URS

DOCKET	
08-AFC-8	
DATE	9/21/2009
RECD.	9/21/2009

September 21, 2009

Dockets Unit
California Energy Commission
1516 Ninth Street, MS 4
Sacramento, CA 95814

RE: Hydrogen Energy California Project
Application for Certification 08-AFC-8

On behalf of Hydrogen Energy International LLC, the applicant for the above-referenced Hydrogen Energy California AFC, we are pleased to submit the enclosed document:

- Survey Results of the 2009 Protocol Blunt-Nosed Leopard Lizard Surveys

The enclosed document is being submitted to the CEC for docketing, as requested in the Data Adequacy recommendations.

URS Corporation

Dale Shileikis
Vice President, Environmental Services

Enclosures

CC: Proof of Service List

URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105
Tel: 415.896.5858
Fax: 415.882.9261
www.urscorp.com

Results of 2009 Protocol Blunt-Nosed Leopard Lizard Surveys

Revised Application for Certification (08-AFC-8)

for

HYDROGEN ENERGY CALIFORNIA
Kern County, California

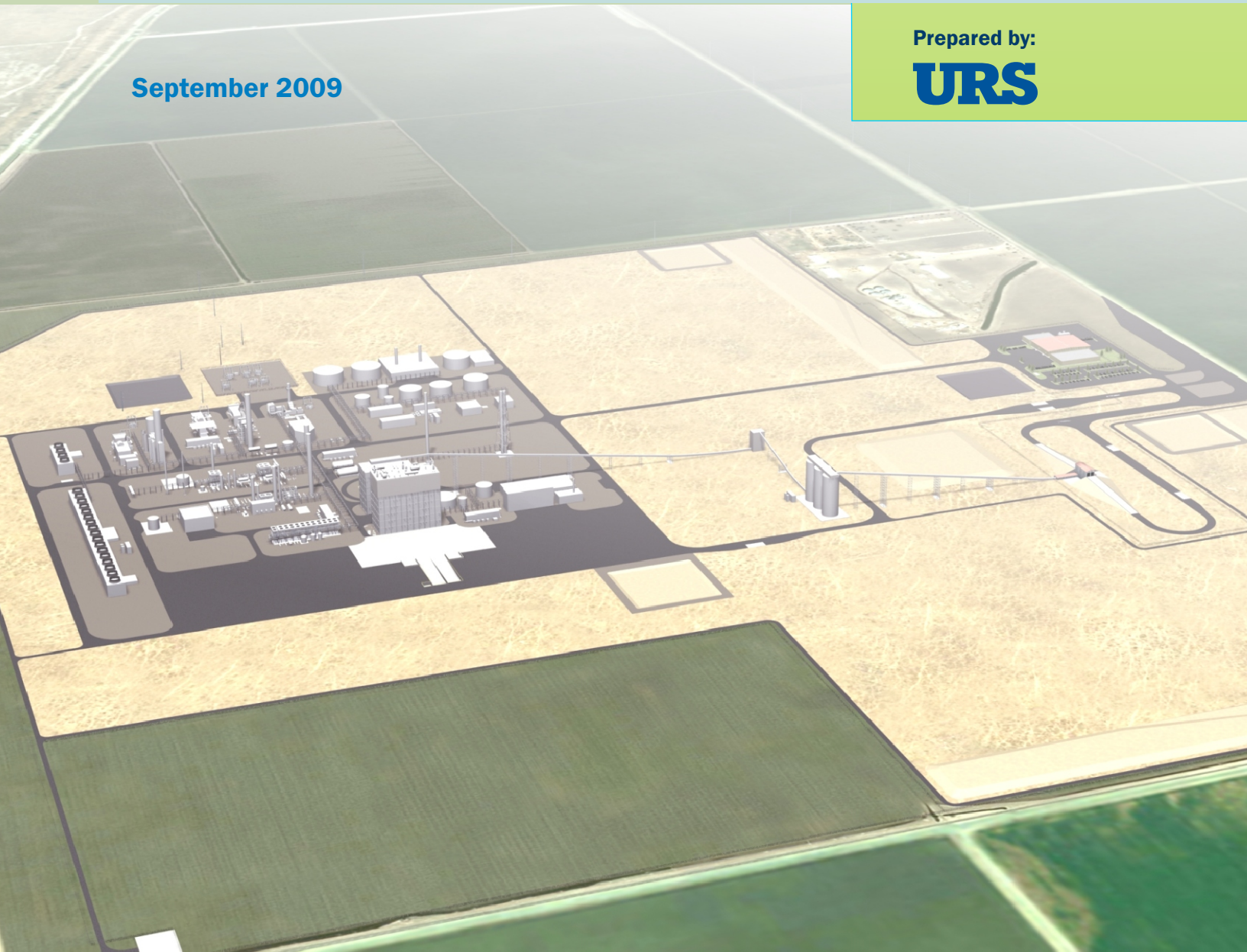
Prepared for:
Hydrogen Energy International LLC

hydrogen energy

Submitted to:
California Energy Commission

Prepared by:
URS

September 2009



Results of the 2009
Protocol Blunt-Nosed Leopard Lizard Surveys
Hydrogen Energy California (HECA) Project

Protocol surveys for the adult blunt-nosed leopard lizard (BNLL, *Gambelia sila*) were conducted in 2009 as part of an assessment of the potential impacts on biological resources resulting from construction of the proposed Hydrogen Energy California (HECA) Project, located near the town of Tupman in Kern County, California (Figure 1). Observations of other wildlife species of interest were also recorded and are included in this report.

BLUNT-NOSED LEOPARD LIZARD

Current BNLL populations are located in scattered sites in the San Joaquin Valley and adjacent foothills. These populations are found between elevations of 100 to 2,400 feet in sparsely vegetated semiarid grasslands, alkali flats, large washes, and low foothills. The decline of this species is attributable to conversion of habitat to agriculture, urban development, livestock grazing, oil, mineral and water development, and off-road vehicle use (Stebbins 2003). The species was listed as Federally Endangered in 1967 and Endangered by California in 1971; the species is also a Fully Protected species under California Department of Fish and Game (CDFG) Code which states that these species "....may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species."

The BNLL is a medium-large, carnivorous lizard of the Crotaphytidae family. They forage opportunistically on the ground and feed on grasshoppers, cricket, moths, and other lizards, including smaller leopard lizards. They use mammal burrows, shrubs, or structures for shelter to escape high temperatures or elude potential predators.

Adult BNLL come out of hibernation in late March and remain active until late June or July, when they return underground to hibernate. Juvenile BNLL begin hatching in July and remain aboveground to late October (Germano 2009). BNLL mate from late April through May and the females usually lay eggs between May and June. The usual clutch size is three eggs, but it can range from two to six. Females usually produce one clutch per year, although occasionally they produce two. Females may breed during their first spring, but males may not breed until they are large enough to secure a territory (Tollestrup 1982, 1983).

SURVEY METHODS

URS surveyors conducted surveys for adult BNLL according to CDFG May 2004 *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard* guidelines. Surveys covered three areas that represent two components of the HECA project: the natural gas/potable water line in the Elk Hills area, and the Kern River Drainage near the proposed Project Site (Figure 2). The Elk Hills area was covered on twelve survey days between April 23 and July 10, 2009 using five surveyors; the Kern River Drainage was covered on thirteen survey days between April 22 and July 23, 2009 using between three and seven surveyors (Appendix A).

All surveys for both sites met the required time, temperature, wind, and surveyor qualifications. Each survey was completed in a single day, with the exception of the first survey for the Kern River Drainage site (Appendix A). On the first day, the temperature measured at 1 to 2 centimeters above the ground in the shade exceeded 95 degrees Fahrenheit; the survey was stopped and the remaining area was surveyed the following day.

Résumés for surveyors who performed the surveys are included in Appendix B.

SURVEY RESULTS

The results of the BNLL protocol surveys are discussed below. Additional observations of note collected during the surveys are also included below.

Blunt-Nosed Leopard Lizard (*Gambelia sila*) State Endangered, State Fully-Protected and, Federal Endangered

Only one BNLL was seen during the surveys, and it was only identified once. On May 20, a first-year male was observed on the Elk Hills reach (see Figure 2); the individual showed "yellow ventral colors" and was in good health and "plump." This individual was observed during the week in which four consecutive days of surveying were conducted, as required by the protocol. The individual was not seen on the previous survey day or the following two survey days. It is unclear whether the individual remained in the area and was missed on the remaining seven surveys; left the survey area; or was killed or predated. Some potential hazards in the area include a paved road; rattlesnakes, common ravens, and San Joaquin kit fox in the immediate area; urbanization associated with the town of Tupman; and/or nearby oil production infrastructure.

Side-blotched lizards (*Uta stansburiana*) were the most common lizard detected. The high count for the Elk Hills area was 432 individuals on June 22; the high count for Kern River Drainage area was 178 individuals on June 29. The second most abundant lizard was the Western whiptail (*Aspidoscelis tigris*), with high counts of 27 and 23 for Elk Hills and Kern River drainage, respectively. A total of two Western fence lizards were seen in the course of the surveys, one per survey area.

The California Natural Diversity Database (CNDDB) form for the BNLL observation is included in Appendix C. Figure 2 will be submitted with this form.

San Joaquin Antelope Squirrel (*Ammospermophilus nelsoni*) State Threatened

As many as five individuals were seen in one survey within the Elk Hills survey area. The majority of individuals were seen in the area south-southeast of Tupman; however, individuals were also seen in the northwestern portion of the survey area. No San Joaquin antelope squirrels were seen in the Kern Drainage area.

San Joaquin Whipsnake (*Masticophis flagellum ruddocki*) State Species of Special Concern

A shed skin of a whipsnake was found in May 2009; the identification was made by propionate eye scales, long, narrow tail, and lack of patterning on the shed skin. No individuals or other sign of whipsnakes were observed during the 2009 surveys.

Burrowing Owl (*Athene cunicularia*) State Species of Special Concern

A single individual was seen along the southeastern portion of the Kern River Drainage survey area on May 22. The owl was observed flying from the access road that parallels the Kern River Drainage to a large saltbrush shrub. No burrows, pelts, or white wash were found in or around the two areas, and the owl was not seen on any subsequent visits.

