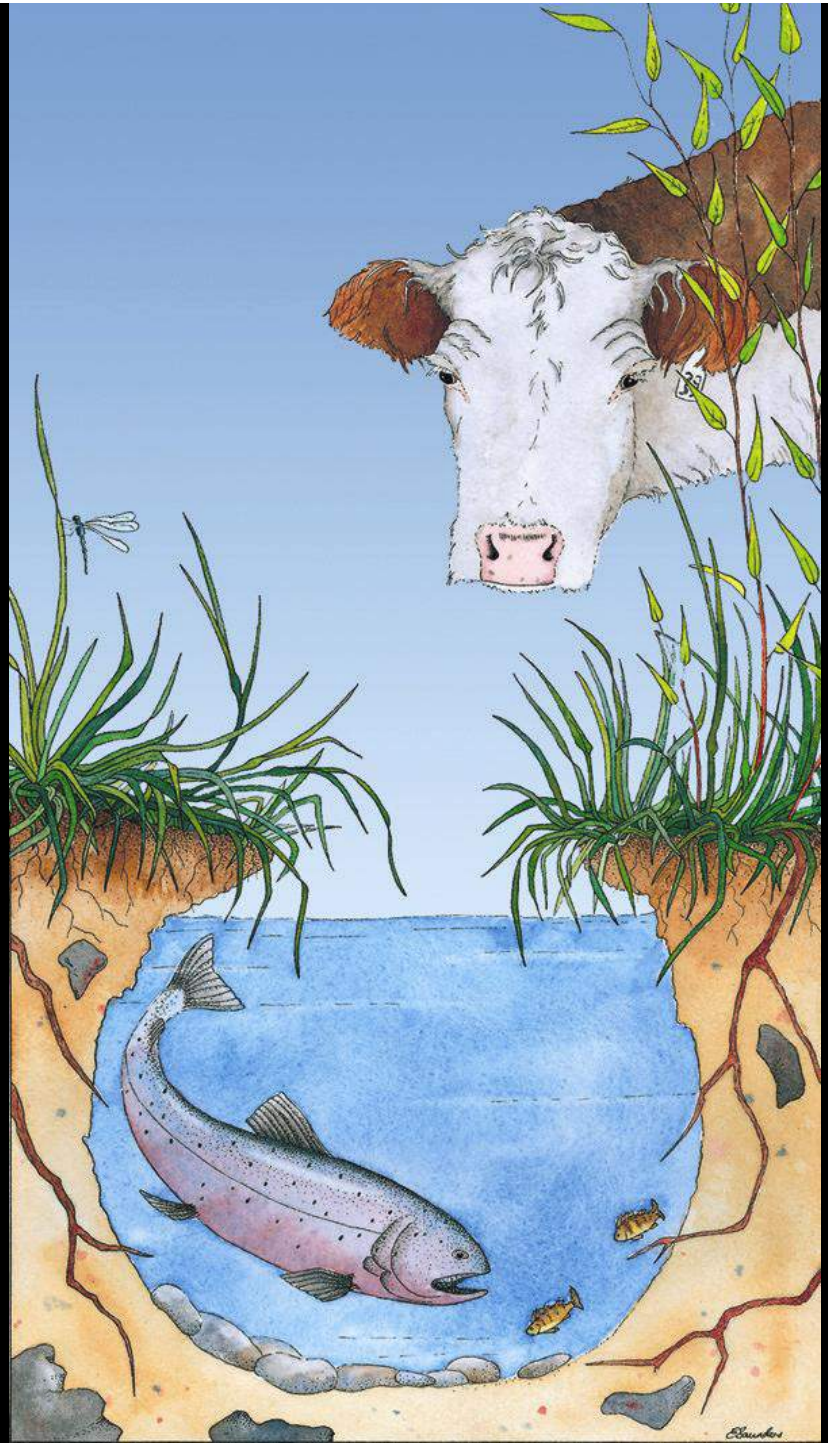
Cows and Fish

*How Do you have Impact?*
*Collaborating with Landowners and Communities*
*on Healthy Riparian Areas*

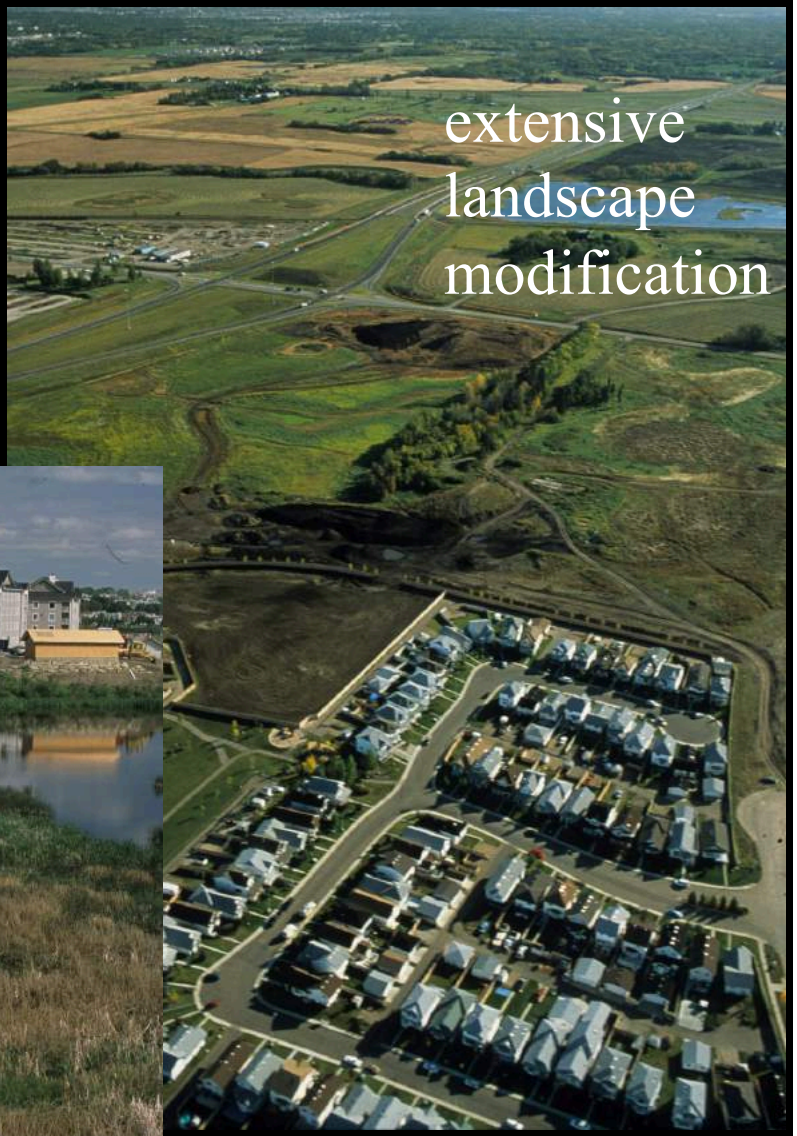
# Lessons Learned from 25+ years of Proactive Riparian Stewardship

