

RECEIVED

SEP 17 2019

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
REGION 1 - NORTHERN REGION  
619 SECOND ST.  
EUREKA, CA 95501

CDFW - EUREKA



**STREAMBED ALTERATION AGREEMENT**

NOTIFICATION No. 1600-2019-0193-R1

Unnamed Tributaries to Bear Canyon Creek, Tributary to South Fork  
Eel River, Eel River, and the Pacific Ocean

SAGE ALDEBARAN

MJ ALDEBARAN WATER DIVERSION AND STREAM CROSSINGS

4 ENCROACHMENTS

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Sage Aldebaran (Permittee).

**RECITALS**

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on 03/13/2019, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, the Permittee agrees to complete the project in accordance with the Agreement.

**PROJECT LOCATION**

The project to be completed is located within the Eel River watershed, in the Garberville area, County of Humboldt, State of California. Assessor's Parcel Number 223-061-050; approximately at latitude 40.088624 N and longitude -123.768214 W.

**PROJECT DESCRIPTION**

The project is limited to 4 encroachments (Table 1). The notification is for three stream crossing upgrades and one surface diversion.

STX-1 is an existing dirt ford on a Class III watercourse. The crossing shall be upgraded to a rocked ford per specifications. Upgrading the crossing will require the excavation and temporary displacement of approximately 4 cubic yards of native soil and sandstone, 60 square feet of overall disturbance (15-feet long by 1.5-feet deep by 4-feet

wide) and the replacement of approximately 5 to 10 cubic yards of angular rock. The upgrading of this crossing may require the loss of native grasses and forbs.

STX-2 is an Existing 60-inch diameter corrugated metal culvert on a Class II watercourse. This culvert appears mis-aligned but is actually placed at the apex of a natural stream meander "S-turn". The culvert is well rocked at the inlet and outlet, to grade, and appropriately sized for a 100-year flow event. The culvert is functioning properly and no work is proposed at this location.

STX-3 is an Existing 18" diameter corrugated plastic culvert on a Class II watercourse. This culvert is not to grade and undersized for a 100-year flow event. The culvert shall be replaced with a minimum 36" diameter culvert installed per specifications. The new culvert shall be installed to grade, aligned with the natural stream channel, and shall be long enough that it extends lengthwise completely beyond the toe of fill. Upgrading the crossing will require the excavation and temporary displacement of approximately 22 cubic yards of fill and 100 square feet of overall disturbance (20-feet long by 6-feet deep by 5-feet wide). The upgrading of this crossing may require the loss of native grasses and forbs.

POD-1 is a diversion consisting of a ¾ inch polyline placed in a Class II watercourse. The water gravity feeds to a 2,500-gallon tank. The polyline is removed from the watercourse when it is not being used. This Point of Diversion is functioning properly, no work is proposed at this location.

Table 1. Projects with Description

ID	Latitude/Longitude	Description
STX-1	40.086727, -123.768220	An existing dirt ford on a class III watercourse to be upgraded.
STX-2	40.088624, -123.768214	An existing 60" diameter culvert on a class II watercourse. No work is proposed.
STX-3	40.89334, -123.768858	An existing 18" culvert on a class II watercourse. Culvert will be replaced and upgraded with a minimum 36" diameter CMP.
POD-1	40.089802, -123.770769	An existing diversion on a class II watercourse. No work is proposed.

The Notification also discloses the use of a well for irrigation located at Lat/Long 40.084447, -123.769845 and a 80,000 gallon rain catchment tank. No well completion report was provided. CDFW did not evaluate hydraulic connection of the well to surface water, nor was a hydrogeologic evaluation prepared by a licensed geologist provided for CDFW review.

No other projects that may be subject to FGC1602 were disclosed. This Agreement does not retroactively permit any stream crossings, water diversions or other encroachments not described in Table 1 above.

## PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include Red-bellied Newt (*Taricha rivularis*), Western Pond Turtle (*Actinemys marmorata marmorata*), Coho Salmon (*Oncorhynchus kisutch*), Chinook Salmon (*Oncorhynchus tshawytscha*), Western Brook Lamprey (*Lampetra richardsoni*), Pacific Lamprey (*Entosphenus tridentate*), Steelhead Trout (*Oncorhynchus mykiss*), Coastal Tailed Frog (*Ascaphus truei*), Northern Red-legged Frog (*Rana aurora*), Foothill Yellow-legged Frog (*Rana boylei*), Southern Torrent Salamander (*Rhyacotriton variegatus*), Inland Threespine Stickleback (*Gasterosteus aculeatus microcephalus*), amphibians, reptiles, aquatic invertebrates, mammals, birds, and other aquatic and riparian species.

The adverse effects the project could have on the fish or wildlife resources identified above include:

**Impacts to water quality:**

increased water temperature;  
reduced instream flow;  
temporary increase in fine sediment transport;

**Impacts to bed, channel, or bank and direct effects on fish, wildlife, and their habitat:**

loss or decline of riparian habitat;  
direct impacts on benthic organisms;

**Impacts to natural flow and effects on habitat structure and process:**

cumulative effect when other diversions on the same stream are considered;  
diversion of flow from activity site;  
direct and/or incidental take;  
indirect impacts;  
impediment of up- or down-stream migration;  
water quality degradation; and  
damage to aquatic habitat and function.

## MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

### 1. Administrative Measures

The Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. The Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.



- 1.2 Providing Agreement to Persons at Project Site. The Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of the Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. The Permittee shall notify CDFW if the Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact the Permittee to resolve any conflict.
- 1.4 Project Site Entry. The Permittee agrees to allow CDFW employees access to any property it owns and/or manages for the purpose of inspecting and/or monitoring the activities covered by this Agreement, provided CDFW: a) provides 24 hours advance notice; and b) allows the Permittee or representatives to participate in the inspection and/or monitoring. This condition does not apply to CDFW enforcement personnel.
- 1.5 Adherence to Existing Authorizations. All water diversion facilities that the Permittee owns, operates, or controls shall be operated and maintained in accordance with current law and applicable water rights.
- 1.6 Other Agency Permitting Requirements. The U.S. Army Corps of Engineers (Corps) has permitting requirements for certain instream projects under Section 404 of the Federal Clean Water Act. If this project features the placement of dredged or fill materials into the channels of streams (below the ordinary high water mark) that are waters of the United States, a permit may be required by the Corps. If your project needs a permit from the Corps, you will also need to obtain a Water Quality Certification pursuant to Section 401 of the Federal Clean Water Act from the Regional Water Quality Control Board (Regional Water Board). In addition, if your project will involve disturbance within or discharges of pollutants to waters of the State of California, the Regional Water Boards may require a permit, whether or not the Corps requires a permit. If there is any question regarding the possibility of the project meeting the above limitations, the Permittee should contact the Corps and the Regional Water Board prior to beginning work. This Agreement in no way represents permitting requirements by the Corps or the Regional Water Board. It is the responsibility of the Permittee to contact the Corps, and to comply with the provisions of any Section 404 permit issued, if required by the Corps. Similarly, it is the responsibility of the Permittee to contact the Regional Water Board and to comply with the provisions of any Section 401 Certification, Regional Water Board Waste Discharge Requirements or waiver of Waste Discharge Requirements issued by the Regional Water Board.
- 1.7 Change of Conditions and Need to Cease Operations. If conditions arise, or change, in such a manner as to be considered deleterious by CDFW to the stream



or wildlife, operations shall cease until corrective measures approved by CDFW are taken. This includes new information becoming available that indicates bypass flows, diversion rates or other measures provided in this agreement are not providing adequate protection to keep aquatic life downstream in good condition or to avoid "take" or "incidental take" of federal or State listed species.

- 1.8 CDFW Notification of Work Initiation and Completion. The Permittee shall contact CDFW within the 7-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date. Subsequently, the Permittee shall notify CDFW no later than seven (7) days after the project is fully completed. **Notification of completion will include photographs of the completed work, erosion control measures, waste containment and disposal, and a summary of any CNDDDB submissions as required below.**

- 1.9 Notification to the California Natural Diversity Database. If any special status species are observed at any time during the project, a qualified Biologist shall submit California Natural Diversity Data Base (CNDDDB) forms to the CNDDDB within five (5) working days of the sightings. A summary of CNDDDB submissions shall be included with the completion notification. Forms and instructions for submissions to the CNDDDB may be found at:  
<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.

