

**BLACK-FOOTED FERRET SURVEY RESULTS**  
**ON THE**  
**PACIFIC RIM PROJECT AREA**  
**SEPTEMBER, 2003**

**Prepared For:**

**U.S. Department of Interior  
Bureau of Land Management  
Rock Springs Field Office  
Rock Springs, Wyoming**

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## Black-footed Ferret Survey Results

Warren Exploration & Production, Inc.

### Introduction

The black-footed ferret is classified by the U.S. Fish and Wildlife Service (FWS) as Endangered and is listed under the Endangered Species Act of 1973, as amended in 1982, and is subject to federal regulations and guidelines to implement the species' recovery. Environmental disturbances in areas where ferrets potentially occur, demand that surveys be undertaken to determine whether or not they occur in the vicinity of the proposed action.

Warren Exploration & Production, Inc. has proposed the development of roads and coal bed natural gas wells that would impact white-tailed prairie dog habitats that occur in the following locations:

**T15N:R102W - Sections**

13, 24, 25, and 36

**T15N:R101W - Sections**

18, 19, 20, 21, 22, 26, 27,  
28, 29, 30, 31, 32, 33, 34,  
and 35

**T14N:R102W - Section**

1, 11, 12, and 13

**T14N:R101W - Sections**

3, 5, 6, 7, 8, and 9

See Figures 1 and 8 of this report.

All prairie dog habitats are located in Sweetwater County, Wyoming. The Bureau of Land Management (BLM) and the U.S. Fish and Wildlife Service (FWS) require that entire prairie dog towns be surveyed and cleared for black-footed ferrets prior to construction. Such clearances of individual towns last for a period of 12 months.

Personnel involved in conducting the ferret surveys reported herein include: Mr. Jeff Winstead, Mr. Travis Olson, Mr. Kenneth Jones, Ms. Darla Knowlton, Mr. Larry Bennett, and Dr. Larry Hayden-Wing. Jeff Winstead, Travis Olson, and Kenneth Jones are certified by the FWS as biologists qualified to conduct ferret searches and were the leaders of the field teams that performed the surveys. Jeff Winstead and Larry Hayden-Wing compiled data and participated in the writing of this report. Dr. Hayden-Wing, also certified by the FWS as a biologist qualified to conduct ferret searches, supervised the overall project and report writing.

## Methods

Aerial surveys of prairie dog colonies were conducted over the Pacific Rim Project Area on September 2, 2003. Linear transects were flown in a Cessna 180 aircraft with global positioning system (GPS) capabilities. Transects were flown at approximately 1/2-mile intervals at an average altitude of 200 feet. All towns were then mapped from the ground on ATV's. Where a burrow area is within 200 meters of another burrow area, these areas were lumped together to create a prairie dog town boundary used for surveying for black-footed ferrets. Twenty-two burrow areas within the above listed locations of proposed disturbance, were surveyed for black-footed ferrets. Town #1 is made up of 16 burrow areas, totaling 1,939.6 acres. Town # 2 consists of six separate towns (#s 20 through 25) that total 78.1 acres. The boundaries of these prairie dog towns were mapped using techniques outlined in Biggins et al. (1989).

Town #1 was divided into six survey areas that came as close to 320 acres in size as topography and discontinuities in town segments would allow. Survey areas on Town #1 varied in size from 319.15 to 329.88 acres, and averaged 323.26 acres. Pat Deibert, FWS biologist in the Cheyenne Office, allowed that the survey areas that exceeded the 320-acre maximum listed in the guidelines were acceptable, given that none of them exceeded the guideline by more than 10 acres (Personal communication with Larry Hayden-Wing, October 1, 2003).

In accordance with the FWS Black-footed Ferret Survey Guidelines (FWS 1989), one 3-consecutive-night survey was conducted on each of the seven survey areas from approximately 2000 to 0600 hours for a total of 21 nights or 182.3 hours of survey time. Survey routes were established and marked with 4-foot high wooded stakes during daylight hours before the first of each 3-night survey and situated to allow spotlight illumination of each prairie dog town. Each route was traveled numerous times each night by two observers, with the direction of travel being reversed each survey run and a different starting point used at the beginning of every survey night. During the surveys, one observer operated a hand-held 700,000 candlepower spotlight and systematically illuminated areas on either side of the route, while the second biologist drove the vehicle at less than 5 miles per hour on the designated survey route and aided with observations. Locations of survey routes for the six survey areas of Town # 1 are illustrated on detailed maps (Figures 2 - 7), and in Figure 8 for Towns 20 - 25.

