Stantec

То:	Rick Kuyper, Chief – Sierra/Cascades Division, Endangered Species Program	From:	Emily C. Eppinger, Wildlife Biologist
	U.S. Fish and Wildlife Service 2800 Cottage Way Rm W-2605 Sacramento, CA 95825		Stantec Consulting Services Inc. 101 Providence Mine Rd. Suite 202 Nevada City, CA 95959
File:	185704588	Date:	July 18, 2019

Reference: California Red-legged Frog (Rana draytonii) Habitat Site Assessment and Survey Results for the Hansen Brothers Enterprises La Barr Meadows Road Property, Nevada County, California.

INTRODUCTION

Hansen Brothers Enterprises (Hansen Bros.) has recently acquired an approximately 85-acre property located adjacent to La Barr Meadow Road to the southeast of their existing office and yard, in the City of Grass Valley in Nevada County, California (Attachment 1 Figure 1). Hansen Bros. is contemplating development options and therefore in a proactive manner has started to assess the environmental constraints associated with the land. The goal is to design any future development to avoid or minimize environmental impacts, including to species listed under the Federal Endangered Species Act (ESA) such as California red-legged frog (*Rana draytonii*).

Based on initial desktop reviews and reconnaissance-level surveys, the property lacks impoundments, with one exception. In the southern portion of the property there is an old irrigation pond (pond) formerly owned and operated by the Nevada Irrigation District (NID) (Attachment 2 Figure 2). The pond, approximately 0.2 acres in size, is no longer in use and upon initial review, could be considered potential habitat for the California red-legged frog (*Rana draytonii*), a federally threatened species. To be proactive, Hansen Bros. requested Stantec Consulting Services Inc. (Stantec) conduct a habitat site assessment to assess the potential for California red-legged frog (CRLF) presence. In addition to the habitat site assessment, Stantec also conducted a single daytime and a single nighttime survey for CRLF at the pond to further assess potential for occurrence. The habitat site assessment and surveys were conducted in accordance with the U.S. Fish and Wildlife Service's (USFWS) *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005).

HABITAT SITE ASSESSMENT METHODS AND RESULTS

DESKTOP REVIEW

Desktop research and analysis of the potential suitable breeding habitat (ponds) included an approximate one-mile (1.6-kilometer) buffer surrounding the pond on the Hansen Bros. La Barr Meadows Road Property (Hansen Bros. property). The purpose of the desktop research was also to evaluate regional and local habitats and to identify the potential for CRLF to occur within and in close proximity to the pond that lies within the Hansen Bros. property. The following resources were used to identify the current known range, known occurrences of CRLF within Nevada, Placer, Yuba, and Sierra Counties, the closest Designated Critical Habitat (DCH) units, and potential suitable CRLF habitat within one mile of the pond.

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Reference: California Red-legged Frog (Rana draytonii) Habitat Site Assessment and Survey Results for the Hansen Brothers Enterprises La Barr Meadows Road Property, Nevada County, California.

- California Department of Fish and Wildlife (CDFW) Rarefind Version 5.2.14 (CDFW 2019a);
- CDFW BIOS Viewer Version 5.77.14 (CDFW 2019b);
- USFWS Critical Habitat Data (USFWS 2019a);
- USFWS National Wetland Inventory (NWI) Data (USFWS 2019b);
- U.S. Geological Survey (USGS) National Hydrology Dataset (NHD) (USGS 2019); and
- Aerial photographs.

The pond within the Hansen Bros. property is within the current range of CRLF (CDFW 2019b). There are no known localities within one mile of the pond or the Hansen Bros. property (CDFW 2019a). The closest DCH unit is NEV-1 located approximately 10 miles to the northeast, which also includes the closest known occurrence from 2003-2007, specially located within the North Bloomfield USGS 7.5-minute quadrangle (Quad). Other known occurrences include one observation documented in 2001-2003 located approximately 16 miles to the northwest within the Challenge USGS Quad and DCH Unit YUB-1; and three observations in the Michigan Bluff USGS Quad and DCH Unit PLA-1 located approximately 16 miles to the southeast of the Hansen Bros. property (CDFW 2019b).

