



FOR DEPARTMENT USE ONLY				
Date Received	Amount Received	Amount Due	Date Complete	Notification No.
	\$	\$		
Assigned to:				

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Journey Aquarian			
Business/Agency	Humboldt Kingz, LLC / Rose Kingz, LLC / Meyers and Aquarian, LLC			
Mailing Address	PO Box 624			
City, State, Zip	Garberville, CA. 95542			
Telephone		Fax		
Email	jaharrisenterprises@gmail.com			

2. CONTACT PERSON *(Complete only if different from applicant)*

Name	Robert Jensen, NorthPoint Consulting			
Street Address	P.O. Box 44			
City, State, Zip	Eureka, CA 95502			
Telephone	(707) 798-6438	Fax		
Email	robert@northpointeureka.com			

3. PROPERTY OWNER *(Complete only if different from applicant)*

Name	See attached Property Owner Description			
Street Address				
City, State, Zip				
Telephone		Fax		
Email				

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name		Aquarian Property Improvements		
B. Agreement Term Requested		<input checked="" type="checkbox"/> Regular (5 years or less) <input type="checkbox"/> Long-term (greater than 5 years)		
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (year)	Ending (year)	Start Date (month/day)	End Date (month/day)	
2018	2023	6/15	10/15	
				15



5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, E, or F is checked, complete the specified attachment.

A.	<input checked="" type="checkbox"/> Standard (Most construction projects, excluding the categories listed below)	
B.	<input type="checkbox"/> Gravel/Sand/Rock Extraction (Attachment A)	Mine I.D. Number: _____
C.	<input type="checkbox"/> Timber Harvesting (Attachment B)	THP Number: _____
D.	<input checked="" type="checkbox"/> Water Diversion/Extraction/Impoundment (Attachment C)	SWRCB Number: <u>ISDU #S06675</u>
E.	<input type="checkbox"/> Routine Maintenance (Attachment D)	
F.	<input checked="" type="checkbox"/> Cannabis Cultivation (Attachment E)	
G.	<input type="checkbox"/> Department Grant Programs	Agreement Number: _____
H.	<input type="checkbox"/> Master	
I.	<input type="checkbox"/> Master Timber Operations	

6. FEES

See the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. *Note: The Department may not process this notification until the correct fee has been received.*

	A. Project	B. Project Cost	C. Project Fee
1	Points of Diversion 1-5 (PODs 1-5) Maintenance	< \$5,000	\$2,886.25
2	Pond 1 Spillway Maintenance	< \$5,000	\$577.25
3	Stream Crossings 1-6, 9, 13-15 (STXs 1-6, 9, 13-15)	< \$5,000	\$5,772.50
4			
5			
6			
7			
8			
9			
10			
		D. Base Fee (if applicable)	
		E. TOTAL FEE*	\$9,236.00

* Check, money orders, or any debit/credit card with the Visa or Mastercard logo are accepted.



7. PRIOR NOTIFICATION AND ORDERS

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

Yes (Provide the information below) No

Applicant	Notification Number	Date

B. Is this notification being submitted in response to a court or administrative order or notice, or a notice of violation (NOV) issued by the Department?

No Yes (Enclose a copy of the order, notice, or NOV. If the applicant was directed to notify the Department verbally rather than in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.)

Continued on additional page(s)

8. PROJECT LOCATION

A. Address or description of project location.
 (Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway)

From Eureka:
 Follow US 101 South (66 Miles) to Exit 936b for Garberville. Turn right on Redwood Drive (0.2 miles). Turn right on Alderpoint Rd (8 miles). Turn right on Bell Springs Road (2.5 miles). Turn on Harris Rd. (0.7 Miles). Project location on left.

Continued on additional page(s)

B. River, stream, or lake affected by the project. Perington Creek

C. What water body is the river, stream, or lake tributary to? Mainstem Eel River

D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts? Yes No Unknown

E. County Humboldt

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Harris	5E	4S	19	NE, NW, SW
Harris	5E	4S	30	NW
Harris	5E	4S	20	NW

Continued on additional page(s)

K. Meridian (check one) Humboldt Mt. Diablo San Bernardino

L. Assessor's Parcel Number(s)

216-081-013, 216-135-015, 216-135-010, 216-135-008, 216-136-004

Continued on additional page(s)



10. PROJECT DESCRIPTION

- A. Describe the project in detail. Include photographs of the project location and immediate surrounding area.
- Written description of all project activities with detailed step-by-step description of project implementation.
 - Include any structures (e.g., rip-rap, culverts) that will be placed or modified in or near the stream, river, or lake, and any channel clearing.
 - Specify volume, and dimensions of all materials and features (e.g., rip rap fields) that will be used or installed.
 - If water will be diverted or drafted, specify the purpose or use.
 - Enclose diagrams, drawings, plans, and maps that provide all of the following: site specific construction details; dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, stockpile areas, areas of temporary disturbance, and where the equipment/machinery will access the project area.

This notification is for the following sixteen (16) projects:

- Point of Diversion 1 on Pond 1 (POD-1): Maintenance (40.102511°, -123.653365°)
- Point of Diversion 2 on Spring (POD-2): Maintenance (40.103356°, -123.657036°)
- Point of Diversion 3 on Spring near Pond 3 (POD-3): Maintenance (40.091262°, -123.667842°)
- Point of Diversion 4 on Spring near Pond 4 (POD-4): Maintenance (40.089281°, -123.664151°)
- Point of Diversion 5 on Spring (POD-5): Maintenance (40.097159°, -123.668922°)
- Existing Pond 1 Spillway: Maintenance (40.102412°, -123.653367°)
- Stream Crossing 1 (STX-1): Culvert and Road Removal (40.105414°, -123.647611°)
- Stream Crossing 2 (STX-2): Culvert Installation (40.103138°, -123.647549°)
- Stream Crossing 3 (STX-3): Culvert Maintenance (40.102572°, -123.648332°)
- Stream Crossing 4 (STX-4): Culvert Replacement (40.103440°, -123.649937°)
- Stream Crossing 5 (STX-5): Culvert Replacement (40.105015°, -123.656112°)
- Stream Crossing 6 (STX-6): Culvert Maintenance (40.091847°, -123.666295°)
- Stream Crossing 9 (STX-9): Rocked Crossing Installation (40.097342°, -123.670456°)
- Stream Crossing 13 (STX-13): Rocked Crossing Installation (40.103035°, -123.651628°)
- Stream Crossing 14 (STX-14): Culvert Installation (40.096911°, -123.663965°)
- Stream Crossing 15 (STX-15): Rocked Crossing Maintenance (40.092815°, -123.665166°)

Please see the attached Project Description for further details.

Continued on additional page(s)

B. Specify the equipment and machinery that will be used to complete the project.

Excavator, payloader, bulldozer, grader, backhoe, compactor, and hand tools

Continued on additional page(s)

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).

Yes No (Skip to box 11)

D. Will the proposed project require work in the wetted portion of the channel?

Yes (Enclose a plan to divert water around work site)
 No



11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

Impacts to the stream channel will occur during installation, replacement, and removal of culverts. The sixteen (16) proposed projects will impact 161 linear ft. and 738 square ft. of stream channel and associated riparian habitat. Riparian vegetation will be temporarily impacted during construction. Please see the attached "Project Impacts" document for more details.

