

Title

Preactivity Survey Report for Five Tonopah Test Range Explosive Ordnance Disposal Sites
Pre-activity survey report to clear areas to be cleaned up. No sensitive species were reported. Technical Reference Document

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PREACTIVITY AND RECLAMATION SURVEY REPORTS FOR FIVE TONOPAH TEST RANGE EXPLOSIVE ORDNANCE DISPOSAL SITES

Enclosed are the preactivity and reclamation survey reports for five Explosive Ordnance Disposal (EOD) sites located on the Tonopah Test Range (TTR). The request for a preactivity survey was received from the Environmental Restoration Division (ERD), U.S. Department of Energy, Nevada Operations Office (DOE/NV) on April 25, 1994. ERD requested that the preactivity survey be completed as soon as possible. In a meeting held May 9 with Kevin Cabbie and Frank Maxwell of ERD, the survey deadline was extended to June 30, 1994. In addition, Mr. Cabbie requested that EG&G/EM conduct reclamation inventories and prepare reclamation plans for the five TTR sites. Biologists conducted the surveys on June 21 and 22, 1994.

All recommendations and reclamation plans pertaining to the five EOD sites are in the reports. If you have any questions, please call me at 794-7474.

W. Kent Ostler, Director
Environmental Sciences Division

srb

Enclosure:

Preactivity Survey Report
Reclamation Survey Report

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Correspondence File

BECAMP Outgoing File

BECAMP Survey File #94-20 (w/encl)

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**PREACTIVITY SURVEY REPORT FOR
FIVE TONOPAH TEST RANGE
EXPLOSIVE ORDNANCE DISPOSAL SITES**

Submitted to

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Environmental Restoration Division
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February 27, 1995

PROJECT DESCRIPTION

The Environmental Restoration Division (ERD) of the U.S. Department of Energy, Nevada Operations Office (DOE/NV), plans to remove explosive military weapons from five Explosive Ordnance Disposal (EOD) sites located on the Tonopah Test Range (TTR) (Figure 1). The five EOD sites are 1) the Bomblet Pit, 2) Five Points Landfill, 3) Roller Coaster Sanitary Sewer System, 4) Area 9 Landfill, and 5) Area 9 Construction Debris Pit (Figure 2). Various ordnances such as bomblets, rocket booster parts, empty ammunition canisters, practice bombs, target drums, and missile motors will be removed from these sites. Existing fences around these sites also will be removed. At all five sites, cleanup activities will be restricted to existing land disturbances and efforts will be made to recontour and revegetate them after closure.

Bomblet Pit

The Bomblet Pit is located at Universal Transverse Mercator (UTM) Coordinates 524724mE; 4181122mN. The fenced pit is 6- x 14-m and contains numerous bomblets and ordnance parts (Figure 3). A small mound of soil is located to the north of the pit. This soil will be used to backfill the pit once the ordnance is removed. The ordnance will be placed into a shielded backhoe and transported to a 30- x 40-m detonation area, approximately 100 m northwest of the existing pit. EOD personnel will discharge the unexploded ordnance from a 10- x 20-m staging area which is located 150 m north of the Bomblet Pit and 100 east of the detonation area. The pit will be accessed by existing roads. Once the ordnance is removed, ERD will backfill, recontour, and revegetate the pit area. The staging and detonation areas will not be revegetated since they may be used for other TTR activities in the future.

Five Points Landfill

Five Points Landfill is located at UTM Coordinates 529402mE; 4184706mN. The inactive landfill is fenced and is approximately 115-m-long x 29-m-wide. It contains metallic ordnance, wood, and construction debris (Figure 4). One spent rocket motor is located in a wash approximately 80 m northeast of the landfill. ERD plans to remove the rocket motor by hand. The debris inside the landfill will be removed with heavy equipment. Buried metal has been detected in a large earthen mound east of the landfill. Project personnel will inspect the mound and remove any debris found within the soil. Access to the project area will be by Perimeter Road and two old trails which are adjacent to either side of the landfill. ERD will backfill, recontour, and revegetate this site once the debris is removed.

