gradient monitoring point, had the highest molybdenum concentration. Monitoring wells WQ5 and WQ6 consistently indicate molybdenum concentrations above the water quality objective. During the Third Quarter 2009 monitoring event, molybdenum concentrations of 16 µg/L and 26 µg/L were reported in monitoring wells WQ5 and WQ6, respectively. Insufficient information exists to determine why the highest molybdenum concentrations are being reported in the non-operations area of the site and if the elevated levels of molybdenum are related to historical sawmill and cogeneration activities or are a result of unauthorized disposal areas. Concentrations above water quality objectives adversely affect the groundwater for its beneficial uses. The levels of molybdenum in groundwater, therefore, constitute pollution as defined in Finding 49. The Dischargers have never been permitted to receive or dispose of waste in these locations. The unauthorized disposal of waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance.

Area of Concern: Former Sewage Ponds

41. SPI is currently permitted to discharge sewage generated at the sawmill and cogeneration plant to individual septic tank/leach lines. No other locations have been authorized for sewage disposal at the Facility since 1974. Three sewage ponds were noted in the east central area of the Facility during the ESA inspection. Sewage from Fruit Growers housing was pumped to these ponds via underground piping. According to interviewees in the ESA, pumping to these ponds was discontinued around 2000. The area of the former ponds has been graded such that the ponds are no longer evident. Although limited soil and groundwater samples have been collected around the former sewage ponds, the analytical suite did not include all of the potential constituents of concern. Insufficient information currently exists to determine what previous remedial actions have occurred, if waste currently remains and if there is a threat to human health and the environment. The unauthorized disposal of sewage waste has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance.

Area of Concern: Irrigation Areas

42. Pond 5 received approximately 8,000 gallons of process waste water every one to two weeks between 1993 and 2004. Prior to 2003, approximately 30,000 gallons per month of water from Pond 5 was used to irrigate approximately 30 acres of non-operations land in the eastern area of the site from December to March. Since 2003, water from Pond 5 was used to irrigate approximately 12 acres of poplar trees on the south side of the facility between the log deck and the former sewage ponds. The poplar trees were planted to increase uptake of irrigation water from Pond 5; however, during the time of the ESA inspection, over half of the trees appeared dead or stressed. Sampling of Pond 5 water has consistently indicated TDS and molybdenum levels above the secondary MCLs for TDS and the agricultural supply water quality objective for molybdenum. SPI has reported TDS and molybdenum concentrations as high as 2,497 mg/L and 231 µg/L, respectively, in Pond 5. The TDS and molybdenum-containing waste discharged from Pond 5 has been deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance.

Cleanup Standards

43. The California Water Code and regulations and policies developed thereunder require cleanup and abatement of discharges and threatened discharges of waste to the extent feasible. Pursuant to State Water Resources Control Board (State Water Board) Policy 92-49, cleanup and abatement activities are to provide attainment of background levels of water quality or the highest level of water quality that is reasonable if background levels of water quality cannot be restored. Alternative cleanup levels greater than background can only be approved if they are consistent with the maximum benefit to the people of the State, do not unreasonably affect present and anticipated beneficial use of water, and to not result in water quality less than that prescribed in the Water Quality Control Plans and policies adopted by the State and Regional Water Boards. Cleanup to background levels is the presumptive standard. Any proposed alternative that will not achieve background levels must be supported with evidence that it is technologically or economically infeasible to achieve background levels, and that the pollutant will not pose a substantial present or potential hazard to human health or the environment for the duration of the exceedence of background levels.

44. Background groundwater concentrations for the constituents of concern at the Facility are established by considering the quality of groundwater and surface water that has not been affected by waste constituents. For constituents that are not naturally occurring in groundwater or surface water, such as

petroleum hydrocarbons and solvents, background water quality is considered to be non-detect.

45. The proposed future use of the Facility is commercial or industrial development. To protect human health and the environment, soil and groundwater contamination must be evaluated against CHHSLs, ESLs, or other appropriate screening tools to determine appropriate future actions.
46. The nature and extent of unpermitted waste disposal at the Facility has not been fully determined. Evaluation of the threat to human health, the environment, and beneficial uses of water that could result from the unauthorized waste disposal has not been fully completed. Any remaining waste in the unauthorized disposal locations must not threaten human health, the environment, and beneficial uses. Sampling will be necessary to confirm that the waste has been removed such that it does not threaten human health, the environment and beneficial uses. Analysis of soil and groundwater in areas with remaining waste will need to include the full suite of potential constituents that could result from the waste disposed. The character and final disposal location of any removed waste materials must be identified.

