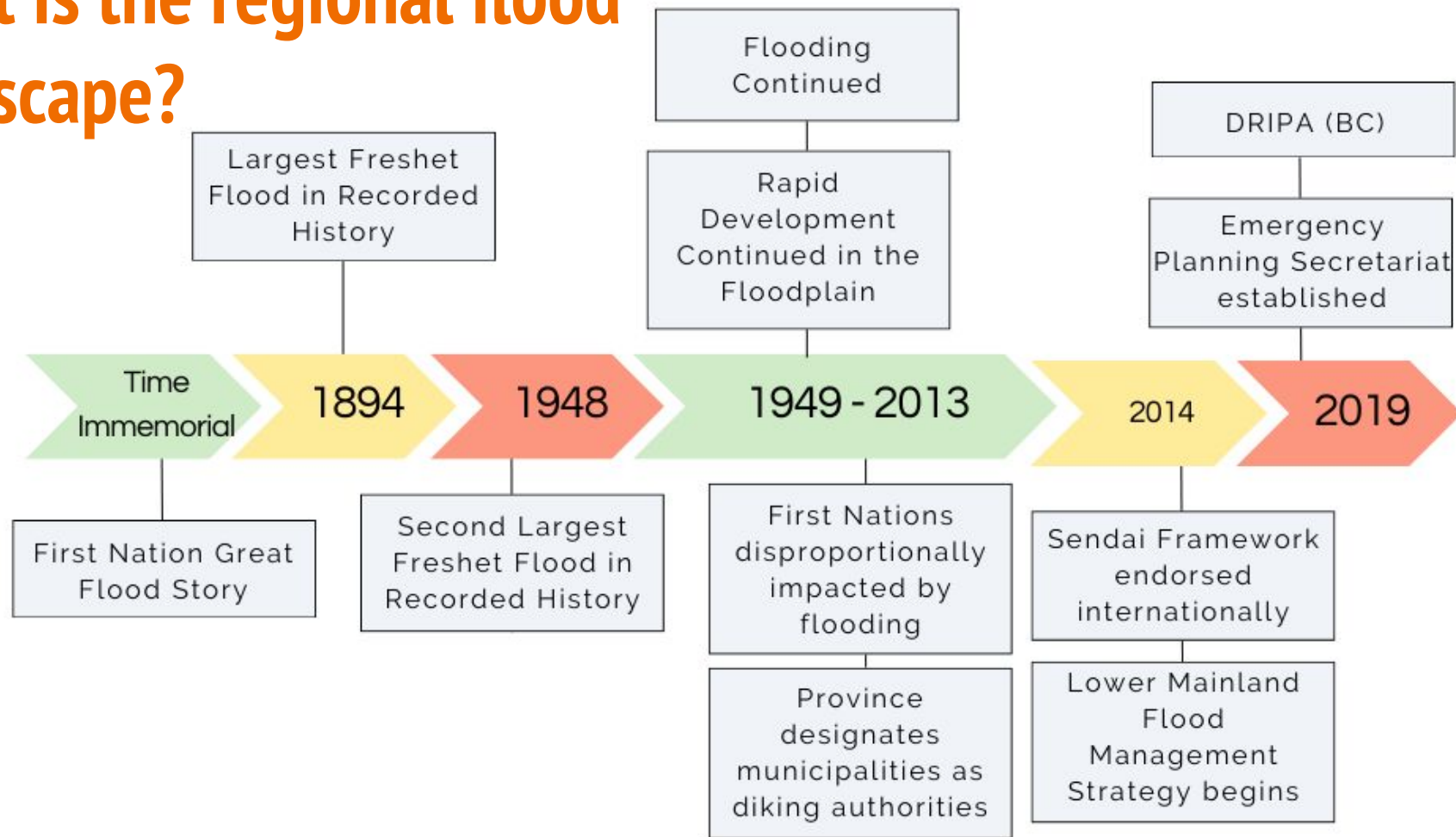


Securing a resilient future for the Lower Fraser: multi-beneficial flood management