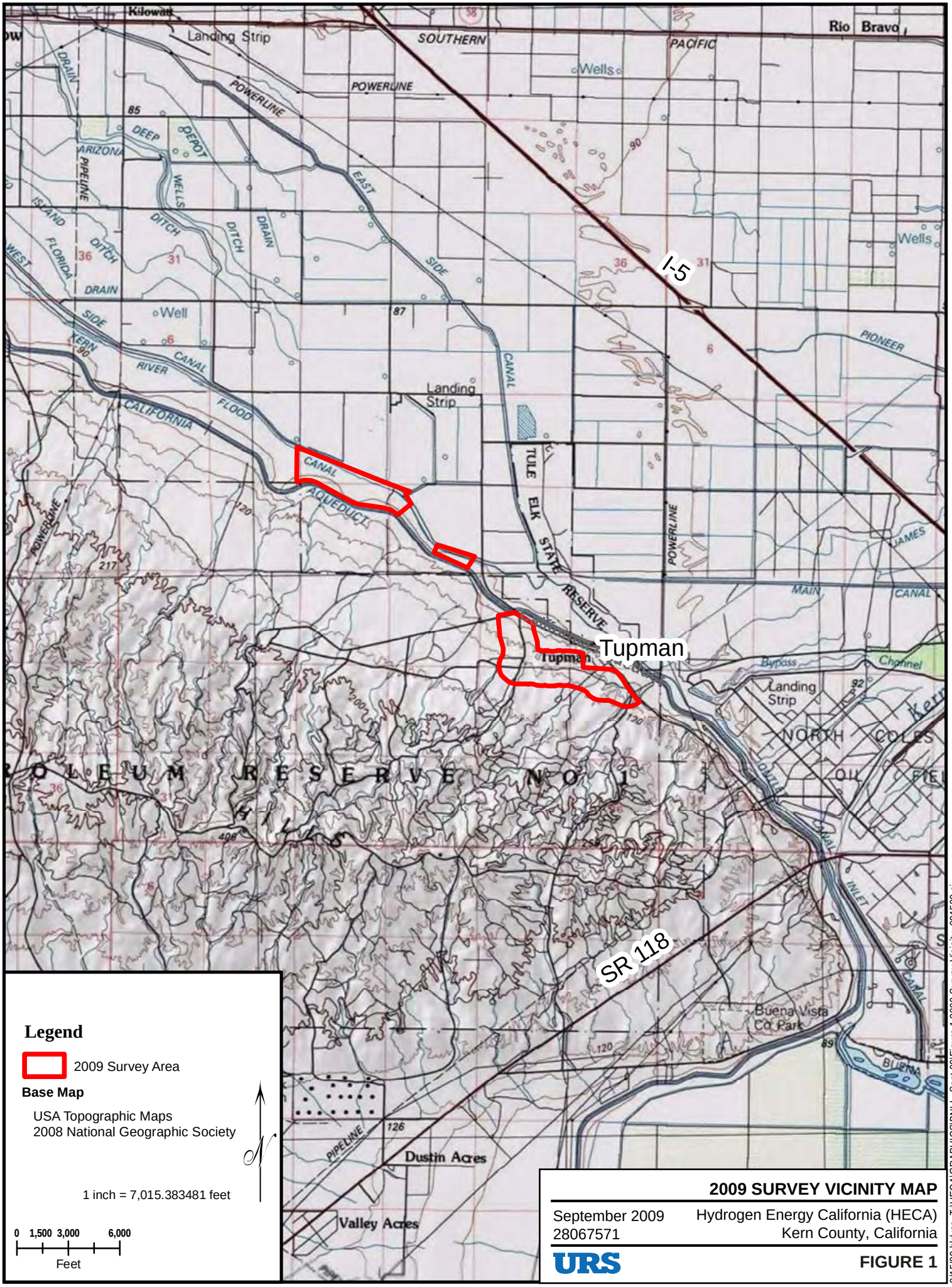
Breeding Birds

Breeding was confirmed for Northern mockingbird (*Mimus polyglottos*), lesser nighthawk (*Chordeiles acutipennis*), rock wren (*Salpinctes obsoletus*), lark sparrow (*Chondestes grammacus*), and sage sparrow (*Amphispiza belli*). The location, number, and method of confirmation are detailed in Table 1. Nest sage sparrows are considered a Federal Species of Conservation Concern.

Table 1
Breeding Birds Activity, 2009

Species	Location	Number of Breeding Events	Evidence
Northern Mockingbird	Elk Hills	1	Nest with eggs – fledged young
Lesser Nighthawk	Elk Hills	2	Nest and fledged young
Lesser Nighthawk	Kern River Drainage	3	Three nests
Rock Wren	Elk Hills	2	Two family groups with fledged young
Lark Sparrow	Kern River Drainage	1	Family group with fledged young
Sage Sparrow	Elk Hills	1	Adult carrying food

Figures



2009 SURVEY VICINITY MAP

September 2009
28067571

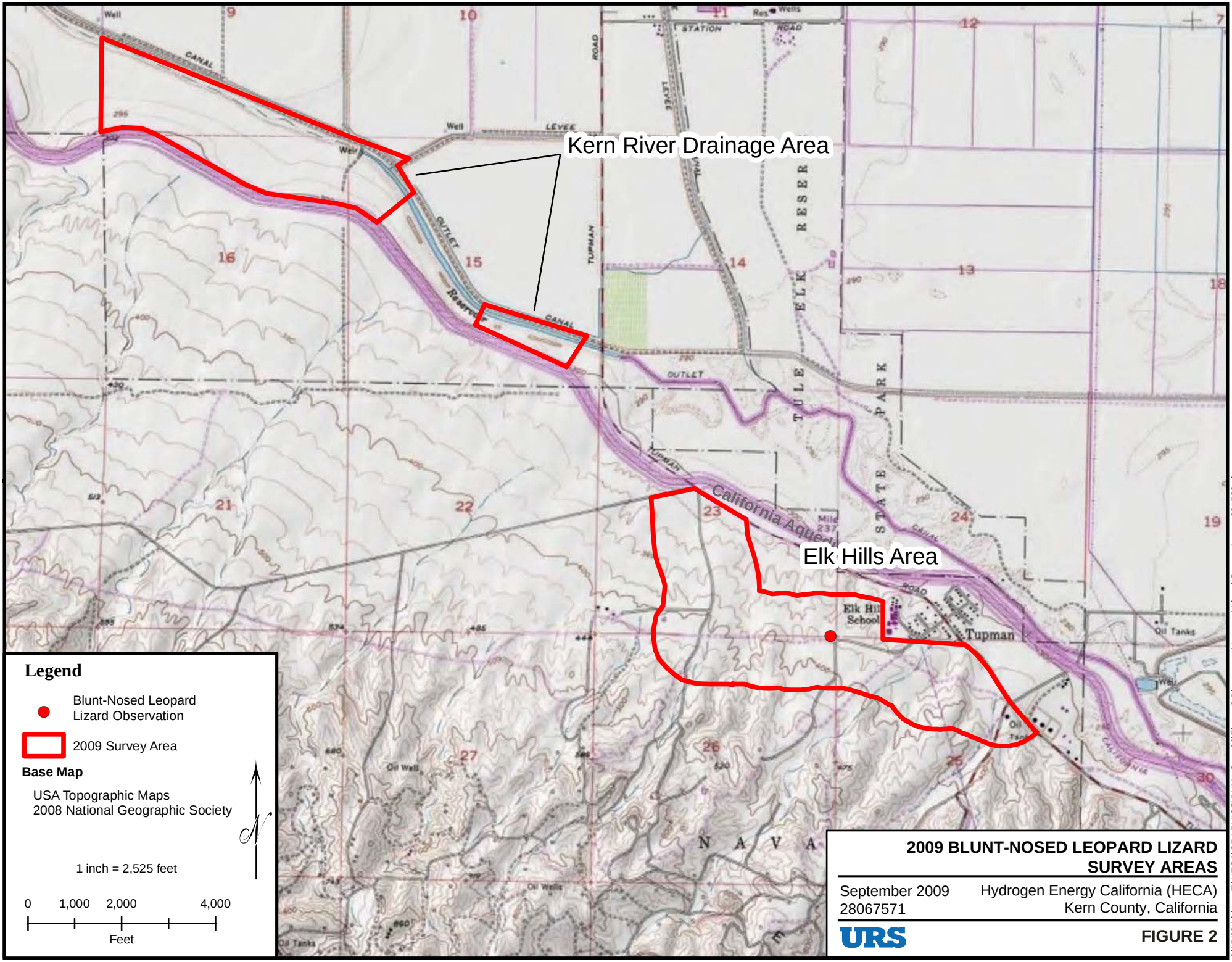
Hydrogen Energy California (HECA)
Kern County, California

URS

FIGURE 1

T:\PROJECTS\Heca\maps\Figure 1 2009 Survey Vicinity.mxd - 8/20/2009 @ 12:26:22 PM

9/15/09 hk/vsa..T:\HECA\GRAPHICS\BNLL_Sept 09\Figure 1 2009 Survey Vicinity_091509.ai


Kern River Drainage Area
Elk Hills Area
Legend
Blunt-Nosed Leopard Lizard Observation
2009 Survey Area
Base Map
USA Topographic Maps
2008 National Geographic Society
1 inch = 2,525 feet
0 1,000 2,000 4,000
Feet
2009 BLUNT-NOSED LEOPARD LIZARD SURVEY AREAS
September 2009
28067571
Hydrogen Energy California (HECA)
Kern County, California
URS
FIGURE 2
\\S2022k3002\smgis\PROJECTS\Heca\maps\Figure 2 2009 Blunt-nosed Leopard Lizard Survey Areas.mxd - 8/20/2009 @ 2:00:14 PM
9/15/09 hk/vsa..T:\HECA\GRAPHICS\BNLL_Sept 09\Figure 2 Blunt-nosed Leopard Lizard Survey Areas_091509.ai

Appendix A

Survey Conditions and Findings

Survey Summary for Elk Hills Area, 2009

Survey	**1**	**2**	**3**	**4**
Date	April 23	May 5	May 8	May 19
Start Time	8:10	9:13	10:40	7:45
Start Temp. (F)	77	78	92	77.8
End Time	10:09	11:05	12:31	10:00
End Temp. (F)	90	82.5	95	86
Lizards	*G.s.*: 0 *U.s.*: 100 *A.t.*: 8 *S.o.*: 0	*G.s.*: 0 *U.s.*: 117 *A.t.*: 8 *S.o.*: 0	*G.s.*: 0 *U.s.*: 117 *A.t.*: 10 *S.o.*: 0	*G.s.*: 0 *U.s.*: 103 *A.t.*: 6 *S.o.*: 1
Snakes				*C.v.*: 1
Mammals		*A.n.*: 2	*A.n.*: 1	
Level II	KE, WV	KE, WV	CE, AB, KE	AB, CE, KE
Level I	AB, CE, DK, RM	AB, CE, DK, RM	RM, DK	RM, DK

Survey	**5**	**6**	**7**	**8**
Date	May 20	May 21	May 22	June 15
Start Time	8:10	8:25	7:50	10:05
Start Temp. (F)	77	79	77	77
End Time	10:30	10:20	9:30	12:13
End Temp. (F)	83	91.5	81	90
Lizards	*G.s.*: 1 *U.s.*: 114 *A.t.*: 5 *S.o.*: 0	*G.s.*: 0 *U.s.*: 113 *A.t.*: 5 *S.o.*: 0	*G.s.*: 0 *U.s.*: 157 *A.t.*: 3 *S.o.*: 0	*G.s.*: 0 *U.s.*: 211 *A.t.*: 14 *S.o.*: 0
Snakes	*C.v.*: 1			
Mammals	*A.n.*: 1	*A.n.*: 4	*A.n.*: 1	
Level II	AB, CE, KE	KE, WV, CE	AB, CE, WV	AB, RM
Level I	RM, DK	RM, DK	RM, DK	DK, RC, JB

Survey	**9**	**10**	**11**	**12**
Date	June 16	June 22	June 29	July 10
Start Time	8:35	8:43	7:30	7:37
Start Temp. (F)	77	88	86	77
End Time	11:43	10:45	9:30	9:40
End Temp. (F)	84	84	94.5	86
Lizards	*G.s.*: 0 *U.s.*: 287 *A.t.*: 10 *S.o.*: 0	*G.s.*: 0 *U.s.*: 432 *A.t.*: 27 *S.o.*: 0	*G.s.*: 0 *U.s.*: 370 *A.t.*: 11 *S.o.*: 0	*G.s.*: 0 *U.s.*: 385 *A.t.*: 6 *S.o.*: 0
Snakes			*C.v.*: 1	
Mammals		*A.n.*: 3	*A.n.*: 1	*A.n.*: 5
Level II	AB, RM	AB, RM, CE	RM, CE	WV, RM, CE
Level I	DK, RC, JB	RC, JB	DK, RC, JB	RC, JB

Survey Summary for Kern River Drainage, 2009

Survey	**1**	**2**	**3**	**4**
Date	April 22 and 23	May 5	May 8	May 19
Start Time	7:43 / 10:28	11:30	8:23	8:00
Start Temp. (F)	78 / 87	90	78	77
End Time	9:40 / 11:11	12:50	9:48	10:30
End Temp. (F)	95 / 86	95	88	89.5
Lizards	*G.s.*: 0 *U.s.*: 54 + 14 *A.t.*: 12 + 1 *S.o.*: 1 + 0	*G.s.*: 0 *U.s.*: 29 *A.t.*: 23 *S.o.*: 0	*G.s.*: 0 *U.s.*: 51 *A.t.*: 18 *S.o.*: 0	*G.s.*: 0 *U.s.*: 28 *A.t.*: 12 *S.o.*: 0
Snakes				*L.g.*: 1
Level II	KE, WV / WV	KE, WV	KE, CE, AB	WV
Level I	AB, CE, DK, RM	AB, RM, DK, CE	DK, RM	RC, JB

Survey	**5**	**6**	**7**	**8**
Date	May 20	May 21	May 22	June 15
Start Time	8:00	9:07	9:50	9:45
Start Temp. (F)	80	77	87.5	77
End Time	10:35	11:00	11:12	12:10
End Temp. (F)	89.5	87	87.5	88
Lizards	*G.s.*: 0 *U.s.*: 34 *A.t.*: 23 *S.o.*: 0	*G.s.*: 0 *U.s.*: 73 *A.t.*: 18 *S.o.*: 0	*G.s.*: 0 *U.s.*: 49 *A.t.*: 9 *S.o.*: 0	*G.s.*: 0 *U.s.*: 127 *A.t.*: 6 *S.o.*: 0
Snakes				*C.v.*: 1
Level II	WV	AB	AB, CE, WV	WV, KE, CE
Level I	RC, JB	RC, JB	RM, DK, JB, RC	