Wetland features identified by the National Wetlands Inventory (NWI) within one mile of the pond are shown in Figure 1. Based on desktop research and analysis, evaluation of aerial photos, and ground-truthing where accessible, the wetland features present within a mile of the pond and the Hansen Bros. property likely possess similar habitat suitability characteristics to the pond located on the Hansen Bros. property. Formal habitat assessments for CRLF or suitable CRLF habitat were not conducted at these ponds due to access limitations (e.g., private property). Given the historical data and similarity among wetland features in the area, it is unlikely that CRLF inhabit the ponds within a mile of the pond on the Hansen Bros. property. Additionally, these ponds lack direct connectivity to the pond on the Hansen Bros. property, and the habitat within one mile of the pond is fragmented by urban areas, including industrial and housing complexes and highly trafficked two-lane roads such as La Barr Meadows Road and Highway 49.

FIELD SITE ASSESSMENT

Stantec biologists conducted two site visits to the Hansen Bros. property. A preliminary visit to the Hansen Bros. property was conducted on June 17, 2019, and a formal habitat site assessment for CRLF was conducted on June 27, 2019. The habitat within the approximate 85-acre Hansen Bros. property consists predominately of mixed ponderosa pine (*Pinus ponderosa*) and oak (*Quercus* sp.) forest, with a thick understory of manzanita (*Arctostaphylos* sp.), as well as other chaparral and some grassland species in disturbed areas. During the preliminary site visit, a few wetted features and drainages with associated species such as willow (*Salix* sp.) and Himalayan blackberry (*Rubus armeniacus*) were observed, generally on the western edge of the property (Attachment 3 Photos 1–4). Additionally, an abandoned irrigation pond was initially identified as possessing potential suitable habitat for CRLF.

During the second site visit on June 27, 2019, two qualified Stantec biologists conducted a habitat site assessment for the pond in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005). Data collected during the field habitat site assessment was recorded on the California Red-legged Frog Habitat Site Assessment Data Sheet provided within the USFWS guidelines (Attachment 4). Prior to conducting the habitat site assessment at the pond, organic matter was removed from survey equipment and equipment was decontaminated, per USFWS guidelines.

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Reference: California Red-legged Frog (Rana draytonii) Habitat Site Assessment and Survey Results for the Hansen Brothers Enterprises La Barr Meadows Road Property, Nevada County, California.

The habitat site assessment included the pond and the habitat safely accessible by foot surrounding the pond (Figure 2).

The pond on the Hansen Bros. property is a perennial freshwater pond approximately 0.2 acres in size and the perimeter measures approximately 402 feet (122 meters) around. The aquatic habitat in the pond includes areas of open water, a few small patches of emergent vegetation (e.g., grasses, rushes), and overhanging riparian vegetation including willow and Himalayan blackberry, extremely thick in some areas (Photos 5–6). Visibility of the water extends approximately 18 inches below the surface, and the substrate on the bottom is predominantly silt with a few areas of large cobbles and small boulders. The depth of the pond was estimated to be a maximum depth of 8–10 feet. The water temperature was 72 degrees Fahrenheit (°F) (22 degrees Celsius [°C]). The pond has no outlet nor stream inlet; water entering the pond includes multiple subsurface seep flows from the hillside to the east/southeast (Photos 7–8) (Figure 2).

Upland habitat along the perimeter an banks of the pond and in adjacent areas includes species such as willow, coyote brush (*Baccharis pilularis*), black oak (*Quercus kelloggii*), ponderosa pine, perennial peavine (*Lathyrus latifolius*), and manzanita. The eastern side of the pond slopes up into a ponderosa pine forest with an understory of manzanita, while the western and southern banks of the pond generally consist of thick vine, forb, and willow species, and are difficult to access on foot (Photos 9–12). Soils are generally compacted red clay and rock.

During the habitat site assessment, no evidence of CRLF was observed. Other amphibian species observed included tadpoles of the Sierran treefrog (*Pseudacris sierra*) in the pond.

