

iver

FORT SMITH
River slope remediation design and construction plan (2018)
Recommendations:
• Establish monitoring program to better understand and track changes and
• Develop mitigation plans
• Identify key stakeholders
• Monitor key areas
• Understand Ground Movement: Seasonality, Triggers, Rates, Present Ground
Conditions
• Contingency Planning
• Resource Planning

FORT SMITH

Slave River

Our vision for our river

Funding Options!

High angle bank
Eroded toe
High water levels
Sandy soil with
Clay layers holding
ground water steady
Variable river levels

Landslide risk
- Sewage lagoon
- Raw water intake
- Park Drive
- Marin Drive
- Cemetery
- Arena

- River Access
- Traditional Use
- Tourism

Where we are today

- STEP 1
(Recognize the Problem)
- STEP 2
(Manage the Threat)
- STEP 3
(Gather/Assess Info)
- STEP 4
(Evaluate Options & Plan)
- STEP 5
(Take Action)

Toe erosion
Water seepage
Ground Water Control
Vegetation impact
- Tension CRACKS

- Zoning Bylaw
- Homes relocated
- Slope profiling
- Some improved ground water drains

new tech assess.
- Laser levels
- Lidar
- site visits
- GPS monitoring

LOOKING FORWARD

Challenges & Barriers

- Funding
- Capacity
- Land ownership
- Permitting
- Competing priorities

ECC - Lands
Quick to point out regulatory
legislation but confused
wants off to community
support

ECC - Lands
without within municipal
boundaries not our
responsibility

Approach Ecc Minister
about their role
to do anything + Town's
role

ECC better role
- Clear vision for intention
to their land + communicate it
or block transfer
of land

ideas & Solutions

Fort Smith
- Cemetery working group?
- Research Collaborators
- Education Partnerships

Communicate your opinion
re: land issue
Confirm to legal opinion
+ proceed

Slope toe + much of slope
fall in some cases
is collect - Commissioners
hands - what is their responsibility
& liability?

Public Committee about
the role for local
government in threat
- identify - planning funding
- shared plan
- what?

ECC as partner
shared plan
to shared
responsibility

Geoscientists!
- When was the last
landslide?
- How fast is it changing?
- How might it be in 25, 50
years? (etc.)

Identify Risk/
levels of some
upping near
edge

When does slope
stability fit in priorities
- need to better
understand - communicate
risk - where can bank be in
25 yrs?

- Communications
- Education
- Document time
- Build Capacity
- Seek Funding

As part of formal plan
how can we
make better use of
funds as recreational
zones?

Questions & Needs

- Risk Eval
for each Area
- mitigation
options/costs

Value of NRM +
Partnership table is reworking
- being able to reach out
for a contact
- resource list
- like a "handy dandy" list
Plan
- what can
we do?
- what can
we do?
- what can
we do?

IDEAS + SOLUTIONS

Priorities



EST PO

vision for

are we tod

- P1
the problem and
- P2
the threat
- P3
assess info
- P4
options + plan
- P5
action

LOOKING

ages
ers
Jurisdiction
issue/clarity
unable to maintain
infrastructure?

Capacity +
communities
infrastructure

2020
survey
priorities
Areas?

Need updated
Infrastructure
GIS Data
LIDAR
Data?

Import
table

what can we
do to improve
the process of...

FORT SMITH

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Eroded toe
High Ground water levels
Sandy soil with clay layers holding ground water stream
Variable river levels

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(Manage the Threat)

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(Evaluate Options & Plan)

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- GPS monitoring.

STEP 5
(Take Action)

LOOKING FORWARD

LOOKING FOR

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about their role
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rights

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legislation but completely
hands off to Community
Support!

Challenges
?
Barriers

Ecc better role
- Clear vision for interface
to their land
+ communicate it
OR block transfer
of land

Ideas
?
Solutions

- Funding
- Capacity
- Land ownership
- Permitting
- Competing Priorities

Ecc - lands
"that's within municipal
boundaries not our
responsibility"

- TLC
Font Smith
- Cemetery
Working group?
 - Research Collaborator
 - Education
Partnerships

Competency:
Communicate just opinion
re: land issue,
confirm to legal opinion
+ proceed

Issue: Conversations about
Ece role for land
management in that
area - pursuing funding
- transfer? - shared plan
- collaboration? - together?

Ecc as partner
shared plan
to shared
responsibility

- Quantify Risk/
Effects of Snow
Dumping near
Bank Edge

Slope toe + much of slope
fall in same
cases - Commissioners
lands - what is their responsibility
+ liability?

Communications
→ Challenge + priority
has to be communicated
to public + Council
- need to know about challenges
priority + that it will cost

As part of remediation
plan, how can we
make better use of
these as recreational
zones?

Geomorphology!
- When was toe before past
knobloch?
- How fast is it changing?
- Where might it be in 25, 50
Yrs? (etc.)

Where does slope
stability fit in priorities
→ need to better
understand + communicate
risk + where
will banks be in
25 yrs?

- Communications
- Education
- Documentation
- Build Capacity
- Seek Funding

Priorities
?
Next Steps

Value of NWRAE +
partnership talk is networking
- being able to reach out
for a contact - procurement
- resource list - stand point
- like a "standing order" list - who can
do this?

Plain language

Questions
?
Needs

- Risk Eval
for each Area
- Mitigation
options / costs

Fort Smith

Connection
to river

- Downstream of shallow bedrock area - strong water currents
- In recent years, low water level is resulting in flow / currents / eddies in new areas
- In land substantial water, vast lakes, high water table