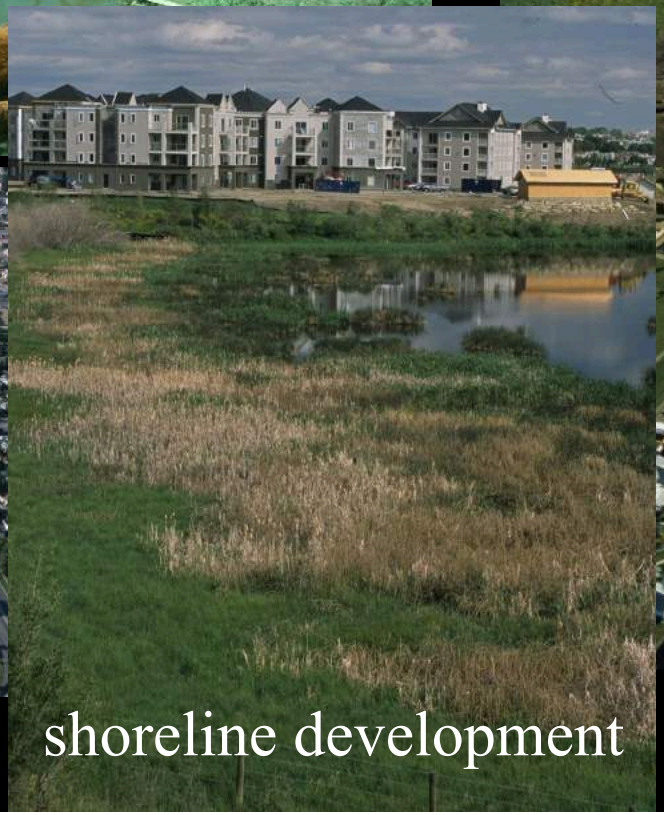
Norine Ambrose, Cows and Fish

*Presented to the 3rd Annual Transboundary Grassland Workshop*



# There are lots of issues in Alberta's watersheds:





# What is natural resource management really about?

- Not wildlife or fish or plants or water
  - Not habitat

    -> People

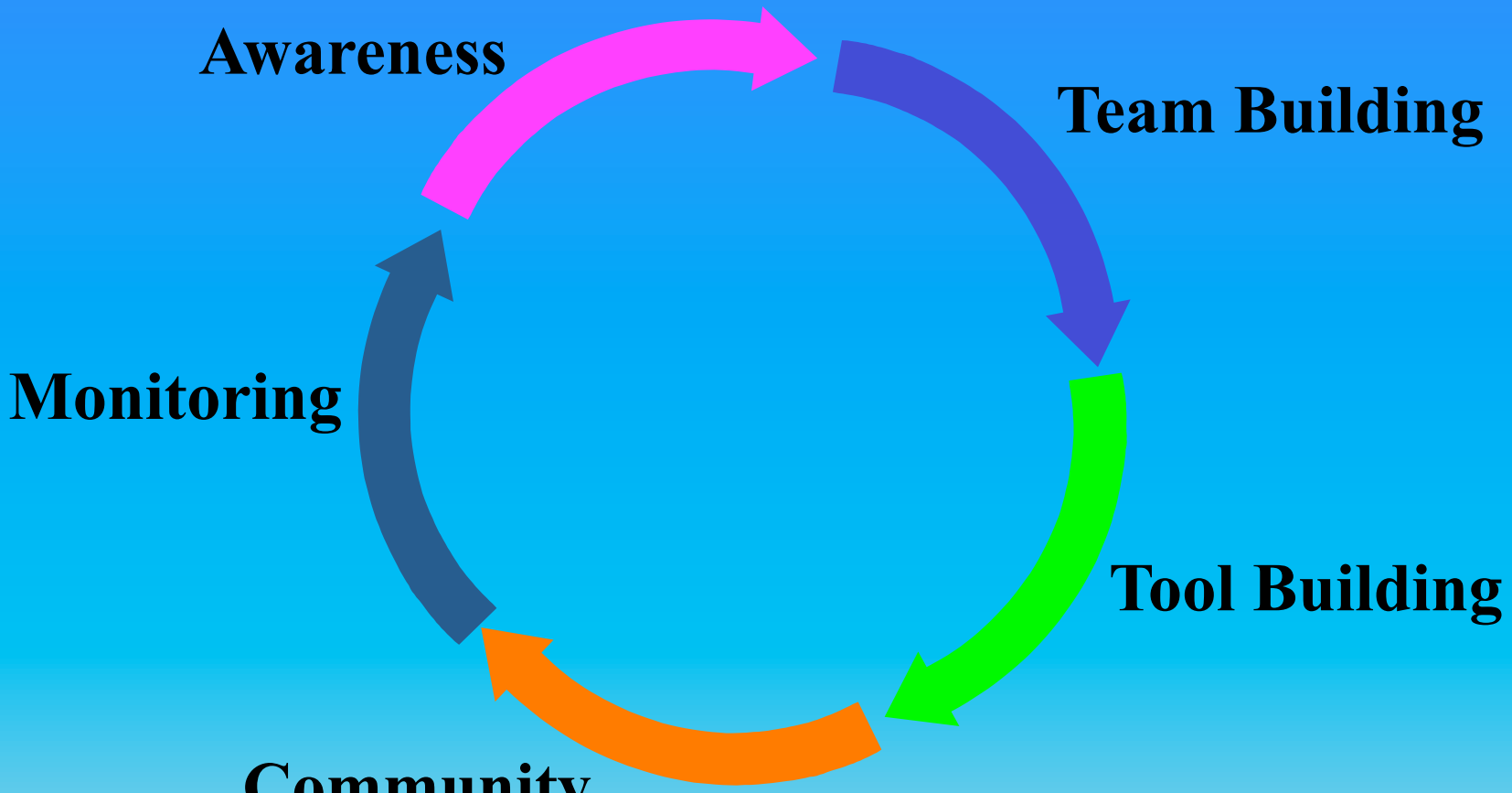
# Elements of Stewardship

**Awareness:** Achieving a level of understanding or knowledge, which provides the foundation for the next two elements.

**Ethic:** Development of an ethic – an encoded set of responsibilities and obligations to care for the land, water and air as part of our conscience.

**Action:** Exhibiting appropriate choice, which embodies balance, restraint and a sense of legacy (ecological literacy) leading to action.

# *Cows and Fish Process*



# Results from Cows and Fish evaluation…

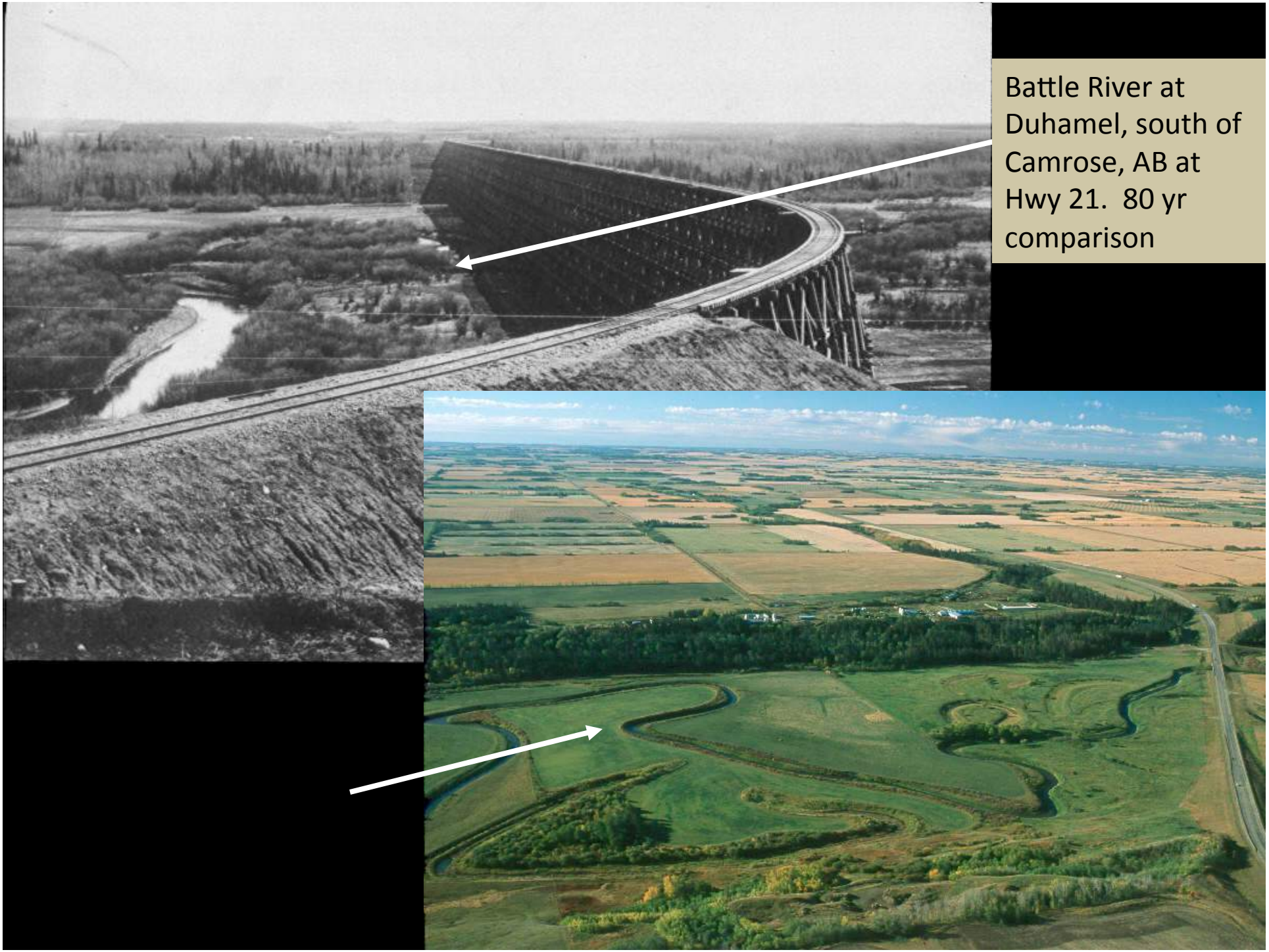
The Praxis Group and NRG Research Group. 2017. *Cows and Fish Evaluation 2017*. Prepared for Alberta Riparian Habitat Management Society (Cows and Fish). Cows and Fish Report Series 047. Lethbridge, Alberta. 113pp.