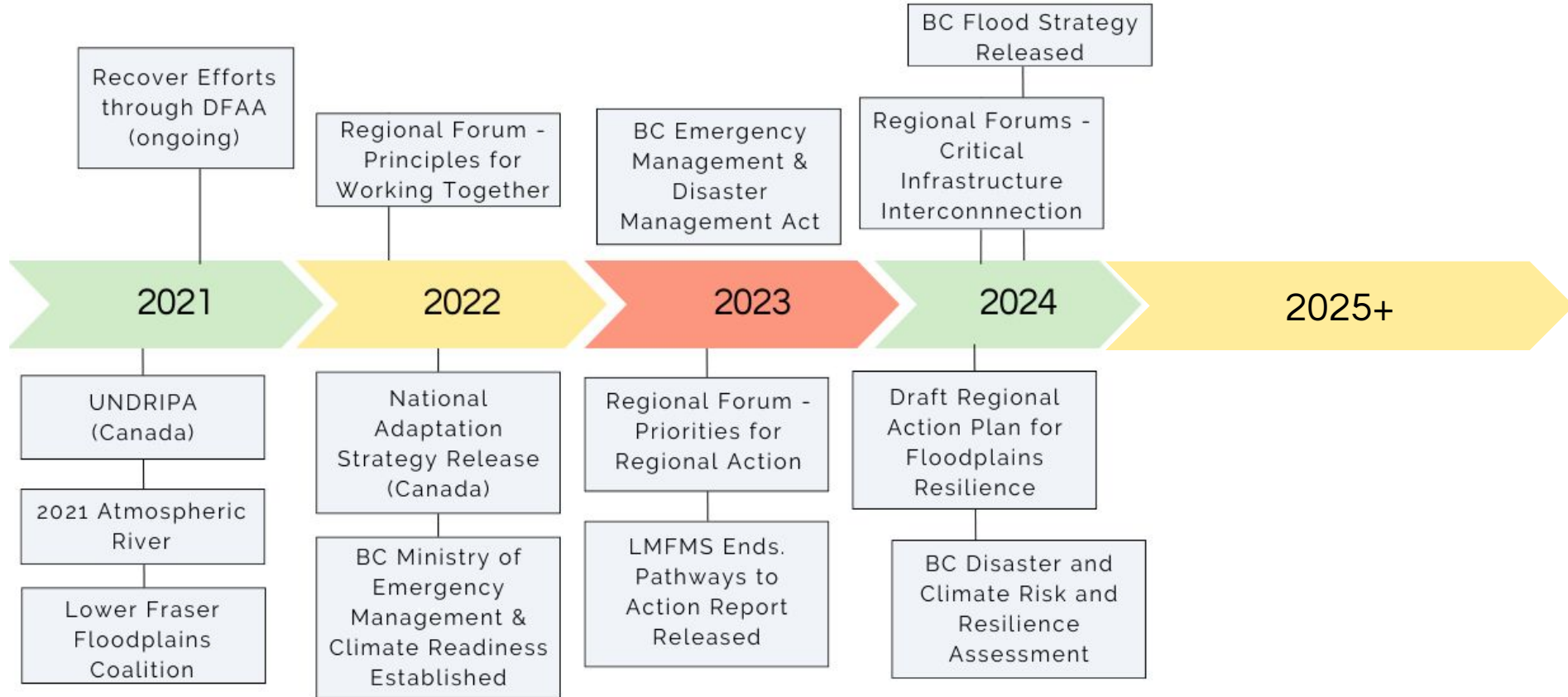


**February 27, 2025
FVRD Board Meeting
Presentation by Lower Fraser Floodplains
Coalition**

What is the regional flood landscape?



The regional flood landscape (continued...)



The Lower Fraser Floodplains Coalition

- **Convening neighboring communities** to build relationships and share information
- **Advocating for resources** for our region
- **Supporting technical work** to fill in critical, strategic gaps:
 - interdependencies,
 - landscape -scale opportunities,
 - nature-based and hybrid adaptation options



The tough question facing the Lower Fraser:

Flood management in the Lower Fraser relies on 600+ km of dikes and related infrastructure, **so how can we make this infrastructure successful and keep our communities safe?**