Authority - Legal Requirements

47. The Dischargers are the responsible parties subject to this Order because, as the current and previous owners and operators of the Facility, they are responsible for the operation and maintenance of the Facility, including the effects of waste discharges resulting from Facility operations. As the current and previous owners and operators, they know or should have known of the discharge of waste and had the ability to control it.
48. Pursuant to California Water Code section 13050, subdivision (d):
- 'Waste' includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.
49. Pursuant to California Water Code section 13050, subdivision (l)(1) and (2):
- 'Pollution' means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:
- (A) The water for beneficial uses.

(B) Facilities which serve these beneficial uses

'Pollution' may include 'contamination'.

50. Pursuant to California Water Code section 13050, subdivision (k):

'Contamination' means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through spread of disease. 'Contamination' includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

51. Water Code section 13304, subdivision (a) states:

"Any person . . . who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged to waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. "

52. The conditions described in these Findings identify waste that has been discharged or deposited onto lands or into waters of the State (e.g., groundwater beneath the site) or that probably will be discharged into the waters of the State. The conditions described in Findings 19, 20, 21, 22, 25, 30, 31, 34, 35, 37, 39 and 40 constitute violations of the Basin Plan and conditions of pollution. Petroleum hydrocarbons, VOCs, TDS, molybdenum, and arsenic have been detected in groundwater at concentrations above water quality objectives, and certain of these constituents have been detected in soils and groundwater at levels that could pose a hazard to human health, as discussed in the above Findings. Therefore, the quality of the water has been altered to a degree that unreasonably affects beneficial uses. As a result, the Dischargers are subject to Water Code section 13304.

53. Pursuant to Water Code section 13267, subdivision (b):

"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or

discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

54. This Order requires technical reports, pursuant to Water Code section 13267, subdivision (b). The technical reports required in this Order are essential to design (1) remedial activities to address areas of currently identified pollution, (2) investigation activities to further evaluate areas of identified pollution or areas that may potentially threaten beneficial uses, and (3) an implementation schedule to conduct the investigation and remedial activities. In light of the facts discussed above, there is evidence to support requiring the technical reports required in this Order be provided in this particular situation and that the burden, including costs, of providing these reports is reasonable in relationship to the need for the report and the benefits to be obtained from the reports.
55. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provision of the California Environmental Quality Act (Public Resources Code section 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15321, subdivision (a)(2). In addition, there is no possibility that the proposed activity will have a significant effect on the environment. In pertinent part, California Code of Regulations, title 14, section 15061, subdivision (b)(3), known as the "common sense exemption," states that where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. In this case, the proposed activity is the development of a Corrective Action Plan. This action does not cover implementation of such a Corrective Action Plan. The Water Board intends to address the CEQA requirements of the activities proposed by the Corrective Action Plan prior to requiring the implementation of those plans.

ORDERS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13267, subdivision (b), and 13304, the Dischargers shall cleanup and abate the discharge and threatened discharge of wastes described above and shall comply with the provisions of this Order:

1. Cleanup and Abatement Order No. R6T-2010-0003 is hereby rescinded.
2. The Dischargers must conduct the investigation and cleanup tasks by or under the direction of a California registered geologist or civil engineer experienced in the area of groundwater pollution cleanup. All technical and monitoring plans and reports required in conjunction with this Order are required pursuant to Water Code section 13267 and shall include a statement by the Dischargers, or an authorized representative of the Dischargers, certifying (under penalty of perjury in conformance with the laws of the State of California) that the workplan and/or report is true, complete, and accurate. All technical documents submitted to the Water Board must contain the signature and stamp of the registered individual overseeing investigation and corrective actions.
3. The Dischargers shall take no action that causes or permits or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be discharged into water of the state and create, or threaten to create, a condition of pollution or nuisance.
4. **By April 15, 2011**, submit the following information specified for each area of concern listed below. Investigative work plans, at a minimum, must identify the manner and method of investigation or monitoring, including the suite of analytical laboratory analyses and laboratory reporting limits for each analyte. If any remedial actions have occurred previously at any of the areas of concern, the remedial action summary reports shall contain, at a minimum, a discussion of what actions occurred, when they were conducted, the effectiveness of the actions, and, if waste was removed, the character and disposal location of the waste. Previous remedial actions may include grading, waste stockpiling, removal, etc. If previous remedial actions have already been reported to this office, include the date and title of the report for each respective activity. The information listed below may be submitted as a cumulative work plan/report or separated for each respective area of concern.

