Agenda – Executive Policy Committee – January 17, 2018

Report – Standing Policy Committee on Protection, Community Services and Parks – January 9, 2018

Item No. 5 Mosquito Control Larviciding Program within the Capital Region

STANDING COMMITTEE RECOMMENDATION:

On January 9, 2018, the Standing Policy Committee on Protection, Community Service and Parks concurred in the recommendation of the Winnipeg Public Service, as amended, and submitted the following to Council:

1. That the City enter into, execute and deliver renegotiated agreements with the Province of Manitoba and 10 rural municipalities within the Capital Region (East St. Paul, Headingley, Macdonald, Ritchot, Rosser, Springfield, St. Andrews, St. Clements, Taché and West St. Paul), and such other terms and conditions determined necessary by the Director of Legal Services and City Solicitor to implement the intent of this report.

2. That the Chief Administrative Officer be authorized to negotiate and approve the terms and conditions of the contracts for Mosquito Control in the Capital Region with the Province of Manitoba and 10 rural municipalities within the Capital Region (East St. Paul, Headingley, Macdonald, Ritchot, Rosser, Springfield, St. Andrews, St. Clements, Taché and West St. Paul), in accordance with this report and such other terms and conditions determined necessary by the Director of Legal Services and City Solicitor to protect the interests of the City.

3. That authority be delegated to the Chief Administrative Officer to negotiate and approve the terms and conditions of all future similar contracts for Mosquito Control with the Province of Manitoba and municipalities in the Capital Region, in accordance with this report and such other terms and conditions deemed necessary by the Director of Legal Services and City Solicitor to protect the interests of the City.

4. That if no additional funding is received through the contracts for Nuisance Mosquito Control in the Capital Region before April 1, 2018, which is satisfactory to the City, the City will reduce the area larvicided from 10 km to 8 km surrounding Winnipeg with the intention to remain within budget.

5. That the Winnipeg Public Service provide a verbal update on the matter to the Standing Policy Committee on Protection, Community Services and Parks in April 2018.

6. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Protection, Community Services and Parks – January 9, 2018

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On January 9, 2018, the Standing Policy Committee on Protection, Community Service and Parks concurred in the recommendation of the Winnipeg Public Service with the following amendment:

- Add the following new recommendation:

  "5. That the Winnipeg Public Service provide a verbal update on the matter to the Standing Policy Committee on Protection, Community Services and Parks in April 2018.",

and submitted to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Mosquito Control Larviciding Program within the Capital Region

Critical Path: Standing Policy Committee on Protection, Community Services and Parks - Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Domke	J. Berezowsky Acting Director of Public Works	M. Ruta	D. McNeil

EXECUTIVE SUMMARY

The City of Winnipeg larvicides 10 km beyond the City limits (see Figure 1 attached) on a contract basis for the Province and Capital Region Municipalities which has a benefit to City residents as it reduces adult mosquito migration. The larviciding is categorized into the two distinct contracts, nuisance mosquito control which is funded by Manitoba Municipal Relations, and West Nile Virus (WNV) mosquito control which is funded by Manitoba Health, Seniors and Active Living. Although the same work is performed, the distinction is based on the date the work is performed and the geographic location. Larviciding still needs to occur regardless of which contract it falls under.

In May 2017 the Province notified municipalities which had existing WNV contracts that the cost–sharing funding of the contracts would be eliminated or significantly reduced. As a result, the Public Works Department anticipates an annual funding shortfall of $620,000 plus future inflation to the WNV contracts to larvicide outside the City limits in normal operating years. However, if the City is to benefit from reduced migration of adult mosquitoes into Winnipeg, the areas outside the City still need to be treated. This Provincial funding decrease will reduce the amount of larviciding conducted outside the City limits, potentially reducing the size of the area larvicided beyond the City limits.

The estimates included in this report are based on years of average precipitation. It should be noted that in years with above normal precipitation, larviciding costs would increase, while in years with below normal precipitation, larviciding costs would decrease.