Survey	**9**	**10**	**11**	**12**
Date	June 16	June 22	June 29	July 10
Start Time	8:20	8:30	7:26	8:03
Start Temp. (F)	78	77	84	77
End Time	10:50	11:00	9:48	10:02
End Temp. (F)	84	94	95	86
Lizards	*G.s.*: 0 *U.s.*: 18 *A.t.*: 5 *S.o.*: 0	*G.s.*: 0 *U.s.*: 113 *A.t.*: 16 *S.o.*: 0	*G.s.*: 0 *U.s.*: 178 *A.t.*: 6 *S.o.*: 0	*G.s.*: 0 *U.s.*: 108 *A.t.*: 7 *S.o.*: 0
Snakes			*C.v.*: 1	
Level II	KE, CE	KE	KE, AB	AB
Level I	AE	DK, AE	AE	AE, BO

Definition of Abbreviations:

<u>Genus and species</u>

G.s. = *Gambelia sila*

U.s. = *Uta stansburiana*

A.t. = *Aspidoscelis tigris*

S.o. = *Salpinctes obsoletus*

C.v. = *Crotalus viridis* (Rattlesnake)

A.n. = *Ammospermophilus nelsoni*

<u>Surveyors</u>

AB = Alyssa Berry

JB = Jessica Birnbaum

RC = Ronald Cummings

KE = Katheryn Eldridge

CB = Cletis England

AE = Andrew Evans

DK = David Kisner

RM = Robin Murray

WV = Wayne Vogler

Appendix B

Surveyors' Resumes

URS

Alyssa J. Berry

Staff Biologist

Overview

Mrs. Berry is a field biologist with over four years of experience restoring native habitat and monitoring threatened and endangered species. Her conservation efforts have included ecological restoration, concentrating on the re-vegetation of disturbed habitat with genetically local, native plant species. Alyssa has propagated site specific grassland, chaparral, riparian and coastal dune species for ecological restoration. She has aided in the design and installation of several restoration sites. Alyssa's survey work has covered areas of the coastal dunes of the central coast, the high desert region of Northern California, Mojave desert, and San Joaquin Valley, the Los Padres National Forest, the Klamath National Forest, Johnson Valley and Carrizo Plains. More recently Alyssa has expanded her herpetological survey experience to include blunt-nosed leopard lizard and California tiger salamander, and has obtained a U.S. Fish and Wildlife Service Recovery Permit for California red-legged frog.

Wildlife Experience

California Red-legged Frog (*Rana aurora draytonii*)
Over 50 hours of positive contact,
U.S. Fish and Wildlife Recovery Permit TE206825-0, issued July 2, 2009

- Construction monitoring and relocation of California red-legged frogs for the Winchester Canyon Road Culvert Repair Project, Santa Barbara County, CA.
- Biology and Management of California red-legged frog Workshop, Elkhorn Slough National Estuarine Research Reserve, Instructors, Dr. Galen Rathbun and Dr. Norman Scott.
- Guadalupe, CA- Evening eye-shine surveys to monitor presence/absence of CRLF in newly created wetlands within the Guadalupe Soil Remediation site.
- Los Padres National Forest, Santa Barbara, CA - Surveyed for California red-legged frog egg masses, tadpoles, sub-adults and adults. Captured all life stages to measure morphological characteristics. Used Garmin GPS waypoints to map locations of individuals and areas of critical, potential and unsuitable habitat. Performed night surveys to monitor for breeding individuals, using eye-shine techniques.

Blunt-nosed leopard lizard (*Gambelia sila*)
Level II surveyor

- California Valley, CA – Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol.
- Belridge, CA- Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol. Identified blunt-nosed leopard lizards at a reference site.

Areas of Expertise

Monitoring Threatened and Endangered Amphibians of California
Wildlife Surveys
Habitat Assessment
Vegetation Surveys
Habitat Restoration

Years of Experience

With URS: >2 Year
With Other Firms: 2 Year

Education

BA/Earth and Environmental Science/2004/Wesleyan University, CT

Course Work in Animal Diversity, Ornithology at Santa Barbara City College/2006

Permits

U.S. Fish and Wildlife Recovery Permit (TE206825-0) for California Red-Legged Frogs.

Specialized Training

- HAZWOPER Annual Refresher July 2009
- Loss Prevention System August 2007
- Smith Systems Driver Training June 2007
- First Aid/CPR/AED December 2007
- California Tiger Salamander Workshop April 2009

- Coalinga, CA - Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol.

Arroyo Toad (*Bufo californicus*)
Over 30 hours of positive contact

- Los Padres National Forest, Santa Barbara, CA - Surveyed for Arroyo toad egg strings, tadpoles, sub-adults and adults. Captured all life stages to measure morphological characteristics. Used Garmin GPS waypoints to map locations of individuals and areas of critical, potential and unsuitable habitat. Performed night surveys to monitor for breeding individuals, using eye-shine techniques.

California tiger salamander (*Ambystoma californiense)*

- Santa Maria, CA –Under the supervision of Tom Olson and authorization of his recovery permit, visually evaluated burrows with a scope to determine presence of California tiger salamanders and hand excavated vacant burrows to prevent future use. Perform daily early morning clearance surveys to detect California tiger salamanders prior to construction activities, from March 2008 to present.

Desert Tortoise (*Gopherus agassizii*)
Over 16 hours of positive contact

- Attended the Desert Tortoise Council's *Introduction to surveying, monitoring and handling techniques workshop.*
- Conducted USFWS Protocol surveys for DT in Johnson Valley, CA.

San Joaquin Kit Fox (*Vulpes macrotis mutica*)
Over 7 hours of positive contact

- California Valley, CA – Surveyed for San Joaquin kit fox using the CA Department of Fish and Game guidelines for spotlighting, under the supervision of Paul Collins, curator of Santa Barbara Natural History Museum.

Small Mammal Trapping

- California Valley, CA- Processed small mammal traps, capturing San Joaquin pocket mice (*Perognathus inornatus),* under the permit and training of Curtis Uptain.
- California Valley, CA –Under the permit and training of Paul Collins, curator of Santa Barbara Natural History Museum, baited Sherman's traps and processed small mammals, including San Joaquin pocket mouse, California pocket mouse (*Chaetodipus californicus)* and Heermann's kangaroo rat (*Dipodomys heermanni).*
- Guadalupe Dunes, CA – Processed small mammals under the supervision of Jane Donaldson, including California pocket mouse and Heermann's kangaroo rat.

Swainson's Hawk (*Buteo swainsonii*)
20 hours of positive contact

- Macdoel, CA – Performed nest searches to locate Swainson's hawk fledglings and pairs. Banded individuals and recorded band numbers of previously banded individuals.

Northern Goshawk (*Accipiter gentilis*)
5 hours of positive contact

- Klamath National Forest - Performed transect surveys while playing recorded vocalizations to solicit a response from Northern goshawks. Performed nest searches.

Habitat Restoration Experience

- Developed a restoration plan for six wetland pools designed for California red-legged frogs, California tiger salamanders and Western spadefoot toads, including specification for plant species to be planted, monitoring and maintenance procedures and irrigation at the Casmalia Landfill, CA.
- Conducted annual vegetation transect monitoring to measure plant cover and diversity of restoration sites.
- Composed annual restoration monitoring reports for the Santa Barbara Airport wetland restoration. Analysis included percent native and non-native cover, percent survival and percent cover by species.
- Assisted in the restoration of tidal wetlands at the Santa Barbara Airport by collecting local, California native plant seed and propagating native plants for re-vegetation.
- Assisted in restoration of disturbed coastal dunes by collecting genetically local, native plant seed.
- Assisted in the bluff's restoration at Nicholas Canyon State Park, Malibu by in-planting 2,000 native plants.
- Assisted in restoration of the Santa Barbara County landfill by installing irrigation systems, planning and planting 1,000 California native plants.
- Removed invasive weeds, including tamarisk, yellow/purple star-thistle and pampas grass from the Los Padres National Forest.

URS

Vegetation Survey Experience

- Orcutt, CA-Created vegetation community maps using the Sawyer and Keeler-Wolfe, Rapid Assessment method for over 1400 acres of oil field property.
- Bakersfield, CA- Conducted a rare plant survey along a pipeline linear to document sensitive plant species prior to pipeline removal.
- Orcutt, CA- Conducted rare plant surveys throughout the Careaga oil field lease to document sensitive plant species within the property. Generated a report including maps of the observed species and recommendations for avoidance and conservation of identified species.
- San Bernardino NF, CA- Conducted vegetation surveys to map the presence/absence of the invasive weed, *Arrundo donax* along river channels.
- Los Padres NF, Santa Barbara District, CA- Conducted vegetation surveys to map the presence/absence of yellow star thistle.
- Los Padres NF, Santa Barbara District, CA-Conducted rare plant presence/absence surveys for the Santa Ynez false-lupine (*Thermopsis macrophylla* var. *angina*), Late-flowered mariposa lily (*Calochortus weedii var. vestus*) and the Refugio Manzanita (*Arctostaphylos refugioensis).*

Contact Information

URS Corporation
2625 S. Miller St., Suite 104
Santa Maria, CA 93455
Tel-Santa Maria: 805.361-1103
Cell: 805.729.1442
Alyssa_Berry@URSCorp.com

URS

Jessica Birnbaum

Biologist/Environmental Planner

Overview

Ms. Birnbaum is a Biologist in URS' Santa Barbara Office. She provides environmental assessment of planning projects (CEQA, NEPA and environmental regulations, permitting, and compliance) and fieldwork. She has supported document preparation, including editing for clarity and accuracy and writing portions of documents. Ms. Birnbaum's position at URS also involves botanical and wildlife surveys, endangered species habitat assessment, vegetation and stream monitoring, and habitat restoration.

Areas of Expertise

Biological Assessments Environmental Compliance
Field Investigation
Planning
Protocol Surveys for Special-Status Plant and Wildlife Species
General Wildlife Surveys
Endangered Species Surveys-
Level II Blunt-Nosed Leopard Surveyor
Construction Compliance and Monitoring
GPS and GIS mapping

Years of Experience

With URS: <2 Years
With Other Firms: 2 Years

Education

MS/Natural Resources: Planning and Interpretation/2007/
Humboldt State University
BS/Biology/2002/Trinity College

Registration/Certification

CDFG SC-801043-02
Level II Surveyor: Blunt-nosed leopard lizard survey protocol.

Biological Resource Reports

Biologist, Botanical Report for California Valley Solar Ranch Project, Carrizo Plain, San Luis Obispo County (In Preparation): Author of the botanical survey report for submittal to SunPower and the County.

Planner, Western Goleta Slough Wetland Restoration Project, Santa Barbara County, CA, The Land Trust for Santa Barbara County, November 2008 – present: Supported preparation of environmental documents, including the Project Description and Restoration Plan. Mrs. Birnbaum also assisted in obtaining environmental permits.

Planner, Santa Barbara, CA. Ekwill Street and Fowler Road Extensions Project, California Department of Transportation and the City of Goleta, October 2008-July 2009: The City of Goleta's (City's) Community Services Department is proposing infrastructure improvements in a portion of the City called "Old Town." This area can be described generally as mixed-use as it includes commercial, industrial, retail, residential and agricultural uses. Much of the Proposed Project is located within the Coastal Zone. Wrote Biological Environment section of EIR/EA.

Specialized Lists

Botanist

Biologist, California Valley Solar Ranch Project, Carrizo Plain, San Luis Obispo County (2009): Led crew of 3-6 biologists conducting focused botanical surveys for special-status plant species on approximately 3,000 acre site and mapped vegetation communities. Personally authored the botanical survey report for submittal to SunPower and the County.

Antelope Valley Solar Ranch 1, Antelope Valley, Los Angeles County (2009): Mapped vegetation communities and surveyed for special-status plant species on approx. 2,000 acre site. URS submitted the biota report, which contained botanical survey results, to County SEATAC in August 2009.

