REPORT 2005 April 18

CITY OF BURNABY

ENVIRONMENT COMMITTEE

HIS WORSHIP, THE MAYOR AND COUNCILLORS

RE: INTERIM MOSQUITO CONTROL STRATEGY FOR PUBLIC LANDS

RECOMMENDATIONS:

- 1. **THAT** Council approve continuance of the interim mosquito control strategy for public lands in 2005 as noted in Section 3 of this report.
- 2. **THAT** a copy of this report be forwarded to the Medical Health Officer, Fraser Health Region, Suite 400, 4946 Canada Way, Burnaby, B.C., V5G 4H7; and Parks, Recreation & Culture Commission.

REPORT

The Environment Committee, at its Open meeting held on 2005 April 12, received and adopted the <u>attached</u> report providing updated information regarding mosquito control management activities in Burnaby. The Committee noted that over the last two years, a number of initiatives have been undertaken by the City to effectively respond to the potential threat of West Nile Virus. For 2005, building upon these initiatives, the Committee proposed a comprehensive education, surveillance and treatment strategy which embraces integrated pest management and adaptive management principles to address the possible occurrence of West Nile virus in Burnaby. The Committee concluded by advising that the City is in the process of applying for a grant through the UBCM to assist in the implementation of the proposed work.

Respectfully submitted,

Councillor D. Johnston Chair

:COPY - CITY MANAGER
DIRECTOR PLANNING & BUILDING
DIRECTOR ENGINEERING
DIR. PARKS, REC. & CULTURAL SERV.
DIRECTOR FINANNCE

Councillor P. Calendino Vice Chair

Councillor C. Redman Member TO:

CHAIRPERSON & MEMBERS

ENVIRONMENT COMMITTEE

DATE: 2005 April 04

FROM:

DIRECTOR ENGINEERING

FILE: 33000-05

Reference: WNV

SUBJECT:

INTERIM MOSQUITO CONTROL STRATEGY FOR PUBLIC LANDS

PURPOSE: To provide the Committee with an update on various activities undertaken in 2004 relating to mosquito control in the event of a possible occurrence of West Nile Virus in Burnaby and to seek Council approval of continuance of the interim

mosquito control strategy for public lands in 2005.

RECOMMENDATION:

1. THAT the Committee recommend Council to:

- a) approve continuance of the interim mosquito control strategy for public lands in 2005 as noted in Section 3 of this report.
- b) forward a copy of this report to the Medical Health Officer, Fraser Health Region, Suite 400, 4946 Canada Way, Burnaby, B.C., V5G 4H7; and Parks, Recreation & Culture Commission for information.

REPORT

1.0 INTRODUCTION

Since 2003, the City has undertaken a number of proactive initiatives on public lands as a part of the Council approved interim mosquito control strategy in response to the possible occurrence of West Nile Virus in Burnaby.

The purpose of this report is to provide the Committee with an update on various activities undertaken in 2004 relating to the noted strategy and to seek Council approval of the interim mosquito control strategy for public lands in 2005.

2.0 MOSQUITO CONTROL MANAGEMENT ACTIVITIES (2004)

As the Committee will recall, West Nile Virus (WNV) is a mosquito-borne virus which is spread between mosquitoes and birds, but humans and birds can get WNV through the bite of an infected mosquito. Birds are reservoir hosts and most documented cases in birds are in the family of *Corvidae* or corvids (Crows, jays, nutcrackers, magpies, ravens). According to the BC Centre for Disease Control (BCCDC), most people who become infected will experience no symptoms at all. About 20% of those will develop mild flu-like symptoms lasting about a week or less. In rare cases (less than 1%) WNV can result in serious health effects such as meningitis (inflammation of the lining of the brain) or encephalitis (inflammation of the brain). There is no evidence of WNV spreading by direct person-to-person contact. There are no human vaccine for WNV at present.