All wildlife observations made during each survey night were recorded on field forms (Appendix). Any indication of green eye-shine was investigated until the animal was identified. Binoculars were used to aid in distant observations. During the early morning, following the night-long surveys, different portions of the survey area were searched on foot to inspect burrow openings for signs of black-footed ferrets. Results of these daylight searches were recorded on field forms and are included in the Appendix. Survey summary forms, which include the total area and hours searched during the night-time and morning surveys are also included in the Appendix.

## Results

No black-footed ferrets or their sign were observed during either the nocturnal spotlight surveys or the morning ground searches. Other species of wildlife observed during the surveys include cottontail rabbits, white-tailed jackrabbits, unknown mouse, unknown shrew, bushy-tailed wood rat, Ord's kangaroo rat, burrowing owl, flamulated owl, northern harrier, coyote, badger, short-tailed weasel, bobcat, wild horses, pronghorn, mule deer, and elk. Numbers and locations of species observed are listed on individual field forms in the Appendix.

## Literature Cited

- Biggins, D., B. Miller, B. Oakleaf, A. Farmer, R. Crete, and A. Dood. 1989. A system for evaluating black-footed ferret habitat. USFWS Rpt. 29pp.
- US Fish and Wildlife Service (FWS). 1989. Black-footed ferret survey guidelines for compliance with the Endangered Species Act. U.S. Fish and Wildlife Service, Denver, CO and Albuquerque, NM 14pp.

