

Stream Crossing Partnership



An Overview, March 5th, 2015

Background

- ❑ Initial concept was developed by West Fraser and Foothills Research Institute in 2004
- ❑ First official meeting on April 5, 2005 in Calgary
- ❑ Goal, Objectives of program established
- ❑ MOU approved by members in June of 2005
- ❑ Stream Crossing Inspection Manual finalized in spring of 2006 (currently being updated)
- ❑ First inspections completed in summer of 2006
- ❑ Hired a full time fishery biologist in 2008
- ❑ Submitted first remediation plans in 2009
- ❑ Developed a new data base collection and storage system in 2011 and 2012
- ❑ working with ESRD to establish the working relationship between the regulators and SCP that will add value to membership and the watershed approach to stream crossing remediation.

Goal of the SCP

“..... to help companies and crossing owners to manage stream crossings in the long term.....”



Objectives

- **Develop an industry-driven approach**
- **Establish a standardized stream crossing inspection process and protocol**
- **Establish a system to identify priorities for maintenance and replacement**
- **Coordinate watershed level remediation planning**
- **Monitor results**

What we do.....








- Inspect crossings
- Work with regulators to set watershed priorities for remediation
- Coordinate watershed remediation plans
- Maintain the data base
- Monitor results (re-inspections; electrofishing)
- Liaison with the regulators

Main Area of Operation

SCP Current Operational Area and Potential Phase 1 of Stream Crossing Roll Out

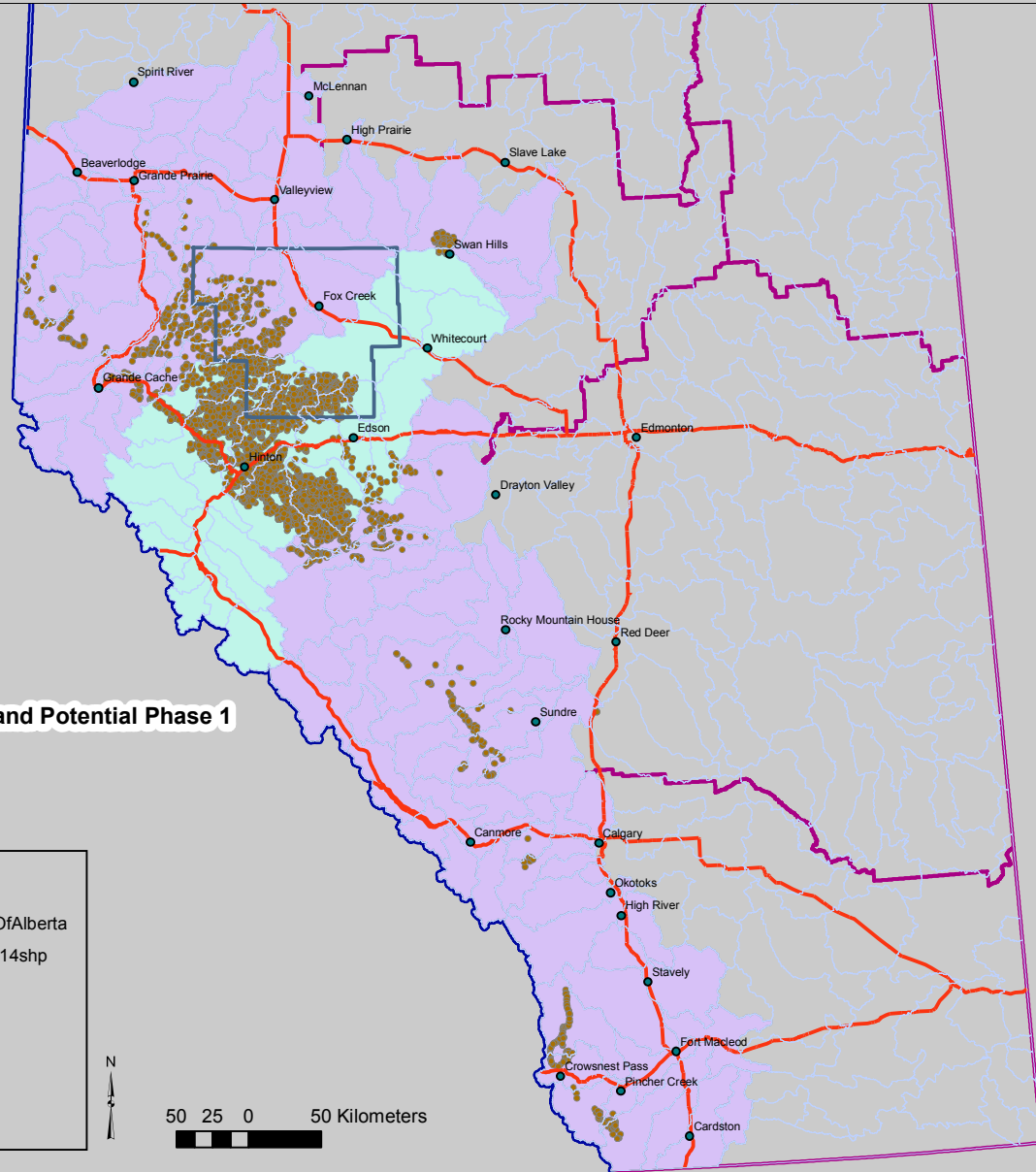
Map prepared by Ngaio Baril
For Jan 20-21, 2014
Watershed Prioritization
Workshop

Legend

-  HydrologicUnitCode8WatershedsOfAlberta
-  New_Duvernay_PilotArea_April2014shp
-  Major Highways
-  SCP Inspected Crossings
-  ARTR_Distribution_Area
-  Phase 1
-  ESRD Operational Regions



50 25 0 50 Kilometers





Current membership

Voting Membership

- ☐ Apache
- ☐ Canfor
- ☐ Coal Valley Resources
- ☐ ConocoPhillips
- ☐ Hinton Wood Products, West Fraser Mills
- ☐ Talisman Energy
- ☐ Tourmaline
- ☐ Shell Canada

Advisory Membership

- ☐ Fisheries and Oceans Canada
- ☐ ESRD – Public Lands
- ☐ ESRD – Fish and Wildlife
- ☐ Foothills Research Institute

Inspections

- **Safety**
- **Water quality**
(Erosion, sedimentation)
- **Fish passage**



Data Collection Approach

□ Data Collection

- Google Android OS data collection application on a Samsung Tablet



New Data Management Approach

□ Data Collection Benefits

- Application is designed according to most recent data requirements
- Extensive data validation
- Camera, GPS and datalogger all in one
- Easy transfer to outside groups conducting inspections
- Immediate upload of data to online tool



New Data Management Approach

Data Interaction

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Inspections Companies Users Profile

Inspections

Inspection: 01/0830056255

shell Inspections

Road/Disposition	Location Id	Inspection Dat...
LOC__4295	01/1622056255	Aug 21, 2001
LOC__4295	01/0929056255	Jun 24, 1999
LOC__4295	01/0830056255	Jun 05, 1998
LOC__4295	01/1128056255	Jun 24, 1999
LOC054451	01/1227056255	Jan 20, 2011
LOC980817	01/1526056215	Jan 20, 2011
LOC050650	01/0506057255	Jan 20, 2011
LOC990709	01/1016057175	Jan 20, 2011

[Advanced Search](#) 302 records found [Download](#)

General Photos Remediation Efforts Watershed

Owner SHELL CANADA LIMITED

Road LOC__4295

Location Id 01/0830056255

Legacy Crossing Id 4504

Inspection Date Jun 05, 1998

Report [PDF](#)

Ratings

- Fish: Low
- Safety: Low
- Erosion: Low

Nav Identify Download Layers

Stream Crossings Roads Water Forest Mgmt. Agreements Alberta Township CVRI / RAD Plan

