



File: Tracking  
Brushy Creek

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## LETTER OF TRANSMITTAL

TO:	FROM:
Janice Gan	Richard Rivas
COMPANY:	
California Dept. of Fish and Game	
ADDRESS: CENTRAL COAST REGION	PROJECT NUMBER:
P.O. Box 47 Yountville, CA 94599	
RE:	DATE:
Brushy Creek Monitoring Report	August 13, 2003

URGENT     FOR REVIEW     PLEASE COMMENT     PLEASE REPLY     PLEASE RECYCLE

Dear Janice,

Please find the enclosed Brushy Creek Conservation Bank 2002 Monitoring Report. Please feel free to contact us if you have any questions, or if you require additional information.

Sincerely,  
*Richard Rivas*  
Richard Rivas  
Junior Biologist

cc: Scott Wilson, CDFG

2003 AUG 14 11:51:16  
CITRUS HEIGHTS, CA

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WILDLANDS, INC.

**BRUSHY CREEK CONSERVATION BANK  
2002 MONITORING REPORT**

Wildlands, Inc.  
5910 Auburn Blvd., Ste. 17  
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**BRUSHY CREEK CONSERVATION BANK  
2002 MONITORING REPORT**

*Prepared for:*

California Department of Fish & Game

Resource Ecologist: Janice Gan

Habitat Conservation Manager: Scott Wilson

August, 2003

## INTRODUCTION

The Brushy Creek Conservation Bank (BCCB) was established to provide habitat for Burrowing Owls (*Athene cunicularia*) and was approved by the California Department of Fish and Game on April 12, 2000. The site is a 120-acre parcel located at the base of the interior central Coast Range foothills just south of the town of Byron in Contra Costa County, California (Figures 1 and 2). The site occupies relatively flat ground to gently rolling hills. Existing habitats include annual grassland, vernal pools and seasonal swales, alkali wetlands, and an intermittent drainage (Brushy Creek) (Figure 3a-c). Much of the vegetation of the site is sparse and low growing, and include palatable forage such as soft chess brome (*Bromus hordeaceus*) and rye grass (*Lolium multiflorum*). Other areas include high growing non-native grasses and weeds such as rip gut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), wild oats (*Avena* sp.), and mustard (*Brassica* sp.). Areas with high growing vegetation are concentrated predominantly around the hill slopes. The site has a long term grazing history and is currently being grazed. Now that the property has been set aside for long-term preservation of habitat for Burrowing Owls, monitoring is conducted annually. This report documents the first year of Burrowing Owl monitoring.

### Monitoring Requirements

Long-term annual Burrowing Owl (BUOW) monitoring is conducted to determine the level of BUOW utilization of the site. Monitoring includes surveys conducted during the breeding and non-breeding seasons. Up to three breeding season surveys are conducted each year during the peak of the breeding season, between April 15 and July 15. One winter survey is also conducted, between December 1 and January 31, to determine the level of site utilization during the non-breeding season.

Range monitoring will be conducted during the winter and breeding seasons to assess herbaceous foliage cover, and pest plant populations. The targeted vegetation height at the BCCB to provide suitable BUOW habitat is between three to twelve inches.

## METHODS

### **BUOW Monitoring**

Walking transect surveys for BUOWs were conducted throughout the entire site on January 22, April 12 and 26, and May 2 of 2002. Surveyors were spaced at approximately 10 – 20 meter intervals to allow complete visual coverage of the ground with the intention of seeing all potential nest or satellite burrows. Burrow locations, if found, were mapped on aerial photos. Burrows were mapped if owls or owl sign (feathers, pellets, whitewash, prey remains) were observed. White-wash alone was not used as an indicator of BUOW use because other grassland birds, such as meadowlarks, may have left the sign.

