



**May 2017**

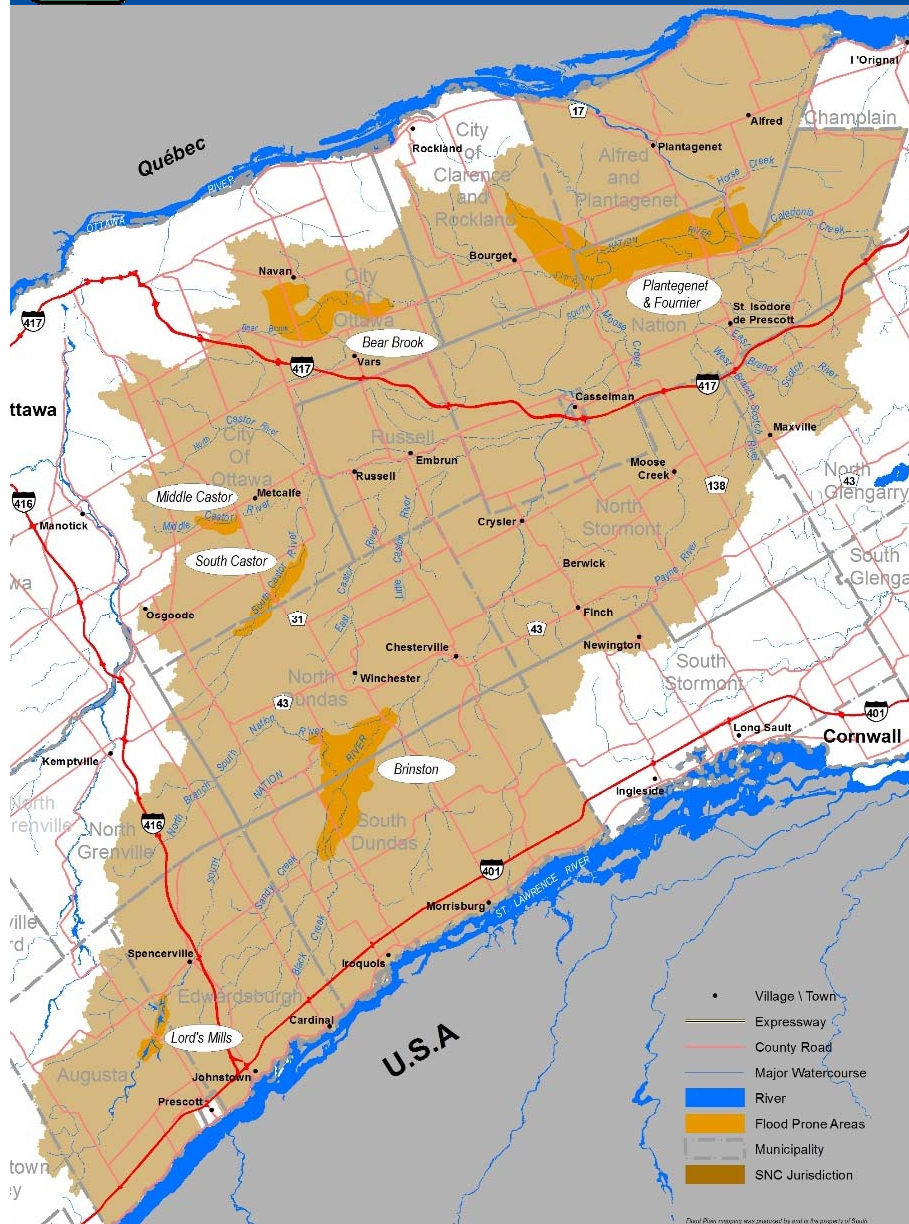
## **Floods and Landslides**



[www.nation.on.ca](http://www.nation.on.ca)