## 2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, the Permittee shall implement each measure listed below.

- 2.1 Permitted Project Activities. Except where otherwise stipulated in this Agreement, all work shall be in accordance with Permittee Notification, together with all maps, Best Management Practices (BMPs), photographs, drawings, and other supporting documents submitted with the Notification and received on March 13, 2019.
- 2.2 Listed Species. This Agreement does not allow for the take, or incidental take of any state or federal listed threatened, endangered, or candidate species. No direct or indirect impacts shall occur to any threatened or endangered species as a result of implementing the project or the project's activities. If the project could result in the "take" of a state listed threatened or endangered species, the Permittee has the responsibility to obtain from CDFW, a California Endangered Species Act Permit (CESA section 2081).
- 2.3 Foothill Yellow-Legged Frog (FYLF) Avoidance. To avoid take of FYLF during its CESA candidacy period, the Permittee shall implement each sub measure below if any surface water or saturated soil conditions exist at any time during the work period.

**A. Conduct a Pre-Construction Survey.** Within 3-5 days prior to entering or working at the Project Site, a qualified biologist shall examine the project site to determine the presence/absence of standing or flowing water, and the presence and/or the potential for presence of FYLF adults, juveniles, tadpoles or egg masses within the project area and 150 feet upstream and downstream. Prior to commencing work, Permittee shall provide to CDFW for review preconstruction survey notes and observations.

1. If FYLF are found during the pre-construction survey, Permittee shall:
  - a) Consult CDFW immediately by either telephone or e-mail and provide a short description of observations, including a count of individuals and the life stage(s), conditions at the site, and other aquatic species observed; and
  - b) Either propose site-specific mitigation measures that will be utilized to avoid take, or obtain an Incidental Take Permit (ITP) if take of FYLF cannot be avoided. Instream work shall not commence until CDFW has provided written approval of the proposed avoidance measures or an ITP has been issued.
2. If no FYLFs are found during the pre-construction survey and no surface water is present in the project area, work may commence without further surveys.
3. If no FYLFs are found but surface water is present during the pre-construction survey, *or if surface water becomes present at any time during the work period*, a qualified biologist shall survey the work site each day before commencement of work activities where equipment and/or materials may come in contact with FYLFs, streams, or riparian habitat.
4. If FYLFs are observed at any time during the construction season, work in the immediate area shall be halted, CDFW immediately consulted, and conservation measures developed and agreed to by CDFW prior to recommencing work.

**B. Qualified Biologist.** A qualified biologist is an individual who is experienced in construction level biological monitoring, knowledgeable in the biology, natural history, habits and behaviors of the FYLF, and who is able to recognize all age classes of FYLF relative to other amphibians in the project area. A qualified biologist shall have academic and professional experience in biological sciences or resource management activities. At least 15 days prior to commencement of Project-related surveys for FYLFs, Permittee shall provide to CDFW for review

and approval the names and qualifications of individuals requesting qualified biologist status.

**C. Decontamination.** The Permittee is responsible for ensuring all project personnel adhere to the latest version of the Northern Region California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol for all field gear and equipment that will be in contact with water or FYLFs. Heavy equipment and other motorized or mechanized equipment that comes in contact with water should generally follow watercraft decontamination protocols found in the AIS Decontamination Protocol.

- 2.4 **Nesting Birds.** Actively nesting birds and their nests shall not be disturbed by project activities.

### **Project Timing**

- 2.5 **Work Period.** All work, not including diversion of water, shall be confined to the period **June 15 through October 15** of each year. Work within the active channel of a stream shall be restricted to periods of **dry weather**. Precipitation forecasts and potential increases in stream flow shall be considered when planning construction activities. Construction activities shall cease and all necessary erosion control measures shall be implemented prior to the onset of precipitation.
- 2.6 **Extension of the Work Period.** If weather conditions permit, and the Permittee wishes to extend the work period after October 15, a written request shall be made to CDFW **at least 10-working days before the proposed work period variance**. Written approval (letter or e-mail) for the proposed time extension must be received from CDFW prior to activities continuing past October 15.
- 2.7 **Work Completion.** The proposed work shall be completed by no later than **October 15, 2021**. Extensions to this date may be granted on a case by case basis as a minor amendment requested at least 30 days prior to this date. Failure to complete work by this date may result in suspension or revocation of this Agreement. A notice of completed work, including photographs of each site, shall be submitted to CDFW within seven (7) days of project completion.