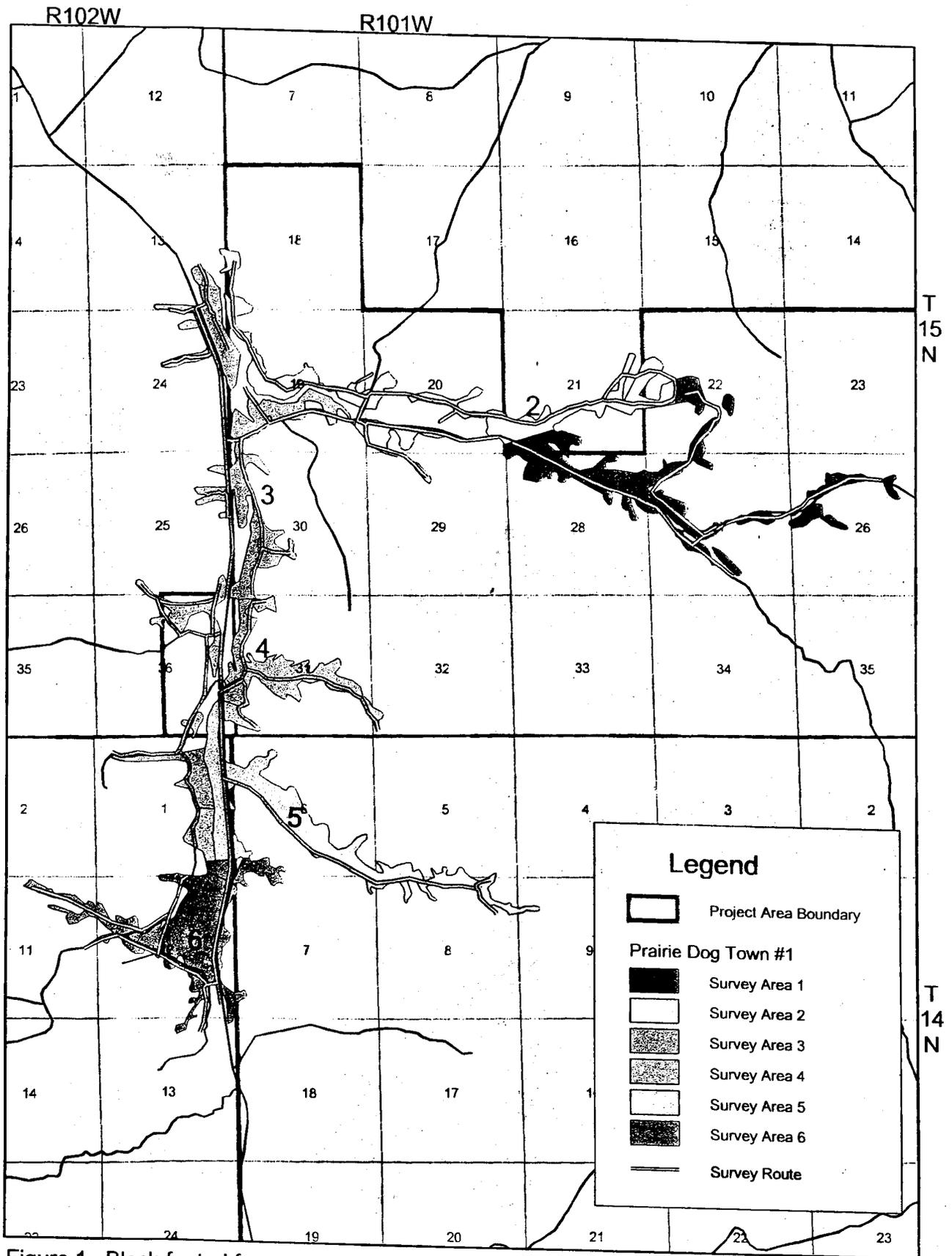


Figure 1. Black-footed ferret survey routes on six areas within prairie dog town #1 on the Pacific Rim Project Area.

