



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
PORTLAND, OREGON 97232

September 29, 2021

Via Electronic Mail

Mr. Dan Tomascheski
Vice President, Timber Resources
Sierra Pacific Industries
Sierra Pacific Land & Timber Company
P.O. Box 496014
Redding, CA 96049-6014
DTomascheski@spi-ind.com

Re: Issuance of Section 10(a)(1)(B) Incidental Take Permit

Dear Mr. Tomascheski,

Enclosed is Incidental Take Permit 24396, issued to Sierra Pacific Land and Timber Company (SPL&T) under the authority of Section 10(a)(1)(B) of the Endangered Species Act (ESA). The permit authorizes SPL&T, while carrying out its lawful timber operations, to incidentally take: endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*), threatened Central Valley spring-run Chinook salmon (*O. tshawytscha*), threatened Southern Oregon/Northern California Coast coho salmon (*O. kisutch*), and threatened California Central Valley steelhead (*O. mykiss*). Additionally, the permit includes Central Valley fall- and late fall-run Chinook salmon (*O. tshawytscha*), which are designated as species of concern under the ESA; Upper Klamath/Trinity Rivers Chinook salmon (*O. tshawytscha*), which is currently petitioned for listing as threatened or endangered under the ESA; and Klamath Mountains Province steelhead (*O. mykiss*), which has no current regulatory status. The permit term is 50 years, covering activities as described in SPL&T's Forestland Management Program Habitat Conservation Plan.

NOAA's National Marine Fisheries Service (NMFS) requires that the individuals acting under the authority of Permit 24396 review the permit before engaging in the permitted activities. Please sign and date the last page and: (1) e-mail a PDF file of the signature page to Amanda.Cranford@noaa.gov. Please note that you are not authorized to conduct activities under Permit 24396 that incidentally take ESA-listed species until we receive a signed copy of the signature page.

We direct your attention to Section III, which describes the permit conditions and annual take limits. Permit 24396 authorizes take up to the levels, by the means, in the areas, and for the purposes stated in the permit application. The permit is also subject to annual authorization based on the reported annual take and compliance with the permit conditions. Annual reports are due by June 30 of each year covering the previous calendar year. The water quality-related



monitoring and reporting will include data and analysis for the previous water year (October 1 through September 30). NMFS shall be notified within 24 hours if an ecological surrogate or individual species take threshold is exceeded. SPL&T shall continue to coordinate with NMFS during all phases of implementation and monitoring by issuing annual reports throughout the implementation of the Habitat Conservation Plan.

If you have any questions concerning this permit, please contact Amanda Cranford at Amanda.Cranford@noaa.gov or 916-930-3706.

Sincerely,



Barry A. Thom
Regional Administrator

Enclosure

**NOAA's NATIONAL MARINE FISHERIES SERVICE
PERMIT TO INCIDENTALLY TAKE ENDANGERED/THREATENED SPECIES**

Permit Number: 24396

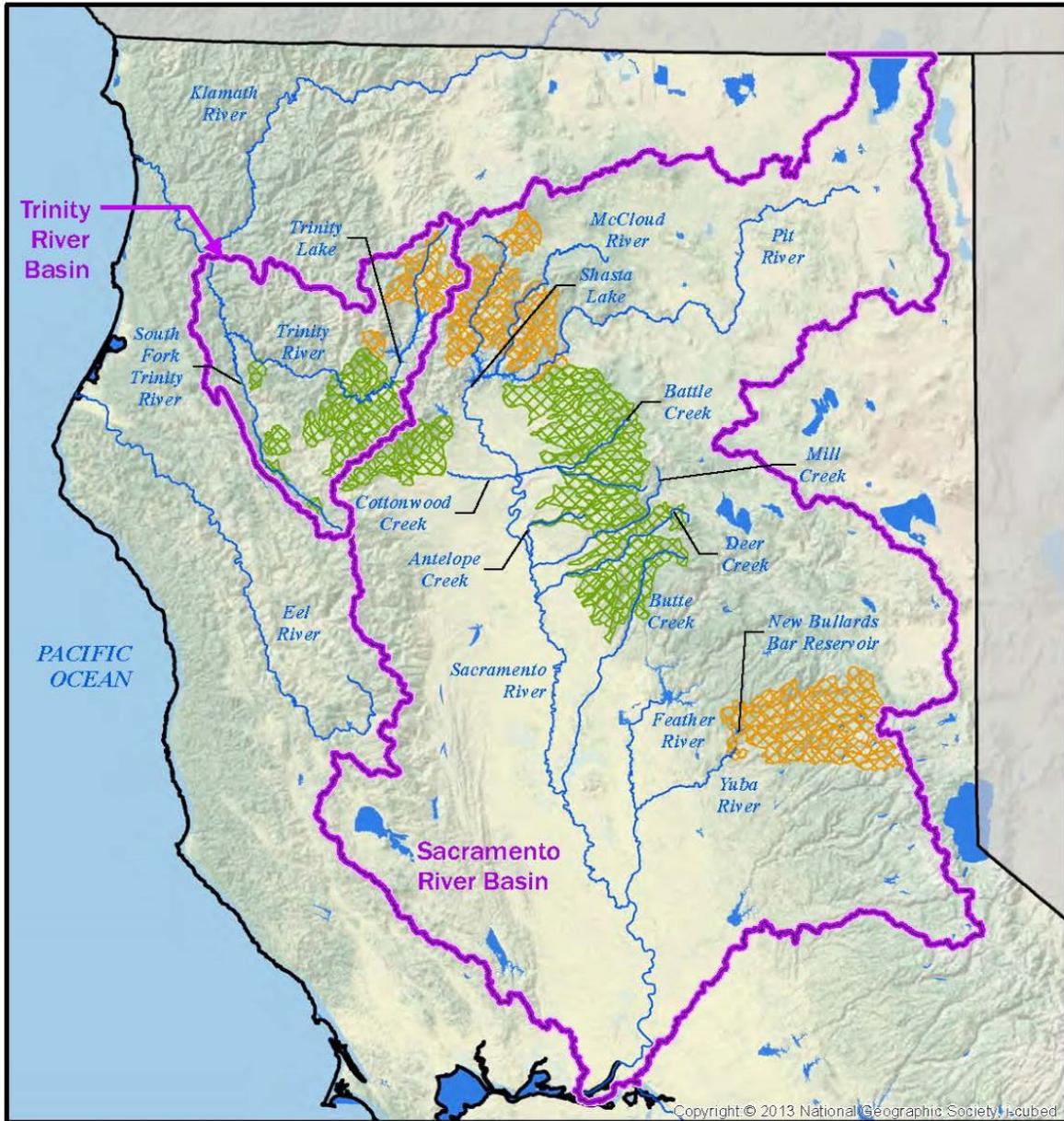
Expiration Date: 50 Years from the Signing Date

Permittee: Sierra Pacific Land & Timber Company
P.O. Box 496014
Redding, CA 96049-6014
530-378-8000

Principal Officer and Contact:

Daniel J. Tomascheski
Vice President, Timber Resources
Sierra Pacific Industries
For Sierra Pacific Land & Timber Company
P.O. Box 496014
Redding, CA 96049-6014
Phone: 530-378-8140
DTomascheski@spi-ind.com

Permit Area: Sierra Pacific Land and Timber Company's (SPL&T) Forestland Management Program Habitat Conservation Plan (HCP) Plan Area includes all SPL&T lands in planning watersheds currently within the known limits of anadromy. SPL&T owns approximately 355,061 acres within these watersheds (Figure 1). Sierra Pacific Industries (SPI) is the authorized representative and manager of SPL&T lands.