The estimated annual shortfall of $620,000 is the result of:

- the pre-existing Provincial funding shortfall of $150,000 due to the WNV larviciding program in East St. Paul, West St. Paul, Springfield, and Ritchot exceeding pre-approved funding
- the additional estimated annual costs of larviciding in Macdonald and Taché during the WNV season of $290,000 due to a loss in WNV funding
- the $180,000 reduction of WNV funding the City received historically for treating East St. Paul, West St. Paul, Springfield and Ritchot

In addition to the anticipated funding shortfall noted above there have been changes to the Insect Control Branch's cost structure commencing in 2017 which will result in further ongoing pressures

on the existing Insect Control operating budget in years with normal precipitation. These changes include the switch in adulticides (DeltaGard), new Transport Canada Regulations and a reduction in provincial funding for WNV operations inside the City of Winnipeg. Given the new incremental costs of $531,000, the City will not have the operating budget in years of normal precipitation to subsidize the estimated shortfall related to the WNV operations outside of city limits.

The Insect Control Branch has explored options to mitigate the additional costs so as to remain within budget for the 2018 season. The Public Service is recommending renegotiating the existing contracts for nuisance mosquito control outside the City limits with the Province and 10 adjoining rural municipalities to Winnipeg. If the City does not receive additional funding prior to the 2018 season, the area larvicided outside of Winnipeg will be reduced from 10 km to 8 km to decrease costs by approximately the estimated funding shortfall of $620,000 and avoid a potential budget shortfall in 2018 and future years.

RECOMMENDATIONS

1. That the City enter into, execute and deliver renegotiated agreements with the Province of Manitoba and 10 rural municipalities within the Capital Region (East St. Paul, Headingley, Macdonald, Ritchot, Rosser, Springfield, St. Andrews, St. Clements, Taché and West St. Paul), and such other terms and conditions determined necessary by the Director of Legal Services and City Solicitor to implement the intent of this Report.
2. That the Chief Administrative Officer be authorized to negotiate and approve the terms and conditions of the contracts for Mosquito Control in the Capital Region with the Province of Manitoba and 10 rural municipalities within the Capital Region (East St. Paul, Headingley, Macdonald, Ritchot, Rosser, Springfield, St. Andrews, St. Clements, Taché and West St. Paul), in accordance with this report and such other terms and conditions determined necessary by the Director of Legal Services and City Solicitor to protect the interests of the City.
3. That authority be delegated to the Chief Administrative Officer to negotiate and approve the terms and conditions of all future similar contracts for Mosquito Control with the Province of Manitoba and municipalities in the Capital Region, in accordance with this report and such other terms and conditions deemed necessary by the Director of Legal Services and City Solicitor to protect the interests of the City.
4. That if no additional funding is received through the contracts for Nuisance Mosquito Control in the Capital Region before April 1, 2018, which is satisfactory to the City, the City will reduce the area larvicided from 10 km to 8 km surrounding Winnipeg with the intention to remain within budget.
5. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

Council approval is required to enter into amending the contracts for Nuisance Mosquito Control with the Province of Manitoba and 10 municipalities within the Capital Region.

IMPLICATIONS OF THE RECOMMENDATIONS

Commencing in 2018 the estimated shortfall related to the WNV operations outside of City of Winnipeg for normal operating years is estimated to be $620,000 if no additional funding is provided.

Due to recent dry conditions, the Insect Control Reserve could be utilized in 2018 to offset any additional costs, however, over time the Insect Control Reserve will be used up based on the estimated annual shortfall and this will impact the ability to larvicide up to 10 km beyond the City limits, while operating within budget.

The impact of reducing the larviciding area from 10 km to 8 km outside the City limits may result in a slight increase in adult mosquito populations in Winnipeg, particularly in the suburbs adjacent to the City limits. It would also be dependent on the precipitation not being excessive in the Capital Region or that there are not consistently high winds to aid the adult mosquitoes in their flight towards the City. It is estimated the reduction from 10 km to 8 km will result in cost savings approximately equal to the decreased funding noted of $620,000.

