
**Pacific Northwest
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**Blanket Biological Review For
General Maintenance Activities
Within Active Burial Grounds,
200 E and 200 W Areas,
ECR #99-200-042**

C.A. Brandt

April 1999



Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RL01830

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April, 1999

PNNL-13878

Mr. Brett M. Barnes
Waste Management Hanford, Inc.
P. O. Box 700, MSIN T4-04
Richland, WA 99352

Dear Mr. Barnes:

BLANKET BIOLOGICAL REVIEW FOR GENERAL MAINTENANCE ACTIVITIES
WITHIN ACTIVE BURIAL GROUNDS, 200 E and 200 W Areas, ECR #99-200-042.

Project Description:

- General maintenance within the active burial grounds includes planting shallow rooted vegetation for erosion control, removal of deep-rooted vegetation, filling and compacting of subsidence areas, and repairing damage caused by wind or water erosion, animal burrowing, and insect intrusion. When soil is required for fill, it is usually obtained from spoil piles within the burial grounds.
- Active burial grounds covered by this blanket review (except where noted below) include: the 218-E-10 and 218-E-12B burial grounds in 200 East area, and the 218-W-3A, 218-W-3AE, 218-W4-B, 218-W-4C, 218-W-5, and 218-W-6 burial grounds in 200 West Area.
- Several areas are specifically NOT covered by this blanket review because they have not been developed for waste management purposes and they are dominated by native vegetation. Any disturbance within these areas will require a separate ecological review.

Areas that are not covered by this review include:

- The undeveloped portion of the 218-E-10 burial ground, north of the existing power lines (north of approximately N46000)
- The undeveloped portion of 218-W-4C (along 16th street, east of W77269)
- The western half of the 218-W-6 burial ground, west of the existing power lines.

Survey Objectives:

- To determine the occurrence in the project area of plant and animal species protected under the Endangered Species Act (ESA), candidates for such protection, and species listed as threatened, endangered, candidate, sensitive, or monitor by the state of Washington, and species protected under the Migratory Bird Treaty Act,
- To evaluate the potential impacts of disturbance on priority habitats and protected plant and animal species identified in the survey.

Survey Methods:

- For most of the areas covered under this review, site access restrictions did not allow for pedestrian surveys within the burial grounds. Therefore, most of the information available for these sites was inferred from visual observations from the burial ground perimeters. The Braun-Blanquet cover-abundance scale (Bonham 1989) was used to estimate percent cover of dominant vegetation,
- The active burial grounds within 200 East Area covered under this blanket review were surveyed by C. A. Duberstein and M. R. Sackschewsky on 14 April 1999. The Active burial grounds in 200 West Area were surveyed by M.R. Sackschewsky on 16 April 1999.
- Priority habitats and species of concern are documented as such in the following: Washington Department of Fish and Wildlife (1994, 1996), Washington State Department of Natural Resources (1997), and for migratory birds, U.S. Fish and Wildlife Service (1985). Lists of animal and plant species considered Endangered, Threatened, Proposed, or Candidate by the USFWS are maintained at 50 CFR 17.11 and 50 CFR 17.12.

Survey Results:

- The southern portion of 218-E-10 Burial ground has been previously disturbed, and is dominated by cheatgrass (*Bromus tectorum*) and Sandberg's bluegrass (*Poa sandbergii*), with some planted crested wheatgrass (*Agropyron cristatum*). The northern portion (exempt from this blanket review) includes several areas planted to crested wheatgrass, and a large area dominated by big sagebrush (*Artemisia tridentata*) and Sandberg's bluegrass. A Piper's daisy (*Erigeron piperianus*) was observed near the SW corner of the large area planted to Crested wheatgrass in the northern portion of 218-E-10.
- The 218-E-12B burial ground has been previously disturbed and is presently dominated by cheatgrass, Sandberg's bluegrass, assorted weedy species, and some crested

wheatgrass. In the undeveloped western part of the burial ground there are few remnant sagebrush and other native species. Several Piper's daisy were removed from the eastern, undeveloped portion during March 1999. Additional piper's daisy are present in the developed portion near the south-east corner of the burial ground.