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Legend		Figure 1B. HCP and SHA Action Areas.
	Basin boundary	
	River	 
	Waterbody	
Action Area		
	HCP	 <small>National Geographic Society, Topographic base map (2013) K:\P\06\04\2016\06-05\21-0000\F\06\04\2016\06-05\21-0000\Fig1A_Activa_Area_2_ktb.mxd (6/12/2019)</small>
	SHA	

I. AUTHORIZATION

SPL&T applied to NMFS for an incidental take permit (ITP) under the Endangered Species Act (ESA) Section 10(a)(1)(B) for a 50-year period authorizing the incidental take of the following listed and unlisted species (hereinafter referred to collectively as “Covered Species”):

- Endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) Evolutionarily Significant Unit (ESU);
- Threatened Central Valley spring-run Chinook salmon (*O. tshawytscha*) ESU;
- Threatened Southern Oregon/Northern California Coast (SONCC) coho salmon (*O. kisutch*) ESU;
- Threatened California Central Valley (CCV) steelhead (*O. mykiss*) Distinct Population Segment (DPS);
- Species of special concern Central Valley fall/late fall-run Chinook salmon (*O. tshawytscha*) ESU;
- Upper Klamath/Trinity Rivers (UKTR) Chinook salmon (*O. tshawytscha*) ESU; and
- Klamath Mountains Province (KMP) steelhead (*O. mykiss*) DPS

The Central Valley fall/late fall-run Chinook ESU, the UKTR Chinook salmon ESU, and the KMP steelhead DPS do not currently have any protective regulations against take and no Federal permit is needed to incidentally take them, but there may be a change in listing status during the permit period.

Proposed activities under the Permit (Covered Activities) include those activities necessary to conduct forestland management activities and certain mitigation and conservation measures identified in the HCP. While implementing the HCP, SPL&T will follow the Z’Berg-Nejedly Forest Practice Act, all relevant Public Resource Codes, and the current California Forest Practice Rules (CFPRs) for each year of the permit period.

SPL&T is hereby authorized to incidentally take the Covered Species listed above for a period of 50 years, while conducting the Covered Activities (Table 1) as described in SPL&T’s Forestland Management Program HCP. Covered Activities will take place in the Trinity River and Sacramento River basins in the manner specified in the Permit Holder’s November 14, 2019, application and supporting documents and communications, subject to the provisions of Section 10(a)(1)(B) of the Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531-1543), the National Marine Fisheries Service (NMFS) regulations governing listed species permits (50 CFR Parts 222 and 223), and the conditions hereinafter set forth.

II. ABSTRACT

SPL&T submitted their application to NMFS on November 14, 2019. NMFS considered the application complete and on June 19, 2020, published a Notice of Availability and request for comments on SPL&T’s Forestland Management Habitat Conservation Plan and the draft Environmental Assessment (*Federal Register* 85 FR 37070). NMFS received three letters from the public, expressing support for the HCP/SHA and the proposed issuance of the permits to SPL&T.

The impacts of forestry activities on Covered Species vary depending on the type of activity and the

species and life stage considered. Covered Activities may generate stressors affecting Covered Species by potentially degrading salmonid habitat (e.g., water quality). This potential degradation of salmonid habitat may result in behavioral effects such as avoidance of the immediate area, reductions in foraging efficiency and a reduced ability to avoid predators. Injury or death is also possible. Therefore, rather than assess the effects of the individual Covered Activities, the HCP considers the potential effects of Covered Activities on watershed products, and the impacts of these changes to elements of fish habitat (see Table 1 and Table 2 below).

Table 1. Effects of Timber Harvest Activities on Watershed Products and Habitat.

Activity	Related Activity(s)	Activity Effect	Changes of Concern (Environmental Stressor) Watershed Product(s)	Changes of Concern (Environmental Stressor) Habitat Element(s)
Timber harvest	Skidding/ yarding	Loss of ground cover/compaction, Compaction (increased runoff)	Sediment, water	Turbidity Substrate Channel morphology
Timber harvest	Loading/ landing	Loss of ground cover/compaction, Compaction (increased runoff)	Sediment, water	Substrate Bed (gravel) scour
Timber harvest	Site preparation	Loss of ground cover/ compaction	Sediment	Spawning substrate Pools
Timber harvest	Felling bucking	Removal of stream shade, Changes in stand structure, Removal of vegetation, Increased soil moisture	Sediment, Water, Heat, Nutrients, Wood	Sediment, Flow regime, Water temperature, Large Woody Debris (LWD), Large wood recruitment
Timber harvest	Mastication	Compaction (increased runoff)	Water	Peak flows
Timber harvest	Maintenance, fueling, and fuel storage	Fuel spills	Water	Water contamination
Road construction	Water drafting	Entrainment	N/A	Entrainment
Road construction	Watercourse crossing facility placement and maintenance	Disturbance of habitat, Sediment delivery	Sediment	Sediment, Channel morphology

Activity	Related Activity(s)	Activity Effect	Changes of Concern (Environmental Stressor) Watershed Product(s)	Changes of Concern (Environmental Stressor) Habitat Element(s)
Road construction	Maintenance, fueling, and fuel storage	Fuel spills	Sediment	Water contamination
Road construction	Construction	Disturbance of unstable lands, Loss of ground cover/ compaction	Sediment	Sediment
Road use/ maintenance/ reconstruction	Water drafting	Disturbance of habitat, Sediment delivery	N/A	Entrainment
Road use/ maintenance/ reconstruction	Watercourse crossing facility placement and maintenance	Disturbance of habitat, Sediment delivery, Equipment in channels	Sediment	Sediment, Channel morphology, Direct impact on fish
Road use/ maintenance/ reconstruction	Maintenance, fueling, and fuel storage	Fuel spills	Water	Water contamination
Road use/ maintenance/ reconstruction	Mechanical mastication of vegetation along roads	Compaction (increased runoff)	Water	Peak flows
Road use/ maintenance/ reconstruction	Crossing infrastructure	Barriers to movement, Crossing failure, Concentrated surface flow	Sediment	Fish passage, Sediment, Turbidity, Substrate
Road use/ maintenance/ reconstruction	Road surfaces	Compaction (increased runoff)	Water	Sediment, Peak flows

Table 2. Effects of Non-Timber Harvest Activities on Watershed Products and Habitat.

