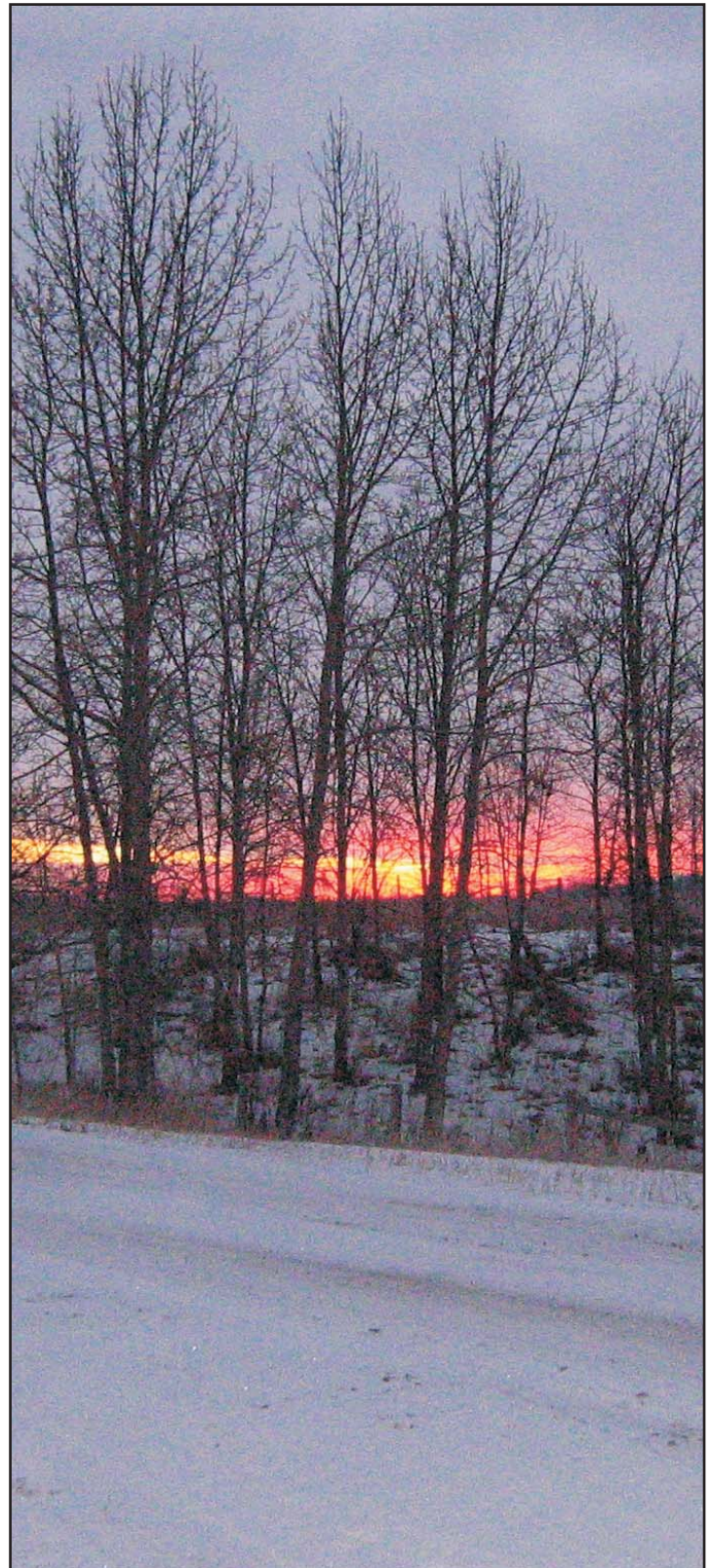


## SECTION 9 APPENDICES



**Appendix 1. Scientific and common names for riparian and range vegetation at the Impoundment, Pasture, and Wintering best management practices sites in the Indianfarm Creek Watershed.**