### **Vegetation Management**

- 2.8 **Minimum Vegetation Removal.** No native riparian vegetation shall be removed from the bank of the stream, except where authorized by CDFW. Permittee shall limit the disturbance or removal of native vegetation to the minimum necessary to achieve design guidelines and standards for the Authorized Activity. Permittee shall take precautions to avoid damage to vegetation outside the work area.
- 2.9 **Vegetation Maintenance.** Permittee shall limit vegetation management (e.g., trimming, pruning, or limbing) and removal for the purpose of Authorized Activity to

the use of hand tools. Vegetation management shall not include treatment with herbicides.

### **General Stream Protection Measures**

- 2.10 **Fish and Aquatic Amphibians.** If possible, work shall be conducted when the affected stream channel is void of surface water. If surface water is present during construction, the Permittee shall: a) have a biologist or other qualified professional survey the site and adjacent area for fish, amphibians, and turtles three days or less before commencing project activities and b) if fish, amphibians, or turtles are detected, CDFW will be contacted and work shall not commence until authorized by a CDFW representative.
- 2.11 **Stream Protection.** No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other material deleterious to fish, plant life, mammals or bird life shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into the stream.
- 2.12 **No Dumping.** Permittee shall not deposit, permit to pass into, or place where it can pass into a stream, lake, or other Waters of the State any material deleterious to fish and wildlife, or abandon, dispose of, or throw away within 150 feet of a stream, lake, or other Waters of the State any cans, bottles, garbage, motor vehicle or parts thereof, rubbish, litter, refuse, waste, debris, or the viscera or carcass of any dead mammal, or the carcass of any dead bird.
- 2.13 **Maintain Aquatic Life.** When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, Permittee shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code §5937.
- 2.14 **Equipment Maintenance.** Refueling of machinery or heavy equipment, or adding or draining oil, lubricants, coolants or hydraulic fluids shall not take place within stream bed, channel and bank. All such fluids and containers shall be disposed of properly off-site. Heavy equipment used or stored within stream bed, channel and bank shall use drip pans or other devices (e.g., absorbent blankets, sheet barriers or other materials) as needed to prevent soil and water contamination.
- 2.15 **Hazardous Spills.** Any material, which could be hazardous or toxic to aquatic life and enters a stream (i.e. a piece of equipment tipping-over in a stream and dumping oil, fuel or hydraulic fluid), the Permittee shall immediately notify the California Emergency Management Agency State Warning Center at 1-800-852-7550, and immediately initiate clean-up activities. CDFW shall be notified by the Permittee within 24 hours at 707-445-6493 and consulted regarding clean-up procedures.



2.16 Clean-up. Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the ordinary high water mark before such flows occur or the end of the yearly work period, whichever comes first. All project materials and debris shall be removed from the project site and properly disposed of off-site upon project completion.

2.17 Erosion Control Measures

2.17.1 Seed and Mulch. Upon completion of construction operations and/or the onset of wet weather, Permittee shall stabilize exposed soil areas within the work area by applying mulch and seed. Permittee shall restore all exposed or disturbed areas and access points within the stream and riparian zone by applying local native and weed free erosion control grass seeds. Locally native wildflower and/or shrub seeds may also be included in the seed mix. Permittee shall mulch restored areas using at least two to four inches of weed-free clean straw or similar biodegradable mulch over the seeded area. Alternately, Permittee may cover seeding with jute netting, coconut fiber blanket, or similar non-synthetic monofilament netting erosion control blanket.

2.17.2 Erosion and Sediment Barriers. Permittee shall monitor and maintain all erosion and sediment barriers in good operating condition throughout the work period and the following rainy season, defined herein to mean October 15 through June 15. Maintenance includes, but is not limited to, removal of accumulated sediment, replacement of damaged sediment fencing, coir rolls/logs and/or straw bale dikes and ensuring drainage structures and altered streambeds and banks remain sufficiently armored and/or stable. If the sediment barrier fails to retain sediment, Permittee shall employ corrective measures, and notify the department immediately.