Activity	Related Activity(s)	Activity Effect	Changes of Concern (Environmental Stressor) Watershed Product	Changes of Concern (Environmental Stressor) Habitat Element(s)
Prescribed fire	N/A	Loss of ground cover, Loss of vegetation, Hydrophobic soils	Sediment, Water	Sediment, Turbidity, Flow regime, Peak flows
Site preparation	N/A	Loss of ground cover/ compaction	Sediment	Turbidity
Mastication	N/A	Compaction (increased runoff)	Water	Peak flows
Rock pit development and rock processing	Access roads and hauling	Loss of ground cover, Compaction areas, areas with low infiltration	Sediment, Water	Sediment, Turbidity
Chipping	N/A	Increase in ground cover	N/A	N/A
Harvest of minor forest products	N/A	N/A	N/A	N/A
Conversion of brush fields to timberland	N/A	Loss of ground cover, Compaction	Sediment, Water	Sediment, Turbidity
Fire suppression	Dozer line construction	Loss of ground cover, Compaction	Sediment, Water	Sediment, Turbidity
Fire suppression	Water drafting and water dipping	Entrainment	N/A	Entrainment

Authorization of incidental take resulting from the proposed Covered Activities is contingent on the implementation of the Conservation Strategy, which supports the biological goals of the HCP. The biological objectives addressed below identify the various conservation measures needed to achieve the biological goals.

A. Goals

The HCP goals are descriptive, open-ended statements of desired future conditions used to guide the conservation strategy. SPL&T's goal is to improve watershed conditions to provide high-quality

habitat and delivery of flow, sediment, wood, heat, and nutrients at levels that maintain high quality habitat downstream. The HCP goals include:

1. Improve habitat for Covered Species on SPL&T lands.
2. Provide cold, clean water to downstream watersheds supporting anadromous species.
3. Improve riparian habitat structure.
4. Reduce sediment delivery at the planning watershed scale to promote high-quality aquatic habitat.
5. Monitor overall management and aquatic habitat quality performance at five continuous water quality monitoring stations.
6. Enhance watershed resiliency by identifying and implementing projects designed to reduce wildfire behavior, intensity, and magnitude.
7. Improve stream crossings at existing or new roads during post-fire salvage and reforestation.
8. Reduce delivery of flow and sediment from the existing SPL&T road system.

B. Objectives

Objectives provide a foundation for determining conservation measures, monitoring, and evaluating the effectiveness of the conservation strategy. SPL&T's objectives include measures for maintaining standard procedures established by the CFPRs to provide conservation and minimization measures for Covered Activities and proactive improvements outside the CFPRs framework. The HCP objectives include:

1. Improve habitat for Covered Species on SPL&T lands within the HCP/SHA Plan Area by maintaining or improving fish passage and stream flows, reducing potential sediment sources; and maintaining or improving conditions providing wood, heat, and nutrients at levels supporting high-quality habitats on SPL&T lands and habitats and further downstream.
2. Provide cold, clean water to downstream watersheds supporting anadromous species by maintaining stream shade, limiting potential diversions caused by road systems, and maintaining stream temperatures.
3. Improve riparian structure and function by assuring natural recruitment processes of riparian vegetation, including hardwoods and conifers, will continue.
4. Identify and reduce sources of suspended sediment from Covered Activities by:
 - a. Minimizing stream channel network extension by maintaining existing SPL&T roads in proper function, increasing hydrologic disconnection, constructing new roads meeting CFPRs design and function, upgrading stream crossings, and decommissioning roads no longer required for forest management activities.
 - b. Implementing road improvement projects at those locations where new drains and surfacing will have the greatest effect in reducing sediment production and delivery to streams. Use SPI's Road Erosion and Sediment Delivery Index (READI) model to identify sediment sources from road runoff.
5. Provide for reduced watershed impacts from fire by implementing safe practices and creating fuel break networks and participating in multi-stakeholder fuel reduction strategies, such as SPI's Memorandum of Understanding with the U.S. Forest Service, the National Fish and Wildlife Foundation, and CAL FIRE to coordinate protection of spotted owl habitat

to reduce potential impacts on owl habitat from large-scale, high-severity wildfire, and to coordinate fire suppression planning and response efforts on federal, state, and SPL&T lands with an emphasis on preserving habitat.

6. Establish SPL&T road systems in each HCP Plan Area watershed that are between 85 to 90 percent hydrologically disconnected by completing the READI model fieldwork, analysis, and specific site improvements. In the Trinity River basin HCP/SHA Plan Areas, SPI will prioritize road improvements on unstable lands based on the landslide risk assessment results and known or potential distribution of Covered Species. Sacramento River basin HCP/SHA Plan Area lands will be prioritized using the NMFS Core and reintroduction classifications, beginning with Core 1 and Core 2 watersheds, followed by Primary and Candidate classifications.

III. PERMIT TERMS AND CONDITIONS

A. Incidental Take Authorization

NMFS determined that incidental take is reasonably certain to occur as follows:

- Take in the form of harm to Covered Species from exposure to the following habitat-related impacts resulting from Covered Activities: increased suspended sediment and increased instream temperature.
- Take in the form of harm, injury, or death to Covered Species resulting from the following Covered Activities: water drafting and instream construction requiring capture, handling, and release of Covered Species during stream dewatering.

NMFS cannot precisely quantify or track the amount or number of individuals that are expected to occupy habitat within the HCP Action Area each year, or be incidentally taken per species and per watershed as a result of the Covered Activities. The natural variability in salmonid population parameters (*e.g.*, abundance, productivity, *etc.*) make it impractical to attribute or determine the numbers of individuals taken as a result of the Covered Activities given their scale, both temporally and spatially, and the indirect and cumulative nature of their effects on salmonids. For example:

1. It can be difficult to separate the impact on the species arising from human-induced habitat modification from the impact on the species arising from naturally-occurring, and often stochastic, watershed processes that form a wide distribution of habitat conditions;
2. Salmonids possess complex life histories, with multiple life stages that rely on a broad range of habitat conditions, both spatially and temporally;
3. Salmonids exhibit high natural mortality rates in the wild, and it is exceedingly difficult to first detect distinct instances of mortality, and then attribute mortality to specific actions affecting habitat conditions; and
4. Habitat conditions vary over time and space due to natural and human-induced factors. It is difficult to predict where and when salmonids may experience such habitat conditions and whether those conditions will lead to take. The timing and specific location of events causing potential impacts are unknown, there is no practicable way to observe or count the number of fishes affected.

The distribution and abundance of Covered Species that occur within the HCP Action Area are affected by habitat quality, competition, predation, and the interaction of processes that influence genetic, population, and environmental characteristics. These biotic and environmental processes interact in ways that may be random or directional, and may operate across far broader temporal and spatial scales than are affected by the Covered Activities. Therefore, the distribution and abundance of fish within the HCP Action Area cannot be attributed entirely to habitat conditions. As such, NMFS cannot precisely predict the number of fish that are reasonably certain to be injured or killed if their habitat is modified or degraded by the Covered Activities. Additionally, NMFS knows of no device or practicable technique that would yield reliable counts of individuals that experience these impacts. However, it is possible to estimate the extent of incidental take by designating ecological surrogates, which are those elements of the project that are expected to result in incidental take. Ecological surrogates are more predictable and/or measurable and monitoring those surrogates will determine the extent to which incidental take is occurring.

