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## Sage Institute Inc.

July 21, 2009

C.M. Florence, AICP  
Oasis Associates, Inc.  
3427 Miguelito Court  
San Luis Obispo, CA 93401

**SUBJECT: Excelaron LLC Huasna Site well pad development and Porter Ranch haul road  
California red-legged frog site assessment**

Dear Ms. Florence:

Sage Institute, Inc. (SII) is pleased to provide this California red-legged frog (*Rana draytonii*; CRLF) site assessment for the Excelaron Mankins Ranch well pad development and use of the Porter Ranch road for 24 tanker truck trips per day and additional project related traffic. The purpose of this site assessment study was to evaluate the suitability of the Huasna River and Mankins Ranch area to support the CRLF and to evaluate the potential for take or other adverse direct or indirect impacts on the CRLF from the proposed project. The primary impact evaluation is related to the potential CRLF dispersal from aquatic sites into the well pad area and/or onto the proposed haul road that could result in mortality from encounters with equipment and truck traffic (road kill). Special attention was paid to looking at CRLF dispersal opportunities from the Huasna River through uplands to areas of suitable habitat in tributary drainages of the Mankins Ranch and across the proposed Porter Ranch haul route. Figures 1 through 4 provide location and supporting information for this analysis

SII has prepared this CRLF site assessment report to satisfy the CRLF site assessment protocol provided in the August 2005 *U.S. Fish and Wildlife Service Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*. In preparation of this site assessment analysis SII Principal Ecologist David Wolff and Principal Biologist Jason Kirschenstein reviewed available biological resources information you provided on the Excelaron project, reviewed relevant species information and studies regarding CRLF movement to and from aquatic sites, and queried the California Natural Diversity Data Base (CNDDDB). In conjunction with the review of available background information, Mr. Wolff conducted a habitat assessment windshield survey with the use of an aerial photograph of the Porter Ranch haul road and spot checked the suitability of the Huasna River for the CRLF at locations close to the ranch road on October 13, 2008. Mr. Kirschenstein conducted a daytime CRLF habitat suitability site assessment through the Mankins Ranch well pad area and Huasna River and a nighttime spotlight survey at several locations on the Huasna River on April 30, 2009. Mr. Wolff and Mr. Kirschenstein conducted a second site suitability assessment nighttime spotlight survey on May 11, 2009 along several locations on the Huasna River.



### **CRLF Background and Known Distribution**

- The proposed Excelaron well pad and haul road project site falls within the historic range of the CRLF generally described as extending from Mendocino County, California, south along the coast to northwestern Baja California, Mexico.
- The CNDDDB has a CRLF recorded occurrence on May 23, 2006 at a culvert outfall plunge pool in Cat Canyon Creek just upstream of the confluence with the Huasna River to the northeast of the Huasna Townsite Road bridge crossing of the river at the northern area of the haul road alignment. The CNDDDB has no other recorded occurrences within an approximately three-mile radius around the Mankins Ranch and along the Porter Ranch road.
- The CRLF is a highly aquatic species rarely found too far from perennial water or very moist conditions.
- Movement of the CRLF to and from one aquatic habitat to another over what otherwise appears to be inhospitable conditions (a variety of dry upland habitats) for this amphibian are common.
- While not completely understood, CRLF movement appears to be in response to seeking breeding habitat, or dispersing from breeding areas that are subject to seasonal drying. For example, movement from a seasonal creek to a stock pond or visa-versa.
- Most importantly, the majority of CRLF movement to and from aquatic habitats is presumed to be done at night, during rains or other high moisture events like summer fog, and during the wetter winter months. Some movement has been documented in the May to October timeframe in moist coastal areas. It is a fair assumption that CRLF and amphibians in general are not going to move away from moist habitat in hot dry conditions.

