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Botanical Survey Report
Canigou Cultivation Permitting CEQA Project

Prepared by
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8/22/2018

For
Hohman and Associates
Hydesville, CA

Signature: Kelsey McDonald **Date: 8/24/18**

Setting

The Canigou Cannabis Cultivation Permitting Project is located in Section 25, Township 3 South, Range 1 East HB&M; Humboldt County, on the Honeydew USGS 7.5' quadrangle. The biogeographic region can be described using a three-tiered hierarchy of province, region and sub-region. This site lies within the California Floristic Province, Northwestern California region, and North Coast sub-region. The Mattole River runs through the properties. The elevation ranges from 600 to 1280 feet. The area is primarily mixed coniferous forest dominated by Douglas fir (*Pseudotsuga menziesii*) and tanoak (*Notholithocarpus densiflorus*). The Canigou area includes three parcels totaling approximately 240 acres. Slopes on the property are gentle to moderate, and the aspect is primarily east-facing.

Methods

Kelsey McDonald conducted the botanical surveys for the Canigou project on March 28, 2018 and June 18, 2018. Kelsey holds a M.S. in Natural Resources with a concentration in Environmental Science from Humboldt State University. Kelsey has taken relevant courses including plant taxonomy, field botany, and plant biology, and she wrote her thesis on the seed dispersal of invasive cordgrass *Spartina densiflora* in Humboldt Bay. She has 5 years of botany experience in Northern California.

The surveys were floristic in nature and seasonally appropriate, with an initial survey conducted during the spring to catch early-blooming species and a follow-up survey during the summer for later-blooming species. Approximately 7.5 field hours were spent on surveys. Surveys included systematic assessment of all potential habitats in the area based on maps, aerial photos, and visible environmental features such as canopy cover, slope, soil texture, aspect, hydrologic features, and associated vegetation. This survey protocol is based on the Protocol for Surveying and Evaluating Impacts to Special Status native Plant Populations and Natural Communities (CDFW 2018). A list of potential rare plants on CNPS lists 1 and 2 found within the 9-quad area as listed in CDFW BIOS and CNPS Inventory of Rare and Endangered Plants is available in Attachment A. Attachment B provides details on potential rare plants. Attachment C contains habitat photos. Attachment D lists all plants identified from botanical surveys. Attachment E contains a map of the botanical survey routes. Attachment F contains rare plant rank definitions.

Results and Mitigation

No protected rare or endangered plants (CNPS List 1 or 2) were detected at the Canigou Project. The surrounding area is primarily composed of mixed coniferous forest dominated by Douglas fir (*Pseudotsuga menziesii*) (G5 S4) with tanoak (*Notholithocarpus densiflorus*), canyon live oak (*Quercus chrysolepis*), and California bay laurel (*Umbellularia californica*) (Figure 2).

Limited distribution Methuselah's beard lichen (*Usnea longissima,* CNPS 4.2) and hoary gooseberry (*Ribes roezlii* ver. *amictum,* CNPS 4.3) occurred at the forest edge near cultivation areas and roads. Methuselah's beard lichen was observed hanging from trees along the road on the western end of the southern parcel along the edge of an SMA (Figure 1). The lichen appeared

to be thriving in large trees on the edge of riparian habitat. It is recommended that the project observes all SMA buffers to avoid impacts to riparian habitat as well as sensitive species like *Usnea longissima*. Hoary gooseberry occurred in upland forest edge habitats throughout the properties, and the project is not likely to impact the population.

Surveys appeared to be timed appropriately for the blooming season at this location. All cultivation areas and appurtenant roads were surveyed, and false negative surveys are unlikely. No additional surveys are necessary, and no additional mitigation methods are recommended.

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Attachment A: List of Potentially Occurring Sensitive Plant Species Honeydew 9-Quad Area

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Habitat
Castilleja litoralis	Oregon coast paintbrush	None	None	2B.2	Jun	Unlikely
Clarkia amoena ssp. whitneyi	Whitney's farewell-to-spring	None	None	1B.1	Jun-Aug	Unlikely
Erythronium oregonum	giant fawn lily	None	None	2B.2	Mar-Jun(Jul)	Potential
Erythronium revolutum	coast fawn lily	None	None	2B.2	Mar-Jul(Aug)	Potential
Gilia capitata ssp. pacifica	Pacific gilia	None	None	1B.2	Apr-Aug	Potential
Lasthenia californica ssp. macrantha	perennial goldfields	None	None	1B.2	Jan-Nov	Unlikely
Lathyrus palustris	marsh pea	None	None	2B.2	Mar-Aug	Potential
Montia howellii	Howell's montia	None	None	2B.2	(Feb)Mar-May	Potential
Packera bolanderi var. bolanderi	seacoast ragwort	None	None	2B.2	(Jan-Apr)May-Jul(Aug)	Potential
Piperia candida	white-flowered rein orchid	None	None	1B.2	(Mar)May-Sep	Potential

Attachment A: Potential Rare Plant Details

1. Oregon coast paintbrush (*Castilleja litoralis*)

Status: CNPS List 2B.2, fairly endangered in CA. No state or federal listing. State rank S3, Global rank G3.
Family: Orobanchaceae
Flowering: June
Habitat: Coastal bluff scrub, Coastal dunes, Coastal scrub, sandy soils
Status within Area: Scrub habitat with sandy soils may occur near the Mattole River.

2. Whitney's farewell-to-spring (*Clarkia amoena* spp. *whitneyi*)

Status: CNPS List 1, seriously endangered in CA. No state or federal listing. State rank S1, Global rank G5T1.
Family: Onagraceae
Flowering: June - August
Habitat: Coastal bluff scrub, Coastal scrub
Status within Area: Potential habitat is highly unlikely, but CalFlora records indicate that the plant can occur in more inland habitats as well as on the coast, and the Mattole may provide suitable scrub habitat.