Habitat-Based Ecological Surrogates and Associated Incidental Take

A surrogate monitoring strategy has been developed to evaluate water temperature and turbidity levels, as described below. The surrogate monitoring strategy includes two management response levels based on the values established for each of the surrogate indicators. A “green level” response threshold will be used when average surrogate indicator values are within the lower 50 percent of the surrogate indicator range. The green level represents surrogate values within the exceedance threshold, but otherwise requiring no immediate management actions. A “red level” response threshold will be used when average surrogate values are within the upper 50 percent of the surrogate indicator range for a consecutive three-year period. When the red level threshold is reached, SPI and NMFS will confer to identify possible adaptive management actions to address the condition. SPI will implement the agreed upon adaptive management actions to address the condition as soon as practicable. Red level management response investigations will include review of all practicable information potentially influencing surrogate monitoring levels. This information includes, but is not limited to, air and water temperature correlations, planning watershed size and hydrologic regime, water year, SPI Covered Activities, disturbance events in applicable planning watersheds, and activities on other lands potentially influencing surrogate levels.

Table 3. Surrogate Indicator Monitoring Measures

Monitoring Measures	Watershed Processes	Habitat Elements	Range of Surrogate Indicators for Authorized Take
Temperature monitoring	Stream temperature at designated monitoring locations	Water quality	<ul style="list-style-type: none"> • Increases in MWMT¹ from 16.5°C to 20.5°C (21.5°C in low water years) *Green Level response threshold = 16.5°C-18.5°C (19.5°C in low water years) *Red Level² response threshold = 18.5°C-20.5°C (21.5°C in low water years) • MWMT levels above 20.5°C (21.5°C in low water years) represent take exceedance.
Turbidity monitoring	Light refraction and penetration at designated monitoring locations.	Water quality	<ul style="list-style-type: none"> • Increases in turbidity at designated monitoring stations from 25 to 77 NTU for a continuous 14-day period. *Green Level response threshold = 25 NTU-64 NTU. *Red Level³ response threshold = 64 NTU-77 NTU. • Turbidity levels greater than 77 NTU for a continuous 14-day period represent take exceedance.

Water Temperature

The water temperature surrogate for indicating whether SPI exceeds exempted levels of incidental take is based on mean weekly maximum water temperatures (MWMT). A MWMT of 16.5°C is the level at which water temperature is considered fully protective for Chinook salmon, coho salmon, and steelhead (Carter 2005, Dunsmoor and Huntington 2006). Elevated MWMT levels between 16.5°C and 20.5°C in medium to high water years, or 16.5°C and 21.5°C in low water years, represent authorized incidental take levels. If MWMT levels occur above 20.5°C (21.5°C in low

¹ MWMT = mean weekly maximum water temperature.

² The Red Level response threshold occurs when MWMT levels are between 18.5°C and 20.5°C (21.5°C in low water years). If values within this range occur at any time in any year for a 3-year contiguous period, SPI and NMFS will confer to determine possible adaptive management measures to address the condition.

³ The Red Level response threshold occurs if NTU levels are between 64 and 77 for a continuous 14-day period. If values within this range occur, SPI and NMFS will confer to determine possible adaptive management measures to address the condition.

water years) at any time in any year for a three-year contiguous period, then authorized incidental take has been exceeded. This potential increase would be determined from exceedances beyond these levels in MWMT as measured at one of the five monitoring stations (Upper San Antonio Creek, Judd Creek, Hazel Creek, and the two new stations to be located in the Trinity River basin). Once established and SPI has five years of monitoring data, these thresholds will be further refined with NMFS for the Trinity Basin portion of the HCP.

The procedures for monitoring the water temperature ecological surrogate would include:

1. Hourly monitoring of water temperature at the monitoring locations defined in the monitoring plan. High, medium, and low water years will be determined from the most recent ten years of SPI's 20 permanent weather station rainfall data.
2. Data assessment relative to the surrogate level on a monthly basis.
3. Establishing the appropriate management response threshold level using the monitoring data, as described below:
 - a. A Green Level response threshold occurs when MWMT levels are between 16.5°C and 18.5°C (19.5°C in low water years); no immediate management actions are required.
 - b. The Red Level response threshold occurs when MWMT levels are between 18.5°C and 20.5°C (21.5°C in low water years). If values within this range occur at any time in any year for a three-year contiguous period, SPI and NMFS will confer to identify possible adaptive management actions to address the issue. SPI will implement the agreed upon adaptive management actions to address the condition as soon as practicable.
 - c. MWMT levels above 20.5°C (21.5°C in low water years) at any time, in any year for a three-year contiguous period, represent take exceedance. SPI will notify NMFS as soon as possible, but no later than two business days upon determining that the authorized level of incidental take has been exceeded.
4. Development of an annual report summarizing monitoring results during this time period, including discussion of each monitoring procedure, as applicable.

Turbidity

The turbidity level surrogate indicates whether the exempted level of incidental take is exceeded is based on the Nephelometric Turbidity Unit (NTU) level described by Sigler *et al.* (1984). Turbidity levels as little as 25 NTU can cause growth reductions in steelhead and coho salmon. However, Sigler *et al.* (1984) also noted that these fish could survive turbidity levels up to 77 NTU. Therefore, NMFS considers this the range for determining potential effects and authorized take. Turbidity levels within the range of 64 to 77 NTU for a continuous 14-day period would be considered within the exempted incidental take levels. If turbidity levels greater than 77 NTU occur for a continuous 14-day period or if turbidity levels within the range of 64 to 77 NTU occur for a contiguous period longer than 14 days, then exempted incidental take has been exceeded. This potential increase would be determined through measurements at one of the five monitoring stations (Upper San Antonio Creek, Judd Creek, Hazel Creek, and the two new stations to be located in the Trinity River basin). Once established and SPI has five years of monitoring data, these thresholds will be further refined with NMFS for the Trinity Basin portion of the HCP.

The procedures for monitoring the turbidity ecological surrogate would include:

1. Monitoring turbidity levels at locations defined in the monitoring plan.
2. Data assessment relative to the surrogate level on a monthly basis.
3. Establishing the appropriate management response threshold level using the monitoring data, as described below:
 - a. A Green Level response threshold occurs when NTU levels are between 25 and 64; no immediate management actions are required.
 - b. The Red Level response threshold occurs if NTU levels are between 64 and 77 for a continuous 14-day period. If values within this range occur at any time in any year for a three-year contiguous period, SPI and NMFS will confer to identify possible adaptive management actions to address the issue. SPI will implement the agreed upon adaptive management actions to address the condition as soon as practicable.
 - c. Turbidity levels greater than 77 NTU for a continuous 14-day period or turbidity levels within the range of 64 to 77 NTU for a contiguous period longer than 14 days represents take exceedance. SPI will notify NMFS as soon as possible, but no later than two business days upon determining that the authorized level of incidental take has been exceeded.
4. Development of an annual report summarizing monitoring results during this time period, including discussion of each monitoring procedure, as applicable.