# *Cows and Fish Process*

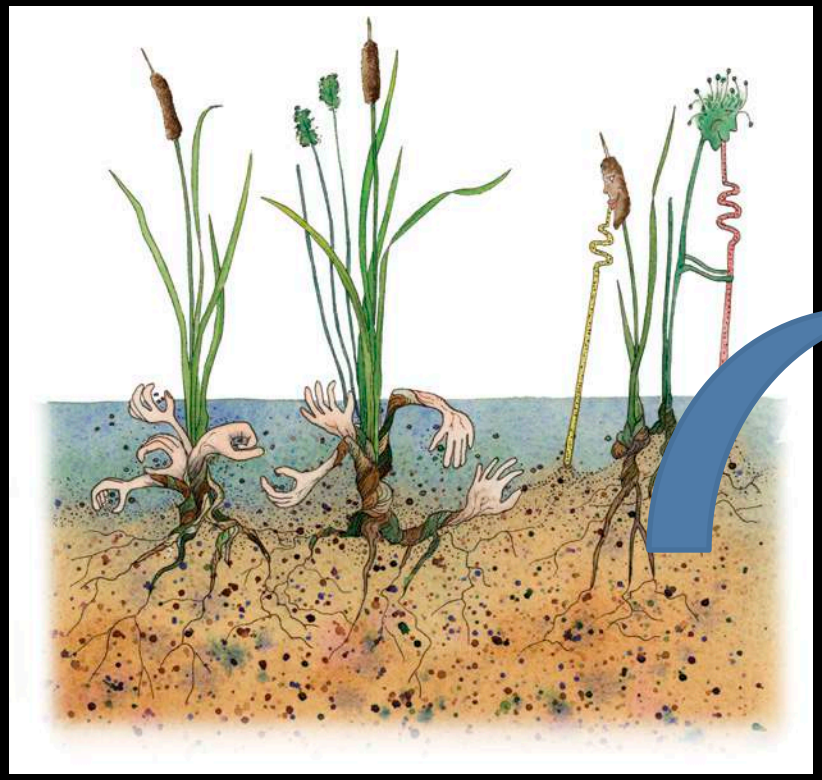
**Awareness**

- The first step – often missed.
- Fundamental to building a foundation of understanding and knowledge.
- Critical to engage with people.

Riparian Area



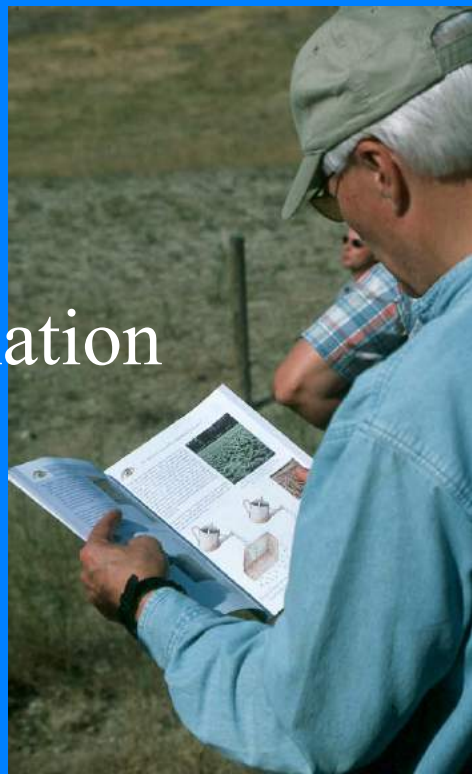
Battle River at Duhamel, south of Camrose, AB at Hwy 21. 80 yr comparison



**Awareness**

# Outcomes

- Understand basic ecology and management principles
- Develop a common language
- Build on knowledge
- Become receptive to additional information



| Have you **learned new information or increased your knowledge** as a result of interacting with Cows and Fish? | % of Respondents |
|---|---|
| Increased knowledge/awareness of the benefits of riparian health | 86% |
| Plant ID/Soil analysis/Importance of plant species | 18% |
| Importance of beaver management/Beaver behaviour | 8% |
| Importance of weed control/ ID of invasive species | 6% |
| Overall  a better understanding riparian areas | 4% |
| Keeping shoreline natural/identified environmental concerns | 4% |
| How pasture management can positively affect riparian health | 3% |
| Other | 3% |

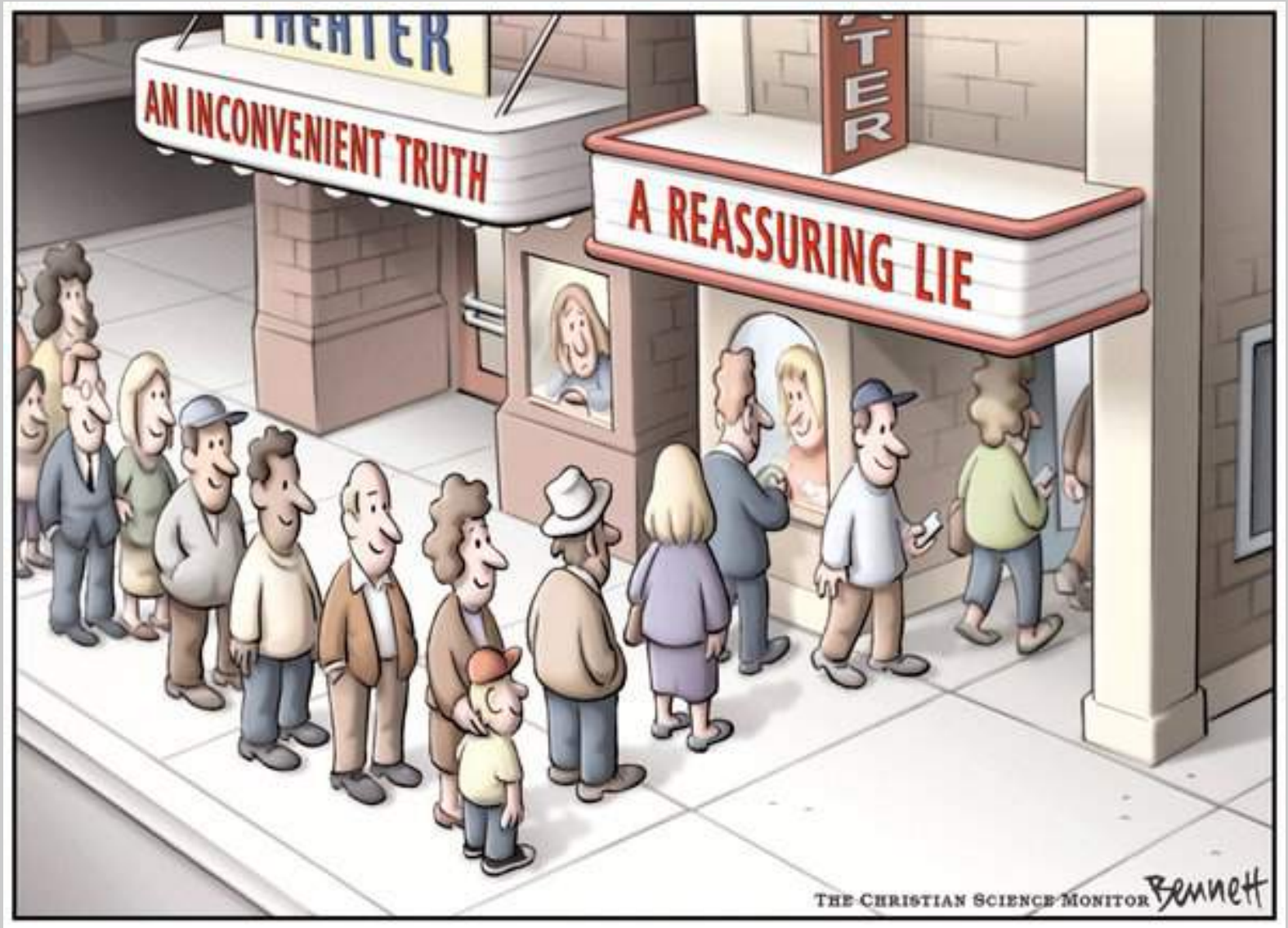
Areas of Increased Knowledge (160 respondents, 210 comments)

# Values and Worldviews

- Ideas get stronger each time they are activated
- Neural circuits create a frame, forming our worldview
- This is unconscious and chemical in nature
- Facts that don't fit your worldview can't be processed

-> this means resolution of conflict or ideas may not be about facts

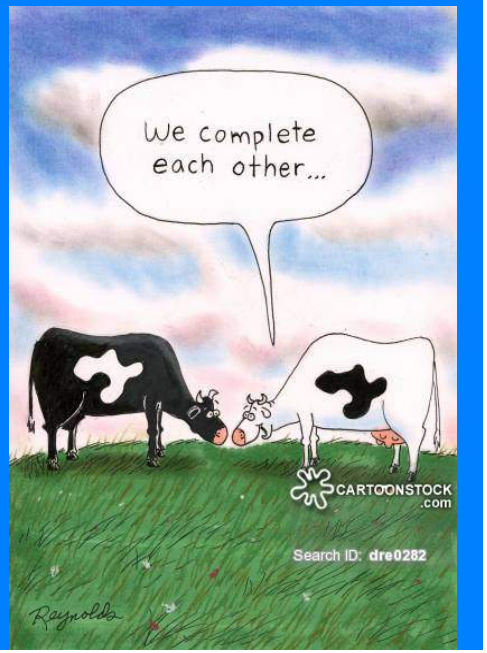
More on these concepts in our *Delivering Unpopular Messages* and *Talking with People* workshops