Behavior of observed BUOWs was recorded in an effort to gain insight into burrow use or other information regarding owl activity. BUOWs that gave an alarm call, demonstrated defensive behavior, flushed relatively late and stayed close to the burrow or showed a reluctance to flush, or returned quickly to the burrow after flushing were noted as these behaviors indicate potential presence of a breeding burrow.

### **Range Monitoring**

A visual assessment was made of the herbaceous cover during regular site visits in 2002.

## RESULTS AND DISCUSSION

Two Burrowing Owls were observed during the winter survey on January 22, 2002. During this survey one owl flushed from the grass just west of the alkaline wetland area. The other owl was located near the corral in the southwest corner of the site (Figure 4). No burrows in the vicinity of these sightings indicated any significant use by the BUOW.

No BUOW or BUOW sign was observed during the spring and summer surveys. Other wildlife species observed include Western Kingbird (*Tyrannus verticalis*), Western Meadowlark (*Sturnella neglecta*), Savannah Sparrow (*Passerculus sandwichensis*), Cliff Swallow (*Petrochelidon pyrrhonota*), Killdeer (*Charadrius vociferus*), Loggerhead Shrike (*Lanius ludovicianus*), American Kestrel (*Falco sparverius*), Prairie Falcon (*Falco mexicanus*), black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel (*Spermophilus beecheyi*).

In fall 1999, sixteen BUOWs and many ground squirrel burrows were present on the BCCB. Although owls observed on this date were all in basic plumage, it is likely many of these were hatching year birds produced locally from the two nesting pairs observed on site, rather than all being adult owls. This assumption was made because 1999 was a very good year for BUOW reproduction in the Central Valley (Craig Bailey pers. comm.). BUOWs were continually observed during site visits through 2000 and 2001. In 2000 three censuses were conducted during which as many as seven BUOWs and two active nesting burrows were observed. A BUOW pair occupied one of the active burrows. During 2001 censuses a BUOW pair was located immediately north of the site and one BUOW was located near the northeast corner of the site. Locations and dates of BUOW observances from 1999 through 2001 are shown in Table 1 and Figure 5. BUOWs were also present during winter 2002, but no breeding was observed during the spring and summer of that year. Additional surveys will be conducted in 2003.

Habitat conditions at BCCB for 2002 fell within the target parameters. Vegetation was predominantly annual, non-native grasses. During the growing season, average lowland

vegetation height was maintained at the lower end of the 3-12 inch spectrum. The hillslope vegetation was taller, but still within the high end of the 3-12 inch range. During the dry season, vegetation across the entire site was further removed down to approximately 3 inches. Noxious weed populations were kept to a minimum, with only a few sparse patches across the entire site, and no dense weed populations on site. The sparse patches were predominately *Brassica* sp. and *Cirsium* sp.

## REFERENCES

- Burt, W. H. and Grossenheider, R. P. 1980. Peterson Field Guide to Mammals, Third Edition. Houghton Mifflin Company, New York.
- Ford, L. D. 2001. Grazing Management Plan, Brushy Creek Conservation Bank.
- Haug E. A., Millsap B. A., and Martell M. S. 1993. Burrowing Owl. The Birds of North America, No. 61
- Sibley, D. A. 2000. The Sibley Guide to Birds, National Audubon Society. Alfred A. Knopf, Inc.
- Wildlands, Inc. 1999. Biological Resources Survey and Management Report for the Byron Burrowing Owl Conservation Bank, Contra Costa County.
- Wildlands, Inc. 2000. Brushy Creek Conservation Bank Draft Management Plan.