Water Drafting

In the HCP Action Area, the small number of watercourse crossings that may be used during water drafting indicates that exposure of Covered Species to these activities will be rare. The timing of water drafting would generally occur outside of peak migration timing for listed salmonids, minimizing the likelihood and numbers of fish exposed. The analysis of the effects of the Covered Activities anticipates that water drafting will be conducted in a manner that ensures continued compliance with the CFPRs [943.7(l)], NMFS Water Drafting Guidelines (NMFS 2001), and the Section 1600 Lake and Streambed Alteration Agreement required by the California Department of Fish and Wildlife (CDFW) (F&GC 1600 *et seq.*). These requirements are primarily for the protection of juvenile anadromous salmonids, in waters where they are known to exist. In the event that juvenile salmonids are exposed to water drafting, adherence to the requirements described above will reduce the potential for harm, injury, or death.

Therefore, the most appropriate threshold for the extent of incidental take that is expected to occur during water drafting is to use the following requirements/specifications.

All intakes are screened to minimize the likelihood of impingement of juvenile fish against the screen. The following requirements apply to screens and water drafting on Class I waters:

1. Openings in perforated plate or woven wire mesh screens do not exceed 3/32 inch (2.38 millimeters). Slot openings in wedge wire screens do not exceed 1/16 inch (1.75 millimeters).
2. The screen surface has at least 2.5 square feet of openings submerged in water.
3. The drafting operator regularly inspects, cleans, and maintains screens to ensure proper operation whenever water is drafted.
4. The approach velocity (water moving through the screen) does not exceed 0.3 feet/second.
5. The diversion rate does not exceed 350 gallons per minute.

Bypass flows for Class I watercourses are provided in volumes sufficient to avoid dewatering the watercourse and maintain aquatic life downstream, and conform to the following standards:

1. Bypass flows in the source stream during drafting are at least 2 cfs.
2. Diversion rate does not exceed 10 percent of the surface flow.
3. Pool volume reduction does not exceed 10 percent.

During water drafting activities, small salmon and steelhead may be impinged against the surface of the pump screen. Water drafting can also disrupt habitat utilization and may cause fish behavioral modifications leading to harm as described below. NMFS anticipates annual incidental take will be limited to the following forms:

- Harm, injury, or death to juvenile salmon and steelhead from impingement during water drafting. Water drafting may affect the behavior of Covered Species, including migration delay and displacement from the water drafting site, resulting in reduced fitness.

The measures described above, per the CFPRs and the CDFW 1600 Agreement, must be implemented by the water drafting operator during water drafting activities. In Anadromous Salmonid Protection (ASP) watersheds, these standards also include implementing NMFS Water Drafting Guidelines. Water Drafting Logs are to be filed with CAL FIRE at the end of seasonal operations and are maintained with the plan record. The Water Drafting Logs from ASP watershed for the previous seasonal operations must be provided with annual reports that are submitted to NMFS to verify that incidental take has not been exceeded.

If the specific parameters described above are not followed during water drafting activities that are conducted in watersheds occupied by Covered Species (*e.g.*, ASP watersheds), then incidental take will be exceeded.

Instream Work during Road Reconstruction

Covered Activities that may involve instream habitat disturbance include road reconstruction and new road construction associated with timber harvest plans (THPs). SPI anticipates approximately 3-5 miles of new road construction in the HCP and SHA Plan Areas annually during the first decade of the permit period, 1.5-3 miles during the following decade, then no new road construction during the final three decades. SPI will not construct any new roads in the currently identified WLPZ on anadromous stream reaches during the permit term. In most cases, instream construction will occur in order to upgrade an existing crossing structure where the crossing may fail or need replacement, while in other cases the crossing may need replacement because it has aged and is subject to failure. Reconstruction activities will occur during low flow periods when Covered Species are least likely to be present and will adhere to CFPRs limiting the extent of instream activity. The CFPRs require that road reconstruction activities that will occur in flowing water must have a Dewatering Plan in place prior to commencing instream work. Stream dewatering prior to road reconstruction activities may require the capture, handling, and relocation of Covered Species when they are present.

Effects to Covered Species resulting from physical alteration of instream habitat in the HCP Action Area are expected to occur in areas where occupied habitat intersects with road watercourse crossings. Thus, the most appropriate threshold for the extent of incidental take that is expected to occur as a result of stream dewatering and the capture, handling, and release of Covered Species is

the number of road watercourse crossings that occur within habitat that is occupied by Covered Species and the frequency of instream work that will occur during crossing reconstruction.

Stream dewatering and the capture and handling of fish may cause behavioral modifications and result in increased stress, as described below. NMFS anticipates annual incidental take will be limited to the following forms:

- Harm, injury, or death to Covered Species from stream dewatering and handling during relocation activities. The primary contributing factors to stress and injury from handling are differences in water temperature between the river where the fish are captured and wherever the fish are held, dissolved oxygen conditions, the amount of time that fish are held out of the water, and physical trauma.

Currently, four crossing locations occur in the Sacramento River basin HCP Action Area. Reconstruction activities at these locations will be infrequent during the permit period and would be necessary following storm events causing extensive damage to these structures. There is uncertainty regarding the frequency of storm events that would cause extensive damage requiring road reconstruction activities over the permit-term, due to climate change and other variables. NMFS anticipates that instream work resulting in stream dewatering and fish handling will occur at each of the four road watercourse crossings in the Sacramento River basin HCP Action Area up to six times per decade. If stream dewatering and fish handling occurs during road reconstruction activities at any of the four road watercourse crossings in the Sacramento River basin HCP Action Area, more than six times per decade, then incidental take will be exceeded.

In the Trinity River basin HCP Action Area, 29 road watercourse crossings are present in watersheds occupied by Covered Species. Reconstruction activities at these locations will be infrequent during the permit period and would be necessary following storm events causing extensive damage to these structures. Similar to the Sacramento River basin HCP Action Area, there is uncertainty regarding the frequency of storm events that would cause extensive damage requiring road reconstruction activities over the permit-term, due to climate change and other variables. NMFS anticipates that instream work resulting in stream dewatering and fish handling will occur at each of the 29 road watercourse crossings in the Trinity River basin HCP Action Area up to four times per decade. If stream dewatering and fish handling occurs during road reconstruction activities at any of the 29 road watercourse crossings in the Trinity River basin HCP Action Area more than four times per decade, then incidental take will be exceeded.

During fish capture, handling, and relocation activities, we expect the total incidental mortality to be equal to or less than three percent of the total number of all fish that are captured, handled, and released. If incidental mortality greater than three percent occurs, then incidental take will be exceeded.

B. Avoidance and Mitigation Measures

Section 10(a)(2)(A) of the ESA requires that an HCP specify the measures that the permittee will take to minimize and mitigate to the maximum extent practicable the impacts of the taking of any ESA-listed species as a result of activities covered by the HCP. SPL&T fully complies with the CFPRs, which set prescriptive standards for natural resource protection minimization measures for

all activities. The CFPRs set even higher standards for activities in ASP watersheds. The list below summarizes the standards contained in the CFPRs particularly relevant to salmonid and aquatic habitat protection. SPL&T will also implement measures to mitigate unavoidable take, including use of the READI model and the support of ESA-listed species reintroduction efforts proposed by NMFS. These measures are designed to protect riparian resources and water quality. This combination of conservation measures is expected to minimize and mitigate, to the maximum extent practicable, the impacts of take of the anadromous fish species addressed in the HCP.