AN INCONVENIENT TRUTH
A REASSURING LIE
THE CHRISTIAN SCIENCE MONITOR
Bennett

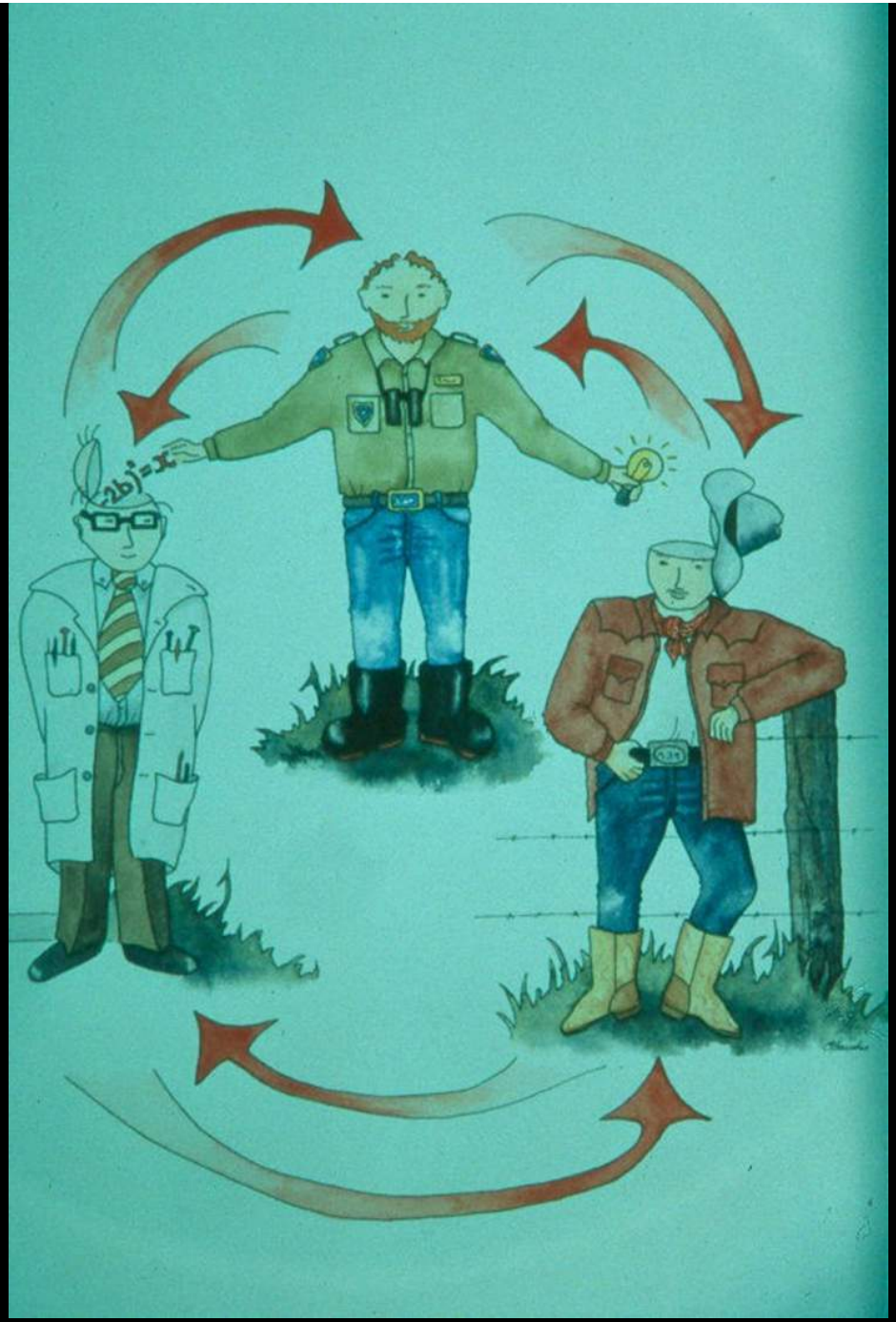
**Team Building**

# Outcomes

- Build a community
- Work as a group
- Make more effective use of resources
- Increase geographic scope of action – to a watershed scale, including uplands