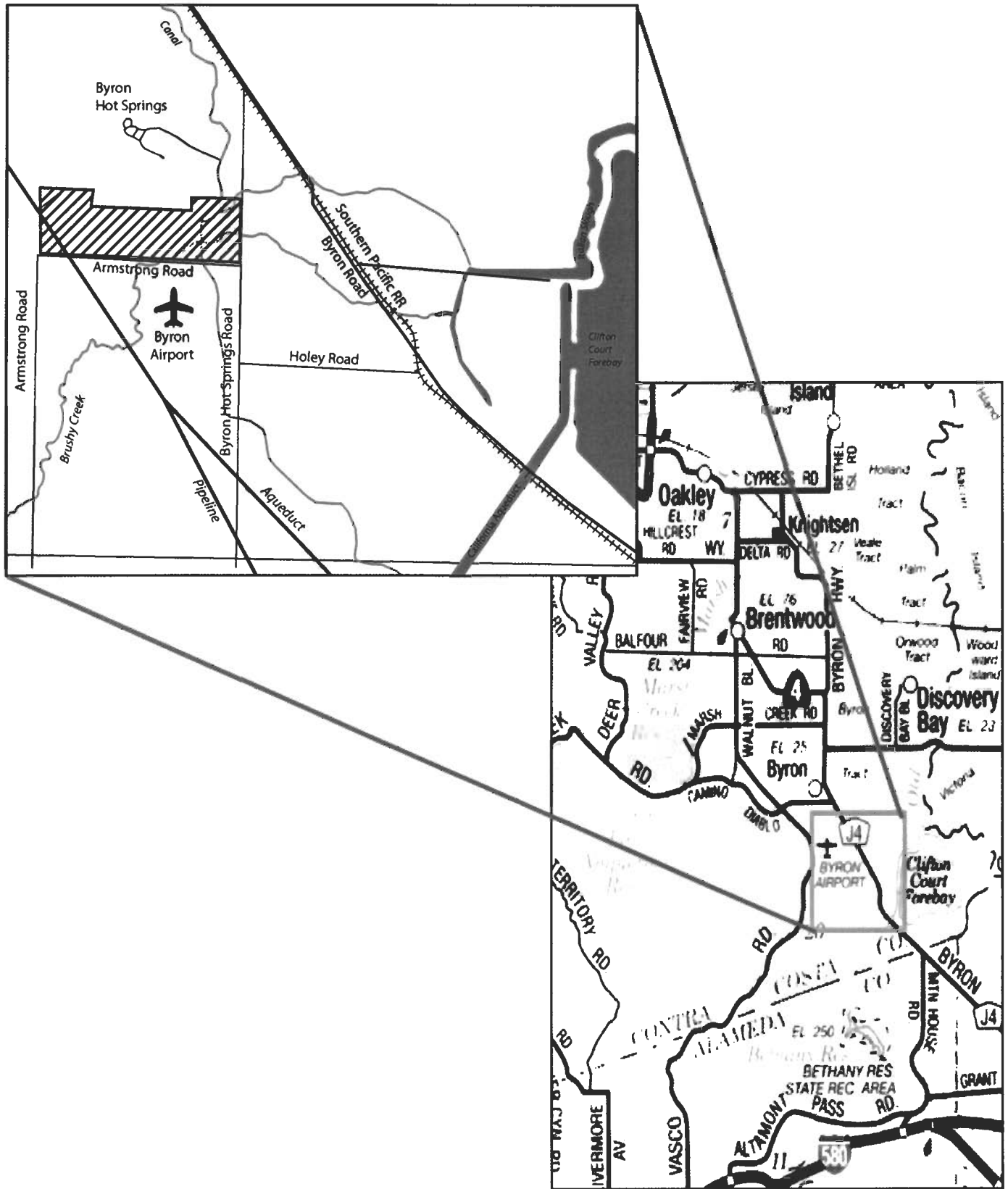