3. Giant fawn lily (*Erythronium oregonum*)

Status: CNPS List 2, fairly endangered in CA. No state or federal listing. State Rank S2, Global Rank G5.
Family: Liliaceae
Flowering: March - July
Habitat: sometimes serpentinite, rocky, openings, Cismontane woodland, Meadows and seeps.
Status within Area: Potential habitat might exist in the area in woodlands or openings in the forest.

4. Coast fawn lily (*Erythronium revolutum*)

Status: CNPS List 2, fairly endangered in CA. No state or federal listing. State Rank S3, Global Rank G4.
Family: Liliaceae
Flowering: March - August
Habitat: Mesic, streambanks, Bogs and fens, Broadleafed upland forest, North Coast coniferous forest
Status within Area: Potential habitat exists in the in forested and wet areas.

5. Pacific gilia (*Gilia capitata* ssp. *pacifica*)
Status: CNPS List 1, fairly endangered in CA. No state or federal listing. State Rank S2, Global Rank G5T3T4.
Family: Polemoniaceae
Flowering: April - August
Habitat: Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland
Status within Area: Potential habitat might be found in the area in grassy openings.

6. Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)
Status: CNPS List 1, fairly endangered in CA. No state or federal listing. State Rank S2, Global Rank G3T2.
Family: Asteraceae
Flowering: January-November
Habitat: Coastal bluff scrub, Coastal dunes, Coastal scrub
Status within Area: Scrub habitat with sandy soils may occur near the Mattole River.

7. Marsh pea (*Lathyrus palustris*)
Status: CNPS List 2, fairly endangered in CA. Not federally or state listed. State rank S2, Global rank G5.
Family: Fabaceae
Flowering: March - August
Habitat: mesic. Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest
Status within Area: Potential habitat exists in mesic areas.

8. Howell's montia (*Montia howellii*)
Status: CNPS List 2, fairly endangered in CA. No state or federal listing. State Rank S3, Global Rank G3G4.
Family: Montiaceae
Flowering: February - May
Habitat: vernally mesic, sometimes roadsides, Meadows and seeps, North Coast coniferous forest, Vernal pools.
Status within Area: Potential habitat exists in the in forested area and roadsides.

9. Seacoast ragwort (*Packera bolanderi* var. *bolanderi*)
Status: CNPS List 2B.2, fairly endangered in CA. No state or federal listing. State Rank S2S3, Global Rank G4T4.
Family: Asteraceae

Flowering: January - August according to CNPS; April - May according to CalFlora.
Habitat: Sometimes roadsides, Coastal scrub, North Coast coniferous forest
Status within Area: Potential habitat exists in coastal scrub, within the forested area and along roadsides.

10. White-flowered rein orchid (*Piperia candida*)
Status: CNPS List 1, fairly endangered in CA. No state or federal listing. State Rank S3, Global Rank G3.
Family: Orchidaceae
Flowering: March - September
Habitat: Sometimes serpentine, Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest
Status within Area: Potential habitat exists within the forested area.

Attachment C. Habitat Photos

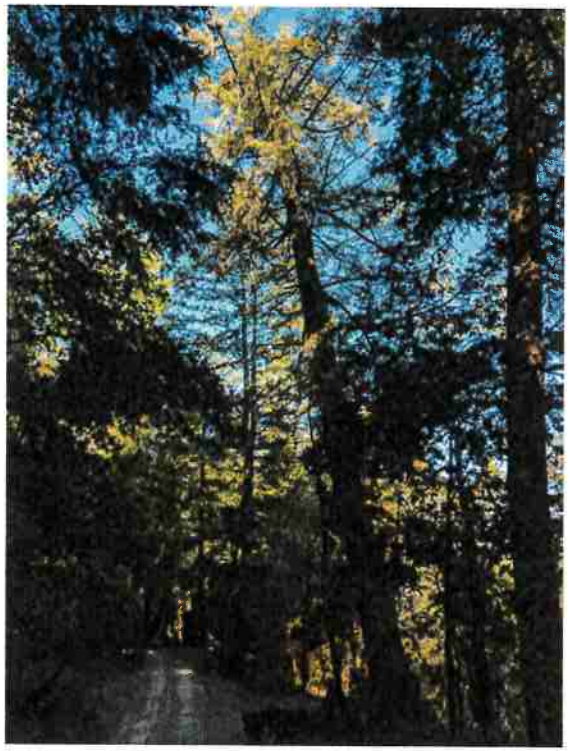


Figure 1. Methuselah's beard lichen (*Usnea longissima,* 4.2) is hanging in the Douglas fir leaning toward the road.

Figure 2. The area around the cultivation sites was primarily Douglas fir (*Pseudotsuga menziesii*) forest with tanoak (*Notholithocarpus densiflorus*) and many other hardwoods such as California bay laurel (*Umbellularia californica*), canyon live oak (*Quercus chrysolepis*) and madrone (*Arbutus menziesii*).

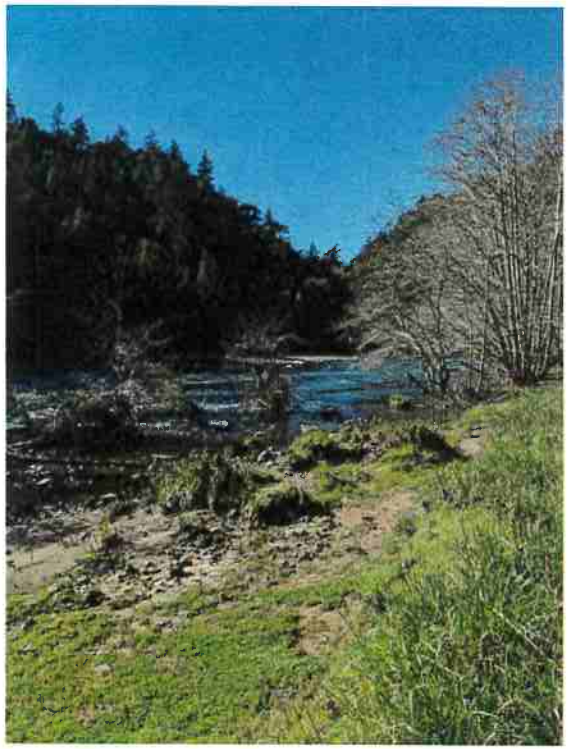


Figure 3. The Mattole River runs through the properties.

