WYOMING

Bureau of Land Management

West Nile Virus Response Plan

HUMAN HEALTH RESPONSE

Prevention and Control of West Nile Virus

Mosquito-borne diseases can be prevented in two major ways: personal protective measures to reduce contact with mosquitoes and public health measures to reduce the population of infected mosquitoes in the environment.

Public Health Prevention

Public health prevention and control strategies for of West Nile Virus (WNV) are most effectively accomplished through integrated vector management programs. These programs include surveillance for WNV activity in mosquito vectors, birds, horses, other animals, and humans, and implementation of appropriate mosquito control measures to reduce mosquito populations (e.g., elimination of mosquito breeding habitats or spraying of insecticides to kill juvenile and adult mosquitoes, when necessary.

In Wyoming, public health prevention activities will be primarily conducted by local county weed and pest districts, mosquito control organizations, Wyoming Department of Health, and the Wyoming State Veterinary Lab. The BLM will cooperate with these groups by providing some limited in-kind services such as surveillance for WNV activity and authorizing pesticide treatments on BLM administered lands, where necessary.

BLM ACTION

Employee protection measures include:

- Staying indoors at dawn, dusk, and in the early evening.
- Wearing long-sleeved shirts and long pants whenever outdoors.
- Spraying clothing with insecticides containing permethrin
  Applying insect repellents containing DEET up to 35% concentration (N, N-diethyl-meta-toluamide). DEET in high concentrations (greater than 35%) provides no additional protection.

Repellents may be applied directly to the skin or to clothing, window screens, mesh insect nets, tents, or sleeping bags. Persons who are particularly concerned about potential toxicity from DEET may limit application of the repellent to their clothes.

Repellents containing DEET can damage plastics (such as watch crystals and eyeglasses frames), rayon, spandex, other synthetic fabrics, leather, and painted or varnished surfaces. DEET does not damage natural fibers, such as cotton or wool, and has no effect on nylon.

*** For any questions regarding employee safety issues, call ***

Shorty Lowdermilk
State Safety Officer
Office (307) 775-6269 Cell (307) 631-9502

Pesticide Applications

Pesticide applications on BLM administered lands will be considered on a site-by-site basis to reduce the risk of human contact with WNV. Mosquito controls programs will be administered by local and/or state agencies or authorities. Appropriate environmental analysis will consider benefits of control against the negative impacts that may occur. All appropriate precautions will be applied to minimize any adverse effect on the environment. Some of the precautions that would be applied include, but are not limited too, are:

- Ensure that pesticide use is required for the particular situation
- Pesticide selection must be appropriate for the use intended
- Treat only the minimum necessary area
- For aerial applications, do not spray when the wind speed exceeds 6 mph, or less, as specified on the label
- Avoid areas where pesticide run-off is likely

Suggested guidelines for pesticide applications and the appropriate approval process are as follows:

BLM ACTION

Administrative Process for Approving Pesticides

1. Submit properly filled out *Pesticide Use Proposal (PUP)* to appropriate field office, with the following information:
   a. Map or legal description of areas to be treated
   b. Copy of pesticide label
   c. Copy of Material Data Safety Sheet

2. BLM Weed and Pest Coordinator Review
   a. Ensure PUP is filled out appropriately and signed by Wyoming Certified Pesticide Applicator
   b. Review proposed treatment for appropriate use of pesticides and provide necessary restrictions

3. Conduct NEPA analysis of proposed treatment program

4. Issue *Finding of No Significant Impact*, if appropriate

5. Approve PUP at Field Office
   a. Fax (307 775-6082) or mail PUP to Ken Henke for appropriate State Office review and approval

6. *Pesticide Application Record* must be completed within 24 hours after completion of the pesticide treatments and, subsequently, sent to issuing field office by the end of the mosquito treatment season.

