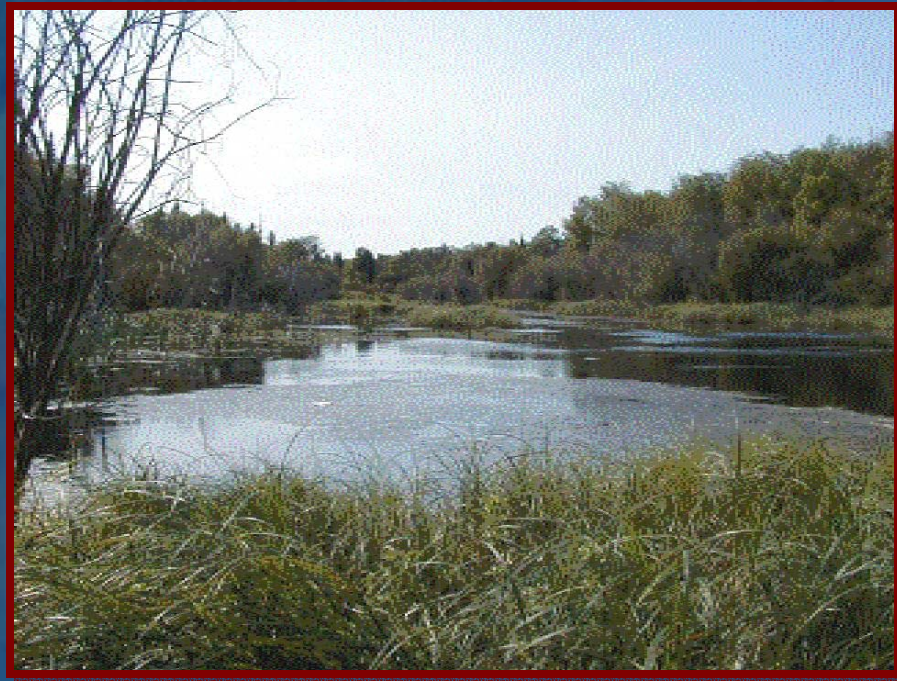


DFO's Fish Habitat Management Program



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Overview

- Fish and Fish Habitat
- DFO Policy - Objectives and Goals
- How Do the Fisheries Act and Navigable Waters Protection Act Affect Cattle Producers
- Riparian Areas, Cattle and Fish
- DFO Complaint Review Process
- Stewardship





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Why is DFO in the Prairies?

- In 1999, the federal government decided to enhance delivery of federal responsibilities for the conservation & protection of fish habitat under the *Fisheries Act*
- Devoting additional resources will enable different levels of government to better protect fish and fish habitat inland



Federal and Provincial Responsibilities

Fisheries Management

Freshwater fisheries management delegated to the province (Saskatchewan Environment)

Habitat Protection and Pollution Provisions

Pollution prevention provisions

(Environment Canada and DFO)

Fish habitat protection provisions (DFO)



The Importance of Fish Habitat

- Fish stocks are declining because of increased pressure on fish habitat.
- Habitat conservation is critical to ensure continuation of Canada's commercial, recreational and subsistence fisheries



Value of the Resource

- This resource is valued at more than \$13 billion annually
- In Saskatchewan:
 - sport fishing contributes \$270 million annually
~ 245,000 licensed anglers
 - commercial fishing contributes \$2-4 million annually
~ 2000 fishers