Continued on additional page(s)

B. Will the project affect any vegetation?

Yes (Complete the tables below) No (Include aerial photo with date supporting this determination)

Vegetation Type	Temporary Impact	Permanent Impact
Incidental Riparian	Linear feet: <u>40</u>	Linear feet: <u>0</u>
	Total area: <u>80</u>	Total area: <u>0</u>
	Linear feet: _____	Linear feet: _____
	Total area: _____	Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
n/a	0	-

Continued on additional page(s)

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

Yes (List each species and/or describe the habitat below) No Unknown

Continued on additional page(s)

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

California Department of Fish and Wildlife BIOS Quick Viewer

Continued on additional page(s)

E. Has a biological study been completed for the project site?

Yes (Enclose the biological study) No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.



F. Has a hydrological study been completed for the project or project site?

Yes (Enclose the hydrological study) No

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

G. Have fish or wildlife resources or waters of the state been mapped or delineated on the project site?

Yes (Enclose the mapped results) No

Note: Check "yes" if fish and wildlife resources or waters of the state on the project site have been mapped or delineated. "Wildlife" means and includes all wild animals, birds, plants, fish, amphibians, reptiles and related ecological communities, including the habitat upon which the wildlife depends." (Fish & G. Code, § 89.5.) If "yes" is checked, submit the mapping or delineation. If the mapping or delineation is in digital format (e.g., GIS shape files or KMZ), you must submit the information in this format for the Department to deem your notification complete. If "no" is checked, or the resolution of the mapping or delineation is insufficient, the Department may request mapping or delineation (in digital or non-digital format), or higher resolution mapping or delineation for the Department to deem the notification complete.

12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

The proposed projects are not expected to contribute sediment to the watercourses. All stream crossing construction will occur during the driest part of the summer when drainages are dry and will conform with CDFW California Salmonid Stream Habitat Restoration practices. The proposed culverts and engineered stream crossings will reduce erosion and sedimentation in the long road. Best Management Practices will be utilized during construction to prevent sediment deposition downstream.

Continued on additional page(s)

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

No significant impact to fish, wildlife, or plant resources are expected to occur from the proposed projects. The projects will limit erosion on the property and therefore reduce sediment contribution to downstream aquatic habitat.

Continued on additional page(s)

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

n/a

Continued on additional page(s)



13. PERMITS

List any local, State, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A. <u>SIUR and SDUR will be submitted</u>	<input type="checkbox"/> Applied	<input type="checkbox"/> Issued
B. <u>Humboldt County Cannabis Cultivation Permit</u>	<input checked="" type="checkbox"/> Applied	<input type="checkbox"/> Issued
C. <u>Regional Water Board Waste Discharge Program</u>	<input checked="" type="checkbox"/> Applied	<input type="checkbox"/> Issued
D. Unknown whether <input type="checkbox"/> local, <input type="checkbox"/> State, or <input type="checkbox"/> federal permit is needed for the project. <i>(Check each box that applies)</i>		
<input type="checkbox"/> Continued on additional page(s)		

14. ENVIRONMENTAL REVIEW

A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA) and/or National Environmental Protection Act (NEPA)?		
<input type="checkbox"/> Yes <i>(Check the box for each CEQA or NEPA document that has been prepared and enclose a copy of each.)</i>		
<input type="checkbox"/> No <i>(Check the box for each CEQA or NEPA document listed below that will be or is being prepared.)</i>		
<input type="checkbox"/> Notice of Exemption <input type="checkbox"/> Initial Study <input type="checkbox"/> Negative Declaration <input type="checkbox"/> THP/ NTMP	<input type="checkbox"/> Mitigated Negative Declaration <input type="checkbox"/> Environmental Impact Report <input type="checkbox"/> Notice of Determination <i>(Enclose)</i> <input type="checkbox"/> Mitigation, Monitoring, Reporting Plan	<input type="checkbox"/> NEPA document <i>(type):</i> <hr/>
B. State Clearinghouse Number <i>(if applicable)</i>		
C. Has a CEQA lead agency been determined? <input type="checkbox"/> Yes <i>(Complete boxes D, E, and F)</i> <input type="checkbox"/> No <i>(Skip to box 14.G)</i>		
D. CEQA Lead Agency		
E. Contact Person		F. Telephone Number
G. If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project (Cal. Code Regs., tit. 14, § 15378).		
<input type="checkbox"/> Continued on additional page(s)		
H. Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?		
<input type="checkbox"/> Yes <i>(Enclose proof of payment)</i> <input type="checkbox"/> No <i>(Briefly explain below the reason a CEQA filing fee has not been paid)</i>		
<i>Note: If a CEQA filing fee is required, the Lake or Streambed Alteration Agreement may not be finalized until paid.</i>		



Journey Aquarian

APNs: 216-081-013, 216-135-015, 216-135-010, 216-135-008, 216-136-004

Lake or Streambed Alteration Notification Project Descriptions

Continued from Section 10: "Project Description"

This notification is for the following 16 proposed projects (projects are in bold throughout the document):

#	<i>Project</i>	<i>Latitude / Longitude</i>	<i>APN</i>
1.	Point of Diversion 1 on Pond 1 (POD-1): Maintenance	(40.102511°, -123.653365°)	216-135-008
2.	Point of Diversion 2 on Spring (POD-2): Maintenance	(40.103356°, -123.657036°)	216-135-010
3.	Point of Diversion 3 on Spring near Pond 3 (POD-3): Maintenance	(40.091262°, -123.667842°)	216-081-013
4.	Point of Diversion 4 on Spring near Pond 4 (POD-4): Maintenance	(40.089281°, -123.664151°)	216-081-013
5.	Point of Diversion 5 on Spring (POD-5): Maintenance	(40.097159°, -123.668922°)	216-135-015
6.	Existing Pond 1 Spillway: Maintenance	(40.102412°, -123.653367°)	216-135-008
7.	Stream Crossing 1 (STX-1): Culvert Removal	(40.105414°, -123.647611°)	216-136-004
8.	Stream Crossing 2 (STX-2): Culvert Installation	(40.103138°, -123.647549°)	216-136-004
9.	Stream Crossing 3 (STX-3): Culvert Replacement	(40.102572°, -123.648332°)	216-136-004
10.	Stream Crossing 4 (STX-4): Culvert Replacement	(40.103440°, -123.649937°)	216-136-004
11.	Stream Crossing 5 (STX-5): Culvert Replacement	(40.105015°, -123.656112°)	216-135-008
12.	Stream Crossing 6 (STX-6): Culvert Replacement	(40.091847°, -123.666295°)	216-081-013
13.	Stream Crossing 9 (STX-9): Rocked Crossing Installation	(40.097342°, -123.670456°)	216-135-015
14.	Stream Crossing 13 (STX-13): Rocked Crossing Installation	(40.103035°, -123.651628°)	216-136-004
15.	Stream Crossing 14 (STX-14): Culvert Installation	(40.096911°, -123.663965°)	216-135-015
16.	Stream Crossing 15 (STX-15): Rocked Crossing Maintenance	(40.092815°, -123.665166°)	216-135-015

Background

This notification is for five contiguous Assessor's Parcel Numbers (APNs): 216-136-004 and 216-135-008 ("Pond"), 216-135-015 ("West"), 216-081-013 ("Ranch"), and 216-135-010 ("Quarry"). A Determination of Status is currently underway at the Humboldt County Planning and Building Department to determine the legal status of the "Pond" parcels. The applicant currently has three (3) active applications under Humboldt County's Commercial Medical Marijuana Land Use Ordinance (CMMLUO) 1.0: A Conditional Use Permit for 43,560 square feet (sf) of outdoor cultivation on the "Pond" parcels (Apps #12125), a Zoning Clearance Certificate for 10,000 sf of new outdoor cultivation (8,230 sf was existing) on the "Ranch" parcel (Apps # 12121), and a Conditional Use Permit for 23,000 sf

of outdoor cultivation on the “West” parcel (Apps # 12124). The applicant is intending to apply for additional cultivation under Humboldt County’s Commercial Cannabis Land Use Ordinance (CCLUO) 2.0, likely apply for an additional 23,560 sf on the West parcel and an additional 33,560 sf on the Ranch parcel.

