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CORRES. CONTROL
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DOE ORDER# 4700.1
RF 09123

EG&G ROCKY FLATS

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| DIST. | LTR | ENC |
|------------------|-----|-----|
| MAFAL, M.E. | | |
| MURLINGAME, A.H. | | |
| MUSBY, W.S. | X | |
| BRANCH, D.B. | | |
| CARNIVAL, G.J. | | |
| AVIS, J.G. | | |
| FERRERA, D.W. | | |
| RAY, R.E. | | |
| WEIS, J.A. | | |
| GLOVER, W.S. | | |
| GOLAN, P.M. | | |
| GIANNI, B.J. | | |
| ARMAN, L.K. | | |
| HEALY, T.J. | | |
| DEAHL, T. | | |
| HILBIG, J.G. | | |
| MUTCHINS, N.M. | | |
| JACKSON, D.T. | | |
| WELL, R.E. | | |
| WUESTER, A.W. | | |
| MARX, G.E. | | |
| MCDONALD, M.M. | | |
| McKENNA, F.G. | | |
| MONTROSE, J.K. | | |
| MORGAN, R.V. | | |
| MOTTER, G.L. | | |
| MIZZUTO, V.M. | | |
| MISING, T.L. | | |
| MANDLIN, N.B. | | |
| SCHWARTZ, J.K. | | |
| METLOCK, G.H. | | |
| STEWART, D.L. | | |
| METIGER, S.G. | | |
| MOBIN, P.M. | | |
| MOORHEIS, G.M. | | |
| WILSON, J.M. | | |
| Clange | X | |
| CORRES. CONTROL | X | |
| ADMIN RECORD | X | |
| TRAFFIC | | |
| ATS/T130G | | |

August 31, 1994

94-RF-09123

Scott R. Grace
Environmental Restoration Division
DOE/RFFO

OPERABLE UNIT 2 PRAIRIE DOG ENCROACHMENT - GRK-040-94

Action: Respond to suggestions on prairie dog encroachment

Sue Stiger received a letter from you dated August 12, 1994, documenting your concern of the recent westward advancement of prairie dogs across Operable Unit 2 (OU2). I have asked for input from a variety of sources on potential plans of action to deal with this infestation and have come up with the following possible solutions:

- Extermination of prairie dogs through the use of water soluble tablets that give off phosgene gas when made to come into contact with water. This was the method used to reduce the prairie dog population in OU3. The procedure involved dropping two to seven tablets down each hole and then stuffing newspapers into the hole to prevent any gas escaping. The end products of the fumigant were ammonia and phosphate and therefore resulted in no secondary poisoning. This provided good results for OU3 but can have some drawbacks such as killing other burrow inhabitants, and reducing the food supply for raptors during the following winter. Additionally, there is no assurance that the prairie dogs will not come back (see M. B. Murdock letter).

This method would cost approximately \$2.00 per burrow hole and could be done in one day (assuming there are less than 2500 holes). This would need to be followed up with an annual maintenance program for roughly the same cost as the initial procedure.

- Increased predation of prairie dogs through the introduction of additional raptors to the area of Rocky Flats. We understand that this would likely thin the population, but we are unsure as to the method involved in increasing the raptor population. This solution cannot assure complete results due to the fact that the prairie dogs spend much of their time below ground.

- Trapping and relocation of prairie dogs. This option is probably the most problematic, and therefore, not a good solution. Some of the potential problems associated with this option include finding a place in which to relocate the dogs and handling potentially bubonic plague ridden animals. Also this undertaking would be very time consuming and could not guarantee 100 percent successful capture.

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CLASSIFICATION OFFICE
DATE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS
 PARTIAL/OPEN
 CLOSED
TR APPROVALS:

DRIG & TYPIST INITIALS
TCL/bll

[Signature]
F-46 (Rev. 6/94)

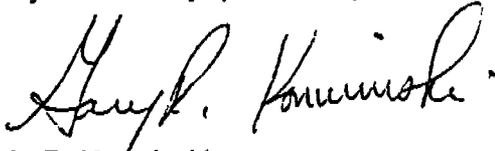
ADMIN RECORD
BZ-A-00142

Scott R. Grace
August 31, 1994
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Once the prairie dogs were eradicated from OU2, some means of preventing any future infestation may be necessary. This could be achieved by installation of barriers to inhibit future prairie dog advancement into the area. These barriers would optimally be opaque and seamless as well as being two feet high and one foot deep into the ground (see M. B. Murdock letter). This option would most likely be expensive due to the exact specifications of the barrier. Vegetation could also be allowed to grow in areas of infestation (such as along the east access road).

Our preferred alternative would be to utilize the extermination option. Please advise us of your thoughts on this matter.

If you have any questions, please contact Tom Lange at extension 8797.



