



# REPORT TO COUNCIL

To: **Mayor and Councillors**

Subject: **New Watercourse Protection Bylaw 2021 No. 3152**

File #: 3900

Doc #: 176338

From: Hirod Gill, P.Eng.  
Manager of Engineering Services

Date: March 8, 2021

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## RECOMMENDATION:

THAT the report of the Manager of Engineering Services dated March 8, 2021 regarding proposed new Watercourse Protection Bylaw, 2021, No. 3152 be received for information.

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## PURPOSE:

The purpose of this report is to provide, for Council's information, a summary of the changes in the proposed new Watercourse Protection Bylaw No. 3152 prior to Council's consideration of the bylaw.

## POLICY/BYLAWS:

The Community Charter enables Council to, by bylaw, regulate, prohibit and impose requirements to protect the natural environment.

B.C. Reg. 144/2004 Spheres of Concurrent Jurisdiction - Environment and Wildlife Regulation authorizes Council, by bylaw, to regulate and prohibit in relation to polluting, obstructing or impeding the flow of a stream, creek, waterway, watercourse, waterworks, ditch, drain, or sewer, whether or not it is located on private property.

The City's current Watercourse Protection Bylaw was adopted in 2003.

Fines for non-compliance with the current Watercourse Protection Bylaw are outlined in the City's Municipal Ticket Information System Bylaw No. 2846.

## **COMMENTS/ANALYSIS:**

The City's Watercourse Protection Bylaw restricts the discharge of prohibited materials (e.g., sediment/silt, pesticides, fertilizers, waste, etc.) to protect City's drainage system and watercourses.

The current Bylaw requires water samples to measure "Total Suspended Solids" (TSS) to monitor and control the quality of discharged water from construction sites to the City's watercourses. This method of sampling, though effective, requires sending samples to a laboratory for analysis, which typically takes up to four days to receive the results. This delay does not allow for the City to respond promptly to cases where construction sites discharge water with poor quality to City's watercourses.

The proposed new Watercourse Protection Bylaw makes a number of changes to improve staff's ability to monitor and enforce the bylaw with one of the more significant changes being to replace TSS with Water Turbidity Measurement, as it is fast and inexpensive to complete. Turbidity of the construction site discharges can be measured onsite using a handheld meter and would allow for rectifying the poor water quality situations immediately to eliminate/minimize harm to the downstream watercourses. This is also in line with DFO's recommended criteria. The changes also provide greater enforcement ability for consultants, retained by private developers, to ensure compliance to the bylaw requirements.

Table 1 summarizes the proposed updates and improvements contained in the proposed bylaw and provides a comparison with the current bylaw.

**Table 1: Summary of Major Updates in the New Watercourse Protection Bylaw No. 3152**

Subject	Existing Bylaw No. 2518	Proposed Bylaw No. 3152	Comments
<b>Water Quality Monitoring Criteria</b>	Requires monitoring Total Suspended Solids (TSS)	Requires monitoring Water Turbidity	TSS testing can take several days to get results. Water turbidity measurements in NTU, an industry accepted standard, is an alternative onsite measurement technique to monitor the quality of the water discharge and enables quick assessment and response.
	No specific requirements to monitor water acidity.	Requires monitoring pH of the discharged water	To make sure the discharged water is not too acidic or alkaline to harm City's storm pipes, or downstream watercourses.
	No explicit language to require monitoring other Prohibited Materials.	Requirement to monitor other prohibited materials per City Engineer's discretion was added.	To monitor and report the presence of other prohibited materials, such as pesticides, fertilizers, chlorinated water, cleaning compounds, paints, etc., where applicable.
<b>Construction related Inspection, Monitoring and Reporting Frequency</b>	Requires daily and weekly monitoring during wet and dry weather conditions respectively.	A more detailed monitoring and reporting schedule is set that eases monitoring requirements during light rainy days (i.e., days with 25 mm or less rainfall, as per DFO's guidelines)	Given the high number of rainy days in Metro Vancouver and that light rainfall events, as per DFO's guidelines, may not trigger soil erosion, this approach, while protecting our watercourses, would make the monitoring requirements realistic and affordable to contractors and developers.
	Does not specify the required means of reporting	Requires an email to the City a signed copy of the report. It also required the assigned Qualified Environmental Professional to call the City immediately, when a violation has taken place.	The requirement to call when a violation takes place would allow for a faster response from the City to hold the site contractor or the person who commits the offence accountable to rectify the situation immediately or receive the "stop work order".
	No direct references to parameters that need to be included in	Elaborates items and parameters that need to be included in every report. This	Reporting observations on the flow pathway condition would be used as an indicator that could help City inspectors to assess the cumulative effect of the

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	the report	includes providing information on the condition of the offsite overland flow pathway, from the site outlet to the receiving watercourse.	discharged water over a period of time on the receiving watercourse.
<b>Offences, Penalties and Remedies</b>	There is no clear definition of what constitutes an offence.	Explicitly defines what is considered an offence	
	Sets \$100 fines for a Bylaw offence.	Sets \$500 fines for a Bylaw offence to make sure committing an offence and paying the fine is not a cheaper alternative to obeying this Bylaw.	The new fees of \$500 have been added, as per the proposed bylaw Amendment No. 16, 2021, No. 3156 to the City's Municipal Ticketing Information System Bylaw, 2011, No. 2846.
	No specific provision or fees for re-inspecting the site to confirm the violation has been addressed to the satisfaction of the City.	Requires fee/payment for a City inspector to have a "subsequent site inspection" to confirm the offences/violations have been rectified.	Where any inspection carried out discloses conditions contrary to this Bylaw requirements or the City approved ESC Plan, a subsequent inspection shall be arranged. The purpose of the subsequent inspection is to ensure the required remedial actions have been implemented and the site is in compliance with the requirements outlined in the new Watercourse Protection Bylaw No. 3152.  The new fee of \$200 has been added, as per the proposed bylaw Amendment No. 28, 2021, No. 3157 to the City's Fees and Charges Bylaw No. 2837.
	Allows for prosecution and upon conviction for such offence in	Clarifies the conditions when prosecution of a person who commits an offence would	References to Community Charter and Offence Act have been provided for prosecuting those who commit offence under this Bylaw and neglect or refrain from

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	the court of law, would be fined not more than \$2,000.	happen and aligns the Bylaw's maximum amount of fine with the maximum fine set out in the Offence Act, R.S.B.C. 1996, Chapter 338.	doing anything required by this Bylaw to rectify the offence.

**BUDGET IMPLICATIONS:**

None

**ALTERNATIVES:**

N/A

Respectfully Submitted,



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Name  
Hirod Gill, P.Eng  
Manager of Engineering Services

Concurrence:



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Rick Bomhof, P.Eng.  
Director of Engineering, Parks & Environment

**CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:**

I support the recommendation.



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Francis Cheung, P. Eng.  
Chief Administrative Officer