Biologist, Vegetation Restoration Monitoring, Santa Barbara, CA. Santa Barbara Airport Wetland Restoration Project, City of Santa Barbara, June 2008-present: Assisted in restoration for 65 acres of wetland, coastal sage scrub, and riparian habitats. Monitoring program consisting of point-intercept transect and quadrat data collection and maintenance monitoring. Participated in native seed collection. Supported the production of annual reports detailing restoration success.

Wetland Biologist

Field Biologist, Jurisdictional Wetland Determination, California Valley, CA, Renewable Energy, July 2008: URS is aiding with their planned 250 MW solar ranch, which would be located in San Luis Obispo County's California Valley. Ms. Birnbaum conducted jurisdictional wetland delineation surveys for the proposed project site.

Wetland Delineation Mapping, Santa Barbara, CA. Santa Barbara Airport Wetland Restoration Project, City of Santa Barbara. Performed wetland delineation mapping for 40 acres in Goleta Slough. Aided in authoring the summarization report.

Jurisdictional Determination, Antelope Valley, CA. NextLight. Performed jurisdictional determination mapping for a 2,000 acre site in the Mojave Desert. Lead author for the report. January 2009.

Wildlife Biologist

Blunt-nosed leopard lizard (*Gambelia sila*)

Blunt-Nosed Leopard Lizard Survey, California Valley, CA. SunPower Corporation Systems, May-September 2009. Performed CDFG protocol survey to assess habitat quality for Blunt-Nosed Leopard Lizard for a 4,575 acre site in the Carrizo Plain.

Biologist, Blunt-Nosed Leopard Lizard Surveys, Bakersfield, CA, Hydrogen Energy California (HECA), May 2009-July 2009: The HECA project is an Integrated Gasification Combined Cycle power plant that will take petroleum coke, biomass, coal or blends of each, combined with non-potable water to convert them into hydrogen and carbon dioxide (CO2). The hydrogen gas will be used to fuel a net 250-megawatt power station that will provide new, clean electric power to 150,000 homes in the local community. Conducted protocol level surveys for blunt-nosed leopard lizard.

Desert Tortoise (*Gopherus agassizii*)

Biologist, 550 mw Solar Thermal Site in Johnson Valley, CA, Renewable Energy, June-July 2008: Performed USFWS protocol desert tortoise surveys on a 9,315 acre site and 10 mile long transmission and gas routes. Coordinated with regulatory agencies on biological resource issues and potential mitigation. Technical reporting and environmental review is currently in preparation.

Field Biologist, Desert Tortoise Surveys, San Bernardino Mojave Desert CA, Renewable Energy, May 2008: URS scope currently

includes protocol biological surveys for a large-scale solar project site being considered in the San Bernardino County, California, including Desert Tortoise surveys. Ms. Birnbaum conducted presence/absence surveys for the Desert Tortoise.

Small Mammal Trapping
Field Biologist, Small Mammal Surveys, California Valley, CA, Renewable Energy, July 2008: URS is aiding with their planned 250 MW solar ranch, which would be located in San Luis Obispo County's California Valley. Ms. Birnbaum conducted small mammal surveys for the proposed project site.

Professional Societies/Affiliates

California Native Plant Society

Specialized Training

2009: Blunt-Nosed Leopard Lizard Identification Workshop, Wildlife Society, Bakersfield, Ca

2009: Introduction to the Second Edition of the Manual of California Vegetation Workshop, CNPS, John Sawyer, Tod Keeler-Wolf, and Julie Evans, Yolo, Ca

2009: Measuring and Monitoring Plant Populations and Vegetation Workshop, California Native Plant Society 2009 Conservation Conference, John Willoughby, Sacramento, Ca

2008: Clean Water Act Regulatory Updates, presented by the Association of Environmental Professionals, Ventura, Ca

Chronology

6/08- Present: URS Corporation, Santa Barbara, CA.
11/07 – 6/08: URS Corporation, Sacramento, CA.
01/05 – 08/07: Masters of Science study, Humboldt State University.
06/04 – 11/04: Biological Technician, USDA Forest Service – Sierra Nevada Research Center, Quincy, CA.
06/03 – 10/03: Team Leader, Student Conservation Association – Seeds of Success, Prineville, Oregon.

Contact Information

130 Robin Hill Road, Suite 100
Santa Barbara, CA 93117
805-964-6010 ext. 421 phone
805-964-0259 fax
Jessica_birnbaum@urscorp.com

URS

Ronald R. Cummings

Senior Biologist

Overview

Mr. Cummings has over twenty years of experience in wildlife and fisheries management and extensive experience in project and sub-watershed level NEPA analysis for determining effects and mitigations for species and habitats. Mr. Cummings has experience in writing habitat assessments; habitat improvement projects; wildlife surveys; NEPA and CEQA documentation; program planning; ESA Section 7 Consultation with U.S. Fish and Wildlife Service; cooperation with other federal and state agencies, and private individuals. General knowledge of West Coast habitats and species, with emphasis on Northern spotted owls (Federal listed), California spotted owl, burrowing owl, great gray owl, Northern goshawk, peregrine falcon (previously Federal listed), bald eagle (Federal listed), willow flycatcher, mule deer, Pacific fisher, kit fox, blunt nosed leopard lizard (Federal listed), and valley elderberry longhorn beetle (Federal listed).

Areas of Expertise

Wildlife field surveys;
Environmental analysis: NEPA and ESA Section 7 Consultation;
Biological Evaluations
Biological Assessments
Habitat management

Years of Experience

With URS: <1 Year
With Other Firms: 20 Years

Education

BS/General Biology/1985/Oregon State University, Corvallis, OR

Registration/Certification

HAZWOPER 40-hour
PASSPORT Contractor Safety

Project Specific Experience

Senior Biologist, URS Corporation, Santa Barbara, CA. December 15, 2008 to present.

- Senior Biologist. Conducted biological field assessments for proposed solar power projects in the Carrizo Plain and San Joaquin and Antelope Valleys, California.
- Species included burrowing owl, blunt nosed leopard lizard, San Joaquin kit fox, small mammals, and avian species as well as terrestrial habitat and wildlife corridor assessments.
- Performed an inventory of Joshua tree seedlings within a proposed project site.
- Assisted in the preparation of project analysis documents including Biological Constraints Analysis (BCA) and Burden of Proof for Sensitive Ecological Areas within Los Angles County.

Wildlife Biologist, Mariposa and Minarets Ranger Districts, Sierra National Forest, North Fork, CA. District September, 1992 to June, 2006:

- Served as terrestrial wildlife representative on many project planning Interdisciplinary Teams to ensure projects complied with applicable laws & regulations (ESA, NEPA, NFMA, Forest Plan, etc.).
- Projects included timber sales, OHV use areas, mining claims, forest stand improvement, habitat enhancements, campground management, road construction and reconstruction, prescribed burns, watershed improvement, special use permits, recreational events, telecommunications and electrical infrastructure, plantation management, gopher control, and broad-scale management plans

including wilderness areas and sub-watershed-scale environmental assessments.

- Developed habitat and species mitigation measures as part of project planning process. Wrote dozens of BEs, BAs, and sections of EA analysis documents such as Affected Environment, Current Condition, Mitigations, and Project Effects. Was project manager for one timber sale project and a gopher control project (wrote the entire EA for each). Contributed to the development of an EIS for the long-term management of the Ansel Adams and John Muir wilderness areas. Also developed and analyzed stand-alone habitat improvement projects.
- Performed species-specific field surveys using standardized survey protocols including: California spotted owl, great gray owl, bald eagle, peregrine falcon, willow flycatcher, and Pacific fisher. Planned district WL and habitat survey program including personnel and equipment needs.
- Maintained data and wrote reports on the operational aspects of the wildlife program.
- Served as District WL liaison with cooperating agencies including NPS, BLM, FWS, CDFG, Caltrans, PG&E, County Governments, Tribal Governments, Private Consulting Firms, and private individuals.
- Program Manager for District WL program. Developed projects, planned budget, supervised survey crews and volunteers, provided public information & WL interpretation, integrated WL program with other District resources and programs.
- Performed other duties supporting the District resource management effort: firefighting duties including map-making and radio operation, timber-sale marking, assisting archeological explorations, serving on District Safety Committee and Employee Association, assisted Fish Biologist and Botanist with field work.
- Attended several Continuing Education short courses including "Managing Forested Ecosystems", "Conservation Biology", "Wildlife Habitat and Plant Management", "Resource and Fuels Interaction" "Leadership Improvement Training", as well as many shorter training sessions and annual meetings.

Wildlife Biologist, Klamath and Chemult Ranger Districts, Winema National Forest, Klamath Falls, OR. February, 1989 to September, 1992:

- Started at GS-5 Biological Tech and was promoted to GS-7 Biologist within 1 year
- Primary duty was managing the districts Northern spotted owl survey program: planning and performing surveys, managing survey crews, mapping and reporting results, mapping spotted owl habitat areas.
- Performed on project planning Interdisciplinary Teams to provide wildlife input and mitigation measures for timber management, prescribed burns, and other projects. Learned the NEPA process and Section 7 ESA consultation.

Languages
English
Conversational Spanish

Specialized Training
2009 Blunt-nosed leopard lizard survey protocol
2009 PASSPORT Contractor Safety Orientation
2009 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER)
2000 Managing Forested Ecosystems
1999 Wildlife Habitat and Plant Management
1999 Leadership Improvement Training
1998 Fire Behavior S-290
1996 Ecosystem Management Workshop
1995 40-Hour Supervisory Training
1993 Resource and Fuels Interaction

Chronology
09/1985 – 10/1987: Peace Corps, Ecuador, South America
02/1989 – 09/1992: USDA Forest Service, Winema National Forest, Klamath Falls, Oregon
09/1992 – 06/2006: USDA Forest Service, Sierra National Forest, North Fork, California
06/2006 – 12/2008: Advanced Living Solutions, Mariposa, California (Self Employed)
12/2008 – Current: URS Corporation, Santa Barbara, California

Contact Information
URS Corporation
130 Robin Hill Road, Suite 100
Santa Barbara, CA 93117
Tel: 805.964.6010
Fax: 805.964.0259
Ronald_cummings@urscorp.com

URS

Katheryn A. Eldredge

Biologist

Areas of Expertise

Wildlife Biology, Botany

Years of Experience

With URS: <1 Year
With Other Firms: 27 Years

Education

B.S., Biology, 1993, California State University, Bakersfield
B.A., Anthropology, 1978 California State University, Bakersfield

Overview

Ms. Eldredge has over 27 years of industry experience, 18 of which are as a biologist. Her experience includes:

- Coordinating and conducting all on-site biological related facets of client's projects, such as conduct pre- and post- plant and animal surveys, monitor site activities, and administer project specific endangered species training.
- Coordinating and conducting all off-site biological related tasks including permit writing, pre-and post- project reporting, preparing trapping and monitoring plans for listed species, and biological input into multifaceted reports, such as EIRs.
- Coordinating and conducting listed species surveys to agency protocol levels, including the blunt-nosed leopard lizard.
- Consulting with clients and regulatory agencies.
- Development and implementation of revegetation requirements.
- Managing cultural resources for a major oil and gas operator.

Project Specific Experience

Trapping and Handling, Biologist, Elk Hills, CA**:** Performed live trapping for several endangered and listed animal species, including the San Joaquin kit fox, San Joaquin antelope squirrel, giant kangaroo rat, San Joaquin pocket mouse, and short-nosed kangaroo rat.

Seismic Studies, Biologist, throughout CA**:** Monitor seismic crews, surveyors, shot-hole crews. Write initial report and work plan prior to initiation of project. Write daily reports, acquire permits as needed for listed species, and conduct preactivity surveys.

Population Monitoring, Biologist, Kern County, CA**:** Performed driving and walking transects during summer and fall months to monitor blunt-nosed leopard lizard population. At least 100 positive identifications were made for this species. Surveys were performed at CDFG protocol level. Species specific surveys for small mammals and San Joaquin kit fox performed at protocol levels. Kit fox monitoring experience includes den monitoring, dusting dens and identifying tracks, assessment of usage (active and natal), and spotlighting.

Baseline Studies, Biologist, Cuyama Valley, CA**:** Perform line intersect and density plant studies for acquisition of initial habitat baseline information. Summarize results into report format.

Permit and Document Writing, Biologist, throughout CA**:** Write biological input for EIRs and HCPs. Complete state and federal Incidental Take Permits and Lake and Streambed Alteration Permit for CDFG. Write documentation needed to support CEQA regulations.