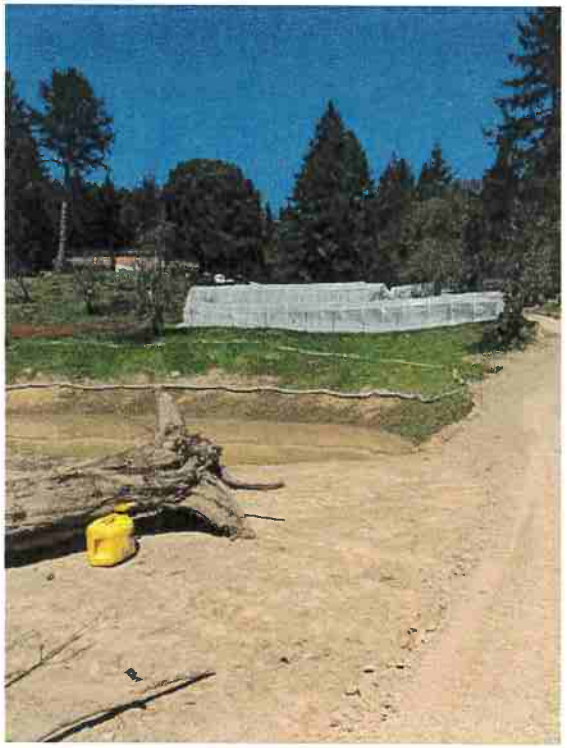


Figure 4. The southern cultivation site also contained a water storage pond.

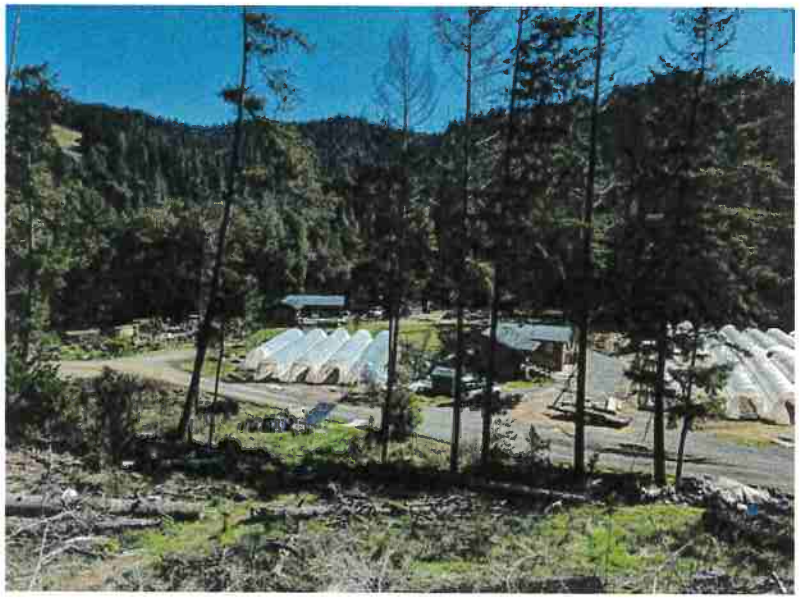


Figure 5. The northern cultivation site looking east.

Figure 6. The central water storage pond.

