

Table S1. CFW media reports of 2018 winter storm Grayson

| No. | Title & Source | Consequence | Guidance |
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| 1 | Winter Storm Grayson Causes Major Coastal Flooding Along Massachusetts Coast; Water Rescues Reported. From <i>The Weather Channel</i> : https://weather.com/news/news/2018-01-04-winter-storm-grayson-northeast-snow-impacts-new-york-boston | N/A | <ul style="list-style-type: none"> • Boston Mayor Marty Walsh asked residents to keep their vehicles off of roads. |
| 2 | Here's Where Winter Storm Grayson Is Expected to Hit. From <i>Time</i> : https://time.com/5085658/winter-storm-grayson-track-path/ | N/A | N/A |
| 3 | See it! High tides and winter storms. From <i>EarthSky</i> : https://earthsky.org/todays-image/photos-storm-eleanor-high-tides-cyclone-bomb/ | N/A | <ul style="list-style-type: none"> • "... people braced for power outages." |
| 4 | Winter Storm Grayson Slams Atlantic Canada with Snow, Rain, High Winds. From <i>The Weather Channel</i> : https://weather.com/en-CA/canada/news/news/2018-01-05-winter-storm-grayson-atlantic-canada | <ul style="list-style-type: none"> • Environment Canada said high waves combined with storm surges could cause damage along the Atlantic coast of Nova Scotia and in Prince Edward Island later in the evening, and that flooding was also likely in those areas. • The weather agency said high waves would persist overnight and may cause further flooding and pounding surf near high tide on Friday morning for southwest facing coastlines. | <ul style="list-style-type: none"> • "If you are in your home and don't need to travel, don't travel," said Greg MacCallum, director of New Brunswick's Emergency Measures Organization, who called it a "serious storm." • The agency warned that people should not attempt to travel across flooded roads because even shallow, fast-moving water can sweep a vehicle away. • "To everyone in Atlantic Canada — stay safe, stay indoors, and stay updated on the latest," he said on Twitter, linking to the Environment Canada website. |
| 5 | Winter Storm Grayson Photos: Major Flooding in Boston As Bomb Cyclone Pummels East Coast. From <i>Newsweek</i> : https://www.newsweek.com/winter-storm-grayson-photos-flooding-771371 | <ul style="list-style-type: none"> • The high water carried dumpsters down streets, trapped drivers in vehicles among floating pieces of ice, and had rescue workers wading waist-deep in floodwaters. | <ul style="list-style-type: none"> • Boston Mayor Marty Walsh urged people to stay off the streets and to keep kids indoors. |
| 6 | Winter Storm Grayson path: Where is the storm now? Winter snow storm in USA tracked. From <i>Express</i> : https://www.express.co.uk/news/weather/899933/winter-storm-grayson-snow-update-tracking-path-tracker-NYC-east-coast-USA-NOAA-NWS | N/A | N/A |
| 7 | Historic 'bomb cyclone' unleashes blizzard conditions from coastal Virginia to New England. Frigid air to follow. From <i>The Washington Post</i> : https://www.washingtonpost.com/news/capital-weather-gang/wp/2018/01/04/historic-bomb-cyclone-unleashes-blizzard-conditions-from-coastal-virginia-to-new-england-frigid-air-to-follow/ | N/A | N/A |
| 8 | Tens of thousands without power in Maritimes as 'weather bomb' hits. From <i>The Global and Mail</i> : https://www.theglobeandmail.com/news/national/school | N/A | N/A |

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| | s-businesses-shuttered-as-atlantic-canada-braces-for-powerful-storm/article37493977/ | | |
| 9 | Massive flooding up and down coast as storm drives epic high tide. From <i>Boston Herald</i> : https://www.bostonherald.com/2018/01/04/massive-flooding-up-and-down-coast-as-storm-drives-epic-high-tide/ | N/A | N/A |
| 10 | North Carolina Snowfall Totals: Residents Celebrate Winter Storm Grayson 2018. From <i>Heavy</i> : https://heavy.com/news/2018/01/north-carolina-snowfall-snow-totals-winter-storm-grayson-blizzard-2018/ | <ul style="list-style-type: none"> Wind gusts of up to 70 mph are possible with this storm, along with power outages, and downed trees. | N/A |