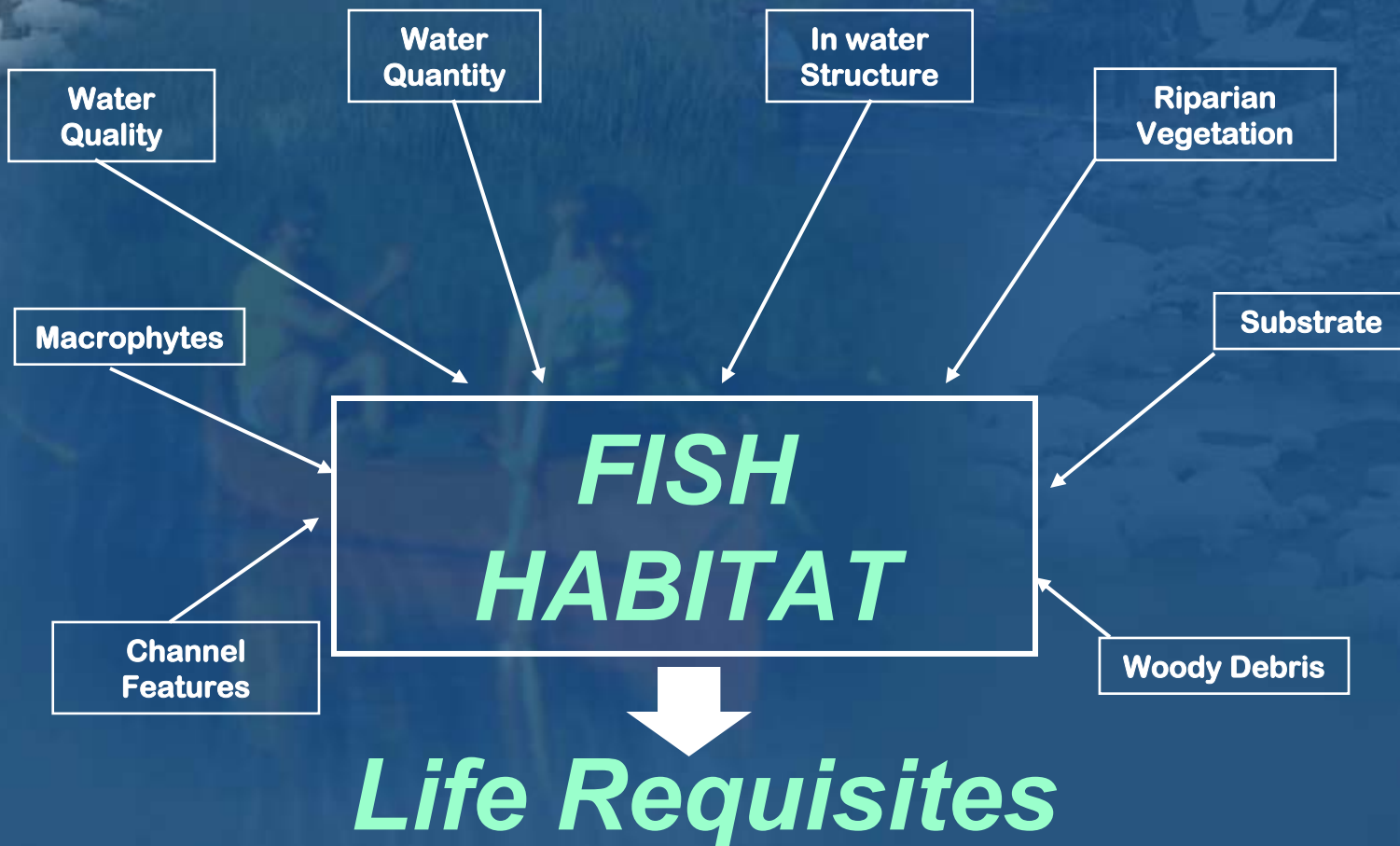
What is Fish Habitat?

Fisheries Act definition :

‘spawning grounds and nursery, rearing, food supply, migration and any other areas on which fish depend directly or indirectly in order to carry out their life processes’



Contribution to Life Requisites



Habitat Management Policy

- Provides direction for interpreting the Fisheries Act's habitat protection provisions.
- Applies to those habitats directly or indirectly supporting existing or potential commercial, recreational or subsistence fisheries



Habitat Management Policy - Objective

To achieve a net gain in productive capacity of fish habitats



Habitat Management Policy - Goals

- Fish Habitat Conservation
(No net loss of productive capacity)
- Fish Habitat Restoration
- Fish Habitat Development



Habitat Protection at Work

- Determine potential effects of development proposals on fish habitat
- Ensure developers comply with habitat protection provisions of *Fisheries Act*
- Ensure developers take measures to minimize impacts on fish habitat