SURVEY METHODS AND RESULTS

In addition to the habitat site assessment, two qualified Stantec biologists also conducted a single daytime and a single nighttime survey for CRLF to further assess potential for occurrence at the pond on July 27, 2019 in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Redlegged Frog* (USFWS 2005). Prior to conducting the surveys, equipment was decontaminated per USFWS guidelines. The survey area included the pond and the habitat safely accessible by foot within and surrounding the pond (Figure 2). Data collected during the field surveys were recorded on a California Redlegged Frog Survey Data Sheet provided within the USFWS guidelines (Attachment 5 and Attachment 6).

Daytime Survey

Upon arrival at the survey site and prior to the commencement of the survey, Stantec biologists quietly listened for audio calls and watched for visual observations of amphibians. Biologists then conducted a visual encounter survey (VES) of the pond and its banks along the perimeter of the pond where safely accessible. Biologists used binoculars to search for CRLF and evidence of other aquatic or potential predator species.

The daytime survey began at 18:30 and ended at 19:30. Weather conditions were warm and calm with high clouds and an air temperature of 69°F (20.5°C). The water temperature was 72°F (22°C). For additional weather data during the daytime survey, see Attachment 5. Amphibian species observed during the daytime survey included Sierran treefrog tadpoles in Gosner stages 26–43 (Gosner 1960) (Photos 13–15). Evidence of other aquatic/semi-aquatic species included the observation of aquatic snails, water striders, and the abandoned exoskeletons of dragonfly nymphs (Photo 16). One potential small mammal burrow was observed approximately 15 feet (4.6 meters) from the western edge of the pond. **No CRLF were observed during the daytime survey conducted on June 27, 2019.**

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Reference: California Red-legged Frog (Rana draytonii) Habitat Site Assessment and Survey Results for the Hansen Brothers Enterprises La Barr Meadows Road Property, Nevada County, California.

Nighttime Survey

Prior to the start of the survey, biologists quietly listened for the audio calls of amphibians. Biologists then conducted a VES of the pond and its banks along the perimeter of the pond, where safely accessible. Biologists used binoculars and headlamps to search and scan for the eyeshine of CRLF and other amphibian species.

The nighttime survey began at 21:35 and ended at 22:45. Weather conditions were overcast, warm, and calm with an air temperature of 62°F (16.7°C). The water temperature was 72°F (22°C). For additional weather data during the daytime survey, see Attachment 6. Amphibian species observed during the nighttime survey included Sierran treefrog and American bullfrog (*Rana catesbeiana*) (Photos 17–20). Sierran treefrog observations included larvae in Gosner stages 26–41, young-of-year, and breeding adults (Gosner 1960). One pair of adult Sierran treefrogs was observed in amplexus. One audio and one visual observation was made of an adult American bullfrog. Other aquatic species observed during the nighttime survey conducted on June 27, 2019.

CONCLUSION

Based on the results of the habitat site assessment and surveys conducted on June 27, 2019, it is unlikely that CRLF are present in the old irrigation pond on the Hansen Brothers property. Specifically, there is a very low likelihood of CRLF in the area due to the distance to known occurrences, the presence of predators, the pond's perennial characteristics, and the surrounding habitat fragmentation and urban barriers to migration and dispersal.

Proposed Avoidance Measures

Should future development of the property include the pond removal or work in and around the pond, Hansen Bros. understands that in conjunction with the low likelihood of species presence, additional avoidance measures are necessary for the USFWS to concur there is a low likelihood for "take". Hansen Bros. proposes the following:

- 1. A pre-construction clearance survey;
- 2. Contractor environmental awareness training;
- 3. CRLF monitoring during the initial ground disturbance concurrent with any state-required aquatic species rescue efforts;
- 4. A Hansen Bros. foreman with stop work authority to halt construction if a CRLF is observed in the area;
- 5. If a frog is found on site, an on-call biologist will be available for identification; and
- 6. In the unlikely case of a CRLF sighting, coordination with the USFWS shall ensue.

