

Appendix 16.D

2008 Black-footed Ferret Nocturnal Survey Report

2008 BLACK-FOOTED FERRET NOCTURNAL SURVEY REPORT

Navajo Mine Extension Project



PREPARED FOR:

BHP Navajo Coal Company
Navajo Mine Extension Project
Fruitland, New Mexico

PREPARED BY:

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AUGUST 2008

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1.0 INTRODUCTION

In 2007, Ecosphere Environmental Services (Ecosphere) documented five Gunnison's prairie dog (*Cynomys gunnisoni*) towns in Areas 4 South and 5 of the BHP Navajo Coal Company's (BNCC) Navajo Mine Extension Project (NMEP) area, comprising just over 700 acres of potential habitat for black-footed ferrets (*Mustela nigripes*; Figure 1). The U.S. Fish and Wildlife Service (USFWS 1988) developed revised guidelines for black-footed ferret surveys that establish minimum acres of prairie dog habitat needed to support black-footed ferrets. These guidelines have been established for black-tailed prairie dogs (*Cynomys ludovicianus*) and white-tailed prairie dogs (*Cynomys ludovicianus*) only. Based on discussion with the USFWS biologist, we followed those guidelines established for white-tailed prairie dogs (Lynn Gemlo, USFWS biologist, personal communication), the species most similar to and of the same family as the Gunnison's prairie dog. According to these revised black-footed ferret survey guidelines (USFWS 1988), prairie dog towns or complexes greater than 200 acres but less than 1,000 acres in size are cleared by USFWS after completion of a survey for black-footed ferrets, provided that no ferrets or their sign are found. The Navajo Natural Heritage Program (NNHP) of the Department of Fish and Wildlife (NNDFW) also developed survey guidelines. These guidelines are similar to those developed by the USFWS and were also incorporated into our survey efforts. Therefore, the survey efforts complied with both the UWFWS and the NNDFW. One prairie dog town was large enough to warrant black-footed ferret surveys (317 acres, Town E, Figure 1), and two other adjacent towns that combined, are >200 acres (218 acres, Towns C and D, Figure 1). Further, all five documented towns are within 4.2 miles of each other to comprise the minimum acreage to support black-footed ferrets (USFWS 1988). Therefore, we surveyed all five prairie dog towns for black-footed ferrets in July and August 2008.

2.0 PROJECT AREA

The NMEP area is located about 20 miles (linear distance) southwest of Farmington, New Mexico (Figure 2). The area is comprised of Great Basin desert-

scrub habitat (Dick-Peddie 1993). Great Basin desert-scrub habitat is a cold desert ecosystem dominated by a variety of shrubs with a sparse under story of forbs and grasses, with bare ground dominating in poor, alkaline soils (Fitzgerald et al. 1994, Dick-Peddie 1993). According to Hoogland (2006), such desert grasslands and shrublands of New Mexico provide suitable habitat for prairie dogs.

3.0 METHODOLOGY

We followed USFWS and NNDFW protocols (USFWS 1988, NNDFW 1985) for nocturnal surveys. We chose to conduct nocturnal surveys rather than diurnal surveys because the former method is designed to observe ferrets when their population is greatest (1 July - 31 October) and activity levels are highest, resulting in better detection of any possible remnant black-footed ferret population occurring in the NMEP area.

Prior to conducting field work, we totaled the acres of all five prairie dog towns (708 acres; Figure 1) and divided the total by 320 acres to determine the number of survey tracts (UWFWS 1988). As a result, the prairie dog towns were divided into 3 survey tracts: towns A and B represented tract 1, towns C and D represented tract 2, and tract 3 was comprised solely of town E (Figure 1).

We conducted surveys with 3 field crews, consisting of 2 biologists in a 4-wheel drive vehicle, assigned to 1 survey tract. Each crew was equipped with the following:

- 1 one-million candle power spotlight (Cyclops Solutions, LLC, Grand Prairie, TX)
- 1 two-million candle power spotlight (The Black and Decker Corporation, Towson, MD)
- 1 pair 8 x 42 binoculars (Eagle Optics, Middleton, WI)
- 1 Garmin hand-held Global Positioning System (GPS) units (Garmin International Inc., Olathe, KS)
- 1 digital camera (Olympus Imaging America, Inc. Center Valley, PA)
- 1 maglite (Mag Instrument, Inc., Ontario, CA)