Revegetation and Restoration, Biologist, throughout CA**:** Preparation and implementation of revegetation and restoration plans. Perform tasks such as monitor, reporting, supervise initial restoration/planting activities and make field corrections to sites.

Conservation Planning, Biologist, throughout CA: Locate and acquire suitable mitigation lands that meet local state and federal requirements. Assist in land acquisition in cooperation with mitigation land banks.

Cultural Resources Management, Anthropologist, Elk Hills, CA: Managed all aspects of cultural resources at the Naval Petroleum No. 1 facility, including contribution to Cultural Resources Management Plan, maintenance of known sites, and management of local prehistoric and historic artifact collection.

Specialized Training

Blunt-nosed Leopard Lizard Identification Class

Wetlands Delineation

Chronology

01/09-Present: URS Corporation, Biologist, Bakersfield, CA

12/00-01/09: RAM Environmental Engineering, Biologist, Bakersfield, CA

06/98-12/00: Quad-Knopf, Inc., Biologist/Cultural Resources Manager, Elk Hills, CA

12/03-03/97: Enterprise Advisory Services, Inc., Biologist/Cultural Resources Manager, Elk Hills, CA

03/93-12/93: EG&G Energy Measurements, Inc., Biologist/Cultural Resources Manager, Elk Hills, CA

01/92-03/92: Biosystems Analysis, Inc., Biological Technician, Bakersfield, CA

08/91-11/92: The Planning Center, Biological Technician, Bakersfield, CA

03/90-08/91: Quad Consultants, Biological Technician, Bakersfield, CA

11/86-02/90: Chevron USA, Inc., Environmental/Geological Technician, Bakersfield, CA

03/81-11/86: Gulf Oil Corporation, Geophysical Technician, Bakersfield, CA

Contact Information

URS Corporation
1518 Mill Rock Way, Suite 102
Bakersfield, CA 93311 United States
Tel: 661.398.9912
Fax: 661.617.1889
katheryn_eldredge@urscorp.com

URS

Cletis England

Biologist/Ecologist

Overview

Mr. England is an ecologist with experience working with a variety of native habitats along the Central California coast. Cletis' experience ranges from site assessments of industrial and commercial sites to restoring and enhancing native habitats and erosion control projects. He has over ten years of professional experience including botanical surveys and mapping, habitat assessment, habitat restoration design, implementation, and monitoring, wetland determinations, wildlife surveys, construction compliance and monitoring, and GIS mapping. Cletis' project experience has included working with federal, state, and local agencies to find solutions to project constraints that meet the goals of several parties with conflicting interests to facilitate the successful completion of projects. Cletis has developed and instituted monitoring protocols, developed restoration plans, and has monitored multiple development projects.

Areas of Expertise

- Birds of the Western United States
- Site Assessment and Monitoring of Endangered Birds of California
- Habitat Assessment
- Wildlife Survey
- Botanical Assessment
- Permit Compliance
- Construction Monitoring

Years of Experience

With URS: 1 Year
With Other Firms: 10 Years

Education

B.S./Ecology and Systematic Ecology/2000/Cal Poly, San Luis Obispo
A.S./Biology/1994/Cuesta Community College

Registration/Certification

2002/Adult CPR and First Aid/ CA
2002/Wilderness First Aid/CA
2002/National Safety Council Defensive Driver Training/CA/

Project Specific Experience

Land Rehabilitation Coordinator
Fort Hunter Liggett, CA July 2006 – March 2008

- Identified, evaluated and coordinated rehabilitation sites and erosion control projects
- Coordinated and oversaw implementation of long term revegetation plans and seasonal crews
- Researched methods to improve efficacy of various restoration projects and resources
- Coordinated with Environmental Division and Range Control Trainers
- Coordinated purchases and outsourcing for materials and subcontractors
- Identified and monitored invasive species treatment areas and appropriate control methods
- Collected and utilized native materials to augment rehabilitation efforts

Field Biologist/Project Manager
Sierra Delta Corporation,
November 2004 – June 2006

- Prepared Biological Assessments
- Prepared and coordinated environmental regulatory permits and consultations for projects
- Designed and prepared Habitat Mitigation / Restoration Plans
- Coordinated, managed, and monitored restoration projects
- Coordinated purchases and outsourcing for materials and sub-contractors
- Conducted target surveys for rare and sensitive plants and animals

Field Biologist
Althouse and Meade, Inc.,
March 2003 – November 2004

- Prepared Biological Assessments
- Served as environmental monitor for residential and commercial developments
- Conducted State and Federal protocol surveys / Special Status Species habitat assessments
- Developed G.I.S. habitat maps and site plans for environmental planning
- Conducted salmonid habitat assessment and coordinated restoration projects
- Generated preliminary wetland descriptions
- Prepared and tracked CDFG, USACE and RWQCB permits and agency consultations
- Implemented erosion control plans and operated a hydro-seeder

Fish Habitat Biologist
Hoopa Valley Tribal Fisheries Department,
August 2002 – November 2002

- Evaluated and monitored Coho salmon and anadromous fish habitat
- Supervised, trained, and evaluated technicians for multiple projects
- Analyzed and interpreted field data and prepared final reports
- Handled and assessed wild and hatchery fish at traps and weirs
- Prepared proposals and grant applications for project funding
- Conducted site reviews and biological monitoring of timber harvest plan areas
- Monitored sediment load and channel morphology to assess habitat changes
- Provided technical support, G.I.S. map generation, and document layout
- Investigated and prioritized stream reaches and uplands for enhancement projects
- Participated in Interdisciplinary Team for E.I.A. of timber management areas

Fish and Wildlife Scientific Aid
California Department of Fish and Game
May 2000 – July 2002

- Trained and supervised aids in project survey protocols for the High Mountain Lakes Project
- Trained seasonal aids in wilderness orienteering and plotting with GPS.
- Coordinated excursions into wilderness areas including equip. and supplies
- Researched and assisted in preparing land management plans for ecological reserves
- Assisted in budgeting expenses and equipment purchases

- Documented aquatic/terrestrial habitat and morphology of lakes and streams
- Tagged and herded fish, planted eggs and hatchery fish, and assisted in electrofishing streams
- Conducted land and vegetation surveys and created G.I.S. layers for habitat management
- Assisted in timberlands resource assessment
- Coordinated and implemented endangered species identification and monitoring
- Procured bids and contracts with private firms for state projects

Fish and Wildlife Technician
Camp Roberts Hunting and Fishing Program
April 1998 – Dec. 1999

- Collected, analyzed, and documented data on wildlife species
- Summarized data and wrote annual reports
- Operated pest removal project and water quality monitoring project
- Surveyed and monitored endangered species by radio telemetry, trapping, spotlighting, and mist netting
- Coordinated with military police and Fish and Game wardens to enforce military regulations and applicable laws, and issued hunting permits

Other Technical Experience

California Red-legged Frog

- Attended N.R.C.S. red-legged frog workshop at Pierdras Blancas Lighthouse, San Simeon, CA instructed by Galen Rathbun and Norman Scott (2003)
- Conducted protocol surveys for red-legged frogs at over 20 sites from Monterey, San Luis Obispo, and Santa Barbara Counties
- Positively identified and observed over 30 adult, over 50 sub-adult red-legged frogs, and over 20 larvae
- Conducted pre-activity surveys and pre-construction training sessions for projects in red-legged frog habitat

Other Rare and Sensitive Amphibians and Reptiles
Blunt-nosed leopard lizard

- Level II surveyor for Blunt-nosed leopard lizards (BNLL) with 12 confirmed adult sightings and multiple unconfirmed reported sightings of adults and juvenile BNLL.

Tupman, CA
California Valley, CA
Coalinga, CA
Belridge, CA
Lo Kern Ecological Reserve, CA

- Supervised and trained 6 Scientific Aides in protocol surveys for Mountian yellow-legged frog and Yosemite toad while working on the

High Mountain Lakes Project for the California Department of Fish and Game for 2 years.

Central and Southern Sierra Neveda Mountians, CA

- Conducted protocol surveys, identified and observed 9 adult and multiple sub-adult mountain yellow-legged frogs and larvae in the Emigrant Wilderness while working for the California Department of Fish and Game
- Conducted protocol surveys, identified, and observed 3 adult and multiple Yosemite toad larvae
- Identified and observed over 300 foothill yellow-legged frog adults, sub-adults, and larvae while working on the North Coast Watershed Assessment Program for the California Department of Fish and Game
- Identified and observed two adult arboreal salamanders during a Biological Assessment of Santa Margarita Ranch, San Luis Obispo County, California
- Identified and observed over 100 California newts on various Biological Assements conducted in San Luis Obispo County
- Identified and observed over 100 larvae and 9 adult spadefoot toads by visual observation, and hundreds of adults by acoustic observation during field work and Biological Assessments in San Luis Obispo County

San Joaquin Kit Fox

- Identified and observed one-collared fox at Camp Roberts National Guard Facility and two foxes encountered during various field surveys and Biological Assessments Experience includes spotlight surveys, burrow evaluations, and radio telemetry (Camp Roberts National Guard Facility, 1997-1999)

3 years experience conducting spotlight surveys with over 30 confirmed sightings of kit fox in Central California on private property in San Luis Obispo and Kern Counties.

Burrowing Owl

- Identified and observed over 25 adult owls during baseline surveys for the proposed Palo Prieto Conservation Bank and other field work in San Luis Obispo County
- 20 other individuals identified during surveys on other private properties during surveys.

Other Ornithological and Acoustics

- Instructed in the identification of birds by acoustics by Dr. Eric Johnson, California Polytechnic Institute, San Luis Obispo, California (1998)
- Conducted over 50 acoustic and visual surveys for migratory nesting birds
- Volunteered for mist-netting and banding for MAPS stations at Chorro Creek, San Luis Obispo County and Oso Flaco Lake, Guadelupe Dunes, Santa Barbara County

Rare Plants
Pismo Clarkia

- Identified, delineated, and assisted in the planning and protection of one distinct population during the planning phase of a residential development in Arroyo Grande, San Luis Obispo County, California
- Conducted target surveys for multiple species of listed listed and sensitive plant species.

Coho Salmon and Steelhead

- Identified, handled, and assessed hundreds of adult, smolt, and fry on the Trinity River Humboldt County while working as a Fisheries Biologist for the Hoopa Valley Indian Tribe
- Identified and observed over 300 juvenile steelhead in San Luis Creek, San Luis Obispo County, California
- Identified and observed 5 adult steelhead in Chorro Creek, San Luis Obispo County while working in coordination with Dave Highland, Native Fish Habitat Biologist with the California Department of Fish and Game.

Habitat Restoration and Revegetation

- Planned coordinated and supervised large and small scale restoration and revegetation projects for grassland, riparian, oakwookland, and wetland habitats.
- Designed and implemented native plant and seed stock harvest for utilization in restoration and revegetation projects

Specialized Training

- OSHA 40-Hour HAZWOPER
  September, 2008
- Smith Systems Driver Training
  August, 2008
- N.R.C.S. Red-legged frog workshop with Norm Scott
  2003
- Blunt-nosed Leopard Lizard Identification Workshop hosted by San Joaquin Wildlife Society May 6-7, 2009
- Loss Prevention System
  August, 2008

Chronology

04/98-12/99: Camp Roberts Hunting and Fishing Program/Camp Roberts National Guard Facility, CA
05/00-07/02: California Department of Fish and Game/Fresno, CA
08/02-11/02: Hoopa Valley Tribal Fisheries Department/Hoopa, CA
03/03-11/04: Althouse and Meade, Inc./Paso Robles, CA

11/04-06/06: Sierra Delta Corporation/Paso Robles, CA
07/06-03/08: Colorado State University/Fort Collins, Colorado

Contact Information

URS Corporation
2625 S. Miller St., Suite 104
Santa Maria, CA 93455
Tel: 805.349-7000
Cell: 805.917.9202
Fax: 805.739-1135
Cletis_England@urscorp.com

URS

Andrew Evans

Staff Scientist

Areas of Expertise

Structural Geology
Geomorphology
Petroleum Geology
Geologic Mapping & Field Methods
Geophysics
Sedimentary & Igneous Petrology

Years of Experience

With URS: ~2 Years

Education

BS/Geological Sciences/2007/University of California, Santa Barbara

Registration/Certification

2008/California Geologist in Training (GIT)

Overview

Mr. Andrew Evans is a staff geologist with experience in various aspects environmental consulting and remediation projects. His field experience includes soil classification, boring and trench logging, environmental sampling, and biological surveying. He has operational experience with basic air monitoring devices (PID, 5 gas monitors) and Tremble hand held GPS devices. He has assisted with the preparation of field assessment work plans and assessment reports related to a variety of oil field remediation projects. He has also assisted with various project management and project preparation activities such as historical research, permitting, Health and Safety plans, and project planning.

