# River Breakup 2022

Presenter: Dennis Warr, Director

Department: Engineering

Meeting Date: March 22, 2022



#### Introduction

- Annual River Breakup "routine"
- Collaboration with contractors, consultants, industry, and provincial government
- Integration and alignment of plans





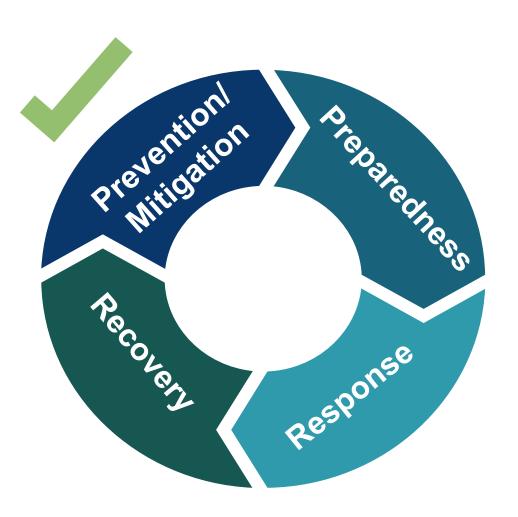
### **Prevention/Mitigation**

#### Intent

- Identify hazards
- Assess risk
- Implement protective measures

#### **Tactics**

- Surface Mitigation
- Underground Mitigation





### **Surface Mitigation**



#### Permanent

Berms (Flood Mitigation Program)