Scientific Knowledge

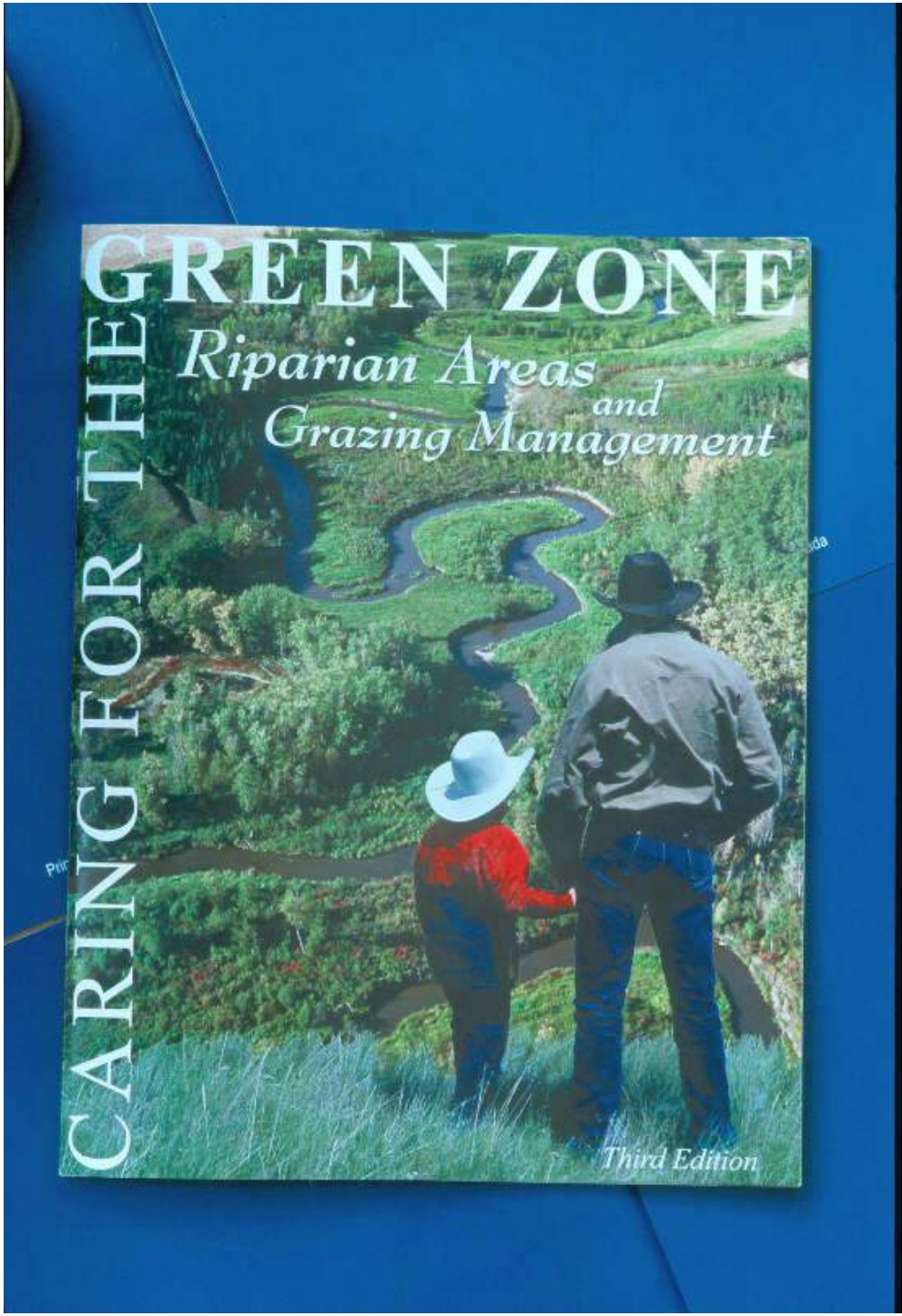


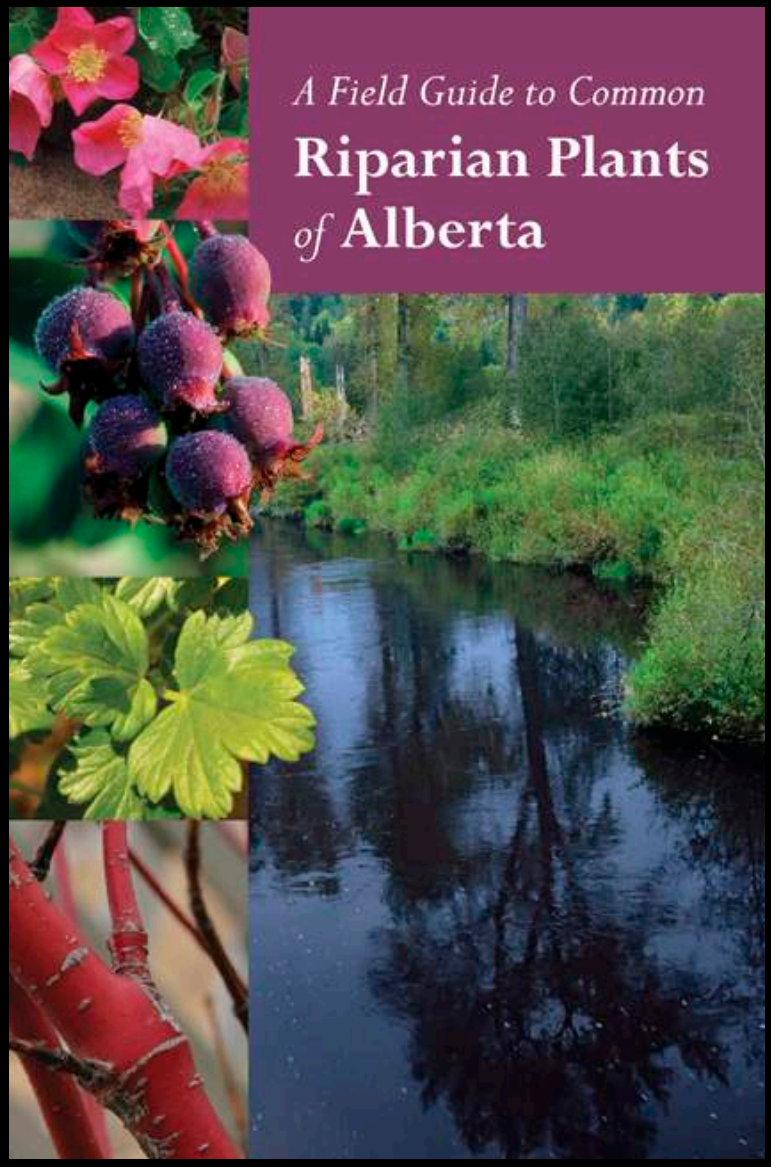
Wisdom and Practical Experience

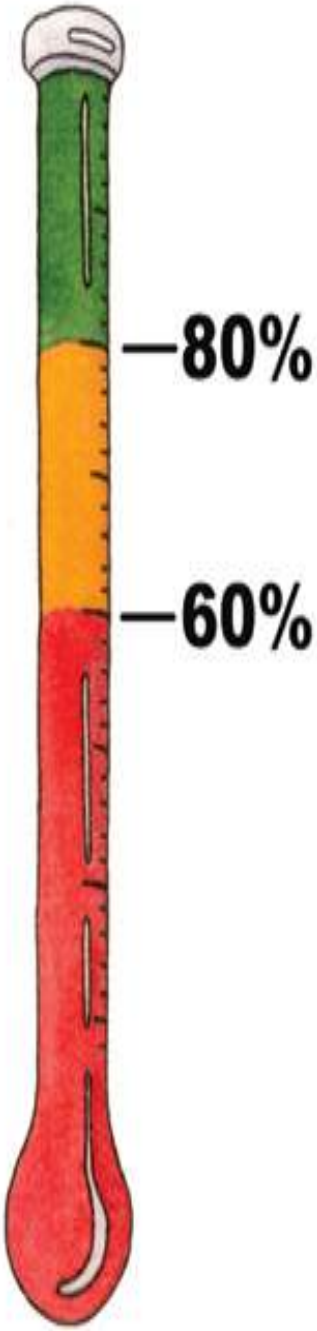
# *Cows and Fish Process*

**Tool Building**

- Awareness is a process of gaining understanding of how things work.
- Literacy is making things work, with an acquired knowledge of options, alternatives and opportunities.
- What "**tools**" do landowners need to be able to make decisions about management changes?


CARING FOR THE
GREEN ZONE
Riparian Areas
and
Grazing Management
Third Edition


A Field Guide to Common
Riparian Plants
of Alberta




***Healthy* (80-100%)** Little or no impairment to riparian functions.

***Healthy but with problems* (60-79%)** Some impairment to riparian functions due to human or natural causes

***Unhealthy* (<60%)** Impairment to many riparian functions due to human or natural causes.

# Vegetative Health

## Overall Plant Cover - *healthy*

- Overall Vegetation Cover is high, a diversity and abundance of plants are present.

# Vegetative Health

## Invasive Plants -

*unhealthy*

Weed management is a common point of discussion for many landowners

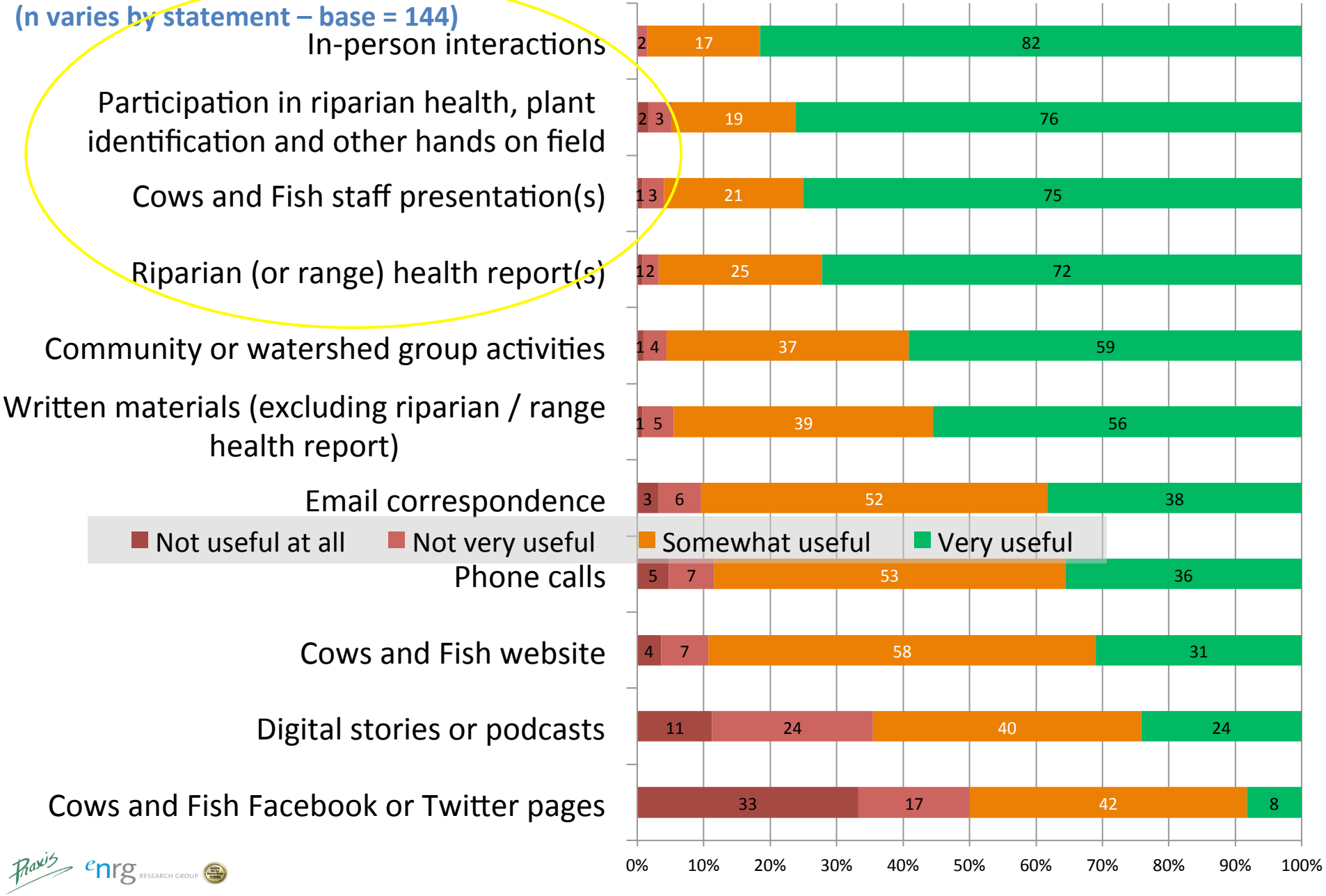
Cows and Fish

# Beavers in Our Landscape: Understanding and living with beavers

*Women's Grazing Schools* They: learn; implement, and tell their friends and neighbours

# Usefulness in making a decision to make practice changes

(n varies by statement – base = 144)



Community
Based Action

# Elements

- **Community members take the lead and drive the process—including identifying priorities**
- **They inform and educate themselves**

