



City of Richmond

Report to Committee

To: Community Safety Committee
From: Suzanne Bycraft
Manager, Emergency & Environmental
Programs

Date: September 16, 2003
File: 6125-04-14

Re: **Coordinated Approach to Mosquito Control
in the Greater Vancouver Regional District**

Staff Recommendation

That the Greater Vancouver Regional District Board of Directors be advised that Richmond Council supports a coordinated approach to mosquito control, with voluntary participation by member municipalities, to control the spread of West Nile Virus.

Suzanne Bycraft
Manager, Emergency & Environmental Programs
(4166)

Att. 2

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Staff Report

Origin

The GVRD has requested that Richmond Council support a coordinated approach to mosquito control throughout the region (see Attachment 1). This is based on requests by some municipalities for GVRD assistance, the recognition that a consistent approach to this issue by municipalities is lacking, and the fact that the GVRD is a property owner of parks located in many municipal jurisdictions.

This report evaluates the GVRD proposal and recommends support for a form of coordination on a regional basis.

Analysis

Background

At their April 22, 2003 meeting, Council approved a comprehensive mosquito control program designed to control the transmission of West Nile Virus (WNV). Richmond Health Services was engaged to undertake the control work at a cost of \$100,000. This work, which will continue through September, includes identifying and monitoring mosquito breeding areas, determining the presence of mosquito larvae, and applying larvaecide where required. To date, all ditches in Richmond have been surveyed. Larvae activity has been detected and treated in 20-30% of these locations as well as throughout the length of Sturgeon Banks extending from Westminster Highway to Garry Point.

To date, no evidence of WNV has been found in British Columbia. Nearly every other province in Canada and state in the U.S. has WNV present in their jurisdictions (see Attachment 2). Based on this information, we can reasonably conclude that British Columbia is likely to be impacted by WNV in the very near future. Richmond Health Services indicate that it is unlikely that WNV will make an appearance this late in the season.

The actions taken by Richmond to date will be beneficial for targeted treatment programs in the future, as we now have a good indication and inventory of mosquito breeding sites. Richmond Health Services also participated in a study using a new biological pesticide which purports to have a longer residual effect. This would be ideal in the catch basins providing mosquito breeding habitat as well as in ditches where standing water is more of a chronic problem. In addition, Richmond Health Services carried out a mosquito identification program in conjunction with the BC Center for Disease Control. It has been determined that two mosquito species, *Culex pipiens* and *Culex tarsalis*, implicated in WNV outbreaks elsewhere in North America, are present in our community.

GVRD Proposal

The GVRD is proposing that they assume a lead role on behalf of municipalities to map mosquito breeding areas (and ESA's within those areas), and monitor for West Nile carrier mosquitoes or sentinel animal cases. The GVRD has requested that Council give support to this coordinated approach.

In addition, in July, 2003, the GVRD wrote to the Provincial Health Officer requesting that the province assume responsibility for adulticide programs; provide financial support for monitoring, mapping and control programs; and undertake public education and notification programs. The Deputy Provincial Health Officer responded unfavourably to this request, noting that the Medical Health Officer's role is to notify the local municipality, and as the Local Board of Health, the municipality is responsible for taking necessary measures to control health hazards.

Evaluation of GVRD Proposal

As highlighted in the GVRD report on this issue, the response to mosquito control in relation to WNV has varied greatly among municipalities within the region. Responses range from no action whatsoever, to on-going mosquito control as per long-standing practices, and a more proactive and enhanced approach, including monitoring, surveillance and larvaecide treatment where required. Richmond's program is among the top three of the most comprehensive programs being undertaken in the GVRD at this time.

The key rationale put forward for a regional approach are:

- The problem is mobile in nature, and a program in one municipality is only effective if others are undertaking similar action.

In general, this is true for communities in close proximity to one another. In Richmond, our mosquito control programs have resulted in good success, independent of the actions by adjacent communities.

- Not all municipalities are financially prepared for mosquito control programs designed to control the spread of WNV.

Richmond staff support this concept. A regional voice may assist in securing financial support for these programs. The funds expended by Richmond in 2003 were unanticipated, unbudgeted funds. In light of this, staff have been pursuing financial assistance by the province, and are hopeful that an announcement will be forthcoming concerning provincial support.