All three parcels have at least one cultivation area located within stream setbacks. On the Pond parcel, five out of seven cultivation areas (A-G) need to be either adjusted or removed completely to comply with standard riparian buffers. Cultivation areas F and E need to be removed and restored, as they are completely within riparian buffer zones, and cultivation areas C and G need to be downsized to ensure compliance. Cultivation will be relocated to Area H. Cultivation areas A, B, and D are properly located outside of setbacks and do not require adjustment. On the West parcel, both existing cultivation areas (upper and lower) are located partially within setbacks. Cultivation is proposed to be relocated to an area near the Ranch parcel (see Site Maps for details). On the Ranch parcel, cultivation is proposed to be relocated and consolidated onto an existing graded flat.

Water Diversion and Storage

The applicant diverts water for domestic, fire protection, and irrigation purposes. A Small Irrigation Use Registration and a Small Domestic Use Registration are in the process of being filed.

“Pond” Parcel (POD-1 & POD-2)

Water for the 48,000 sf of outdoor cultivation is sourced from an estimated 10-million-gallon capacity on-stream pond (Pond 1) (**POD-1**). POD-1 consists of a 1”-diameter flexible polyethylene pipe placed in Pond 1, which gravity-feeds water to plastic storage tanks located near each cultivation area. This point of diversion has been assigned Initial Statement of Diversion and Use # S026675 by the State Water Resources Control Board.

Pond 1 is an unlined, approximately 10-million-gallon capacity pond that was constructed prior to 2004. The dam wall is approximately 30 feet high by 200 feet wide, with a dam toe to crest length of approximately 65 feet. An engineering inspection revealed no significant structural flaws or signs of dam failure. The pond has an existing 5’-wide cement spillway that conveys overflow toward the Class III drainage below, which the applicant proposes to maintain (**Pond 1 Spillway**). The existing spillway allows for at least 1’-2’ of freeboard. Three separate drainages drain into the pond under a well-maintained perimeter road that surrounds the pond (and was constructed in the same year as the pond). American bullfrogs, finfish species, newts, and birds have been observed utilizing this pond.

Water for domestic purposes is sourced from a spring point of diversion (**POD-2**). POD-2 is located on the “Quarry” parcel and consists of a 12”-diameter shallow cement cistern located on a spring. The cistern is submerged approximately 3” beneath the soil level with an intake pipe 1” below the soil level. The cistern is sealed off to wildlife.

This site currently has a total of 14,000 gallons in the form of plastic water storage tanks: three (3) x 2,500-gallon tanks, four (4) x 1,100-gallon tanks, and four (4) x 550-gallon capacity tanks. The applicant proposes to construct a 1,000,000-gallon off-stream water storage pond to collect rainwater and use for storage during the forbearance period (Pond 6, discussed below in “Informational Items”).

“Ranch” Parcel (POD-3 & POD-4)

Water for cultivation is sourced from two rainwater catchment ponds (Ponds 2 and 3) and a spring near an 80,000-gallon capacity on-stream legacy cattle pond (Pond 4) (**POD-4**). POD-4 consists of a ½”-diameter pipe in a rock-lined spring that gravity-feeds water to storage the 20,000-gallon water bladder

near Pond 4. From there, water is pumped up hill to 70,000 gallons of water storage in bladders (3 x 20,000-gallon bladders and 1 x 10,000-gallon bladder) located uphill from the proposed cultivating flat. Water for the proposed cultivation under Ordinance 2.0 will be sourced from a proposed off-stream rainwater catchment pond (Pond 5).

Water for domestic purposes is sourced from a spring POD near an off-stream 35,000-gallon capacity legacy cattle pond (Pond 3) (**POD-3**). POD-3 consists of a buried ½”-diameter polyethylene pipe that takes water from a rock-lined spring and gravity-feeds to storage and is then gravity-fed to the on-site residence.

This site currently has a total of 160,000 gallons of storage: 35,000 gallons of storage in the form of an off-stream Pond 3; 40,000 gallons of storage in the form of off-stream Pond 2; 5,000 gallons of storage in two (2) x 2,500-gallon capacity plastic storage tanks; and 90,000 gallons of interim storage in the form of water bladders (discussed above). The applicant proposes to construct an approximately 800,000-gallon off-stream water storage pond to collect rainwater and use for storage during the forbearance period (Pond 5, discussed below in “Informational Items”).

“West” Parcel (POD-5)

On the “West” parcel, water for cultivation is sourced from a spring point of diversion (**POD-5**). POD-5 consists of a screened polyethylene pipe placed in a spring. Water is pumped and gravity-fed to storage tanks and then used for cultivation. Water for the proposed cultivation under Ordinance 2.0 will be sourced from a proposed off-stream rainwater catchment pond (Pond 7), discussed below.

This site currently has 27,260 gallons of storage in the form of plastic water tanks. Two (2) 5,000-gallon tanks, two (2) 1,100-gallon tanks, two (2) 1,300-gallon tanks, and one (1) 660-gallon tank are located near the upper cultivation area. One (1) 5,000-gallon tank, two (2) 500-gallon tanks, and one (1) 2,800-gallon tank are located near the lower cultivation area. An additional 3,000-gallon tank is located near POD-5. The applicant proposes to construct an approximately 800,000-gallon pond to collect rainwater and use for storage during the forbearance period (Pond 7).

Stream Crossings

There are sixteen (16) stream crossings on the parcels located on privately-maintained road networks, ten (10) of which are considered “Projects” in this Notification (See “Informational Items” below for more information). Harris Road also runs through the parcels, but all stream-crossings on this road are the County’s responsibility and are not included in this Notification. Of the ten projects, four (4) lack engineered crossings, four (4) require replacement of existing culverts, one (1) culvert is proposed to be removed, and one (1) is an appropriate stream crossing that only requires maintenance. Stream Crossings 1-5 and 13 are on the “Pond” parcel, Stream Crossings 9, 14, and 15 are on the “West” parcel, and Stream Crossing 6 is on the “Ranch” parcel. For clarity, they are separated by parcel in this document.

“Pond” Parcel (STXs 1-5, 13)

Stream Crossing 1 (**STX-1**) is an existing 18” corrugated metal pipe (CMP) located where a Class II seasonal drainage crosses a dormant, dead-end road. The crossing drains ~23 acres of hillslope. The inlet of the culvert is plugged, causing water to run across the road and erode the road around the culvert outlet. In addition, the culvert has significant rust and structural issues. The applicant does not plan to use this road anymore and therefore proposes to remove the culvert and re-establish the drainage channel. The stream channel will be re-contoured to its natural slope and width (approximately 3’ wide) and riparian vegetation consistent with the surrounding vegetation will be planted to help stabilize exposed soil.

Stream Crossing 2 (**STX-2**) is located where a Class III drainage (watershed area 1.5 acres) intersects the access road to Cultivation Areas F and G. There is currently no engineered crossing. The applicant proposes to install a 24"-diameter CMP to adequately drain peak flows during the 100-year storm event. A rolling dip is proposed 50' up-road of the crossing to help disperse surface flow.

