

RISK REDUCTION THROUGH MANAGED RETREAT

LESSONS FROM FLOOD-RELATED PROPERTY BUYOUTS IN GRAND FORKS, BC

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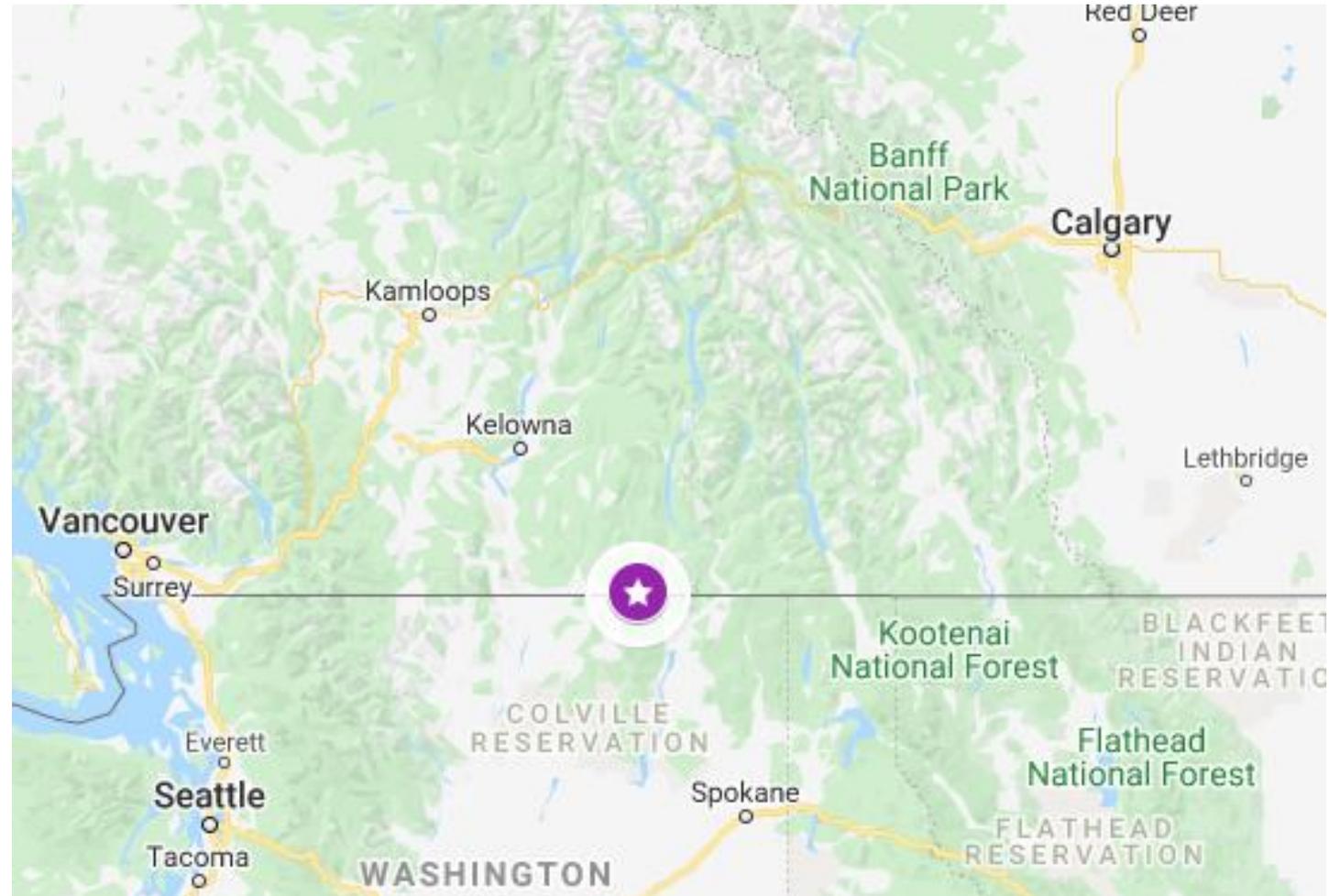
RESEARCH CONTEXT

Goal:

- Understand the challenges and opportunities related to using government-sponsored managed retreat (property buyout) programs to reduce long-term flood risk.