# Flood Forecasting and Warning



- Northern: Ottawa River
- Southern: St. Lawrence River
- Central: Landslides

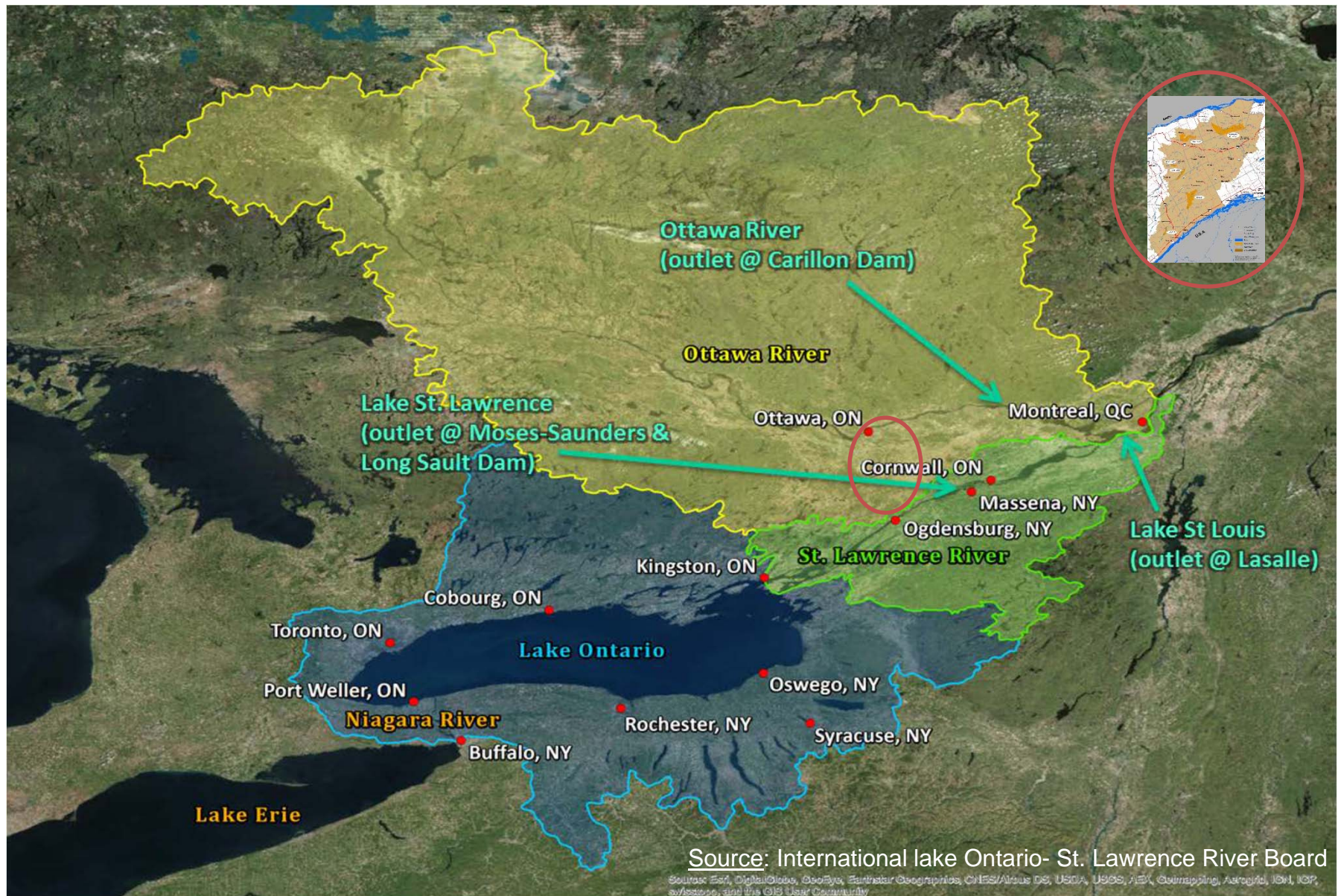


1947-2017





# Basins





# The Event

Date	Total Daily Precip (mm)	Wind (km/h)
May 1 <sup>st</sup> , 2017	45.4	54
May 2 <sup>nd</sup> , 2017	0.8	50
May 3 <sup>rd</sup> , 2017	0.2	50
May 4 <sup>th</sup> , 2017	3.2	41
May 5 <sup>th</sup> , 2017	40.4	41
May 6 <sup>th</sup> , 2017	20.6	43
May 7 <sup>th</sup> , 2017	2.5	41
May 8 <sup>th</sup> , 2017	0.6	46