Stream Crossing 3 (**STX-3**) is an existing 24"-diameter CMP located where a Class II drainage intersects the access road to a Cultivation Area G. The culvert drains a watershed area of ~26 acres and has a shotgun outlet that is causing erosion of the access road in addition to being undersized. The culvert is also placed too high in the road prism and is not on stream-grade, with only 5" of road cover on the outlet. The applicant proposes to remove the existing culvert and replace it with a 33"-diameter CMP on-grade with the stream channel. A critical dip is proposed approximately 5' from the crossing.

Stream Crossing 4 (**STX-4**) is an existing 12"-diameter corrugated plastic culvert located where a Class II drainage (watershed area 17 acres) crosses the road to all cultivation areas. Approximately 100' of incising inboard ditch delivers water and sediment to the culvert. The culvert is undersized with a small shotgun outlet and erosion on the downstream end. The applicant proposes to remove the undersized culvert and replace it with a 33" diameter CMP installed on-grade with the stream channel. A ditch relief culvert is proposed approximately 50' up road (west) of the culvert inlet to help reduce sedimentation and disperse flows.

Stream Crossing 5 (**STX-5**) is an existing rusted-out 24"-diameter CMP located where the access road to the Pond parcels crosses over a Class III drainage. The culvert drains ~13 acres of hillslope. Erosion of the road prism and a shotgun outlet is visible. The applicant proposes to replace the non-functional culvert with a 33"-diameter CMP. A ditch relief culvert is proposed 50' up road of the culvert inlet to help reduce inboard ditch incision. A critical dip is also proposed.

Stream Crossing 13 (**STX-13**) is located where a small seep crosses the access road to all cultivation sites. The seep comes from a 5'-wide legacy cattle pond that has formed a small 0.5'-diameter channel, which runs across the road and down the slope on the other side. The culvert has a small contributing watershed area of 1.75 acres. Due to the small size and ephemeral nature of the drainage, the applicant proposes to install a rocked dip.

"Ranch" Parcel (STX-6)

Stream Crossing 6 (**STX-6**) is an existing 48"-diameter CMP located where a cultivation access road crosses over a Class II stream. The existing culvert drains ~40 acres of hillslope and is partially rusted out the bottom. The applicant proposes to remove this culvert and replace it with a 48"-diameter CMP on-grade with the stream channel.

"West Parcel (STXs 9, 14-15)

Stream Crossing 9 (**STX-9**) is located where a small Class III ephemeral drainage (watershed area 5 acres) would naturally cross the road to connect with the downstream channel. The drainage is currently ditched down the road via an inboard ditch and then runs onto the road, contributing to road erosion. To mitigate sediment transport and erosion, the applicant proposes to install a rocked crossing to connect the upstream and downstream channels. A rocked crossing will be sufficient because the applicant is not intending to use this road during winter months. Additionally, the cultivation area at the end of the road is proposed to be relocated.

Stream Crossing 14 (**STX-14**) is located where a Class III ephemeral drainage (watershed area of 4.35 acres) would naturally cross a property access road. Currently, the drainage is ditched along the road and, along with the inboard ditch above, is contributing to approximately 4.5' of ditch incision. To

address the incision and road erosion, the applicant proposes to re-connect the upstream drainage channel with the lower drainage channel via a 24"-diameter CMP, set to grade as feasible. The inboard ditch is proposed to be blocked just down road from the proposed culvert after installation so that flow is directed through the culvert and not down the ditch. This project should alleviate the majority of the incision problems occurring on this stretch of road and will help to reduce sedimentation and road prism erosion.

Stream Crossing 15 (**STX-15**) is an existing rocked crossing located where an ephemeral drainage crosses the road to a proposed cultivation site. The existing rocked crossing (watershed area 3.64) is well armored, properly constructed, appears to be adequately draining the small drainage. The applicant proposes to maintain this rocked crossing, since the road will not be used during the rainy season.

Informational Items (not considered "Projects")

Existing and Proposed Off-stream Ponds:

Existing Ponds 2 and 3 are off-stream, rainwater catchment ponds that the applicant uses for storage and withdrawal (see attached Pond map for reference). Both are located on the "Ranch" parcel near the graded flat for cultivation. Neither pond is considered jurisdictional, as there is no channelized water entering the ponds and overflow culverts are disconnected from nearby drainages, and therefore were not included as projects in this Notification.

Pond 2 is an existing stock pond that holds ~40,000 gallons of water when full. It has historically been used for ranching and cattle purposes and is now used for storage. An existing 12"-diameter plastic overflow culvert drains overflow toward a naturally wet area, allowing overflow to percolate and disperse prior to reaching the nearby Class II drainage. The applicant proposes to maintain this overflow culvert.

Pond 3 is an existing ~25,000-gallon capacity pond that has historically been used for ranching and cattle purposes and is now used for storage. It has an existing 18"-diameter plastic overflow culvert that drains overflow from Pond 3 toward the intermittent drainage below. The drainage is located approximately 100' from the overflow culvert outlet, giving the water time to disperse and percolate into the soil prior to reaching the intermittent drainage. The applicant proposes to maintain this overflow culvert.

Proposed Ponds 5, 6, and 7 are proposed off-stream, rainwater catchment ponds that will be used for water storage once constructed. All three ponds will be designed to be off-stream, disconnected from any drainages, and located outside of riparian setbacks.

Pond 5 is a proposed 800,000-gallon capacity rainwater catchment storage pond located on the "Ranch" parcel. This pond will collect rainwater to be used for cultivation during the forbearance period. In a drought year, surface water from POD 3 or 4 may be used during the diversion season to supplement rainwater. The pond will be constructed 100' from existing Pond 4 on slopes of less than 8% and will have a plastic overflow pipe allowing for 1' of freeboard. Overflow will be directed toward a naturally wet area to percolate and disperse prior to reaching existing Pond 4. Construction of this pond will disturb approximately 18,000 sf of grassland.

Pond 6 is a proposed 1,000,000-gallon capacity rainwater catchment storage pond located on the "Pond" parcel. This pond will collect rainwater to be used for cultivation during the forbearance period. In a drought year, surface water from POD 1 or 2 may be used during the diversion season

to supplement rainwater. The pond will be constructed southwest of Pond 1, greater than 150 feet from the stream, and at least 100' from a nearby wetted area, on a natural benched area with slopes less than 7%. An overflow culvert will be designed to leave 1' of freeboard and will direct any overflow to the naturally wet area, where it can disperse and percolate prior to entering Pond 1.

Pond 7 is a proposed 800,000-gallon capacity rainwater catchment storage pond located on the "West" parcel. This pond will collect rainwater to be used for cultivation during the forbearance period. In a drought year, surface water from POD 6 may be used during the diversion season to supplement rainwater and fill the pond. The pond will be constructed near an existing metal building (40.098982°, -123.669252°) on a natural flat with slopes less than 3%. There are no watercourses within 150 feet of the proposed pond location.

Informational Stream Crossings:

<i>Stream Crossing # (Not "Projects")</i>	<i>Latitude / Longitude</i>	<i>APN</i>
Stream Crossing 7 (STX-7)	(40.095766°, -123.666521°)	216-135-015
Stream Crossing 8 (STX-8)	(40.100628°, -123.670639°)	216-135-015
Stream Crossing 10 (STX-10)	(40.102857°, -123.654287°)	216-135-008
Stream Crossing 11 (STX-11)	(40.103087°, -123.654149°)	216-135-008
Stream Crossing 12 (STX-12)	(40.103175°, -123.653875°)	216-135-008
Stream Crossing 16 (STX-16)	(40.096421°, -123.666651°)	216-135-015

Stream Crossing 7 (STX-7) is an existing 48"-diameter culvert located on a dormant road on the "West" Parcel. The culvert, which was installed in 2002, is in good condition and has a 14% rust line. No work is proposed for this crossing. Since the culvert is adequately draining the hillslope, is in good condition, and was installed prior to the formation of the Lake or Streambed Alteration Program, STX-7 was not considered a "Project" for this Notification.

