

# When Disaster Strikes: Living through the BC Floods

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## ▪ Take Home Messages

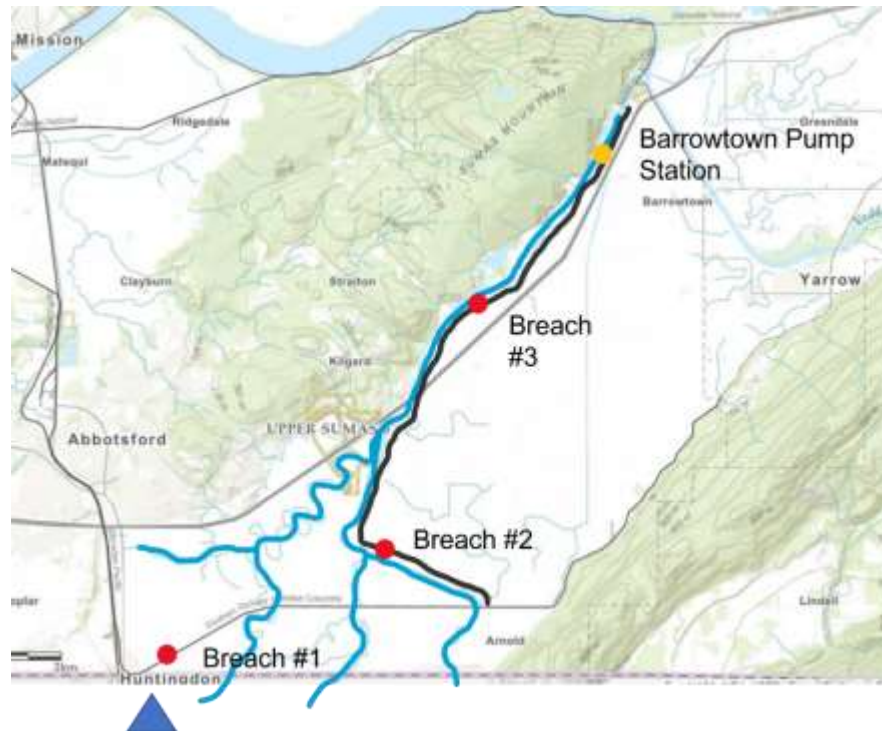
- Natural disasters happen. There is no way to completely prevent them, and the dairy industry must be prepared.
- The BC Floods affected more than 1,000 farms, 15,000 hectares of land and 2.5 million livestock. Damage to BC dairy farmers totaled between \$22 and \$100 million.
- Approximately 23,000 dairy cattle were in the Sumas Prairie region prior to the floods. Thanks to the quick work of dairy farmers, an estimated 6,000 cattle were evacuated to other farms in Abbotsford, Chilliwack, and Agassiz.
- The BC Floods brought out the resilience of the agricultural community. Dairy farmers trailered cattle nonstop day and night and local farmers, affected by the flood themselves, organized lunches and donations of cash, gift cards, and supplies to those affected by the floods.

## ▪ Introduction

The year 2021 went down in history as one of the worst years for BC farms. In June, a heat dome brought record temperatures of 49.6°C, resulting in BC dairy farms seeing decreased milk production, up to 25%. The summer brought forest fires, leaving many BC interior farmers in high alert for evacuation, having to hose barns and homes. Then came November 14<sup>th</sup>.

## ▪ Perfect Storm

On Sunday, November 14<sup>th</sup>, 2021, an atmospheric river resulted in 154 mm of rainfall in Abbotsford, BC over a 24-hour period, which produced extreme water flows in multiple river basins, including the Nooksack, Chilliwack, Coquihalla, Coldwater, Similkameen and Tulameen. On November 15<sup>th</sup>, 2021 the Nooksack River breached its banks in Emerson, WA, allowing water to flood into the west end of Sumas Prairie by early afternoon. In the early hours of November 16<sup>th</sup>, 2021, the Sumas River Dyke overflowed and broke, allowing the east end of Sumas Prairie Lake Bottom to flood. Late into the night of November 16<sup>th</sup>, 2021, volunteers worked to reinforce the Barrowtown Pump Station. Their tireless efforts allowed the Pump Station to hold until the Fraser River waters went down low enough for the Flood gates to be opened.