A. Former Sawmill, Planer Building and Sorter Building

1. Investigation Work Plan to:
 - 1.1. Investigate the extent of dioxin and furans in soil at the locations and depths of greatest concern;
 - 1.2. Delineate lateral and vertical extent of TPH contamination identified around boring SB-102.
2. Remedial Action Summary Report.

B. Northwest Corner of Facility

1. Investigation Work Plan to evaluate threat to human health and the environment from the northwest corner of the Facility to the northwest of Riverside Drive.
2. Remedial Action Summary Report.

C. Train Shed Area

1. Investigation Work Plan to evaluate soil and groundwater for historical pesticide use as discussed in Finding 33.
2. Remedial Action Summary Report.

D. Former Sewage Ponds

1. Investigation Work Plan to evaluate the threat to water quality and human health from the former sewage ponds;
2. Remedial Action Summary Report.

E. Irrigation Areas

1. Investigation Work Plan to evaluate the threat to water quality and human health resulting from previous unauthorized discharges discussed in Finding 39.
2. Remedial Action Summary Report.

5. **By April 15, 2011**, submit a work plan to conduct bioassessment monitoring of the Susan River at a minimum of two locations one gradient and one downgradient of the Facility. If it is determined that bioassessment monitoring is not feasible, provide the rationale and supporting information used to reach the conclusion.
6. **By May 15, 2011**, submit a closure Plan for Pond 5. The closure plan for Pond 5 must conform to California Code of Regulations, title 27, sections 21400, 21769, 22207, 22212, and 22222.

7. **By October 15, 2011**, submit the following information specified for each area of concern listed below.

A. Ponds

1. Investigation Work Plan to:
 - 1.1. Evaluate threat to human health and the environment from Ponds 1 through 4. Additional pond sediment sampling and collection of soil and groundwater samples from uninvestigated areas and around areas of documented contamination will be necessary to confirm previous data and to aid in the evaluation of appropriate future remedial actions;
 - 1.2. Supplement previous investigation data that was collected to evaluate threat to human health and the environment from the former mill pond. The investigation shall include soil and groundwater samples collected from within the former mill pond.
2. Remedial Action Summary Report to discuss any previous remedial actions.

B. Power Generation Area

1. Investigation Work Plan to evaluate potential source areas that are contributing to the elevated concentrations of arsenic, molybdenum, and TDS discussed in Finding 32.
2. Remedial Action Summary Report to:
 - 2.1 Discuss any remedial actions conducted in this area;
 - 2.2. Discuss the location and extent of historical ash disposal areas.

C. Historical Disposal Areas

1. Investigation Work Plan to delineate the extent of waste remaining in the historical disposal areas. The work plan shall propose to investigate the historical disposal areas discussed in Findings 34 through 37 and shall also include any other areas where remaining waste is currently identified or indicated from any remedial action summary report.
2. Remedial Action Summary Report to:
 - 2.1 Discuss previous remedial actions, such as drum removal, at all of the historical disposal sites;