Strategies of DFO's Habitat Management Program

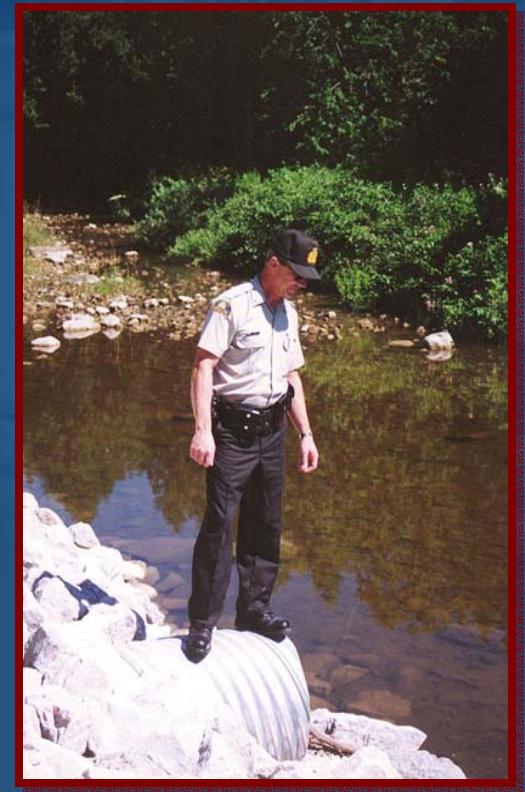
- Protection/Compliance
- Integrated Resource Planning/Stewardship
- Scientific Research
- Public Consultation
- Public Information & Education
- Cooperative Action
- Improvement
- Monitoring



Protection / Compliance

- Protect fish habitat by ensuring land and water use activities comply with the habitat provisions of the *Fisheries Act*

i.e. project review
compliance / enforcement



Integrated Resource Planning / Stewardship

- DFO has been developing a national strategy for fish habitat stewardship, the “*Fish Habitat Stewardship National Action Plan*”
- The purpose of the Plan is to help DFO offices develop and deliver locally based stewardship programs



Public Information and Education

- Raise public and stakeholder awareness and support for habitat conservation

i.e.

- Saskatchewan Fact Sheets *Working Around Water*
- DFO-HM internet site & SK Web Portal (SNOWS)



Habitat Improvement

- Initiate projects and provide advice to other interested groups to restore and develop fish habitat, in support of the net gain objective

i.e.

- National Voluntary Sector Initiative (NVSI)
- SWA / SWF / DFO assessing the capacity of volunteers in SK to deliver parts of Habitat Program & contribute to Policy



How Do the Fisheries Act and Navigable Waters Protection Act Affect Cattle Producers?



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Fisheries Act

- Our goal is to promote compliance & education in order to prevent a violation before it occurs
- Fishery Officers play an important role in conserving & protecting fish habitat once other means have failed



Fisheries Act

Section 35 (1)

- prohibits works or undertakings that could result in the harmful alteration, disruption or destruction of fish habitat

Section 35(2)

- allows the Minister or designate to authorize the harmful alteration, disruption or destruction of habitat



Harmful Alteration, Disruption or Destruction (HADD)

- Any change to the physical, biological, or chemical attributes of habitat that adversely affects the habitat's ability to provide the basic life requisites (spawning, rearing, nursery, overwintering, feeding migration)



Fisheries Act

Section 36(3)

- It is unlawful to deposit any deleterious substance into water frequented by fish
 - i.e. manure, sediment



Fisheries Act

Section 20 - Requires safe passage around obstructions - fishways

Section 22 - Requires appropriate water flows at obstructions

Section 30 - Provides for fish guards or screens where needed

Section 32 - Protects fish from destruction by means other than fishing (i.e. explosive use)



Fisheries Act

Example Charges 1:

- BC Provincial Court, Smithers, 10/06/99
- Fisheries Act s. 36(3), s. 38(6)
 - cattle manure feedlot
 - sewage and ammonia effects on fish
 - man-made fish habitat



Fisheries Act

Facts:

- The accused is a farmer who wintered cattle on the frozen ice of a pond he had excavated some years earlier
- Manure build-up over winter drained into salmon-rearing Toboggan Creek each spring



Fisheries Act

- The pond had become coho and trout habitat
- Fish in the pond affected by high ammonia level
- The accused was issued a s. 38(6) Inspector's Direction to change feedlot practices in 1997
- The accused pleaded guilty to failing to comply with the Direction



Fisheries Act

Fine:

- The court imposed a \$700 fine and payment of \$2,500 for the conservation of fish habitat
- The accused was also ordered to allow government staff onto his property over the next two years for purposes of cleaning the pond



Fisheries Act

Example Charges 2:

- BC Provincial Court, Agassiz, 24/02/99
Fisheries Act s. 36(3)
- **Facts:** 6000 gallons of cow manure spread on a sloped field 20 feet from the banks of the Fraser River, entering the river
- **Fine: \$1000** - \$10 fine; \$990 to be used by DFO for restoration of fish habitat in Agassiz area



Navigable Waters Protection Act

- The Navigable Waters Protection Act (NWPA) aims at protecting navigable waters by regulating the construction of works on those waters and by providing the Minister with the power to remove obstructions to navigation
- DFO reviews works in or near water to determine their impact on Navigation



Navigable Waters Protection Act

- Fences crossing *navigable waterways* are classified as works
- The owner is liable for these structures
- Each situation is site specific

Saskatchewan Contact:

Al Dion, Inspection Officer – Prince Albert
(306) 953-8774



The background of the slide is a photograph of a river with many white rocks, partially obscured by a semi-transparent blue rectangular overlay. The text is centered within this blue area.

Why are Riparian Areas Important to Cattle and Fish?



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Riparian Areas

What are riparian areas?

- Riparian areas are the lands adjacent to streams, river, lakes and wetlands, where the vegetation and soils are strongly influenced by the presence of water



Riparian Areas

Why are riparian areas valuable to producers?

- Abundant forage
- Improved opportunities for long-term sustainable operations
- A buffer and filter to improve and maintain water quality
- A 'sponge' to hold water, to improve forage production and provide a drinking supply
- Shelter and habitat for livestock and wildlife



Riparian Areas

What is the impact of overgrazing on fish?

Generally speaking,
overgrazed stream channels:

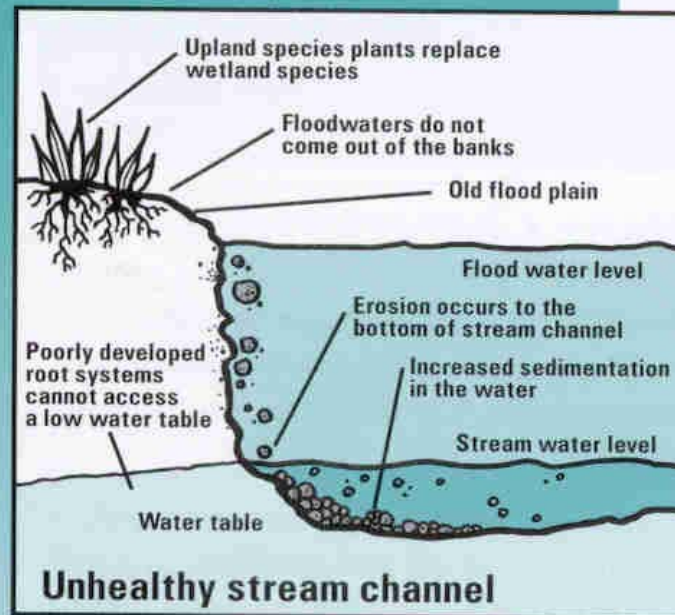
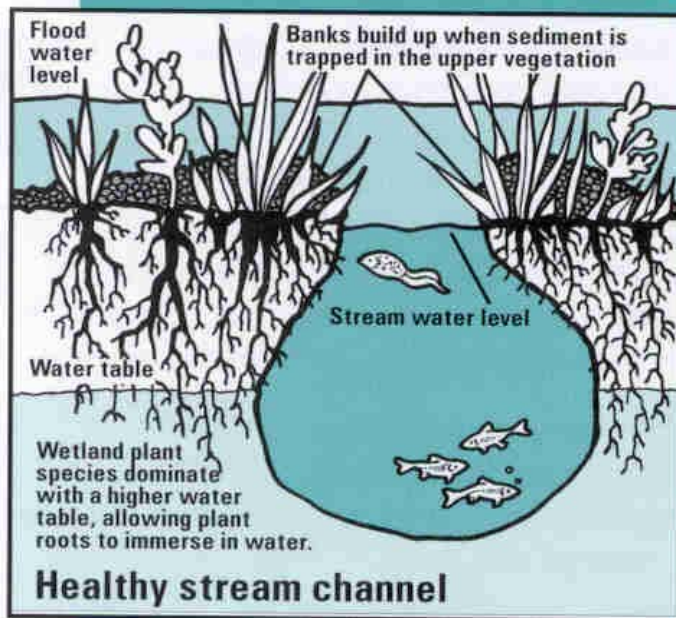
- Contain more fine sediment
- Streambanks are more unstable
- Banks are less undercut
- Summer water temperatures are higher