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Reference: California Red-legged Frog (Rana draytonii) Habitat Site Assessment and Survey Results for the Hansen Brothers Enterprises La Barr Meadows Road Property, Nevada County, California.

Please feel free to contact myself or Bernadette Bezy at bernadette.bezy@stantec.com or 530.470.0515 with any questions. Thank you.

Stantec Consulting Services Inc.

Gmily C. Epping

Emily C. Eppinger Wildlife Biologist Mobile: 916.606.0406 emily.eppinger@stantec.com

Attachment:

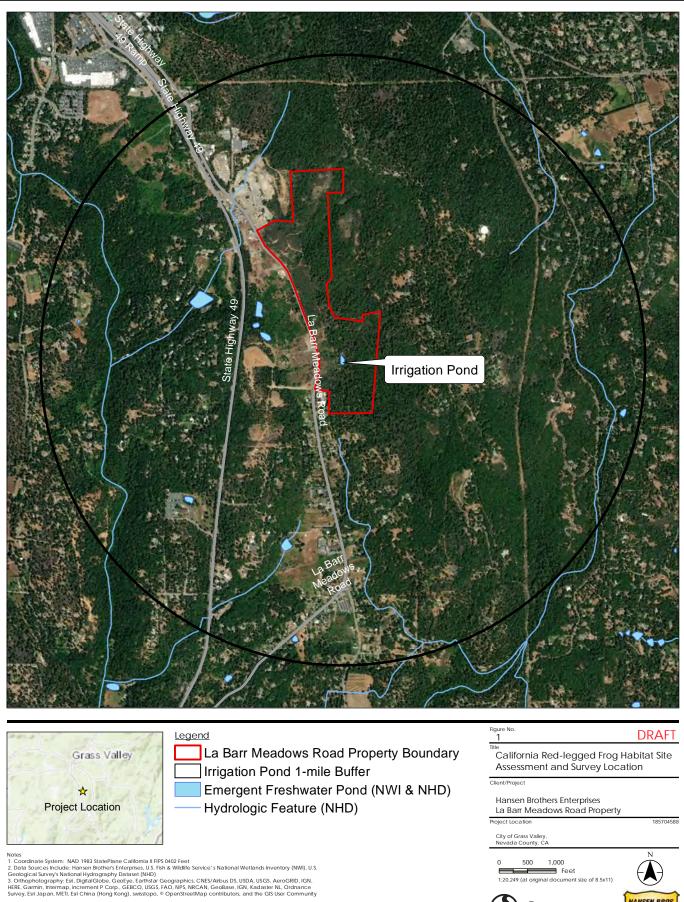
- 1) Figure 1 California Red-legged Frog Habitat Site Assessment and Survey Location
- 2) Figure 2 California Red-legged Frog Survey Area
- 3) Project Photo Record
- 4) California Red-legged Frog Habitat Site Assessment Data Sheet
- 5) California Red-legged Frog Survey Data Sheet Daytime Survey
- 6) California Red-legged Frog Survey Data Sheet Nighttime Survey
- c. Jeff Hansen, Hansen Bros. Ian Vogel, USFWS Bernadette Bezy, Stantec Elan Carnahan, Stantec

REFERENCES

CDFW. 2019a. California Department of Fish and Wildlife. Rarefind Version 5.2.14. https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx.

CDFW. 2019b. California Department of Fish and Wildlife. BIOS Viewer Version 5.77.14. https://apps.wildlife.ca.gov/bios/?bookmark=327.

- Gosner, Kenneth L. 1960. A Simplified Table for Staging Anuran Embryos and Larvae with Notes on Identification. Herpetologica 16:183-190. https://www.jstor.org/stable/3890061?seq=8#metadata_info_tab_contents
- USGS. 2019. U.S. Geological Survey. National Hydrology Dataset. https://www.usgs.gov/core-science-systems/ngp/national-hydrography/national-hydrography-dataset?qt-science_support_page_related_con=0#qt-science_support_page_related_con
- USFWS 2005. U.S. Fish and Wildlife Service. Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog. http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/crf_survey_guidance_aug2005.pdf.
- USFWS. 2019a. U.S. Fish and Wildlife Service. Critical Habitat Data. Sacramento Fish and Wildlife Office, Online database. https://www.fws.gov/sacramento/es/Critical-Habitat/Data.
- USFWS 2019b. U.S. Fish and Wildlife Service. National Wetlands Inventory Data. http://www.fws.gov/wetlands/Data/Data-Download.html.