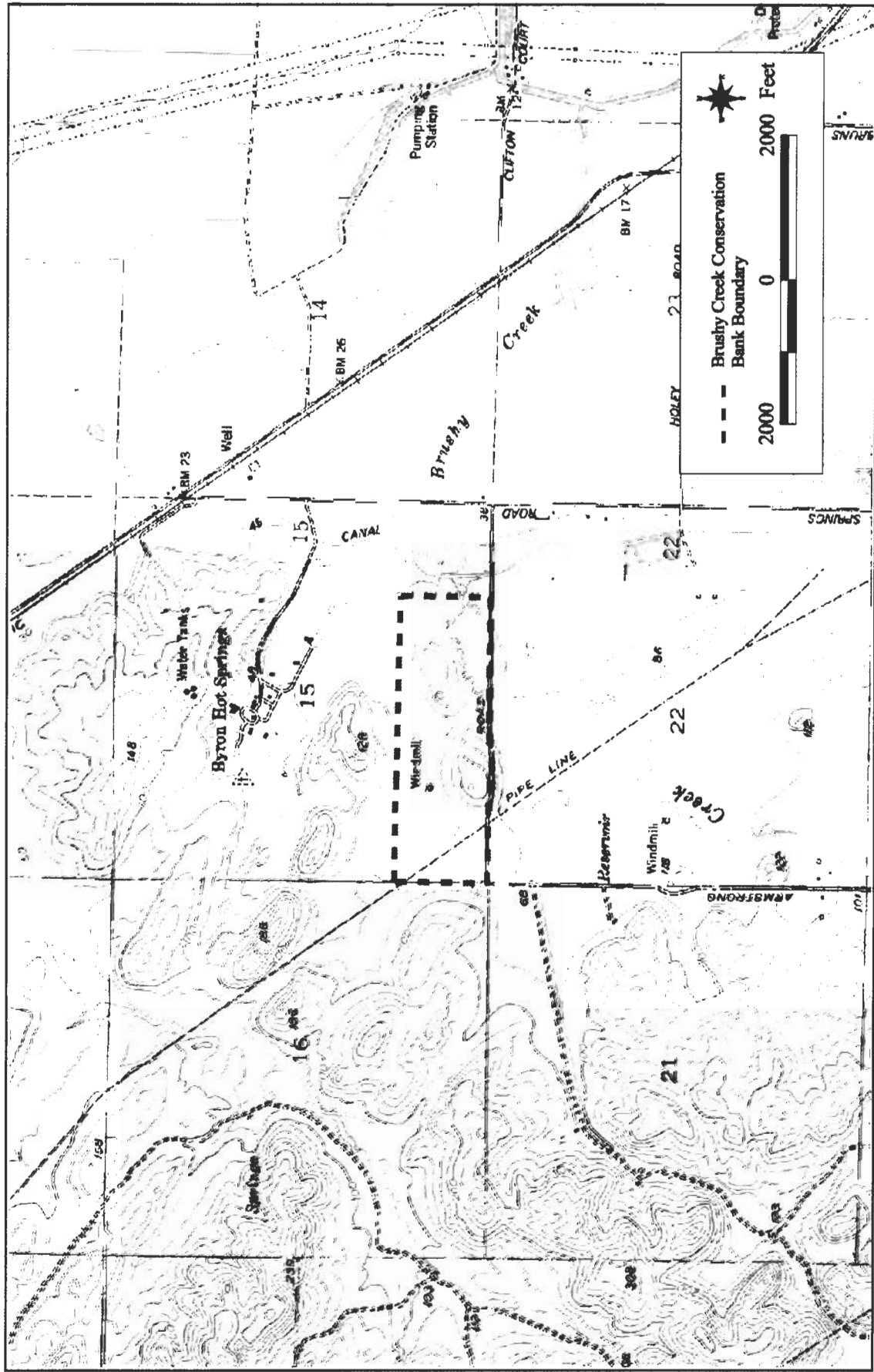