Stream Crossing 8 (STX-8) is an existing 48"-diameter culvert located on a dormant road on the "West" Parcel near an old cultivation area (to be relocated). The culvert has a 45% rust line, is clearly undersized, and needs replacement, but is covered under the neighbor's Streambed Alteration Agreement. As the applicant does not have jurisdiction over this crossing, nothing is proposed.

Stream Crossings 10, 11, and 12 (STXs 10-12) are three crossings located where ephemeral drainages run under the Pond 1 berm/perimeter road and into the pond on the "Pond" parcel. Each culvert is an 18"-diameter CMP with rust lines below 16%. They were installed prior to 2004 when Pond 1 was constructed and were therefore installed prior to the formation of the lake or Streambed Alteration Program. STX-10 has a contributing drainage area of 21.7 acres. Although this watershed area is large, the area is comprised of mostly flat meadowlands, allowing water to infiltrate into the soils prior to channelizing in a .5'-wide channel and reaching the drainage. STX-11 has a contributing watershed area of 7.1 with a drainage channel of 0.25', and STX-12 has a watershed area of 7.46 acres with a drainage channel of .5'. All three culverts are functioning adequately and have no structural issues. No work is proposed and therefore these crossings were not considered "Projects" in this Notification.

Stream Crossing 16 (STX-16) is an approximately 5'-wide channel bed of a seasonal drainage that crosses a dormant gravel road. The crossing has a contributing watershed area of 98.8 acres and the streambed runs dry every summer. There is currently no engineered crossing, but no signs of erosion or sedimentation were observed on-site. As the applicant does not use this road at all during the winter (and rarely in the summer), the applicant proposes to leave this crossing as-is. No work is proposed.

Property Owner for "Ranch" Parcel (APN: 216-081-013)	
Name	Aquarian Journey, custodian for Juliet Lane Aquarian
Street Address	PO Box 624
City, State, Zip	Garberville, CA 95542
Telephone	707-889-6604
E-mail	jaharrisenterprises@gmail.com

Property Owner for "West" Parcel (APN: 216-135-015)	
Name	Aquarian Journey, custodian for Juliet Lane Aquarian
Street Address	PO Box 624
City, State, Zip	Garberville, CA 95542
Telephone	707-889-6604
E-mail	jaharrisenterprises@gmail.com

Property Owner for "Pond" Parcel (APNs: 216-135-008 & 216-136-004)	
Name	Journey Aquarian
Street Address	PO Box 624
City, State, Zip	Garberville, CA 95542
Telephone	707-889-6604
E-mail	jaharrisenterprises@gmail.com

Property Owner for "Quarry" Parcel (APN: 216-135-010)	
Name	Myers & Aquarian LLC Co.
Street Address	PO Box 5439
City, State, Zip	Walnut Creek, CA 94596
Telephone	707-889-6604
E-mail	jaharrisenterprises@gmail.com

Technical Memorandum

June 2018

California Department of Fish and Wildlife
Northern Region
619 Second Street
Eureka, CA 95501

Subject: Journey Aquarian Streambed Alteration Notification
Humboldt County APNs: 216-081-013, 216-135-015, 216-135-008, 216-136-004
Culvert Sizing for Stream Crossings

This memo summarizes the assessment of culverts subject to Fish and Wildlife Code 1602 within the subject parcels. There are fifteen existing stream crossings on the properties. All stream crossing locations were evaluated by visual inspection of channel morphology as a preliminary pipe sizing method and a hydrologic assessment to validate field recommendations for the culvert sizes. Culverts were designed to convey the 100-year storm flow at a headwater to diameter ratio of 0.75.

The existing conditions and project status of the stream crossings summarized in Table 1.

<i>Stream Crossing Project</i>	<i>Location (Latitude, Longitude)</i>	<i>Existing Feature</i>	<i>LSA Project?</i>
STX-1	(40.105414°, -123.647611°)	18" culvert; plugged inlet; road erosion	Yes
STX-2	(40.103138°, -123.647549°)	No existing engineered crossing	Yes
STX-3	(40.102572°, -123.648332°)	24" culvert; shotgun outlet, visible erosion on road	Yes
STX-4	(40.103440°, -123.649937°)	12" culvert; erosion and gullying above and below crossing	Yes
STX-5	(40.105015°, -123.656112°)	24" culvert; rusted out, shotgun outlet, visible erosion in road	Yes
STX-6	(40.091847°, -123.666295°)	48" culvert; 18% rust line but rusted out	Yes
STX-7	(40.095766°, -123.666521°)	48" culvert with 15% rust line in fair condition	No: Culvert is in fair condition and constructed prior to 2004
STX-8	(40.100628°, -123.670639°)	48" culvert; rusted out	No: Covered under neighbors SAA
STX-9	(40.097342°, -123.670456°)	No existing engineered crossing	Yes
STX-10	(40.102857°, -123.654287°)	18" culvert; 15% rust line; good condition	No: In good condition, constructed prior to 2004
STX-11	(40.103087°, -123.654149°)	18" culvert; 10% rust line; good condition	No: In good condition, constructed prior to 2004
STX-12	(40.103175°, -123.653875°)	18" culvert; 10% rust line; good condition	No: In good condition, constructed prior to 2004
STX-13	(40.103035°, -123.651628°)	No existing engineered crossing	Y
STX-14	(40.096911°, -123.663965°)	No existing engineered crossing	Y

STX-15	(40.092815°, -123.665166°)	Existing rocked crossing	Y
STX-16	(40.096421°, -123.666651°)	No existing engineered crossing	N: No work proposed

For all stream crossings, the contributing watersheds were less than 100 acres, and therefore the Rational Method was used to determine the magnitude of the hundred-year-flow:

$$Q = CiA$$

Where:

- $Q = \text{peak discharge (cfs)}$
- $C = \text{runoff coefficient} = 0.33$
- $i = \text{rainfall intensity (in/hr)}$
- $A = \text{contributing drainage area (acres)}$

The watershed area was determined using Google Earth polygon tool and USGS quadrangle topo layer (Appendix A). The runoff coefficient was taken to be 0.33 for sparsely forested grassland. For the rational method, i was determined using the PF Data Server provided from the NOAA Petrolia weather station (Attachment B). The duration was determined by calculating the time of concentration:

$$T_c = \left[\frac{11.9 * L^3}{H} \right]^{0.385}$$

Where:

- $T_c = \text{peak discharge (cfs)}$
- $L = \text{runoff coefficient} = 0.33$
- $H = \text{rainfall intensity (in/hr)}$
- $A = \text{contributing drainage area (acres)}$

Table 2 displays the input parameters, and results from determining peak flows and time of concentrations using the Rational Method. Since the time of concentration is less than 10 minutes for all culverts, the 10-minute duration was used to determine the intensity.