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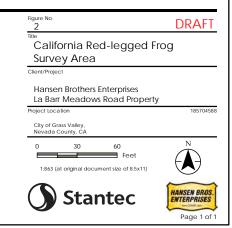




Notes 1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet 2. Data Sources include: Hansen Brother's Enterprises, Stantec 3. Orthophotography: Esti, OjtalGilobe, George, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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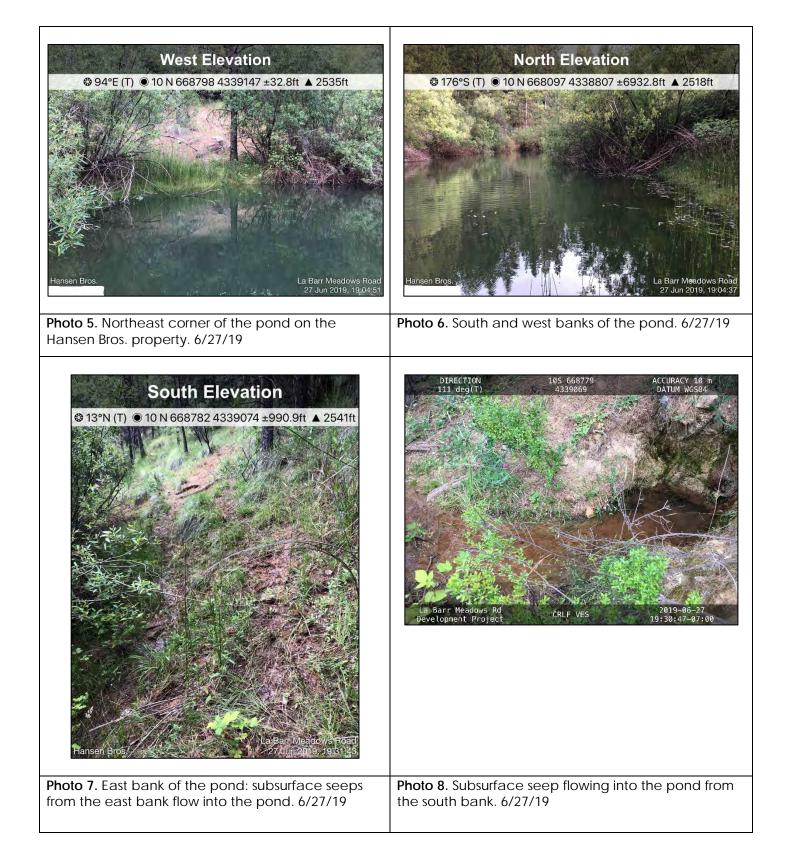