Roller Coaster Sanitary Sewer System

The Roller Coaster Sanitary Sewer System is located at UTM Coordinates 523981mE; 4175027mN. The sewer system consists of three inactive sewage lagoons which contain

visible contents such as target drums, spent missile motors, empty propellant cans, old sandbags, insulation, fuel cans, and construction debris. A 47- x 51-m fenced area surrounds two of the lagoons (Figure 5). The third lagoon, which is approximately 5 m northeast of the two lagoons, is located within a 20- x 40-m fenced area. A large soil pile is located directly north of the single lagoon. Heavy equipment will be used to remove the debris from this site. ERD will backfill, recontour, and revegetate this site once the debris is removed. Access to the project area will be by the existing road and turnaround area.

Area 9 Landfill

The Area 9 Landfill is located at UTM Coordinates 525338mE; 4189355mN. Visible contents of the landfill include rocket booster parts, empty ammunition cannisters/wooden boxes, 55-gallon drums, practice bombs, and construction debris. Geophysics study results of the project area indicate several areas surrounding the landfill which contain buried metallic debris. The total project area for this site, 80 x 145 m, includes the 15- x 24-m landfill, the buried metallic debris, and a large soil mound (Figure 6). The mound of soil located southwest of the landfill may be used to backfill the open pit once the debris is removed. Access to the landfill project area will be by the Area 9 Bypass Road. ERD will backfill and recontour the landfill project area and the area will be reseeded with a mixture of native plant species.

Area 9 Construction Debris Pit

The Area 9 Construction Debris Pit is located at UTM Coordinates 524840mE; 4189157mN. The 25- x 30-m site, which consists of large expanses of concrete from a destroyed target area, also contains two small rocket parts (Figure 7). Only the rocket parts will be removed. This will be done by hand without the aid of heavy equipment. Therefore, no disturbance to the vegetation or soils is expected inside the previously disturbed areas at this site. There are no plans to revegetate this site. Access to the site will be by Lake Road.

AREA DESCRIPTION

TTR is in south-central Nevada, approximately 48 km southeast of Tonopah, Nevada and approximately 20 km north of the Nevada Test Site northern boundary (Figure 1). The 1617-km² range encompasses most of Cactus Flat Valley. Dominant plant species for this area include greasewood, *Sarcobatus baileyi*, horsebrush, *Tetradymia glabrata*, saltbrush, *Atriplex* sp., rabbitbrush, *Chrysothamnus* sp., galleta grass, *Hilaria jamesii*, and Indian rice grass, *Oryzopsis hymenoides*. Deep, sandy alluvium soils are found throughout the valley and at each of the five sites.

Eastwood's milkweed, *Asclepias eastwoodiana*, a Category 2 candidate plant species for federal listing, is known to occur on TTR in gullies and washes between areas of desert

pavement (Rhoads et al. 1979; Morefield and Knight, 1992). The closest population of *A. eastwoodiana* occurs approximately 9 km from the Bomblet Pit. Wild horses, which are protected by federal law, are often found roaming TTR. Other plant and animal species of concern which may occur on TTR are listed in Table 1.

The Bomblet Pit is located 3.3 km southeast of the Area 3 Compound and 1.5 km north of Praker Road (Figure 2). The pit is in Cactus Flat and is surrounded by existing dirt roads

The site has an elevation of 1,640 m and an easterly aspect sloping 2-3%.

Five Points Landfill is located approximately 8.3 km northeast of the Area 3 compound, 2 km north of Five Points intersection, adjacent to Perimeter Road (Figure 2). The site has an elevation of approximately 1,650 m, a westerly aspect, and a slope of 3-5%.

The Roller Coaster Sanitary Sewer System is located approximately 7.5 km south of the Area 3 compound and 610 m east of South Main Road (Figure 2). The site has an elevation of 1,660 m and an easterly aspect. The slope at the site is between 2-5%.

The Area 9 Landfill is located approximately 8 km northeast of the Area 3 Compound adjacent to the Area 9 Bypass Road (Figure 2). The site has an elevation of approximately 1,630 m and a southwest aspect that slopes approximately 1-2%.

The Area 9 Construction Debris Pit is located approximately 0.75 km west of the Area 9 landfill and is almost adjacent to the dry lake bed (Figure 2). The elevation at the site is approximately 1,630 m. The area slopes to the southwest at 1-2%.

SURVEY METHODS

On June 21, 1994, project personnel escorted biologists to each site and designated which

No species of concern, their habitat, or important biological resources were found at any of the five sites. One prong-horned antelope was seen near the Five Points Landfill outside of the project boundaries. Wild horses were seen throughout TTR. No species of concern (Table 1) should be adversely affected by cleanup at the sites.