Given the possible occurrence of WNV in the Lower Mainland, staff undertook the following actions in 2004:

a) Education and Awareness

Building upon the 2003 staff and public education and awareness elements regarding WNV, staff developed the attached brochure (see <u>Attachment #1</u>) and related poster and distributed them at all Civic facilities. Information on WNV was also posted on the City Web site.

b) Surveillance of Dead Crows and Adult Mosquito Trapping

Unlike in 2003 where Fraser Health staff collaborated with the Burnaby SPCA in collection of dead crows; in 2004 callers were asked to contact the BC NurseLine (604-215-4500) regarding dead crow sightings and collection. Analysis of the dead crows was undertaken at B.C. Animal Health Center located in Abbotsford.

According to the BCCDC website, a total of 1,437 corvids were collected across the province and tested in 2004. Of these, 150 were from Burnaby. There was no WNV detected in the tested samples. The average turn around time from collection, testing to reporting was one week.

In 2004, there were 145 registered adult mosquito trap locations across the province. Of these, three were located in Burnaby (Glencarin Drive, Big Bend, Douglas/Lougheed). Adult mosquito samples were obtained once a week and submitted to the BCCDC laboratory for genus identification during the monitoring period (May to end of October). In addition, a representative number of mosquito carcasses were sent for WNV testing. There was no WNV detected in the tested samples.

Complete results on corvid testing and identification and distribution of adult mosquitoes are available through BCCDC web site (www.bccdc.org).

c) Surveillance and Mapping of Mosquitoes Breeding Sites on Public Lands

In 2003, Phase 1 (surveillance of potential mosquito breeding surface water sites) and Phase 2 (development of Integrated Mosquito Management Plan for high to moderate risk sites) provided good baseline data. However, since the baseline data represented samples taken in a single season and in an exceptionally hot and dry year, the consultant had recommended that additional monitoring would be required in 2004 to account for temporal variation. Furthermore, assessment of catch basins as mosquito reservoirs needed to be undertaken as well.

In 2004, following up on the recommendations, the City retained Acroloxus Wetlands Consultancy Ltd. to undertake a multi-phased approach on surveillance and management of mosquitoes breeding areas on public lands within Burnaby. One of the key focus areas which added to the surveillance phase in 2004 related to the assessment of catch basins located on public roads and parking lots within parks as breeding grounds for mosquitoes, and evaluating eco-sensitive treatment options to manage them.

As a part of the initial surveillance of potential surface water mosquito breeding sites, all of the previously identified sites in 2003 were re-visited. Where appropriate, larval samples were collected and identified (see <u>Attachment #2</u>). The most common species found were *Culex pipiens* (primarily feeds on birds but will also feed on reptiles and mammals and only becomes a nuisance to humans in late summer and fall) *Culex tarsalis* (virus vector that bites both birds and humans) and *Culex territans* (predominantly an amphibian biter and not considered to be a *WNV* vector).

Surveys of mosquito larvae were also conducted at 90 catch basins located on public roads and parking lots within parks. Over 82% of the catch basins sampled were found to harbour mosquito larvae between late June and mid August. By far, the most abundant species detected was *Culex pipiens*. On any given survey date more than half of the wet catch basins (55%) contained larval mosquitoes. The peak larval numbers were noted between mid-July to mid-August. By late August, the numbers of catch basins containing larvae fell to 7% and by mid-September, mosquitoes were not detected in any catch basins. It was also noted that, in general, the adjoining landscape type surrounding the catch basins had an effect on larval densities and species composition in catch basins. The catch basins in proximity of tree-lined and grass verged areas provided more attractive breeding grounds for *Culex pipiens* than the catch basins in proximity of mostly paved areas. This is likely because of the preference of this species for water with high organic content.

d) Pre-emptive Larval Treatment of Limited Surface Water Sites

Surveillance of the potential surface water mosquito breeding sites in the earlier phase of the work identified eight vectorspot areas with an above average abundance of WNV vector mosquito species. Integrated Mosquito Management Plans were developed for each of the vectorspots. At all but two of these locations, high numbers of potential WNV vector larval mosquitoes, in particular *Culex pipiens* and *Culex tarsalis* species, resulted in a consultant recommendation of applying pre-emptive larval treatments in localized areas.