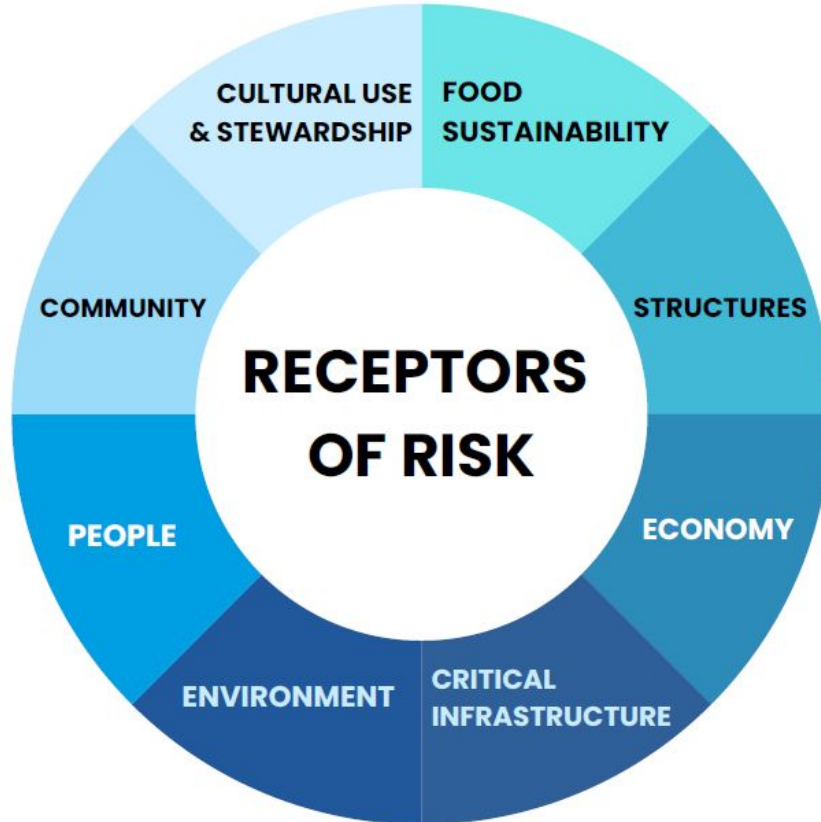
Keeping in mind...

- Dikes are not up to current flood hazard standards, not to mention
 - Seismic risks are not managed
 - Pluvial events are not fully accounted for
- Climate change is increasing flood hazards
- Maintaining dikes has never been affordable for local governments
- Communities, working in siloes, compete for scarce funding from federal and provincial governments
- Even disaster recovery funding is unreliable

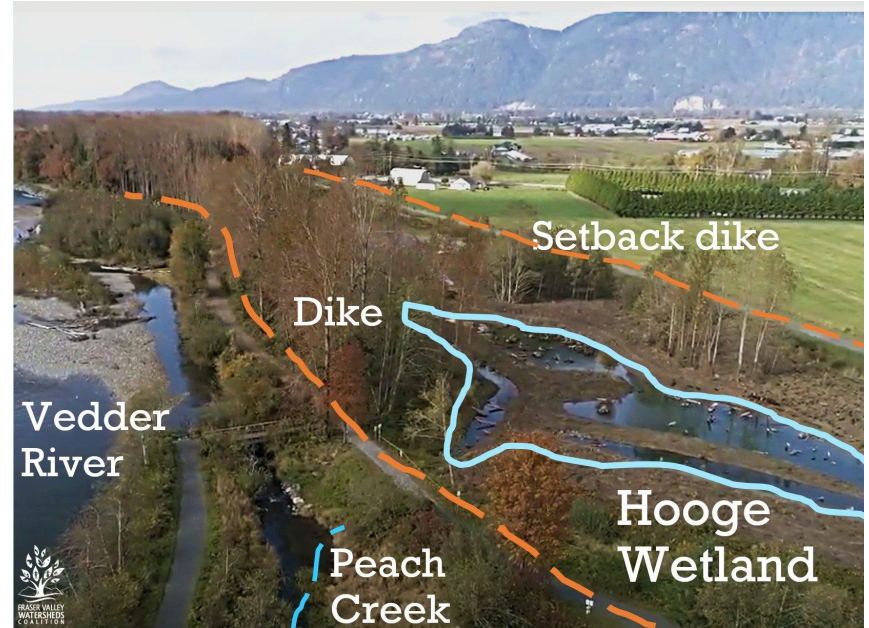
How can we respond to these challenges?