Biologists surveyed 1.1 ha at the Bomblet Pit, including the 10-m buffer (Figure 3). Project activities will result in the cleanup and revegetation of approximately 0.04 ha at the Bomblet Pit. The staging and detonation areas will not be revegetated since they may be used for other TTR activities in the future.

Approximately 4 ha were surveyed around the Five Points Landfill, including the 50-m buffer (Figure 4). The landfill appears to have been constructed in a natural wash. Closure activities at this site are estimated to cleanup and revegetate approximately 0.89 ha.

Biologists surveyed 3.8 ha at the Roller Coaster Sanitary Sewer System, including the 50-m buffer (Figure 5). Project activities will result in the cleanup and revegetation of approximately 1.3 ha of previously disturbed land, or 1.6 ha if the access road is included.

Over 4 ha were surveyed at the Area 9 Landfill, including the 50-m buffer (Figure 6). Cleanup and revegetation activities at this site are estimated to effect approximately 0.7 ha.

Approximately 0.2 ha were surveyed for the Area 9 Construction Debris Pit, including the 50-m buffer to the east of the debris pit (Figure 7). There are currently no plans to remove the concrete or recontour and revegetate the site. Removal of the rocket parts will not create new land disturbances.

RECOMMENDATIONS

It is recommended that the following actions be taken to minimize land disturbance during cleanup activities at the five TTR sites:

- Project activities should remain within 10 m of the bomblet pit area, staging area, detonation area, and the staging area and detonation area access roads.
- Project activities should remain within existing disturbed areas at all five EOD sites.
- All vehicle traffic should be restricted to existing access roads and previously disturbed areas.
- Revegetation at four of the five sites should be conducted according to site-specific reclamation recommendations provided in the reclamation survey report.

- The results and recommendations included in this report are valid for the duration of these five projects.

LITERATURE CITED

Morefield, J. D., and T. A. Knight. 1992. Endangered, Threatened, and Sensitive Vascular Plants of Nevada. Nevada Office of the BLM, Reno. 46 p.

Rhoads, W. A., S. A. Cochrane, and M. P. Williams. 1979. Status of Endangered and Threatened Plant Species On the Tonopah Test Range - A Survey. National Technical Information Service, UC-11 EGG 1183-2387 s-687-R. 76 p.

TABLE 1. SPECIES OF CONCERN WHICH ARE KNOWN TO OCCUR OR MAY OCCUR AT THE FIVE RCRA CLOSURE SITES ON THE TONOPAH TEST RANGE.

Plant Species:	Common Name	Status ^a	Occurrence
<i>Asclepias eastwoodiana</i>	Eastwood's milkweed	ESA-C2	May occur
Members of the Cactaceae Family	Cacti	NV-P	Known to occur

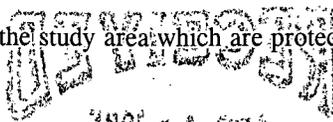
Bird Species ^b :	Common Name	Status	Occurrence
<i>Aquila chrysaetos</i>	Golden eagle	EA, NV-P	May occur
<i>Lanius ludovicianus</i>	Loggerhead shrike	ESA-C2	May occur

Mammal Species:	Common Name	Status	Occurrence
<i>Antilocapra americana</i>	Prong-horned antelope	NV-G	Known to occur
<i>Equus caballus</i>	Horse	H&B	Known to occur
<i>Odocoileus hemionus</i>	Mule deer	NV-G	May occur
<i>Sylvilagus audubonii</i>	Desert cottontail	NV-G	May occur

^a - Status codes

- ESA - Endangered Species Act; E - Endangered; T - Threatened; C1 - Category 1 Candidate; C2 - Category 2 Candidate; C3 - Category 3 Candidate
- NV-E - Endangered under Nevada Division of Forestry
- NV-P - Protected by State of Nevada
- NV-G - Regulated as game by State of Nevada
- NV-F - Regulated as furbearer by State of Nevada
- H&B - Protected under Wild Free Roaming Horses and Burros Act
- EA - Protected under Bald and Golden Eagle Act

^b - Includes all bird species that may occur at the study area which are protected by the Migratory Bird Treaty Act or by Nevada Administrative Code 503.050.



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