Attachment D. Plant Species Observed

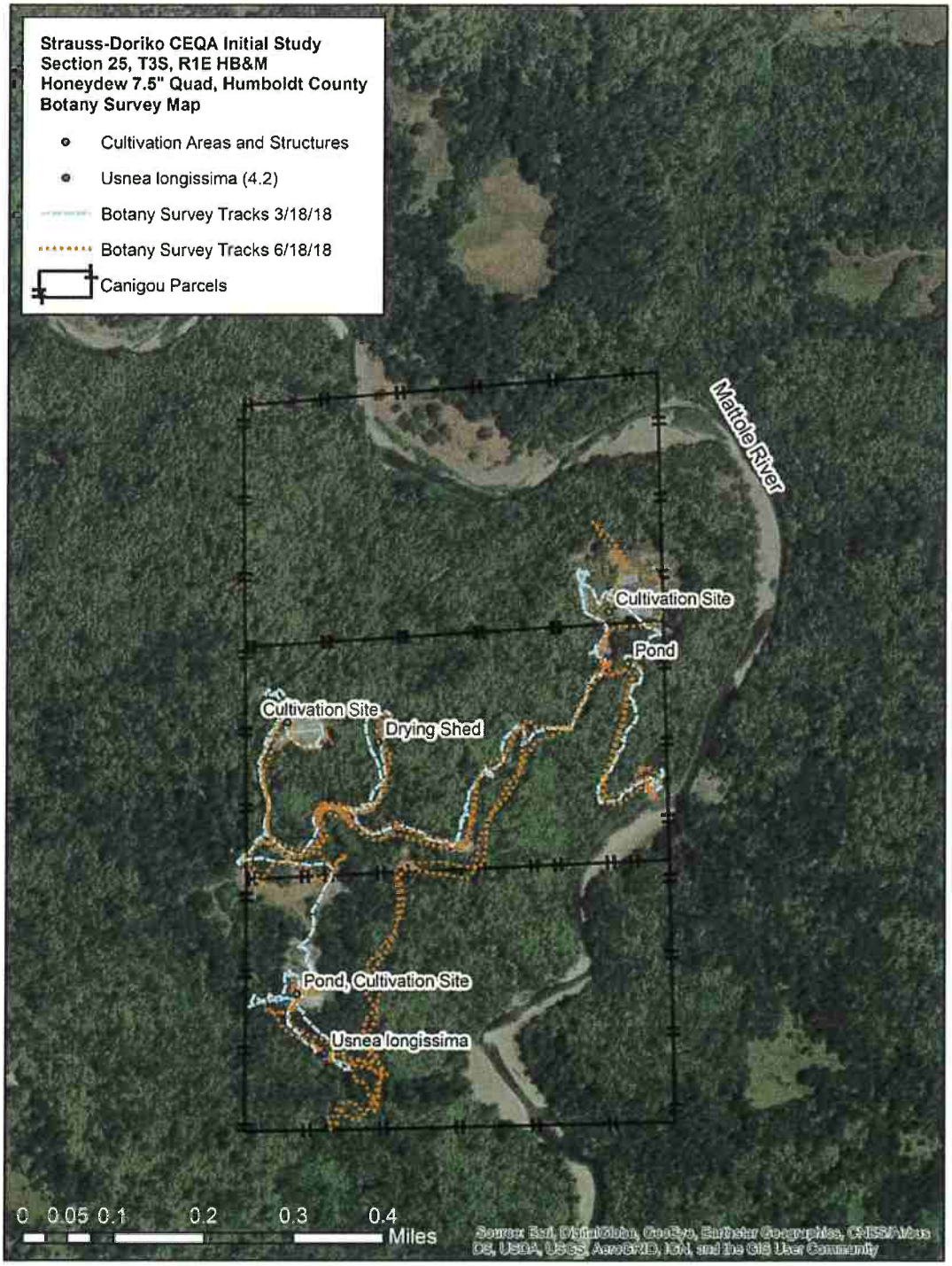
	Species	Common name	Family	Date
Trees	Acer macrophyllum	bigleaf maple	Sapindaceae	3/28/2018
	Alnus rubra	red alder	Betulaceae	3/28/2018
	Arbutus menziesii	madrone	Ericaceae	3/28/2018
	Fraxinus latifolia	Oregon ash	Oleaceae	6/18/2018
	Notholithocarpus densiflorus	tanoak	Fagaceae	3/28/2018
	Pseudotsuga menziesii	Douglas fir	Pinaceae	3/28/2018
	Quercus chrysolepis	canyon live oak	Fagaceae	3/28/2018
	Quercus garryana	Oregon white oak	Fagaceae	3/28/2018
	Quercus kelloggii	black oak	Fagaceae	3/28/2018
	Salix lasiolepis	arroyo willow	Salicaceae	3/28/2018
	Sequoia sempervirens	coast redwood	Cupressaceae	3/28/2018
	Umbellularia californica	California bay	Lauraceae	3/28/2018
Shrubs	Arctostaphylos manzanita	whiteleaf manzanita	Ericaceae	3/28/2018
	Baccharis pilularis	coyote brush	Asteraceae	3/28/2018
	Ceanothis incanus	coast whitethorn	Rhamnaceae	3/28/2018
	Cytisus scoparius	Scotch broom	Fabaceae	3/28/2018
	Genista monspessulana	French broom	Fabaceae	3/28/2018
	Heteromeles arbutifolia	toyon	Rosaceae	3/28/2018
	Holodiscus discolor	oceanspray	Rosaceae	3/28/2018
	Lonicera hispidula	pink honeysuckle	Caprifoliaceae	3/28/2018
	Ribes menziesii	canyon gooseberry	Grossulariaceae	6/18/2018
	Ribes roezlii var. amictum	hoary gooseberry (4.3)	Grossulariaceae	3/28/2018
	Rosa gymnocarpa	dwarf wood rose	Rosaceae	3/28/2018
	Rubus armeniacus	Himalayan blackberry	Rosaceae	3/28/2018
	Rubus leucodermis	whitestem raspberry	Rosaceae	3/28/2018
	Toxicodendron diversilobum	poison oak	Anacardiaceae	6/18/2018
	Vaccinium ovatum	evergreen huckleberry	Ericaceae	3/28/2018
Herbaceous Layer	Achillea millefolium	yarrow	Asteraceae	3/28/2018
	Acmispon americanus	American bird's foot trefoil	Fabaceae	3/28/2018
	Anisocarpus madioides	woodland madia	Asteraceae	3/28/2018
	Anthoxanthum odoratum	sweet vernal grass	Poaceae	6/18/2018
	Anthriscus caucalis	bur chervil	Apiaceae	3/28/2018
	Aquilegia formosa	crimson columbine	Ranunculaceae	6/18/2018
	Artemisia douglasiana	California mugwort	Asteraceae	3/28/2018
	Avena fatua	wild oat	Poaceae	6/18/2018

	Briza maxima	rattlesnake grass	Poaceae	6/18/2018
	Briza minima	little quaking grass	Poaceae	6/18/2018
	Brodiaea elegans	harvest brodiaea	Themidaceae	6/18/2018
	Bromus diandrus	ripgut brome	Poaceae	6/18/2018
	Bromus hordeaceus	soft brome	Poaceae	3/28/2018
	Cardamine oligosperma	bittercress	Brassicaceae	3/28/2018
	Carduus pycnocephalus	Italian thistle	Asteraceae	6/18/2018
	Carex nudata	torrent sedge	Cyperaceae	6/18/2018
	Carex cf. subfusca	pale broom sedge	Cyperaceae	6/18/2018
	Cerastium glomeratum	large mouse ears	Caryophyllaceae	3/28/2018
	Chlorogalum pomeridianum	purple soaproot	Liliaceae	3/28/2018
	Cirsium vulgare	bull thistle	Asteraceae	3/28/2018
	Claytonia parviflora	narrow leaved claytonia	Montiaceae	3/28/2018
	Claytonia perfoliata	miner's lettuce	Montiaceae	3/28/2018
	Clinopodium douglasii	yerba buena	Lamiaceae	3/28/2018
	Collomia heterophylla	variable leaved collomia	Polemoniaceae	6/18/2018
	Cynosurus echinatus	hedgehog dogtail grass	Poaceae	3/28/2018
	Cyperus eragrostis	tall cyperus	Cyperaceae	3/28/2018
	Dactylis glomerata	orchardgrass	Poaceae	6/18/2018
	Digitalis purpurea	purple foxglove	Plantaginaceae	6/18/2018
	Dryopteris arguta	coastal woodfern	Dryopteridaceae	3/28/2018
	Equisetum laevigatum	smooth scouring rush	Equisetaceae	3/28/2018
	Eremocarpos setiger	turkey mullein	Euphorbiaceae	6/23/2018
	Erodium cicutarium	coastal heron's bill	Geraniaceae	3/28/2018
	Erythranthe dentata	tooth-leaved monkeyflower	Phrymaceae	6/18/2018
	Euchiton gymnocephalus	creeping cudweed	Asteraceae	3/28/2018
	Festuca arundinacea	tall fescue	Poaceae	6/18/2018
	Festuca californica	California fescue	Poaceae	3/28/2018
	Festuca perennis	perennial fescue	Poaceae	6/18/2018
	Fragaria vesca	woodland strawberry	Rosaceae	3/28/2018
	Galium aparine	common bedstraw	Rubiaceae	3/28/2018
	Gamochaeta ustulata	featherweed	Asteraceae	3/28/2018
	Geranium dissectum	cutleaved geranium	Geraniaceae	3/28/2018
	Geranium sp.			3/28/2018
	Helenium puberulum	sneezeweed	Asteraceae	6/18/2018
	Heuchera micrantha	alumroot	Saxifragaceae	6/18/2018
	Hieracium albiflorum	white flowered hawkweed	Asteraceae	3/28/2018
	Holcus lanatus	velvetgrass	Poaceae	6/18/2018