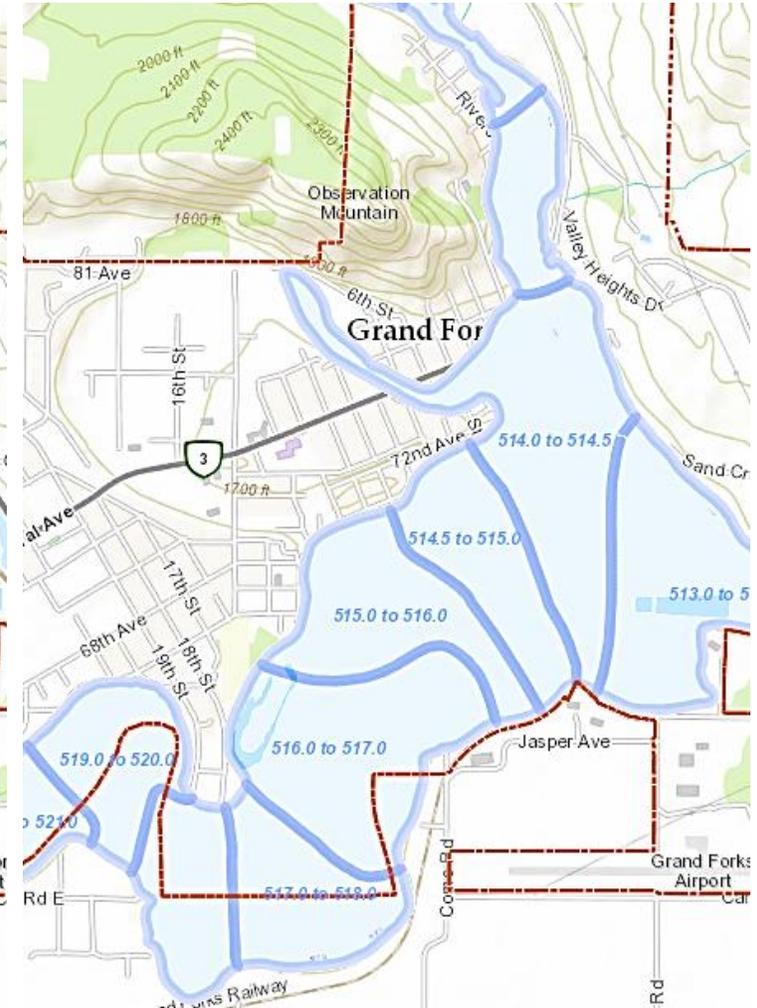
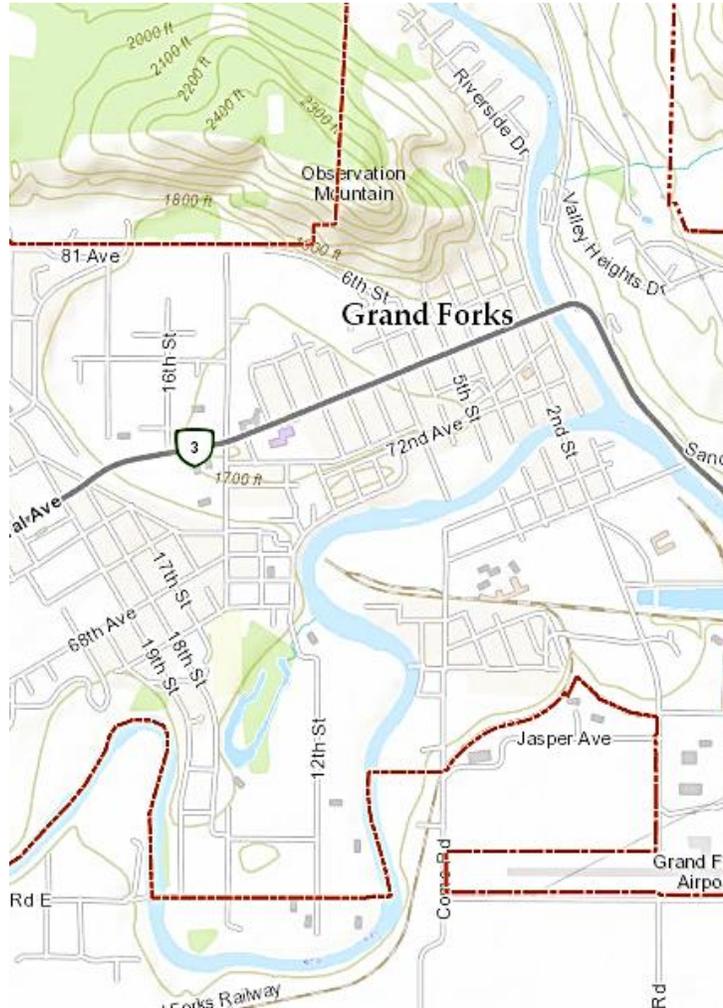
Methods