2.2 Confirm location and extent of former powerhouse debris;

2.3 Confirm location and extent of debris from 1965 fire.

8. **By June 15, 2012**, submit a Corrective Action Plan (CAP) to address cleanup and abatement of the discharges to soil and groundwater for areas of concern at the Facility other than the fueling and maintenance area. The CAP shall describe cost-effective remediation methodologies for the areas of concern to the extent needed to protect human health and the environment. The CAP shall include time schedules to implement the selected remedial methodologies, monitoring plans as needed to confirm remedial action effectiveness, and if alternative cleanup levels are proposed, a technical and economical feasibility analysis of the proposed remedial alternatives with justification for the selected alternative.
9. **By June 15, 2012**, submit a Public Participation Plan (PPP). The PPP shall be designed to ensure appropriate opportunities for public participation during the site cleanup process. The PPP should include, at a minimum, the size of the intended notification area, a draft list of the names and address of property owners and residents to be notified, and a draft fact sheet. The draft fact sheet shall, at a minimum, contain the following information:
- Available information about the releases;
 - Contact list which includes responsible parties and Water Board staff;
 - Water Board file number and location of documents available for review (including website and Geotracker references as appropriate);
 - Notification information in languages other than English if appropriate.
10. If for any reason, the Dischargers are unable to perform any activity or is unable to submit any document in compliance with the schedule set forth herein or in compliance with any work schedule submitted pursuant to this Order and approved by the Water Board, the Dischargers may request, in writing, an extension of the time specified. The extension request must be submitted ten days in advance of the due date in question and shall include justification for any delay including a description of the good faith effort performed to achieve compliance with the due date. The extension request shall also include a proposed time schedule to achieve compliance with the due dates. An extension may be granted for good cause.

11. This Order in no way limits the authority of this Water Board to institute additional enforcement actions or to require additional investigation and cleanup of the Facility consistent with the Water Code. The Order may be revised as additional information becomes available.

Summary Table of Orders

Order No.	Item Ordered	Due Date
4.A.1, 2	Investigative Work Plan and Remedial Action Summary for Sawmill, Planer Building, Sorter Building	April 15, 2011
4.B.1, 2	Investigative Work Plan and Remedial Action Summary for Northwest Corner of Facility	April 15, 2011
4.C.1, 2	Investigative Work Plan and Remedial Action Summary for Train Shed Area	April 15, 2011
4.D.1, 2	Investigative Work Plan and Remedial Action Summary for Former Sewage Ponds	April 15, 2011
4.E.1, 2	Investigative Work Plan and Remedial Action Summary for Irrigation Areas	April 15, 2011
5	Work Plan to conduct bioassessment of Susan River	April 15, 2011
6	Closure Plan for Pond 5	May 15, 2011
7.A.1,2	Investigative Work Plan and Remedial Action Summary for Ponds	October 15, 2011
7.B.1,2	Investigative Work Plan and Remedial Action Summary for Power Generation Area	October 15, 2011
7.C.1,2	Investigative Work Plan and Remedial Action Summary for Historical Disposal Areas	October 15, 2011
8	Corrective Action Plan	June 15, 2012
9	Public Participation Plan	June 15, 2012

NOTIFICATIONS

- A. COST RECOVERY:** Pursuant to Water Code section 13304, subdivision (c), the Dischargers shall be liable to the Water Board for all reasonable costs incurred by the Water Board to investigate unauthorized discharges of waste, or to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, pursuant to this Order. The Dischargers shall reimburse the Water Board for all reasonable costs associated with site investigation, oversight, and cleanup. Failure to pay any invoice for the Water Board's investigation and oversight costs within the time stated in the invoice (or within thirty days after the date of invoice, if the invoice does not set forth a due date) shall be considered a violation of this Order. The Facility is enrolled in a State Water Board-managed reimbursement program, known as the Cost Recovery Program. Reimbursement shall be made pursuant to this Order and according to the procedures established in that program.
- B. ENFORCEMENT NOTIFICATION:** Failure to comply with the requirements of this Order may subject the Responsible Parties to enforcement action including, but not limited to, imposition of administrative civil liability, pursuant to Water Code sections 13268 and 13350, in an amount not to exceed \$5,000 for each day in which the violation occurs under Water Code section 13304, \$1,000 for each day in which the violation occurs under Water Code section 13267, or referral to the Attorney General for injunctive relief or civil or criminal liability.
- C. REQUESTING ADMINISTRATIVE REVIEW BY THE STATE WATER BOARD:** Any person aggrieved by an action of the Water Board that is subject to review as set forth in Water Code section 13320(a), may petition the State Water Board to review the action. Any petition must be made in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date the action was taken, except that if the thirtieth day following the date the action was taken falls on a Saturday, Sunday, state holiday, or furlough day, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulation applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Ordered by:


LAURI KEMPER
ASSISTANT EXECUTIVE OFFICER

Dated:

