

Culvert Project

Fish Passage – Through Drainage Structures.

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Fish Passage Outline

- What has happened since we last met.
- Strategy
- How big is the problem?
- FREP's Roll.



What has happened since we last met?

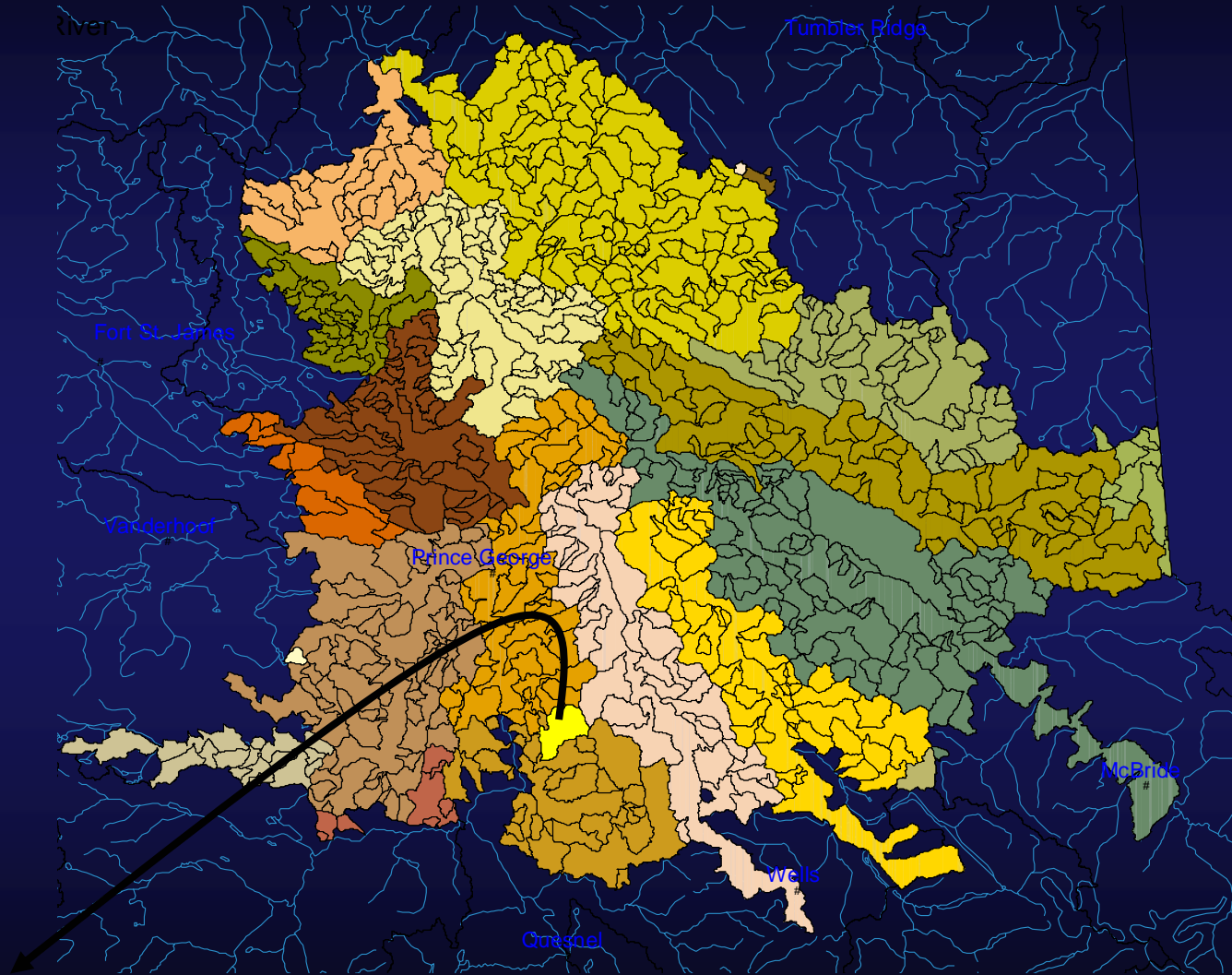
- Focus on developing strategic approach
- FIC proposal
- Updating FIA standards
- Preparing Training



What is the Strategic Approach?

- Prioritize watersheds
- Systematic assessment
- Prioritize structures for repair
- Repair
- Monitor

Watershed Groups: Prince George Forest District



Forest District	MOE Region	T&E	Lake Value	Salmon Escapement
Prince George	7	3.949588	141	2832
	Watershed Code	Species Richness	SH value	Fish Value
	MCGRWSD000012	7.05357		0.48

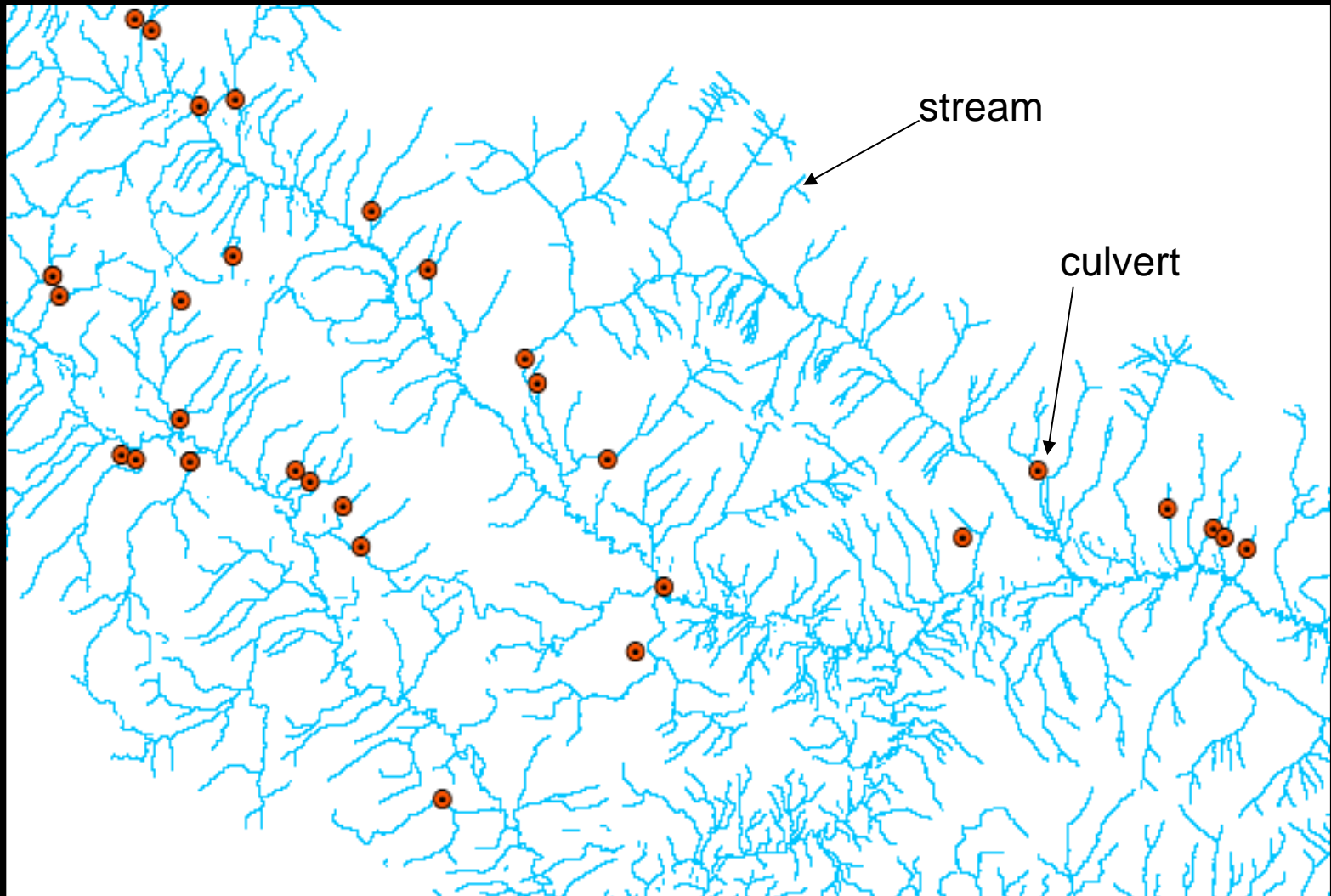


location	McGregor FSR
OD	2m
size	2300mm x 28m
HV	High trib to Tropy R. (200 m)



