**Mission Statement:**

The goal of our app is to demonstrate the impacts to the community surrounding Medway Creek in London, Ontario that would result from a severe weather event causing significant flooding to the river. While these flooding scenarios are very unlikely, being aware of the potential flood impacts in an extreme scenario is an important part of emergency preparedness. The app allows a user to select from different water level rise scenarios, and the app will display the area that would be covered by water on a map, as well as how much area would be covered in water and the number of properties that would be impacted in each scenario. With water rise levels ranging from 4.5 metres to 10 metres, the app shows a range of extreme scenarios. Hurricane Hazel in the Toronto area in 1954 caused river water levels to rise about 6 to 8 metres in some cases, so our app only demonstrates very unusual circumstances. This is a very rare case, but with climate change having an effect on future weather patterns, it is important to be aware of these extreme cases as they may become more likely to occur in the future.

**App Features:**

Our app shows the user what areas of the neighbourhood surrounding Medway Creek in London would be impacted by different amounts of flooding. The user can set the amount of water level increase using the filter on the left with values ranging from 4.5 metres to 10 metres, and the flooded area will update on the map. You can zoom in on the map to see specific buildings that would be within the different flood zones.

The number on the bottom-left shows the total area that would be underwater in the different flood scenarios, which also updates with the water level filter. The chart on the bottom-right shows how many properties would be impacted with different amounts of flooding, giving an indication of how severe the impacts of the flooding would be. This app gives property owners near Medway Creek an idea of how significant a flooding event would need to be to impact their property so they can prepare accordingly, and it also gives an indication of what public infrastructure would be unavailable during a major flood, such as roads and parks.

We have also included a link to the government of Canada website showing the real-time water levels of Medway creek.