2.17.3 Cover Spoil Piles. Permittee shall have readily available erosion control materials such as wattles, natural fiber mats, or plastic sheeting, to cover and contain exposed spoil piles and exposed areas in order to prevent sediment from moving into a stream or lake. Permittee shall apply and secure these materials prior to rain events to prevent loose soils from entering a stream, lake, or other Waters of the State.

2.17.4 Prohibition on Use of Monofilament Netting. To minimize the risk of ensnaring and strangling wildlife, Permittee shall not use any erosion control materials that contain synthetic (e.g., plastic or nylon) monofilament netting, including photo- or biodegradable plastic netting. Geotextiles, fiber rolls, and other erosion control measures shall be made of loose-weave mesh, such as jute, hemp, coconut (coir) fiber, or other products without welded weaves.

- 2.18 Waste Containment and Disposal.** Permittee shall contain all operation associated refuse in enclosed, wildlife proof, storage containers, at all times, and relocate refuse to an authorized waste management facility, in compliance with State and local laws, on a regular and ongoing basis. All refuse shall be removed from the site and properly disposed of, at the close of the cultivation season and/or when the parcel is no longer in use.
- 2.19 Site Management Plan.** Permittee shall submit to CDFW the initial preparation and subsequent updates to the project's Site Management Plan that is prepared in conformance with the State Water Board's Cannabis Cultivation Policy and Guidelines.

### **Water Diversion**

- 2.20 Maximum Diversion Rate.** The maximum instantaneous diversion rate from the water intake shall not exceed **three (3) gallons per minute (gpm)** at any time.
- 2.21 Bypass Flow.** The Permittee shall pass **80% of the flow** at all times to keep all aquatic species including fish and other aquatic life in good condition below the point of diversion.
- 2.22 Seasonal Diversion Minimization.** To accommodate a request for domestic use, no more than 100 gallons per day shall be diverted during the low flow season from **May 15 to October 31** of each year. Water shall be diverted at other times of the year only if the Permittee can adhere to the maximum diversion rate and bypass flow conditions of this Agreement.
- 2.23 Measurement of Diverted Flow.** Permittee shall install and maintain an adequate measuring device for measuring the instantaneous and cumulative rate of diversion. This measurement shall begin as soon as this Agreement is signed by the Permittee. The device shall be installed within the flow of diverted water. The Permittee shall maintain records of diversion, and provide information including, but not limited to the following:
- 2.23.1** A log including the date, time and quantity of water diverted from the POD.
  - 2.23.2** The amount of water used per day for cannabis cultivation separated out from the amount of water used for other irrigation purposes and other uses of water (e.g., domestic use or fire protection).
  - 2.23.3** Permittee shall make available for review at the request of the Department the diversion records required by the State Water Resources Control Board (Board) in Attachment A to the Board's Cannabis Cultivation Policy (October 17, 2017), No. 84, pages 40-41 (see Cal. Code Regs., tit. 23, § 2925).

## **Water Diversion Infrastructure**

- 2.24 Intake Structure.** No polluting materials (e.g., particle board, plastic sheeting, bentonite) shall be used to construct or screen, or cover the diversion intake structure.
- 2.25 Intake Structure Placement.** Infrastructure installed in the streambed (e.g., cistern or spring box) shall not exceed 10 percent of the active channel width and shall not be located in the deepest portion of the channel. The depth of the intake shall be no greater than one foot (12 inches) below the streambed.
- 2.26 Intake Screening.** The Permittee shall regularly inspect, clean, and maintain screens in good condition.
- 2.26.1** The water intake screens shall be securely attached (e.g., threaded or clamped) to the intake line and have a minimum wetted area of 0.25 square feet.
- 2.26.2** The intakes screen shall be designed so that approach velocity is no more than 0.1 foot per second (fps). Approach velocity is the velocity of the water perpendicular to the screen face measured three inches in front of the screen surface.
- 2.26.3** A water intake screen with round openings shall not exceed 3/32-inch diameter; a screen with square openings shall not exceed 3/32-inch measured diagonally; and a screen with slotted openings shall not exceed 0.069 inches in width. Slots must be evenly distributed on the screen area.
- 2.26.4** The water intake screen may be constructed of any rigid material, perforated, woven, or slotted and should have a minimum of 27% open area. Stainless steel or other corrosion-resistant material is recommended to reduce clogging due to corrosion. Care should be taken not to use materials deemed deleterious to aquatic species.
- 2.26.5** The screen shall be designed to distribute the flow uniformly over the entire screen area.
- 2.26.6** The water intake screen shall be placed in fast moving water with the long axis of the screen parallel to the streamflow. The water intake shall not be placed in pool habitat.
- 2.27 Intake Shall Not Impede Aquatic Species Passage.** The water diversion structures shall be designed, constructed, and maintained such that they do not constitute a barrier to upstream or downstream movement of aquatic life.