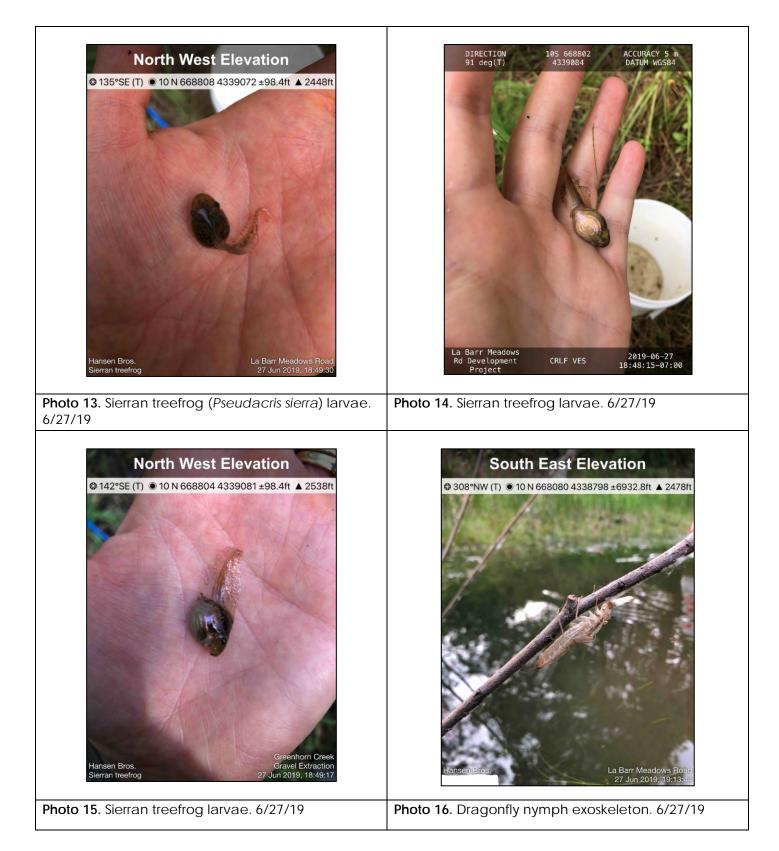




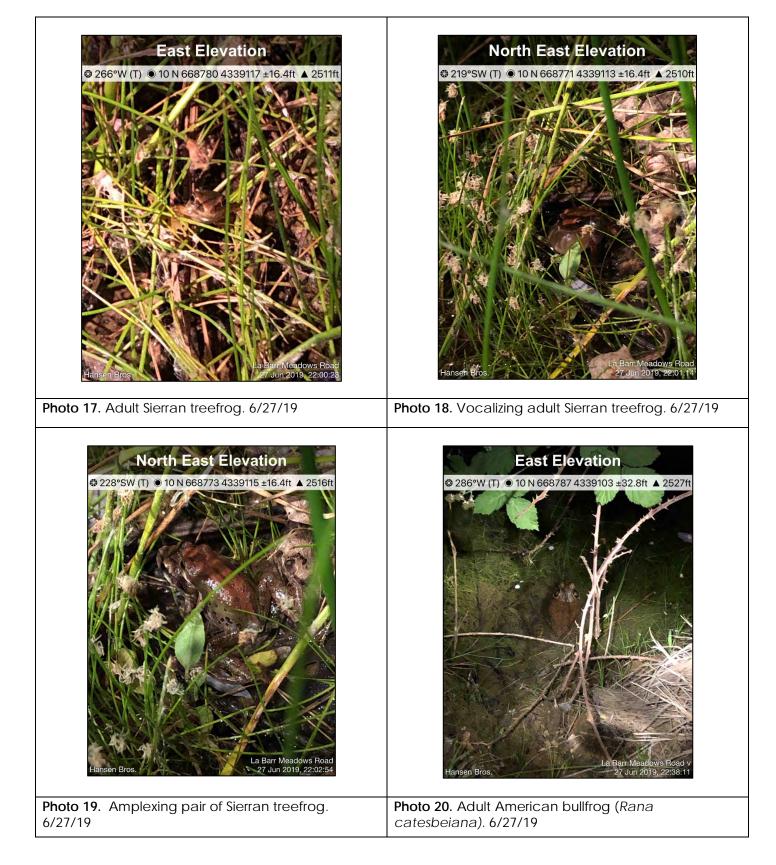










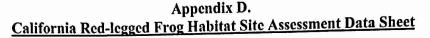


Appendix D. California Red-legged Frog Habitat Site Assessment Data Sheet

Site Assessment reviewed by	
Date of Site Assessment: <u>6/27/2019</u> Site Assessment Biologists: <u>Appnoix</u> Camahan Elan (Last name) (first name) (Last name) (first name)	
(Last name) (first name) (Last name) (first name) Site Location: Novada, La Bar MLado WS Pd, IOS 668786 mE 4339101 (County, General location name, UTM Coordinates or Lat./Long. or T-R-S). **ATTACH A MAP (include habitat types, important features, and species locations)**	mN
Proposed project name: <u>La Bave Meadows Rd. Development</u> Project Brief description of proposed action: Hansen Brus-currently in planning Strague of Project development - Project Artm., Actron Irea (footphint) yet to be defined	
1) Is this site within the current or historic range of the CRF (circle one)? YES) NO	
 Is this site within the current or historic range of the CRF (circle one)? YES NO Are there known records of CRF within 1.6 km (1 mi) of the site (circle one)? YES NO If yes, attach a list of all known CRF records with a map showing all locations. 	
GENERAL AQUATIC HABITAT CHARACTERIZATION (if multiple ponds or streams are within the proposed action area, fill out one data sheet for each)	
POND: Size: <u>~O.20 acres</u> Maximum depth: <u>10-10</u>	
Vegetation: emergent, overhanging, dominant species: <u>Suroundick habitet</u> - <u>Emergent</u> : <u>AMSS few hish - no typh</u> <u>Coyotebnish</u> - <u>Overhanging</u> willow <u>pindirosn</u> , few black - <u>Diminant</u> : Himalizer Blackberg, peas Manunite - clicy with Substrate: <u>sitt</u> , <u>vock - large cobble small boulder - nw come</u> <u>-feit fairly solid when walking in pond near perimeter</u>	oaL S
Perennial or Ephemeral (circle one). If ephemeral, date it goes dry: <u>perennial</u> -old imigator pond, unsistently field by sceps/springo on will side (cast & south)	
· · · · · · · · · · · · · · · · · · ·	

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and the subscription of th



STREAM:
Bank full width:
Depth at bank full:
Stream gradient:
Are there pools (circle one)? YES NO
If yes,
Size of stream pools:
Maximum depth of stream pools:
Characterize non-pool habitat: run, riffle, glide, other:
Vegetation: emergent, overhanging, dominant species:
Substrate:
Bank description:

Perennial or Ephemeral (circle one). If ephemeral, date it goes dry:

Other aquatic habitat characteristics, species observations, drawings, or comments: -snails present - dragorfy lana/pupa cases? - exoskeletimes left on vegetation -grass-emergent Fine bladed - overhanning millow-branches-makes shonehie different to survey in areas - Sienan treefrog tadpolis present -NO predators operies observed - deek tracks observed around/on banks Birds observed: **Necessary Attachments:** MODO NOFL STVA HETH 1. All field notes and other supporting documents EGO ANHU DEJU CAQU AMRD BNSH 2. Site photographs 3. Maps with important habitat features and species location WREN

23

page 1-0f2 8Unset 20:35

Appendix E. <u>California Red-legged Frog Survey Data Sheet</u>

	v			1		
Survey results reviewed by	(date)	(biol	ogist)			
(logist: <u>Fpp</u> logist: <u>Cavr</u> (Last		(Mest name)			
Site Location: NOVADA, LA BAY MUAD (County, General location name, UT	WS Rd . 10 M Coordinates o	<u>S 66876</u> r Lat./Long. or 1	6 mt 4339 F-R-S).	IØI I		
**ATTACH A MAP (include habitat type)						
Proposed project name: <u>LA Bar Meadows Rd. Development</u> Project Brief description of proposed action: Hansen Bris. Ouvently currently in planning struges of Project development - Project Adm, Actm. Area (foltpunt) yet to be defined.						
Type of Survey (circle one) DAY NIGHT	BRI	EEDING NO	N-BREEDING	1		
Survey number (circle one): 1 2	3 4	5 6	7 8			
Begin Time: 18:30	End Time:	19.30				
Cloud cover: 75%	Precipitatio	on:_Ø				
Air Temperature: $61^{\circ}(\mathfrak{D}.\mathfrak{S}^{\circ}(\mathfrak{I}))$	Water Ten	perature:	Darc (7)	"F)		
Wind Speed: W4mph	Visibility C	onditions: <u>^</u>	18" (water))		
Moon phase: Waning Crescent	Humidity:_					
Description of weather conditions: <u>Calm</u>	Warm, C	lear				
Brand name and model of light used to conduc	ct surveys:	N/A	1			
Were binoculars used for the surveys (circle or Brand, model, and power of binoculars:	ne)? (YES Bupstd 107)NO 303				
1 25	5					

