

After Action Report July Flash Floods

Kelly Ash
Emergency Management Coordinator

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EAST HANTS
We live it!

Overview

Environment Canada circulated a weather briefing package on the morning of July 21, 2023 regarding the potential for heavy rain, including heavy downpours in some areas which could result in flash flooding and erosion. The NS EMO Provincial Coordination Centre activated at Level 1 Monitoring at 2230 hours for the ongoing flash flooding response. Multiple Alert Ready notifications were released overnight in the West Hants area.

There was severe damage reported throughout the municipality due to flooding. There were multiple NSPW-owned roads and municipal roads that were closed due to washouts.

Two campgrounds were evacuated in the early morning hours of July 22, 2023 in the Nine Mile River area - Renfrew Campground and Riverland Campground. Evacuees were transported to the Upper Nine Mile River Community Hall.

The East Hants Aquatic Centre sustained significant damage due to flooding and a notice for closure was sent out. Burntcoat Head Park and Fundy Tidal Interpretive Centre were closed to the public due to local road washouts leading to both sites. Brickyard and Wickwire Park were closed due to flooding. The bridge at Brickyard was under water and the dock as well. The dock at Wickwire was also underwater.

All critical municipal infrastructure was back online by late afternoon on July 23, 2023. Multiple lift stations sustained damaged due to flooding and were operating on generator until panels could be repaired or replaced.

No additional comfort centres were activated as a result of flooding within the Municipality.

Please see the map attached to the end of this report for a high level overview of the event.

Chronology of Events

Saturday, July 22, 2023

- EMC received call from CAO regarding campground evacuation - Renfrew Campground, in Nine Mile River (4:49 am)
- EMC contacted Upper NMR Community Hall for activation as reception centre (4:55 am)
- EMC contacted on-site IC for campground evacuation to determine number of people to be evacuated (4:57 am)
- EMC contacted EH GSAR with a request to use buses and personnel to pick up evacuees and return to evacuation centre/comfort centre (4:59 am)
- EMC contacted CAO with update (5:00 am)
- Email to PCC regarding evacuation and comfort centre (5:21 am)
- Onslow-Belmont Fire was dispatched to NMR to assist NMR Fire with water rescue
- Cobequid Fire Mutual Aid (MA) to Maitland Fire - road washout and possible evacuation
- From EH RCMP - multiple road washouts due to flooding; requesting people stay off the roads

- Two campgrounds evacuated - Renfrew Campground and Riverland Campground, those that would voluntarily leave. All evacuees transported to Upper NMR Community Hall to be processed and breakfast provided (6:14 am)
- PCC moved to Level 2 activation as of 7am
- CAO received call from Councillor Keith Rhyno that Highway 215 in South Maitland washed out before the Rock Road (7:05 am)
- Communications sharing information on social media and website closure page, and directing people to 511 for closures
- 511 extremely backed up due to the amount of damage sustained to provincial roads. Multiple messages sent to the PCC to try and capture the closures in our area
- Voluntary evacuations in South Maitland along Highway 215 where road washed out and Station Road
- Correspondence with Upper NMR Community Hall staff regarding evacuees; all individuals made alternate housing arrangements
- 61 evacuees registered and none needed additional assistance. They were all able to find alternate transportation to permanent homes or with family/friends
- Received call from Kevin Jodrey, Shubenacadie Fire & Emergency Services that 500-600 people were trapped at Atlantic Motorsports Parkway (AMP) due to national Bike Racing weekend competition; bridge on North Salem Road not passable, except by foot traffic
- Spoke with representative for AMP, and they are self-sufficient at this time; no requests for assistance but event cancelled and people will be looking to leave
- Shubenacadie Fire also confirmed other roads in the area with washouts. All of this information was sent to the PCC to be updated in 511
- NSPW confirmed there are well over 100 roads that are washed out, mainly in Central area
- EMC participated in virtual press conference held by the province
- Provincewide State of Emergency declared in response to severe flooding across the province. The following areas are currently the most affected: East and West Hants, Halifax Regional Municipality, Lunenburg and Queens counties
- CAO sent email update to Council
- East Hants Aquatic Centre sustained significant damage due to flooding and will be closed indefinitely
- LEMC had no issues, some parking lot flooding early in the day, but it receded fairly quickly
- Sportsplex had no issues (as per Scott Forward)
- Burntcoat Head Park & Fundy Tidal Interpretive Centre - both closed as there is a number of locations on the roads leading to these sites with significant washouts. Buildings at sites appear to be undamaged. Opening will depend on staffing and road conditions
- Dawson Dowell has no flooding or damage as of this morning
- Rawdon RCMP -no known flooding, but EH staff do not have access to the building. Acting Staff Sgt Scott McRae indicated RCMP would check the interior when in the area
- Mount Uniacke RCMP & library had no issues
- Brickyard and Wickwire closed due to flooding, the bridge at Brickyard under water and assuming the dock as well, the dock at Wickwire also underwater

