

From: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>

To: "Direct to Mayor and Council - DL"

CC: "City Manager's Correspondence Group - DL"

"Nelms, Cheryl" <Cheryl.Nelms@vancouver.ca>

"Bromley, Malcolm" <Malcolm.Bromley@vancouver.ca>

Date: 11/24/2019 9:33:41 PM

Subject: Memo - King Tides Update

Attachments: Memo to Mayor & Council - ENG - King Tides Update.pdf

Dear Mayor and Council,

Please see attached a memo from Cheryl Nelms regarding this year's COV king tides preparations. A short summary of the memo is as follows:

- King tides are extreme high tide events that happen twice per year and could dramatically increase the risk of flooding in Vancouver.
- Engineering Services staff are protecting and preparing neighbourhoods for potential flooding; sandbag berms will be utilized, as well as on-site condition monitoring
- As of November 5th, City staff created a sandbag berm along the lowest-lying areas near Locarno Beach; this berm will remain in place until February 2020, when the high tides are expected to recede.
- The Locarno Beach sandbag berm will not prevent the nearby park from flooding, but is designed to avoid flooding on and the closure of Marine Drive.

If you have any questions, please feel free to contact Cheryl Nelms, Acting GM, Engineering at 604.873.7348 or Cheryl.Nelms@vancouver.ca.

Best,
Sadhu

Sadhu Aufochs Johnston | City Manager
Office of the City Manager | City of Vancouver
604.873.7627 | sadhu.johnston@vancouver.ca

Pronouns: he, him, his



The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the Musqueam, Squamish, and Tsleil-Waututh peoples.

MEMORANDUM

November 22, 2019

TO: Mayor and Council

CC: Sadhu Johnston, City Manager
Paul Mochrie, Deputy City Manager
Lynda Graves, Administration Services Manager, City Manager's Office
Rena Kendall-Craden, Civic Engagement and Communications Director
Katrina Leckovic, City Clerk
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Anita Zaenker, Chief of Staff, Mayor's Office
Malcolm Bromley, General Manager, Park Board
Shauna Wilton, Deputy General Manager, Park Board
Taryn Scollard, Director of Streets

FROM: Cheryl Nelms, Acting General Manager, Engineering Services

SUBJECT: COV Preparations for King Tides

The purpose of this memo is to inform Mayor and Council of the preparations being undertaken regarding this year's king tides.

King tides are extreme high tide events that happen twice per year, but are typically more dramatic in the winter. If there are heavy rains and high winds during the king tide phase, the risk of flooding increases.

Vancouver will see king tides this storm season on the following dates:

- November 17 - 23, 2019
- November 27 – December 3, 2019
- December 13 – 22, 2019
- December 25, 2019 – January 1, 2020
- January 10 – 18, 2020
- January 23 – 29, 2020
- February 8 – 14, 2020

As in recent years and in anticipation of high tides throughout the winter, Engineering Services staff, in coordination with Park Board staff, have taken a proactive approach to protect and prepare neighbourhoods from potential flooding. Staff will monitor the weather and the impacts of rising water.

What's Happening

As in past years, City staff created a sandbag berm along the lowest-lying areas near Locarno Beach. The berm was completed in early November and is expected to remain in place until February, when the high tides should recede.

Engineering survey staff completed a detailed survey of spot elevations along Marine Drive from Tolmie Street to Discovery Street in 2018. This survey identified that it is not necessary to sandbag the entire length (about 500 meters) from Tolmie to Discovery, and that the lowest-lying area is centered on the foot of Sasamat Street. The crest elevation for the protective berm will be 3.0 meters Geodetic and the sandbagging will run approximately 300 meters from Tolmie Street to Trimble Street. This target elevation was chosen to protect against the highest predicted tides of the year, plus a similar storm surge that we have experienced over the last few years.

This sandbag berm will close off the end of Sasamat Street, but ample parking is available along Marine Drive for this time of year. The sidewalk will remain accessible with at least three feet of open width. A short berm will also be installed across the path entering the park at the intersection of Marine and Trimble.

It is important to note that this sandbagging plan will not protect the park from tidal flooding, but is designed to avoid flooding across Marine Drive and prevent the closure of Marine Drive.

Additional sandbags will be stockpiled on site as a precautionary measure in case berm repairs are required or surcharging catch basins must be temporarily plugged. During the high tides, Operations and Park Board staff will monitor conditions on-site and determine if any other responses (such as blocking catch basins or sandbagging around the Park Board concession stand) are necessary.

Should you require further information, please contact me directly at 604.873.7348 or cheryl.nelms@vancouver.ca.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl Nelms".

Cheryl Nelms, P.Eng., PhD
Acting General Manager, Engineering Services

604.873.7348 | cheryl.nelms@vancouver.ca