



# FORT SIMPSON

Mackenzie River  
+  
Liard River

## Our Vision for Our River

### Present:

- ↳ Liard River is key transportation route & connection
- ↳ maintain access via
  - boat
  - ice road
  - plane
  - barges
- ↳ gate way to Mackenzie valley
- ↳ Dehcho = big River (who we are)
- ↳ Freeze up & break up brings community together

### Past:

- ↳ Nomadic <sup>living</sup> along river
- ↳ would gather in Ft. Simpson in summer months
- ↳ Key navigation, hunting & gathering

### What is changing & how is it impacting the community:

- ↳ Health center & other major community INF @ risk along ice road
- health center being moved off island (working on community plan currently)
- WTP @ risk & sewer treatment plant @ risk with no plan on how to tackle issue
- Power plant (NTPC) planning to move to main land
- ↳ shorter ice road season = higher costs
- ↳ Sandbars & slope stability impacting ability to launch boats & navigate river
- ↳ Graveyard floods due to ice jams

### What is causing changes:

- ↳ permafrost thawing
- ↳ low water levels & water levels fluctuation
- ↳ where 2 rivers meet adds complexity
- ↳ Accumulation of sediment creating sandbars
- ↳ slope instability resulting in landslides

### Ft Simpson in 25 years

- relocate in stages to higher ground
  - w/ health centre, power corp & critical infrastructure first to move
- use the island as a visiting & gathering place - revert back to what it was (reclaim cultural sites)

## Where We Are Today

**STEP 1**  
(Recognize the problem)

Many studies report

- no commitment to move forward!

The River is to the

The River is  
life to the  
Dene living along  
the Dehcho -

It's part of  
who they are  
& come from.  
The River needs to  
be respected and  
retained in it's  
most nature shape.

So important to the  
Dene's way of life

What ever we do  
we must respect  
The "Dehcho" (Big  
River)

Natural based  
process:

Build a bridge  
across the Liard  
River -

(Take Action)

# LOOKING FORWARD

\* Change the way we dump snow.  
\* Manage the regrowth along the slope & vegetation and tree's

## CHALLENGES & BARRIERS

- Capacity -
- funding -
- working in Silo's
- no dedicated resources
- Where can we access funding & knowing where to get it

- <sup>assess</sup> make a plan regarding critical infra need
- Work & Govern
- Mackenzie Valley High Gateway to ~~the~~ highway
- Build already

"Solution"  
Find overlaps with Coast Guard need to facilitate funding.

## IDEAS & SOLUTIONS

- "Solutions"  
Short-term:
- 1- Local monitoring working group including people from different community groups - if possible.
  - 2- Identify local potential erosion sites and move high traffic usage away.
  - 3- Monitor ice: After breakup, check for ice and snow piles that are...

- better communication
- complete the community plan & tri-council involvement
- revisit all <sup>existing</sup> prior documents regarding the erosion
- work & our tri-council partners to find funding & broaden our capacity

studies  
Lots of studies no action plan  
Some reports do not have a break-up information so they are not complete.  
Recommendations are based on what they'd scope was provided - but complete.

results & sand bars.  
Sand bars are changing the course of the river  
- food security  
- river transportation  
- wild fire's  
- affecting people's capability to go to their traditional homes & areas

semi-linear?  
- critical infrastructure in erosion bank area.  
- Community Plan not completed.  
- Do not have full community buy-in for the Community Plan  
- shifting gravel  
goes under the river crossing first last of the rivers confluence - may be shift

- "Solutions"  
\* Use local material wood logs etc. to protect river bank.  
\* Strengthen vegetation locally to protect banks.  
\* Plan for safe set back  
\* Community led vegetation projects

need to convert studies in action.  
build our relationship to get the implementation of plan

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results ↑ sand bars.  
Sand bars are  
changing the  
course of the river  
- good security  
- fewer  
transportation.  
- Wildfires -  
- affecting  
people's capability  
to go to their  
traditional homes  
& areas