#### **Temporary**

- Clay Berms
- Triple Dams
- Muscle Walls
- Hesco Carts
- Sandbag Program







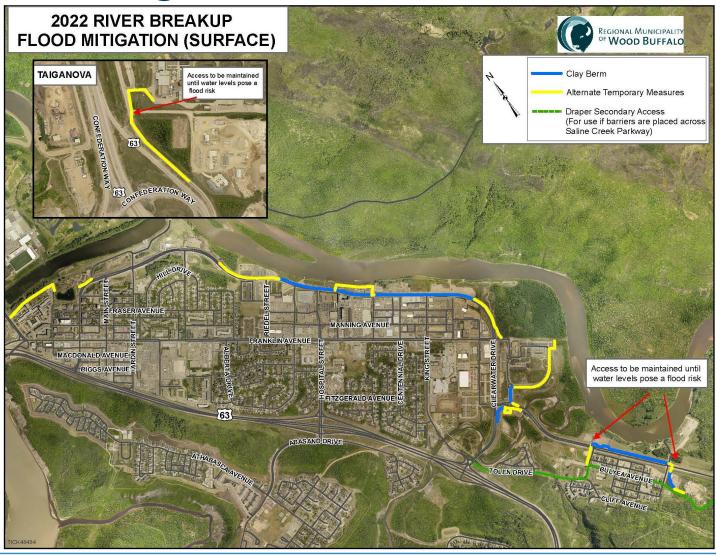






## **Surface Mitigation**

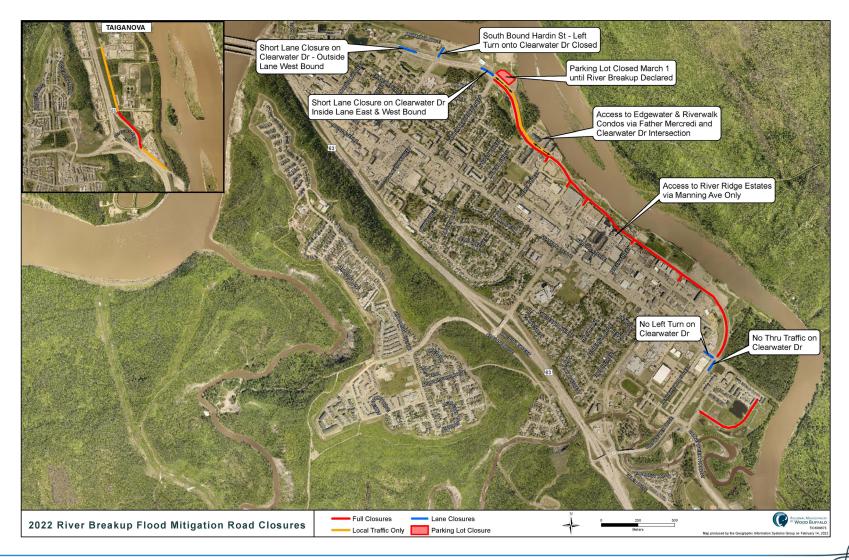






#### **Road Closures**







### **Underground Mitigation**



- A. River-side entry points (manholes and storm drain outfalls)
- B. Passageways under the berm (pipes)
- C. Storm Water Management (rain and snow melt)



Watertight manhole cover



Inflatable pipe plug



Pumps for storm water management

### **Underground Mitigation**

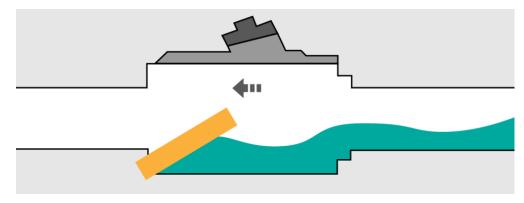


- Water Treatment Plant
- Wastewater Treatment Plant



Water Treatment Plant

- Lift Stations
- Backwater Valve Program

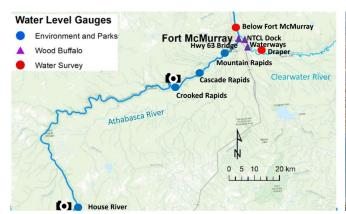


**Backwater Valve** 

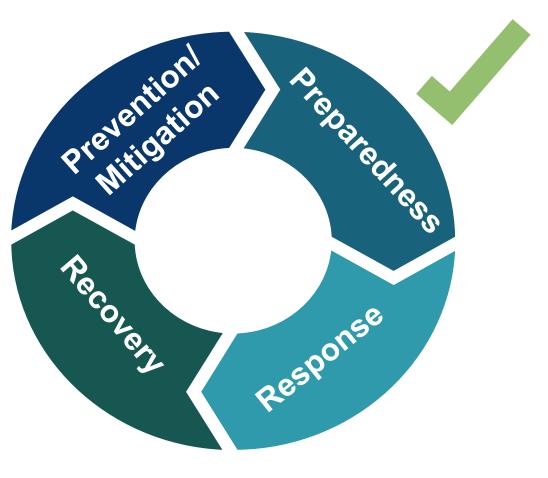


#### Preparedness

- Collaboration with Alberta Environment and Parks
- Continuous visual and electronic monitoring
- Alberta Rivers and Alberta Emergency Alerts applications





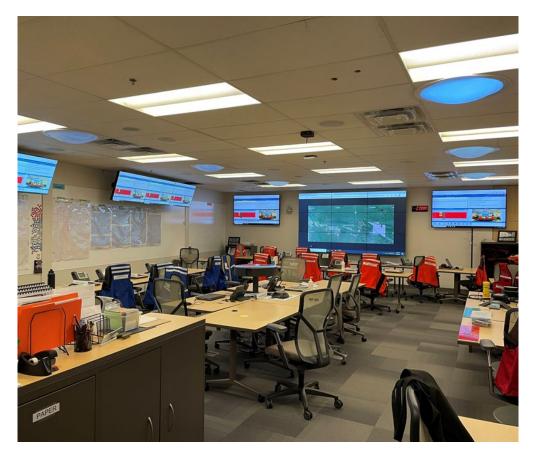




### **Preparedness**



- Community Emergency Management Plans (CEMPs)
- Emergency Social Services (ESS)
- Alertable application
- Vulnerable Persons Registry (VPR)
- Household preparedness tools
- River Breakup Community Updates





# Thank You