	Hordeum vulgare	barley	Poaceae	6/18/2018
	Hypericum perforatum	klamathweed	Hypericaceae	6/18/2018
	Hypochaeris radicata	hairy cat's ear	Asteraceae	3/28/2018
	Iris douglasiana	Douglas iris	Iridaceae	3/28/2018
	Iris purdyi	Purdy's iris	Iridaceae	6/18/2018
	Juncus bufonius	toad rush	Juncaceae	6/19/2018
	Juncus effusus	common rush	Juncaceae	3/28/2018
	Juncus patens	spreading rush	Juncaceae	3/28/2018
	Lactuca serriola	prickly lettuce	Asteraceae	6/20/2018
	Lathyrus vestitus	common Pacific pea	Fabaceae	3/28/2018
	Lupinus bicolor	miniature lupine	Fabaceae	6/18/2018
	Luzula comosa	hairy wood rush	Juncaceae	3/28/2018
	Lysimachia latifolia	starflower	Myrsinaceae	6/22/2018
	Madia gracilis	gumweed	Asteraceae	6/18/2018
	Marah oregana	coast manroot	Cucurbitaceae	6/18/2018
	Mentha pulegium	pennyroyal	Lamiaceae	3/28/2018
	Montia fontana	water montia	Montiaceae	3/28/2018
	Navarretia squarrosa	skunkweed	Polemoniaceae	6/18/2018
	Nemophila parviflora	small flowered nemophila	Boraginaceae	3/28/2018
	Oenanthe sarmentosa	Pacific water parsley	Apiaceae	3/28/2018
	Pentagramma triangularis	goldback fern	Pteridaceae	3/28/2018
	Phacelia bolanderi	redwood phacelia	Boraginaceae	3/28/2018
	Plantago lanceolata	English plantain	Plantaginaceae	3/28/2018
	Polygala californica	California milkwort	Polygalaceae	6/18/2018
	Polypodium glycyrrhiza	licorice fern	Polypodiaceae	3/28/2018
	Polystichum munitum	western swordfern	Dryopteridaceae	3/28/2018
	Prunella vulgaris	self heal	Lamiaceae	3/28/2018
	Pseudognaphalium californicum	ladies' tobacco	Asteraceae	6/18/2018
	Pteridium aquilinum	western brackenfern	Dennstaedtiaceae	3/28/2018
	Rumex acetosella	sheep sorrel	Polygonaceae	3/28/2018
	Rumex crispus	curly dock	Polygonaceae	3/28/2018
	Sanicula crassicaulis	Pacific sanicle	Apiaceae	3/28/2018
	Senecio glomeratus	cutleaf burnweed	Asteraceae	6/18/2018
	Senecio minimus	coastal burnweed	Asteraceae	3/28/2018
	Silybum marianum	blessed milk thistle	Asteraceae	3/28/2018
	Sonchus asper	spiny sow thistle	Asteraceae	3/28/2018
	Spergularia rubra	red sand spurry	Caryophyllaceae	6/21/2018
	Stachys ajugoides	Ajuga hedgenettle	Lamiaceae	3/28/2018

	Stellaria media	chickweed	Caryophyllaceae	3/28/2018
	Torillis arvensis	tall sock destroyer	Apiaceae	6/18/2018
	Trifolium arvense	rabbitfoot clover	Fabaceae	6/18/2018
	Trifolium hirtum	rose clover	Fabaceae	6/18/2018
	Triteleia laxa	Ithuriel's spear	Themidaceae	6/18/2018
	Typha sp.	cattails	Typhaceae	3/28/2018
	Usnea longissima	Methuselah's beard lichen (4.2)	Parmeliaceae	6/18/2018
	Vicia sativa	garden vetch	Fabaceae	6/18/2018
	Viola ocellata	two eyed violet	Violaceae	3/28/2018
	Whipplea modesta	whipplea	Rosaceae	3/28/2018
	Woodwardia fimbriata	western chain fern	Blechnaceae	3/28/2018

Attachment E. Survey Map



Rank Definitions
Global Conservation Status Definition

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

G1 **Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 **Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
G3 **Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
G4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 **Secure** – Common; widespread and abundant.
G#G# **Range Rank** – A numeric range range (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Infraspecific Taxon Conservation Status Ranks

T# **Infraspecific Taxon** (trinomial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon's informal taxonomic status.

Subnational (S) Conservation Status Ranks

S1 **Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.
S2 **Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.
S3 **Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.
S4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5 **Secure** – Common, widespread, and abundant in the jurisdiction.
S#S# **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

? **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status
Q **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The "Q" modifier is only used at a global level and not at a national or subnational level.