Levee levee?  
- critical infrastructure  
in erosion  
bank area.  
- Community Plan  
not completed.  
- Do not have  
full community  
buy-in for the  
community plan  
- Shifting gravel

Levee 31... pipeline  
goes under the river  
crossing just east  
of the river  
confluence - may  
be shifted to  
shifting gravel &  
changing river  
flows - fuel  
spill issues -  
create issues for  
water intake to  
the community

high traffic usage away.  
3- Monitor ice:  
After breakfast, check for  
ice and snow piles that  
affect  
"Solutions"  
\* Use local material  
wood logs etc. to protect  
river bank.  
\* Strengthen vegetation  
locally to protect banks.  
\* Plan for safe set back  
\* Community led vegetation  
projects

- better communication  
- complete the  
community plan  
& tri-council  
involvement  
- revisit all  
prior documents  
regarding the  
erosion  
- work to our  
tri-council  
partners to find  
funding &  
broader are  
capacity

need to convert  
studies in  
action.  
build our  
relationships  
to get the  
work done.  
- need a plan to  
survive going  
forward when the  
SAO moves on.

Development of plain  
language communication  
to support all phases  
of work

How is the  
new gravel  
bar influencing  
the river?

Sediment input  
from the land?  
Is it harming us  
or protecting us?  
↳ Does it depend  
on how/where it  
is deposited?

Work & Enbridge  
& other major 31  
parties to assist  
in resolving bank  
erosion problems  
Home owner  
information  
plan.  
Work & partners  
to assess 31  
party funding  
to support gravel  
bank erosion  
& it's monitor.

Needs

Will the  
Enbridge  
pipeline be  
affected by  
flow/erosion?

The ferry crossing  
is being affected  
by deposition /  
climate. What  
is its future?

our cemetery gets  
flooded. How can  
we improve  
drainage  
in that area?  
Will that make  
enough of a  
difference?

- establishing  
community planning  
process, including  
updated flood  
maps and erosion  
studies

- power plant  
- water treatment  
plant  
- Ferry crossing  
- Enbridge  
pipelining

- consolidating  
erosion studies into  
plain language  
document for  
dissemination  
of info and  
communications,  
with help of  
consultant

# IDEAS & SOLUTIONS

## "Solutions"

Short-term:

- 1- Local monitoring working group - including people from different community groups - if possible.
- 2- Identify local potential erosion sites and move high traffic usage away.
- 3- Monitor ice:  
After breakup, check for ice and snow piles that

## "Solutions"

- \* Use local material wood logs etc. to protect river bank.
- \* Strengthen vegetation locally to protect banks.
- \* Plan for safe set back
- \* Community led vegetation projects

Work to Enbridge + other major 3rd parties to assist in efforts in resolving bank erosion problems.

- better communication
- complete the community plan & tri-council involvement
- revisit all <sup>studies</sup> prior documents regarding the erosion
- work to our tri-council partners to find funding & broaden our capacity

Develop  
local  
fit

need to convert studies in action.

build our relationships to get the work done.

need a plan to

Development of plain language communication to support all phases of work

# River

Ft Simpson

→ gateway north

- historic + present centre for transportation + gatherings
- access to river by all means of transport (boat, plane, etc) needs to be preserved.
- want to keep barges coming! Even as water levels change.
- river is our life.
- river is defining point for community. It is part of life everyday.
- had to close road all along river
- homes may need to move soon.
- health centre - to move/rebuild HSS + INIF cooperating.
- WTP, sewage, pipe
- Power plant - knows it needs to be moved.
- sandbar has shifted, blocking boat launch.
- boat launch - slope is unstable.
- airstrip + graveyard get flooded at breakups due to ice blockage.
- drivers causing change:
  - pumpout them
  - water level fluctuations
  - sediment accumulation (sandbars)
  - erratic weather

Q does drier conditions contribute to ↑ erosion?

Q how do changes in BC affect water flow into Liard River