Awards

Edwin V. Van Amringe Scholarship (PCC), Miller Scholarship (PCC), Robert M. Norris Award in Field Geology (UCSB), Outstanding Graduating Senior Award (UCSB), Outstanding Academic Achievement Award (UCSB), Webb Award (UCSB)

Experience

Environmental Assessment

- Performed site assessment activities at a former oil-facility in East Cat Canyon, Santa Barbara County, California. Portions of the site were within a California Tiger Salamander Habitat. Directed excavation activities, site controls and collected soil samples. The assessment work was performed under permit with the County of Santa Barbara.
- Participated in environmental sampling for an ecological risk assessment at a former hazardous waste disposal facility.
- Assisted with the installation of wells and set up of soil vapor extraction system at a former oil-facility.

Blunt-nosed Leopard Lizard surveys

- California Valley Reference Site: Under the direction of a Level II surveyor, observed juvenile blunt-nosed leopard lizard in the wild.
- Elk Hills Project Site: Assisted with four surveys in 2009 – no blunt-nosed leopard lizards were detected.
- California Valley Project Site: Assisted with 28 surveys in 2009 – no blunt nosed leopard lizards were detected.

Specialized Training

- 10/2007 – 40 Hour HAZWOPER, Environmental Training and Compliance (Refresher: 10/08)
- 10/2007 – Chevron Loss Prevention Systems (LPS), URS Corporation
- 11/2007 – Smith Defensive Drivers Training, URS Corporation

- 12/2007 – CPR/AED and First Aid, Santa Barbara Co. Chapter Red Cross
- 04/2008 – Department of Transportation (DOT) and International Air Transport Association (IATA), URS Corporation
- 5/2008 – 8 Hour OSHA Supervisor Safety Training, URS Corporation
- 8/2008 – Shell YellowBook Safety Training
- 4/2009 – CPR/AED, Santa Barbara Co. Chapter Red Cross

Chronology

07/2007: Graduated from University of California, Santa Barbara
10/08/2007-present: URS Corporation, Santa Maria, California

Contact Information

URS Corporation
2625 S. Miller St., Suite 104
Santa Maria, CA 93455
Tel: 805.349-7000
Direct: 805.361-1111
Cell: 805.722-0614
Fax: 805.739-1135
Andrew_evans@urscorp.com

URS

David A. Kisner

Project Ecologist, Santa Maria Biology Group Leader

Overview

Mr. Kisner is an ecologist with extensive experience working with threatened and endangered birds within southern California coastal and riparian areas. David completed his Master's in Ecology through San Diego State University looking at the impact of the non-native Giant Reed (*Arundo donax*) on the riparian bird community. While in San Diego, David worked with the U.S. Geologic Survey for four years conducting presence/absence and nest monitoring surveys for Least Bell's Vireos and Southwestern Willow Flycatchers. David has a broad background in biology and has also worked for Santa Barbara County Planning and Development as a Biologist and Planner. David is currently managing the biology portion of environmental documents associated with power development projects in Southern California and is involved with a large-scale soil remediation and restoration projects.

Areas of Expertise

- Birds of the Western United States
- Site Assessment and Monitoring of Endangered Birds of California
- Habitat Assessment
- Wildlife Survey
- Botanical Assessment
- Permit Compliance
- Construction Monitoring

Years of Experience

With URS: 5 Years
With other firms: 12 Years

Education

MS/Ecology/2004/San Diego State University

BA/Biology, Evolution, & Ecology/1994/University of California, Santa Barbara

Specialized Training

- OSHA 40-Hour HAZWOPER
- OSHA 8-Hour Supervisor HAZWOPER
- Loss Prevention System
- Smith System Driver

Project Specific Experience

Project Management

- Biology Task Lead for Hydrogen Energy California, Kern County – Managed and authored section for environmental document assessing biological impacts associated with 315 acre power plant and associated linears. March 2008 to present.
- Biology Task Lead for General Electric Solar Project, Kern County – Managed and authored section for environmental document assessing biological impacts associated with 280 acre solar power project and associated linears. March 2009 to present.
- Biology Task Lead for Sentinel Energy Project, Riverside County – Managed and co-authored section for environmental document assessing biological impacts associated with 37 acre power plant and associated linears. January 2007 to present.
- Biology Task Lead for San Gabriel Generating Station, San Bernardino County - Managed and co-authored section for environmental document assessing biological impacts associated with 17 acre power plant and linears. February 2005 to May 2009.
- Wildlife Task Manager for the Guadalupe Dunes Restoration Project, San Luis Obispo County – Organized, coordinated, and oversaw wildlife monitoring and permit compliance of 2,700 acre soil remediation site. Communicated with On-site Environmental Coordinator regarding restoration, monitoring, coordinate operations with wildlife monitors, and reporting of sensitive species found on site. Oversaw monitoring efforts for Western Snowy Plovers, California Red-legged Frogs, small mammal trapping and numerous sensitive species. February 2006 to December 2008.

- Delhi Sands Restoration, San Bernardino County for SCE - Organized and oversaw the successful restoration of a half-acre site for the federally endangered Delhi Sands Flower-loving Fly. April 2006 to February 2009.

- Designated Biologist for SCE Mountainview Power Project, San Bernardino County – Organized and oversaw biological monitoring of 18 mile gas line and power plant construction site. Ensured construction was conducted according to permit conditions and worked with client and regulatory agencies to address biological concerns. April 2004 to April 2006.

- West Figueroa Bird Usage Study for the City of Santa Barbara – Conduct winter, spring, and breeding bird surveys to determine species usage and habitat values prior to proposed creek enhancement and native plant restoration efforts. January 2006 to July 2006.

- Project Manager and Lead Biologist for CalTrans SR 118/23 Widening Project, Ventura County – surveyed 5 miles of riparian habitat for Least Bell's Vireo and Willow Flycatchers. Managed project, contract biologist, and report production. 2004.

Sensitive Species Survey Experience

Least Bell's Vireo (*Vireo bellii pusillus*)

Over 350 positive contact hours

- Santa Clara and Ventura Rivers, Ventura County – Conducted presence/absence surveys for vireos and mapped territories. 2004 and 2005.
- San Timeteo River, Riverside County - Conducted presence/absence surveys for vireos and mapped territories. 2005.
- San Luis Rey River, San Diego County – Conducted area searches for Least Bell's Vireos. Monitored nest for fledging success, predation, and parasitism by Brown-headed Cowbirds. Banded nestlings with color bands. 2000 to 2003.
- Santa Barbara, Ventura, and Los Angels Counties - Conducted focused surveys for Least Bell's Vireos. 1998 and 1999.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Over 175 positive contact hours

- San Timeteo River – Riverside County - Conducted presence/absence surveys for vireos and mapped territories. 2005.
- Camp Pendleton, San Diego County – conducted area censuses for Willow Flycatchers and followed individuals and pairs through the breeding season. 2000 and 2001.
- Santa Barbara, Ventura, and Los Angels Counties - conducted focused surveys for Willow Flycatchers. 1999.
- Vandenberg Air Force Base, Santa Barbara County – conducted surveys for Willow Flycatchers and monitored nest for success, predation, and parasitism by Brown-headed Cowbirds. 1998.

Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)
Over 50 positive contact hours

- Tijuana River Estuary, San Diego – conducted passive surveys in the Tijuana River Valley in conjunction with sound study. 2002.
- Goleta Slough, Santa Barbara – conducted passive surveys in and around Goleta Slough to determine habitat usage. 1998 and 1999.
- Goleta Slough, Santa Barbara – assessed population dynamics and habitat selection of the Belding's Savannah Sparrows. 1993 and 1994.

Western Snowy Plover (*Charadrius alexandrinus nivosus*)
Over 130 positive contact hours

- Guadalupe Dunes, San Luis Obispo County – Assisted with nest searching and monitoring. July 2006.
- Coal Oil Point, Santa Barbara County –monitored Snowy Plovers, educated the public, and enforced beach use regulations. Recorded human, dogs, and other wildlife's affects on the plovers. November 2005 to February 2006.
- Guadalupe UNOCAL Oil Field Response Monitoring, Santa Barbara and San Luis Obispo Counties – searched for and monitored Snowy Plover nests. 1994 and 1995.
- McGrath Beach Natural Resource Damage Assessment, Ventura County – searched for and monitored Snowy Plover nests. Recorded the number, behavior, and localities of wintering Snowy Plovers. 1994.

California Least Tern (*Sterna antillarum browni*)
Over 30 positive contact hours

- Mission Bay Bird Usage Study, San Diego County – passive observation of Least Terns foraging and breeding within the study area. 2000 to 2002.
- McGrath Beach Natural Resource Damage Assessment, Ventura County – searched for and monitored Least Tern nests. Surveyed the beach, river mouth, and coastal dune pond for birds and signs of habitat damage. 1994.

California Red-legged Frog (*Rana aurora draytonii*)
Over 20 positive contact hours

- Guadalupe Restoration Project, San Luis Obispo County – assisted with quarterly eye-shine surveys, egg mass surveys, tadpole sampling, and day-time work zone clearances; adults, yearlings, tadpoles, and egg masses seen. March 2006 to present.
- *Rana* Capture and PIT Tag Training from Dr. Galen Rathbun. Training involved approximately 30 minutes of lecture followed by over 3 hours of field work, where participants practiced finding and capturing bullfrogs by hand, taking basic metrics (sex, age-class, total length, weight), toe-clipping, and PIT tagging. October 2006.

- Ventura River, Ventura County – assisted with USFWS protocol CRLF Surveys along the Ventura River. Captured numerous Bullfrogs located with the main Ventura River channel. 2004.
- Gaviota State Beach, Santa Barbara County – day time habitat assessment; adults and egg mass seen. 2004.

Blunt-nosed Leopard Lizard (*Gambelia sila*)
3 confirmed sightings

- Attended 2009 Blunt-nosed Leopard Lizard Identification Workshop and saw 2 adults during the field portion of the training.
- Bakersfield Area, Kern County - Have conducted 14 surveys at three different sites under a Level 2 surveyor. Saw one adult during 2009 surveys.

Desert Tortoise (*Gopherus agassizii*)
2 positive contact hours

- Johnson Valley Energy Project – Conducted protocol surveys on portions of 8,000 acre project site looking for desert tortoise, sign, tracks, scat, and burrows. Collectively, crew found five individuals; each was passively measured and burrows were assessed. 2008.

General Bird Surveys, Wildlife Surveys, and Habitat Assessment

- Santa Barbara Airport Bird Usage Studies – Conducted regimented observations of bird usage of control and experimental tidal basins to determine potential strike hazards, assessed breeding bird habitat, directed vegetation removal to minimize nesting within certain areas, located and monitored nests within study areas in order to ensure there were no "take" under the Migratory Bird Treaty Act, and conducted Belding's Savannah Sparrow and general bird observations in and around construction to ensure there were no impacts. 2004 to present.

- Lake Casitas Waterfowl and Bird Usage Study – conducted year round surveys of Lake Casitas for ducks, grebes, and other "aquatic" bird species. Surveys required determining the number, species, and location of all individuals. Fall 2004 to Winter 2005.

- Oxnard Plain Groundwater Recharge Project EIS/EIR – conducted surveys for Least Bell's Vireo and general wildlife within the project site. Compiled historic data, recent survey results, and third party observations and assessed potential impacts to the biologic resources by proposed project activities. Made suggestions for avoidance and mitigation measure to negate and/or minimize impacts. 2005

- National Forest Avian Point Count Assessment, Santa Barbara, Ventura, Los Angeles, and San Diego Counties – conducted point counts within four Southern California National Forests; coordinated field crew and access logistics. 2003

- Camp Pendleton MAPS sites, San Diego County – captured, measured, and banded riparian birds to determine productivity and survivorship. Supervised field crew in 2003. 2000 to 2003.