- The 218-W-3A, 218-W-3AE, 218-W-4B, and 218-W-5 burial grounds are highly disturbed, with generally very sparse vegetation consisting of cheatgrass, Russian thistle (*Salsola kali*), and crested wheatgrass.
- Most of the developed portion of the 218-W-4C burial ground is highly disturbed with sparse cover of cheatgrass, however some portions of this burial ground presently have relatively thick stands of needle-and-thread grass (*Stipa comata*).
- The majority of the eastern portion of the 218-W-6 burial ground has been previously disturbed and replanted to crested wheatgrass. A portion of the eastern (on the northern edge) and the entire western half of the burial ground have not been disturbed and are dominated by big sagebrush, spiny hopsage (*Grayia spinosa*), and Sandberg's bluegrass.
- Plant species of concern that were noted included, the stalked-pod milkvetch (*Astragalus sclerocarpus*) a Washington State Watch List species observed within 218-W-4C and at the extreme western edge of the 218-W-5 burial ground, the crouching milkvetch (*Astragalus succumbens*), also a watch list species that was observed on the south end of the 218-W-6 burial ground, and the Piper's daisy observations noted above.
- No migratory bird species were observed nesting within previously disturbed portions of the burial grounds covered by this review. However, the review was conducted early in the season, and most of the migratory birds had not initiated nesting activities. No migratory birds were observed within the 200 west area burial grounds covered under this review, except for horned larks and western meadowlarks within 218-W-4C and 218-W-6. In 200 East area, Horned Larks, Western meadowlarks, and common ravens were observed within the burial grounds and Say's Phoebes, American Robins, and Long-Billed curlews have been documented during previous surveys of the 200E active burial grounds.

Considerations and Recommendations:

- No plant and animal species protected under the ESA, candidates for such protection, or species listed by the Washington state government were observed in the vicinity of the proposed sites,
- Piper's daisy is a Washington State Sensitive plant species, and as such is a Level III resource under the Hanford Site Biological Resources Management Plan (DOE/RL

1996). Compensatory mitigation is appropriate for this species when adverse impacts cannot be avoided. The ECAP staff should be consulted prior to the initiation of work within areas where this species has been identified (218-E-12).

- The stalked pod and crouching milkvetchs are relatively common throughout 200 West area, therefore even if the few individuals within the active burial grounds are disturbed, it is not likely that the overall local population will be adversely affected. The Watch List is the lowest level of listing for plant species of concern in the State of Washington.
- No adverse impacts to species or habitats of concern are expected to occur from routine maintenance within the active portions of the 218-W-4C, 218-W-4B, 218-W-3, 218-W-3A, and 218-W-5 burial grounds, as well as the portion of 218-E-12B currently used for storage of retired submarine reactor cores.
- The remaining portions of the 218-E-12B burial ground, the entire 218-E-10 burial ground, and the 218-W-6 burial ground currently have extensive vegetative cover and it is highly likely that migratory birds, such as meadow larks, horned larks, and curlews will nest in these areas. Therefore, it is recommended that if removal of the existing vegetation is required for burial ground operations, such removal only occur during the August through March time period (i.e. when the birds are not actively nesting). If vegetation removal is required prior to August 1999 or after 1 April 2000, please contact the ECAP staff for an additional analysis to ensure compliance with the Migratory Bird Treaty Act.
- This blanket review does not apply to the portions of 218-E-10, 218-W-4C, and 218-W-6 previously described.
- This Ecological Compliance Review is valid until 30 April 2000.

Sincerely,

CA Brandt, Ph.D.
Project Manager
Ecological Compliance Assessment

CAB:mrs

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- Bonham, Charles D. 1989. Measurements for Terrestrial Vegetation, John Wiley & Sons, Inc.
- U. S. Department of Energy. 1996. Draft Hanford Site Biological Resources Management Plan. DOE-RL 96-32.
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