Figure 1



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Brushy Creek Conservation Bank Project Location



Source: USGS Quadrangles: Byron Hot Springs and Clifton Court Forebay



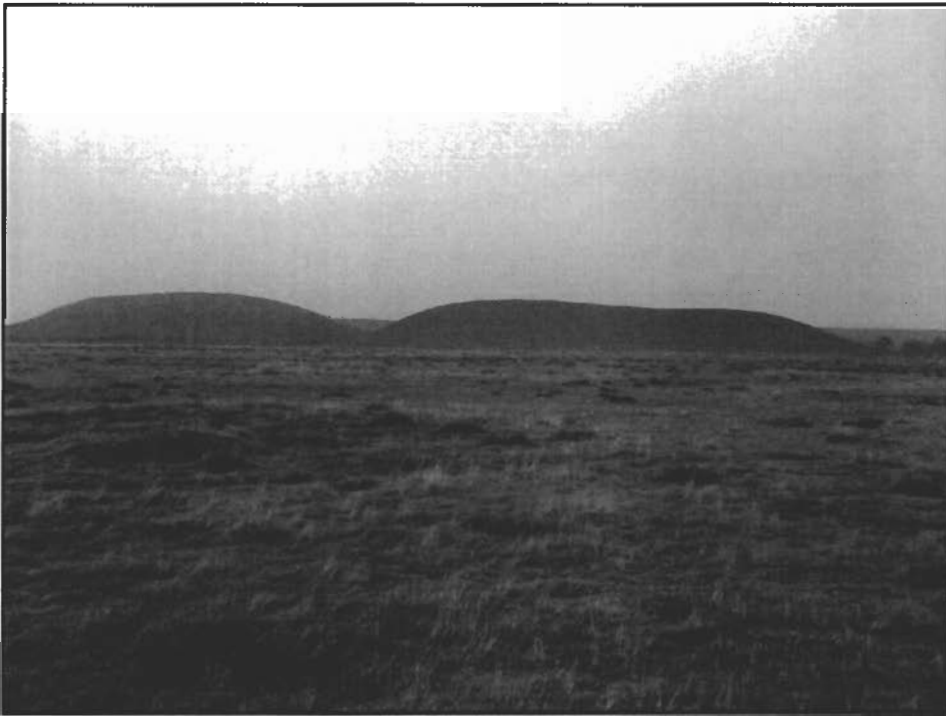
Wildlands, Inc.

Figure 2

Brushy Creek Conservation Bank Site Location



Annual grassland, near the southeast corner of the property.

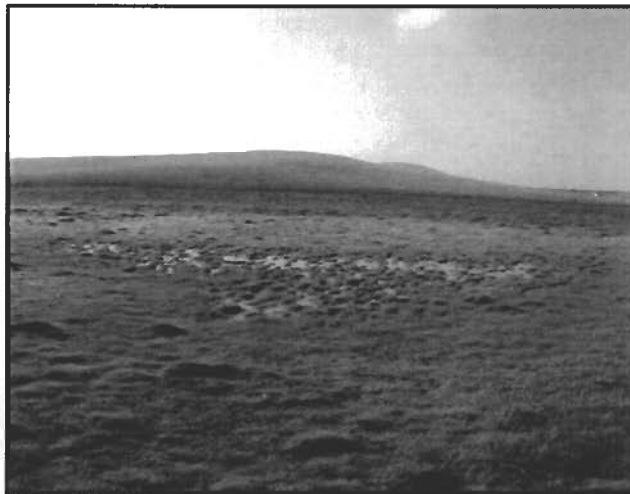


Annual grassland, near the southwest corner of the property.

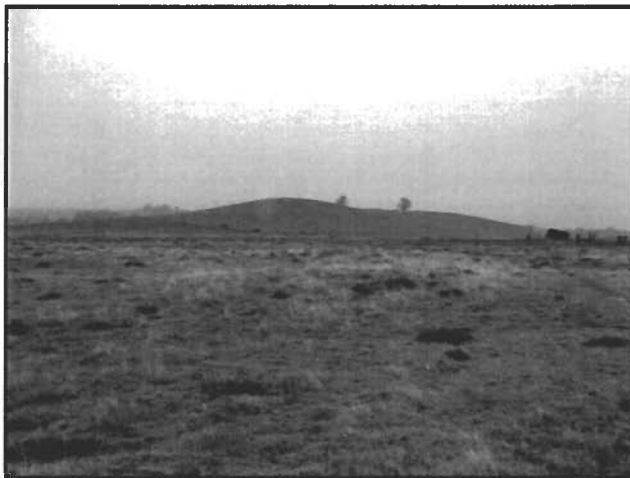




Intermittent drainage (Brushy Creek)