R101W

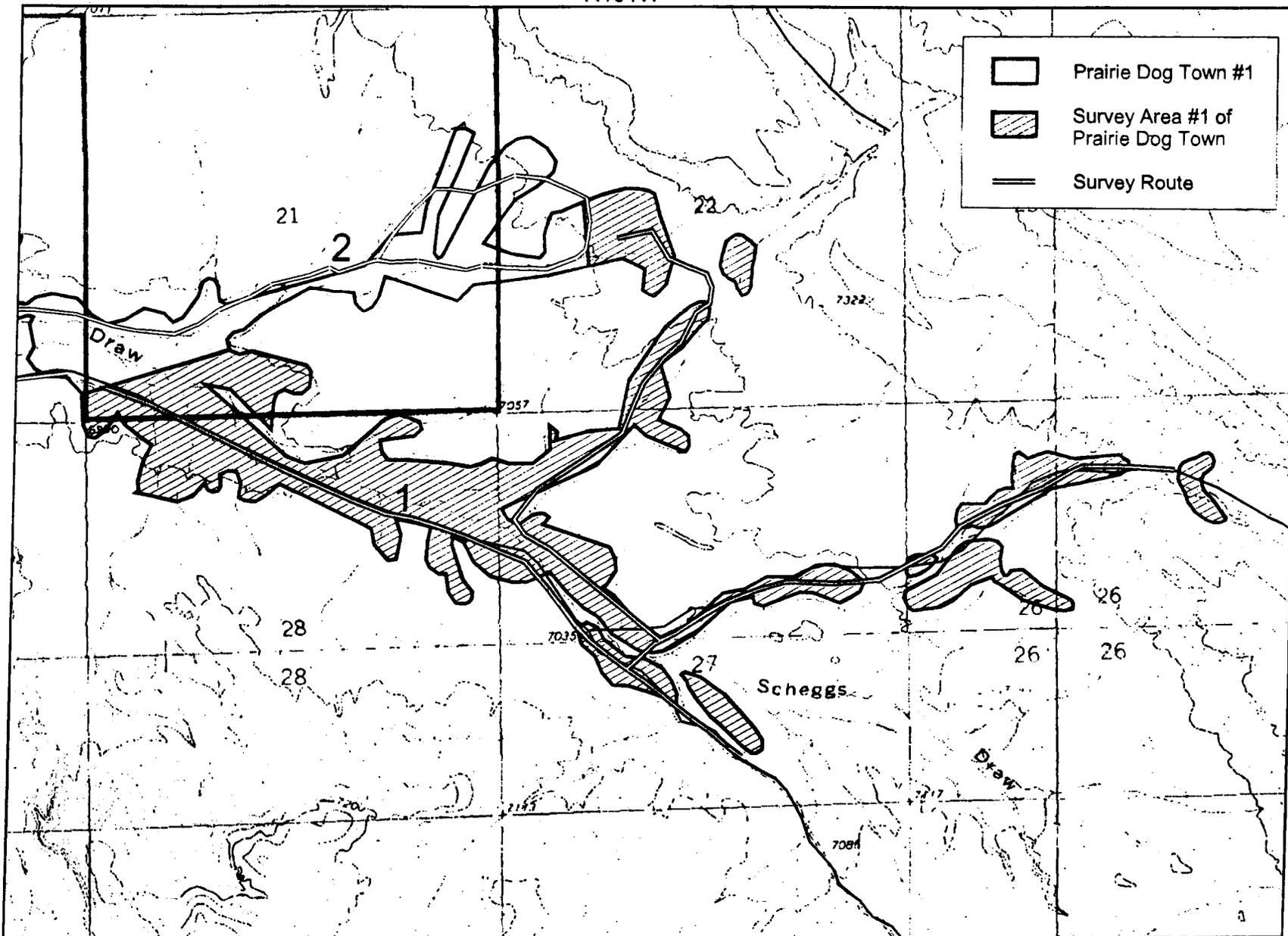


Figure 2. Black-footed ferret survey route #1-1 on the Pacific Rim Project Area.