We spotlighted continuously from dusk until dawn on two consecutive nights (29 and 30 July 2008). On the second consecutive survey night (30 July 2008), 2 of the field

crews were approached by 2 local men, while gathering at our nightly check-in point, near prairie dog town B. Following BNCC's Navajo Mine Extension Project Community Response Plan, all three field crews left the project area, having completed only about ½ of the survey. Upon discussion with the USFWS (Eric Hein, Biologist, USFWS, pers. comm.) and NNDFW (David Mikesic, Biologist, NNHP, pers. comm.), we agreed to complete a third, non-consecutive survey when BNCC could provide a security escort for our field crews (see Appendix A - Correspondence). We completed the third survey on 14 August 2008 without incident.

4.0 RESULTS

The results of our surveys efforts were negative, i.e. no black-footed ferrets or their sign were detected. Additionally, we did not observe any unidentified green eyeshine.

5.0 DISCUSSION

We did not observe any black-footed ferrets or their sign during our survey efforts. Similarly, in the last three years of conducting spotlighting surveys in the NMEP area, we also have not detected any black-footed ferrets or observed their sign. Further, black-footed ferrets are considered extirpated from New Mexico (Jim Stuart, Conservation Biologist, New Mexico Department of Game and Fish, pers. comm.). Therefore, based on the survey effort and familiarity with the project site, Ecosphere concludes that no black-footed ferrets occur in the NMEP area.

6.0 LITERATURE CITED

- Dick-Peddie, W. A. 1993. *New Mexico Vegetation: Past, Present, and Future*. University of New Mexico Press, Albuquerque, New Mexico.
- Fitzgerald, J.P., C.A. Meaney, and D.M. Armstrong. 1994. *Mammals of Colorado*. Denver Museum of Natural History and University Press of Colorado.
- Hoogland, J.L. 2006. *Conservation of the Black-tailed Prairie Dog: Saving North America's Western Grasslands*. Island Press, Washington, D.C.
- Navajo Nation Department of Fish and Wildlife (NNDFW). 1985. *Black-footed ferret guidelines for the Navajo Indian Reservation*. Navajo Fish and Wildlife Department. June 20, 1985.
- U.S. Fish and Wildlife Service (USFWS). 1988. *Black-footed ferret recovery plan*. U.S. Fish and Wildlife Service, Denver, Colo. 154 pp.