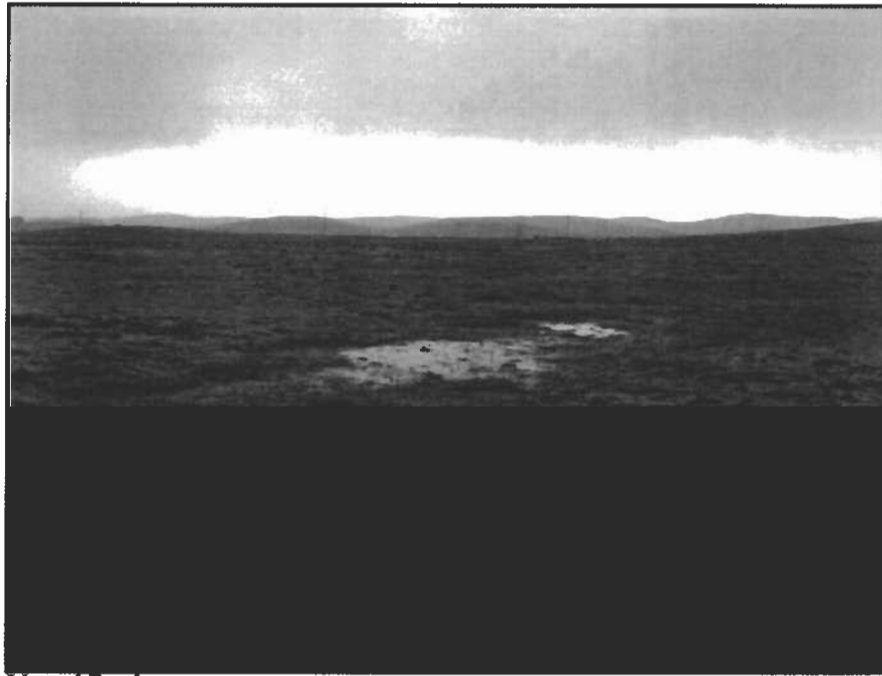


Vernal Pool



Annual grassland, near the center of the property.