The California Rare Plant Ranks

1A. Presumed extirpated in California and either rare or extinct elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extirpated in California, but more common elsewhere
2B. Rare or Endangered in California, but more common elsewhere
3. Plants for which we need more information – Review list
4. Plants of limited distribution – Watch list

1A: Plants Presumed Extirpated in California and either rare or extinct elsewhere
The plants of Rank 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes those plant taxa that are both presumed extinct, as well as those plants which are presumed extirpated in California and rare elsewhere. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range.

1B: Plants Rare, Threatened or Endangered in California and Elsewhere
(Includes Rare Plant Ranks 1B.1, 1B.2, 1B.3)
The plants of Rank 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. California Rare Plant Rank 1B plants constitute the majority of plant taxa tracked by the CNDDB, with more than 1,000 plants assigned to this category of rarity.

2A: Plants Presumed Extirpated in California, but more common elsewhere

The plants of Rank 2A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes only those plant taxa that are presumed extirpated in California, but that are more common elsewhere in their range. Note: Plants of both Rank 1A and 2A are presumed extirpated in California; the only difference is the status of the plants outside of the state.

2B: Plants Rare, Threatened or Endangered in California, but More Common Elsewhere
(Includes Rare Plant Ranks 2B.1, 2B.2 2B.3)
The plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. Plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act; however they are eligible for consideration under the California Endangered Species Act. This rank is meant to highlight the importance of protecting the geographic range and genetic diversity of more widespread species by protecting those species whose ranges just extend into California. Note: Plants of both Rank 1B and 2B are rare, threatened or endangered in California; the only difference is the status of the plants outside of the state.

Threat Ranks:
The California Rare Plant Ranks (CRPR) use a decimal-style threat rank. The threat rank is an extension added onto the CRPR and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. So most CRPRs read as 1B.1, 1B.2, 1B. 3, etc. Note that some Rank 3 plants do not have a threat code extension since there are no known extant populations of the plants in California.
Threat Code extensions and their meanings:
.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
.3 – Not very threatened in California (<20% of occurrences threatened / low degree of immediacy of threat or no current threats known)

Soul Arc Solutions, Inc.
1072 Casitas Pass Road #127
Carpinteria, CA 93013

Department of Fish and Wildlife
Northern Region
619 Second Street
Eureka, California 95501
Attn: Lake and Streambed Alteration Agreement Program
Notification #1600-2017-0294-R1

Work Completion Report

This report shall provide CDFW notice of work completion in accordance with condition 3.1 of Streambed Alteration Agreement No. 1600-2017-0294-R1.

Project description: The project is limited to five encroachments (Table 1). One encroachment is for water diversion from the Mattole.Water is diverted for domestic use and irrigation. Work for this water diversion will include use and maintenance of the water diversion infrastructure. The four other proposed encroachments are to upgrade failing and undersized culverts. Work for these encroachments will include excavation, removal of failing culverts, replacement with new properly sized culvert, backfilling and compaction of fill, and rock armoring as necessary to minimize erosion.

Table 1. Project Encroachments with Description

ID	Latitude/Longitude	Description
Crossing-1	40.1691, -124.0180	Replace failing 18" diameter culvert with minimum 18" diameter culvert
Crossing-2	40.1692, -124.0180	Replace undersize 12" diameter culvert with minimum 18" diameter culvert
Crossing-3	40.1697, -124.0120	Replace undersize 12" diameter culvert with minimum 18" diameter culvert
Crossing-4	40.1695, -124.0113	Install minimum 18" culvert
POD	40.1693, -124.0111	Water diversion from Class I watercourse

Work Completion: All culvert installation work was complete by October 1, 2018. Please see the below Description of Project Completion (Table 2) and attached photos.

Table 2. Description of Project Completion

ID	Latitude/Longitude	Description	Date of Completion
Crossing-1	40.1691, -124.0180	Replaced failing 18" diameter culvert with new 24" diameter culvert	August, 2018
Crossing-2	40.1692, -124.0180	Replaced undersized 12" diameter culvert with new 24" diameter culvert	August, 2018
Crossing-3	40.1697, -124.0120	Replaced undersized 12" diameter culvert with new 24" diameter culvert	August, 2018
Crossing-4	40.1695, -124.0113	Installed new 24" diameter culvert	August, 2018

For additional information, please contact:

Shannon Gibson
Compliance Manager
Soul Arc Solutions, Inc.
(707) 498-7426
shannon@goheadwaters.com