Riparian Areas



Riparian Areas



Stream Channel Downcutting

Saskatchewan Watershed Authority

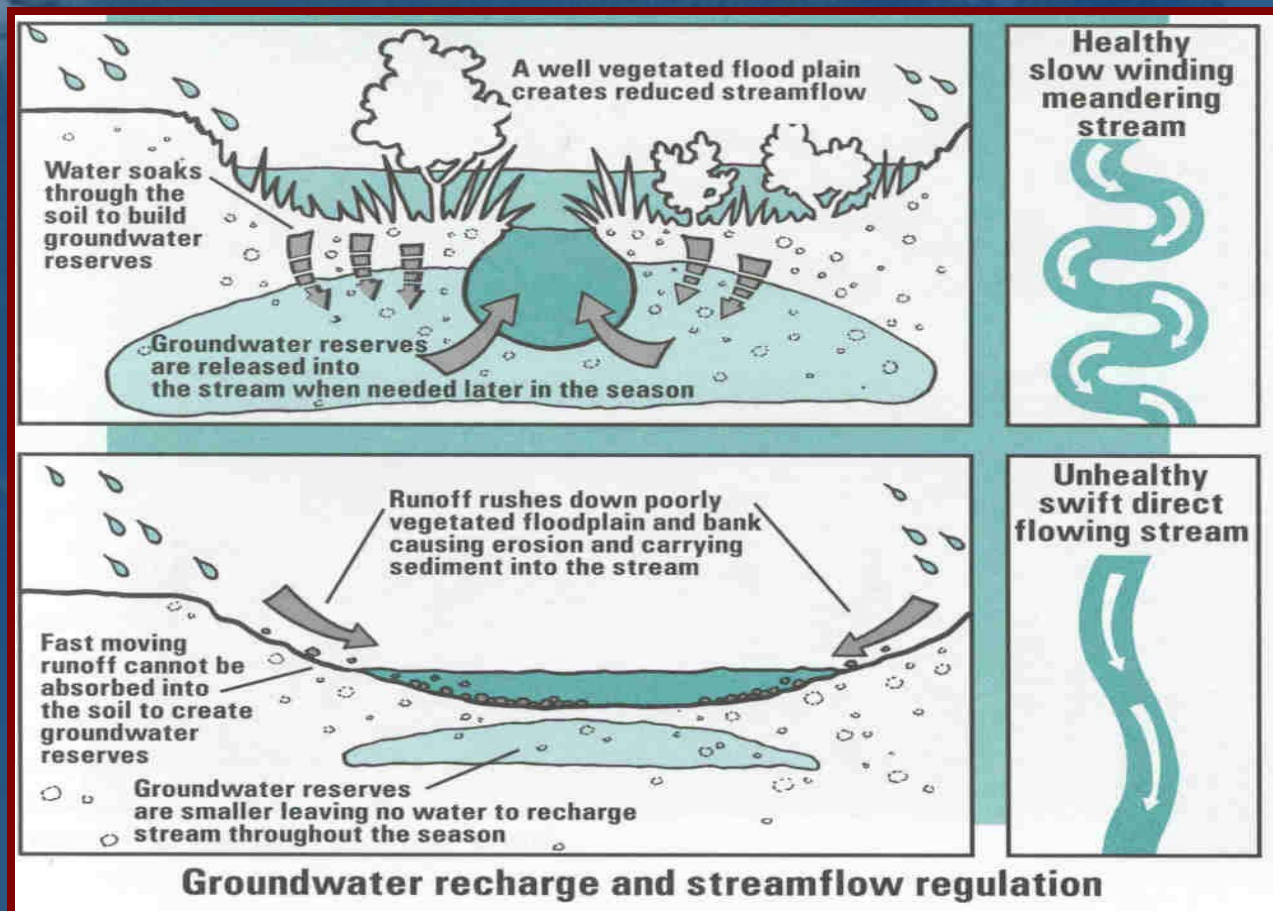


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Riparian Areas



Saskatchewan Watershed Authority



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Riparian Areas

Can Cows and Fish Co-exist?