Stream Crossing Project	Watershed Area (acres)	Basin Length (miles)	Slope (ft/ft)	Calculated T_c (min)	Assumed T_c (min)	Calculated Rational Q_{100} (cfs)
STX-1	18.8	.412	1.01	2.9	10	23.1
STX-2	1.22	.077	.215	1.4	10	1.50
STX-3	19.8	.460	.275	5.2	10	24.3
STX-4	13.9	.350	.298	4.1	10	17.0
STX-5	10.7	.214	.343	2.3	10	13.2
STX-6	50.9	.576	.196	7.0	10	62.5
STX-7	54.8	.691	.185	8.3	10	67.3
STX-8	64.8	.725	.173	8.8	10	79.6
STX-9	5.0	.155	.219	2.5	10	6.14
STX-10	21.7	.387	.308	4.3	10	26.64
STX-11	7.1	.267	.335	3.2	10	8.72
STX-12	7.46	.255	.295	3.5	10	9.16
STX-13	1.75	.086	.366	1.3	10	2.15
STX-14	4.35	.154	.269	2.3	10	5.34
STX-15	3.64	.116	.207	2.0	10	4.47
STX-16	98.8	.778	.178	9.2	10	121.28

Using the design flows, the culverts were sized using Manning’s equation and compared with nomograph values and field observations. For Manning’s equation, the roughness coefficient was taken to be the corrugated metal coefficient: 0.022, the slope was assumed 1% and the ratio to full depth of the pipe was designed for 75% full.

Manning’s equation:

$$Q = \frac{1.49}{n} * A * R^{2/3} * S^{1/2}$$

Where:

- Q = discharge through channel*
- n = Manning’s roughness coefficient = 0.024*
- A = cross sectional area of flow through culvert*
- P = wetted perimeter of culvert*
- R = hydraulic radius = A/P*
- S = channel slope*

A nomograph for corrugated metal pipe culverts with inlet control (Appendix C) was used to double-check the Manning’s equation estimate. The head wall to diameter ratio was assumed to be 1. The results of the diameter calculations for culverts needing replacement are shown in Table 3. Nomograph, Manning’s equation, and field observations were analyzed and compared to field recommendations to conclude final prescriptions.

<i>Stream Crossing Project</i>	<i>Watershed Area (acres)</i>	<i>Calculated Rational Q₁₀₀ (cfs)</i>	<i>Nomograph Diameter (inches)</i>	<i>Manning’s Equation Diameter (inches)</i>	<i>Field Recommendation</i>	<i>Final Prescription</i>
STX-1	18.8	23.07	36”	30”	Remove or replace; fix culvert inlet	Remove culvert and re-contour the drainage channel
STX-2	1.22	1.50	15”	12”	Install 24” culvert; install rolling dip 50’ up road	Install 24” CMP on grade with stream channel; install rolling dip 50’ up road
STX-3	17.0	24.3	36”	33”	Replace with 24” culvert; install critical dip	Install 33” CMP on grade with stream channel; install critical dip
STX-4	13.9	16.9	33”	29”	Replace with 36” culvert; install DRC 50’ up road	Install 33” CMP on grade with stream channel; install ditch relief culvert (DRC) 50’ up road
STX-5	10.7	13.16	30”	26”	Replace with 36” ; install critical dip and DRC 50’ uphill	Install 33” CMP on grade with stream channel; install ditch relief culvert (DRC) 50’ up road; install critical dip
STX-6	50.9	62.48	54”	47”	Replace with new 48” culvert	Install 48” CMP on grade with stream channel
STX-7	54.8	67.3	60”	49”	Maintain; need DRC or rolling dip	No work proposed
STX-8	64.8	79.55	60”	52”	Replace with 48” culvert on grade	n/a – covered under neighbor’s Agreement

STX-9	5.0	6.14	22"	20"	Install rocked crossing	Install rocked crossing across road to re-connect upstream and downstream channels
STX-10	26.64	30.94	42"	34"	Maintain existing culvert	No work proposed (culvert has a large drainage area but most water infiltrates soil prior to reaching culvert; .5'-diameter channel and low rust line indicate acceptable functionality)
STX-11	7.1	8.72	24"	23"	Maintain existing culvert	No work proposed (culvert has a large drainage area but most water infiltrates soil prior to reaching culvert; low rust line and .25'-diameter channel indicate acceptable functionality)
STX-12	7.46	9.16	27"	24"	Maintain existing culvert	No work proposed (culvert has a large drainage area but most water infiltrates soil prior to reaching culvert; small channel and low rust line indicate acceptable functionality)
STX-13	1.75	2.15	15"	13"	Install 24" culvert or rocked crossing	Install rocked dip
STX-14	4.35	5.34	24"	19"	Install 32" culvert on-grade as feasible	Install 24" culvert diagonally across road on grade with stream channel (as feasible) to connect upper and lower drainage channels
STX-15	3.64	4.47	21"	18"	Maintain	Maintain existing rocked crossing
STX-16	98.8	121.28	72"	61"	Arch culvert or leave stream channel as-is	No work proposed

Appendix A: Stream Crossing Watershed Areas

Appendix B: NOAA Precipitation Frequency



NOAA Atlas 14, Volume 6, Version 2
 Location name: Garberville, California, USA*
 Latitude: 40.1042°, Longitude: -123.6557°
 Elevation: 1888.52 ft**
* source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Ten Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tya Parzybok, John Yarchon

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aeriels](#)