### **Mankins Ranch and Huasna River/Porter Ranch Haul Road Existing Conditions**

- The Mankins Ranch project area is accessed on an existing dirt road that passes through pasture, cultivated fields, and grassland habitat. There is one culvert crossing of Huasna Creek at the northern end and a low water crossing of an unnamed tributary along Suey Creek Road as you enter into the hillside oak woodland area of the well pads and shipping site. There is an existing bridge next to the low-water crossing that is used and will be used by the project if flows are present in the unnamed tributary. There are several drainages in the hilly well pad area but the roads and proposed pads do not cross or impact them.
- The field reconnaissance and windshield surveys, and review of aerial photography, show the Huasna River to be a broad floodplain of coarse alluvium with a low-flow channel that has perennial flows based on the observation of a small amount of flow on October 13, 2008.
- The river floodplain supported a varied composition, structure, and density of riparian habitat on or below the upper banks of the river. There is a zone of well established riparian habitat through an approximately 1.5 mile reach upstream and downstream of the County bridge. Downstream of the riparian zone is mostly an open channel with riparian trees and shrubs at the outside edge of the broad floodplain.
- South of the wooden County bridge crossing of the river, the Porter Ranch road parallels the river but does not cross it again. The road is a well established and maintained road with compacted base. This existing road currently supports local resident/ranch traffic.



- The road follows an upland route beyond (outside of) the top of the eastern bank of the Huasna River. The eastern river bank was mostly very steep and ranged from approximately 10 to 20 feet high above the river bottom and low-flow channel.
- The broad river floodplain extends more to the west of the low-flow channel supporting riparian tree and riparian scrub vegetation towards the toe of the oak woodland hillside.
- The road travels above the eastern bank through annual grassland with scattered oaks used for grazing with several fields in annual crop cultivation and alfalfa on both sides of the river.
- There were four tributary drainages with established channels that crossed the proposed haul route. These tributary drainages were mostly swale like features with earthen banks and a smaller scoured low-flow channel in the swale bottom. All the tributary drainages were dry at the time of the field surveys suggesting there were no springs nearby. Based on the swale form of the drainages it appears that they are either ephemeral flowing for short durations after rainfall events, or intermittent flowing during the wet season but drying down when rainfall stops.
- Three of the tributary drainages had culverts under the road (two 24" cmp and one 10" pvc). Based on the size and position of the culverts, and the well maintained road, it is reasonable to assume that except under the most severe storm conditions that most flows pass through the culverts and not over the road.
- The fourth tributary drainage crossing at the southern end of the Porter Ranch road where it turns eastward away from the river, had an "earthen bridge" that did not have a culvert in October 2008. However, a culvert crossing has been installed since then.
- Based on aerial photography, there appears to be several stock ponds to the north and west of the river and bridge crossing. Otherwise, aerial photography (presumed to be relatively recent) does not show any stock ponds along the Porter Ranch Road that borders the river. There are many side drainages but there does not appear to be any impoundments along any of these. No stock ponds or other impoundments were observed along or near the Porter Ranch road during the field survey.

#### **CRLF Habitat Suitability and Nighttime Survey Results**

- The Cat Canyon Creek and the plunge pool CNDDDB occurrence were dry during the May 11, 2009 field survey. This appears to be a deep erosion pool at the culvert outfall under the road. This area is only a short distance away from the perennial Huasna River channel supporting dense riparian habitat and likely holds water when the Cat Canyon Creek is flowing.
- The Huasna River supports perennial flows that appear suitable for the CRLF. A reach approximately 1.5 miles roughly centered on the County bridge supports a well established riparian habitat providing shaded aquatic habitat. Most of the reach starting approximately one river mile downstream of the bridge is open with little aquatic habitat shading.
- One CRLF adult and two CRLF tadpoles were observed in the Huasna River at the County bridge during the May 11, 2009 nighttime spotlight field survey. Mr. Wolff and Mr. Kirschenstein confirmed this as a positive identification. This area of the river supports a tall canopy of riparian habitat. Ten bullfrog adults and two bullfrog tadpoles were observed co-occurring with the CRLF in the Huasna River at the County bridge location. The survey area included approximately a 200 foot reach on the upstream side of the bridge.