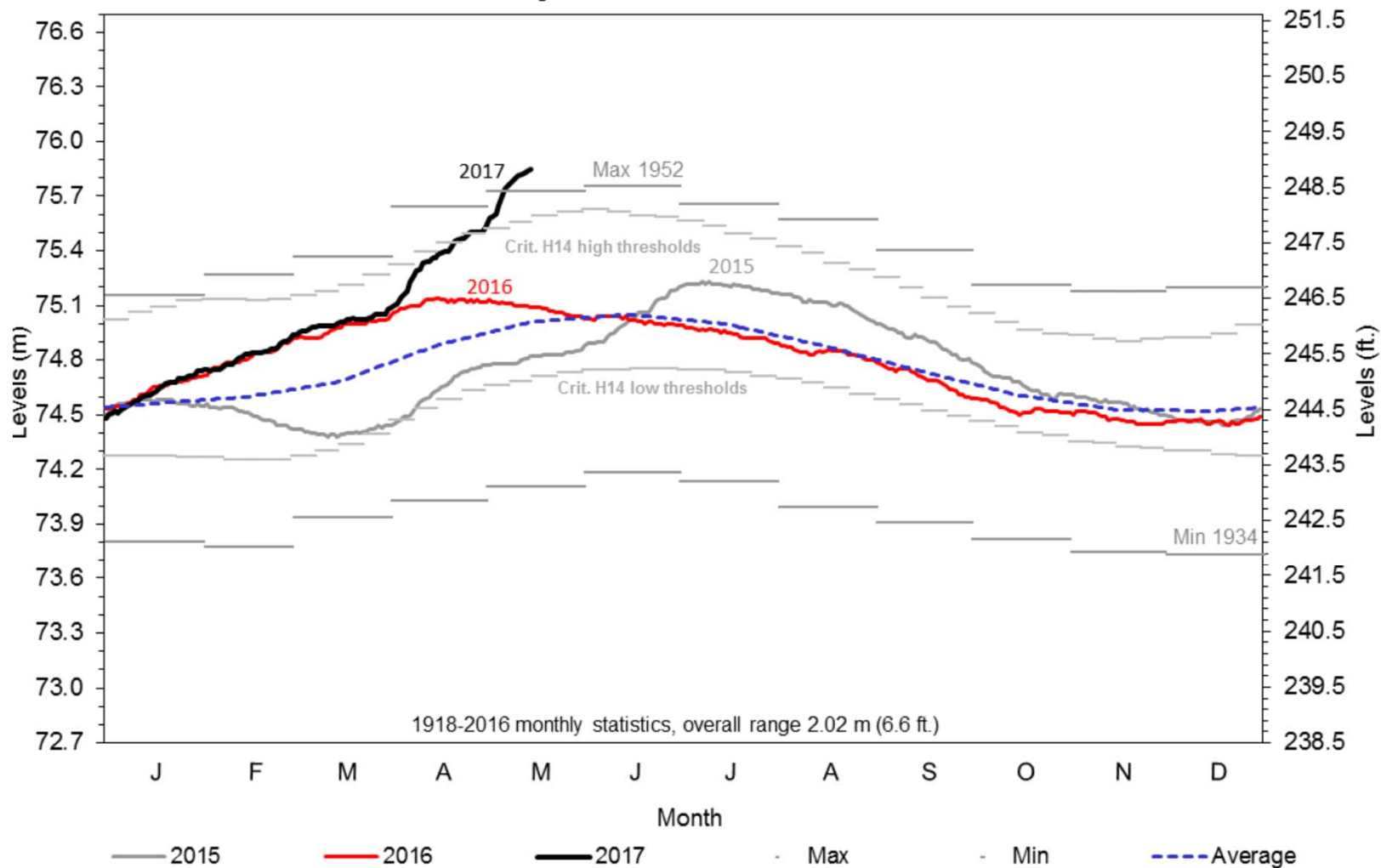
- April, snow melt and near double levels - Soil totally saturated
- May 1<sup>st</sup> to May 8<sup>th</sup>: **113.7 mm**
- May Normal monthly rainfall : 81 mm