YES



Saskatchewan Environment



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Riparian Areas

With grazing management strategies such as:

- Altering livestock distribution
 - Animal access to water
 - Control the timing of grazing when riparian areas are vulnerable
 - Add more rest to the grazing cycle
 - Control grazing intensity
 - Riparian pastures
 - Grazing systems
- Corridor or exclusion fencing



Saskatchewan Environment



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Riparian Areas



Riparian Areas

Riparian Management and Fish

- More stable streambanks and stream channels
- Reduction of soil erosion
- Reduction of stream sedimentation
- Improved streambank vegetation cover
- Improved water quality
- Increased fish production



Riparian Areas

Riparian Management and Cattle

- Improved streambank vegetation cover
- Improved water quality
- Increased riparian forage



The background of the slide features a photograph of a river with numerous light-colored rocks in the foreground and middle ground. A small boat is visible in the distance on the right side of the river. The image is partially covered by a large blue rounded rectangle on the right side, which contains the main text.

What does DFO do
when we receive a
complaint?



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Complaint Process

- Site Visit
- Determine if there is a *Fisheries Act* violation
- Meet with the landowner
- Work with the landowner to develop a plan to remediate the situation
- There may be cases where violations are so flagrant that a more immediate approach might be justified



Complaint Process

Example:

- DFO received a complaint
- Complaint was investigated
- A site visit was conducted by a SWA (SWCC) staff member
- A management plan was developed and is being implemented
- Matter was resolved without a charge being laid



Complaint Process

- In British Columbia (Prince George Region) DFO, Provincial Government (various departments), and various other user groups including their stockgrowers associating started a “Peer Advisory Program”
- A proactive approach which helps resolve complaints before they require the regulatory agencies to get involved



Complaint Process

- Complaints are forwarded to a Habitat Steward (funded by each participating group)
- He contacts the Peer Advisor (volunteer)
- They make a joint visit and discuss a remedy
- Remediation is cost shared between the program and landowner



Other Farming/Ranching Impacts

Cattle Crossings



Other Farming/Ranching Impacts

Dams



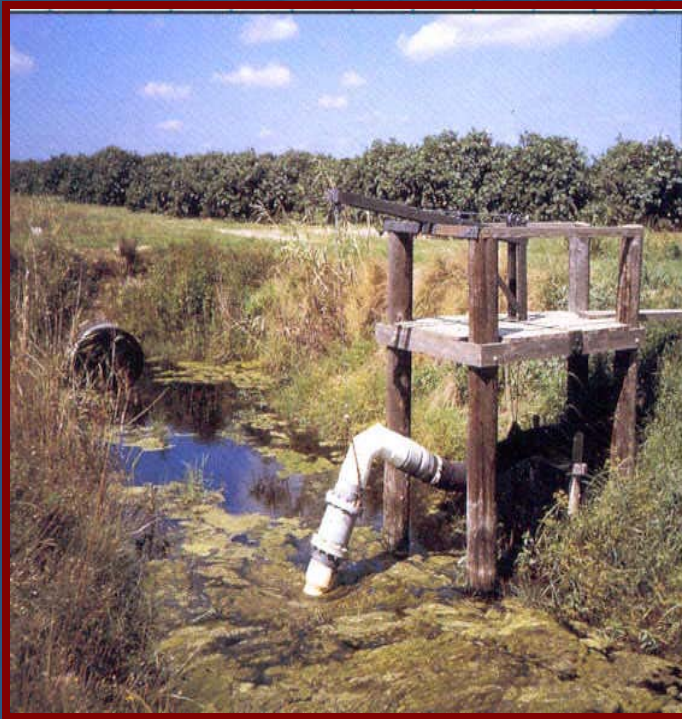
Other Farming/Ranching Impacts

Low Level crossing



Other Farming/Ranching Impacts

Pump Intakes



Other Farming/Ranching Impacts

Drainage and Channelization



What is DFO's Preferred Approach?