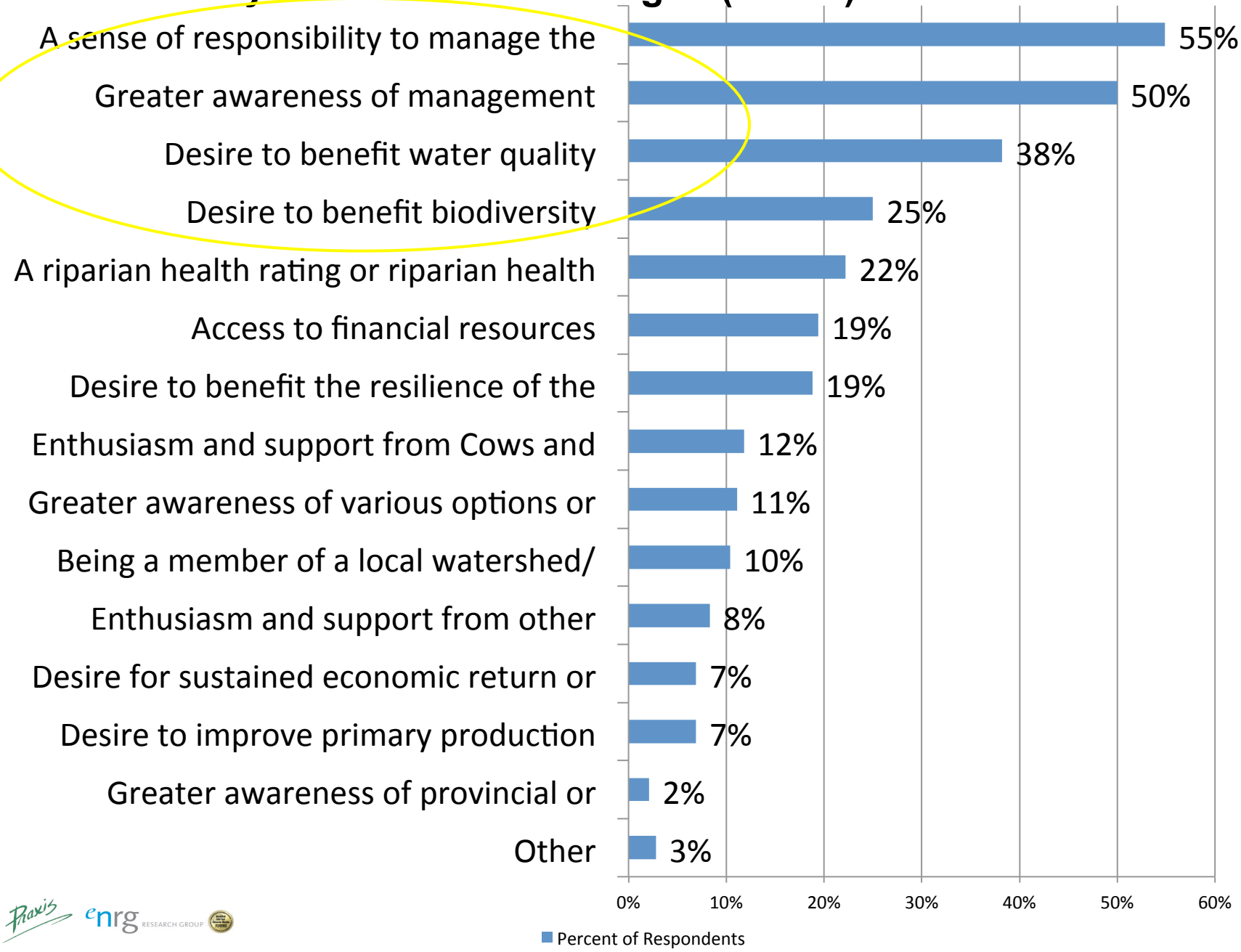
Cows and Fish

# Red Deer County
# 2 Neighbours Riparian Health Project 2015-2016

# Red Deer Co. 2 Neighbours – Top Management Strategies

1. Off-Site/Solar Water Development (17)
2. Exclusion Fencing (13)
3. Riparian Pasture (5)
4. Rotational/Time Controlled Grazing (4)
5. Planting Native Trees/Shrubs (4)