- Point Loma Breeding Bird Assessment, San Diego County – conducted point counts to determine habitat usage and breeding bird composition. 2000 to 2003

- Upper Tijuana Estuary Bird Usage Study, San Diego County – conducted seasonal surveys of U.S. Navy lands within the Tijuana River Valley to determine species composition and abundance. 2002.

- Mission Bay Bird Usage Study, San Diego County – conducted monthly surveys of the basins and wetlands to determine bird species composition and abundance. 2000 to 2002.

- Santa Barbara Municipal Airport Wetland Mitigation Feasibility Study, Santa Barbara – conducted surveys of bird usage of wetland basins within Goleta Slough to predict possible outcome of restoration efforts on bird-plane interactions. 1998 to 1999.

- Summerland Greenwell Park, Santa Barbara County – developed restoration plan using native plants to restore and enhance riparian and coastal scrub communities for new wildlife preserve. 1998.

- Golden Gate National Recreation Area Brown-headed Cowbird Census, Marin County - censused 5 locations using point count survey method for birds and searched riparian areas for nests. Monitored nests for parasitism (by Brown-head Cowbirds), predation, and fledging success. Trained volunteers in nest search methodology and directed their search efforts, and resolved logistical problems. 1996.

- San Miguel Island Small Mammal Trapping – used Sherman traps to capture deer mice. Mice were tagged, blood was drawn for Haunta virus testing, and morphometric data was collected before releasing the mice were released.

- **Botanical Experience**

Field Experience:

- Johnson Valley Energy Project – Conducted botanical surveys on portions of 8,000 acre project site looking for rare and sensitive plant species.

- Guadalupe Restoration Project – Conduct active and passive restoration assessments and assist with population censuses for State Threatened surf thistle and beach spectaclepod, and Federally Endangered and State Threatened La Graciosa thistle. Over see construction activity to ensure minimization of impact and avoidance of sensitive species. February 2006 to present.

- Santa Clara River Habitat Mapping - Conducted several rapid assessments and mapped vegetation according to the Sawyer and Keeler-Wolf classification method along the Santa Clara River from the esturary to Newhall Ranch, including the Piru Creek tributary in Fall 2005.

- Mountainview Power Project – Conducted regular surveys within and near work zones to ensure no sensitive plants were present. Restored project area after disturbance; collected quantitative data on restoration success. April 2004 to April 2006.

- Santa Barbara Airport / Goleta Slough quantitative restoration monitoring –Assisted with quantitative data collection on restoration transects through out the salt marsh and transition habitats. Spring 2004 and 2005.

- L.A. Metropolitan Water District HCP site assessment. March 2004 and 2005. Surveyed large parcels within the northern Mojave Desert for rare and sensitive plant species.

- USGS – 2000 to 2004 – conducted habitat/vegetation assessments of sensitive species breeding areas /territory. Conducted "stacked cube" qualitative vegetation assessment of restoration site.

- Santa Barbara County Planning and Development – Conducted baseline surveys of proposed project sites to determine habitat function and value. November 1996 to August 1999.

- Northeastern Washington Timber Management Project – Conducted line transects through pine woodlands and mountain riparian zones in conjunction to avian survey routes. 1995.

Course work:

- CNPS Vegetation Mapping and Classification Workshop, August 2005. Participated in the rapid habitat assessments and mapped vegetation according to the Sawyer and Keeler-Wolf classification method.

- Flora of California - UC Santa Barbara, 1993. Quarter long course with laboratory and field trips covering the plant families of California taught by Dr. Bob Haller. Focus of course involved keying plants to species using A Flora of California by Philip Munz (1974).

- Flora of California - Santa Barbara City College, 1998. Quarter long course with laboratory covering the plant families of California taught by Mr. Al Flinck. Focus of course was to key plants to species using The Jepson Manual, Higher Plants of California (1993).

Environmental Permitting and Regulations

- Contract Biologist/Planner, Santa Barbara County Planning and Development – processed development projects in Santa Barbara

County under applicable local, state, and federal environmental and planning regulations and laws. Assessed impacts to Biologic Resources and reviewed environmental documents. March 1998 to August 1999.

- Permit Compliance, Santa Barbara County Planning and Development – ensured compliance with Conditions of Approval connected to discretionary projects. Assessed success of mitigation measures, environmental protection plans, and restoration efforts. Responded to public inquiries, complaints, and concerns. August 1997 to January 1998.

- Biologist/Planner, Santa Barbara County Planning and Development – processed development projects in Santa Barbara County under applicable local, state, and federal environmental and planning regulations and laws. Assessed impacts to Biologic Resources and reviewed environmental documents. November 1996 to August 1997.

Specialized Training

Biological

- Blunt-nosed Leopard Lizard Identification Workshop
  May 2009
- *Rana* Capture and PIT Tag Training with Dr. Rathbun
  October 2006
- CNPS Vegetation Mapping and Classification Workshop
  August 2005

Health & Safety

- OSHA 40-Hour HAZWOPER
  December 2004
  HAZWOPER annual refresher
  March 2009
- OSHA 8-Hour Supervisor HAZWOPER Training
  April 2005
- Shell "Yellowbook" Safety Training
  August 2008
- Smith Systems Driver Training
  September, 2006
- Loss Prevention System
  March 2006
- Red Cross First Aide, CPR, & AED
  July 2006

Contact Information

URS Corporation
2625 South Miller Street, Suite 104
Santa Maria, CA 93455
Office: 805 361-1299
Cell: 805.797-1220
david_kisner@urscorp.com

URS

Robin Murray

Staff Biologist

Overview

Ms. Murray is a biologist with three years experience with rare plant surveys within California. Her work in California involves conducting rare plant surveys, performing habitat assessments, organizing field crews, and training crews in the identification and habitat requirements for target species. Ms. Murray has extensive experience hiking and navigating in rough terrain and in the operation off-highway vehicles. She also has experience in the creation and care of herbarium collections.

Areas of Expertise

Vegetation surveys
Plant identification
Habitat Assessment for sensitive plant species
Wetland Delineation
Level II Blunt Nosed Leopard Lizard Surveyor
Navigation in difficult terrain

Years of Experience

With URS: >1 Year
With Other Firms: 2 Years

Education

BS/Botany/Environmental Biology/2006/Humboldt State University

Specialized Training

OSHA 40-Hour HAZWOPER
Wetland Delineation
PASSPORT

Project Specific Experience

Restoration Experience

- Delhi Sands Restoration for SCE, San Bernardino, CA – Assisted with restoration efforts on a half-acre site for the endangered Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*). March 2008 to present.

Vegetation Survey Experience

- Orcutt, CA-Created vegetation community maps using the Sawyer, Keeler-Wolf Rapid Assessment method for over 1,400 acres of oil field property.

- Bakersfield, CA- Conducted a rare plant survey along a pipeline linear to document sensitive plant species prior to pipeline removal.

- Careaga Lease Habitat Assessment– Conducted botanical surveys on over 1,400 acres searching for rare and sensitive plant species, as well as characterizing habitat types. October 2008.

- Johnson Valley Energy Project – Conducted over 250 hours of botanical surveys on portions of 8,000 acre project site looking for rare and sensitive plant species. March to June 2008.

- Timber Harvest Plan Surveys, Korbel and Scotia, CA– Coordinated three to four person crews for vegetation surveys including field training and plant identification training. Surveyed timber harvest plans for rare and sensitive plant species, monitored known populations of rare plants, assessed habitat suitability for rare plants, recorded and interpreted data, navigated and hiked in varying terrain and weather conditions, drove ATVs as well as 4x4 trucks. May to August 2006 and March to September 2007.

Sensitive Species Experience

URS

Botanical Experience

- Orcutt, CA- Conducted rare plant surveys throughout the Careaga oil field lease to document sensitive plant species within the property. Generated a report including maps of the observed species and recommendations for avoidance and conservation of identified species.
- Identified and documented a population of seaside bird's beak (*Cordylanthus rigidus* ssp. *littoralis*)
- Identified and documented a population of Lompoc yerba santa (*Eriodictyon capitatum*).
- Conducted over 250 hours of surveying for rare and/or listed desert plant species in Johnson Valley, CA.
- Identified and documented a large population (over 1,500 individuals) of desert polygala (*Polygala acanthoclada*).
- Identified and documented first two known populations of giant fawn lily (*Erythronium oregonum*) within California.
- Surveyed over 50 miles of logging roads for Howell's montia (*Montia howellii*) and identified over 50 populations.
- Identified and documented over 100 populations of running pine (*Lycopodium clavatum*).
- Identified and documented over 25 populations of robust false lupine (*Thermopsis robusta*).
- Surveyed for and identified populations of Bald Mountain milk-vetch (*Astragalus umbricatus*), small groundcone (*Boschniakia hookeri*), flaccid sedge (*Carex leptalea*), Meadow sedge (*Carex praticola*), Oregon goldthread (*Coptis laciniata*), coastal fawn lily (*Erythronium revolutum*), Pacific gilia (*Gilia capitata* ssp. *pacifica*), indian pipe (*Monotropa uniflora*), Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*), and coast checkerbloom (*Sidalcea oregana* ssp. *eximia*).

Wildlife Experience

Blunt-nosed leopard lizard (*Gambelia sila*)

Level II Surveyor
Five positive identifications under supervision of a Level II surveyor

- California Valley, CA – Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol.
- Belridge, CA – Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol.
- Bakersfield, CA – Surveyed for blunt-nosed leopard lizards using the CA Department of Fish and Game Protocol.

California tiger salamander (*Ambystoma californiense*)

Santa Maria, CA –Under the supervision of Tom Olson and authorization of his recovery permit, visually evaluated burrows with a scope to determine presence of California tiger

salamanders and hand excavated vacant burrows to prevent future use.

Desert tortoise (*Gopherus agassizii*)

Four positive contact hours

- Johnson Valley Energy Project – Conducted protocol surveys on portions of 8,000 acre project site looking for desert tortoise, sign, tracks, scat, and burrows. Collectively, crew found fifteen individuals; each was passively measured and burrows were assessed.

Small Mammal Trapping

California Valley, CA –Under the permit and training of Paul Collins, curator of Santa Barbara Natural History Museum, baited Sherman's traps and processed small mammals, including San Joaquin pocket mouse, California pocket mouse (*Chaetodipus californicus*) and Heermann's kangaroo rat (*Dipodomys heermanni*).

Specialized Training

- Rare Plants of Coastal San Luis Obispo County
  May 2009
- Blunt Nosed Leopard Lizard Workshop
  May 2009
- PASSPORT Training March 2009
- Wetland Delineation Training
  August 2008
- OSHA 40-Hour HAZWOPER
  June 2008
- Smith Systems Driver Training
  August 2008
- Loss Prevention System
  August 2008
- Certified ATV driver by the ATV Safety Institute,
  license # 122849
- 2008/First Aid/CPR/AED

Chronology

3/08 - Present: URS Corporation, Staff Biologist, Santa Maria CA
3/07 - 9/07: Green Diamond Resource Company, Botanical Crew Leader, Korbel CA.
5/06 - 8/06: Pacific Lumber Company, Botanical Technician, Scotia CA
6/05 - 8/05: Biological Sciences Department, Humboldt State University, Research Intern, Arcata CA
6/03 - 8/03: Entomology Laboratory, Humboldt State University, Laboratory Assistant (Volunteer) Arcata CA
5/02 -8/02: Joint Genome Institute- Lawrence Berkeley Laboratories, Laboratory Assistant and Microscope Technician, Walnut Creek CA

Contact Information

URS Corporation
2625 S. Miller Street, Suite 104
Santa Maria, CA 93455
Tel: 805.349.7000
Robin_A_Murray@URSCorp.com

URS

Wayne Vogler

Senior Biologist

Overview

Mr. Wayne Vogler's understanding of projects and clients goals have led to his successful involvement in several large and complex projects. Mr. Vogler communicates effectively and efficiently with clients and regulators finding resolution even amongst competing interests of multiple regulatory agencies. Mr. Vogler's familiarity with both the natural environment and project needs has proven particularly successful in minimizing effects to natural resources while allowing for project completion. Mr. Vogler developed and instituted resource protection measures, prepared restoration plans, and conducted construction monitoring at one of the largest hydrocarbon remediation projects along the Western Continental Coast.