Scientific name	Common name	Scientific name	Common name
<i>Achillea millefolium</i>	Western yarrow	<i>Linaria vulgaris</i>	Toad flax
<i>Agropyron cristata</i>	Crested wheatgrass	<i>Medicago sativa</i>	Alfalfa
<i>Agropyron dasystachyum</i>	Northern wheat	<i>Melilotus officinalis</i>	Sweet clover
<i>Agropyron intermedium</i>	Intermediate wheatgrass	<i>Mentha arvensis</i>	Wild mint
<i>Agropyron smithii</i>	Western wheatgrass	<i>Monarda fistulosa</i>	Horse mint
<i>Antennaria aprica</i>	Low everlasting	<i>Muhlenbergia cuspidata</i>	Plains muhly
<i>Arnica fulgens</i>	Shining arnica	<i>Oxytropis sericea</i>	Early loco-weed
<i>Artemisia frigida</i>	Fringed sage	<i>Penstomen procerus</i>	Beard tongue
<i>Artemisia ludoviciana</i>	Prairie sage	<i>Phlox hoodsii</i>	Hooded phlox
<i>Aster ericoides</i>	White prairie aster	<i>Poa compressa</i>	Canada bluegrass
<i>Aster falcatus</i>	Tufted white aster	<i>Poa pratensis</i>	Kentucky Blue
<i>Astragalus americanus</i>	American vetch	<i>Potentilla concinna</i>	Early cinquefoil
<i>Astragalus dasyglottis</i>	Purple milk vetch	<i>Potentilla hippiana</i>	Woolly cinquefoil
<i>Bromus inermis</i>	Smooth brome	<i>Potentilla pensylvanica</i>	Prairie cinquefoil
<i>Carex</i>	Carex	<i>Puccinellia nuttalliana</i>	Alkali grass
<i>Carex atherodes</i>	Awned sedge	<i>Rosa acicularis</i>	Prairie rose
<i>Cirsium arvense</i>	Canada Thistle	<i>Salix exigua</i>	Sandbar willow
<i>Dactylis glomerata</i>	Orchard grass	<i>Scirpus microcapus</i>	Bulrush
<i>Descurainia sophia</i>	Flixweed	<i>Shepherdia canadensis</i>	Silver berry
<i>Eleocharis erythropoda</i>	Rush	<i>Solidago canadensis</i>	Graceful goldenrod
<i>Elymus repens</i>	Quack grass	<i>Sphaeralcea coccinea</i>	Mallow
<i>Erigeron casepitosus</i>	Tufted fleabane	<i>Stellaria longipes</i>	Chickweed
<i>Festuca campestris</i>	Idaho fescue	<i>Stipa comata</i>	Needle and thread
<i>Fragaria virginiana</i>	Strawberry	<i>Stipa viridula</i>	Green needle
<i>Geum triflorum</i>	Three flowered aven	<i>Symphoricarpos occidentalis</i>	Snowberry
<i>Gutierrezia sarothrae</i>	Broomweed	<i>Tragopogon dubius</i>	Goats beard
<i>Juncus balticus</i>	Baltic rush	<i>Urtica dioica</i>	Stinging nettle
<i>Koeleria macrantha</i>	June grass		

## Appendix 2. Communications Plan.

### Background

Alberta Agriculture and Rural Development (ARD) and partners implemented a 6-yr scientific evaluation of beneficial management practices (BMPs). The focus of this study is to assess the environmental and economic effectiveness of several nutrient and livestock BMPs in two watersheds: Whelp Creek near Lacombe in central Alberta, and Indianfarm Creek near Pincher Creek in southern Alberta. Two field sites in the Lower Little Bow River and Battersea Drain watersheds east of Picture Butte in southern Alberta are also being examined.

The results of this study will provide science-based information on selected BMPs. This information will assist the agricultural industry to make decisions on improving farming practices. With the industry working to protect the environment, the province can continue to promote its food products to domestic and world markets as being produced and processed in an environmentally safe manner.

### Situation Analysis Context (research, policies, legislation, social norms)

- Research has shown that agriculture activity in Alberta causes degradation of water quality in the province (CAESA 1998).
- There is increasing public concern and pressure to improve the negative impact agriculture has on the environment.
- Legislation has been established, such as the Agricultural Operation and Practices Act (AOPA; Province of Alberta 2007), for the livestock industry to reduce the impact of agriculture on the environment.
- There is potential for producers to make practice changes to minimize or prevent water quality degradation and improve overall watershed stewardship.
- There is a lack of scientific knowledge on the effectiveness and costs of BMPs under Alberta conditions

### Purpose

This plan outlines how information will be developed and delivered to the target audience.

### Objectives

- Local awareness and action - Increase awareness of the project plans and results to help increase adoption of BMPs in the study watersheds.
- Extend information regarding the project to interested stakeholders and partners.