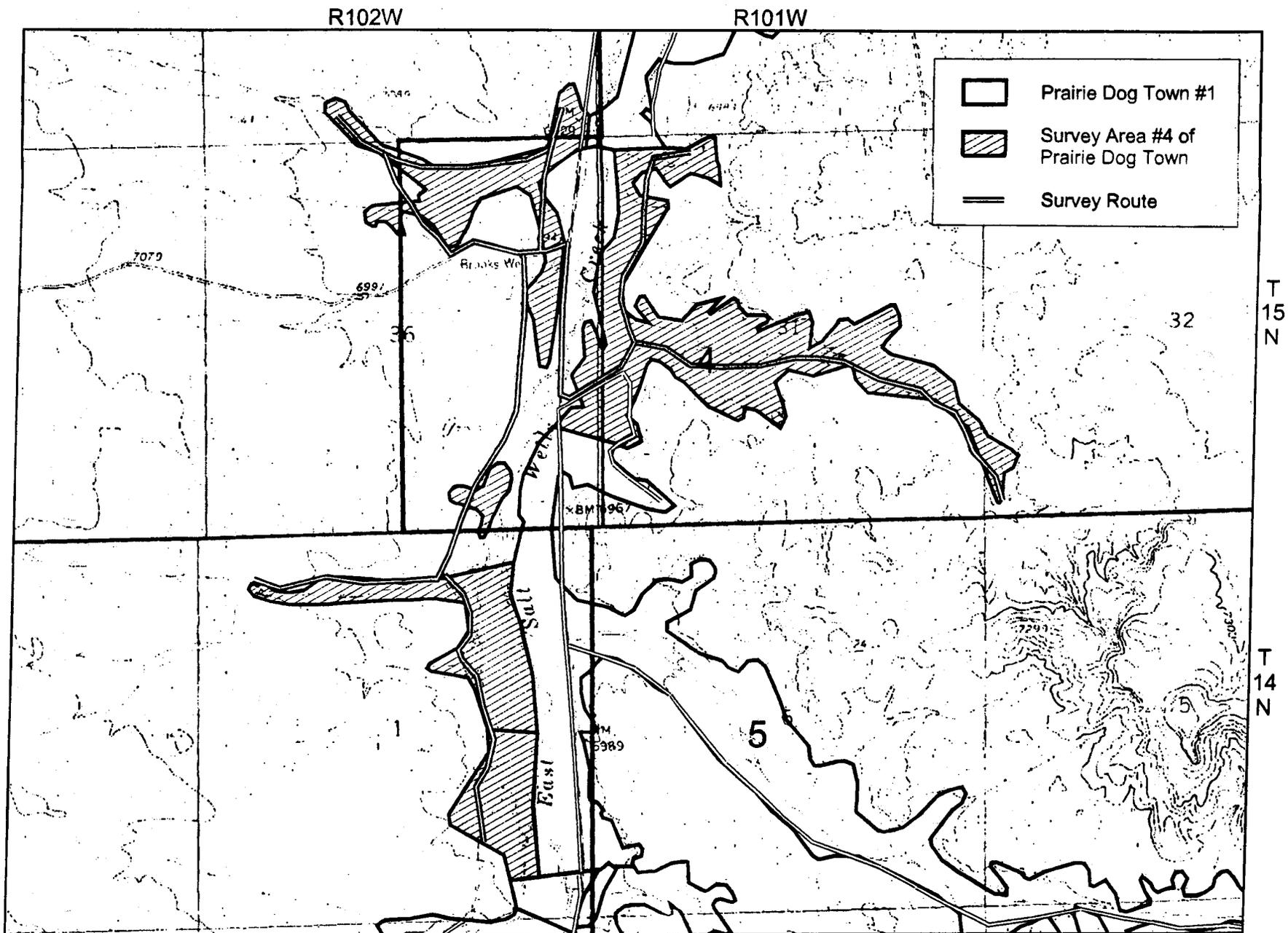


Figure 5 . Black-footed ferret survey route #1-4 on the Pacific Rim Project Area.