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Stewardship

- DFO Habitat Management defines stewards as, *“those who are personally committed to caring for fish habitat, because they believe it is the right thing to do , for present and future generations”*



Stewardship

- Stewardship goes beyond habitat restoration projects. It involves changing the way we think about our place within the environment
- It is a far more efficient and cost effective means of natural resource management



Stewardship

The challenge for DFO is to balance:

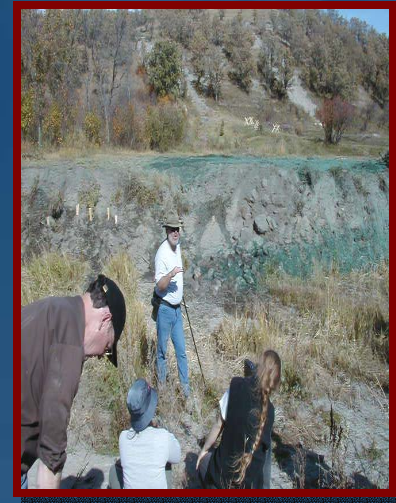
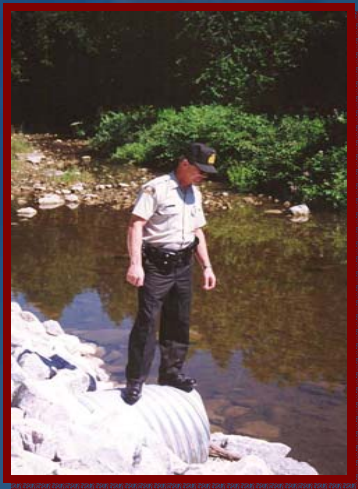
Reactive
Approach

vs

Proactive
Approach

(Regulation)

(Stewardship)



Stewardship

Stewardship Goals:

- *Communication & Education*
- *Partnerships*
- *Research & Monitoring*
- *Resources & Support*
- *Encouragement and Recognition*
- *Evaluation & Reporting*



Stewardship

Examples:

- Partner in Saskatchewan Network of Watershed Stewards (SNOWS)
- Working together with SWA (SWCC)
- Pursue initiatives such as the peer review and cows and fish programs
- Provide funding support for groups such as SCCWS



Stewardship

- Provide funding support for PCAP's education and stewardship programs
- DFO Prairies Area has hired a Stewardship Coordinator to integrate an Area Strategy with the National Stewardship Agenda



Assistance Programs

- RURAL WATER DEVELOPMENT PROGRAM (PFRA)
- Projects such as dugouts, wells, pipelines, livestock watering systems, and tank-loading facilities may qualify for financial contributions of up to one-third (1/3) of eligible costs. Pumps and permanent power supplies are eligible costs, subject to a \$5,000 deductible



Assistance Programs

- PRAIRIE STEWARDSHIP PROGRAM (SWA)
- Landowners may qualify to receive assistance for demonstration projects that use management practices to improve or maintain the condition of their land
- Landowners participating in demonstrations projects sign a written 10-year agreement



Assistance Programs

- GREEN COVER CANADA (PFRA)
- One of the objectives is to enhance the health and function of riparian ecosystems to reduce agricultural impacts on water quality, water quantity, and stream stability



Assistance Programs

Provide funding assistance for such things as:

- Livestock Facilities
- Riparian Management
- Erosion and Runoff Control Structures
- Range, Pasture, and Forage Management



Summary

- DFO has strengthened its fish habitat program in Saskatchewan;
- DFO hopes to involve resource users to maintain and improve fish habitat



Summary

- DFO has a responsibility to respond to complaints
- Stewardship, education, and cooperation will always be our preferred choice of action
- DFO recognizes that stewardship makes a significant contribution to resource protection



Summary

- Stewardship is a far more effective means of protecting habitat as opposed to after-the-loss compensation and restoration actions
- Stewardship encourages ownership, and in turn, participation in decision-making processes best made at the local level **reducing the need for a reactive regulatory approach by government.**



Summary

- Prairies Area is in a unique position to 'get it right the first time' and deliver a successful team-built program that is case studied by other DFO Regions.



Questions?



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