- Received media query from Pat Healey after press conference. Questions sent to Communications team to review and respond
- Additional roads identified as impassable; forwarded to PCC for update to 511
- Many areas where residents are isolated due to road washouts. There are walkout options available, however vehicle movement not possible at this time
- NSPW East Hants Major Road closures:
 - Route 354 is closed from Trunk 14 to Route 202 due to flooding
 - Route 202 from Trunk 14 Center Rawdon, before Old Trunk 14 Road
 - Intersection of Route 215 and Route 236 South Maitland
 - Rte 236 (Stanley) closed near Civic #1001 due to culvert washout
 - Trunk 2 (Lantz) near Isenor Road closed due to flooding
- Power outage in Lantz/Elmsdale area causing issues with lift stations (no power, no pumps)

Sunday, July 23, 2023

- Received queries from multiple media outlets for interviews - CBC Radio, CTV News, CBC Maritime Connection Today; these were forwarded to Communications staff. Warden Roulston handled media inquiries
- Farmer on North Salem Road unable to ship his milk until bridge is re-opened; have provided contact information to NS EMO, as they are working with NSPW on the temporary bridge repair
- Power outages in Milford/Lantz/Hardwood Lands area impacting over 3,000 customers
- Due to power outages, there are compromised lift stations that took on water. Unable to request priority access at this time as the substation in Elmsdale is what controls this area, and this substation may still be impacted by flood waters. Two of our lift stations still impacted by flood waters (Elmsdale by Elmsdale Lumber) and one in Milford. Staff may need access to a generator for one of the lift stations to keep it running. Our Public Works team will let us know shortly. If so, this will be a RFA to the province
- Opened a comfort centre at the Upper NMR Community Hall at 12pm so those currently without power had a place to charge a device. However, you cannot drink the water on-site. RFA submitted and approved for the purchase of 100 4 litre jugs, and/or 50 flats of single serve bottles, and up to a maximum purchase amount of \$200 for the snacks
- There was substantial flooding in our Elmsdale and Lantz areas and several local businesses have been impacted. A portion of Highway 2 remained closed until the flood waters dissipated.
- Maitland Area Councillor requesting confirmation of EHS staging to accommodate for road closure on Highway 215 to ensure emergency service coverage is available
 - Update: EHS unable to stage additional ambulances to accommodate for road closure
- Several provincial road closures not showing up on 511. Will send these to the PCC
- Approximately 70+ homes in Budland Acres cut off due to impassable roads (Malcolm Lucas Drive, Whitney Maurice Drive & Edmund Rd)
- Approximately 25-30 homes on Mosher Road, New Dublin Road and Maloney Road off of Highway 215 in Admiral Rock cut off due to impassable roads (received from Shubie Fire yesterday)
- Approximately 30 homes on North Salem Road and side roads past the bridge cut off due to damaged bridge