In accordance with the Council approved Interim Mosquito Control Management Plan (2004), staff evaluated the consultant's recommendation and approved pre-emptive spot larval treatment (by hand) at six surface water sites using granular Bti (Bacillus thuringiensis israelensis) as a part of the Integrated Mosquito Management Plan. These surface water sites were adjacent to Glenlyon Parkway (at Marine Way), two sites on North Fraser Way, 10th Avenue (between Willard Street and Meadow Avenue), Burnaby Compost Demonstration Garden, and Burnaby Lake Sports Complex (along Thomas Street).

All of the above work (education, surveillance of surface water and catch basins, and preemptive treatment) was completed through the use of a one time grant of \$50,000 received from the Ministry of Community, Aboriginal and Women's Services.

e) Joint Regional / City West Nile Virus Mapping Project

In late fall of 2004, the City applied for and received a one time grant of \$45,000 from the Fraser Health Authority to develop a joint Regional / City West Nile Virus mapping project. The objectives of the joint mapping project were to:

- Support sustainable monitoring, planning, managing, responsive and adaptive decision making;
- Develop a data architecture that will meet the needs of the municipalities and the GVRD within the regional area and other jurisdictions in the future;
- Ensure standardization of data collection, data transfer, data management, mapping of West Nile Virus vector mosquito species including but not limited to areas of interest (breeding habitats), areas tested positive for West Nile Virus, areas treated, post monitoring, environmentally sensitive areas and census data;
- Establish mechanism(s) and procedure(s) to upload data to the regional West Nile Virus mapping system;
- Establish any data gaps or layers which may be useful in future analysis;
- Conduct analysis of data layers;
- Track the application of control measures utilized or notifications made;
- Incorporate all post monitoring information;

- Support sustainable future planning; and
- Provide ease of communication with senior levels of government and the public.

The joint Regional / City West Nile Virus mapping project has just been completed and a formal demonstration is being made to the Fraser Health Authority, Vancouver Coastal Health Authority, BCCDC and local governments on April 26, 2005 at the Shadbolt Centre for the Arts. It is hoped that the local governments will see the value of this mapping system and embrace the system.

3.0 INTERIM MOSQUITO CONTROL MANAGEMENT STRATEGY FOR PUBLIC LANDS - 2005

As a member of the Regional Engineers Advisory Committee (REAC) Mosquito Management Working Group, staff have participated in the development of a comprehensive mosquito control strategy. At the time of writing this report, the GVRD staff are preparing to submit a report to their Board on amendments to the Regional West Nile Virus Surface Water Management policy and Regional West Nile Virus Catch Basin Management policy. In addition, the Working Group is also in a process of developing a West Nile Virus Communication Plan for Local Governments which will:

- seamlessly tie with the BC Centre for Disease Control (BCCDC) Communication Strategy;
- ensure that the GVRD Board and Local government politicians are notified proactively regarding important public announcements which may be made by the Regional Health Authorities and the BCCDC based on various scenarios;
- ensure that the GVRD and local government staff are provided with advance notification on additional surveillance and / or treatment or any other actions which may be required by RHA and BCCDC depending on various scenarios; and
- create communication templates to provide regional district and or local government responses to various scenarios.

In reviewing the status of the above work and upon giving due consideration to the attached correspondence from the Medical Health Officer to the City regarding West Nile Virus recommendations for 2005 (see <u>Attachment #3</u>), staff propose the following mosquito control strategy for public lands within Burnaby in the interim. It is to be noted that the objective of the strategy is not to totally eliminate the West Nile Virus mosquito vector species but rather take all necessary measures to suppress the West Nile Virus mosquito vector population and the resultant negative impact on human health.

