Quest for Stable Vector Control Funding Continues

The Vector Control Task Force presented “A Resolution in Support of a Stable Base Budget and Increase in Staffing for Vector Control in Washoe County” at the County Board of Commissioners’ Agenda Caucus Meeting on November 20th. The Task Force members and supporters discussed budget needs in the context of increasing demographic demands on the Vector Program.

Commissioners failed to adopt the resolution or to approve a stable funding source from existing County monies for the program. Instead, they made several recommendations regarding alternatives including the creation of a special use tax or a 318 General Improvement District. A 318 GID proposal had been tried and turned down by the Commission in 1998 and 1983.

The Vector Control Task Force, created in the spring of 2000 in response to a directive from the Board of County Commissioners, was created to provide public input and support for the Vector Control Program. Members include citizen advisory board members, concerned citizens, golfers, and state and local government employees.

The Task Force drafted the stable base budget resolution receiving unanimous support from every organization to which it has been presented, including citizens’ advisory boards and homeowners’ associations. The Washoe County District Board of Health adopted it in July.

The Task Force will make its final funding request to the County Commissioners in February.

### MOSQUITO ABATEMENT:

Service calls are the impetus for most of our summer work involving the control of larval and adult mosquitoes. Staff responded to 191 telephone inquiries, 175 service requests, and did 309 mosquito surveys in 2000. These resulted in the abatement activities shown in the table below. The program uses agents and methods that are environmentally compatible and non-toxic to animals and humans. For example, the program was successful this year breeding and planting a species of fish that eats large quantities of mosquito larvae.

<table>
<thead>
<tr>
<th>Method</th>
<th>Acres Treated</th>
<th>Number of Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Larvicide</td>
<td>5,417</td>
<td>32</td>
</tr>
<tr>
<td>Ground Larvicide</td>
<td>203</td>
<td>45</td>
</tr>
<tr>
<td>Ground Adulticide</td>
<td>9,557</td>
<td>64</td>
</tr>
<tr>
<td>Totals</td>
<td>15,144</td>
<td>143</td>
</tr>
</tbody>
</table>
DISEASE SURVEILLANCE AND CONTROL: Nevada state law mandates that the District Health Department monitor and control certain vector-borne diseases. The Vector Control Program does this by routine sampling and testing of various animal species for surveillance of encephalitis, plague, and hantavirus.

Encephalitis: The program maintains 5 sentinel chicken flocks throughout the county that are tested weekly for encephalitis. This year all tests (625 total) were negative for both St. Louis and Western equine encephalitis. However, our analysis of adult mosquitoes continues to show shift towards those species that are capable of transmitting encephalitis virus. To determine this, our staff counts and identifies species of adult mosquitoes every week from twelve surveillance traps located throughout the county.

A new form of encephalitis called West Nile Virus (WNV), is spreading throughout the Eastern United States resulting in human fatalities. The Vector Control Program is participating with a group of state agencies to develop a proactive statewide surveillance program for WNV. The disease is transmitted to humans by mosquitoes from wild birds. Blood samples from wild birds in this area will be tested for WNV beginning December, 2000.

Plague and Hantavirus: Our staff continues to trap, sample, and test various rodent species for plague and hantavirus. While no human cases of plague or hantavirus have been reported in Washoe County this year, we find positive blood tests in the rodent samples collected. This demonstrates that there is continued risk of exposure to County residents for these diseases.

With cooperation of the staff at USDA (APHIS, Wildlife Services), we also test for plague in blood samples from wild carnivores. Recent plague positive coyotes have turned up in Silver Knolls, Steamboat Springs, and the UNR Farms.

LABORATORY TESTING: This past year, the Vector Control Program began doing laboratory testing of blood samples collected onsite. Onsite testing provides considerable cost savings. The staff are able to obtain test results more quickly allowing for timely implementation of public health disease control measures, if necessary.

Rabies: Designated by law as the rabies authority in the County, our staff must review and investigate all domestic animal bite cases. Vector Control staff also collect and submit sick and dead mammals for rabies testing to the State. Test results showed 3 rabies positive bats of 36 submitted in the County this year.

Rabies: Designated by law as the rabies authority in the County, our staff must review and investigate all domestic animal bite cases. Vector Control staff also collect and submit sick and dead mammals for rabies testing to the State. Test results showed 3 rabies positive bats of 36 submitted in the County this year.

PUBLIC EDUCATION: Vector Control staff made presentations in the community to 32 groups and organizations totaling 780 people during the year 2000. Hiring a new staff member who will expand this effort has enhanced the public education and outreach component of the Program. Plans for future presentations include service organizations, homeowner’s associations and schools.

SUMMARY: The Vector Control Program strives to maintain a high level of service in line with its stated mission and goals to meet the new challenges presented by population growth and development in the County.

The disease called “anthrax” has a history of causing deaths in cattle in Washoe County such as those that happened last summer. The Vector Control staff play an important role to ensure that the public doesn’t contract the disease when this happens. What is anthrax? What kind of threat does it present to humans?

While much is still unknown and anthrax research continues, there is a basic consensus regarding its transmission and risk to humans.

Anthrax is caused by the bacterium, Bacillus anthracis, which forms spores that can remain dormant in soils for extended periods of time, even over decades. When domestic animals such as cattle, sheep, and goats ingest the spores in contaminated soils during grazing, they can become infected.

It is believed that during dry periods, animals are forced to graze on vegetation close to spore-contaminated soils. If a cow receives a sufficient load of spores in the 7-10 lbs. of soil it ingests daily while grazing, it can become ill and die. The sick animal may transmit the disease directly to other members of its herd. The cycle continues when the animals die and the soil is contaminated with spilled body fluids containing anthrax bacteria.

Most cases of human anthrax are acquired through direct contact with infected animals or contaminated animal products. Touching a diseased animal may infect someone who has a minor scratch or abrasion. In this case, a lesion will develop at the site of infection. It is unlikely that the disease can be contracted from spore-contaminated soils through a break in the skin, however.

Antibiotics are effective in treating anthrax in humans. There has only been one such case in Washoe County. The victim survived the disease after receiving the appropriate treatment.

Anthrax has never been used effectively by bio-terrorists. The use of anthrax as an effective weapon is questionable even though a number of nations have developed an inhalational form of the spores for such use.

Ranchers are encouraged to vaccinate cows against anthrax to prevent the disease.