Mr. Vogler's clients have ranged from multi-national oil and gas firms to independent oil producers, airports, municipalities, counties, and alternative energy developers, Mr. Vogler has been active in all phases of a project life cycle from initial assessment and siting studies, to entitlement and endangered species permitting, through construction monitoring, and finally restoration implementation and monitoring.

Areas of Expertise

- Project Management
- CEQA/NEPA
- Biological Assessments
- Protocol Surveys for Special-Status Plant and Wildlife Species
- Wetland Delineations
- Environmental Permitting
- Environmental Compliance Monitoring
- Herpetological Surveys

Years of Experience

- With URS: 3 Years
- With Other Firms: 11 Years

Education

- BS/Biological Sciences/1994/University of California, Irvine

Registration/Certification

- CDFG SC-10047
- Level II Blunt-nosed leopard lizard surveyor

Specialized Lists

California Red-Legged Frog

Over 10 years of survey and handling experience in multiple and diverse habitats. Mr. Vogler's USFWS recovery permit is in process and is anticipated to be granted. Wayne has observed CRLF in all life stages and participated in surveys for CRLF presence during all life stages: eye shine surveys to dip netting to minnow trapping The following is a sample of Wayne's CRLF survey and report experience.

Guadalupe Restoration Project, Guadalupe, CA (1998 to present): Authorized by USFWS, under project specific Biological Opinion, to survey for, handle, capture, and relocate CRLF. Includes authorization for pit-tagging and other survey methods Conducted quarterly census counts, pre-construction surveys, minnow trap and dip net surveys for tadpoles, observation of all life phases of species, and relocation from work areas. Developed avoidance and monitoring measures for large scale excavation activities in proximity to known CRLF habitat. Primary author of quarterly reporting to County and other agencies through 2006.

Capture, Handling, and Pit Tagging Workshop, Grover Beach, CA (circa 2000): Small group led by Galen Rathbun on techniques to safely capture and handle California red-legged frogs, using bullfrogs as surrogates. Hands-on use of pit tag equipment on live bullfrogs. Workshop conducted in support of obtaining U.S. Fish and Wildlife approval to conduct such activities under the Guadalupe Restoration Project Biological Opinion.

Rancho Arroyo Grande Winery, County of San Luis Obispo, CA (2003): Conducted a habitat assessment and USFWS protocol surveys for

CRLF, including two-striped garter snake, and western spadefoot toad. Mr. Vogler was the primary author of the report submitted June 2003 to the County of San Luis Obispo.

Winchester Creek Bridge Improvements, Goleta, CA (2008): Authorized CRLF monitor during construction activities. Pre-construction clearance surveys, clearance survey prior to dewatering, and observation of general construction practices to avoid impacts to individuals and habitat.

Botanist

Mr. Vogler has conducted numerous botanical surveys throughout San Luis Obispo and other portions of central and southern California. The following is a sample of Wayne's experience.

Guadalupe Restoration Project, Guadalupe, CA (1997 to present): County approved botanical monitor and scientist. Approved to participate in general botanical surveys, quantitative surveys, and pre-construction surveys, as well as monitor construction activities to ensure avoidance and minimization to listed and sensitive species. Wayne developed most of the monitoring protocols being employed at this project. Also approved for presence surveys and census surveys for listed and rare species, including La Graciosa thistle, surf thistle, and beach spectacle-pod.

McKittrick Gathering Pipeline Removal, McKittrick, CA (2008): Multiple comprehensive floristic surveys in support of environmental report preparation. Consulted with U.S. Fish and Wildlife Service regarding correct identification methods of Kern mallow. Biological resources report submitted to CDFG in February 2009.

Santa Maria Pacific Careaga and Escolle Oil Field Leases, Northern Santa Barbara County (2009): Mapped vegetation communities and surveyed for special-status plant species on combined approx. 3,100 acres. Additional pre-construction surveys conducted

San Joaquin Kit Fox

McKittrick Gathering Pipeline Removal, McKittrick, CA (2008): Confirmed San Joaquin kit fox presence through performance of a habitat assessment using USFWS protocols. Presence confirmed through burrow presence, scat, and tracks. Biological resources report submitted to CDFG in February 2009. Take permit applications submitted to USFWS and CDFG in February 2009.

California Valley Solar Ranch Project, Carrizo Plain, San Luis Obispo County (2009): Conducted habitat assessment following USFWS protocols. Evaluated dens for habitation suitability, conducted spot light surveys, observed individuals and young during day and night hours.

Wetland Delineation

Guadalupe Restoration Project, Guadalupe, CA (1997-1998 and 2002-2003): Performed the initial survey and subsequent update surveys

to identify and delineate wetlands according to California state definitions at the 2,800-acre Guadalupe Restoration Project. Developed specific analysis methods to satisfy California Coastal Commission concerns. Findings reviewed by CDFG and CCC Findings confirmed with US Army Corp of Engineers, National Resource Conservation Service, California Department of Fish and Game and California Coastal Commission. Technical report submitted to agencies and County of San Luis Obispo in 1998 and 2003.

Guadalupe-Nipomo Dunes Complex, Guadalupe to Pismo Beach, CA (2004-2006): Conduct an identification survey of wetland habitats throughout the entire dunes complex. Developed identification and screening criteria, classification and descriptive identifiers, and survey methodology. Employed aerial photography interpretation for initial target identification. Mapped wetland habitats with sub-meter GPS unit for data to be incorporated into an existing GIS project. Technical report submitted to Dunes Collaborative in 2008.

Residential Development, Price Canyon, CA (circa 2001): Federal wetland jurisdiction survey following 1997 methods. Mapped jurisdictional waters and submitted technical report to County of San Luis Obispo.

Wildlife Surveys

Guadalupe Restoration Project, Guadalupe, CA (1997 to present): County approved wildlife monitor and scientist. Approved to participate in general wildlife surveys, quantitative surveys, and pre-construction surveys, as well as monitor construction activities to ensure avoidance and minimization to listed and sensitive species.

TDPI Pipeline Portfolio, San Luis Obispo, CA (2008 to present): At several work locations within the southern portion of the County, performed general habitat assessment to evaluate the potential for or the presence of listed or rare species. Document the habitat and resources present, any species observed, and developed avoidance measures for work crews to implement.

Guadalupe Restoration Project, Guadalupe, CA (1997 to present): Laguna Channel Tide Gate Repair, Santa Barbara, CA (2006-2007): Lead Biologist. Conduct survey for tidewater goby prior to work activities. Captured and relocated individuals prior to cofferdam placement and de-watering activities; monitored construction activities to avoid impacts to species. Field work included seining tidal lagoon channels, installation of blocking nets, capture and identification of listed and common species encountered, and transportation/release. Prepared biological monitoring report for ACOE and USFWS submittal.

Blunt-nosed Leopard Lizard

Mr. Vogler is one of URS' senior resource specialists regarding BNLL. Beyond the following survey efforts, Mr. Vogler has been involved with

several projects throughout Kern County assessing habitat suitability for BNLL and in conducting protocol surveys for their presence. Mr. Vogler's survey days for BNLL measure over one hundred and the number of individuals, adult and juvenile, observed exceed twenty-five. The following is a sample of Wayne's CRLF survey and report experience.

Carrizo Energy Solar Farm, McKittrick, CA (2007 and 2008): Two years of surveys for BNLL following CDFG protocol methods.

McKittrick Gathering Pipeline Removal, McKittrick, CA (2008 and 2009): Two years of surveys for BNLL following CDFG protocol methods. Survey results presented in biological resources report submitted to CDFG in February 2009. Results from 2009 survey effort are in preparation.

Hydrogen Energy of California, Tupman, CA (2008 and 2009): Two years of surveys for BNLL following CDFG protocol methods.

Specialized Training

2009: California Tiger Salamander Workshop, Elkhorn Slough, CA
2009: Certified URS Project Manager (pending oral interview)
2009: Society of Wetland Scientists Update to Corps Clean Water Act Regulatory Program workshop
2008: San Luis Obispo County's Workshop for Biologists
2007: Blunt-nosed Leopard Lizard Workshop, Wildlife Society, Bakersfield, CA
2003: County of San Luis Obispo's San Joaquin Kit Fox Workshop
2003: Desert Tortoise Council Survey Techniques,
2001: Storm Water Pollution Prevention on Construction Sites, California State Water Resources Control Board, Sacramento, CA
2000: Trimble GeoExplorer, TerraSync, and Pathfinder Office Individualized Training, Santa Maria, CA
1997: U.S. Army Corps of Engineers Wetland Delineation Certification Program, San Diego, CA

Chronology

June 2006 – Present: URS Consultants, Santa Maria, Senior Biologist/Project Manager
October 2002 – June 2006: $(sd)^2$ ecology, Grover Beach, Biologist
June 1995 – October 2002: LFR, Inc, Santa Maria, Project Biologist/Project Manager

Contact Information

URS Corporation
2625 South Miller Street, Suite 104
Santa Maria, CA 93455
Office: 805.349.7000
Fax: 805.739.1135
wayne_vogler@urscorp.com

Appendix C

CNDDB Form

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 05/20/2009

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Gambelia sila*

Common Name: Blunt-nosed leopard lizard

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☐ yes ☐ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☑ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Robin Murray
Address: 2625 S. Miller Street
Santa Maria, CA 93455
E-mail Address: Robin_A_Murray@URSCorp.com
Phone: (805) 361-1129

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
1				

☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Kern Landowner / Mgr.: Occidental of Elk Hills

Quad Name: Tupman Elevation: 363 feet

T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS

T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model Garmin Rino

DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy 3 meters meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ ***OR*** Geographic (Latitude & Longitude) ☑

Coordinates: N 35.29725 W 119.35947

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope):*

Degraded allscale scrub is the dominant plant community. It has been burned in the past and shows few signs of regeneration. The herbaceous layer is dominated by non-native grasses. Aspect is north, slope ranges from 0 to 10%.

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☐ Good ☑ Fair ☐ Poor

Immediate AND surrounding land use: Oil production on site, agricultural use and California Aqueduct to north

Visible disturbances: None observed

Threats: Vehicles on paved road nearby

Comments: General lizard population is very healthy (Uta stansburiana [sideblotch lizard] and Aspidoscelis tigris tigris [whiptail] are abundant)

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☑ By another person (name): Alyssa Berry and Cletis England, level II surveyors
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☐ no ☐

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE *HYDROGEN ENERGY CALIFORNIA PROJECT*

Docket No. 08-AFC-8

PROOF OF SERVICE LIST
(Est. 8/26/09)

APPLICANT

Gregory D. Skannal
Tiffany Rau
Rick Harrison
Hydrogen Energy International LLC
One World Trade Center, Suite 1600
Long Beach, CA 90831
gregory.skannal@hydrogenenergy.com
tiffany.rau@hydrogenenergy.com
rick.harrison@hydrogenenergy.com

Asteghik Khajetoorians,
Senior BP Legal Attorney
BP America, Inc.
6 Centerpointe Drive, LPR 6-550
La Palma, CA 90623
Asteghik.Khajetoorians@bp.com

APPLICANT'S CONSULTANT

Dale Shileikis, Vice President
Energy Services Manager
Major Environmental Programs
URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105-1917
dale_shileikis@urscorp.com

COUNSEL FOR APPLICANT

Michael J. Carroll
Latham & Watkins, LLP
650 Town Center Drive, 20th Fl.
Costa Mesa, CA 92626-1925
michael.carroll@lw.com

INTERESTED AGENCIES

California ISO
e-recipient@caiso.com

INTERVENORS

***Tom Frantz**
Association of Irritated Residents
30100 Orange Street
Shafter, CA 93263
tfrantz@bak.it.com

ENERGY COMMISSION

JAMES D. BOYD
Vice Chair and Presiding Member
jboyd@energy.state.ca.us

JEFFREY D. BYRON
Commissioner and Associate Member
jbyron@energy.state.ca.us

Raoul Renaud
Hearing Officer
rrenaud@energy.state.ca.us

Rod Jones
Project Manager
rjones@energy.state.ca.us

Lisa De Carlo
Staff Counsel
ldecarlo@energy.state.ca.us

Public Adviser's Office
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Catherine Short, declare that on September 21, 2009, I served and filed copies of the attached *Results of 2009 Protocol Blunt-Nosed Leopard Lizard Surveys*, dated September, 2009. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/hydrogen_energy]**.

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

X sent electronically to all email addresses on the Proof of Service list

_____ by personal delivery or by depositing in the United States mail at _____ with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

X sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-8
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

C Short

_____