PHASE	ACTIVITY	COMMENTS
Prevention	Public Education Staff Education	 Continue to provide information to the public regarding West Nile Virus as undertaken in 2004; Collaborate with the Fraser Health Authority in the delivery of the public message where appropriate. Inform BC Nurseline of City initiatives and a number to call for more information. Continue distribution of information on
		West Nile Virus to staff.
Surveillance	Identification and Mapping of West Nile Virus vector mosquitoes breeding sites	 Continue surveillance of West Nile Virus vector mosquito breeding sites in surface waters located on public lands; Undertake enhanced surveillance of West Nile Virus vector mosquito breeding sites located in catch basins on public roads, within parks, and civic and City owned rental properties; Re-evaluate high and moderate risk West Nile Virus vectorspots identified in 2004; Continue placement of adult mosquito traps to complement the Fraser Health's placement of adult mosquito traps; Continue mapping of the West Nile Virus vector mosquito breeding sites and related information; Support the Burnaby School District in mapping of the catch basins on the school sites.
	Bird (crow)	Fraser Health Authority will continue to
	collection and testing	act as the lead agency. Results of dead crow analysis to be available through BCCDC web site (www.bccdc.org).
	Adult mosquito collection, identification	Fraser Health Authority will continue to act as the lead agency. Samples submitted to the laboratory for genus identification and WNV testing by Fraser Health Authority. Results of analysis to be available through BCCDC web site (www.bccdc.org).

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Treatment	Pre-emptive Larvicide Treatment of Surface Waters and Catch Basins	 Undertake limited spot application of Bti (Bacillus thuringiensis israelensis) where necessary only and as a part of an integrated approach.
	Broader Larvicide Treatment - Ditches / Ponds / Swales / Catch Basins on Public Lands	 Undertake broader larvicide treatment only when ordered by the Medical Health Officer, Fraser Health Authority based on the evaluation of indicators - human cases, positive results in birds and or mosquitoes.
	Adult Mosquito Treatment (Planning)	 Participate in the Adult Mosquito Control Local Advisory Committee established by the Fraser Health Authority. If adult mosquito treatment is to be required by the Fraser Health Authority for human health purposes, it is to be undertaken after due consultation with the City by the Fraser Health Authority.

At the recent UBCM Integrated Environmental Management Conference on March 4-5, 2005, Mr. Eric Young, Deputy Provincial Health Officer, Minister of Health Services, announced that a total of \$4.5 million funding is available to local governments to ensure a proactive approach to mosquito control with the intent of reducing the risk of occurrence of West Nile virus. An additional \$500,000 is also being provided to local governments for treating provincial crown land in and around their jurisdictions.

This funding is to provide financial assistance to local governments for mosquito control, including mapping, source reduction, larviciding and contingency planning for emergency adulticiding, but not emergency application of adulticides. Should emergency adulticide application become necessary, a contingency fund at the Ministry of Health Services has been identified for this purpose that will fully reimburse these costs.

Each local government is eligible for a base level funding plus per capita funding. Based on this, the funding available to Burnaby is \$182,669. Additional funds to a maximum of \$22,327 are also available should the City wish to undertake the necessary surveillance and treatment on crown lands located in Burnaby. Staff are in a process of applying for the funding through UBCM to assist in the implementation of the above proposed work. For the Committee's information as in the past two years, Fraser Health Authority will take the lead and respond to issues from private lands.

3.0 CONCLUSION

Over the last two years, a number of initiatives have been undertaken by the City to effectively respond to the potential threat of West Nile Virus. For 2005, building upon these initiatives staff are proposing a comprehensive education, surveillance and treatment strategy which embraces integrated pest management and adaptive management principles to address the possible occurrence of West Nile virus in Burnaby. Staff are in the process of applying for a recent grant through the UBCM to assist in the implementation of the proposed work.

W.C. Sinclair, P. Eng.

DIRECTOR ENGINEERING

DD:

Enclosures

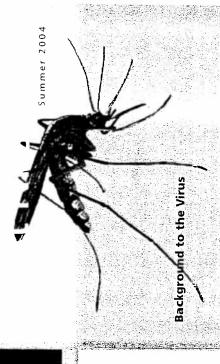
Copied to: City Manager

Director Parks, Recreation and Cultural Services

Director Finance

Director Planning & Building

Information on the



BC Centre of Disease Control - For Health Impacts, Dead Corvid and Adult Mosquito Monitoring

BC Nurseline - For West Nile Virus Symptoms Toll-free: 1-866-215-4700 TTY: 1-866-TTY-4700 City of Burnaby, Engineering Department - For Other Inquiries 604-294-7460