- 2.28 **Intake Maintenance.** Intakes shall be kept in good repair. Intakes shall be inspected periodically and kept clean and free of accumulated algae, leaves or other debris, which could block portions of the screen surface and increase approach velocities at any point on the screen. No part of screen surfaces shall be obstructed
- 2.29 **Exclusionary Devices.** Permittee shall keep the diversion structures (e.g. cistern) covered at all times to prevent the entrance and entrapment of amphibians and other wildlife.
- 2.30 **Diversion Intake Removal.** Permittee shall plug, cap, block (e.g., with a shut-off valve), or remove all intakes at the end of each diversion season.
- 2.31 **Heavy Equipment Use.** No heavy equipment shall be used in the excavation or replacement of the existing water diversion structure. The Permittee shall use hand tools or other low impact methods of removal/replacement. All project materials and debris shall be removed from the project site and properly disposed of off-site upon project completion.

#### **Diversion to Storage**

- 2.32 **Water Storage.** All water storage facilities (WSFs) (e.g., reservoirs, storage tanks, mix tanks, and bladders tanks) must be located outside the active 100-year floodplain and outside the top of bank of a stream. Covers/lids shall be securely affixed to water tanks at all times to prevent potential entry by wildlife. Permittee shall cease all water diversion at the point of diversion when WSFs are filled to capacity.
- 2.33 **Water Storage Maintenance.** WSFs shall have a float valve to shut off the diversion when tanks are full to prevent overflow. Water shall not leak, overflow, or overtop WSFs at any time. Permittee shall regularly inspect all WSFs and infrastructure used to divert water to storage and use and repair any leaks.
- 2.34 **Water Conservation.** The Permittee shall make best efforts to minimize water use, and to follow best practices for water conservation and management.
- 2.35 **Limitations on Impoundment and Use of Diverted Water.** The Permittee shall impound and use water in accordance with a valid water right, including any limitations on when water may be impounded and used, the purpose for which it may be impounded and used, and the location(s) where water may be impounded and used.
- 2.36 **State Water Code.** This Agreement does not constitute a valid water right. The Permittee shall comply with State Water Code sections 5100 and 1200 et seq. as appropriate for the water diversion and water storage. The application for this registration is found at:

[http://www.swrcb.ca.gov/waterrights/publications\\_forms/forms/docs/sdu\\_registration.pdf](http://www.swrcb.ca.gov/waterrights/publications_forms/forms/docs/sdu_registration.pdf).