Pg. 20F2

Appendix E. 6/27/19 <u>California Red-legged Frog Survey Data Sheet</u> Day time survey

AMPHIBIAN OBSERVATIONS							
Species	# of indiv.	Observed (O) Heard (H)	Life Stages	Size Class	Certainty of Identification		
Sievran treetrog	~75	Observed	tadpole (land)	Varied	100%		
0				7			
		Gosner St	agio ranged				

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: <u>None</u> Observed

Other notes, observations, comments, etc. -1 burrow -potential small mammal approximately 15' (Sm) - Soil is day/poday summed pond -vegetation/habitat -> cast side pordero sa thick matrice pordero sa Sundin pond in innediatericins (west side) Pond substrate -silt Visibility ~ 18" -snails dragon fliss - Nymph exoskeleting -water striders BIRDS **Necessary Attachments:** MOFL LE20 AMRO 4. All field notes and other supporting documents HAND CAOU ANHA HETH BUSH 5. Site photographs STJA SPTO 6. Maps with important habitat features and species locations MODO DEJU WREN BRIK 26

Pg. 1 of 2 Sunset 20:35 Appendix E. California Red-legged Frog Survey Data Sheet Survey results reviewed by (biologist) (date) (FWS Field Office) Survey Biologist: Eppinger Date of Survey: 6/27 Survey Biologist: Camahaw 4229101 MN Site Location: Nevad (County, General location name, UTM Coordinates or Lat./Long. or T-R-S). **ATTACH A MAP (include habitat types, important features, and species locations)** Proposed project name: UN BOW MURDOWS Rd. Development Project Brief description of proposed action: Hunsen Bros. Currently in the planning stages of Roject development - Project Artron, Aztrin Arca (Fostprint) yet to be defined. NIGHT BREEDING NON-BREEDING Type of Survey (circle one): DAY 2 3 4 7 Survey number (circle one): 5 6 8 22:1 End Time: Begin Time: 100% Precipitation: NDNe **Cloud cover:** 16.7C Water Temperature:_____22°C Air Temperature: Calm Visibility Conditions: ~ 12-18" 16 Wind Speed:_ 43% Moon phase: Waning CNESCONT Humidity: Description of weather conditions: _______ warm dondy Brand name and model of light used to conduct surveys: Pelican Heads up Life #2640 (2) Were binoculars used for the surveys (circle one)? YES TUX 3D Brand, model, and power of binoculars: emporta

pg.2052

Appendix E. California Red-legged Frog Survey Data Sheet

AMPH(BIAN OBSERVATIONS						
Species (4		#of indiv.	Heard (H)	Life Stages	Size Class	Certainty of Identification
Stewan truting		75	0	Lande Goshin.	26-4i	100%
	1	3	0	Yoy Gosner	46	100%
		B	A	Adult	46	100%
		3	0	Adult	46	100%
Amencius bullbi		51	А	Adult	46	100%
		1	0	Adult	46	100%.

AMPHIBIAN OBSERVATIONS

Describe potential threats to California red-legged frogs observed, including non-native and native predators such as fish, bullfrogs, and raccoons: <u>Aquatic (hyper-eigs)</u> <u>I Whenuy (MycAmentan Bulling</u>

Other notes, observations, comments, etc. - 1 pare tracting in Amplexius -1 Andio & 1 VISUAL OF Adult BullFrog-possible # was the same induvidual although on the opposite ride of the prod -No enritine of Breed's Arbullfry. Other aquatics -nator beetles (23 species) -Shails Waterchide - natu boatman

Necessary Attachments:

- 4. All field notes and other supporting documents
- 5. Site photographs
- 6. Maps with important habitat features and species locations