# Rain Event Impacts

## Daily Lake Ontario Levels



Source: International lake Ontario- St. Lawrence River Board

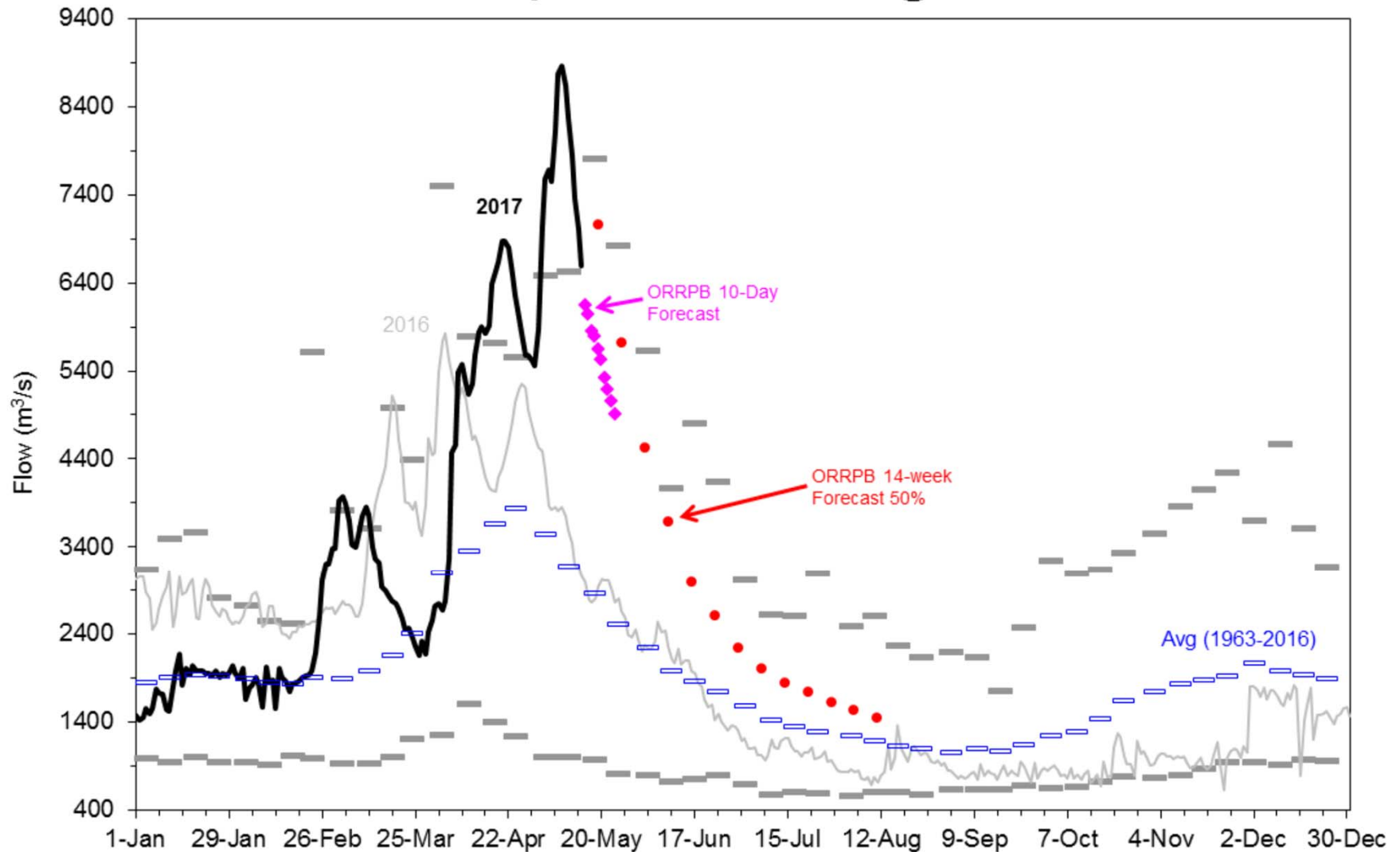
Sandra Mancini, Senior Water Resources Engineer





# Rain Events Impacts

## Daily Ottawa River Flow @ Carillon



Source: International Lake Ontario-St. Lawrence River Board

Sandra Mancini, Senior Water Resources Engineer



# Ottawa River



Wendover  
(May 3<sup>rd</sup>, 2017)