- The owner/resident of 260 North Salem Rd had their driveway culvert completely washed out and cannot get a vehicle in or out of their property; forwarded to PCC
 - Follow-up: PCC requested owner contact NSPW Operations Communication Centre (OCC)
- Received request from NMR Fire for two Good Samaritan certificates for allowing the department use of their boat during campground evacuations
- Several hundred people still sheltering in place at Atlantic Motorsports Parkway (AMP). They are self-contained and have resources on hand for next 24 hours. NS EMO spoke with the NSPW on-site manager and NSPW is working on temporary crossing to help facilitate the movement of traffic from AMP late today or early tomorrow. NS EMO also spoke with the event organizer and they are good with the current NSPW plan. They will reach out if they need anything to hold them over tonight if the bridge is not opened
- Continue to push provincial road closures not showing up on 511 to the PCC (i.e. Hwy 2 between civic 589 and intersection with Elmwood Drive)
- Burntcoat Head Park & FTIC remained closed due to road closures impacting travel to the locations
- EMC participated in virtual press conference held by the province
- Premier, along with MLA John MacDonald, conducted a tour of some of the impacted areas of East Hants, including EHAC, after the press conference
- Communications staff shared information - helpful tips for using well water after a flood
- Work orders created for capturing costs incurred due to flooding
- Special Hazards Response Unit (SHRU) called to EHAC for venting the upper level of mechanical due to the level on their readings
- Power restored to Lantz area as of 3:00 pm
- Upper NMR Community Hall confirmed there were no attendees to the comfort centre
- RFA for generator for lift station no longer needed
- RFA for water and light snacks for comfort centre was not utilized as there were no attendees
- Request to PCC for NSPI contact to assess temporary power hook-up for EHAC

Monday, July 24, 2023

- No comfort centres activated as power has been restored to most areas
- North Salem Road was opened with a temporary bridge as of 10:30 pm Sunday night. This will allow a controlled movement of people stranded at AMP
- Highway 215 is still closed in South Maitland and remains a concern for the Municipality
- Shoulder washouts in the Mount Uniacke area reported to NSPW
- Provincial Coordination Centre moved to Level 1 activation effective 1900h July 24, 2023
- Province mapping evacuation areas; sent both campgrounds and South Maitland area
- Solid waste collection routes assessed - Service alert 1 & 2 sent out
- FTIC and Burntcoat Head Park re-opened with a note to check road conditions before you go

Tuesday, July 25, 2023

- PCC activated at Level 1
- Highway 215 still closed in South Maitland. This created pressure on the response agencies as it adds considerable time when responding to incidents in the area

- Comfort centre expenses for the activation of the facility for evacuations submitted
- Received information on Samaritan's Purse through NS EMO; they offer assistance to communities with flood cleanup. Their services include cleanup kits to homeowners - at no cost
- Received information from I&O regarding CN rail crossing under Hwy 102; forwarded to PCC, who sent to CN. CN confirmed it is on their list to inspect
- A company with a Nova Scotia connection, BuildX, offered an emergency vehicle available with four beds, a kitchen, etc. to send to an interested community. No requirement in East Hants for this vehicle
- Received request from NS EMO for initial high-level damage estimates (not residential/businesses)
- Communications staff shared information - the water treatment facilities in East Hants operating normally and drinking water is high-quality and safe to drink

Wednesday, July 26, 2023

- Resident on Highway 215 contacted NS EMO regarding status of the assessment of Highway 215 and Highway 236 in South Maitland; query was forwarded to NSPW and NSPI to be addressed
 - NSPW tentatively confirmed work to commence on Monday July 31st and taking most of the week to complete
- Disaster Financial Assistance funding announced by the province; this was shared on social media channels. The program covers up to \$200,000 in uninsurable losses per household, small business and not-for-profit organization
- EHAC summer programming cancelled for remainder of summer, as well as Fall sessions
- Water access points in East Hants, such as Shubenacadie River Park, Wickwire Station and Brickyard Park, continue to be closed. Waterways are still considered unsafe due to the rain event on July 21. Residents directed to avoid swimming in areas where flooding occurred, as higher than normal bacteria levels can be expected after a significant flooding event
- Provincial State of Emergency lifted at 6:00 pm

Thursday, July 27, 2023

- NSPW shared that nearly 500 sections of damaged paved and gravel roads and 60 road shoulders have been repaired since last weekend's record storm caused severe flooding and damaged many roads and bridges
- Crews also replaced 62 culverts as work to repair and replace critical infrastructure continues; still about 20 provincial road closures, down from nearly 60 on Saturday, July 22
- Nineteen bridges that needed minor repairs have reopened. There are 29 bridges that need more extensive repairs - some are open with precautions such as weight limits - and another seven bridges need to be replaced
- The Department was also made aware Tuesday night of three homes that remain isolated in South Rawdon, Hants Co., because of damage to Meek Road. People are getting to and from the properties on all-terrain vehicles, and work to restore regular access to be completed in the next few days. The Department is not aware of any other areas that are cut off by road damage.
- Shubenacadie River Park & dock are open