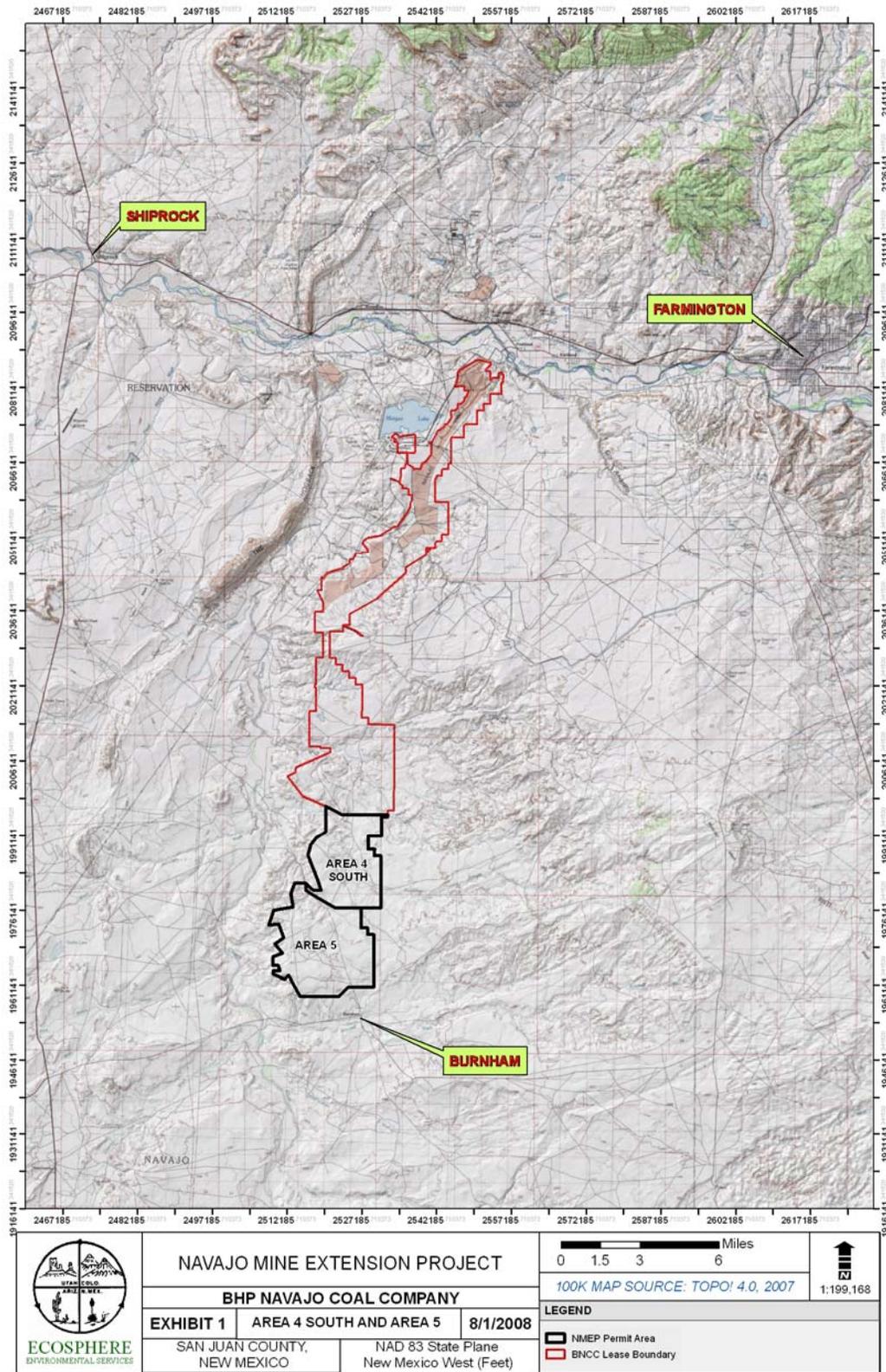


Figure 1. Vicinity map of Navajo Mine Extension Project (NMEP).