### Teams and Partners

#### Communication Team:

- Sponsor – Brent Paterson
- Core team – Andrea Kalischuk and Barry Olson
- Technical support – Janelle Villeneuve, Lynda Miedema, Clair Fitzpatrick, Wiebe Buruma, Adelle Kientz.
- Graphic design – Bonnie Hofer and Brian Coffey
- Website – Nicole Huggins-Rawlins

## Partners:

- Alberta Crop Industry Development Fund (ACIDF)
- Agri-Environment Services Branch, Agriculture and Agri-Food Canada
- Alberta Environment
- Lacombe County
- Municipal District of Pincher Creek
- Commodity and producer groups
- Battle River Watershed Alliance
- Oldman Watershed Council

## Project Steering Committee:

- Alberta Barley Commission
- Alberta Beef Producers
- Alberta Crop Industry Development Fund (ACIDF)
- Alberta Environment
- Alberta Milk
- Alberta Pork
- International Plant Nutrition Institute
- Agri-Environment Services Branch, Agriculture and Agri-Food Canada
- University of Alberta

## Strategies

The following strategies will be employed to help facilitate communications and extension through the process of creating awareness, encourage attitude change, develop knowledge, facilitate local practice change, and promote broad application of effective BMPs:

- **Local contacts** – meet with and extend information to producers and municipalities
- **ARD communications** – coordinate with ARD communications staff on media relations
- **MLA contacts** – update local MLAs on plans, events, and progress
- **Producers** – work with community leaders and producers to help deliver information
- **Media relations** – develop key messages and pursue interview opportunities
- **Print material** – develop key messages for articles, brochures, etc.
- **Electronic information** – deliver information (emails, faxes, websites, presentations)
- **Partners/networks** – work with partners/networks to deliver information

## Activities and Tools

The following activities and tools will be implemented or developed in relation to the strategies listed above:

- **Brochures/handouts** – develop handouts for producers and stakeholders
- **Letters** – prepare agreements and letters for participating producers
- **Articles** – provide information for articles for newsletters/publications
- **Website** – post and update information on Ropin' the Web
- **Reports/publications** – utilize reports in developing key messages and information
- **Presentations** – coordinate and deliver presentations at meetings and events
- **Research posters** – develop posters as needed for events

### **Follow-up and Evaluation**

- Measure the change in awareness and influence of the project communication activities on BMP adoption by producers in the study watersheds (based on feedback from participating producers via land management surveys and informal discussions as well as feedback from project team members and stakeholders)
- Assess the level of satisfaction with the project communication activities (based on feedback from participating producers and partners)

## List of completed activities:

Dates	Activity <sup>z</sup>	Details	Locations	Outcomes/Purpose
<i>2006 Activities</i>				
Fall	IFC producer contacts	Initial contacts to identify participants	IFC	BMP sites confirmed
<i>2007 Activities</i>				
March	Media article	IFC - Pincher Creek Echo newspaper	Pincher Creek	Increased awareness
April	Minister/MLAs briefing	Introduce the project objectives	Lethbridge	MLA letter – Aug 07
May	Introductory handout	WHC - Flyer given to producers	WHC	Increased awareness
May	Producer brochure	Individual brochures for each watershed	Lethbridge	Increased awareness
Spring	WHC producer contacts	Initial contacts to identify participants	WHC	BMP sites confirmed
Spring	IFC producer letters	Outlining terms of participation	IFC, LLB, BDF	Clarified expectations
Aug	MLA letter	WHC – Ray Prins sent a letter of support to local newspapers regarding project	Edmonton	MLA support for project
Fall	WHC producer letters	Outlining terms of participation	WHC	Clarified expectations
Nov 14	Presentation	Presented information on the project at Battle River Watershed Alliance AGM	Camrose	Profiled project
Dec 4	IFC BMP producer meeting	Updated BMP producers on the project & thanked them for participating	Pincher Creek	Update and thank you
Dec 6	WHC BMP producer meeting	Updated BMP producers on the project and thanked them for participating	Lacombe	Update and thank you
Dec	Producer agreements	Signed agreements with participants	n/a <sup>y</sup>	Agreements completed
<i>2008 Activities</i>				
Jan	Magazine article	Farming for Tomorrow magazine	Alberta	Profiled project
Jan	General brochure	Developed for general public	n/a	Introduce the project
Jan 22	Presentation	Oldman Watershed Council Workshop	Fort Macleod	Profiled project
Feb 13	Presentation	Alberta Soil Science Seminar	Lethbridge	Profiled project
Feb 15	Website	Posted information on ARD website	n/a	Profiled project
Feb 20	Display	Used at Beef Industry conf, etc.	Red Deer	Profiled project
Feb 25	IFC producer meeting	For producers/landowners in watershed	Pincher Creek	Project update
Feb 27	WHC producer meeting	For producers/landowners in watershed	Lacombe	Project update
Mar 14	Poster	Red Deer River Watershed meeting	Trochue	Profiled project
Apr 7-8	Poster	Canadian Water resources Assoc. Conf.	Calgary	Profiled project
May 27	Steering Committee meeting	Formation for committee and discussion of their roles and function	Calgary	Collaboration
June	IFC newsletter	Presented 2007 project results	n/a	Increased awareness
June	WHC newsletter	Presented 2007 project results	n/a	Increased awareness
June 10	IFC producer meeting	Watershed group formation	Pincher Creek	Group formation
June 12	WHC producer meeting	Watershed group formation	Lacombe	Group formation
June 27	Presentation	Battle River Watershed Alliance meeting	Lacombe	Profiled project
July	WHC fact sheet	Whelp Creek spring water quality results and Lacombe Lake results comparison	n/a	Clarify results and discuss local issues
July 22	Alberta soils tour	Toured BMP site as part of tour	Lacombe	Profiled project
July 31	WHC producer meeting	WHC and Lacombe Lake issues	Lacombe	Increased awareness
Nov	IFC newsletter	Bioengineering article and meeting invite	n/a	Increased awareness
Nov	WHC newsletter	Meeting invite, articles on Groundwater, Nutrient management and Index results	n/a	Increased awareness
Nov 6	IFC producer meeting	Watershed group discussion	Pincher Creek	Group discussion and plans
Nov 11-14	Presentation	North American Lake Management Society	Lake Louise	Profiled project
Nov 13	WHC producer meeting	Watershed group discussion	Lacombe	Group discussion and plans