Wendover  
(May 8<sup>th</sup>, 2017)

- Peak water level @ Thurso gauge: **43.71m** (May 8<sup>th</sup>, 2017)
- Alfred Plantagenet: 5 Road closures
- Clarence Rockland: **state of emergency: Thursday May 4<sup>th</sup>, 2017**
- Champlain: **state of emergency Sunday May 7<sup>th</sup>, 2017**

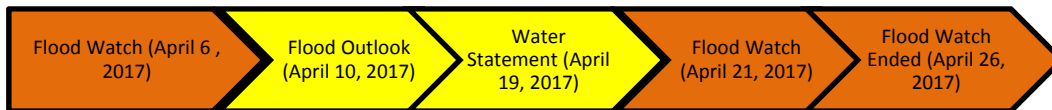




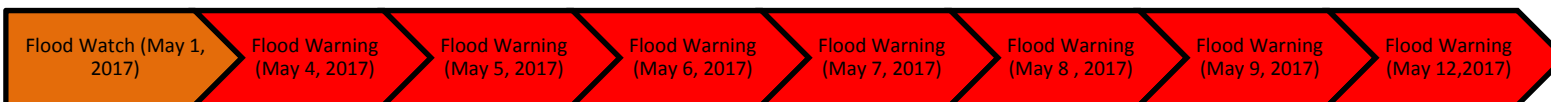
# SNC Response

- 6 conference calls
- 20 Flood Messages/Updates
- More than 30 inquires from municipal staff and residents
- 4 flood surveillance visits

## April Flood Messages



## May Flood Messages







# St. Lawrence River



Edwardsburg Cardinal  
(May 8<sup>th</sup>, 2017)

- Peak water level at Morrisburg gauge: 1.298m (May 3<sup>rd</sup>, 2017)
- Flooding issues reported in Edwardsburgh Cardinal and Augusta





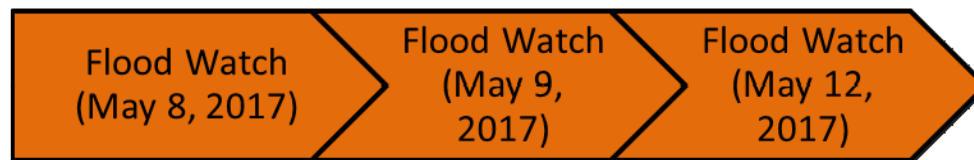
# SNC Response



Figure 4: Augusta  
(May 10<sup>th</sup>, 2017)

- 2 flood surveillance visits
- 3 Flood Messages/Updates have been sent out in May 2017.
- More than 20 inquires from Municipal staff and residents

## May Flood Messages





# Vulnerable Houses



Houses within the 100-Yr Floodplain  
Wendover

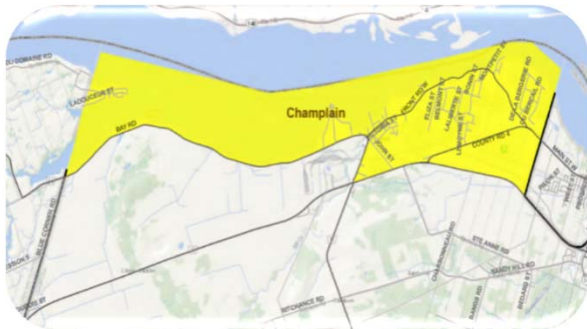
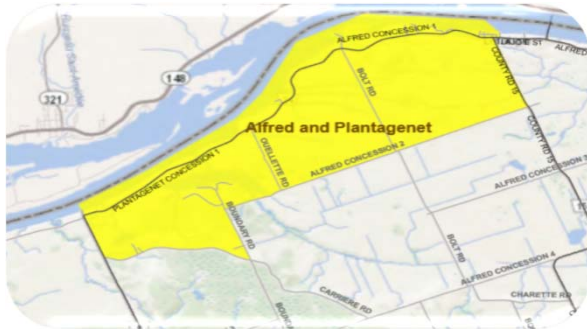
- Identified vulnerable houses along the Ottawa and St. Lawrence River
- Created a database identifying houses at risk using modelled floodplain, site visits, and drone/ news footage







# Remediation



- Potential issues: septic, wells, shoreline erosion, repairs/rebuild in floodplain areas (permits)
- Ontario Government **activates** disaster relief funding
- Assist Alfred Plantagenet; City of Ottawa; Clarence Rockland and Champlain to respond inquiries from landowners
- Working with Task Force Working Groups
- Developing Fact Sheets for residents





# Landslides

- SNC was notified regarding 6 landslides in Limoges, Embrun, Casselman, Lemieux
- SNC staff have conducted multiple site visits to assess these landslides.