HISTORY/DISCUSSION

Nuisance Mosquito Control Program:
The overall effectiveness of the City's mosquito control program is dependent on treating beyond the City of Winnipeg limits (Figure 1, attached) due to the significant land area which is favourable for mosquito larval development. Studies conducted by the Insect Control Branch in 2016 have shown that mosquitoes have the ability to migrate into the City using the Assiniboine and Red Rivers as natural corridors because of the higher humidity and lack of vegetation which aids their flight patterns.

Commencing in 2002, the Manitoba Municipal Relations provided $1.2 million annually as part of a contract for Nuisance Mosquito Control in the Capital Region to ensure that the area 10 km beyond the City of Winnipeg was treated on a regular basis, which benefits both Winnipeg and the surrounding municipalities. This has created several new partnerships within the Winnipeg Mosquito Abatement District (MAD). The MAD includes 10 Capital Region Municipalities surrounding Winnipeg (East St. Paul, Headingley, Macdonald, Ritchot, Rosser, Springfield, St. Andrews, St. Clements, Taché and West St. Paul). In March 2005, City Council approved the Mosquito Control Strategy which set out a plan to convert a largely chemical based larviciding program to a biological program. The City of Winnipeg demonstrated its commitment to the Mosquito Control Strategy within the City by adding an additional $1 million in 2011 to treat all sites within Winnipeg with biological products. In 2012, the Province increased its funding by an additional $1.1 million for a total of $2.3 million to start phasing in the biological larvicides outside the City limits.

Since 2014, the City has requested that the Province of Manitoba increase its financial contribution to the nuisance mosquito larviciding control contract within the Capital Region in anticipation of the increased costs in converting to a 100% biological program outside the City limits. The additional funding requests have been denied despite the increased cost of change to a biological program. In 2015, the City increased the Insect Control Branch's Operating budget by $2.69 M to switch over the remaining sites outside the City limits to biological larvicides.

West Nile Virus (WNV) Mosquito Control:
When WNV was first detected in Manitoba in 2002, the Province recognized that, given the potential impact of WNV, both provincial and municipal governments had a responsibility to protect the health of their residents. Under the cost-sharing program, municipal governments could apply for funding on a contractual basis and be reimbursed 75% of eligible, approved expenses from approximately June 21 to August 15 each year.

The rural municipalities of East St. Paul, West St. Paul, Ritchot and Springfield utilized the services of the Insect Control Branch to conduct targeted larviciding and the City of Winnipeg was reimbursed for the services provided to these rural municipalities up to provincially pre-approved maximums. The rural municipalities of Macdonald and Taché used other service providers and the rural municipalities of Rosser, Headingley, St. Andrews and St. Clements did not conduct any WNV targeted larviciding in the 10 km zone. Each year, the Insect Control Branch would cease larviciding for nuisance mosquito control during the WNV cost-sharing program in those rural municipalities which utilized another service provider as the same standing water sites typically breed both nuisance and vector (WNV) mosquitoes.

With a better understanding of *Culex tarsalis and Culex resutans'* biology, WNV infection and transmission dynamics, Manitoba Health, Seniors and Active Living has refined the targeted cost-sharing larviciding program commencing in 2017 to concentrate resources effectively and equitably and where it can be most effective in minimizing the risk of WNV transmission. In short, eligibility and funding levels are now determined by two key factors: risk zone and community size. Winnipeg is in the moderate risk zone.

The $620,000 estimated annual shortfall is the result of: the pre-existing Provincial funding shortfall of $150,000 resulting from the WNV larviciding program in East St. Paul, West St. Paul, Springfield, and Ritchot; the estimated annual costs of larviciding in Macdonald and Taché during the WNV season of $290,000, and; the $180,000 reduction/elimination of WNV funding the city received historically for larviciding East St. Paul, West St. Paul, Springfield and Ritchot. This estimated shortfall of $620,000 is the amount the city is seeking to obtain additional funding to offset the shortfall. It should be noted the City is not intending to generate revenue on these operations as the City only applies for reimbursement based on costs incurred each year in the contracts. In years of low precipitation the City will only claim based on actual costs incurred. Not larviciding these areas will result in migration of adult mosquitoes into Winnipeg.