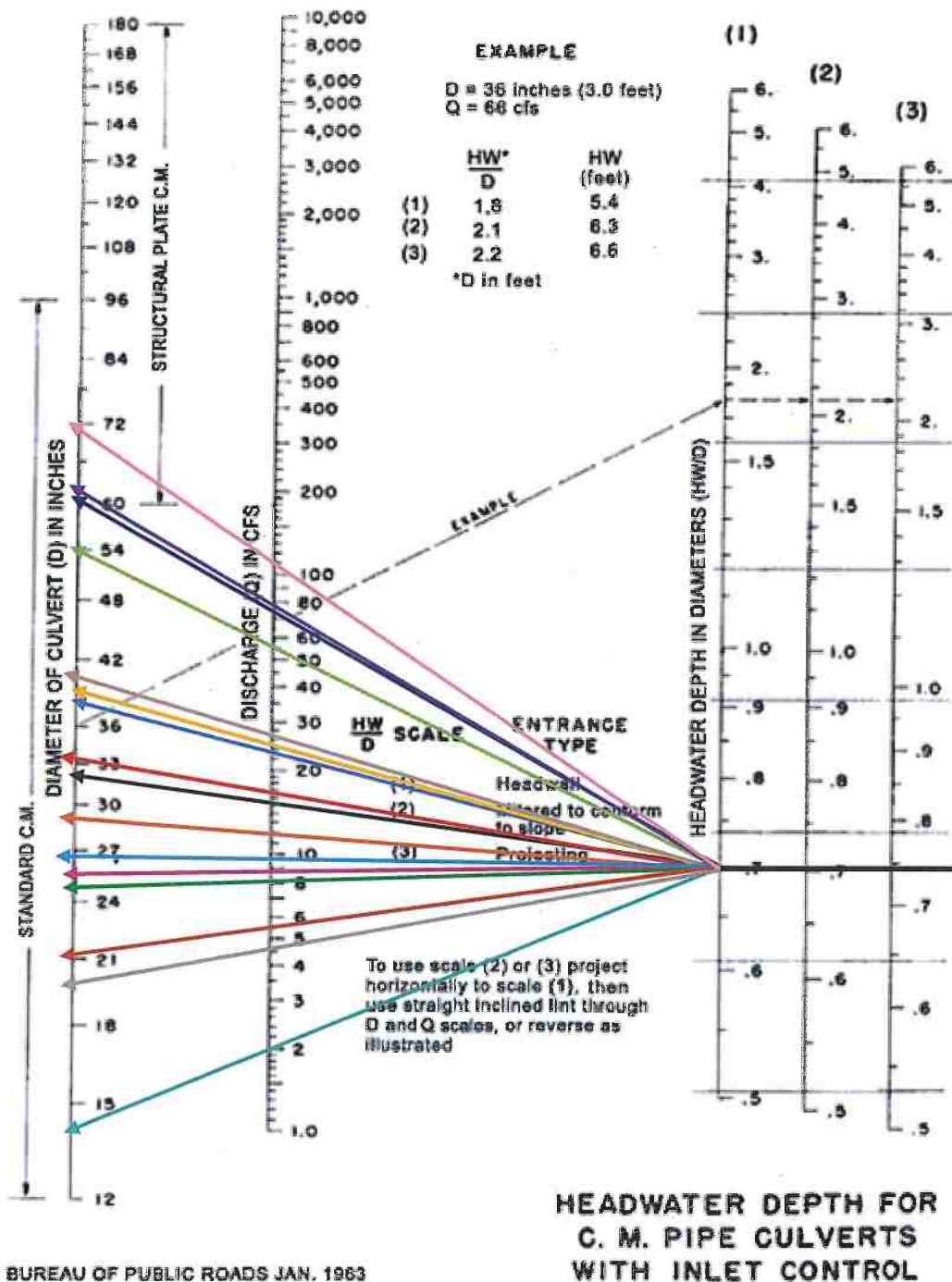
PF tabular

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	2.16 (1.91-2.47)	2.56 (2.28-2.93)	3.08 (2.71-3.55)	3.54 (3.07-4.12)	4.16 (3.48-5.04)	4.67 (3.80-5.78)	5.20 (4.12-6.61)	5.75 (4.40-7.57)	6.53 (4.78-9.02)	7.15 (5.03-10.3)
10-min	1.55 (1.37-1.78)	1.83 (1.61-2.10)	2.21 (1.94-2.55)	2.54 (2.20-2.95)	2.99 (2.50-3.61)	3.34 (2.73-4.14)	3.72 (2.95-4.74)	4.12 (3.18-5.42)	4.68 (3.42-6.46)	5.13 (3.80-7.37)
15-min	1.25 (1.10-1.43)	1.48 (1.30-1.69)	1.78 (1.57-2.08)	2.04 (1.78-2.38)	2.41 (2.01-2.91)	2.70 (2.20-3.34)	3.00 (2.38-3.82)	3.32 (2.55-4.37)	3.77 (2.78-5.21)	4.14 (2.90-5.94)
30-min	0.866 (0.784-0.992)	1.02 (0.902-1.17)	1.24 (1.09-1.42)	1.42 (1.23-1.65)	1.67 (1.40-2.02)	1.87 (1.52-2.32)	2.08 (1.65-2.65)	2.30 (1.77-3.03)	2.61 (1.91-3.61)	2.87 (2.01-4.12)
60-min	0.599 (0.528-0.685)	0.708 (0.624-0.812)	0.856 (0.752-0.985)	0.980 (0.852-1.14)	1.15 (0.965-1.40)	1.29 (1.08-1.60)	1.44 (1.14-1.83)	1.59 (1.22-2.10)	1.81 (1.32-2.60)	1.98 (1.39-2.85)
2-hr	0.470 (0.414-0.538)	0.557 (0.490-0.639)	0.674 (0.592-0.775)	0.770 (0.670-0.894)	0.904 (0.768-1.09)	1.01 (0.823-1.25)	1.12 (0.885-1.43)	1.23 (0.948-1.62)	1.39 (1.02-1.92)	1.52 (1.07-2.19)
3-hr	0.416 (0.367-0.477)	0.493 (0.434-0.568)	0.595 (0.523-0.685)	0.680 (0.591-0.790)	0.796 (0.668-0.982)	0.887 (0.723-1.10)	0.981 (0.777-1.25)	1.08 (0.828-1.42)	1.22 (0.888-1.68)	1.32 (0.930-1.90)
6-hr	0.334 (0.295-0.383)	0.397 (0.349-0.455)	0.479 (0.420-0.551)	0.546 (0.474-0.634)	0.637 (0.532-0.770)	0.707 (0.577-0.876)	0.780 (0.618-0.994)	0.855 (0.666-1.13)	0.957 (0.700-1.32)	1.04 (0.729-1.49)
12-hr	0.250 (0.220-0.288)	0.300 (0.264-0.344)	0.365 (0.320-0.420)	0.418 (0.363-0.495)	0.489 (0.409-0.591)	0.544 (0.444-0.674)	0.600 (0.478-0.765)	0.658 (0.505-0.887)	0.737 (0.539-1.02)	0.799 (0.561-1.15)
24-hr	0.183 (0.164-0.208)	0.223 (0.200-0.254)	0.274 (0.245-0.313)	0.316 (0.280-0.383)	0.372 (0.320-0.441)	0.414 (0.350-0.501)	0.457 (0.377-0.585)	0.502 (0.404-0.635)	0.562 (0.435-0.740)	0.608 (0.458-0.828)
2-day	0.128 (0.115-0.145)	0.157 (0.141-0.179)	0.194 (0.174-0.222)	0.224 (0.199-0.258)	0.263 (0.226-0.312)	0.292 (0.247-0.353)	0.321 (0.265-0.397)	0.351 (0.282-0.445)	0.390 (0.302-0.514)	0.420 (0.315-0.571)
3-day	0.103 (0.092-0.117)	0.127 (0.113-0.144)	0.157 (0.140-0.179)	0.181 (0.160-0.208)	0.212 (0.183-0.252)	0.235 (0.199-0.295)	0.258 (0.213-0.319)	0.281 (0.226-0.357)	0.311 (0.241-0.410)	0.334 (0.251-0.455)
4-day	0.087 (0.078-0.099)	0.107 (0.096-0.122)	0.133 (0.119-0.152)	0.153 (0.138-0.176)	0.179 (0.154-0.213)	0.199 (0.168-0.240)	0.218 (0.180-0.269)	0.237 (0.191-0.300)	0.262 (0.203-0.345)	0.280 (0.210-0.381)
7-day	0.062 (0.056-0.071)	0.076 (0.068-0.087)	0.094 (0.084-0.108)	0.108 (0.096-0.124)	0.126 (0.109-0.150)	0.139 (0.118-0.169)	0.153 (0.128-0.189)	0.166 (0.133-0.210)	0.182 (0.141-0.240)	0.195 (0.148-0.265)
10-day	0.050 (0.045-0.057)	0.062 (0.055-0.070)	0.076 (0.068-0.087)	0.087 (0.077-0.100)	0.101 (0.087-0.120)	0.111 (0.094-0.134)	0.121 (0.100-0.150)	0.131 (0.108-0.167)	0.144 (0.112-0.190)	0.154 (0.115-0.209)
20-day	0.034 (0.030-0.038)	0.041 (0.037-0.047)	0.051 (0.045-0.058)	0.058 (0.051-0.066)	0.067 (0.057-0.079)	0.073 (0.062-0.088)	0.079 (0.065-0.098)	0.085 (0.068-0.107)	0.092 (0.071-0.121)	0.097 (0.073-0.132)
30-day	0.028 (0.025-0.031)	0.034 (0.030-0.039)	0.041 (0.037-0.047)	0.047 (0.042-0.054)	0.054 (0.048-0.064)	0.059 (0.050-0.071)	0.063 (0.052-0.078)	0.067 (0.054-0.086)	0.073 (0.058-0.096)	0.076 (0.057-0.104)
45-day	0.024 (0.021-0.027)	0.029 (0.025-0.033)	0.035 (0.031-0.040)	0.040 (0.035-0.046)	0.045 (0.039-0.054)	0.049 (0.041-0.059)	0.052 (0.043-0.065)	0.056 (0.045-0.071)	0.060 (0.048-0.078)	0.062 (0.047-0.085)
60-day	0.021 (0.019-0.024)	0.026 (0.023-0.029)	0.031 (0.028-0.035)	0.035 (0.031-0.040)	0.040 (0.034-0.047)	0.043 (0.038-0.052)	0.045 (0.038-0.056)	0.048 (0.039-0.061)	0.051 (0.040-0.067)	0.053 (0.040-0.072)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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Appendix C: Nomograph Calculations