The Nation Municipality  
(May 9<sup>th</sup>, 2017)

**NOTE:** Landslides can occur at anytime not just during flood events and heavy rain fall.

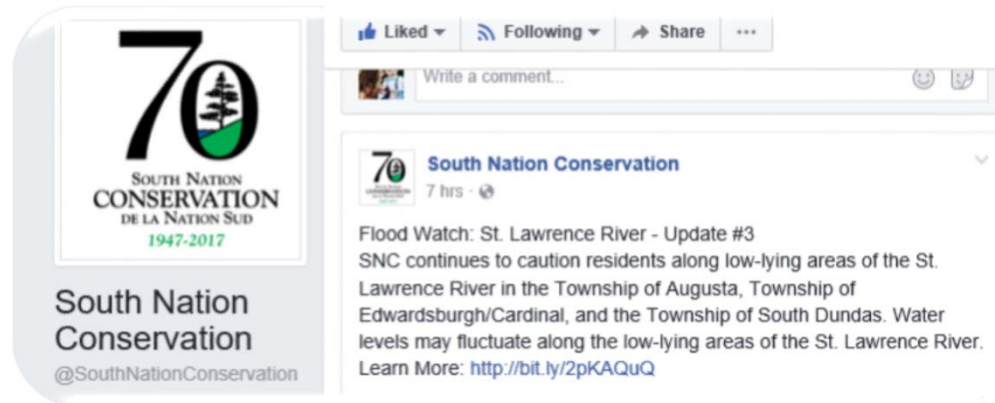


1480 Conc 17 Rd, Casselman  
(May 4<sup>th</sup>, 2017)

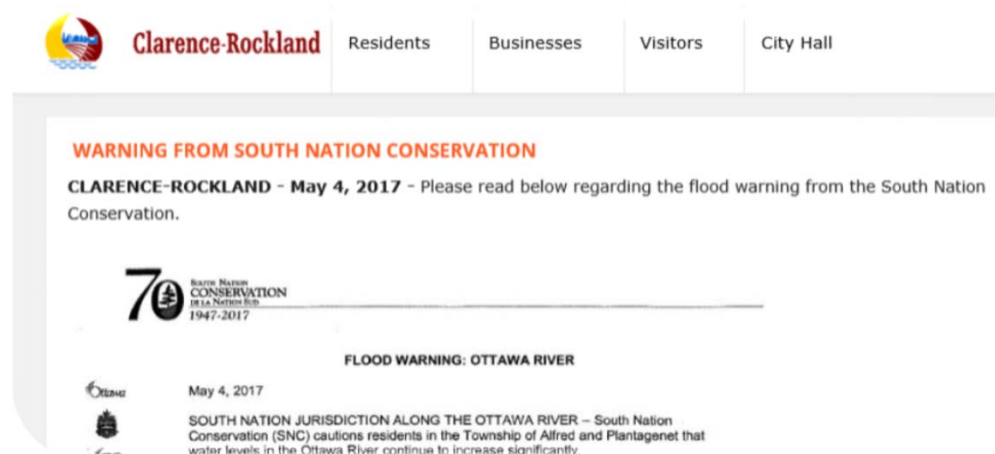




# In the News...



- Statements sent to Distribution List
- Website
- Social Media
- Signage
- Media



## 2 flood watches issued in Ottawa region ahead of rainfall

Up to 25mm of rain expected to fall in 48 hours, starting Monday night

CBC News Posted: Apr 07, 2014 10:40 AM ET | Last Updated: Apr 08, 2014 8:45 AM ET





Our Local Environment, We're in it Together.