**Figure 1. This map of Sumas Prairie depicts the three areas where the waters breached, flooding the west end of Sumas Prairie first, the east end of the Sumas Prairie second, and eventually flooding the entire east end of Sumas Prairie Lake bottom.**

### ▪ One Veterinarian's Perspective

Every farmer and resident living or working in Sumas Prairie has their own unique story of what happened during the 2021 BC Floods. On Monday morning, November 15<sup>th</sup>, 2021, I arrived at work with the driveway leading to the barn being impassable due to standing water from the heavy rains overnight. During the morning, we received a request to house cattle from a Matsqui area farm that was flooding. Another 40 young stock and dry cows arrived at the WestGen barn by early afternoon, giving us a total of 55 animals in the barn. By midafternoon, the waters of the Nooksack River had reached the property and flooding looked eminent. Employees drove through water, past stranded cars, and waded in waist high water to get out. I stayed behind to shut up the barn and protect water from coming in as best as I could. By 9:30pm that evening, I was evacuated by kayak with three feet of water outside the barn rushing into barn as fast as it could.

The next morning, we regrouped to try and get back onto the barn property to see what we could do to get the animals out. We spent two hours on the phone to get clearance to go through the barricade. A few attempts to get to the barn with tractors and sprayers were made, however, the water was too deep and the current was too strong. It was decided to go in by kayak to access if the cattle were alive and exactly how much water was in the barn. Being told by the Chief officers of Abbotsford that another nine to ten feet of water could potentially be expected, the decision was made to let the cattle go and see if we could get them to swim to the highway where we had trailers waiting. As the cattle kept circling the barn, farmers were called upon to bring boats, canoes, and jet skis. Dozens of volunteers spent over 6 hours that day wading chest-deep in ice cold water, swimming as many cows as possible across the field to the highway and loading them into trailers. Sometime that afternoon the dyke overflowed and broke, causing the water in the east side of Sumas Prairie to start receding, which left an area around our building dry. Approximately 15 animals were bedded down close to the building and left for another night. Wednesday November 17<sup>th</sup>, 2021, the remaining cattle were rescued by tractor and trailer.

Both Agwest's clinic and barn were affected by the floods, with over three and a half feet of water in the barn and a foot in the main clinic. Our veterinarians were forced to divide resources to rescue animals and relocate the clinic, while still servicing the rest of our clients not affected by the flood. Road closures made emergency farm calls difficult, with the only access to Chilliwack being through Agassiz. The Agwest Veterinary Clinic remained under renovations for over a year and half, finally reopening to the public early 2023.



**Figure 2. Pictures of the Agwest Veterinary barn and clinic during the 2021 BC Flood.**

### ▪ **Impact on Sumas Prairie and BC Dairy Farmers**

The Fraser Valley of BC experienced deep flood waters that lasted for a prolonged period, in some areas impacting barns, cutting power, and flooding homes. A total of 62 dairy farms were under evacuation order, with another 53 dairy farms under evacuation alert. Approximately 23,000 dairy cattle were in the region prior to the floods. Animal care was the number one priority and thanks to the quick work of dairy farmers, an estimated 6,000 cattle were evacuated to other farms in Abbotsford, Chilliwack, and Agassiz. Another 16,000 cattle remained on their own farms. The dairy farmers that remained with their cattle dealt with power and water outages for days, relying on generators to run the parlor and having to haul in water by tanker trucks for the cows. Milk trucks were unable to get to the farms for pick up, resulting in the dumping of an estimated 7.5 million liters of milk in Sumas Prairie during the flood. Grain and feed truck deliveries to the farms were made impossible by the flood waters, leaving helicopter delivery as the only option. The farms on the east end of Sumas Prairie were hardest hit, being isolated for days with standing flood waters.

The effects of the flood were felt long after the waters had receded. Homes had to be restored, lactating and replacement cattle were lost, other cattle suffered from disease due to stress, relocation and surviving the flood. Additionally, summer 2022 crop yields were down as much as 50-65%, leaving farms struggling to make quality rations for their herds.

### ▪ **Lessons Learned from the BC Floods:**

#### **The Agricultural Community is One of a Kind.**

The agricultural community showed great resilience during the floods of 2021. Farmers from all around came with trailers, working day and night hauling cattle to safety. Farmers responded with boats, wading through ice cold water for hours doing what they could to help the stranded cattle. Animal care became the number one priority. Farmers refused to abandon their cattle despite the evacuation orders. Many stayed and milked and fed their herds for days without a break. Residents of the Fraser Valley brought food, filled sandbags and offered supplies to support the farms affected by the flood.

Two local farmer's wives, Jimi Meier and Alison Arends, whose own farms were also affected by the floods, felt the need to help their neighboring farms. They came together and started a Facebook page where

people could donate money, gift cards, and supplies. Over \$100,000 worth of money and gift cards, and \$55,000 of supplies, were donated to the victims of the BC Flood. Lunches were provided to the community daily at Crossroad Dairy for 6 months while the people worked to restore their homes, farms and lives devastated by the floods.