- STX-1: Blue
- STX-2: Dark Green
- STX-3: Yellow
- STX-4: Red
- STX-5: Orange

- STX-6: Light Green
- STX-7: Dark Blue
- STX-8: Purple
- STX-9: Magenta
- STX-10: Tan

- STX-11: Bright Green
- STX-12: Bright Blue
- STX-13: Mint
- STX-14: Rust
- STX-15: Grey
- STX-16: Light Pink



Applicant Name: Journey Aquarian

Project Name: Aquarian Property Improvements

ATTACHMENT E

Cannabis Cultivation

Complete this attachment *if* the project includes cannabis cultivation and you are seeking authorization under an individual Lake or Streambed Alteration Agreement. "Cultivation" means any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis (Business and Professions Code, section 26000 et seq.). Please note that if you are seeking authorization under the General Agreement for Cannabis Cultivation you must notify online at the California Department of Fish and Wildlife (Department) website: <https://www.wildlife.ca.gov/Conservation/LSA>.

Complete Sections I – IV and VI for all Agreement types.

Complete Sections V *if* any aspect of the project includes remediation. "Remediation" means to perform work that reduces or eliminates the direct and indirect adverse impacts on fish and wildlife resources associated with past or existing cannabis activities subject to Fish and Game Code 1602.

Submit Attachment E with the Notification form (DFW 2023) and applicable fees.

I. CULTIVATION OPERATION – Complete this section for all LSA Agreement types.

- Proposed new cannabis cultivation operation
- Existing cannabis cultivation operation

Type of CDFA Annual License you will apply for :

Specialty Cottage:

- Specialty Cottage Outdoor
- Specialty Cottage Indoor
- Specialty Cottage Mixed-Light Tier 1 and 2

Specialty:

- Specialty Outdoor
- Specialty Indoor
- Specialty Mixed-Light Tier 1 and 2

Small:

- Specialty Outdoor
- Specialty Indoor
- Specialty Mixed-Light Tier 1 and 2



Medium:

Medium Outdoor

Specialty Indoor

Medium Mixed-Light Tier 1 and 2

Nursery

Processor

CDFA Annual License # (if applicable): n/a - will apply soon

CDFA Temporary License # (if applicable): _____

II. LOCAL ORDINANCE OR PERMIT – Complete this section for all Agreement types.

Does the town, city, or county where cultivation will occur have a rule, ordinance, or other regulation or law that governs the cultivation of cannabis?

Yes: Town/City Yes: County No

Are you required to have a written authorization (permit) from the city/town and/or county to cultivate cannabis within the city/town and/or county?

Yes. Enclose a copy permit(s) and/or completed application(s). No

III. WATER SUPPLY– Complete this section for all Agreement types.

How is water supplied to the cannabis cultivation site(s)?

Diversion, Obstruction, Extraction, or Impoundment of a River, Stream, or Lake

Yes No **POD 1 on Pond 1: (40.102511, -123.653365)**

If yes is checked, you must also complete Attachment C.

Geographic Coordinates of each diversion, obstruction, extraction, or impoundment:

Latitude _____ Longitude _____

Spring(s)

Yes No **POD 2 on Spring (40.103356, 123.657036)**

If yes is checked, you must also complete Attachment C.

Number of Springs 4 **POD 3 on Spring near Pond 3 (40.091262, -123.667842)**

Geographic Coordinates of each spring: **POD 4 on Spring near Pond 4 (40.089281, -123.664151)**

Latitude _____ Longitude _____ **POD 5 on Spring (40.097159, -123.668922)**



Private Well(s)

Yes No

If yes is checked, you **must** attach a map that identifies the location of the well(s).

Geographic Coordinates of each well:

Latitude _____ Longitude _____

You **must** provide the well's geographic location coordinates and a copy of the well log/well completion report filed with the Department of Water Resources pursuant to Section 13751 of Water Code. If no well log is available, provide evidence from the Department of Water Resources indicating that the Department of Water Resources does not have a record of the well log.

Public Water System

Yes No

Name of public water system: _____

If Yes box is checked, you must enclose documentation from provider confirming authorization of service for water needed for project.

Water Hauling

Yes No

Name of water hauler contact information, and a copy of the water hauler license issued by the California Department of Public Health:

Name of water hauler: _____

Water hauler license information: _____

Other

Specify: _____

Continued on additional page(s)

IV. CALIFORNIA LICENSED PROFESSIONAL OR QUALIFIED ENVIRONMENTAL CONSULTANT/BIOLOGIST – Complete this section for all Agreement types.

Have you consulted with or retained a California licensed professional or a qualified environmental consultant/biologist to address your cannabis cultivation?

Yes (Provide the information below) No

Name of Company	Name of Professional or Consultant	Business Telephone
NorthPoint Consulting	Robert Jensen / Praj White	(707) 798-6438



V. REMEDIATION – Complete this section if any aspect of the project includes remediation.

A. Order or Notice. Are you required to perform the work described in the notification pursuant to a court or administrative agency notice or order?	
<input type="checkbox"/> Yes (<i>Enclose a copy of the order or notice</i>)	<input checked="" type="checkbox"/> No
Did you receive a notice of violation (NOV) from the Department that relates to the work described in the notification?	
<input type="checkbox"/> Yes (<i>Enclose a copy of the NOV</i>)	<input checked="" type="checkbox"/> No
B. Remediation Area. Determine the total area that requires remediation.	
Remediation area in total:	<u>738</u> square feet
C. Remediation Fee. Submit the applicable fee based on the total size of the remediation area. The remediation fee is in addition to the notification fee and <i>must</i> be submitted by <i>separate</i> check or other method of payment (Cal. Code Regs., tit. 14, § 699.5, subd. (i)(3)(A)).	
<input checked="" type="checkbox"/> \$3,087.50 if the total remediation area is less than or equal to 1,000 square feet	
<input type="checkbox"/> \$5,145.75 if the total remediation area is greater than 1,000 square feet	
D. Remediation Plan. Has a plan to remediate the area been prepared?	
<input checked="" type="checkbox"/> Yes (<i>Enclose the plan</i>)	<input type="checkbox"/> No
<i>Note: If "yes" is checked, submit the remediation plan with the Notification. If "no" is checked, your Notification may be incomplete and the Department may request you have a California licensed professional or qualified environmental consultant amend the plan or submit a new plan for your Notification.</i>	

VI. NOTIFICATION FEES – Entity must pay Department fee(s) at time of Notification.

The current fee schedule is available at http://www.wildlife.ca.gov/Conservation/LSA/Forms and specified in Section 699.5, subdivision (b) of the California Code of Regulations, title 14.	
Remediation fees, if applicable, are specified in Section 699.5, subdivision (i) of the California Code of Regulations, title 14. The remediation fee is in addition to the notification fee and must be submitted by <i>separate</i> check or other method of payment.	
<input checked="" type="checkbox"/> Notification Fee	<input checked="" type="checkbox"/> Remediation Fee (if applicable)