The impact of reducing the larviciding area from 10 km to 8 km outside the City limits may result in a slight increase in adult mosquito populations in Winnipeg, particularly in the suburbs adjacent to the City limits. Mosquito populations could also increase if there is excessive precipitation in the Capital Region or there are consistently high winds to aid the adult mosquitoes in their flight towards the City.

Additional Financial Pressures:
In 2015 and 2016 Winnipeg was eligible for up to $657,000 for reimbursement, which included Winnipeg and the 3 km buffer around the City limits. In fact, Winnipeg's total WNV targeted larviciding costs within City limits were $1.07 million and $1.59 million 2015 and 2016, respectively. The Insect Control Reserve has been used to offset additional costs attributable to WNV within the City. Winnipeg received notification from the Province of Manitoba that provincial funding in 2017 for West Nile Virus larviciding within City limits will be reduced to $423,000, a

reduction of $234,000, however; the City will continue to protect the health of its citizens and visitors by larviciding for West Nile Virus.

There have been changes to the cost structure of Insect Control operations which puts further stress on the existing Insect Control's operating budget. These changes include the change in adulticide from Malathion to DeltaGard, which is estimated to result in an incremental cost of $162,000 in a normal operating year with three rounds of fogging. There are also new Transport Canada Aviation regulations resulting in estimated incremental annual costs of $135,000 related to staffing, equipment, and chemical costs.

These above noted items represent an estimated incremental cost to the Insect Control's operating budget of $531,000. These changes will increase the cost of the Insect Control Program within the City of Winnipeg. The costs are included in this report to illustrate the incremental costs being supported by the existing Insect Control operating budget. The operating budget cannot support both the estimated incremental operating costs of $531,000, as well as the estimated funding shortfall of $620,000 plus future inflation to the WNV larviciding contracts outside of the City of Winnipeg.

FINANCIAL IMPACT

Financial Impact Statement

Date: September 27, 2017

Project Name:

First Year of Program **2018**

Potential Changes to Mosquito Control Larviciding Program within the Capital Region

	2018	2019	2020	2021	2022
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ (620,000)	$ (632,400)	$ (645,048)	$ (657,949)	$ (671,108)
Less: Incremental Revenue/Recovery	(620,000)	(632,400)	(645,048)	(657,949)	(671,108)
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: The potential financial impact of the recommendations is not known as the outcome of the recommended negotiations is not known. Given the uncertainty of the proposed negotiations this FIS assumes no changes to the funding agreement and a reduction in the buffer zone from 10 km to 8 km. There is an estimated cost savings of $620,000 and a reduction in the expected transfer from the Insect Control Reserve for $620,000 as the elimination of the estimated shortfall will eliminate the need for the corresponding funding. An inflation rate of 2% is assumed.

"Original Signed by J. Ruby, CPA, CA"

J. Ruby, CPA,CA
Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with: Legal Services

OURWINNIPEG POLICY ALIGNMENT

Sustainable Winnipeg 09 Direction 5
Sustainable Winnipeg identified that the City should continue to respect and value the City's natural and built environment by providing safe and effective pest and weed control in City operations. Strategies contained within it include:

- Balance the health needs of citizens with the use of pesticides and herbicides.
- Implement new and innovative integrated pest management methods aimed at reducing pesticide use and increasing safety and effectiveness.

SUBMITTED BY

Department: Public Works
Division: Parks and Open Space
Prepared by: Ken Nawolsky, Superintendent of ICB
Date: October 18, 2017

Attachment: Figure 1. Nuisance Mosquito Larviciding in the Capital Region

Figure 1. Nuisance Mosquito Larviciding in the Capital Region