- Spot checking at two locations of the lower open reach of the Huasna River revealed abundant bullfrog adults and tadpoles lined up throughout reaches observed (as is typical for the bullfrog). Each survey reach was approximately 500 to 1,000 feet long. No CRLF adults or tadpoles were observed in the lower Huasna River survey reaches that lacked riparian tree cover.
- Abundant California roach and mosquito fish were observed in the Huasna River during the surveys. These are small fish that could prey on eggs or early larval stages of amphibians.
- In summary, these surveys established the presence of the CRLF in the Huasna River. At any given point in time they could be distributed throughout the perennial aquatic habitat. However, there appears to be intense competition from abundant bullfrogs throughout the system, interestingly even where the CRLF were observed. While this survey was not exhaustive throughout the entire Huasna River reach on the Porter Ranch, the CNDDDB occurrence and observations from this survey suggest that the CRLF prefer the areas shaded by the dense riparian habitat.
- The Mankins Ranch well pad area has a network of ephemeral drainages that are tributary to Huasna Creek and the Huasna River. The drainages around the well pad and shipping area were dry during field surveys and lacked any residual deep pools for dry season habitat.
- The well pad and shipping area drainages are tributary to the Huasna River and there are several stock ponds (not surveyed on private property) in between the well pad areas and the Huasna River CRLF occurrence. This represents a potential for CRLF to disperse to these drainages seeking suitable aquatic habitat. Movement could be through the drainages or uplands. In general, the well pad and shipping area drainages appear to provide limited aquatic habitat opportunity for the CRLF.

#### **Mankins Ranch (Well Pad and Shipping Area) and Haul Road CRLF Analysis**

- Given the recent CNDDDB record near the confluence of a tributary to the Huasna River, the SII observation of the CRLF at the County bridge, and the presence of suitable aquatic and riparian habitat along the river, this analysis presumes that the CRLF could occur throughout the Huasna River where suitable conditions persist through the Porter Ranch.
- While there appears to be limited suitable perennial aquatic habitat in the drainages in and leading up to the Mankins Ranch project area, CRLF could disperse to these areas through uplands or the drainages in response to suitable conditions. Suitability is likely in response to periods of prolonged rainfall or above average rainfall wet seasons.
- The well pads, shipping site, and road improvement construction on the Mankins Ranch would be in uplands during the dry season and would not affect any aquatic habitat. Operationally, these facilities are in upland locations and would not affect any aquatic habitat either.
- It is our understanding that the Excelaron truck traffic would operate only during the daytime and would not operate under extreme rainfall conditions that would create an impassable situation, as agreed upon with the landowner. This practice would avoid any trucks driving through active flows from any of the tributary crossings such as that accessing the Mankins Ranch where the bridge would be used if necessary. As stated above, the culverts under the Porter Ranch road appear to be positioned and sized to accommodate all but the most

extreme storm event flows. Therefore, trucks would not operate in any active flows thereby avoiding any localized or downstream water quality impacts.

- Given the location of the Porter Ranch road well away from any riparian habitat, any road improvements to accommodate the Excelaron trucks (such as turnouts every ½ mile) would not need to remove any riparian habitat. Therefore, use or improvement of the existing road would not in and of itself result in the alteration of habitat for CRLF.
- Potential adverse effects of the proposed project on the CRLF would be mortality of dispersing CRLF from encounters with trucks or other vehicles/equipment associated with the operation (road kill). Given the high likelihood that CRLF movement would be at night during rains, and the low likelihood for movement at other times, it seems reasonable to assume that the additional proposed daytime haul truck traffic is not likely to result in take of the CRLF.
- Assuming CRLF movement away from the Huasna River corridor would be in response to the availability of other attractive aquatic habitat, there does not appear to be many reasons/opportunities to do so. As mentioned above there are several ephemeral/seasonal tributary drainages and stock ponds to the north and west of the County bridge crossing CRLF occurrence. The side drainages along the Porter Ranch road do not exhibit signs of long duration flows or have impoundments that are creating ponds as evaluated from field reconnaissance and aerial photographs. Based on field observations of the size and form of the tributary drainages, they likely dry faster than the river so would become less attractive during the dry season. However, should the tributary drainages have suitable habitat further up the watershed that was not observable from surveys or aerial photographs, movement would likely be at night when moisture (fog/rain) is available. Once at a location away from the river during the dry season (assuming some perennial aquatic habitat persists during the dry season) the CRLF would likely stay put until breeding movements were triggered with fall/winter rains.