Table S2. CFW media reports of 2022 Hurricane Fiona

| No. | Title & Source | Consequence | Guidance |
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| 1 | The blow-by-blow of what to expect from Hurricane Fiona. From <i>CBC</i> : https://www.cbc.ca/news/canada/nova-scotia/hurricane-fiona-nova-scotia-atlantic-canada-f1.6592580 | <ul style="list-style-type: none"> Power outages are very likely with sustained winds of 60 km/h expected across much of Nova Scotia, P.E.I. and into southeastern New Brunswick, with winds gusting over 100 km/h. The Canadian Hurricane Centre is warning of coastal flooding for Nova Scotia, P.E.I. and eastern New Brunswick as the combination of storm surge and large waves move onshore. That could erode the shore and damage coastal properties and roads... The strongest and worst impacts will be felt along the west and southwest coast of the island on Saturday. Twelve-metre waves and high surf are expected along the southwestern coast. | <ul style="list-style-type: none"> He said people should consider gathering a 72-hour kit to see them through any outages or other storm-related difficulties. Tree falls could temporarily close roads, he noted. The kit should cover all people and pets in the house, with things like prescriptions and pet food. He said people on well water will want to have enough water in jugs to see them through a few days. "Store [the kit] in a tote, a backpack. That way if you do get evacuated, you can bring that into a Red Cross shelter or other facility and that will make your stay with us a little more comfortable," he said. He added that it will be safest for most people to stay home, rather than risk the roads during the storm. Emergency officials will tell people if they need to leave, he said. |
| 2 | Fiona bears down on northeast Canada as big, powerful storm. From <i>WESH</i> : https://www.wesh.com/article/post-tropical-cyclone-fiona-canada/41362704 | <ul style="list-style-type: none"> ... Officials warned of prolonged power outages, wind damage to trees and structures and coastal flooding and possible road washouts. | <ul style="list-style-type: none"> Officials in Prince Edward Island sent an emergency alert warning of severe flooding along the northern shore of the province. "Immediate efforts should be taken to protect belongings. Avoid shorelines, waves are extremely dangerous. |

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| | | | <p>Residents in those regions should be prepared to move out if needed," the alert read.</p> <ul style="list-style-type: none"> • Authorities in Nova Scotia sent an emergency alert to phones warning of Fiona's arrival and urging people to stay inside, avoid the shore, charge devices and have enough supplies for at least 72 hours. ... |
| 3 | <p>Hurricane warning in Maritimes as 'historic' Hurricane Fiona nears.</p> <p>From <i>The Weather Network</i>: https://www.theweathernetwork.com/en/news/weather/forecasts/fiona-historic-storm-on-the-way-to-atlantic-canada</p> | <ul style="list-style-type: none"> • Even stronger gusts upwards of 150 km/h are possible for eastern Nova Scotia and P.E.I. With trees still in full leaf, there will also be a widespread risk of power outages across the region. • "All of P.E.I. will see a prolonged period of very strong winds from the north and these gusts will likely gust in excess of 150 to 160 km/h," Scott warns. "That will cause widespread power outages and frankly, I'm afraid for what this is going to do to the island...prepare to be without power for some time." • These types of winds can lead to significant structural damage to buildings as well. | <ul style="list-style-type: none"> • There is little doubt that Fiona will have a major impact on the region. Residents should plan and prepare for the storm and its significant impacts now, before conditions start going downhill on Friday and Saturday. • Residents across the region are being urged to be prepared. Making sure an emergency kit is ready, clearing downspouts and storm drains and having generators in working order, are all important factors to take into account. • P.E.I.'s Emergency Measures Organization (EMO) is activating to Level 1 enhanced monitoring and is encouraging Islanders to replenish supplies for up to five days, including food, water, heat and fuel supplies. |
| 4 | <p>Coastal areas across the province taking special precautions for Hurricane Fiona.</p> <p>From <i>CBC</i>: https://www.cbc.ca/news/canada/nova-scotia/coastal-areas-across-the-province-taking-special-precautions-for-hurricane-fiona-1.6593828</p> | <ul style="list-style-type: none"> • Guysborough has more than 100 kilometres of coastline. Carroll said the municipality expects to get hit hard by storms so it has taken steps to ensure that more than 250 people will have somewhere to go this weekend. • Will Balser, coastal adaptation co-ordinator for the Ecology Action Centre, says shoreline infrastructure, roads, causeways, dikes, retaining walls and boardwalks are all at a significant risk from wave action and erosion. | <ul style="list-style-type: none"> • "We've set up two safe buildings," he said. "We're encouraging people that don't feel safe at home — they're living in low-lying areas and prone to flooding or near the coastline — we encourage them to come to the safe buildings where there will be food, warmth, sleeping accommodations." • The two buildings designated as safe locations are the Chedabucto Lifestyle Complex and the Canso/Hazel Hill fire station. Both open at 6 p.m. Friday. |
| 5 | <p>Wind from 'very powerful' Fiona knocks out power to homes in Nova Scotia, P.E.I.</p> <p>From <i>CTV</i>: https://www.ctvnews.ca/climate-and-environment/wind-from-very-powerful-fiona-knocks-out-power-to-homes-in-nova-scotia-p-e-i-1.6080926</p> | <ul style="list-style-type: none"> • In addition to significant storm surge, potential for flooding in coastal and mainland areas and an "all-time" low pressure across the region, the storm is | <ul style="list-style-type: none"> • "My message is simple -- don't," Compton said during a briefing. "Don't go near the water, don't put yourselves and others at risk." An emergency alert from the |

