

RL Biological Control Program Update for Hanford Advisory Board Health, Safety, and Environmental Protection Committee

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Biological Control Services

- Migratory Birds (Osprey)
- Mosquito Control (West Nile Virus)
- Animal Control (rod control / health & safety such as Hantavirus)
- Vegetation Control
 - Industrial Weeds (Tumbleweeds)
 - Noxious Weeds (Rush skeletonweed)
- Revegetation

Biological Control Staff

- Manager / CPA (1)
- Teamster / CPOs (8)
- RCT (1)
- Operator (0.1 matrixed)
- Animal Control Technician (2)
- Noxious Weed/Revegetation Ecologist/Wildlife Biologist (1)
- Shipping Support (0.1 matrixed)

Biological Control Staff Certifications

- CPA (1)
- CPO (8)
- MBTA Permit (1 USF&WS shared w/ other contractors)
- Scientific Collection Permit (1 WA State shared with MSA PSRP)

NOXIOUS WEED CONTROL

- **Federal Noxious Weed Act of 1974, as amended by Section 15 – Management of Undesirable Plants on Federal Lands, 1990** - Each federal agency shall:
 - a) Have personnel & plan to control noxious weeds
 - b) Establish and adequately fund noxious weed program
 - c) Complete and implement cooperative agreements with State agencies regarding noxious weed control
 - d) Establish systems and cooperative agreements to control noxious weeds
- **Memorandum of Understanding for the Establishment of a Federal Interagency Committee for the Management of Noxious and Exotic Weeds, 1994** - United efforts to control noxious weeds
- **Revised Code of Washington Chapter 17.10 – Noxious Weed – Control Boards** - Regulatory authority for control of noxious weeds in Washington
- **Washington Administrative Code 16-750**, Washington State Noxious Weed List and Schedule of Monetary Penalties - Provides noxious weed list and penalties
- **Memorandum of Understanding** between the Washington State Department of Agriculture, Adams County Noxious Weed Control Board, Benton County Noxious Weed Control Board, Franklin County Noxious Weed Control Board, Grant County Noxious Weed Control Board, and U.S. Department of Energy Richland Field Office for Management of Noxious Weeds and Undesirable Plants, 1997 - Agreement to communicate and cooperate
- **Executive Order 13112, “Invasive Species,” dated February 3, 1999** - Directs federal agencies to control noxious weeds

ANIMAL CONTROL

- **10 CFR 851 Worker Safety and Health Program - Safe and healthful working environment.**
- **29 CFR 1910 Occupational Safety and Health Standards, Subpart J, General Environmental Controls; 1910.141(a)(5) Vermin Control – Rodent-free workplace**
- **WAC 220-20-045 Scientific collection permits; RCW 77.32.240 Revised Code of Washington; Scientific permit - Procedures - Penalties - Fee - Requires Wildlife Collection Permit**

PESTICIDE USE

- **FIFRA, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972; 7 U.S.C. s/s 136**
– EPA given control of pesticide sale, use, and distribution
- **Revised Code of Washington Chapter 15.58** –
Washington Pesticide Control Act - Requirements for pesticide labeling and handling
- **Revised Code of Washington Chapter 17.21** –
Washington Pesticide Application Act -
Requirements for Commercial Pesticide Applicator (CPA) and Certified Pesticide Operator (CPO) licenses

ECOLOGICAL AND CULTURAL PROTECTION

- **Endangered Species Act (ESA) 16 USC 35** - Provides for designation and protection of species in danger of becoming extinct and for the conservation of the ecosystems on which these species depend.
- **Migratory Bird Treaty Act (MBTA) 16 USC 7** - Prohibits impacting migratory birds except in accordance with a permit.
- **National Environmental Policy Act (NEPA) 42 USC 55** - Policy to protect, preserve and enhance the environment
- **Washington Administrative Code, WAC 222-16-070, Pesticide uses with the potential for a substantial impact on the environment. Revised Code of Washington, Title 90, Water rights — environment, RCW 90.48.142, Violations — Established buffers and Liability in damages for injury to the environment**
- **National Historic Preservation Act Of 1966 16 USC 470 2006** - Protects resources of cultural significance.
- **Hanford Site Biological Resources Management Plan (BRMaP) (DOE/RL 96-32 Rev 0 2001)** - Strategy for maintaining health of the Hanford ecosystem
- **Biological Resources Mitigation Strategy (BRMiS) (DOE/RL 96-88 2003)** – Policy for mitigation and habitat improvement
- **Ecological Compliance Assessment Management Plan (ECAMP) (DOE/RL 95-11 Rev 2 2006)** - Biological resource impact assessment and management

Biological Radiological Vectors at Hanford

- Incidents ranged from the Site low of 26 in 2002 to the high of 157 in 2008
- 81 species of vectors identified
 - Vegetation (30 species)
 - Wildlife (51 species)
- Included tumbleweeds, fruit flies, mud dauber wasps, pigeons, swallows, mice, rabbits
- Radionuclides were primarily mixed fission products such as strontium-90 and cesium-137

Herbicide Applications



Herbicide Applications cont'd



Herbicide Applications cont'd



Herbicide Applications cont'd



Herbicide Applications cont'd



Noxious Weed control



Bio-barrier Application



Tumbleweed Pickup



Animal Control



Animal Control cont'd



Animal Control cont'd



Animal Control cont'd



Animal Control cont'd



West Nile Virus Prevention– Current Locations

- 609A Fire Station (drain)
- 222-S Labs (storm drains)
- Trench 31 and 34
- PNNL Campus

- Places being observed:
 - Waste Treatment Plant (Evaporators)
 - Purge Water holding tanks
 - 200E Water Fill Station

West Nile Virus Prevention – Current Locations



Migratory Birds



Re-vegetation



Re-vegetation cont'd



Re-vegetation cont'd



2011 Biological Control Services

- Jointly downposted 20 RCAs = ~37,500 square yards
- Responded to ~10,400 animal control requests; ~85% are proactive health/safety responses
- Removed ~1,900 animals from operations areas, offices, etc. (4 were contaminated)
- Sprayed herbicides on ~5,400 acres (34 acres for Noxious weed control)
- Responded to more than 300 facility requests for tumbleweed cleanup
- 24 hour pest control response (WEB Service Catalogue or call 376-PEST)

2011 Biological Control Services cont'd

- 24 hour ONC response for biota-related radioactive contamination spread incidents
- Quarterly rollup report to DOE-HQ of biota-related contamination spread incidents
- Identified, posted, and/or mowed ~40 acres of waste transfer lines
- Consulted with regulatory agencies and herbicide manufacturers concerning more effective herbicides