Vernal Pool



Vernal Pool



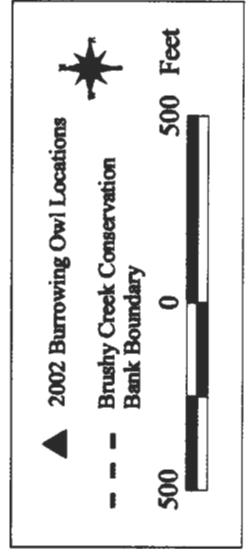
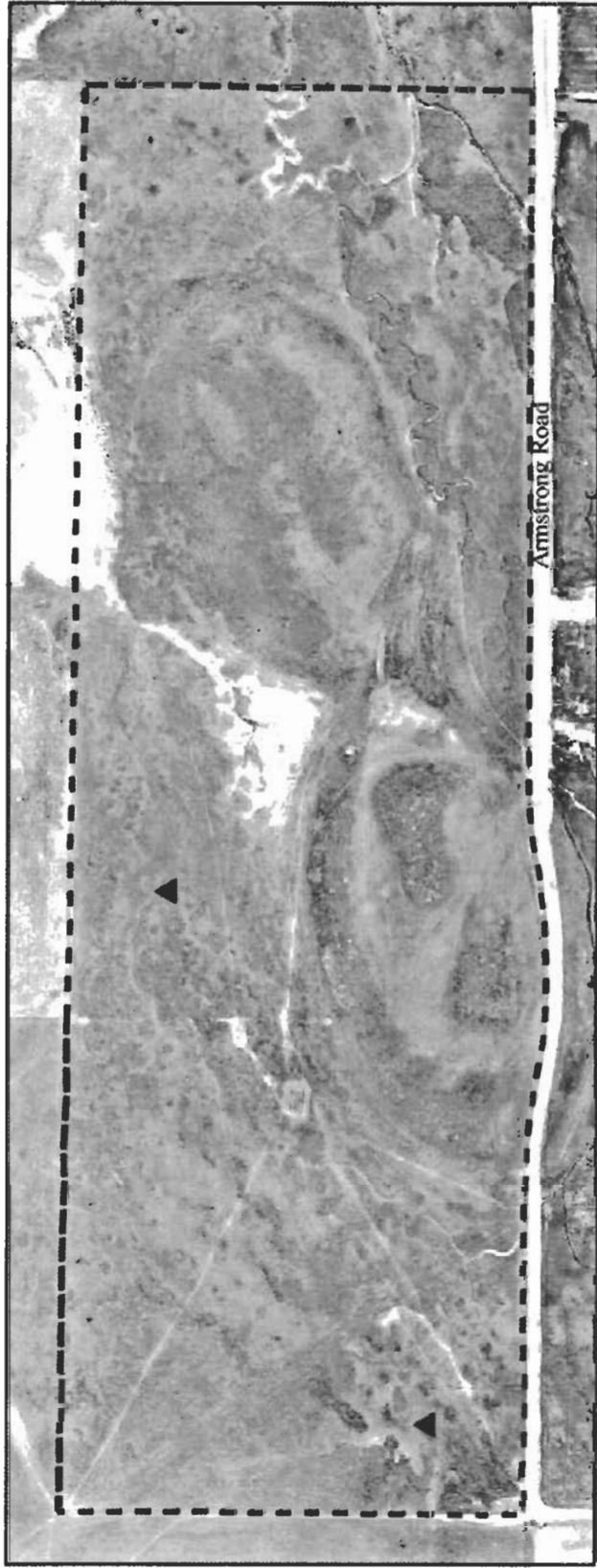
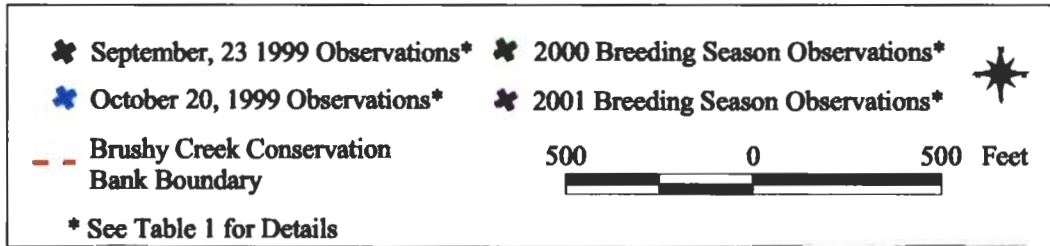
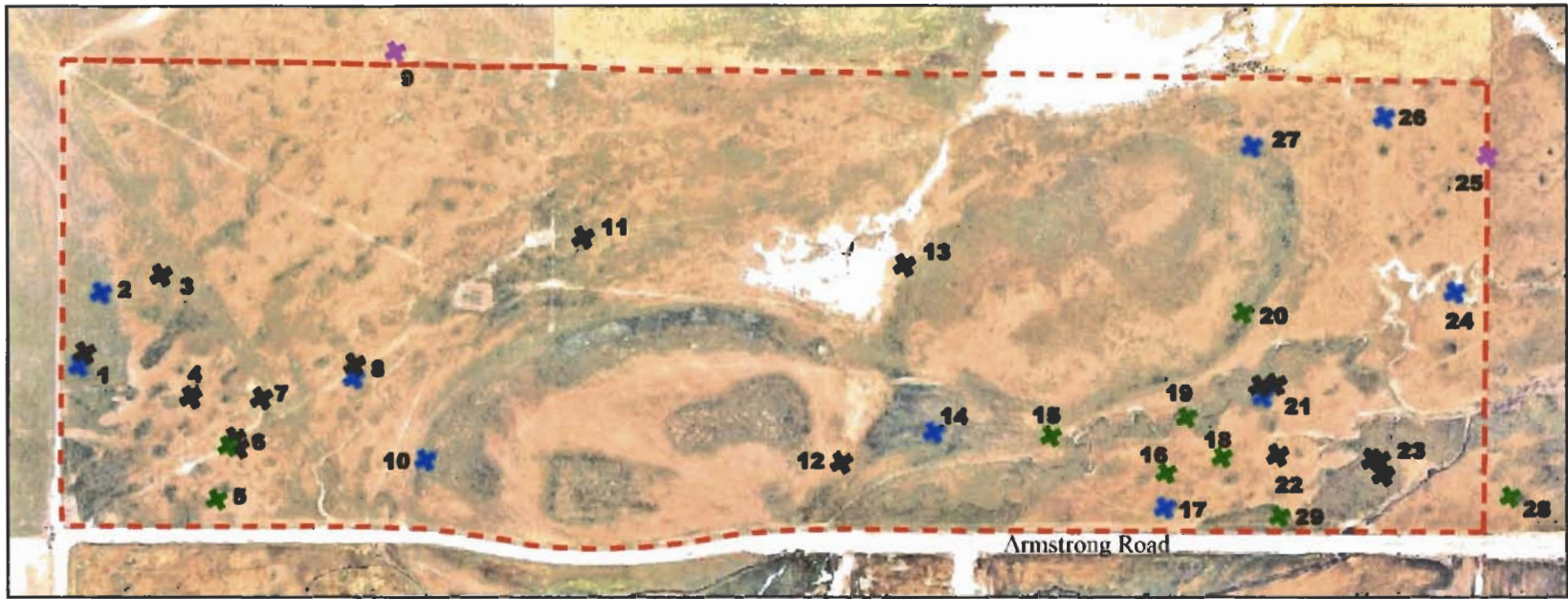