- Semi-structured interviews
- n = 27
- Interviews lasted 40-120 minutes
- Key informants from government, community organizations, NGOs, academia, consulting

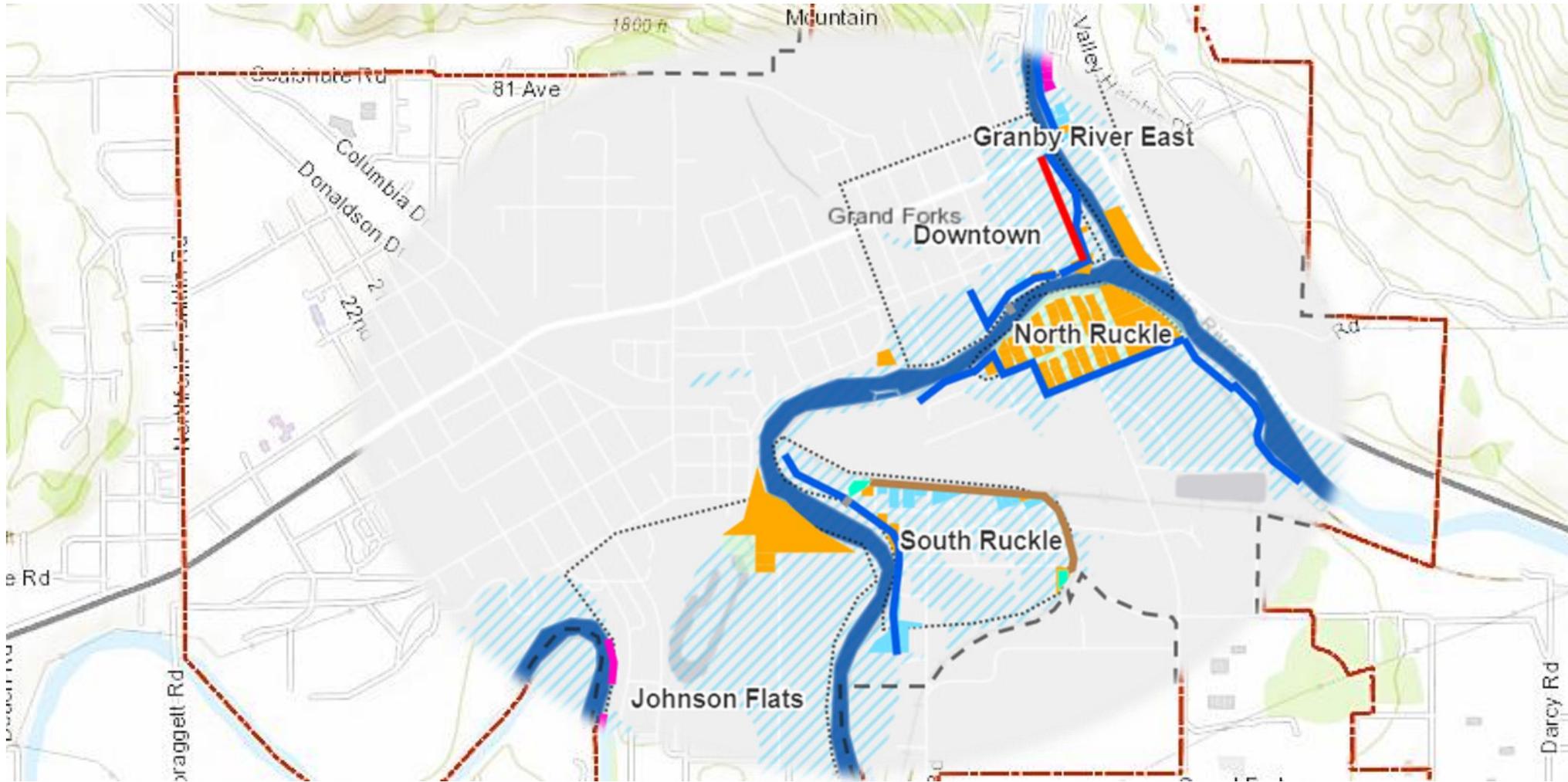


THE 2018 FLOOD EVENT

- **May**
 - Flooding over 3 days
 - 400 homes moderately damaged
 - 50 homes damaged beyond repair
 - BC Disaster Financial Assistance approved
- **June-August**
 - Public meetings on recovery
 - Stakeholders discuss mitigation options
 - Support for a buyout program is ~80%
- **September**
 - Report on long-term mitigation options
 - City Council approves plan, including property buyouts
 - City administration seeks funding



THE FLOOD MITIGATION PROGRAM



Legend

Constructed Water Bodies



Pipes and Swales

Drainage Swale

Interceptor Storm Main

Pipe

Potential Riparian Restoration Sites



DMAF Dikes



DMAF Property Aquisitions

Full

6 meter setback

3 Meter Setback



GRAND FORKS BUYOUTS AT A GLANCE

Scope	<ul style="list-style-type: none"> • Almost 140 residential properties and land parcels
Coerciveness	<ul style="list-style-type: none"> • “Voluntary” on paper • 97% voluntary up-take by May 2021
Funding	<ul style="list-style-type: none"> • \$53 million: from Disaster Mitigation & Adaptation Fund (Federal), Province of BC, City of Grand Forks
Compensation	<ul style="list-style-type: none"> • Post-flood assessed value, plus top-ups based on expropriation legislation • Minimum offers: parcels & property: \$20,000 /vacant parcels: \$5,000
Post-flood land use	<ul style="list-style-type: none"> • Re-zoned and protected as floodable open space for 40 years minimum
Public Perception	<ul style="list-style-type: none"> • Mixed: high support early; waned following compensation announcement

May 2018
Flood event

June 2019
Funding received

January 2020
First buyout offers
extended

September 2021
Flood work construction
begins

September 2018
Flood Mitigation Plan
approved

December 2019
Consult hired to run
buyout program

July 2021
Property owners must vacate
property

IMPROVING MANAGED RETREAT

Communication & Engagement

Community engagement supports equitable program design

Early, consistent messaging and communication is necessary

Funding & Guidance

Targeted funding is needed for proactive and reactive managed retreat

Local governments need guidance on employing managed retreat

Property Owner Supports

Not everyone fits into the mold of a classic buyout; consider supports for those who don't

Factor in supports for residents waiting for their buyout (housing in particular)

Program Timing

Balance timing of public consultation versus buyout details and implementation

Proactive programs can circumvent many challenges

Program Framework & Goals

Establish goal of the program: public versus government

Sendai Framework is being implemented at local and provincial levels