### **Summary and Conclusions**

The CNDDDB and SII CRLF occurrences are near the one river crossing, and that crossing is a bridge well above the channel bottom. As such, there would not be any direct impact from truck traffic on the Huasna River aquatic habitat. In addition, improvements to the bridge surface for the project would also not impact any aquatic habitat. The project related traffic of tributary drainage crossings will use the bridge (Mankins Ranch) or have culverts under the road (Huasna Creek & Porter Ranch road). Trucks would not operate during extreme rainfall conditions and no trucks would be operated in flowing water. Therefore, potential impacts on CRLF aquatic habitat from water quality degradation would be avoided.

The proposed project facilities are located in uplands and haul trucks would operate during the day time hours and not during extreme rainfall events or through aquatic habitat. As such, encounters with dispersing CRLF through uplands are highly unlikely. Therefore, it is a reasonable assumption that project operations and use of the proposed haul route would not result in take of the CRLF.

In conclusion, based on a project description that stipulates trucks would operate during the day and not during extreme rainfall events, the existing conditions of the limited aquatic habitat resources on the Mankins Ranch, the proposed Porter Ranch haul road being outside of the Huasna River floodplain, and the culvert/bridge crossings of tributary drainages avoiding impacts on aquatic









habitat, potential take from direct and/or indirect impacts on the CRLF from the proposed project would be avoided and therefore would be considered a less than significant impact. Given a less than significant finding based on the existing conditions and analysis above, no mitigation for the CRLF is recommended.

Thank you for the opportunity to assist with the environmental review process for this project. Please call me directly if you have any questions or need additional information.