The GVRD have presented four potential approaches to this issue:

1. No joint process (i.e. status quo)
2. Coordinated process (voluntary participation)
3. GVRD mosquito control (mandatory participation)
4. Provincial Health Officer (mandatory participation)

Richmond staff support Item 2, above. A coordinated process on a voluntary basis will allow flexibility for municipalities to have the GVRD carry out mosquito control programs on their behalf, or continue with their own existing programs in a more coordinated fashion. Additional benefits of this approach are:

- Roles and responsibilities of the province, regional health authorities, local/regional government, etc. can be clarified.
- A consistent standard can be developed and adopted for application in all areas.
- Streamlined processes for an Integrated Pest Management Plan can be applied.
- The most effective processes can be evaluated to ensure health impacts are balanced with sustainability and environmental issues.
- Funding assistance can be sought in a targeted and coordinated fashion.
- The on-going need for the program can be evaluated based on the continued presence of West Nile Virus.

Staff do not support Item 1 (Status Quo), as this results in the lack of a consistent approach. Item 3 (GVRD Mosquito Control, Mandatory Participation) is not supported because it would require the duties of the local board of health to be assumed by the regional district and may impact our ability to deliver a program for Richmond that is tailored to suit our specific dynamics. Item 4 (Provincial Health Officer Mosquito Control, Mandatory Participation), has been discounted by the Deputy Provincial Health Officer in their response to the GVRD on this issue.

Financial Impact

The costs associated with mosquito control on public property is a municipal responsibility. Therefore, Richmond is required to pay the associated costs regardless of the selected approach. In 2003, mosquito control costs were \$100,000, plus GST. Should Council opt to continue with the mosquito control initiative, costs in 2004 are expected to be relatively the same. Costs could exceed this amount somewhat if it is determined that catch basins are contributing to the mosquito problem, and additional monitoring and treatment is required as a result. The anticipated costs for 2004 will be included for consideration in the Environmental Programs budget submission. If approved, the costs will be reflected in the 2004 utility rates for sanitation & recycling/environmental programs.

GVRD staff have advised that municipalities would bear the cost of treatment programs in their communities under a coordinated regional approach. The GVRD's role in facilitating coordination (collecting and mapping information from municipalities, hosting meetings among member municipalities, developing consistent standards, etc.) would be carried out by the GVRD within their existing budgets, at no additional cost to member municipalities.

Conclusion

As the Local Board of Health under the Health Act, the City of Richmond must undertake measures to prevent the spread of infectious disease. A coordinated process throughout the region would help to ensure a consistent approach in order to enhance the effectiveness of Richmond's program. A regional process will also benefit the City in seeking financial assistance to offset the associated costs. Through the voluntary participation process, Richmond will benefit from consistency in standards, but at the same time maintain our ability to administer the program in a way that best suits Richmond.

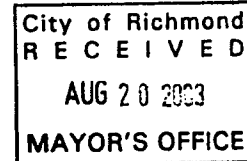


Suzanne Bycraft
Manager, Emergency & Environmental Programs
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August 18, 2003

Mayor Malcolm Brodie
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1

Dear Mayor Brodie:

Re: Mosquito Control in the Greater Vancouver Region

Municipalities of the Greater Vancouver Regional District (GVRD) share a deep concern about the expected arrival of West Nile Virus in the Lower Mainland. The West Nile Virus issue has grown rapidly in profile and its technical intricacies pose serious management challenges.

At its meeting of June 27, 2003 the Greater Vancouver Regional District Board considered the enclosed report titled "Mosquito Control" dated June 25th, 2003, and adopted the following resolution:

- "1. That the GVRD, through its advisory committees (RAAC and REAC), take the lead in coordinating programs for each municipality to:
- I. Map mosquito breeding areas and environmentally sensitive areas within or close to those breeding areas,
 - II. Monitor for West Nile carrier mosquitoes or sentinel animal cases.
2. That the GVRD, on behalf of municipalities, approach the Province with a view to:
- I. Establishing a process whereby the Provincial Health Officer/Regional Health Authorities take responsibility for and direct any Adulticide programs required for community health reasons;
 - II. Seeking financial support for mosquito monitoring, mapping and control programs.
3. That the Regional Health Authorities be requested to jointly carry out public education and notification programs with local municipalities as necessary;
4. That GVRD member municipalities be requested to concur with this approach as soon as possible."

As per recommendation number 4, I am requesting your council give support to this coordinated approach to Mosquito Control across the Lower Mainland. Your Council's earliest consideration of this request and response are required to expedite preparations

for developing a regionally coordinated approach for effectively dealing with the expected arrival of the West Nile Virus.

Thank you for your consideration of this request. Further information may be obtained from John MacFarlane, Resource Management Planner, at 604-432-6372 or (e-mail) john.macfarlane@gvrd.bc.ca.