1600-2017-2061-R1

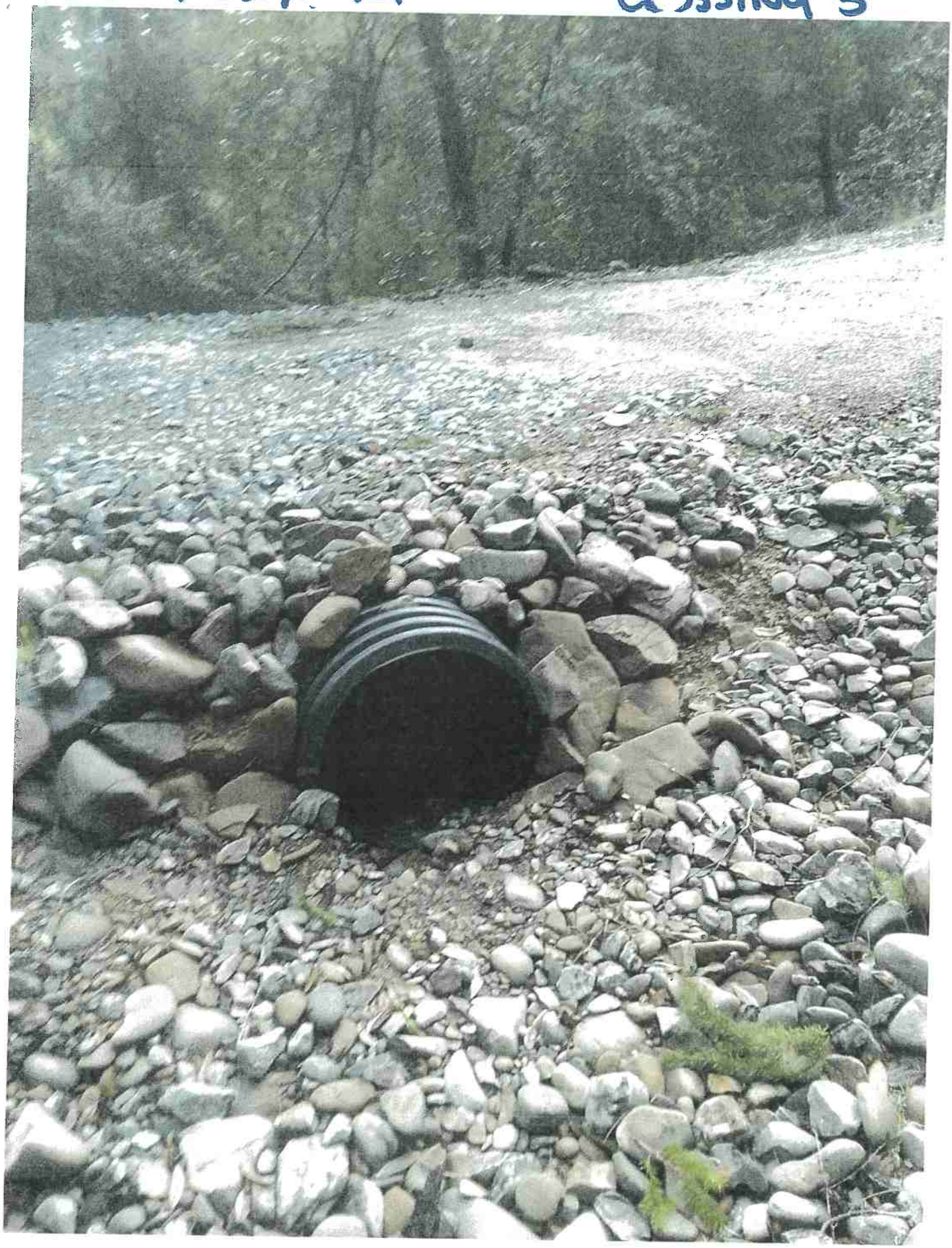
CLOSING 1

1600-2017-0274-R1

CROSSING 2

1600-2017-0291-R1

CROSSING 3



H00-2017 -09 14-R1

CROSSING 4

State Waterboard **Online 2018 Cannabis Water Quality Monitoring & Reporting Program**

You completed application 410360 on 02/27/2019 16:48:48

Return to Dashboard

SECTION A ENROLLMENT INFORMATION:

Enter WDID for cultivation site: 1B16887CHUM

It may take a few moments to retrieve the enrollment information associated with this WDID after you hit "Save and Continue."

SECTION A ENROLLMENT INFORMATION:

WDID Number **1B16887CHUM** is Enrolled Under Order Number:
R1-2015-0023

Facility Enrollment Type and Discharger Name:
Enrollee - Waiver for Strauss, Tristan

If the Enrollment Type and Discharger Name above is blank or does not look to be associated with your cannabis cultivation please confirm WDID number 1B16887CHUM is the WDID number listed on the Notice of Applicability (NOA) issued by the Regional Water Quality Control Board (RWQCB) or State Water Resource Control Board (SWRCB). You can re-enter the WDID by going back to the previous screen.

If you have confirmed the WDID was entered exactly as shown on the NOA and the fields are still blank you will need to contact the RWQCB or SWRCB that issued the NOA.

REGIONAL ORDER NO. R1-2015-0023: Annual Report Overview

Note: If the site/property was transitioned to the Statewide Cannabis General Order (WQ 2017-0023-DWQ) in 2018, please complete the Annual Report for that Order first by entering your WDID associated with the Statewide Cannabis General Order (format example: 1_23CC456789). You will be directed back to this page once you have completed the Annual Report for the Statewide Cannabis General Order.

Welcome to the Annual Monitoring and Reporting Portal for North Coast Regional Order No. 2015-0023 Waiver of Waste Discharge Requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects In the North Coast Region (Regional Cannabis Order). This application allows cannabis dischargers to electronically submit their Annual Report pursuant to Water Code section 13267 as required by the Regional Cannabis Order. The portal consists of the following sections:

Section 1: Enrollment and Site Information
Section 2: Compliance with Standard Conditions
Section 3: Quantitative Site Characterization
Section 4: Water Use
Section 5: Certification

Questions that are marked with a symbol are mandatory and must be answered in the application.

Click 'Save and Continue' below to continue.

REGIONAL ORDER NO. R1-2015-0023: Enrollment and Site Information

Note: This Annual Report will correspond to the following Enrollment:

1B16887CHUM Enrollee - Waiver for Strauss, Tristan

If the enrollment information listed above does not appear to be associated with your cannabis cultivation please confirm that the Regional Order WDID listed above (format example: 1B123456CHUM) matches the number listed on the Notice of Applicability (NOA) issued by the North Coast Regional Water Quality Control Board (NCRWQCB). If you need to correct the WDID you can use the "Prev" button to return to the page on which the WDID was entered, without losing any saved changes.

If you have confirmed the WDID was entered exactly as shown on the NOA and the information listed above is still incorrect, please contact the NCRWQCB at (707) 576- 2676 or by email at northcoast.cannabis@waterboards.ca.gov.

County Humboldt

APN(s) 108-012-009

Tier 2 **If tier 2 or 3 answer the following:**

Date Water Resource Protection Plan developed	09/10/2016
Date instream work completed (if applicable)	08/31/2018
Planned date to begin instream work (if applicable)	

Discharger Relationship to Property ○ Owner ◉ Operator ○ Owner and Operator

Report Preparer Authorized Representative **Authorized Representative Organization (if applicable)** Soul Arc Solutions, Inc.

REGIONAL ORDER NO. R1-2015-0023: Compliance with Standard Conditions

Site in Compliance with Standard Conditions?