<b>Dates</b>	<b>Activity<sup>z</sup></b>	<b>Details</b>	<b>Locations</b>	<b>Outcomes/Purpose</b>
Dec 1	IFC BMP producer meeting	Updated BMP producers on the project and thanked them for participating	Pincher Creek	Update and thank you
Dec 2	Presentation	Alberta Environment Limnology Congress	Edmonton	Profiled project
Dec 4	WHC BMP producer meeting	Updated BMP producers on the project and thanked them for participating	Lacombe	Update and thank you
<i>2009 Activities</i>				
April 6	Presentation	Canadian Water Resources Association	Edmonton	Profiled project
June 8	Presentation	Agri-Environmental Partnership of Alberta	Nisku	Profiled project
June 26	WHC Newsletter	Summer newsletter circulated to producers in WHC	WHC	Update and information
July 6	WHC producer meeting	Watershed group meeting	Lacombe	Group discussion and plans
July 28	Steering Committee meeting / Battle River Watershed Alliance	Annual meeting and tour of WHC Sub-watershed. Members of the Battle River Watershed Alliance were on the tour	Lacombe	Project update and feedback
Sept 15	presentation	OWC Rural Team Tour	Pincher Creek	Profiled project
Oct 1	WHC Newsletter	Fall newsletter circulated to producers in WHC	WHC	Update and information
Oct 1	IFC Newsletter	Fall newsletter circulated to producers in IFC	IFC	Update and information
Oct 8	OWC Watershed science tour	The IFC Watershed was one of the stops for this tour	Oldman Watershed	Increased awareness
Oct 15	IFC producer meeting	Watershed group meeting	Pincher Creek	Group discussion and plans
Oct 21-22	Presentation	Tri-Provincial Manure Management Workshop	Leduc	Profiled project
Oct 22	Radio interview	Lacombe radio station Sunny 94	Lacombe	Profiled project
Nov 4	IFC BMP producer meeting	Updated BMP producers on the project and tour of BMP sites	Pincher Creek	Update and thank you
Nov 17	Presentation	CEEOT model presentation given to the Limnology Congress	Edmonton	Profiled project
Nov 23	WHC BMP producer meeting	Updated BMP producers on the project and thanked them for participating	Lacombe	Update and thank you
Dec 2	Presentation	A general presentation given to a class at Olds College	Olds	Profiled project
<i>2010 Activities</i>				
Jan 11	IFC Newsletter	Winter newsletter circulated to the residents of IFC Watershed	IFC Watershed	Update and information
Jan 19	IFC producer meeting	Watershed group meeting	Pincher Creek	Group discussion and plans
Feb 11	Presentation	WEBS Meeting	Winnipeg	Profiled project and networked
Mar 3	Presentation	AAFC Research Centre seminar series	Lethbridge	Profiled project and disseminated results
Feb 16-18	Presentation - oral	Alberta Soil Science Workshop	Lethbridge	Profiled project and disseminated results
Feb 16-18	Presentation - poster	Alberta Soil Science Workshop	Lethbridge	Profiled project and disseminated results

<sup>z</sup> IFC = Indianfarm Creek Watershed; WHC = Whelp Creek Sub -watershed; BDF = Battersea Drain Field site; LLB = Lower Little Bow River Field site.

<sup>y</sup> Not applicable.





**Government  
of Alberta** ■