What if we ask a different set of questions?

1) What do we care about in the floodplain?



2) What is the flood risk?



3) How are our communities and services interconnected and interdependent?

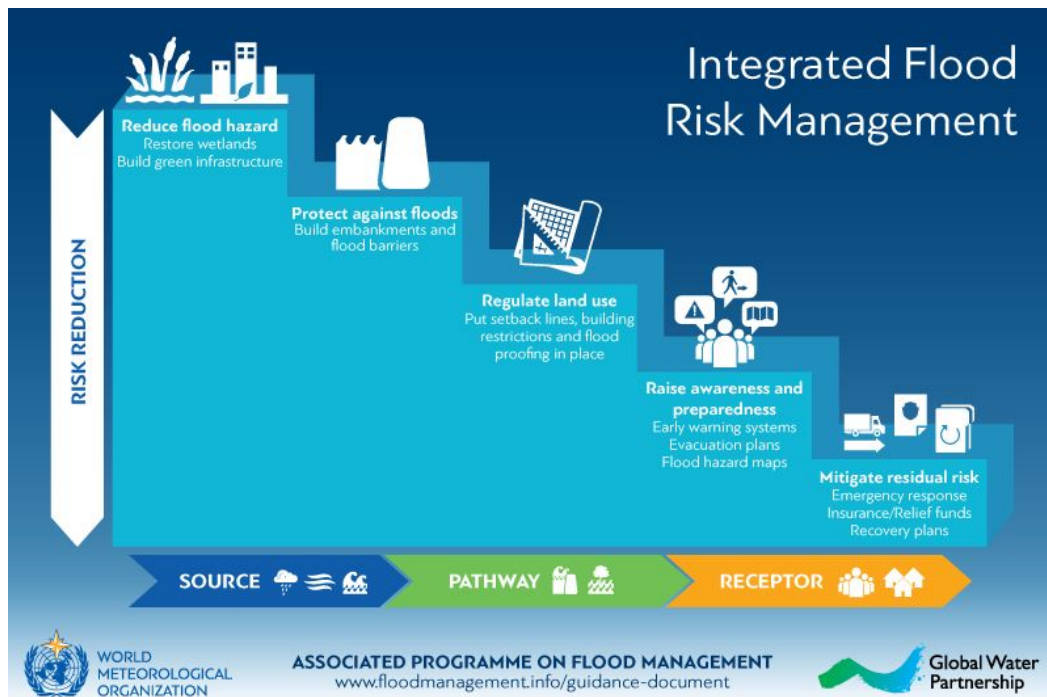


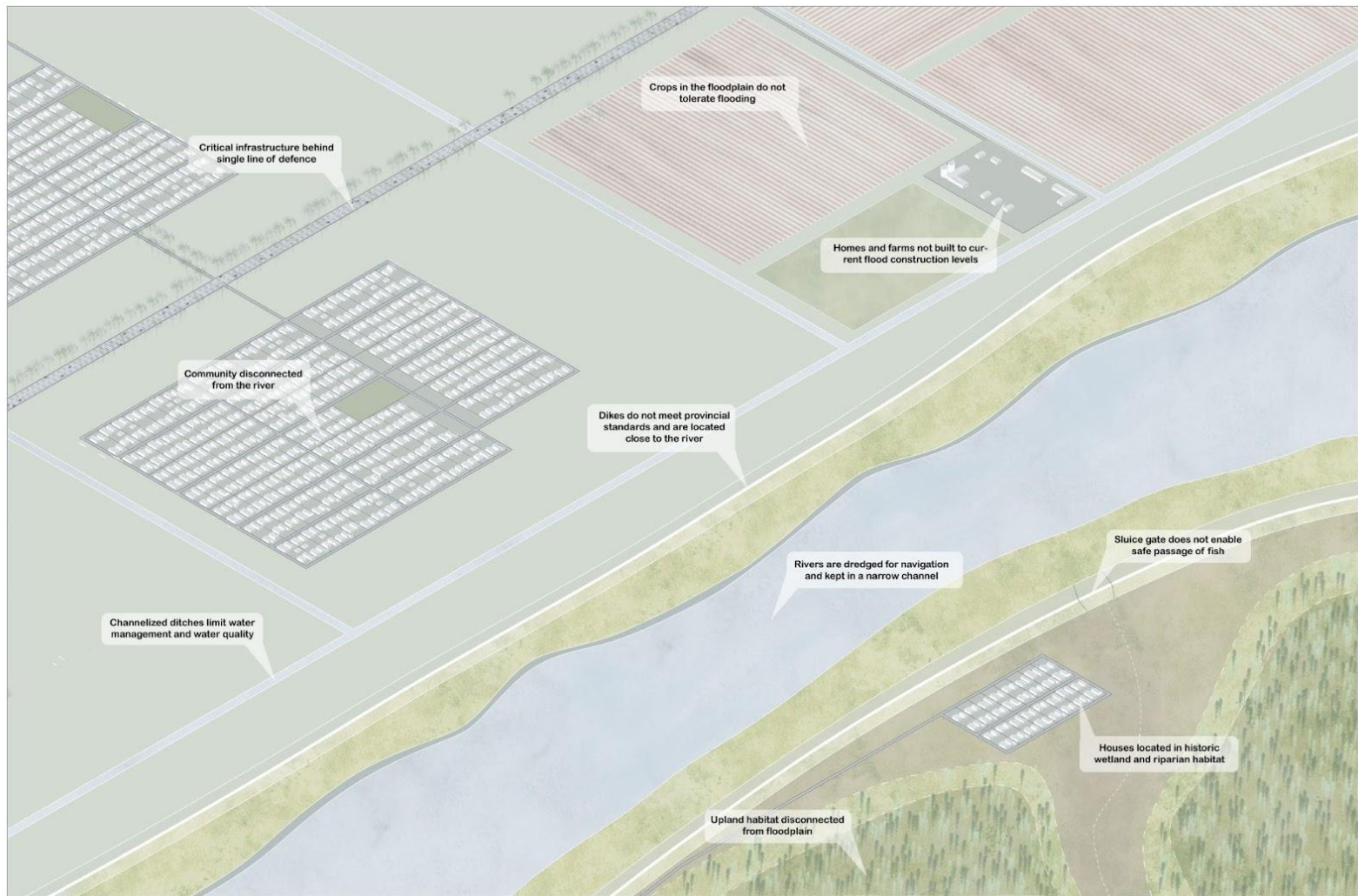
Together these questions tell us: how much water we can live with, for how long and where.

What are the options to manage flood **risk**?

= a bigger, better toolbox

= the knowledge foundation for collaborative, strategic actions in the floodplain