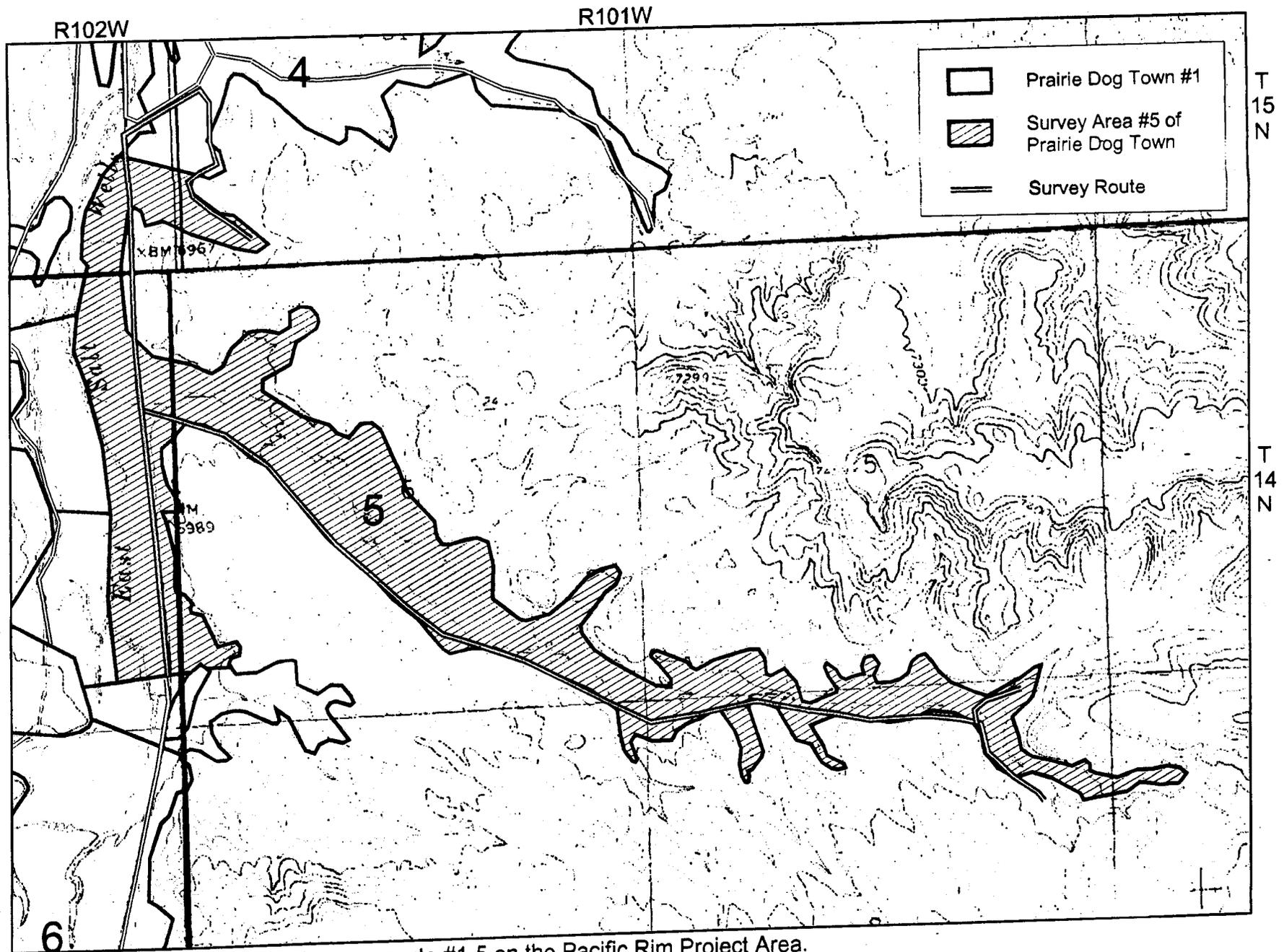


Figure 6 . Black-footed ferret survey route #1-5 on the Pacific Rim Project Area.

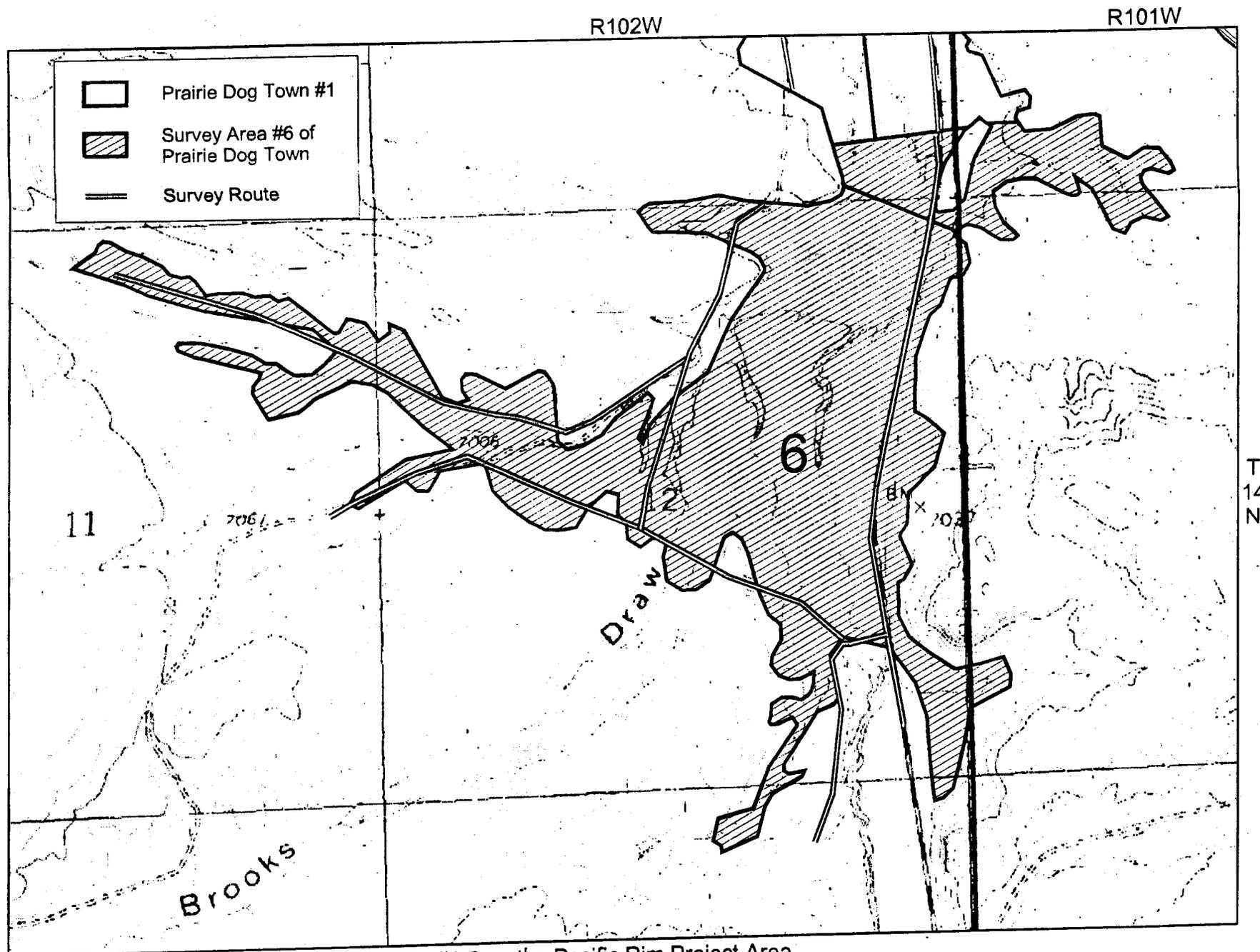


Figure 7. Black-footed ferret survey route #1-6 on the Pacific Rim Project Area.