### **Sumas Prairie Floods Will Happen Again and BC Needs a Plan.**

The 2021 BC Flood was not the first of its kind for the Sumas Prairie and it will not be the last. A comprehensive plan for flood control in the Fraser Valley must be developed. The plan should include both a timeline for dyke upgrades and flood mitigation measures, as well as emergency preparedness and response strategies. The plan should also include measures to protect the livestock within the flood region. Many natural disasters come too quickly to allow for the relocation of the 20,000 cattle and 500,000 birds in the Sumas Prairie. Considerations must also be made for the biosecurity implications of co-mingling livestock.





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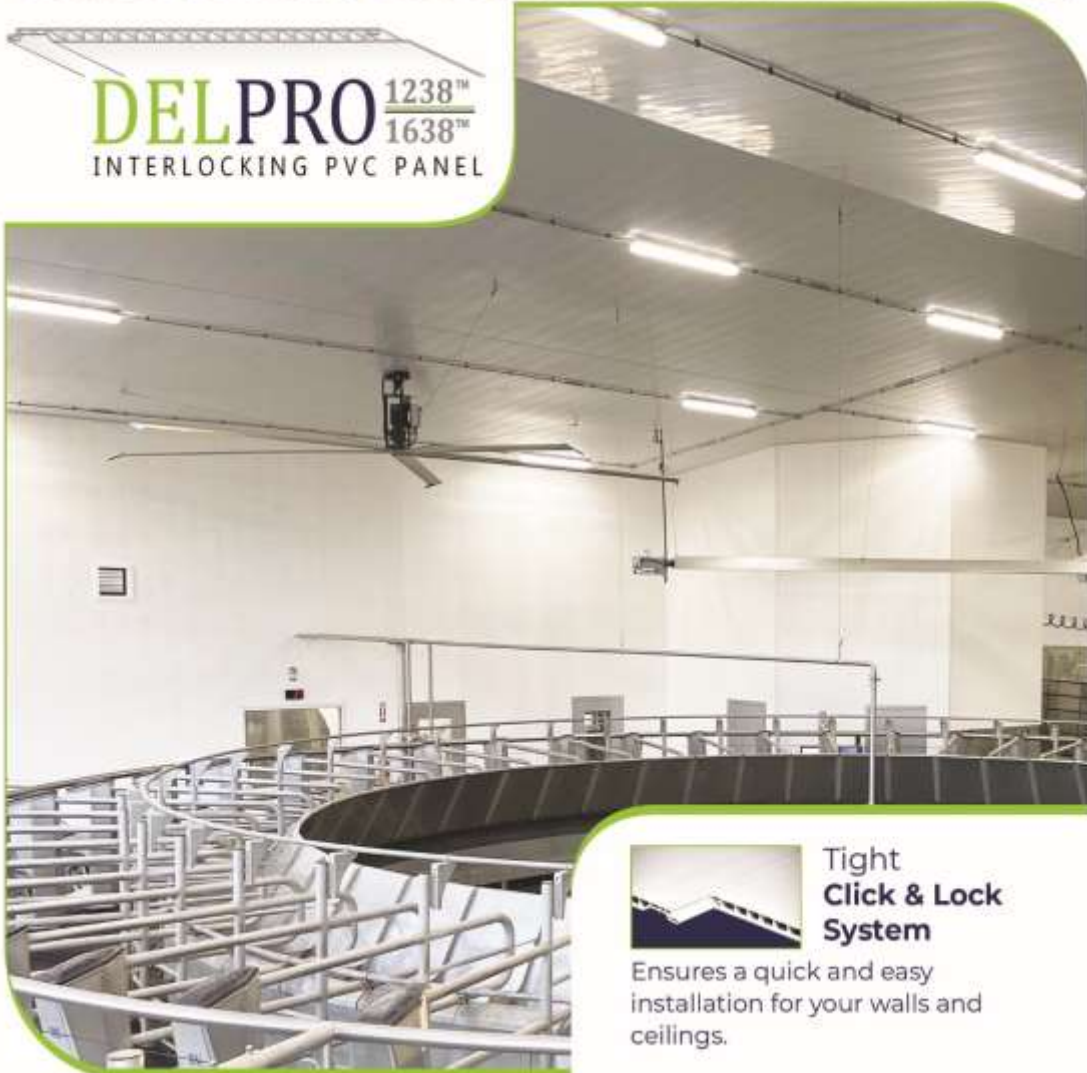
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