Critical infrastructure behind single line of defence

Crops in the floodplain do not tolerate flooding

Homes and farms not built to current flood construction levels

Community disconnected from the river

Dikes do not meet provincial standards and are located close to the river

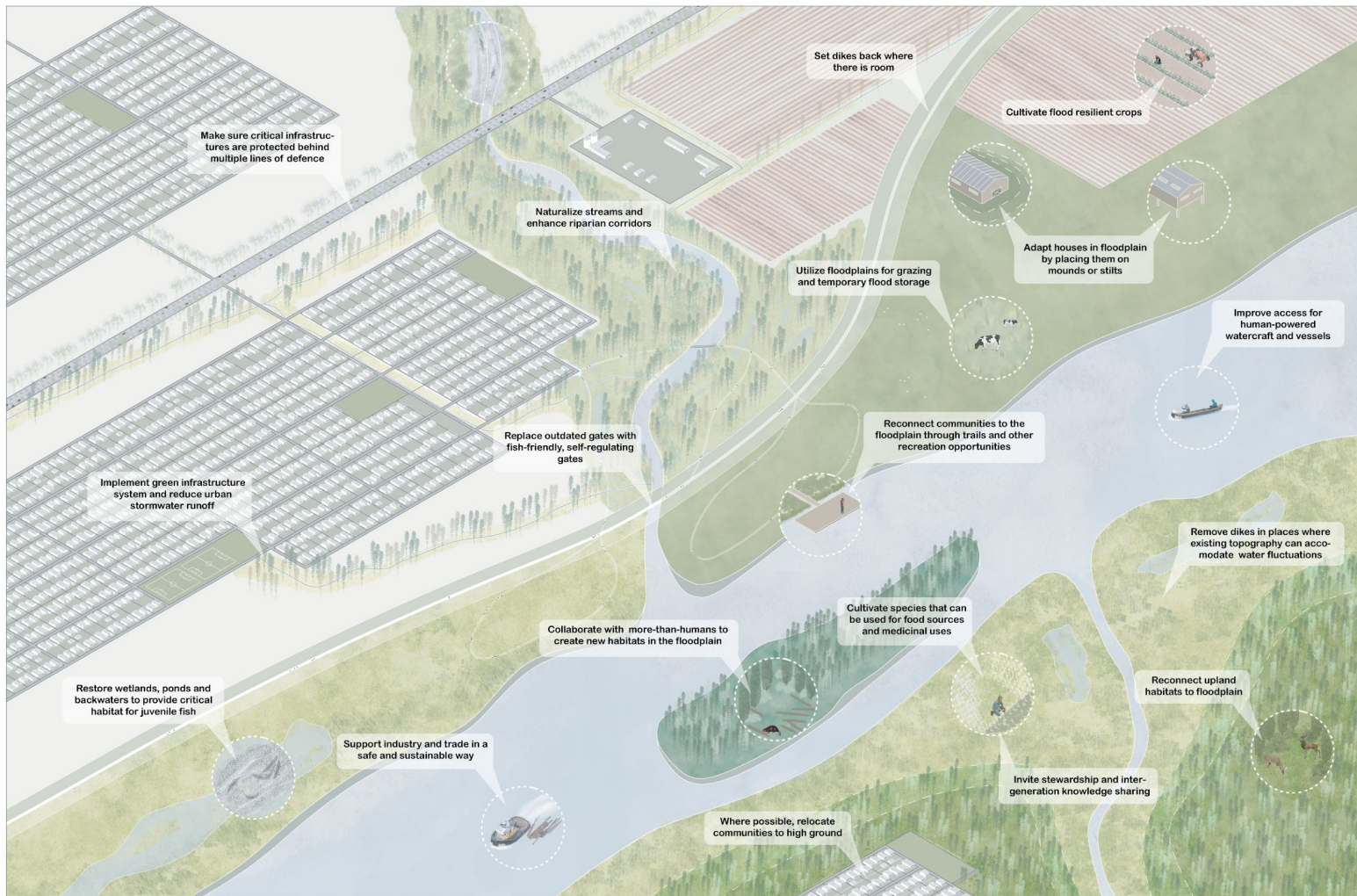
Channelized ditches limit water management and water quality

Rivers are dredged for navigation and kept in a narrow channel

Sluice gate does not enable safe passage of fish

Houses located in historic wetland and riparian habitat

Upland habitat disconnected from floodplain



Make sure critical infrastructures are protected behind multiple lines of defence

Naturalize streams and enhance riparian corridors

Set dikes back where there is room

Cultivate flood resilient crops

Adapt houses in floodplain by placing them on mounds or stilts

Utilize floodplains for grazing and temporary flood storage

Improve access for human-powered watercraft and vessels

Reconnect communities to the floodplain through trails and other recreation opportunities

Remove dikes in places where existing topography can accommodate water fluctuations

Implement green infrastructure system and reduce urban stormwater runoff

Replace outdated gates with fish-friendly, self-regulating gates

Cultivate species that can be used for food sources and medicinal uses

Reconnect upland habitats to floodplain

Restore wetlands, ponds and backwaters to provide critical habitat for juvenile fish