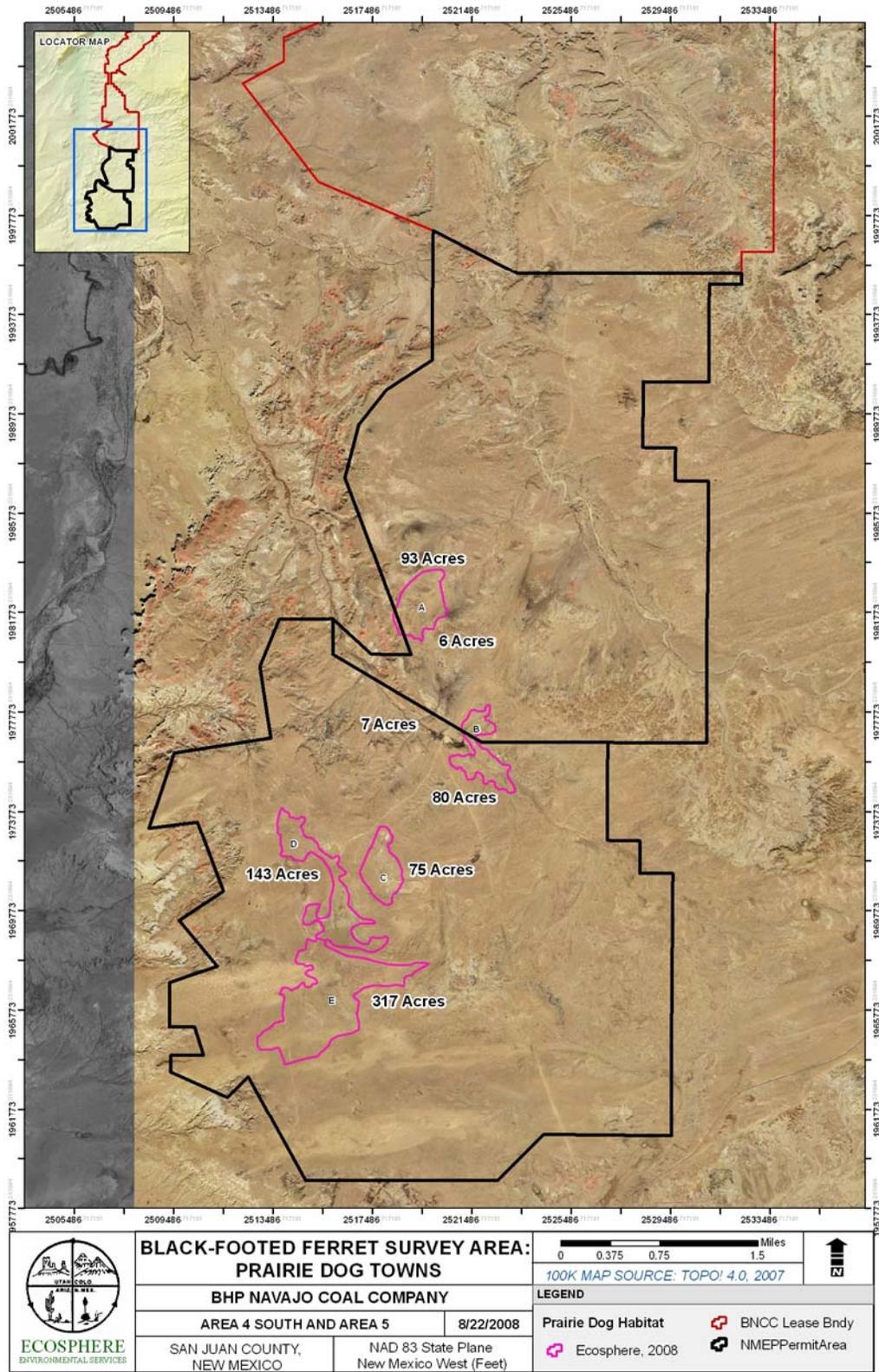


Figure 2. Map of prairie dogs towns surveyed for black-footed ferrets, Navajo Mine Extension Project (NMEP), 2008.

APPENDIX A. CORRESPONDENCE

Jennifer Zahratka

From: Eric_Hein@fws.gov
Sent: Monday, August 11, 2008 7:10 AM
To: dmikesic@navajofishandwildlife.org
Cc: 'Musslewhite, Brent'; jcole@navajofishandwildlife.org; Lynn_Gemlo@fws.gov; 'Owens, Matt P'; Jennifer Zahratka
Subject: RE: black footed ferret surveys on the Navajo Nation

We concur also Jennifer.

Eric

Eric W. Hein
U.S. Fish and Wildlife Service
2105 Osuna NE
Albuquerque, New Mexico 87113
505-761-4735; 346-2542 (fax)

"David Mikesic" <dmikesic@navajofishandwildlife.org>

08/08/2008 02:22 PM

Please respond to
<dmikesic@navajofishandwildlife.org>

To "Jennifer Zahratka" <zahratka@ecosphere-services.com>, <Eric_Hein@fws.gov>, <Lynn_Gemlo@fws.gov>, <jcole@navajofishandwildlife.org>

cc "Musslewhite, Brent" <Brent.Musslewhite@BHPBilliton.com>, "Owens, Matt P" <Matt.P.Owens@bhpbilliton.com>

Subject RE: black footed ferret surveys on the Navajo Nation

Jennifer et.al.,

Sorry you ran into issues with the locals while on BFF surveys; I agree with your argument below and concur that you could run the third and final survey in the upcoming week(s) and fulfill the survey needs set forth for this project. Let me know if you have any questions, or need for further comments.

*David Mikesic, Zoologist
Navajo Natural Heritage Program
Department of Fish and Wildlife
P. O. Box 1480
Window Rock, Arizona 86515
928-871-7070*

The information contained in this email is directed to the intended recipient(s) only and may be confidential and/or contain work product. Unauthorized or unintended recipients shall immediately notify David Mikesic upon receipt.

8/20/2008

Unauthorized use of this email is prohibited.

-----Original Message-----

From: Jennifer Zahratka [mailto:zahratka@ecosphere-services.com]
Sent: Friday, August 08, 2008 9:35 AM
To: Eric_Hein@fws.gov; dmikesic@navajofishandwildlife.org; Lynn_Gemlo@fws.gov;
jcole@navajofishandwildlife.org
Cc: Musslewhite, Brent; Owens, Matt P
Subject: FW: black footed ferret surveys on the Navajo Nation
Importance: High

All,

We plan to proceed with a third and final, non-consecutive survey for black-footed ferrets on the Navajo Mine Extension Project (NMEP) south of Farmington next week. We did not observe any ferrets or their sign during the first of two consecutive nights of survey effort; in the last three years of spotlighting for canids we have never observed any ferrets or their sign; and, black-footed ferrets are considered extirpated from New Mexico. Further, our surveys are very thorough, with 3 teams of 2 biologists covering 708 acres of Gunnison's prairie dog habitat. Therefore, I feel that we are in compliance with the intent of the USFWS and Navajo Nation protocol surveys in that, if there was a small, remnant population of black-footed ferrets at NMEP we would have discovered it or will discover it with these methods.