## **Stream Crossings**

- 2.37 Road Approaches. The Permittee shall treat road approaches to new or re-constructed permanent crossings *on Class I and II watercourses* to minimize erosion and sediment delivery to the watercourse. Permittee shall ensure road approaches are hydrologically disconnected to the maximum extent feasible to prevent sediment from entering the crossing site, including when a Stream Crossing is being constructed or reconstructed. Road approaches shall be armored from the crossing for a minimum of *50 feet in both directions*, or to the nearest effective water bar or point where road drainage does not drain to the crossing, with durable, clean, screened, angular rock.
- 2.38 Excavated Fill. Excavated fill material shall be placed in upland locations where it cannot deliver to a watercourse. To minimize the potential for material to enter the watercourse during the winter period, all excavated and relocated fill material shall be tractor contoured (to drain water) and tractor compacted to effectively incorporate and stabilize loose material into existing road and/or landing features.
- 2.39 Runoff from Steep Areas. The Permittee shall make preparations so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential or contained behind erosion control structures. Erosion control structures such as straw bales and/or siltation control fencing shall be placed and maintained until the threat of erosion ceases. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.
- 2.40 Crossing Maintenance. The Permittee shall provide site maintenance for the life of the structures, including, but not limited to, re-applying erosion control to minimize surface erosion and ensuring drainage structures, streambeds and banks remain sufficiently armored and/or stable.
- 2.40.1 The placement of armoring shall be confined to the work period when the stream is dry or at its lowest flow
- 2.40.2 No heavy equipment shall enter the wetted stream channel.
- 2.40.3 No fill material, other than clean rock, shall be placed in the stream channel.
- 2.40.4 Rock shall be sized to withstand washout from high stream flows, and extend above the ordinary high water level.
- 2.40.5 Rock armoring shall not constrict the natural stream channel width and shall be keyed into a footing trench with a depth sufficient to prevent instability.



## 2.41 Culvert Installation.

2.41.1 Permanent culverts shall be sized to accommodate the estimated 100-year flood flow [i.e.  $\geq 1.0$  times the width of the bankfull channel width or the 100-year flood size, whichever is greater], including debris, culvert embedding, and sediment loads.

2.41.2 If the project is located in a high to very high Fire Hazard Severity Zone as designated by CAL FIRE, CDFW recommends culvert materials consist of corrugated metal pipe (CMP). Use of High Density Polyethylene (HDPE) pipe is discouraged.

[http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps)

2.41.3 Existing fill material in the crossing shall be excavated down vertically to the approximate original channel and outwards horizontally to the approximate crossing hinge points (transition between naturally occurring soil and remnant temporary crossing fill material) to remove any potential unstable debris and voids in the older fill prism.

2.41.4 Culvert shall be installed to grade (not perched or suspended), aligned with the natural stream channel, and extend lengthwise completely beyond the toe of fill. If culvert cannot be set to grade, it shall be oriented in the lower third of the fill face, and a downspout or energy dissipator (such as boulders, rip-rap, or rocks) shall be installed above or below the outfall as needed to effectively control stream bed, channel, or bank erosion (scouring, headcutting, or downcutting). The Permittee shall ensure basins are not constructed and channels are not be widened at culvert inlets.

2.41.5 Culvert bed shall be composed of either compacted rock-free soil or crushed gravel. Bedding beneath the culvert shall provide for even distribution of the load over the length of the pipe, and allow for natural settling and compaction to help the pipe settle into a straight profile. The crossing backfill materials shall be free of rocks, limbs, or other debris that could allow water to seep around the pipe, and shall be compacted.

2.41.6 Culvert inlet, outlet (including the outfall area), and fill faces shall be armored where stream flow, road runoff, or rainfall energy is likely to erode fill material and the outfall area.

2.41.7 Project Inspection. The Project shall be inspected by a qualified professional to ensure that the stream crossings were installed as designed. A copy of the inspection report, including photographs of each site, shall be submitted to CDFW within 90 days of completion of this project.



**2.42 Fords, Armored Fill and Vented Crossings.**

- 2.42.1** Fords, armored and vented crossings are considered permanent watercourse encroachments and shall be designed and sized to accommodate the 100-year flood flow plus associated sediment and debris.
- 2.42.2** Fords, armored and vented crossings and hydrologically-connected road approaches shall be maintained as necessary to avoid delivery of fine sediment to the watercourse below.
- 2.42.3** Fords, armored and vented crossings shall be sufficiently outsloped to minimize aggradation of suspended sediments at the crossing.
- 2.42.4** The lowest point of fords, armored and vented crossings shall be constructed within or directly over the original stream channel, to the extent feasible, in order to contain high flows up to twice bank-full and to avoid diversion potential.
- 2.42.5** Armor material shall be comprised of durable angular screened quarry rock of sufficient size and placement to minimize mobilization during a 100-year storm event. Wood may be used for armoring if sound, tight-grained, redwood is applied and sufficiently keyed into the fillslope to resist movement during a 100-year storm event.
- 2.42.6** If maximum fill heights exceed 15 feet or fills exceed 500 cubic yards of fill, rock sizing, armoring thickness, chute width and chute depth shall be calculated and sized using the nomograph provided in Figure 23 of Cafferata et al (2017).
- 2.42.7** Stream crossing spillway fill slopes shall be armored from roadbed to the natural channel in a manner sufficient to prevent significant scour or removal of armor during high flows. Scour is expected through road surface rock cap.
- 2.42.8** Fords shall only be used when the fording surface is dry.
- 2.42.9 Project Inspection.** The Project shall be inspected by a qualified professional to ensure that the stream crossings were installed as designed. A copy of the inspection report, including photographs of each site, shall be submitted to CDFW within 90 days of completion of this project.

