

# Reclamation Manual

## Directives and Standards

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**Subject:** Management of Shooting Ranges on Reclamation Lands

**Purpose:** To establish consistent guidelines concerning the potential heavy metal contamination of Reclamation lands by both permitted and nonpermitted shooting ranges.

**Authority:** Clean Water Act; Safe Drinking Water Act; Resource, Conservation and Recovery Act (RCRA)

**Contact:** Environmental and Planning Coordination Office, D-5100

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### 1. Management of Shooting Ranges on Reclamation Lands.

- A. The regions shall initiate a program of testing for contamination where current and past formal and informal shooting ranges are or have been located. This program should be undertaken in conjunction with the present or former managing entities where they exist. Both soils and groundwater (where a danger of groundwater contamination exists) should be sampled. The sampling shall include the impact berms on rifle and pistol ranges and shotfall zones on trap and skeet ranges. The appropriate Environmental Protection Agency methods to determine heavy metal presence will be used. If the metal analysis shows there is a violation of environmental laws (i.e., Clean Water Act, Safe Drinking Water Act, RCRA), the site is to be remediated. Both past and present permittees are to be considered potentially responsible parties and costs of a cleanup shall be at their expense.
- B. Use of Reclamation lands where there is no formal range facility for repeated recreational target shooting or sighting in is to be actively discouraged and curtailed. Hunting on public lands is not included in the concept of target shooting. Lead contamination from waterfowl hunting has been addressed with Fish and Wildlife Service regulations requiring the use of steel shot. Other hunting activities are of a random nature and do not cause significant contamination.
- C. Future use of Reclamation lands for permitted target shooting shall be eliminated as soon as permits can be terminated except where the managing entity:
  - (1) Is willing to indemnify Reclamation from any expenses associated with cleanup of the area,
  - (2) Can provide a substantial bond or similar guarantee of cleanup,
  - (3) Will construct or reconstruct and operate their facilities in accordance with the National Rifle Association's *The Range Manual, a Guide to Planning &*

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*Construction and Lead on Outdoor Firing Ranges* by Charles W. Sever (appendix A),

- (4) will conduct the appropriate environmental assessment at their own expense, and
- (5) will agree to the following:
  - (a) All active ranges shall be tested, as outlined above, on an ongoing basis at least once every 3 years.
  - (b) No range shall be located within 1,000 feet up gradient of any water body, including, but not limited to, oceans, lakes, wetlands, and flowing watercourses (see appendix A).
  - (c) For rifle and pistol ranges, the impact berms shall be constructed of noncontaminated material. The construction of berms shall be in such a manner that no new wetlands will be created which can subsequently become contaminated. Impervious material must be placed as an underliner under or a cover over the impact berm. Bullet traps capable of capturing all types of projectiles expected to be fired at the range must be installed on the target line, and all captured projectiles will be recycled.
  - (d) All ranges shall be graded to capture all liquid runoff which will be diverted through a filter bed of fine-grained sand underlain by limestone gravel or some other acid neutralizing material. This will filter out the particulate lead and raise the pH of the water causing the dissolved lead to precipitate out (see appendix A).
  - (e) For trap and skeet ranges, liberal amounts of limestone, dolomite, or gypsum shall be liberally applied to the shotfall zones to raise the pH of rainwater and thus reduce the dissolution of the shot (see appendix A).
  - (f) The impact berms of rifle and pistol ranges and the shotfall zones of trap and skeet ranges shall be mined periodically and the recovered heavy metals recycled.
  - (g) Permit holders must post a bond sufficient to clean up worst case contamination of the range and areas to a distance of 200 feet from the range. Bond amounts would be determined by the anticipated use, but in no case shall the bond be less than \$100,000.