1. ***Erosion Control*** measures include tractor operations, waterbreaks, timber operations in the winter period, and tractor road watercourse crossing.
 - a. Tractors and other heavy equipment are restricted from operations that cause erosion, such as operating on skid roads or slopes when equipped with a blade and operating in unstable areas, slopes greater than 65 percent, or slopes with a high hazard rating. Slash and debris are not to be placed in locations where they could be discharged into nearby waterbodies.
 - b. Waterbreak installations are seasonally restricted. Discharge from waterbreaks flow through some form of vegetative cover, duff, slash, rocks, or less erodible material. Waterbreaks are maintained during timber operations so they minimize erosion and slope instability and prevent water quality degradation.
 - c. During the winter period (November 15 – April 1), mechanical site preparation and timber harvest are restricted unless a winter period operating plan is incorporated in the timber harvesting plan. The winter period operating plan will include specific measures taken during the winter operating period to avoid or minimize erosion, soil movement into watercourses, and soil compaction from timber operations.
 - d. Road crossings are kept to a minimum, and existing crossing locations are used when possible. If a new watercourse crossing is required, it will be prepared using a structure, such as a bridge, culvert, or temporary log culvert. Crossing facilities on watercourses supporting fish shall allow unrestricted passage for all life stages that may be present. All tractor road watercourse crossing facilities are removed and stabilized before winter unless described in the winter operating plan and approved by the CAL FIRE Director.
2. ***Site Preparation*** is planned and conducted in a manner to encourage maximum timber productivity, minimize fire hazards, prevent substantial adverse effects on soil resources and fish and wildlife habitat, and prevent degradation of water quality. Heavy equipment will not be used for site preparation under saturated soil conditions that may produce sediment discharge. Watercourse crossings for heavy equipment are planned, constructed, maintained, and removed in accordance with requirements for tractor roads. Undisturbed areas or energy dissipaters are used to control and disperse concentrated runoff from roads, landings, tractor roads, firebreaks, and erosion control facilities where it flows into site preparation areas.
3. ***Watercourse and Lake Protection*** conservation measures ensure that timber operations do not cause significant adverse site-specific and cumulative impacts on the beneficial uses of water and native aquatic and riparian-associated species, and the beneficial functions of riparian zones. Protective measures include: general limitations near watercourses, lakes, marshes, meadows, and other wet areas; watercourse and lake protection; reduction of soil loss; protection and restoration of the beneficial functions of the riparian zone in watersheds

with listed anadromous salmonids; and Class I watercourses with confined channels in watersheds in the coastal anadromy zone.

- a. Several general minimization measures apply to all watercourses and lakes. Trees are felled to lean away from watercourses and lakes. Equipment is serviced in locations to prevent grease, oil, or fuel from entering lakes or watercourses. Pesticides are not used, and snags and green wildlife trees are retained. Accidental depositions of soil or other debris in lakes or watercourses are removed immediately. Tractor roads are not constructed or used in watercourses and other wet areas, except at prepared tractor road crossings, crossings over dry watercourses, and at new and existing tractor road crossings as part of the Fish and Game Code process (F&GC § 1600 *et seq.*). Non-commercial vegetation bordering and covering meadows and wet areas are retained and protected during timber operations unless explained and justified in the THP and approved by the CAL FIRE Director. Where less than 50 percent canopy cover exists before timber operations, only sanitation salvage will be used to protect stream features, which include water temperature, streambed and flow modification by LWD, filtration of organic and inorganic material, upslope stability, bank and channel stability, spawning and rearing habitat for salmonids, and vegetation structure diversity for fish and wildlife habitat. Large woody debris (LWD) recruitment for instream habitat is provided by retaining core, inner and outer tree zone and canopy requirements as described in CFPR 936.9 for the HCP Plan Area.
- b. Within the Watercourse and Lake Protection Zone (WLPZ), at least 75 percent surface cover and undisturbed area will be retained for wildlife habitat, to provide ground cover, and act as a filter strip to dissipate raindrop energy and reduce potential surface erosion. Soil deposited during timber operations will be removed, and debris deposited during timber operations will be removed or stabilized before the conclusion of timber operations. Temporary crossings will be removed before the winter period unless explained and justified in the winter operating plan and approved by the Director of CAL FIRE. Heavy equipment will not be used in timber falling, yarding, or site preparation within the WLPZ unless explained and justified.
- c. The WLPZ areas where mineral soil exceeds 100 continuous square feet in size in the HCP Plan Area, exposed by timber operations, are treated for reduced soil loss. Treatment is completed by October 15, and bare areas created after October 15 will be treated within ten days. Stabilization measures are selected to prevent significant movement of soil into watercourses. Where mineral soil is exposed by timber operations on approaches to watercourse crossings, the disturbed area will be stabilized to prevent the discharge of soil into watercourses or lakes in amounts deleterious to the quality of water. Where necessary to protect water from timber operations, protection measures, such as seeding, mulching, or replanting, are specified to retain and improve the natural ability of the ground cover within the standard width of the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.
- d. Every timber operation is planned and conducted to protect, maintain, and contribute to restoration of properly functioning salmonid habitat and ESA-listed salmonid species. To achieve that goal, every timber operation will be planned and conducted

to comply with the terms of a Total Maximum Daily Load (TMDL), prevent significant sediment load increase to a watercourse systems or lakes, prevent instability of a watercourse channel, prevent significant blockage of aquatic migratory routes, prevent significant adverse effects to streamflow, protect and restore riparian vegetation, and restrict timber operations within the channel zone.