Lynn, Eric, or David: I would still appreciate a response that you concur with this argument and our plan to proceed with the third survey next week.

Thanks for your time,
Jennifer

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From: Jennifer Zahratka
Sent: Friday, August 01, 2008 10:18 AM
To: 'Lynn_Gemlo@fws.gov'; 'dmikesic@navajofishandwildlife.org'
Subject: black footed ferret surveys on the Navajo Nation

Lynn and David,

As you are both aware, we are conducting protocol surveys for black-footed ferrets (bff) for the Navajo Mine Extension Project just south of Farmington. We began those surveys this week; unfortunately, on the second night of surveys we had a negative encounter with two Navajo men and we left the area about 12:45 am. BHP (our client) attempted to provide security for us to complete the third survey night (which would have been last night), but were unable to do so on such short notice and promptly canceled any further survey efforts until security measures could be put in place. We will likely resume surveys between August 4th and 15th.

Could you please advise us on whether or not you feel we need to restart the surveys and complete 3 consecutive surveys or if we can simply conduct one more 3rd survey, albeit not consecutive? We did not observe any bff during the surveys we have completed thus far.

Thank you,
Jennifer

8/20/2008

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8/20/2008

APPENDIX B. DATA SHEETS

BLACK-FOOTED FERRET SURVEY FORM
NOCTURNAL (NIGHTTIME) SURVEY

Date of Survey 29/30 July 2008 Species of Prairie Dog gambelii
(Night of)

Name of Individual, Location survey was conducted:

Name: Ecosphere Environmental Services (J. Zahratka + 5 staff biologists)
Location: Navajo Mine Extension Project, ~20 miles S of Farmington, NM

Weather: Temperature begin 82°F - end 61°F Wind Speed & Direction 5-8 mph
Cloud Cover clear (N)

Begin Survey: 2030 hrs End Survey: 0530 hrs

Total Man/Hrs. 54 hrs

Source:

www.underground.com/US/NM/Farmington.html#History

General Comments: (possible ferret sign encountered, tracks observed,
unidentified green eyeshine observed etc.)

No black-footed ferrets or their sign observed.

NM STATE WILDLIFE &
NATURAL RESOURCES DEPT.

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BLACK-FOOTED FERRET SURVEY FORM
NOCTURNAL (NIGHTTIME) SURVEY

Date of Survey 30/31 July 2008 Species of Prairie Dog Gambel's

Name of Individual, Location survey was conducted:

Name: Ecosphere Environmental Services (J. Zahradka + 5 staff biologists)

Location: South of Farmington, NM, Navajo Mine Ext. Project

Weather: Temperature begin 85°F - end 60°F Wind Speed & Direction 6-10 mph (ENE)

Cloud Cover clear

Begin Survey: 2045

End Survey: 0015

Total Man/Hrs. 21

General Comments: (possible ferret sign encountered, tracks observed, unidentified green eyeshine observed etc.)

No black-footed ferrets observed, or their sign.

2008 JEM &
N.M. DEPT.

BLACK-FOOTED FERRET SURVEY FORM
NOCTURNAL (NIGHTTIME) SURVEY

Date of Survey 14/15 Aug 2008 Species of Prairie Dog gambelii
(Night of)

Name of Individual, Location survey was conducted:

Name: Ecosphere (M. Vivalda + 5 biological staff)

Location: S of Farmington, NM, Navajo Mine Extension Project

Weather: Temperature begin 70°F - end Wind Speed & Direction 6-10 mph

Cloud Cover clear (NNE)

Begin Survey: 2045 End Survey: 0530

Total Man/Hrs. 51

General Comments: www.underground.com/us/nm/farmington.html#History
(possible ferret sign encountered, tracts observed,
unidentified green eyeshine observed etc.)

No black footed ferrets or their sign observed.

WASH &
DEPT.

MV
JB