Note: If a standard condition is not met, indicate "No" and provide expected date of compliance. If a standard condition has been met or is not applicable indicate "Yes" the standard condition has been met (for example, if there are no stream crossings onsite, Standard Condition 2 would be met and "Yes" would be the proper choice).

Standard Condition 1: Site Maintenance, erosion control, and drainage features	◉ Yes ○ No
If "No", expected date of compliance for SC 1	
Standard Condition 2: Stream crossing maintenance	◉ Yes ○ No
If "No", expected date of compliance for SC 2	

Standard Condition 3: Riparian and wetland protection management

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 3

Standard Condition 4: Spoils management

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 4

Standard Condition 5: Water storage and use

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 5

Standard Condition 6: Irrigation runoff

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 6

Standard Condition 7: Fertilizers and soil amendments

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 7

Standard Condition 8: Pesticides and herbicides

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 8

Standard Condition 9: Petroleum products and other chemicals

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 9

- (•) Yes

Standard Condition 10: Cultivation-related waste

If "No", expected date of compliance for SC 10

Standard Condition 11: Refuse and human waste

- (•) Yes
- ( ) No

If "No", expected date of compliance for SC 11

REGIONAL ORDER NO. R1-2015-0023: Quantitative Site Characterization

Note: Enter zero or N/A as appropriate for questions that are non-applicable, based on operation type

Outdoor (Full Sun) Operations

Sum of cultivation area(s) (sq ft)	0
# of Adult Plants (per harvest)	0
Planting Medium	na

Mixed-Light Operations

Sum of cultivation area(s) (sq ft)	9802
# of Adult Plants (per harvest)	4426
Planting Medium	raised beds

Indoor Operations

Sum of cultivation area(s) (sq ft)	0
# of Adult Plants (per harvest)	0
Planting Medium	NA

Total sum of all cultivation areas (all types) (sq ft)	9802
Shortest distance from any cultivation area (ft) to nearest Class I Watercourse	200+
Shortest distance from any cultivation area (ft) to nearest Class II Watercourse	200+
Shortest distance from any cultivation area (ft) to nearest Class III Watercourse	200+

significant penalties for submitting false information, including the possibility of fine and imprisonment.

Full legal name of the individual signing	Shannon Gibson
Title of individual signing: (e.g., Owner, Consultant)	Compliance Manager
Date of signature	02/27/2019

Submission

SUBMISSION PAGE

NOTICE PURSUANT TO INFORMATION PRACTICES ACT OF 1977 (CIV. CODE. § 1798.17) The State Water Resources Control Board is requesting personal identifying information about the discharger and the person filing this report for the monitoring and reporting program required by the statewide General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order) and Waiver of Waste Discharge Requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects In the North Coast Region (Regional Order). The agency officials responsible for this system of records are Kevin Porzio (General Order), Senior Engineer, whose business address is 1001 I Street, 15th Floor, Sacramento, CA 95814 and whose business telephone is (916) 341-6914 and Kason Grady (Regional Order), Senior Engineer, whose business address is 5550 Skylane Boulevard, Santa Rosa, CA 95403 and whose business telephone is (707) 576-2220. Upon request, the agency official(s) shall inform an individual regarding the location of his or her records and the categories of any persons who use the information in these records.

The State Water Resources Control Board is empowered to require the submission of personal identifying information by California Water Code sections 1228 and 13260. Failure to provide the mandatory information for General Order Monitoring and Reporting Program can result in the imposition of administrative civil liability in the amount of $1,000 per day.

This personal identifying information is collected to facilitate better water management and waste discharge management by the State Water Resources Control Board. The State Water Resources Control Board will not automatically post personal identifying information to public databases. However, the State Water Resources Control Board may be legally required to disclose personal identifying information under any of the circumstances described in Civil Code, section 1798.24. Such circumstances may include, but are not limited to, responding to a request pursuant to the California Public Records Act or responding to a subpoena from a federal agency.

Average slope of cultivated area (%)	15
Number of road crossings of surface waters	3
Length of unpaved roads on enrolled parcel(s)	1/2 mile - 1 mile
Total water storage capacity (gallons)	561000
Total annual nitrogen use (lbs)	35.85
Total annual phosphorus use (lbs)	71.44

REGIONAL ORDER NO. R1-2015-0023: Water Use

Water Input to Storage (gallons per month)

Note: Multiple cases of a single source category should be combined (e.g. if there are multiple wells, report monthly sum from all as a single source). Additionally, a new source category has been added (Hydrologically Connected Well(s)) for wells that are in close proximity to surface water.

Input Source 1

Input Source 1	Spring(s)
January	60000
February	60000
March	60000
April	9000
May	0
June	0
July	0
August	0
September	0
October	0
November	0
December	0

no longer used

Input Source 2

Input Source 2	
January	
February	
March	
Arpil	
May	
June	
July	
August	
September	
October	
November	
December	

Input Source 3

Input Source 3	
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	

December

Water Applied to Plants (gallons per month)

Note: If water is applied from storage, select the type of storage as the Application Source, rather than the original source of the water.

Application Source 1

Application Source 1	**Tank(s)**
January	0
February	0
March	0
April	0
May	10000
June	22500
July	27000
August	27000
September	18000
October	9000
November	0
December	0

Application Source 2

Application Source 2	**Surface Diversion(s)**
January	0
February	0
March	0
April	3700
May	8000
June	0

August	0
September	0
October	0
November	0
December	0

Application Source 3

Application Source 3	
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

If "Other" is selected for either Input Source or Application Source please provide a brief description here:

How was water use estimated? Best Guess

If estimation method is "Other" please provide a brief description here:

Was this site transferred to the Statewide Cannabis Order during 2018? ○ No ◉ Yes

REGIONAL ORDER NO. R1-2015-0023: Certification

Note: This Annual Report will be submitted for the following Enrollment:

1B16887CHUM Enrollee - Waiver for Strauss, Tristan

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and that, based on my collection of this information or my inquiry of those individuals immediately responsible