Fraser Health Authority. All actions taken must be in compliance with Federal and Provincial regulations. For additional control measures on private lands please contact the

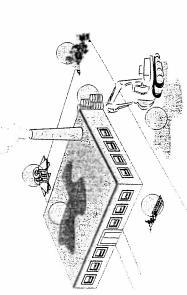
More Information

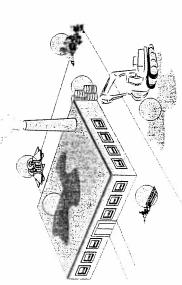
Fraser Health Authority - For Health Impacts, Dead Crow (Corvid) Reporting Toll-free: 1-888-WNV-LINE (1-888-968-5463)

South a Stratifical

gutters or refuse areas.

Install fountains or aerators in bio-ponds, reflecting pools or other





What You Can Do at Work

under development also have a role to play in monitoring exterior areas Commercial and industrial property owners, as well as owners of sites for pooling water. Once these mosquito breeding areas are found, the following actions can be taken:

· Fill-in or level any depressions in the landscape resulting from tire ruts or excavation.

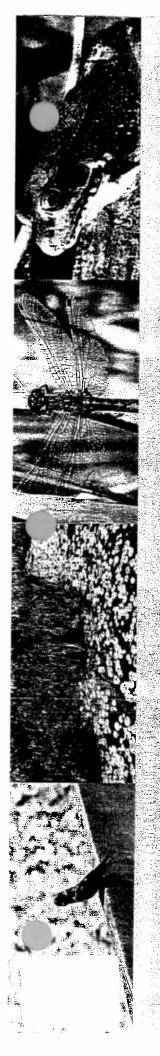
Store or cover abandoned equipment, tires, storage drums or refuse areas.

Remove water that collects in tarps, flat roofs, awnings or other surfaces.

Clear decaying grass, leaves or other organic matter from drains,

Pump-out accumulated sludge in catch basins or trench drains on private property.

artificial water bodies.



Possible Human Health Effects

Out of approximately 50 species of mosquitoes in BC, there are only three species of mosquitoes that are currently known to be carriers of WNV. Even in WNV-infected areas, the virus is found in less than 1% of all mosquitoes.

West Nile Virus usually has little effect on humans. However, in rare cases it can cause West Nile Fever and a range of illnesses from flu-like conditions to encephalitis (inflammation of the brain). For more information on possible health impacts please visit the Fraser Health Authority website http://www.fraserhealth.ca/HealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealthInfo/PublicHealthAuthority website http://www.fraserhealth.ca/HealthInfo/PublicHealt

What is Being Done Locally

To prepare for the anticipated arrival of WNV, the municipalities which form the Greater Vancouver Regional District are taking a coordinated approach to ensure that WNV prevention measures are in place on public lands.

As part of the regional process, Burnaby has made significant progress mapping the location of mosquitoes on public lands that may be potential carriers of WNV. This includes identifying mosquito breeding areas, such as artificial water bodies and storm drains (catch basins). A range of eco-sensitive treatment options are being considered for minimizing mosquito populations and protecting human health, while also maintaining the health of beneficial organisms that reside in wellands, creeks and lakes.

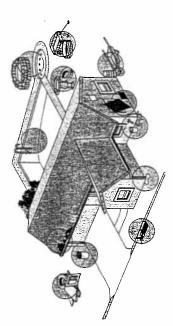
The Fraser Health Authority (FHA) is coordinating the collection and testing of mosquitoes and dead crows in Burnaby and other locations to monitor for the arrival of WNV. FHA is also responsible for the management of WNV on private lands.

What You Can Do at Home

Reduce Mosquito Breeding in Residential Areas

Warm, nutrient-rich standing water - even as little as a teaspoon of water - is the preferred habitat of mosquitoes. A survey of your home exterior will help to reveal those areas that need to be monitored from Spring to Fall. Once you find them, you can do the following:

- Cover or overturn toys, equipment or containers that may collect
- Remove water that collects in tarps, pool covers, flat roofs, patios or other surfaces.
 - Chlorinate or cover pools or hot tubs.
- · Acrate ornamental pools, stock them with fish or change the water
- Clear leaves and twigs from eavestroughs and gutters.
- · Keep storm drains clear of tree blossoms, leaves and grass clippings.