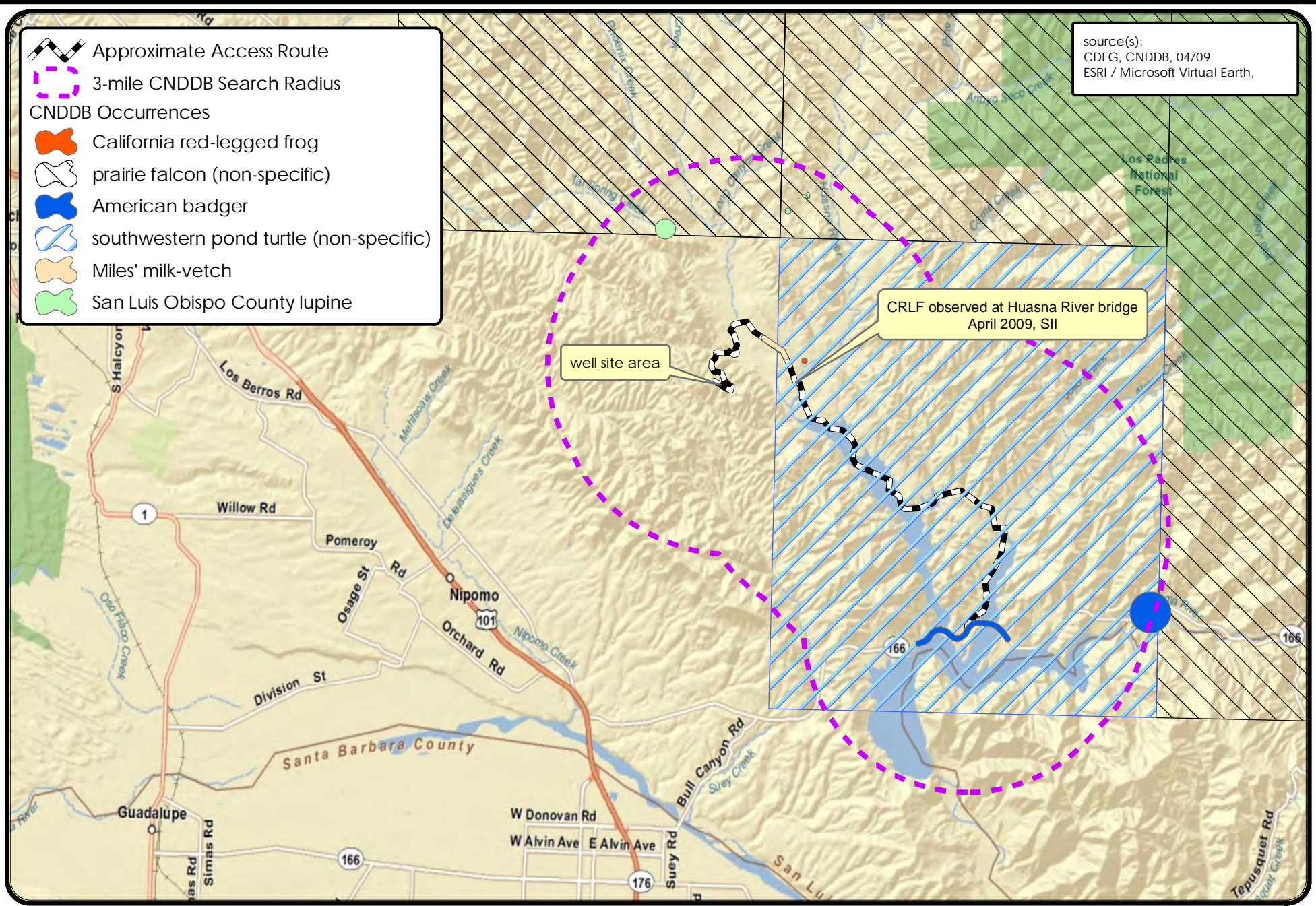
Very truly yours,

David K. Wolff  
Principal Ecologist  
Certified Professional Wetland Scientist



Attachments: Figures 1 – 4

-  Approximate Access Route
-  3-mile CNDDDB Search Radius
- CNDDDB Occurrences
-  California red-legged frog
-  prairie falcon (non-specific)
-  American badger
-  southwestern pond turtle (non-specific)
-  Miles' milk-vetch
-  San Luis Obispo County lupine

source(s):  
 CDFG, CNDDDB, 04/09  
 ESRI / Microsoft Virtual Earth,



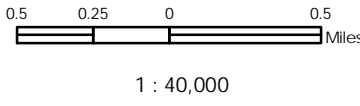
source(s):  
Copyright: © 2008 National Geographic

 Approximate Access Route  
 California red-legged frog

CNDDDB CRLF Occurrence  
Cat Canyon  
05/23/06

well site area

CRLF observed at Huasna River bridge  
April 2009, SII



Excerlaron (Huasna Area) CRLF Site Assessment

County of San Luis Obispo

CRLF-2



USGS Topographic  
CRLF Occurrence Map

source(s):  
Copyright: © 2008 National Geographic

CNDDDB CRLF Occurrence  
Cat Canyon  
05/23/06

well site area

CRLF observed at Huasna River bridge  
April 2009, SII

 Approximate Access Route  
 California red-legged frog

MATCH LINE

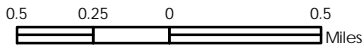
MATCH LINE

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Sage Institute Inc.

