



OREGON  
ENVIRONMENTAL HEALTH  
ASSOCIATION  
NEWSLETTER

## West Nile Virus in Oregon

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*2006 AEC*

*Set For*

*April 24-26  
at Kahneetah*

*Casino & Re-  
sort*

*Details Inside on:*

- *WNV*
- *NEHA Conference*
- *BGA*

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By the time of writing this article, a horse in Baker County and Harney County were tested positive for West Nile virus, August 10 and 11. Earlier in the week, August 5, Jackson County Health Department reported 2 birds had tested positive.

“Oregonians need to get in the habit of protecting themselves from mosquito bites, because West Nile virus is here to stay” said Emilio DeBess, D.V.M., DHS public health veterinarian. With the arrival of West Nile, it is even more important to reduce mosquito-breeding opportunities and to protect ourselves and our families from mosquito bites. In the hot weather the mosquitoes life cycle can be as short as a week, greatly increasing mosquito numbers. The mosquitoes who usually transmit West Nile become very efficient in transmitting the virus in hot weather.

West Nile is spread to humans through the bite of an infected mosquito. Most infected people will show little or no signs of disease. About 1 in 5 infected may show signs of West Nile fever which is characterized as a fairly sudden

onset of fever typically associated with headache, body aches, loss of appetite, fatigue, and sometimes nausea and vomiting. The fever syndrome usually lasts 3 to 6 days but can last weeks. The incubation period is usually 3-14 days.

Rarely, infected individuals may develop neuro-invasive disease (infection of the brain or spinal column) that can be severe or may cause death. This is especially of concern to those who have a compromised immune system or the elderly but may affect all age groups. (For the best protection, horses need to be given two doses—an initial dose and a booster dose 21 days later.)

To prevent being bitten by mosquitoes, cover up and use an effective insect repellent such as those containing DEET, Picaradin, or oil of lemon eucalyptus during periods of mosquito activity. It is important to follow the instructions on the label especially when applying on children. Also make sure doors are left closed dusk, when mosquitoes are most active.

## NEHA's 69th Annual Educational Conference Providence, Rhode Island—2005

It was an honor and privilege to attend 2005's National Environmental Health Association Annual Education Conference, as OEHA's representative. I feel the conference overall was very well organized and well attended and represented.

The Council of Delegates Meeting on Wednesday June 29th was well attended (I would venture guessing at least 75% of the state representatives were there) and included many important developments (i.e. present and future). For instance, NEHA is looking ahead by supporting and encouraging efforts to replace the high numbers of retiring Environmental health

workforce. They are also working on a new Environmental Health Specialist test and study materials. Fabian Nelson has asked that local awards, anniversaries, AECs, and other special recognition be submitted to him for publication in the Environmental Health Journal. I was able to share that Oregon has created an Environmental Health Specialist's Day, which is celebrated annually. It was also suggested that the journal do profiles on individual Environmental Health Specialists. Does Oregon Environmental Health Association have an Emergency Management Plan? If not, it has been suggested to create one As Soon As Possible. Other than a few votes for positions and

*West Nile virus was first reported in Oregon in 2004.*

# West Nile Virus

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and all open windows are effectively screened. Avoid playing or working outside at dawn and dusk, when mosquitoes are most active.

West Nile virus was first reported in Oregon last year. DeBess said that most states have had a significantly larger number of cases in the second year, as the virus spreads to susceptible birds

throughout the state.

In 2004, Oregon recorded West Nile virus infections in five people, 23 birds and 32 horses.

DHS has an active surveillance program underway to test birds, chickens and mosquitoes for WNV. In addition, physicians and other health providers are encouraged to test patients who have neurologic symptoms compatible with West Nile, according to DeBess.

## 2006 Annual Education Conference At Kahneetah Casino & Resort April 24-26, 2006

### 2005 NEHA AEC

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a list of committee accomplishments, that was pretty much it for the 3-hour meeting.

Sunday through Wednesday speakers/lectures were split into the following categories: Drinking Water Quality, Environmental Health Research, Food Safety and Protection, Institutions and Schools Environmental Health, Onsite Wastewater Systems, Solid Waste, Terrorism and All-Hazards Preparedness, Ambient Air Quality, Environmental Health Leadership Development, Vector Control and Zoonotic Diseases, Children's Environmental Health (new), Emerging Pathogens, Environmental Health Leadership Development, General Environmental Health, Hazardous Materials and Toxic Substances, Indoor Air Quality, Swimming Pools/Recreational Waters, Water Pollution, Geographic Information Systems (GIS), Injury Prevention/Occupational Health. I attended a variety of these lectures, and there really seemed to be something for everyone.

There were also workshops, Student Research Presentations, Poster Sessions, and the Exhibition.

The Exhibition involved 94 listed exhibitors/companies, for the most part equally representing the categories listed above, throughout the conference days. Other optional fun activities included a golf tournament, morning Yoga and Pilates Classes, a wine tasting and cookout, the silent auction, door prizes, dessert and coffee, and cocktail hour. I met many nice folks from all over the nation at some of these activities.

Furthermore, I thought the food was excellent, especially what was served at the working luncheon and the President's Banquet. The conference locations (Rhode Island Convention Center and The Westin Providence) were also good, surrounded by historic downtown and the mall, and only a short walk or drive to other places of interest and lodging. Providence, RI reminded me of Portland, OR, so I didn't get too homesick. It was unfortunate that I was not able to go see the Newport mansions, the zoo, or go on the Duck Tours, so I would like to visit again someday.

Angela Scott, REHS, OEHA Central Region Director, Klamath County

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# Public Health Advisories for Cascade Lakes

Health advisories prompted by high algae levels found in Central Cascade Lakes and reservoirs were issued during the summer public recreation season. Water sampling by U.S. Forest Service officials have confirmed the presence of blue-green algae, some like *Anabaena flos-aquae* and *microcystis*, which can form toxins harmful to humans and animals.