200 m 1000 ft

Scale = 1 : 34K | -13099532.37, 7146000.95 | EPSG:900913

- 13,000 inspections of 8000 individual crossings

Data Management

□ Data Interaction

- Companies can access data at anytime
- Search data by attributes of the crossings
- Can download spatial data and PDF reports and photos
- Watershed views of connectivity and sedimentation (over time)
- Multi level passwords available per company

Stream and Watershed Health

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Inspections

Companies

Users

Profile

Inspections

Watershed: 1344

1344

Watersheds

Watershed Name

1344

1049

81319

9498

1377

[Advanced Search](#) 5 records found

[Download](#)

General

Name 1344

Remediation Report [PDF](#)

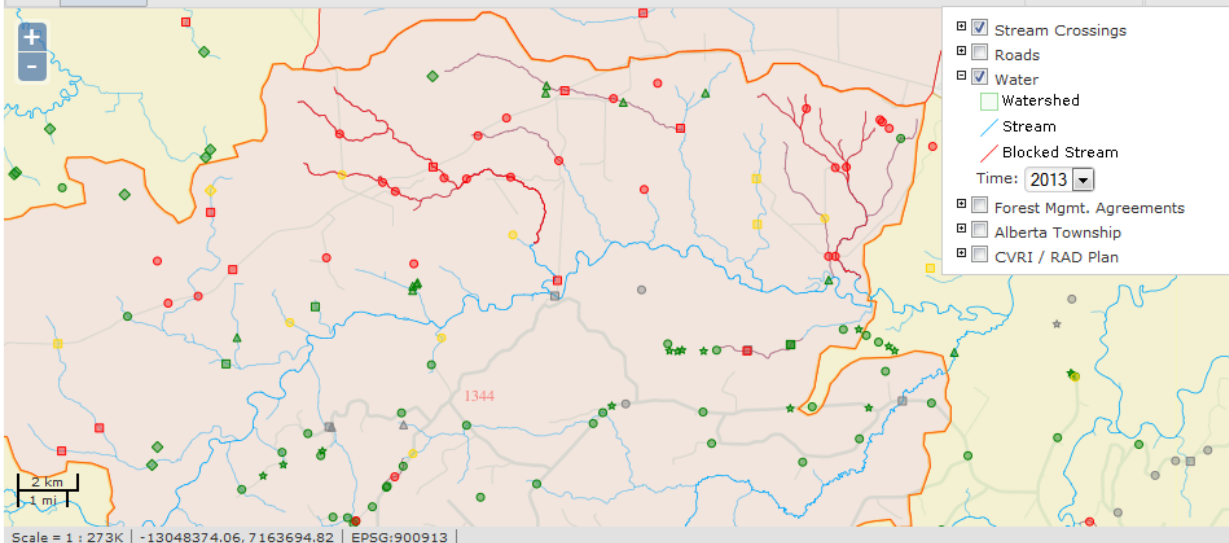
Basin Athabasca River

Yearly Statistics

	2010	2011	2012	2013	2014
KMs of Streams	762.8	762.8	762.8	762.8	762.8
KMs of Blocked Streams	143.9	148	150.4	153.8	153.8
Percent Blocked	19%	19%	20%	20%	20%
Number of Crossings	148	210	210	212	212
Number of Inspections	87	120	9	20	0

Nav Identify

[Download](#) [Layers](#)



Watershed Metrics (5yrs)

Stream & Watershed Health

- Single layer (streams & watershed)
- User set year of interest control
- Streams
 - Blocked: Red
 - Not Blocked: Blue
- Watersheds (% total len blocked)
 - ≥ 20 : Red
 - ≥ 5 & < 20 : Yellow
 - < 5 : Green

In Summary

The Stream Crossing Partnership provides:

- ☐ **An inspection protocol**
- ☐ **Data management and storage**
- ☐ **GIS support**
- ☐ **Fish biologist**
- ☐ **Remediation and improved habitat over the long term**
- ☐ **A managed approach to a broad problem**