- e. The WLPZ delineation and timber operations in coastal anadromy Class I WLPZs have several requirements, such as designing minimum buffer widths of four separate zones along watercourses, incorporating overstory canopy retention, large tree retention, and silvicultural and operational requirements.
4. **Road Construction and Maintenance** minimization measures for the design and location of all forest roads and landings include avoiding unstable areas, outsloping logging roads and landings, draining with waterbreaks, and hydrologically disconnecting logging roads and landings from watercourses and lakes. SPL&T will not build any new roads in the currently identified WLPZ on anadromous stream reaches during the permit term. In addition, all existing crossings in anadromous stream reaches are passable to every life stage of all Covered Species and SPL&T will maintain that passage status for the permit term.
5. **Water Drafting** sites are selected to minimize disturbance to riparian systems. Where possible, existing drafting sites, storage tanks, and off-channel sources are used. Drafting sites are chosen in streams and pools where water is deep and flowing, as opposed to streams with low flow and small isolated pools. Pumping is terminated when the tank is full. In all watersheds, all intakes will be screened to prevent impingement of juvenile fish against the screen. The following requirements apply to screens and water drafting in Class I waters:
 - a. Openings in perforated plate or woven wire mesh screens shall not exceed 3/32 inch (2.38 millimeters). Slot openings in wedge wire screens shall not exceed 1/16 inch (1.75 millimeters).
 - b. The total (unobstructed) surface area of the screen shall be at least 2.5 square feet.
 - c. The drafting operator shall regularly inspect, clean, and maintain screens to ensure proper operation whenever water is drafted.
 - d. The approach velocity (water moving through the screen) shall not exceed 0.3 foot/second.
 - e. The diversion rate shall not exceed 350 gallons per minute.
6. **Grazing** permits issued by SPL&T require licensees to abide by all state and federal laws and prohibit licensees from overgrazing the property. Salt licks will be located a minimum of 150 feet from WLPZs. Licensees must maintain proper distribution of livestock by frequent herding via horseback or vehicles. Licensees must agree to use the property in accordance with the best approved practices for range management.
7. **Fuels Reduction** will be implemented to reduce the potential for catastrophic fires. SPL&T recognizes that large-scale, high-severity fires pose a risk to ESA-listed species on SPL&T lands. Fuels management will be accomplished through the continued use of even-age management and the ongoing establishment of a system of fuel breaks. Generally, these protective measures are located on top of ridges (far from salmonid habitat) and include roads for firefighting access.

C. Changed Circumstances

“Changed circumstances” are defined in 50 CFR 222.102 as changes in circumstances affecting a species or geographic area covered by an HCP that can reasonably be anticipated by HCP developers and NMFS that can be planned for (*e.g.*, the listing of new species, or a fire or other natural catastrophic event in areas prone to such events). If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances, and such measures were not provided for in the HCP, NMFS will not require those additional measures, provided that the commitments and provisions of the HCP have been or are fully implemented. SPI may elect to implement additional voluntary conservation measures. SPI has identified six types of changed circumstances:

1. Effects due to climate change.
2. Fire covering more than 3.9 square miles (2,500 acres) within the HCP Action Area, or more than 1.5 square miles (1,000 acres) within a single watershed in the HCP Action Area but covering less than 23.5 square miles (15,000 acres) of the HCP Plan Area or SHA Plan Area (which is defined as an unforeseen circumstance). If these events occur in any of the five watersheds containing water quality monitoring stations, SPI will meet with NMFS within 30 days and evaluate the need to select another station location, as the fire event could substantially affect monitoring results.
3. Blowdown of previously standing timber extending between 150 and 900 feet along the length of a stream within a WPLZ.
4. Landslides that deliver between 20,000 and 100,000 cubic yards of sediment to a channel.
5. Listing or change in listing status of covered or non-Covered Species or designation or revision of critical habitat for a covered or non-Covered Species that may be affected by a covered activity.
6. Management change due to scientific advances.

The above circumstances, as well as SPI’s proposed response to each, are detailed in the following sections.

Effects Due to Climate Change

The gradual increase of effects related to climate change may warrant consideration in the HCP/SHA. As a potential driver of increased wildfire intensity and size, fire season length, and as a cause of the additional stressors of drought or storm intensity, climate effects may impact Covered Species and their habitat. When changes in climate become an identifiable changed circumstance during implementation of the HCP/SHA, they will likely be expressed in other changed circumstances. Therefore, we will address the impacts as the potential results of the specific changed circumstances described below, while recognizing that each of these effects may also occur independent of climate change.

Fire

SPI actively works to prevent and contain fires on its property. SPI uses prescribed burns to reduce fuels and thins and prunes stands to prevent ground fires from becoming crown fires. SPI hires contractors to control wildfires on an emergency basis to limit burning and to prevent the spread of fire across the landscape. Despite those measures, some fires may spread out of control and have

unpredictable impacts on Covered Species. Soils exposed after fire, particularly soils on steep slopes, have the potential to deliver large amounts of sediment to salmonid-bearing streams. If a fire covers more than 3.9 square miles (2,500 acres) within the HCP Action Area and SHA Plan Area, or more than 1.5 square miles (1,000 acres) within a single watershed in the HCP Action Area and SHA Plan Area, SPI will notify NMFS within 30 days. Once the fire is extinguished, SPI will conduct the following prescriptive measures in burned areas:

1. Trees damaged by fire will be considered for salvage. Tree salvage will follow all the conservation measures in the CFPRs.
2. Salvage within WLPZs will be carried out to limit soil erosion to the extent possible, retain structural features that contribute to bank or slope stability, and retain standing dead trees that contribute to the recruitment of LWD to watercourses within the area affected by fire.
3. Burned landscapes, including WLPZs within the area affected by fire will be reforested as soon as possible, but no later than three years following the fire.

Although large fires have occurred during recent years, fires covering more than 23.5 square miles (15,000 acres) in the HCP Plan Area and SHA Plan Area are not likely to occur during the permit term and will be considered an unforeseen circumstance.

Windthrow

Windthrow refers to trees uprooted or broken by wind. Small-scale windthrow is a frequent event, typically with minimal effects to aquatic habitat. If a single windthrow event extends more than 150 feet, measured along the length of the stream within the WLPZ, SPI will implement the following measures:

1. SPI will operate under the emergency notice procedures for Substantially Damaged Timberlands. SPI would retain any downed tree keyed into the ground and in the stream channel.
2. WLPZs within the area affected by windthrow will be reforested as soon as possible.

Windthrow extending more than 900 feet along the length of a stream within a WLPZ is not reasonably foreseeable and would be considered an unforeseen circumstance.

Landslides

Landslide rates and processes differ in the various geologic settings in the HCP Plan Area. Conservation measures in the HCP were developed to limit delivery of fine sediment to aquatic ecosystems. Based on historical evidence, landslides delivering between 20,000 and 100,000 cubic yards of sediment to stream channels are uncommon, but may occur during the permit term. If a landslide of such magnitude occurs within the HCP Plan Area, SPI will:

1. Notify NMFS within 30 days that the event has occurred.
2. Coordinate with NMFS to determine if management activities on or adjacent to the landslide could have contributed to the event. If NMFS or SPI determines that management activities contributed to the event, SPI will retain a qualified geotechnical expert to analyze the slide and develop a written report. The report will contain, at a minimum:
 - a. An assessment of the factors likely to have caused the slide; and

- b. Any changes to management activities, which, had they been implemented on or adjacent to the area of the slide, would have likely prevented the slide from occurring.
3. Implement recommendations in the geotechnical report as appropriate.

New Species Listings

The listing of a new species as endangered or threatened under the ESA could constitute a changed circumstance. SPI has included non-listed species in the HCP to prevent the need to revise the HCP, should non-listed salmonids in the Action Area become listed during the permit term. However, other species not included in this HCP could become listed before the ITP expires. If a new species is listed during the term of the ITP, SPL&T may seek to include such newly listed species as Covered Species in the ITP prior to, or after, issuance of the final ITP through a permit amendment.