- Bag all yard waste in clear plastic bags for curb-side pick-up or compost them in a well-aerated bin.
 - Avoid pesticide use around the home

Encorrage Hatmal Monquito Predate

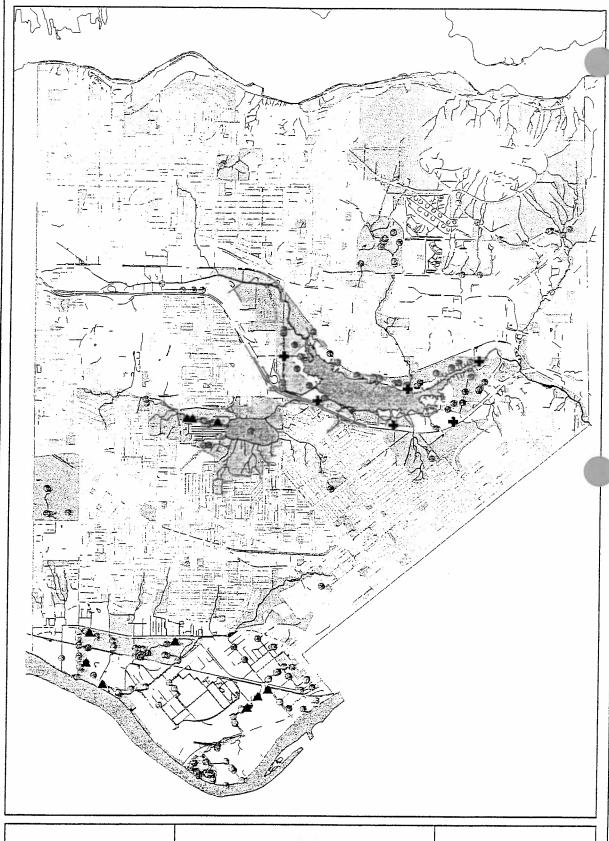
- Where possible, maintain dense shrubs and brush on your property that provide habitat for many predatory birds and
- Grow emergent plants like cattails and bulrushes in your pond to attract dragonflies and other predatory insects.
 - Install bird houses on your property to encourage natural predators of adult mosquitoes.
- Encourage the presence of predatory amphibians and reptiles in your yard, such as frogs, salamanders and newts.

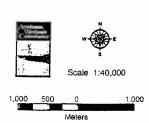
What You Can Do Personally

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- Wear shoes, socks, light-coloured pants, long-sleeved shirt and a hat when outdoors for long periods of time.
- Avoid outdoor activities at dusk and dawn when mosquitoes are most active.
 - Use a personal insect repellant containing DEET, and follow all instructions for use.
- · Use screens in windows and doors, and ensure that existing screens fit lightly against their frames and are free of holes.

To reduce your personal risk, remember the 4.D's: Dusk and Dawn, Dress and Defend (DEET)!







Map 1 Phase 1 Results: Larval Sample Stations April 3, 2004 - May 26, 2004

- Larval Samples Collected
- Larval Samples Collected -Permanent Sites
- Sampled, No Larvae Found
 Watercourses

Parks

ATTACHMENT From the Office of the Medical Health Officer

March 30th, 2005

Bob Moncour City Manager City of Burnaby 4949 Canada Way Burnaby, BC V5G 1M2

Dear Mr. Moncour:

Re: West Nile virus (WNv) - Update and Recommendations for 2005

This letter contains important information about:

- 1. WNv funding announcement and allocation protocol for 2005
- 2. WNv and Local Government WNv Response Plans
- Recommendation to initiate strategic pre-emptive larval control to all priority breeding sites
- 4. Summary of Health Services funding allocation for 2004
- 5. Health Authority and Local Government roles with respect to monitoring adult WNv-vector mosquito populations AND preparedness for adult mosquito control

The 2004 West Nile virus season came and went without evidence of WNv in the Fraser Health area or anywhere in British Columbia. Indeed, with a few exceptions, WNv activity throughout much of North America was significantly less than expected. Many factors likely contributed to this situation, but the relatively mild summer temperatures likely contributed to lower vector mosquito populations. In spite of lower than expected WNv activity, there was significant northward movement in California and southern Oregon. This presents concerns for our province in this coming mosquito season.