July 17, 2009



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Excerlaron (Huasna Area) CRLF Site Assessment

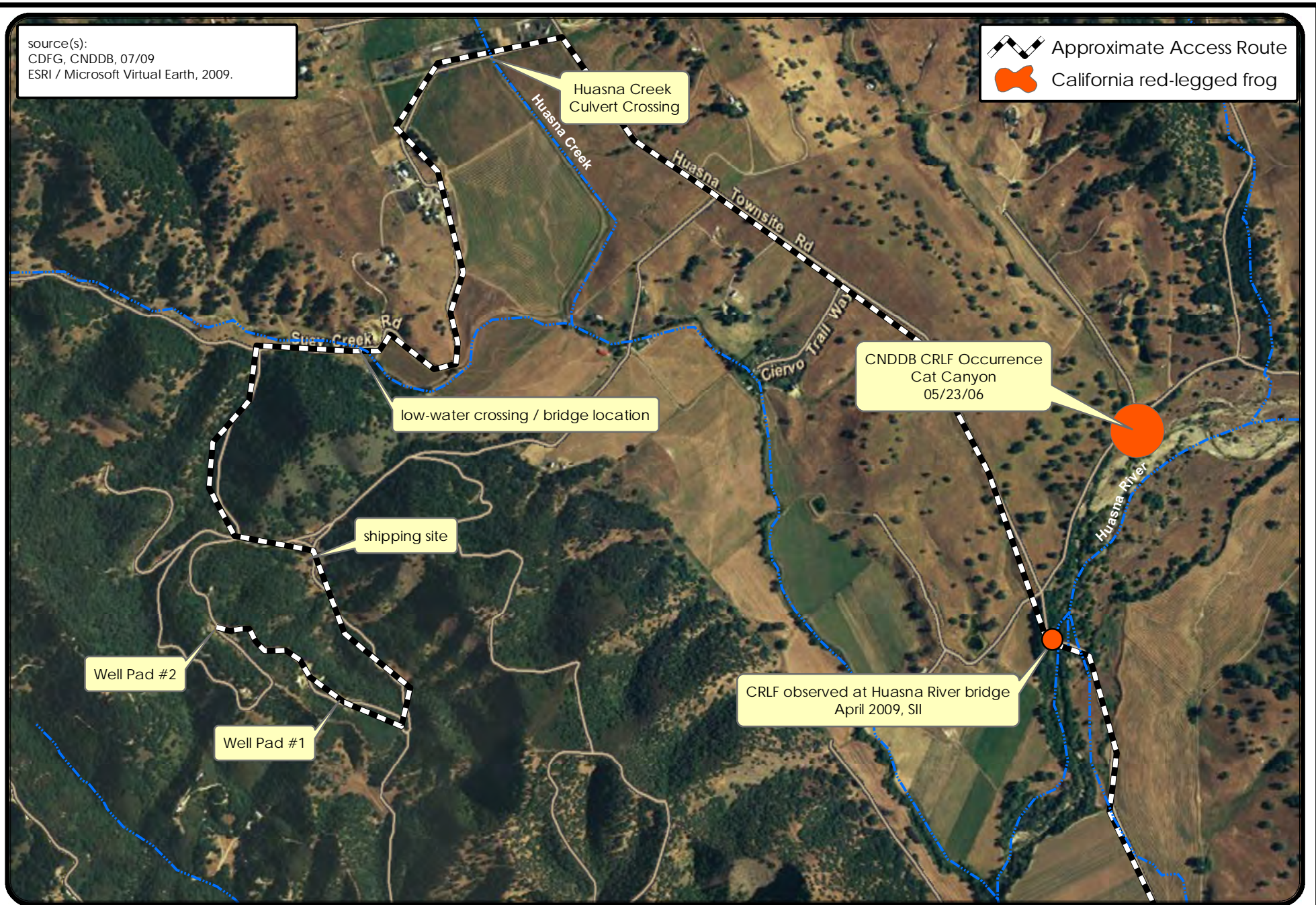
County of San Luis Obispo

CRLF-3

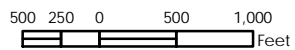
Areal Photo  
CRLF Occurrence Map

source(s):  
CDFG, CNDDDB, 07/09  
ESRI / Microsoft Virtual Earth, 2009.

 Approximate Access Route  
 California red-legged frog



July 17, 2009



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### Excerlaron (Huasna Area) CRLF Site Assessment

County of San Luis Obispo

CRLF-4

CRLF Overview  
Aerial Photo