Figure 4

Wildlands, Inc. Brushy Creek Conservation Bank Burrowing Owl Observations, January 22, 2002







**Table 1 — Burrowing Owl Observations 1999-2001**

<b>Date</b>	<b>Location #</b>	<b># of Owls Observed</b>	<b>Active Burrow Y/N</b>
9/23/99	1	1	NA
9/23/99	3	1	NA
9/23/99	4	1	NA
9/23/99	6	2	NA
9/23/99	7	1	NA
9/23/99	8	1	NA
9/23/99	11	1	NA
9/23/99	12	1	NA
9/23/99	13	1	NA
9/23/99	21	2	NA
9/23/99	22	1	NA
9/23/99	23	3	NA
10/20/99	1	3	Yes
10/20/99	2	1	No
10/20/99	8	1	Yes
10/20/99	10	1	No
10/20/99	14	2	No
10/20/99	17	1	No
10/20/99	21	1	No
10/20/99	24	1	No
10/20/99	26	1	No
10/20/99	27	1	No
03/02/00	5	1	NA
03/02/00	6	2	NA
03/02/00	15	1	NA
03/02/00	16	1	NA
03/02/00	18	1	NA
03/02/00	29	1	NA
05/31/00	6	2	NA
05/31/00	18	2	NA
05/31/00	28	1	Yes
07/10/00	18	2	NA
07/10/00	19	1	Yes
07/10/00	20	1	Yes
06/12/01	25	1	Yes
07/13/01	9	2	NA