### 3. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 3.1 **CDFW Notification of Work Initiation.** The Permittee shall contact CDFW within the seven-day period **preceding the beginning of work** permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date.
  - 3.1.1 Prior to commencing work, Permittee shall provide to CDFW for review preconstruction FYLF survey notes and/or observations.
- 3.2 **Work Completion.** The proposed work shall be completed by no later than **October 15, 2021**. Extensions to this date may be granted on a case by case basis as a minor amendment requested at least 30 days prior to this date. Failure to complete work by this date may result in suspension or revocation of this Agreement. **Notification of completion will include photographs of the completed work, erosion control measures, waste containment and disposal, and a summary of any CNDDB submissions and shall be submitted to CDFW, LSA program at 619 Second Street, Eureka, CA 95501 within seven (7) days of project completion.**
- 3.3 **Project Inspection.** The Project shall be inspected by a qualified professional to ensure that the stream crossings were installed as designed. A copy of the inspection report, including photographs of each site, shall be submitted to CDFW within 90 days of completion of this project. The Permittee shall submit the **Project Inspection Report** to CDFW, LSA Program at 619 Second Street, Eureka, CA 95501
- 3.4 **Measurement of Diverted Flow.** Copies of the **Water Diversion Records** shall be submitted to CDFW, LSA Program at 619 Second Street, Eureka, CA 95501 no later than **December 31** of each year beginning in **2019**.
- 3.5 **Site Management Plan.** The Permittee shall submit to CDFW the project's **Site Management Plan within 30 days from the date submitted to the State Water Board**. Permittee shall submit subsequent revisions and updates to the Site Management Plan that is prepared in conformance with the State Water Board's Cannabis Cultivation Policy and Guidelines.

### CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

**To Permittee:**

Sage Aldebaran  
449 Grandview Ave.  
Novato, CA 94945  
510-520-2412  
Aldebaran.ranch@gmail.com

**To CDFW:**

Department of Fish and Wildlife  
Northern Region  
619 Second Street  
Eureka, California 95501  
Attn: Lake and Streambed Alteration Program  
Notification #1600-2019-0193-R1

**LIABILITY**

Permittee shall be solely liable for any violation of the Agreement, whether committed by the Permittee or any person acting on behalf of the Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require the Permittee to proceed with the project. The decision to proceed with the project is the Permittee's alone.

**SUSPENSION AND REVOCATION**

CDFW may suspend or revoke in its entirety this Agreement if it determines that the Permittee or any person acting on behalf of the Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide the Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide the Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to the Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.



## **ENFORCEMENT**

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against the Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the project or an activity related to it. For example, if the project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq.* (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes the Permittee or any person acting on behalf of the Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

The Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and the Permittee. To request an amendment, the Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by the Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, the Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## EXTENSIONS

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code § 1605, subd. (f)).

## EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after the Permittee signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at <https://www.wildlife.ca.gov/Conservation/CEQA/Fees>.

## TERM

This Agreement shall **expire five years** from date of execution, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. The Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

## **AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.


## **AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.

## **CONCURRENCE**

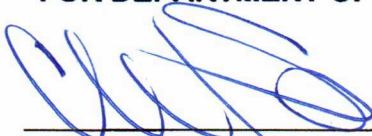
The undersigned accepts and agrees to comply with all provisions contained herein.

### **FOR SAGE ALDEBARAN**

  
Sage Aldebaran

9/6/2019  
Date

### **FOR DEPARTMENT OF FISH AND WILDLIFE**

  
Cheri Sanville  
Senior Environmental Scientist Supervisor

9/18/19  
Date