# What motivated you to make the change? (n=144)

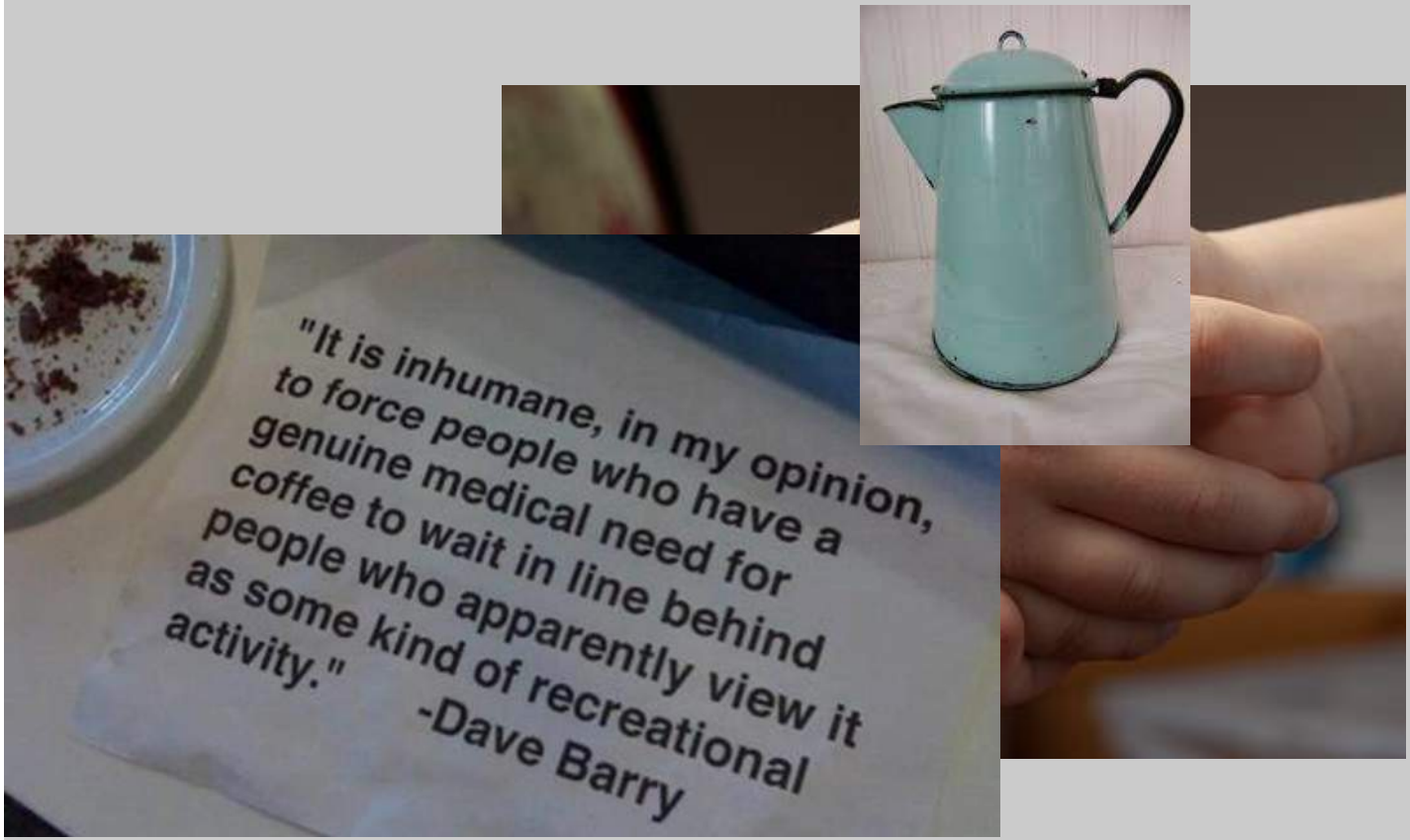


Community
Based Action

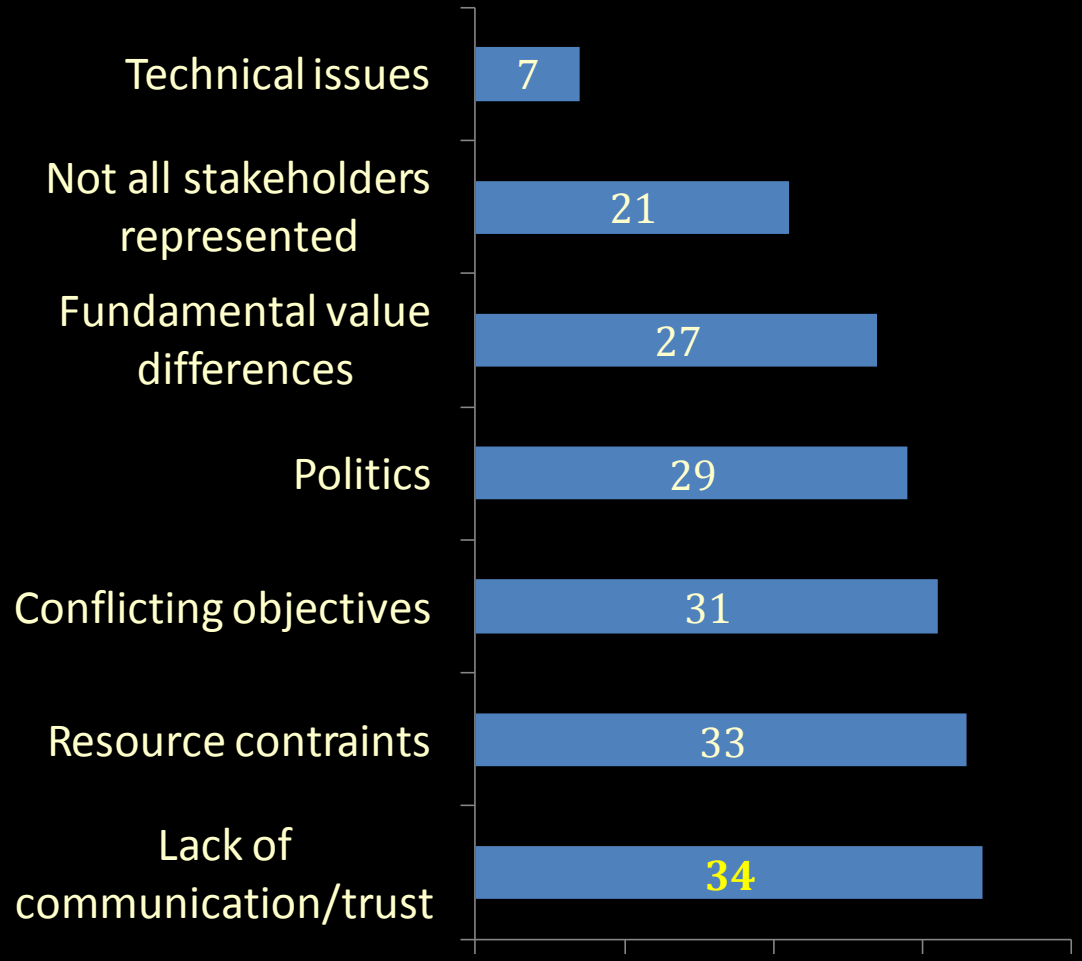
# Outcomes

- Community and individual ownership
- Voluntary actions
- Watershed approach
- Commitment to follow through leads to:
  - Longevity!

# Relationship building



# Extremely serious barriers to cooperative riparian-restoration and management




*Based on ranking 22 potential barriers to cooperative restoration, Western United States (1995-2000)*

Adapted from Van Riper, L. 2003. Can agency-led initiatives conform to collaborative principles? Evaluating and reshaping an interagency program through participatory research. Ph.D dissertation, University of Montana, Missoula, MT. 321 p. *from within* USDA. People Power: the Social Side of Watershed Restoration. Spring 2006. Wildland Waters.

Monitoring

# Measuring sticks of progress:

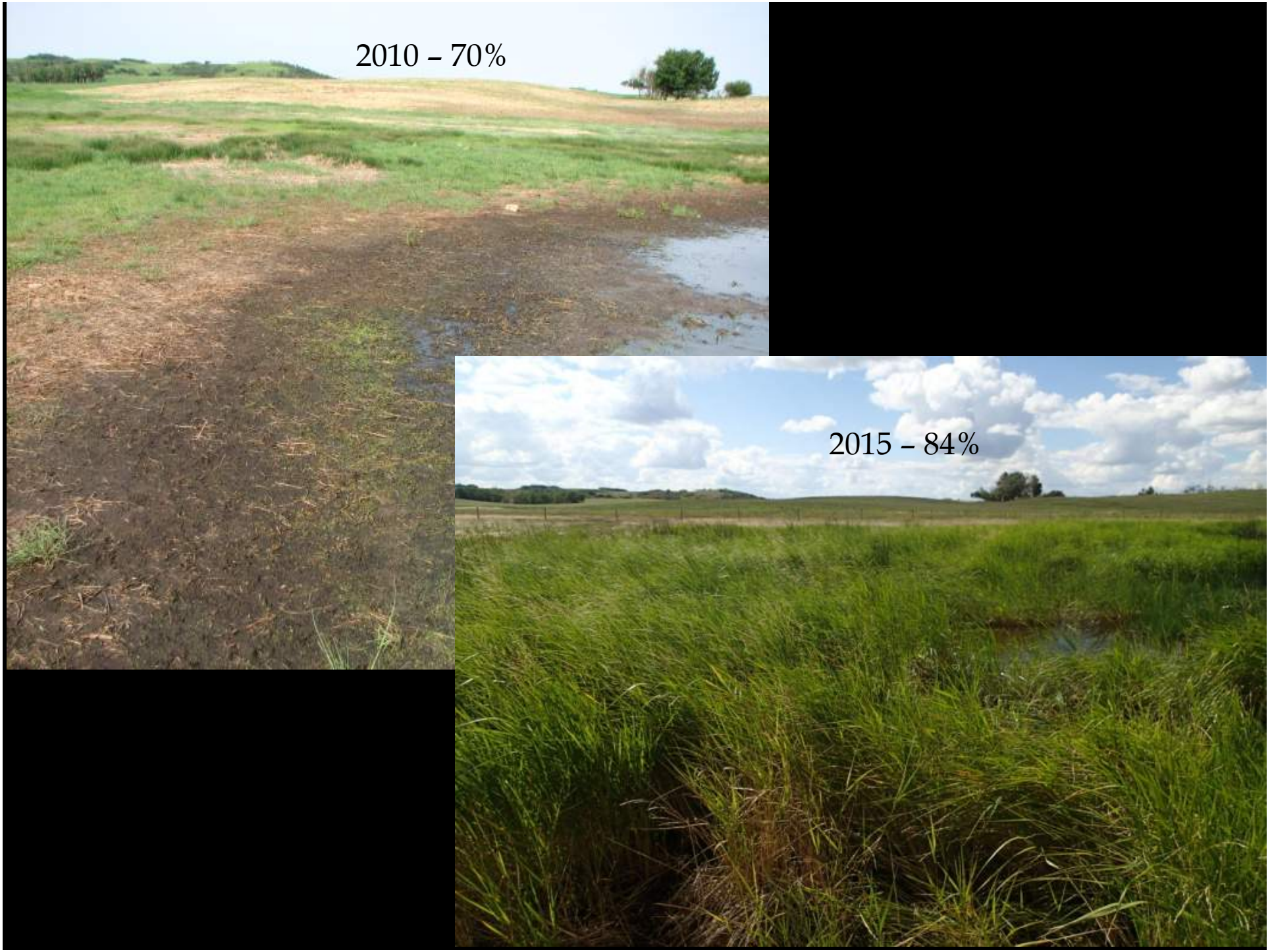
- Environmental
- Social

Where are we?

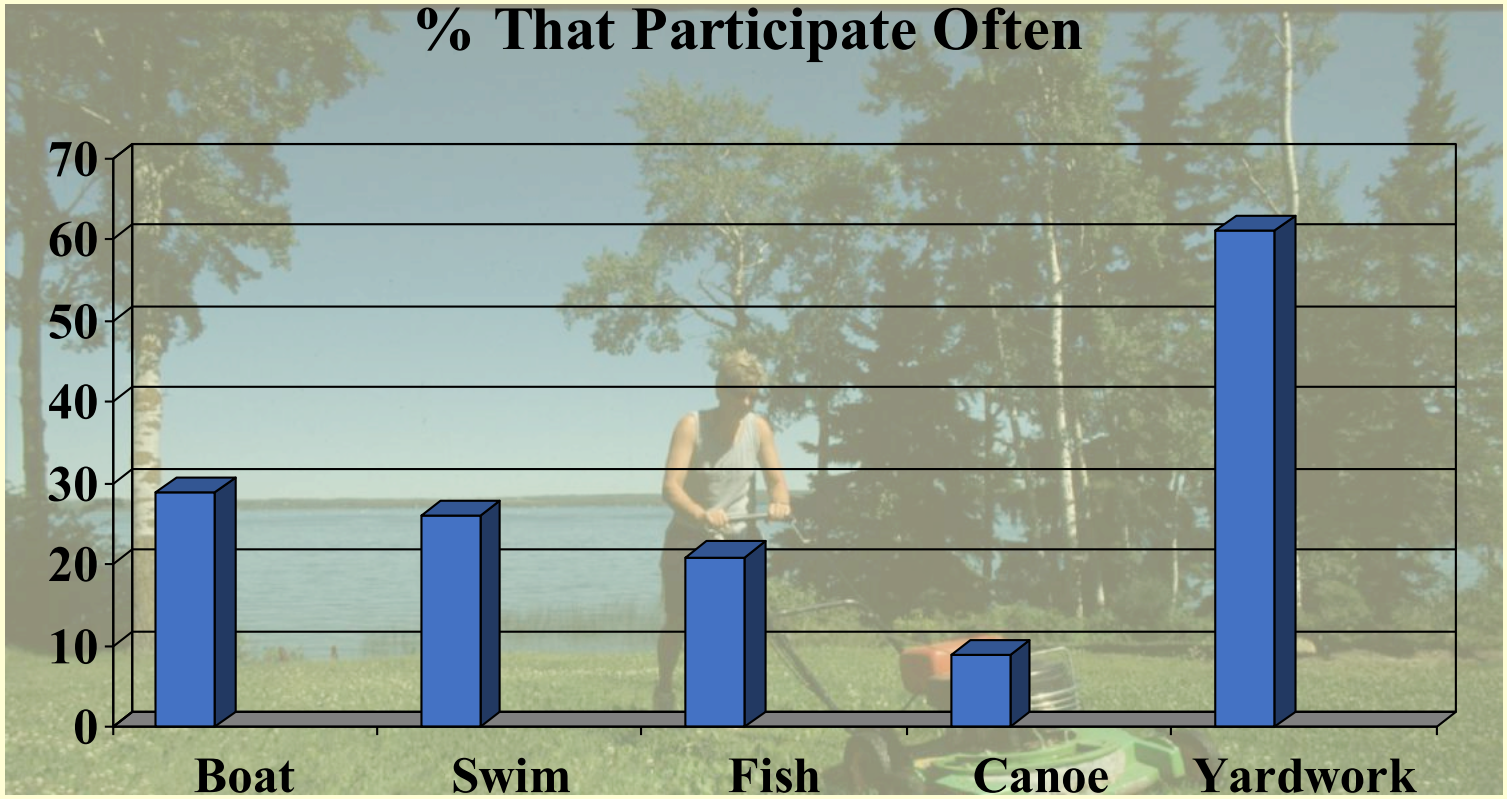
Where do we want to be?