Continued vigilance in monitoring, surveillance and strategic mosquito control activities, especially early mosquito larval control initiatives, should further delay the appearance of WNv here and reduce its impact on human populations when it does arrive.

Local Governments have been instrumental throughout the Fraser Health area in the development of coordinated Response Plans for WNv. Members of the Greater Vancouver Regional District (GVRD) adopted a Standardized Approach for the control of potential WNv vector mosquito in both surface waters and catch basins. Members of the Fraser Valley Regional District continued to coordinate activities through the FVRD.

1. WNv funding announcement and allocation protocol for 2005

Funding commitments from the Ministry of Health Services have been secured for the 2005 season and will substantially increase the available resources to each local government. This will allow implementation of a comprehensive approach to WNv education, source reduction and strategic larval control including 'catch basin' management.

The funding will be accessed through the Union of BC Municipalities (UBCM). Inquiries about funding available to you should be made through the UBCM. Funding levels have been developed based on the relative risk of WNV arrival in an area. Funding information is available at:

http://www.civicnet.bc.ca/siteengine/activepage.asp?PageID=223&bhcp=1

Fraser North

300-4946 Canada Way Burnaby British Columbia Canada V5G 4H7

Phone: 604-918-7605 Fax. 604-918-7630 City of Burnaby March 30, 2005

2. WNv and Local Government WNv Response Plans

In order to meet provincial and regional expectations with regard to WNV preparedness, we are requesting a copy of your 2005 WNv Response Plan. In addition please submit your report of 2004 activities, including surveillance findings in your community. This will assist in satisfying our responsibility in the application process for local WNv funding available through the UBCM.

Similar to last year, the 2005 response plans are to include:

- a. Staff and Council education regarding WNv;
- b. Public education regarding ways to reduce mosquito breeding (manage standing water) and recommended ways to protect against mosquito bites (may be done jointly with Fraser Health);
- Identification and mapping of mosquito producing areas/breeding sites
 (mapping of important breeding sites such as ditches, standing ponds, catchment basins, storm water
 retention ponds, flood waters, flooded pastures and marshes, is an important preparatory step);
- d. Source reduction of mosquito breeding and nesting sites;
- e. Mosquito larvae speciation and identification of areas with species that are potential WNv vectors (particularly *Culex tarsalis* and *Culex pipiens*);
- f. Preparedness for control of mosquito larvae, including preparedness for use of larvicidal agents (in accordance with the province-wide permit);
- g. Appointment or confirmation of members for the WNv Adult Mosquito Control Local Advisory Committee—established to advise the Medical Health Officer in a situation where increased mosquito control for the purpose of preventing human disease may be indicated;
- h. A public communication strategy for your WNv Response Plan;
- i. A public communication strategy to be implemented in association with Fraser Health if adult mosquito control measures are determined to be necessary to protect human health;
- j. A process for the rapid identification of areas that would be considered sensitive if adult mosquito control activities are deemed to be necessary (e.g. bee keepers, organic farming operations, sensitive habitats); and
- k. A process for monitoring and evaluation of your WNv Response Plan.

3. Recommendation to initiate strategic pre-emptive larval control for all priority breeding sites

Late in June 2004, all Local Governments in the Fraser Health area were asked to participate in strategic, preemptive control of WNv vector mosquito larvae in priority surface bodies of water. This recommendation was accompanied by the allocation of funds from the provincial Ministry of Health Services that could be used for such activity. The cost for this activity in 2004 was fully funded by the FHA and a summary of expenditures is enclosed for your review. The response to this recommendation was limited in 2004 as it was made late in the season.

The Medical Health Officers in Fraser Health are committed to responsible source reduction and strategic, pre-emptive larval control early in the mosquito season as best practices to keep adult mosquito populations in check later in the season. Therefore, for 2005, we recommend the implementation of strategic, pre-emptive larval mosquito control activities for priority WNv vector mosquito surface water breeding habitat in your jurisdiction.