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| | | <p>expected to cause widespread power outages due to trees and electrical poles brought down by powerful winds.</p> | <p>province warned residents of severe flooding expected along the northern shoreline.</p> <ul style="list-style-type: none"> • "Stay home if at all possible as this will not only help keep you and your family safe, but will avoid putting emergency responders in harm's way," said Furey. • "I want to tell people in those regions, be careful, there's a significant risk, prepare for the worst and we'll hope it goes well," Legault said in Laval. |
| 6 | <p>Weather deteriorates in Canada as powerful Hurricane Fiona approaches. From <i>Fox 10</i>: https://www.fox10phoenix.com/news/category-3-hurricane-fiona-bearing-down-on-bermuda-before-pummeling-atlantic-canada</p> | <ul style="list-style-type: none"> • Widespread, potentially prolonged power outages, numerous downed trees, structural damage, washed-out roads and significant coastal erosion due to battering waves and storm surge are all potential impacts of Fiona in Atlantic Canada, regardless of whether it has transitioned to a post-tropical cyclone or if it's still a hurricane. • According to the FOX Forecast Center, there could even be high winds capable of scattered power outages and downed trees as far west as eastern Maine and New Brunswick and as far north as Labrador and eastern Quebec. • Between 3 and 6 inches of rain, with localized amounts up to 10 inches, is predicted across Nova Scotia, Prince Edward Island and western Newfoundland. This rainfall could result in areas of flooding, some of which might be significant. | N/A |
| 7 | <p>Fiona might be worse on P.E.I. than Juan was, with 'historic storm surge'. From <i>CBC</i>: https://www.cbc.ca/news/canada/prince-edward-island/pei-hurricane-fiona-22-1.6591167</p> | <ul style="list-style-type: none"> • "I think now the certainty is starting to get narrowed in a little bit," Tanya Mullally said. "Storm surge is certainly going to be significant. The words that they were using with Canadian Hurricane Centre is 'historic storm surge' — so, flooding that we have not seen nor can we measure against. • "Wave heights up to eight metres are possible in the western gulf, and may exceed 10 to 12 metres to our | <ul style="list-style-type: none"> • Compton is also reminding people to make sure they have an emergency kit put together with supplies to last at least 72 hours. • "We want Islanders to stay at home and stay safe until we get the all-clear," Compton said. • EMO is encouraging people to stay inside Saturday morning and not go out to look at damage. |