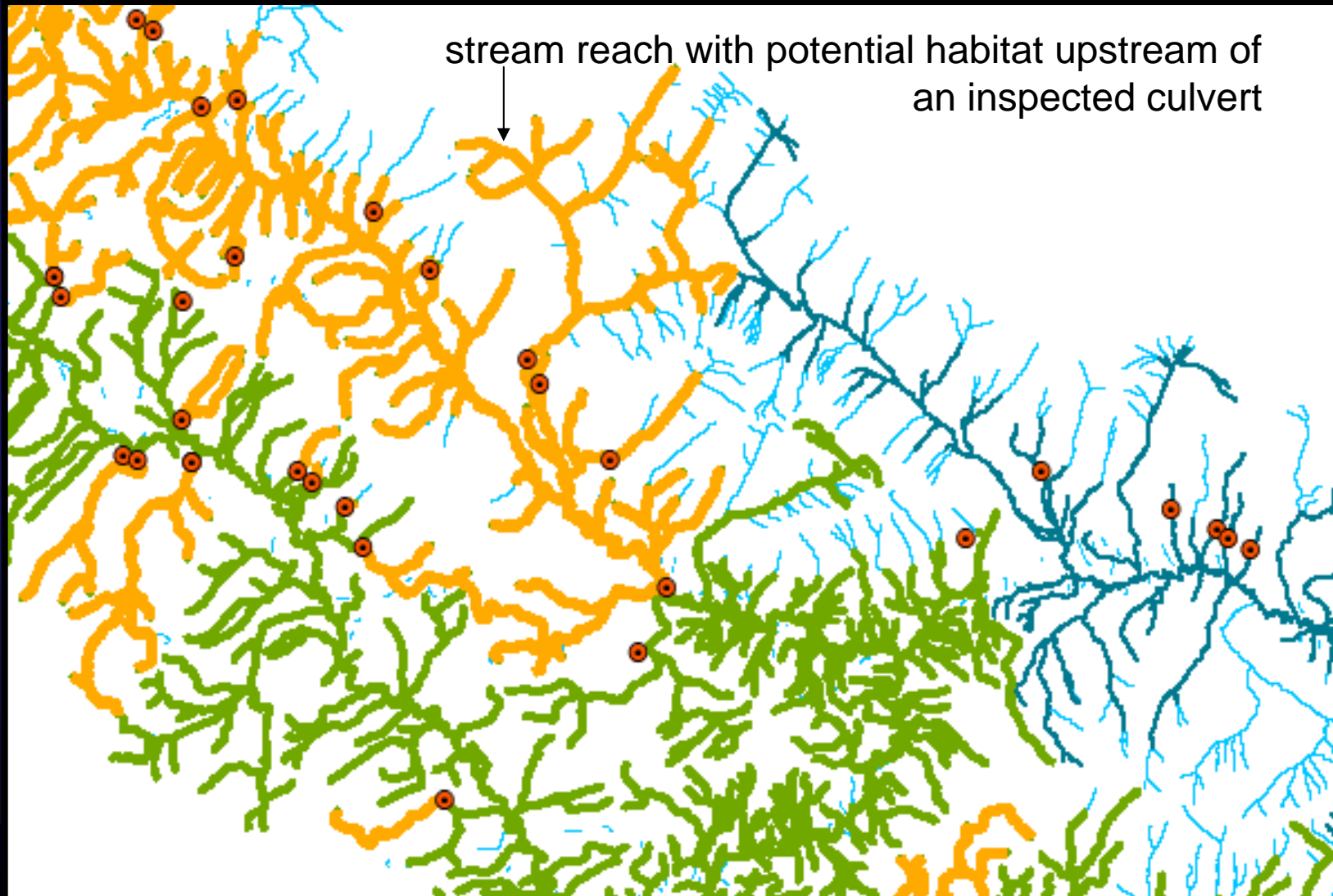
location	Finlay Phillip FSR
OD	n/a
size	3200 x 2200 x 20m
HV	High trib to Williston Lake.
Site	GR-04-02

Inspected Culverts and 1:20,000 CWB Blue line Network



Final Product

Potential habitat upstream of inspected culverts
Areas not affected by channel gradient or natural barrier



Results

McGregor/Carp Data

N=214 structures

92% fail to meet fish passage criteria.

1600 km of potential fish habitat isolated

Question: Fix top 10% how much habitat do you gain access to?

Answer: 1100 km or approximately 70% of the isolated habitat.

How big is the problem?

- Review the data from our nearest neighbours.
- Estimates for B.C.

Western USFS - \$331 M worth of work

Forest Service Region	Est. number of culverts on fish-bearing streams	Est. number of barriers	Barriers
R10 – Alaska	2016	1574	78%
R6 – Washington	1800	1620	90%
R6 – Oregon	3700	3300	89%
R5 - California	447	193	43%
Total	7583	6546	86%

From Tom Thompson testimony to Congress
April, 2002

All Washington Culvert Barriers

State	8% - 2,700 culvert barriers
Private	64% - 21,460 culvert barriers
Federal	14% - 4,600 culverts barriers
County, Municipal	14% - 4,600 culverts barriers
TOTAL	33,000 culvert barriers (plus 6,000 dams)

How big is the Problem in BC. Provincial Stream Crossing Numbers

GIS Analysis - Approximations.

- 550,000 km resource road
- 370,000 stream crossings
- 200,000 are culverts
- 80,000 culverts on Fish streams
- 30,000 to 70,000 are potential fish barriers.

What will FREP do?

- Question 2 – Riparian fish value!
Are forest road stream crossings or other forestry practices maintaining connectivity of fish habitats?
- Help understand the size and distribution of the problem?
- Help understand the amount of habitat isolated?

Why did the fish cross the Road?



Because it couldn't pass through the culvert!

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