Further, we recommend the implementation of strategic, pre-emptive larval mosquito control activities to priority catch basins for control of WNv vector mosquito breeding.

This letter serves as a recommendation to utilize the Provincial Pesticide Permit to initiate the above noted activities.

4. Summary of Ministry of Health Services funding allocation for 2004 in the Fraser Health Area

Surplus funds arising from the Ministry of Health Services 2004 allocation for local mosquito control in Fraser Health were used to reduce gaps in regional mosquito surveillance identified at the local government working group meetings.

One major gap addressed was that of *lands managed by provincial or federal bodies*. Contracts were let to enable assessment of lands administered by the Ministry of Transportation and the Ministry of Water, Land and Air Protection (including Parks and Protected areas). The resultant reports have been given back to the regional representative of each ministry for further refinement in 2005.

The WNv funding information posted on the UBCM site includes Crown Land funding as a part of the local government allocation. It is likely that you are reviewing the expectations associated with this unanticipated component of the funding. As the reports from the two crown land assessments done in the Fraser Health area may help in such review, they will be made available to each local government for review and discussion.

As a result of encouragement from the GVRD Regional Engineers' Advisory Committee (REAC) Mosquito Control Working Group, some of the funds have also been allocated for a grant program to allow each of the 11 School Districts in the Fraser Health to conduct an inventory of WNv-vector mosquito breeding sites on school properties. The funding should be adequate to cover reasonable WNv-vector mosquito management this season as well as completing the inventory.

Another gap that was identified as being of concern to local governments as well as to public health was mosquito control on *private land*. In response, Fraser Health initiated a special contract to develop a risk assessment tool that will allow a targeted approach to be implemented. It will be made available to interested Local Governments and Regional Health Authorities in April, 2005.

Other contracts in place are as follows:

- Bird roost contract City of White Rock and Culex Environmental
- Mapping integration project City of Burnaby/GVRD
- 5. Health Authority and Local Government roles with respect to monitoring adult WNy-vector mosquito populations AND preparedness for adult mosquito control

The majority of Local Government representatives participating in planning for WNv surveillance and management in the Fraser and Vancouver-Coastal Health areas have recommended that there should be a provincial or regional capacity for WNv-vector adult mosquito control response where deemed necessary for health purposes.

Adult WNv-vector Mosquito Control

The Fraser and Vancouver Coastal Health Authorities have jointly agreed to assume full management responsibilities for the implementation of adult WNv-vector mosquito control for human health purposes. The details will be shared with Local Governments once contracts have been awarded. In the event that adult mosquito control is indicated for human health purposes, and recommended or ordered by the Medical Health Officer, the necessary work can be done by the mosquito control contractor(s) on contract with the Health Authorities OR by the local government through its mosquito control contractor if preferred by the local government. Either way, there will be consultation with the local government.

Adult Mosquito Control Local Advisory Committees (LAC) have been established for consultation if a situation warrants consideration of adult mosquito control for human health purposes. Please review and update your appointed representatives for the LAC and their contact information. Updated Terms of Reference for the Local Advisory Committees will be sent to you shortly with the list of representatives from last year.

A draft template document, *Adult Mosquito Control Standardized Activity and Response Plan*, was introduced to Local Governments at our first Adult Mosquito control preparedness meeting in November 2004. Fraser and Vancouver-Coastal Health will make arrangements for an additional meeting with your WNv representative(s) to develop this standardized, working document that can be used throughout the Lower Mainland and Fraser Valley.

I would like to express appreciation to you and your staff for your partnership in the development of a cooperative, region-wide approach to West Nile virus preparedness.

City of Burnaby - March 30, 2005

ATTACH MENT 3

If you would like to discuss any of the issues in this letter, please call Randy Heilbron, Fraser Health WNv coordinator, at 604-572-2658.

Sincerely,

n Loewen

Nadine Loewen, MD, BSc, MEd, MHSc Medical Health Officer Fraser Health Authority

RH/cgh

CC: Dipak Dattani

#400 4946 Canada Way Burnaby. V5G 4H7