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| | | <p>east toward Cabot Strait with a one- to two-metre storm surge possible for P.E.I.," said CBC meteorologist Jay Scotland. That could spell washed-out roads, flooded basements and damage to coastal properties, wharves and dunes.</p> <ul style="list-style-type: none"> • "Past storms of this nature have produced prolonged utility outages and structural damage," Environment Canada warned. "Buildings under construction will be particularly vulnerable." | |
| 8 | <p>Power outages possible in N.B. as hurricane tracks just east, says meteorologist.</p> <p>From <i>CBC</i>: https://www.cbc.ca/news/canada/new-brunswick/hurricane-fiona-storm-new-brunswick-1.6590377</p> | <ul style="list-style-type: none"> • And while its effects will be mostly felt in Nova Scotia, Prince Edward Island and Newfoundland and Labrador, eastern parts of New Brunswick will likely see high winds and storm surges, said warning preparedness meteorologist Jill Maepea. • "Eastern New Brunswick should definitely be preparing now for... several days without power," Maepea said, in an interview. • "We are expecting those strong winds and with some trees with full leaves on... the trees may be uprooted a lot easier than say perhaps in winter when we have larger storms and wind strengths of the same level." • "We could have some localized coastal flooding," she said. "If you do have any sort of infrastructure building along the coast, whether it be a cottage or a home, you will need to keep an eye on them if there's possible coastal flooding with our forecast." | <ul style="list-style-type: none"> • Maepea said it's also wise for residents in New Brunswick to have an emergency kit ready with water and food that can last a few days, and to bring any patio furniture indoors ahead of the storm making landfall. • For now, the organization isn't taking any active protective measures, but Downey said it's important for New Brunswickers to have a 72-hour emergency preparedness kit ready. • That should include water and non-perishable food, as well as prescription medication, candles, matches, flashlights and a battery-powered radio in case the power goes out. |
| 9 | <p>Dangerous surf conditions to continue at N.C. beaches into the weekend.</p> <p>From <i>Spectrum News</i>: https://spectrumlocalnews.com/nc/charlotte/weather/2022/09/19/fiona-brings-rip-current-danger-to-north-carolina-coast</p> | N/A | N/A |
| 10 | <p>Hurricane Fiona brings "catastrophic" flooding, power outages to Puerto Rico.</p> <p>From <i>AXIOS</i>: https://www.axios.com/2022/09/18/hurricane-fiona-flooding-power-grid-puerto-rico</p> | N/A | N/A |
| 11 | <p>Tropical Storm Fiona forms in Atlantic, forecasters watch new disturbance.</p> | N/A | N/A |

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| | From <i>The Tampa Bay Times</i> : https://www.tampabay.com/hurricane/2022/09/15/tropical-storm-fiona-forms-atlantic/ | | |
| 12 | Wetter and stronger: Hurricane Fiona and two typhoons drive home climate concerns. From <i>NBC News</i> : https://www.nbcnews.com/science/environment/climate-change-hurricane-fiona-stronger-storms-rcna48327 | N/A | N/A |
| 13 | Get your generators, bring in your trampolines: hurricane tips from experts. From <i>CBC</i> : https://www.cbc.ca/news/canada/nova-scotia/hurricane-fiona-tips-from-experts-1.6590542 | <ul style="list-style-type: none"> Hurricane Fiona is expected to make landfall in Atlantic Canada late Friday and Saturday as it transitions to a post-tropical storm, bringing strong winds, heavy rain and storm surges that could result in power outages and flooding. Dean said the industry prepares for a steep increase in claims after a storm such as Fiona, and the bureau's member companies see two common types of claims: wind damage from flying debris, and water damage from issues like sewer backups or rain entering the house through the roof. "We don't know what's going to happen after this type of an event blowing through our region, so there could be extended power outages," Dean said. | <ul style="list-style-type: none"> After weathering more than a few hurricane seasons, people across Atlantic Canada know the common storm preparedness tips — collect batteries, stock up on bottled water and non-perishable food. Dean said to mitigate flood damage, it's smart to bring valuables out of your basement and keep important documents, including home and car insurance policies, together in a safe place. ... "Collecting your important documents in advance of the storm, having them all in one place that you can get to if it's at night and you do need to leave your home for whatever reason." She also said it's important to check for precarious tree limbs near your home or vehicle, and bring outdoor items like garbage cans and patio furniture indoors. If damage does occur due to wind, rain or flooding, Dean said it's important to document everything with photographs or videos and detailed notes. He said people should never use barbecues or generators in their homes, and things like space heaters and candles can be dangerous if used improperly. "Be incredibly careful with candles. If you're using them for lighting, don't leave them near windows," Kline said. "A good spot for a candle is on a cookie sheet on your stovetop, for lighting and for heat if needed." Kline said if people are using a generator, they should be careful to avoid common safety issues. |