G. R. Korwinski
Manager
Feasibility Studies/Treatability Studies

TCL:bl

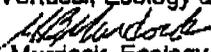
Original and 1 cc - S. R. Grace

Attachment:
As Stated

INTEROFFICE CORRESPONDENCE

DATE: August 30, 1994

TO: F.A. Vertucci, Ecology and Watershed Management, Bldg. T130B, X 3427

FROM: 
M. B. Murdock, Ecology and Watershed Management, Bldg. T130B, X 3560

SUBJECT: PRAIRIE DOG ENCROACHMENT ACTION PLAN FOR OU2 - MBM - 009 - 94

While prairie dogs can sometimes be considered a nuisance, and may be judged by some as destructive to their environment, they are an important component of the prairie ecosystem. When prairie dogs are present in a prairie ecosystem from which livestock grazing is excluded, the grasslands are not over stressed, and the plant communities, though closely cropped, demonstrate healthy communities in normal plant associations. Prairie dogs are a portion of the biodiversity at RFETS, and contribute a large portion of the prey base for coyotes and raptors, particularly during the winter. The large numbers of over-wintering raptors in the RFETS vicinity in recent years is in large part due to the extensive network of prairie dog colonies in the local area. This situation may change during the winter of 1994-95 due to a major die-off of prairie dogs at RFETS and the surrounding vicinity.

The Black-tailed Prairie Dog populations at Rocky Flats Environmental Technology Site have experienced a serious decline since June 1994. Surveys conducted during the last week of July 1994 produced very few sightings of prairie dogs in any of the colonies at RFETS or in Operable Unit 3 (OU3). Subsequent observations of prairie dog colonies at RFETS and on adjacent properties have confirmed that very low numbers of prairie dogs are in evidence. The affected areas include Boulder County Open Space to the north of Highway 128, all areas east of Indiana and north of Woman Creek, the area around Interlochen and the Jefferson County Air Park, and RFETS.

A call to Dr. John Pape, the zoonoses epidemiologist for the Colorado Department of Health confirmed that plague has been found in the vicinity of RFETS. He noted that there had been reports of prairie dog plague in the area where Jefferson, Boulder, and Adams counties meet. The nearest confirmed case of plague was a domestic dog just east of the Jefferson County Air Park. Infected fleas have been collected in that area as well. He also confirmed that there had been reports of prairie dog die-offs along Highway 128 and Indiana.

It is very likely that the decline in numbers and outright disappearance of prairie dogs at RFETS is due to plague. According to Dr. Pape this does not pose a serious human health risk, however, those handling small mammals should take proper precautions against flea bites. Those personnel entering prairie dog colonies should also protect from the possibility of flea bites. The fleas in question are very species-specific to their host organism, and will normally not seek out humans. This may not be the case if a human is handling a plague killed prairie dog, however, and the fleas are abandoning the dead host in favor of a new, live, warm one.

X The encroachment of prairie dogs into Operable Unit 2 (OU2) should currently not be considered a major problem. The entire population of prairie dogs in OU2 is approximately 8 to 10 animals located along the east access road between the U.S. Air Force Radio Tower and the inner East Gate. No other animals are in evidence in OU2 as of this date.

In light of the dramatic decline in numbers of prairie dogs in OU2, an immediate encroachment control program should be considered unnecessary, however, based on previous inquiries to the Colorado Division of Wildlife, and the U.S. Fish and Wildlife Service at the Rocky Mountain Arsenal, the following are the most effective control methods currently known:

- Prairie dogs can be trapped and relocated. The drawbacks to this method of control are many; 1) the animals cannot be relocated off the owner's own property without extensive justification and permitting, 2) with the likelihood of plague infested animals, unusual health and safety precautions must be observed, 3) trapping and relocation is extremely time consuming, and capturing all animals may be impossible, and 4) there is no way to ensure that prairie dogs will not recolonize.
- Prairie dog colonies can be poisoned. The drawbacks to this method, excluding public reaction, are several; 1) poisoning is not species specific, and therefore other species such as mice, voles, ground squirrels, rabbits, and pocket gophers may also be affected, 2) removal of the remaining prairie dogs in the area may affect the ability of over-wintering raptors to survive the winter (this may be a larger issue if the Bald Eagles move their foraging activities to RFETS to take advantage of what prairie dogs are still available in the area), and 3) there is no way to ensure that prairie dogs will not recolonize.
- Installation of barriers to prairie dog movement can be used successfully, but there are limitations to the success. The experiences at the Rocky Mountain Arsenal indicate that small areas can be removed from use by prairie dogs by installation of visual barriers. The limitations of this method are that the visual barrier between the prairie dogs and the area to be protected must be complete. This requires a completely opaque, seamless barrier with absolutely no visual gaps. The barrier must be at least 2 feet high and buried at least a foot deep.

Attached is a copy of the report prepared a year ago to provide Plant Maintenance with guidance for excluding prairie dogs from transformers and other equipment near the U.S. Air Force Radio Tower. This guidance was developed after extensive consultation with the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service.

Should you require further information, please call me.

cc:
J. D. Krause
P. A. Lee
T. R. Ryon
File