Management Change Due to Scientific Advances

Scientific advances may occur or new information may become available during the permit period warranting revised management considerations. For example, the CFPRs (Article 6, 916.1, 936.1, 956.1) allow proposals for in lieu practices of WLPZ management if justifications suggest these practices are warranted. Recent concerns and increasing amounts of scientific information (*e.g.*, Newton and Ice 2012) suggest current WLPZ standards are not providing functional riparian habitats due to over-shading and limiting disturbance. As the amount of scientific information regarding this issue increases in the near future, conditions may suggest alternative WLPZ management strategies providing additional disturbance in riparian areas could be appropriate. SPI may choose to propose such activities in the HCP/SHA Plan Areas during the permit term. All such proposals would be submitted to NMFS and follow all applicable CFPR requirements.

D. General Permit Conditions

1. All applicable sections of Title 50 *Code of Federal Regulations, Part 222*, NMFS regulations governing ESA-listed species permits (50 CFR § 222.301-222.309), are conditions of this permit. If any such regulations are modified, any future action taken with respect to this permit shall be in accordance with such regulations in existence at the time such action is taken except as specifically otherwise provided for by law.
2. NMFS may suspend or revoke the permit for cause in accordance with applicable laws and regulations (See 5 U.S.C. § 558; 50 CFR § 222.306; 15 CFR § 904). Such suspension or revocation may apply to the entire permit, or only to specified Covered Species, Permit Areas, or Covered Activities.
3. SPL&T may not transfer or assign this permit to any other person(s), as person is defined in Section 3(12) of the ESA. This permit is not in force or effective if transferred or assigned to any other person.
4. Upon request by the Regional Administrator of the West Coast Region (WCR), SPL&T must permit any employee(s) of NMFS, or any other person(s) duly designated by the Regional Administrator, to inspect SPL&T's records and facilities if such records and facilities pertain to activities for which a take of ESA-listed species is authorized by this

permit, relate to ESA-listed species covered by this permit, or pertain to NMFS' responsibilities under the ESA.

5. The provisions of this permit may be amended upon reasonable notice by the Regional Administrator of the WCR, in accordance with applicable law.
6. Upon locating any dead, injured, or sick individuals of any ESA-listed species covered by this incidental take permit, SPL&T shall, within three working days, notify the NMFS Central Valley Office (see *Section D. Reporting and Notifications*, below). Instructions for proper handling and disposition of such specimens will be issued at that time. Care must be taken in handling sick or injured specimens to ensure effective treatment and care and in the handling of dead specimens to preserve biological material in the best possible state. This condition does not apply to spawned-out carcasses.
7. SPL&T shall provide NMFS (or CDFW) with a reasonable opportunity to rescue individual specimens of a Covered Species before any authorized incidental take occurs, where appropriate and feasible.
8. In the event any ESA-listed species not authorized by this or another incidental take permit is killed, injured, or collected during the course of activities, SPL&T must notify the NMFS Central Valley Office as soon as possible, but not later than three working days after the event (see *Section D. Reporting and Notifications* below). If the individual is killed, it must be retained for scientific analysis. Instructions for proper handling and disposition of such specimens will be issued at that time. SPL&T must then submit a written report to the Assistant Regional Administrator for the Central Valley Office describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend or amend this permit.
9. SPL&T is responsible for the activities of any individual who is operating under the authority of this permit. Such activities include capturing, handling, releasing, transporting, maintaining, and caring for any animal authorized to be taken by this permit.
10. Under the terms of the ESA regulations, a violation of any of the terms and conditions of this permit will subject SPL&T, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA.
11. NMFS WCR will annually review this permit and determine whether it needs to be suspended or amended. Yearly evaluation of this permit by NMFS WCR will include re-analyses of all data, a reassessment of the take levels, and a written response to the sufficiency of SPL&T's annual reports within 60 days.
12. 50 CFR Section 222.307(d)(5) provides for the payment of an adequate fee to process the application. The fee for this permit has been waived.
13. SPL&T is required to ensure adequate funding for the HCP. Upon request by NMFS WCR, SPL&T shall provide documentation that the HCP is receiving adequate funding. If at any time during the permit term NMFS WCR reasonably believes that the HCP is not being

adequately funded, NMFS WCR may require the SPL&T produce an annual budget for the HCP, which will be subject to review and approval by NMFS WCR.

14. SPL&T shall strictly adhere to the HCP and the conditions of this Permit. If SPL&T is not implementing or adhering to the HCP or the conditions of this Permit, then the take authorization provided by this Permit shall not apply.
15. SPL&T shall notify NMFS prior to any new ground-disturbing activity that has the potential to adversely affect cultural resources that are not covered by an existing California Environmental Quality Act (CEQA) process (including, but not limited to: development of small rock pits; fuel break construction in non-timbered brush fields; and conversion of non-timbered brush fields to forest cover). Upon receiving such notification, NMFS will initiate consultation under Section 106 of the National Historic Preservation Act with the State Historic Preservation Officer for such a project. SPL&T shall cooperate and incorporate the results of that consultation before commencing such a project.
16. This permit does not relieve SPL&T from compliance with other applicable foreign, state, local, or other federal law.
17. If SPL&T violates any permit condition, they will be subject to any and all penalties provided by the ESA. NMFS may revoke this permit if the authorized activities are not conducted in compliance with the permit and the requirements of the ESA or if NMFS determines that its ESA Section 10(d) findings are no longer valid.

E. Reporting and Notifications

SPL&T will provide an annual report to NMFS for the duration of the HCP to verify that the conservation measures are being implemented and to ensure that the level of authorized take is not exceeded. The report will be prepared by SPL&T and provided to NMFS by June 30 of each year, covering the previous calendar year that the HCP is in effect. The water quality-related monitoring and reporting will include data and analysis for the previous water year (October 1 through September 30). The monitoring report will contain summaries of all effectiveness, implementation, and compliance monitoring including:

1. A summary of project implementation
2. Monitoring methods and results
3. Efforts supporting salmonid reintroduction
4. Information on the project status and impacts
5. Take tracking
6. Avoidance and minimization measures
7. A summary of habitat surrogate monitoring results
8. Relevant information on mitigation, changed circumstances, and funding
9. Summary of CAL FIRE violation notices pertaining to HCP Covered Activities, if such notices occur.

Annual reports and permit-related notifications shall be sent to the NMFS Central Valley Office:

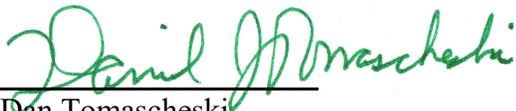
Assistant Regional Administrator
NMFS Central Valley Office
650 Capitol Mall, Suite 5-100
Sacramento, California 95814
Phone: (916) 930-3600
Fax: (916) 930-3629
Email: ccvo.consultationrequests@noaa.gov, with the subject line:
Sierra Pacific Industries HCP/SHA



Barry A. Thom
Regional Administrator
National Marine Fisheries Service

September 29, 2021
Date

Acceptance of the permit serves as evidence that the permittee agrees to abide by all conditions stated.



Dan Tomascheski
Vice President, Timber Resources
Sierra Pacific Industries
For Sierra Pacific Land & Timber Company

October 4, 2021
Date