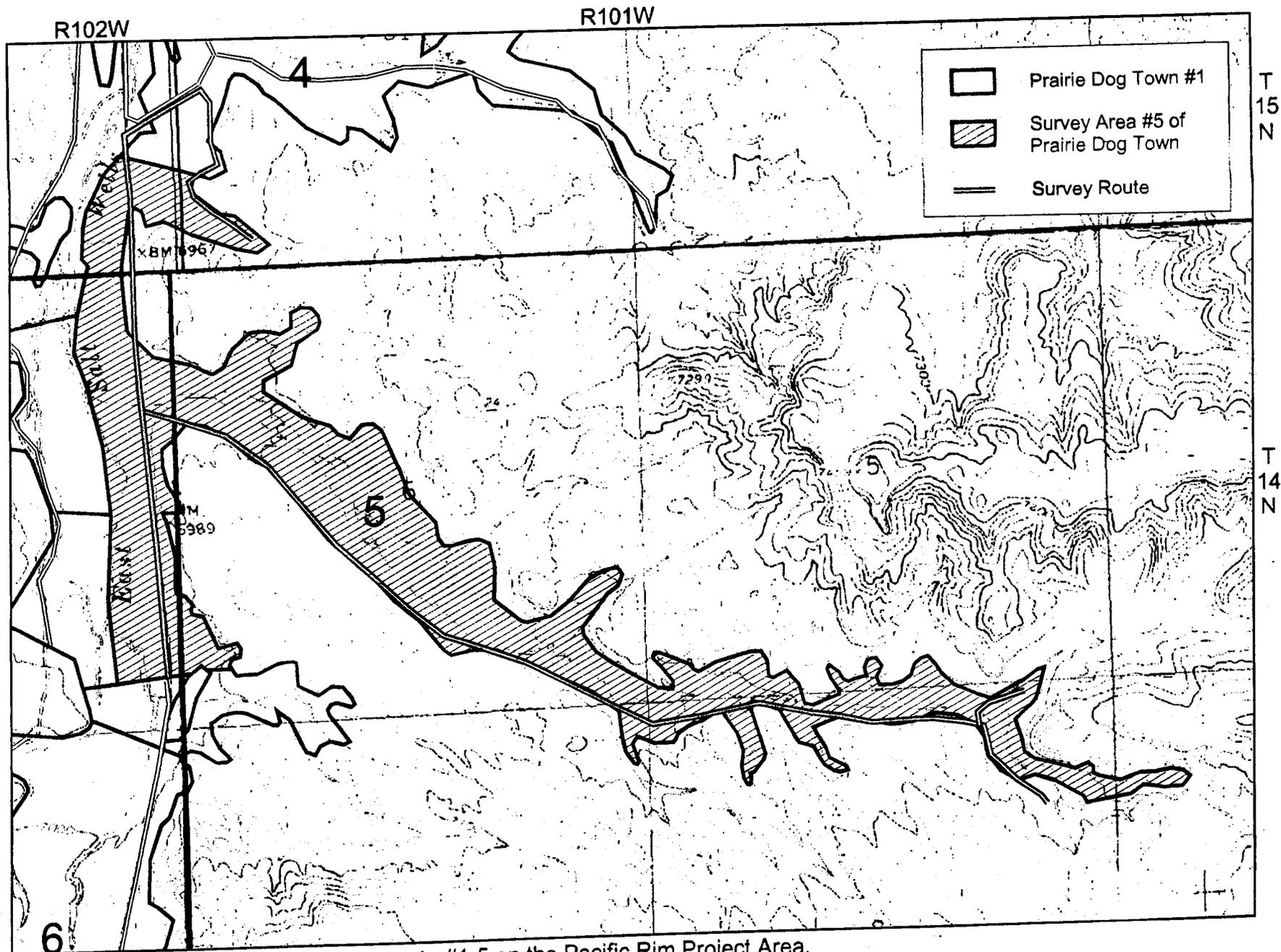


Figure 6 . Black-footed ferret survey route #1-5 on the Pacific Rim Project Area.