David Stone, environmental toxicologist with DHS, says skin contact with the toxins, even in small doses can cause rashes and itching. Swallowing water or inhaling droplets can lead to dizziness, diarrhea, vomiting and numbness. More severe symptoms depend on which toxin is in the water: anatoxin-a poisons the nervous system; microcystin damages the liver. Massive exposure to either can be fatal. Small children and pets are at high risk.

Toxins cannot be removed by boiling, filtering, or treating water and eating fish caught during a bloom may pose a health risk. In dense blooms, the Oregon Department of Human Services strongly recommends that if people choose to eat these fish, they should remove all fat, skin, and organs before cooking since toxins are more likely to collect in these tissues.

Together the Oregon Department of Human Services and the US Forest Service established minimum guidelines for public health advisories at lakes in Oregon with potentially toxigenic blue-green algae blooms.

All lakes susceptible to blue-green algae blooms will have advisories posted all summer long which warn the public about drinking, swimming, and exposing children and pets to lake water when blooms are present.

Lake managers will decide what kind of monitoring to do on their lakes. Where on the lake and how often to collect cell counts and whether to test for

blue-green algae toxin, as well as how to implement the guidelines and advisories on each lake.

Advisories will be posted saying “no swimming” on lakes with the SUM of all potentially toxigenic blue-green algae cell densities higher than 100,000 cells/ml (for example 80,000 cells/ml *Anabaena flos-aquae* + 15,000 cells/ml *Anabaena circinalis* + 5,000 cells/ml *Mycrocystis* genus = 100,000 cells/ml), OR

Advisories will be posted saying “no swimming” on lakes with the SUM of *Microcystis* and *Planktothrix* genus higher than 40,000 cells/ml, OR

Advisories will be posted saying “no swimming” on lakes with blooms of potentially toxigenic blue-green algae blooms when scums (floating mass of algae) are present.

Template signs with general advisories, “no swimming” advisories, and sample press releases are available through the USFS and DHS. When blooms decline, “No Swimming” advisories may be lifted three weeks after cell densities fall below the guideline, or sooner if toxin samples are tested and toxin found to not be present. A confirmation test of blue-green algae density may be necessary to lift an advisory.

Water contact restrictions can be lifted 3 weeks after the cell density of potentially toxigenic blue-green algae falls below the thresholds established in the guidelines. Restrictions may be lifted sooner if toxin analysis indicates that no toxins are present during a declining bloom.

Water contact restrictions should remain in place until a final quantitative sample confirms the decreasing trend of potentially toxigenic blue-green algae. Restrictions should remain in place whenever scums are present.

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## Shigella Sonni Outbreak

The Lighthouse Center three week long spiritual retreat started on July 18 and had up to 1300 people attending from 38 states and 21 countries. Most of the retreat attendees stayed in tents. Blue rooms (portable toilets) were provided and hand wash stations and showers were supplied with untreated surface water. The participants are vegetarians and all food was prepared on site in two kitchens by the participants as part of their sava (cheerful service).

On July 21, the Douglas County Health Department received a call from the Lighthouse Center stating that they had several people with a gastrointestinal illness. A couple of people had been transported to the Mercy Medical Center in Roseburg. A team of Environmental Health and Community Health staff visited the facility and found about a dozen folks on mattresses on the floors in an infirmary. Environmental Health staff toured the facilities and made several recommendations on food preparation and Handwashing. The two water systems were evaluated and samples were taken from the drinking water system. Discussion occurred about possible cross connections with the untreated water and drinking water systems. The lighthouse staff denied any possibility of a cross connection.

Community Health staff started in collecting symptoms and requested a list of names and addresses of participants.

On July 22, Douglas County and DHS staff returned to the Lighthouse Center to find about 50 people on the floor in the infirmary! The initial reaction was here was an on going outbreak with real bodies! One question high on everyone's list was, should we close the facility? It seemed unacceptable to disperse 750 potentially infected people, most of whom were from out of state and the U.S, into the local towns and hospitals. The Lighthouse Center staff assured us that they could and would get the cooperation of the participants to implement any and all of the recommendations from the

Highlights of this commitment were: A doctor giving a hand-washing demonstration at the assembly followed by a speech from the spiritual master to follow the recommendations of the authorities so that they can help keep them healthy and thus allowing the retreat to continue. The handwashing demonstration was reenacted several times during the next two weeks to educate new arrivals.

Lighthouse staff purchased and installed two fifteen hundred gallon storage tanks to hold filtered and treated water for use at the showers and hand wash stations. This included the hand digging of a quarter mile of pipeline ditches to supply treated water to the showers. One drinking water site was identified to be supplied with untreated water and it was then plumbed to the drinking water system.

Laminated 11x14 colored hand wash signs were installed on the inside and outside of the 55 blue rooms.

Hand wash police were stationed in both kitchens to assist the forgetful in the need to wash their hands.

The County Health officer assisted in arranging for antibiotics to treat the ill.

Due to a misunderstanding, Mercy Medical Center implemented a portion of their emergency plan. They locked down their hospital and were preparing to accept up to 50 people. They also reserved 8 beds to cohort patients from the Center. This required early release and transfer of some patients.

Sunday afternoon attempts to locate some clinic nurses to assist at the center were fruitless. Which leads to a question, "How do we get volunteers for a minor crisis?" Red Cross's charter does not allow their volunteers into a potentially hazardous area.

To date, 303 people have met the case definition. Fortunately no one died and the health department staff remained asymptomatic. Unfortunately, we have not yet identified the source. Come to the next AEC or OREPI and hear the whole story.