Yours truly,

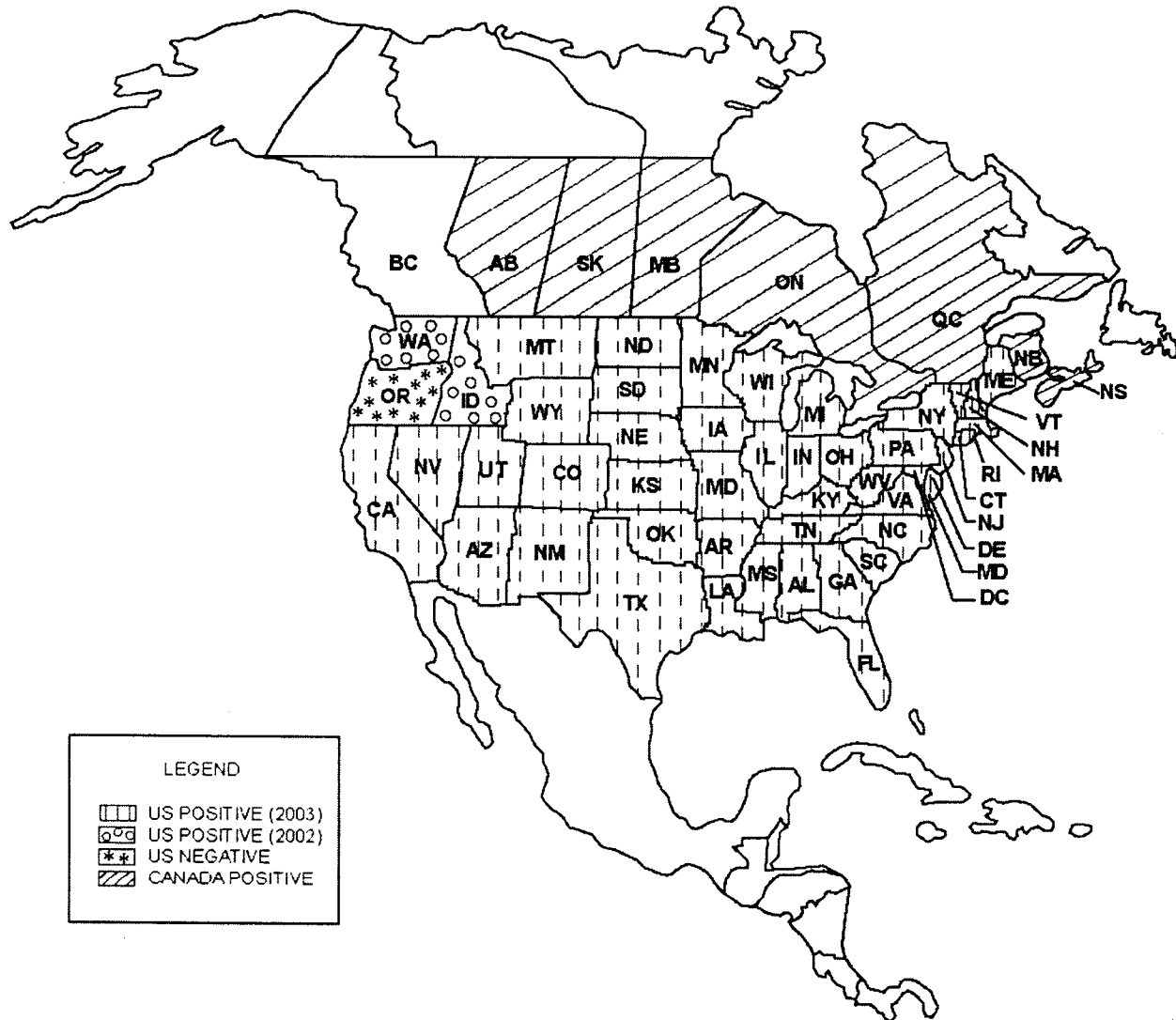


J. Marvin Hunt
Chair, GVRD Board of Directors

JMH/jmm/mlt
Attachment (1)

Attachment 2

States and Provinces reporting West Nile Virus, September 24, 2003



References:

BC Centre for Disease Control. 2003. West Nile Virus Surveillance Summary. Report # 10 September 24, 2003.

National Wildlife Health Centre, US Geological Survey. Last Modified August 22, 2003. West Nile Virus Map. http://www.nwhc.usgs.gov/research/west_nile/wnv_map.html