*** For any questions regarding pesticide application issues, call ***

Ken Henke
State Weed and Pest Coordinator
Office (307) 775-6041 Cell (307) 631-1642

Suggested Guidelines for Approving Pesticide Treatments		
Probability of Human Contact	**Definition**	**Recommended Response**
Low	Limited or no reported WNV activity in area	Monitor for environmental indicators of WNV (i.e. avian mortality)
Medium	Initial confirmation of WNV in birds, horses, and/or humans	-Authorize larvicides for specific areas likely to be sources -Consider authorizing adult mosquito control programs in areas where WNV is likely to impact humans
High	High bird mortalities, high mosquito infection rates, multiple horse, mammal, or human cases	- Authorize larvicides over broader areas likely to be sources - Authorize adult mosquito control programs if potential for human risk will likely increase
Extremely High	-Human mortalities reported -Conditions favor continued transmission to humans	-Continue authorizing larvicide treatments -Authorize broader adult mosquito control programs, as requested

WILDLIFE RESPONSE

Since the introduction of WNV into the United States, public concern has been focused primarily on the health threat to humans; however, the potential impact to vertebrate wildlife is also significant. Although humans, horses, and other mammals can become ill from WNV, birds are the natural host for the virus. As the virus has moved west across the country, high avian mortality has been observed, especially in the corvid family (crows, jays, etc.). Raptor species have also been observed to be very susceptible.

As the virus has moved into the Rocky Mountain region, different vertebrate species are now being exposed. Impacts to these species are still generally unknown. The one species that potentially has shown high susceptibility to the virus is sage-grouse. In five research studies being conducted in Wyoming, Montana, and Alberta, Canada, analysis has shown that WNV has reduced late-summer survival of sage-grouse by 25%. To appropriately evaluate the impacts of WNV on sage-grouse, the BLM is currently involved in cooperative research studies in Wyoming and Montana with various agencies and universities.

Until more research and monitoring are conducted, the severity of impacts to western vertebrate wildlife populations will remain unknown. Consequently, authorizing mosquito control treatments to minimize impacts to wildlife may be inappropriate at this time.

BLM ACTION

To assist state and local agencies in monitoring WNV spread in Wyoming, BLM employees may collect dead birds for necropsy. Specific instructions for what birds should be collected, how to collect them, and shipping directions are provided in Attachment 3.

*** For any questions regarding wildlife issues, call ***

Tom Rinkes
State Sage-Grouse and Sagebrush Species of Concern Biologist
Office (307) 332-8404 Cell (307) 214-7634

WILD HORSE RESPONSE

Domestic horses are affected by West Nile virus (WNV) much more often than any other domestic animal. Many horses infected with WNV do not develop any illness, but of horses that become ill, about 30 percent die or need to be euthanized. Horses are dead-end hosts. This means they can get infected, but it doesn't spread from there. Horses that get the disease are not a threat to humans or other horses. Only birds can easily infect mosquitoes and only mosquitoes can spread the disease. The disease cannot be spread from infected horses to other horses or humans.
What impact WNV will have on wild horse populations is unknown, however, all wild horses and burros in the Bureau of Land Management's Adopt-a-Horse program are being vaccinated for West Nile virus prior to adoption. More information on WNV and horses can be found at:
http://www.wildhorseandburro.blm.gov/spotlight/westnile.htm

BLM ACTION

Normal BLM procedure for finding dead wild horses requires some investigation into possible cause of death. WNV will now be considered as a possible cause of any wild horse death and the decision to test those horses for WNV will be decided in consultation the APHIS Veterinary Services and the Wyoming State Veterinary Lab.

*** For any questions regarding wild horse issues, call ***

Alan Shepherd
Wild Horse and Burro Program Lead
Office (307) 775-6097 Cell (307) 421-1593

BLM MEDIA RESPONSE

BLM ACTION

*** For any media requests or questions concerning any WNV issue, call ***

Cindy Wertz
State Office External Affairs

(307) 775-6014