

To: Regional and Corporate Services Committee

Date: 2018-04-10

From: Lance Lilley, Environmental Planner

File No: 2320-83-001

Subject: Season Forecast for 2018 Nuisance Mosquito Season

INTENT

This report is intended to advise the Fraser Valley Regional District Board of information pertaining to the beginning of the 2018 nuisance mosquito season. Staff are not looking for a recommendation and has forwarded this information should members want more clarification or to discuss the item further.

STRATEGIC AREA(S) OF FOCUS

Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

PRIORITIES

Priority #4 Tourism
Priority #5 Outdoor Recreation

BACKGROUND

Nuisance mosquitoes typically begin hatching in May, when the Fraser River starts to rise during its annual freshet. With expertise provided by Morrow BioScience Ltd., the Fraser Valley Regional District (FVRD) continues to operate a Nuisance Mosquito Control Program with the aim to reduce mosquito populations to tolerable levels.

DISCUSSION

As of March, snowpack levels within the Fraser River basin are slightly above average (110%). It is still too early to forecast how this snowpack will translate to mosquito populations for 2018, as the mosquito habitat made available during freshet will largely depend on the rate of melt and further snow/precipitation accumulation. Early predictions are mosquito populations will be similar to what was experienced in 2017, which had relatively high mosquito numbers in certain hotspot areas, but overall was within the average range. An updated Provincial snow survey bulletin is expected to be released shortly.

Morrow BioScience Ltd., will have six field technicians within the Fraser Valley this year (up from the usual five), to assist with monitoring and treatments. They also have a new drone to use to test monitor and select aerial application of bacterial larvicide (*Bacillus thuringiensis*, Bti). It is hoped the drone will reduce the use of costly helicopter applications, particularly over open areas of water such as the mosquito breeding sites of Hatzic Lake and Stave Lake. In addition, Morrow BioScience have been acquiring enhanced mapping of Matsqui Island that will allow for greater understanding of the Island's hydrology and greater efficiency for treating its mosquito breeding sites.

Field staff for Morrow BioScience will begin monitoring for larval development within the side channels and seepage areas around the Fraser River as soon as water levels start to rise, likely near the end of April. Public are asked to call the FVRD's mosquito hotline at 1-888-733-2333 to report a potential mosquito breeding site or to find out more information about treatment sites and timing.

COST

Funding is included in the Regional Mosquito Control budget to cover the anticipated contract costs of Morrow BioScience.

CONCLUSION

Current snowpack conditions within the Fraser River basin remain slightly above average, which could translate to higher than average mosquito production (depending on rate of melt and further snow or precipitation accumulation within the Fraser Basin). The FVRD's mosquito biologists and field technicians will begin monitoring for larvae soon and are prepared to treat quickly and aggressively when needed. Advancements within the program such as enhanced mapping and use of a drone will improve our understandings and add increased treatment efficiencies.

COMMENT BY:

Barclay Pitkethly, Director of Regional Programs

Reviewed and supported

Mike Veenbaas, Director of Financial Services

Reviewed and supported.

Paul Gipps, Chief Administrative Officer

Reviewed and supported