Support industry and trade in a safe and sustainable way

Collaborate with more-than-humans to create new habitats in the floodplain

Invite stewardship and inter-generation knowledge sharing


Where possible, relocate communities to high ground

Working towards flood risk management in the Lower Fraser



**Lower Fraser Floodplains
Dialogue for Regional Action**

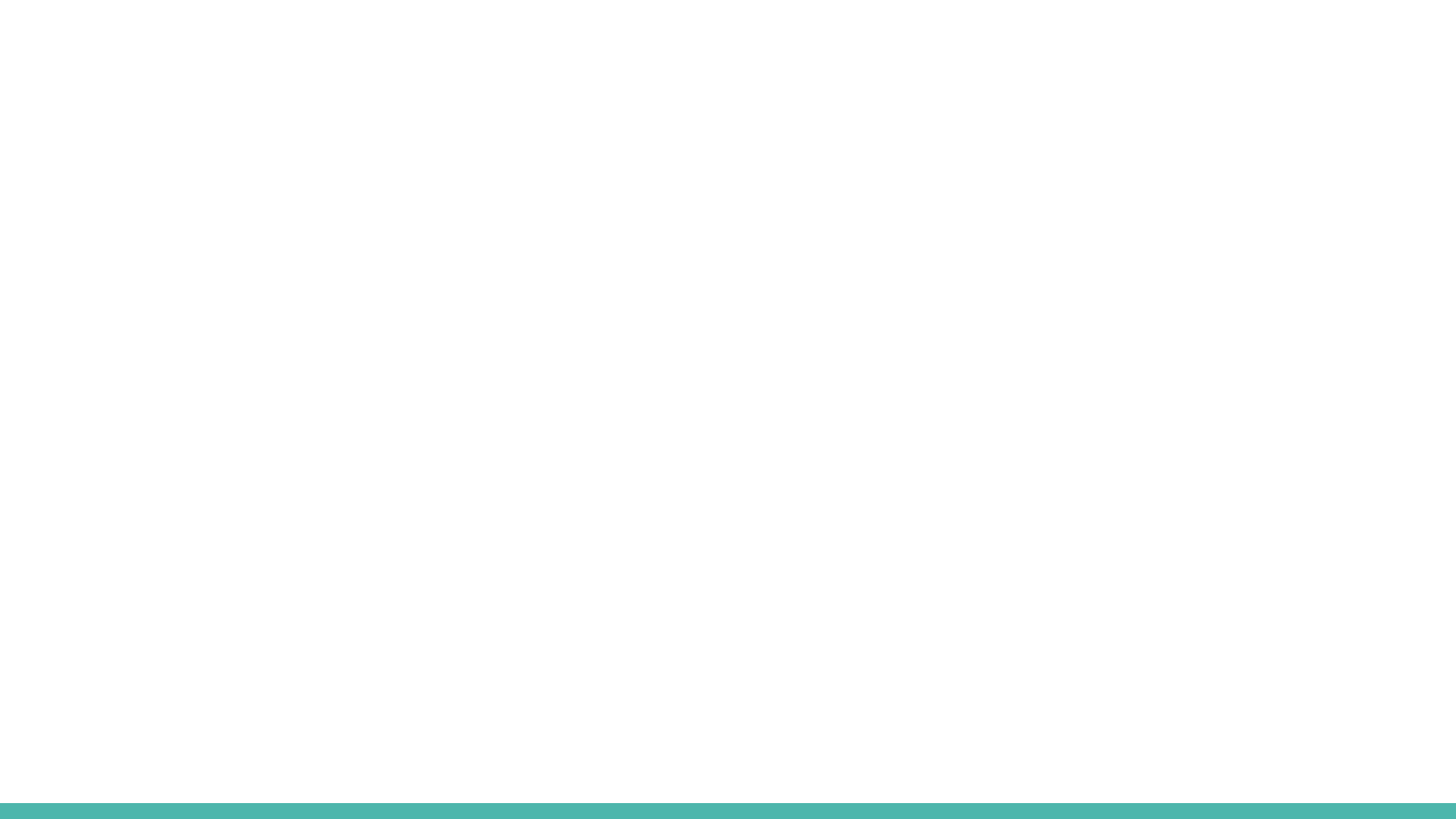
REPORTING BACK: COASTAL RIVER-TIDAL GATHERING – MARCH 12 2024



Looking Forward

- Future Engagement Opportunities through LFFC
 - Critical Infrastructure Assessment
 - Upcoming Forums
- Opportunities to engage with Provincial and Federal governments on flood risk management

Questions?



5 Principles

Discussed at the 2023 regional forum for floodplains resilience hosted by the Lower Fraser Floodplains Coalition.

5 Principles for Action:

- 1) Understanding and reducing risk and adapting to climate change
- 1) Advancing reconciliation
- 2) Ensuring that salmon and the coastal and freshwater ecosystems they depend on are thriving;
- 3) Sustainable economies and resilient communities for the long term
- 4) Everyone is part of the solution