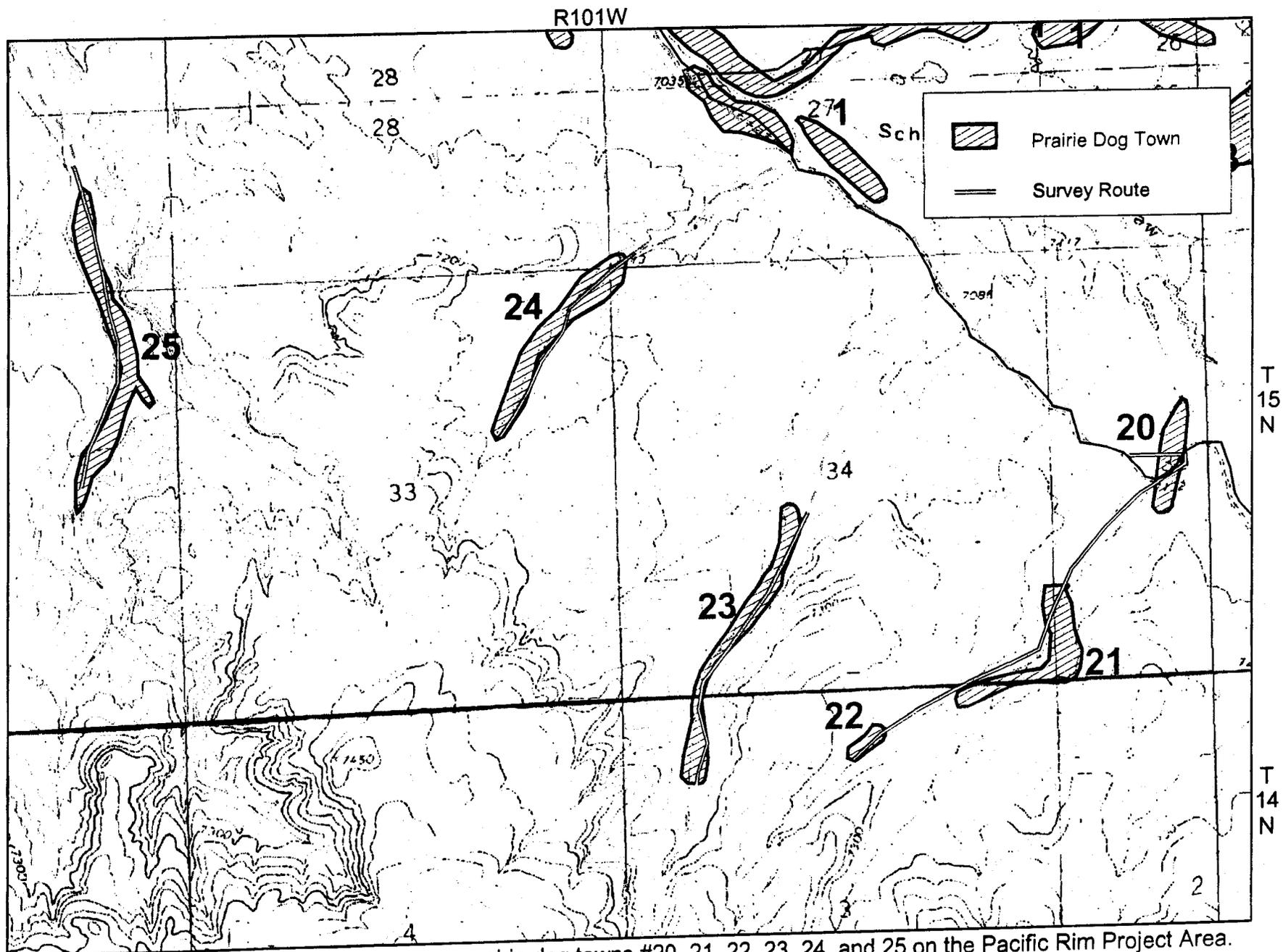


Figure 8. Black-footed ferret survey route on prairie dog towns #20, 21, 22, 23, 24, and 25 on the Pacific Rim Project Area.