- NSEMO Provincial Coordination Centre (PCC) is deactivating from the 2023-07-21 Flash Flooding event effective 1630 hours, July 27, 2023

Recommended Action Items

1. Having a document listing who to call, SOP/Plan to get Municipal Roads staff mobilized
2. Formally activating the ECC more regularly to allow staff to get experience in the ECC. Should have considered activation to delegate tasks so that CAO & EMC weren't going steady for 3 days straight.
3. Recommend upgrades to the 511 system to include municipal and possibly private roads
4. Additional messaging on preparedness, more than 72 hours these days
5. Possibly closing campgrounds in advance of major storms
6. Declare State of Local Emergency in order to give more powers to fire departments for evacuations
7. More defined process for on-call to respond to emergency events outside of normal hours
8. Review the option of East Hants EMO/ECC taking over the Solid Waste alert system to send service alerts out to all residents subscribed; can 'draw' a section on the map and alerts goes only to that area
9. Have each department/division provide an update on their work during the event to help fill in any operational gaps

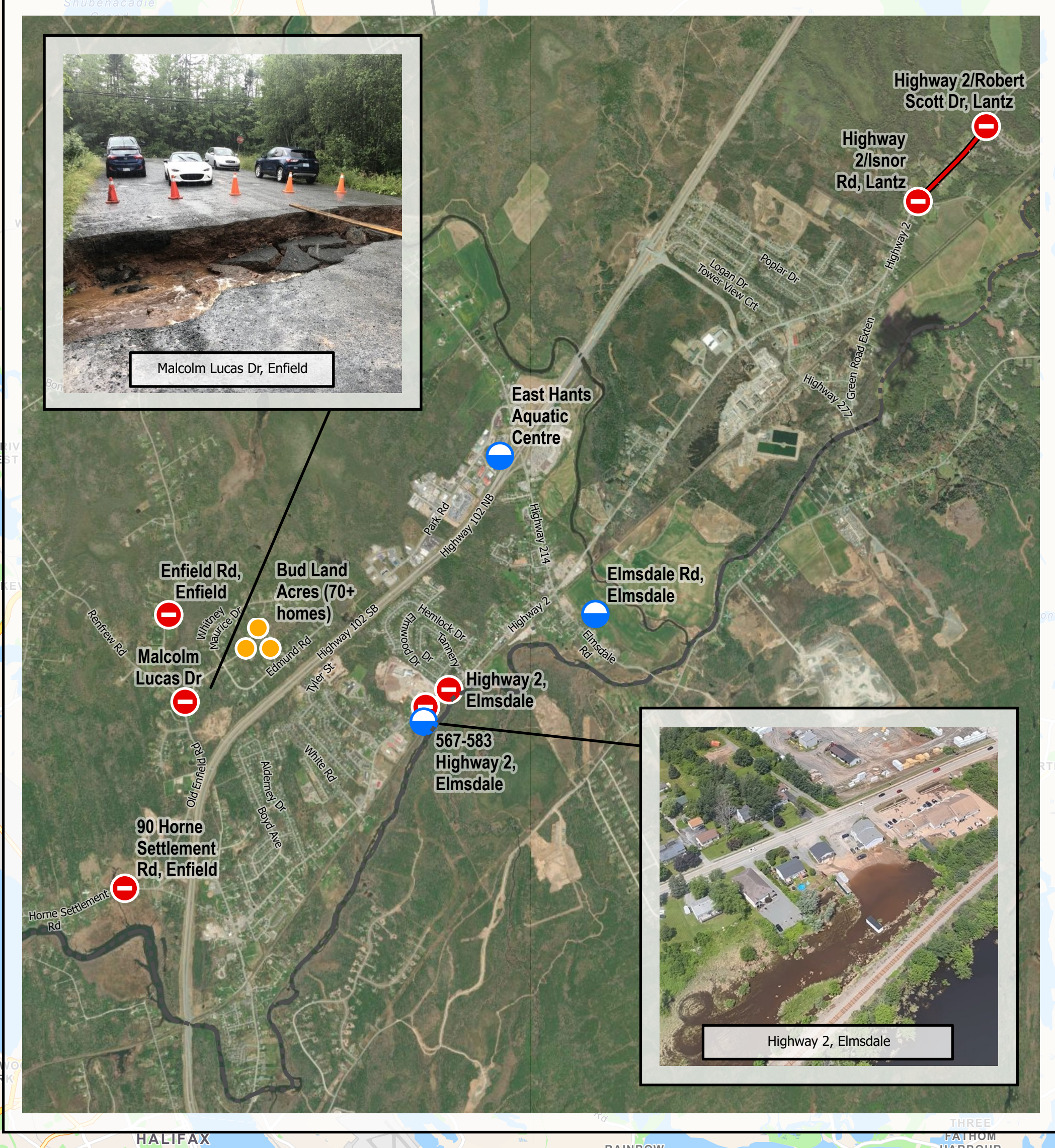
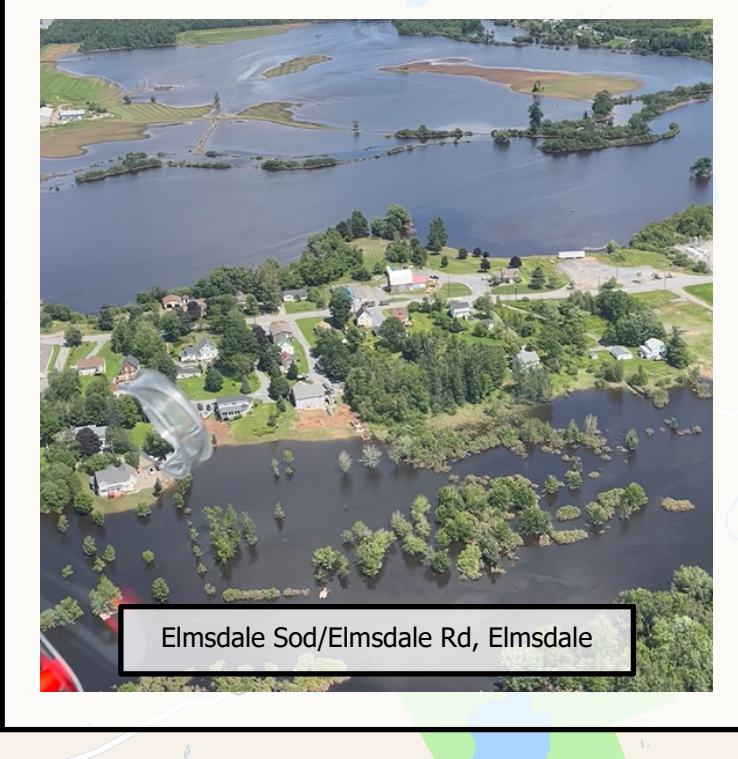
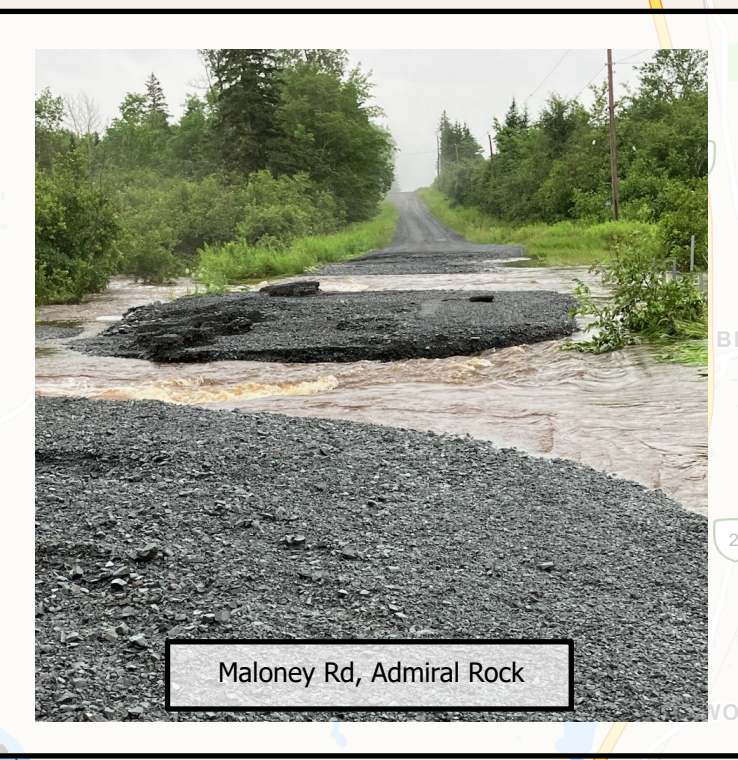
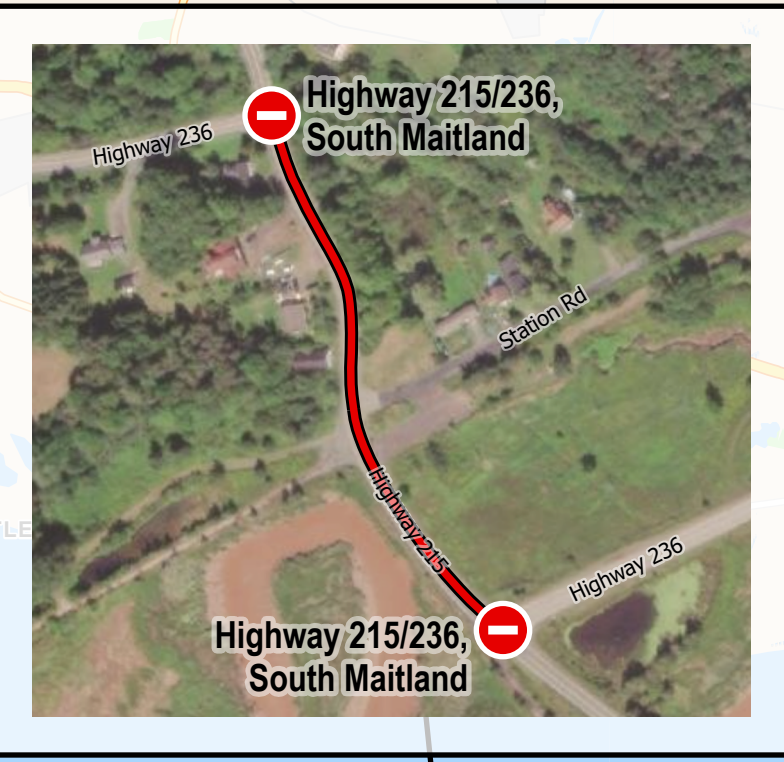
Action Item	Responsibility	Complete
Create a document listing who to call, possibly SOP/plan to get municipal roads staff mobilized	Jesse Hulsman/Matthew Mahoney	<input type="checkbox"/>
Awareness of when to activate the ECC in the future	Kim Ramsay/Kelly Ash	<input type="checkbox"/>
Future upgrades to 511 to include municipal roads	Dominic Fewer/NSPW	<input type="checkbox"/>
Additional messaging on preparedness, greater than 72 hours	Dominic Fewer/Kelly Ash	<input type="checkbox"/>
Consider closing campgrounds in advance of major storms	Kelly Ash	<input type="checkbox"/>
Declare State of Local Emergency to give more powers for evacuations	Council/Kim Ramsay/Kelly Ash	<input type="checkbox"/>
More defined process for on-call to respond to emergency events outside of normal hours	Kim Ramsay/Tracy Dixon	<input type="checkbox"/>
Review ECC taking over Solid Waste alert system during an emergency	Kim Ramsay/Kelly Ash/Juliann Cashen/Jesse Hulsman	<input type="checkbox"/>
Contact departments/divisions to provide update regarding any work completed that was relevant to the event to be captured in the after action report	Kelly Ash	<input type="checkbox"/>



EAST HANTS

July 2023 Flash Flood Map

Date Created: 2023-11-24



Legend

- Major Flooding
- Road Closure
- Trapped/Inaccessible Community
- Evacuated Campground
- Reception Centre

This map highlights areas within the Municipality of East Hants that were significantly affected by the flash flooding that occurred July 2023, across the entire province. The regions displayed on this map are not intended to be a comprehensive representation of all areas impacted by the floods.

Scale 1:100,000

0 1 2 4 6 8 10 Kilometres

Images and major flood data compliments of the Municipality of East Hants, and the Nova Scotia Department of Public Works (2023).
 Basemap and satellite imagery compliments of Province of Nova Scotia, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, NRCAN, Parks Canada, Earthstar Geographics, Maxar