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| | | <p>Generators emit deadly carbon monoxide, so they should be six metres away from a home and away from any open windows or ventilation that could let the gas into the home.</p> <ul style="list-style-type: none">• He also said not to use generators in a garage attached to your home or in any poorly ventilated shed. Gasoline should be stored in a well-ventilated area in an approved container and not poured into a generator when it's hot.• "Make sure they have an electrician properly install a hookup into their house so they're not jerry-rigging wiring in their house, which is an electrical hazard," he said. "It's also dangerous to linemen that are working on the lines near their house." | |
| 14 | <p>Fiona becomes 'most intense storm on record' to slam into Atlantic Canada.</p> <p>From <i>Yahoo News</i>: https://news.yahoo.com/hurricane-fiona-could-most-intense-190534184.html</p> | <ul style="list-style-type: none">• "Due to the most recent forecast and likelihood that the sea is going to be much higher than we originally anticipated, we thought it would be prudent to contact as many residents as we could near the south-facing coast," MacIsaac said.• Widespread heavy downpours of 4-8 inches (100-200 mm) could occur across northern Nova Scotia and southwestern Newfoundland, with an AccuWeather Local StormMax™ of 13 inches (330 mm) of rainfall possible. Rainfall of that magnitude could lead to substantial flooding, AccuWeather experts said, and although the storm is expected to move quickly through the region, if the storm were to slow down at all, it could lead to higher local rainfall totals.• Flooding in any urban areas or along roads could be exacerbated by falling leaves that may be clogging storm drains, resulting in severe ponding on roadways.• "Fiona is expected to cause significant loss of leaves, which will probably | N/A |

have a major negative impact on the fall color in October," Anderson explained.

- Also, with the heavy rainfall and intense wind gusts, many uprooted trees and snapped tree limbs are anticipated in the region and could cause widespread power outages north of Halifax, Nova Scotia and southwest of St. John's, Newfoundland.
- The combination of anticipated flooding rainfall, destructive winds, dangerous seas, widespread power outages and the historical context means that Fiona is a 3 on the AccuWeather RealImpact™ Scale for Hurricanes.
- "Wave heights may reach 50 feet just offshore Cape Breton with significant coastal inundation into many harbors and inlets, which will damage boats and property," Anderson said.

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| 15 | <p>Hurricane Fiona latest: Bermuda braces for impact, Biden 'surging federal resources' to Puerto Rico.</p> <p>From <i>ABC News</i>: https://abcnews.go.com/US/hurricane-fiona-latest-bermuda-braces-impact/story?id=90316368</p> | N/A | N/A |
| 16 | <p>ALLISTER AALDERS: Hurricane Fiona set to pack a punch.</p> <p>From <i>Saltwire</i>: https://www.saltwire.com/atlantic-canada/weather/allister-aalders-hurricane-fiona-set-to-pack-a-punch-100775363/</p> | <ul style="list-style-type: none"> • The mass amount of rain could lead to localized flooding, but there's also concern for coastal flooding due to large seven to 10-plus metre waves and storm surge expected to batter our coastlines on Saturday. • There is no need to panic, but those in the path of Fiona need to prepare. Power outages, localized flooding and wind and storm surge damage are likely. | <ul style="list-style-type: none"> • Secure loose objects on your property and bring inside anything you're worried could be damaged. Also, make sure your emergency storm kit is prepared and stocked to last up to 72 hours. |
| 17 | <p>Campgrounds, residents along P.E.I.'s north shore rush to prepare for hurricane Fiona.</p> <p>From <i>Saltwire</i>: https://www.saltwire.com/atlantic-canada/news/campgrounds-residents-along-peis-north-shore-rush-to-prepare-for-hurricane-fiona-100776310/</p> | <ul style="list-style-type: none"> • Along the Island's north shore, campground owners have been working day and night to prepare for Fiona's arrival, securing trailers, moving visitors away from the water and preparing for a possibly extended loss of power. • Caissie said for the park and its campgrounds, the biggest concern is flooding. Parks Canada has set up temporary barricades in some of the areas suspected to flood | <ul style="list-style-type: none"> • "We had a generator that could run a couple of our buildings, but after (post-tropical storm) Dorian we bought a bigger generator, so we are a little better prepared. If we have people here, we can at least run washers, showers and stuff so they can do their daily needs." • "I've sandbagged the front door, I've sandbagged one of the front windows and I'm probably going to do another window. We also have |

and is monitoring the storm's intensity as it arrives.

two working sump pumps in the house, one at each end of the house," said Danny.