How will we get there?

Did we make it?

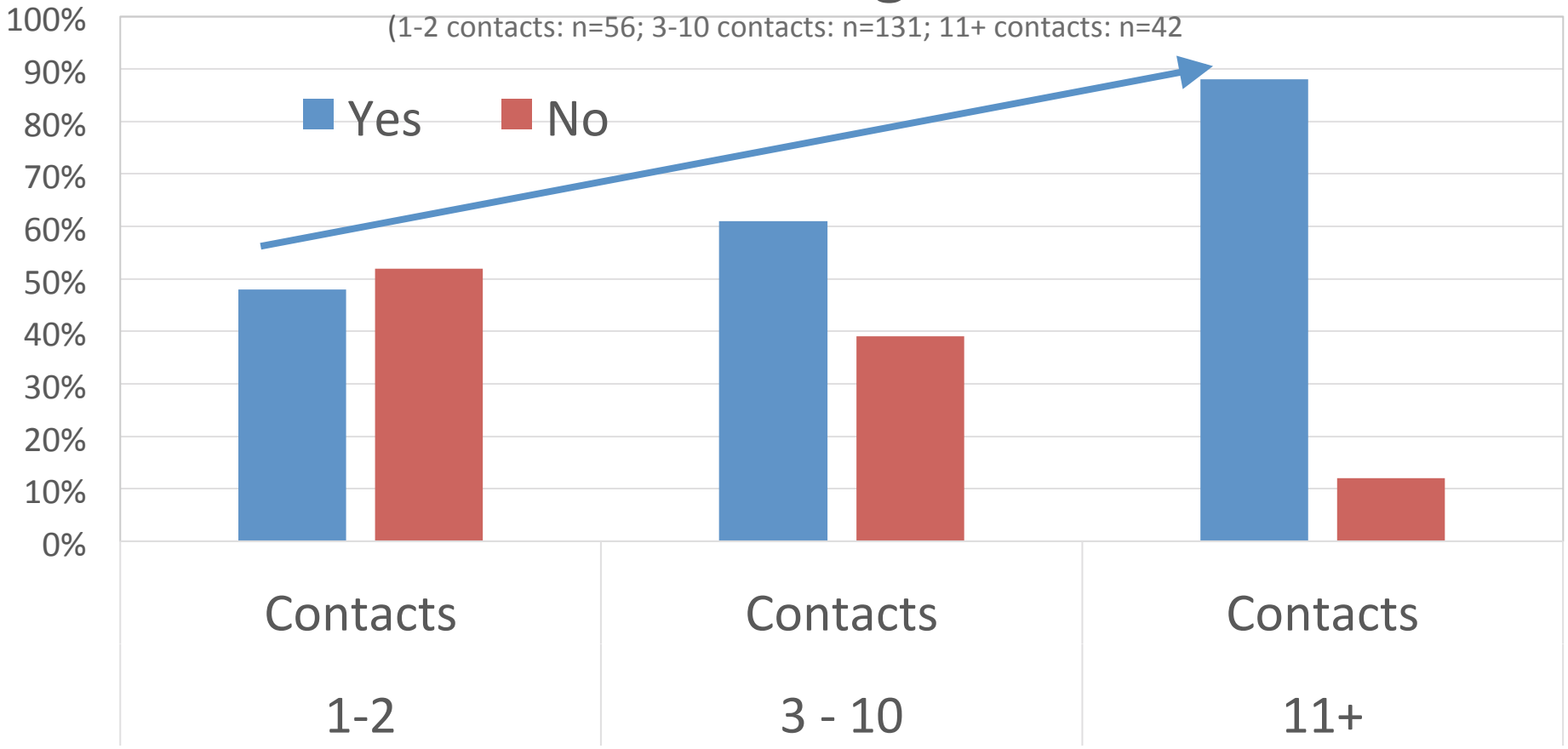

2010 – 70%
2015 – 84%

# How Often Do You Participate?




Equus research: Lakefront resident survey (5 lakes in St. Paul area)

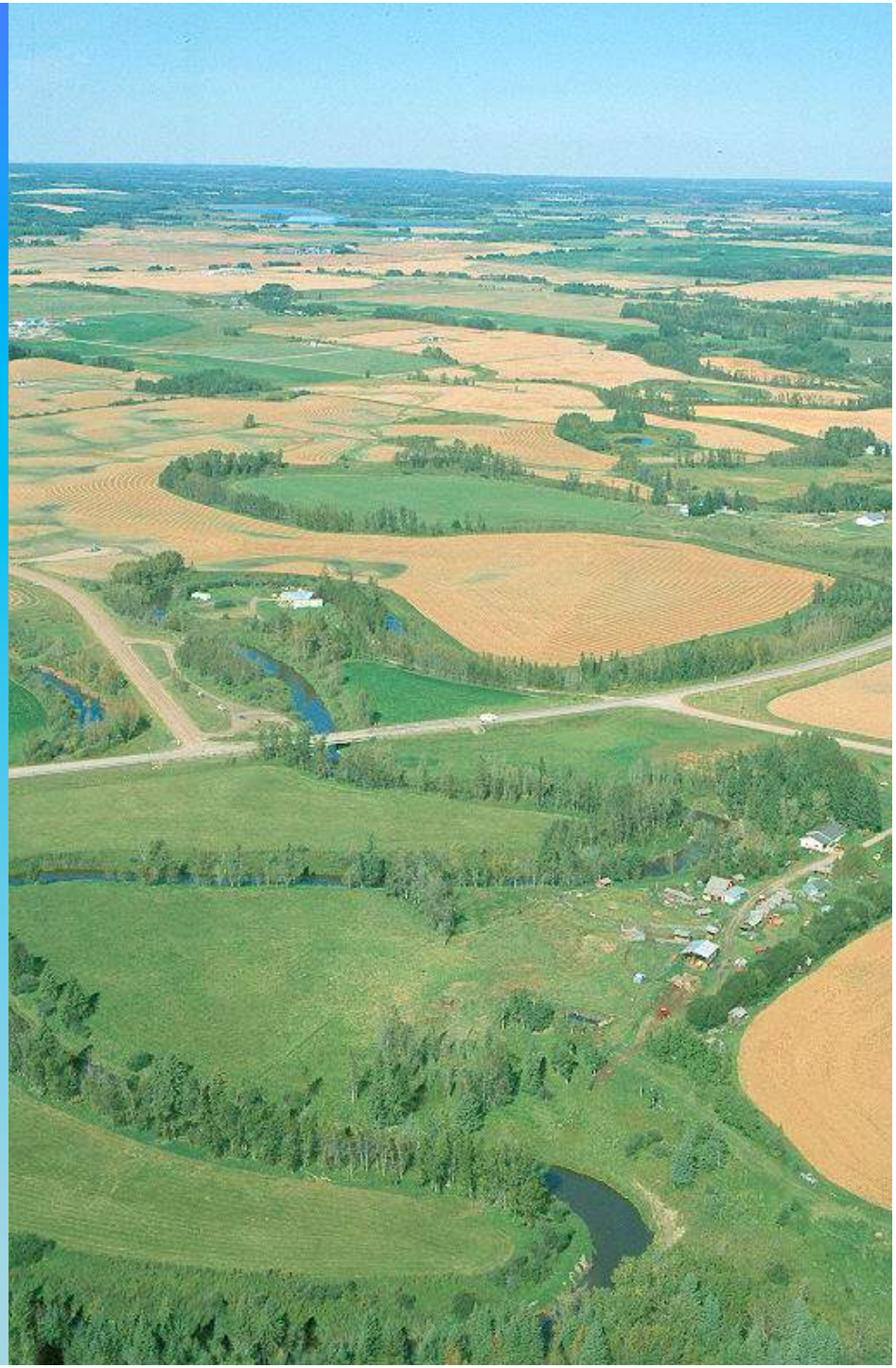
# Learned new info or increased your knowledge



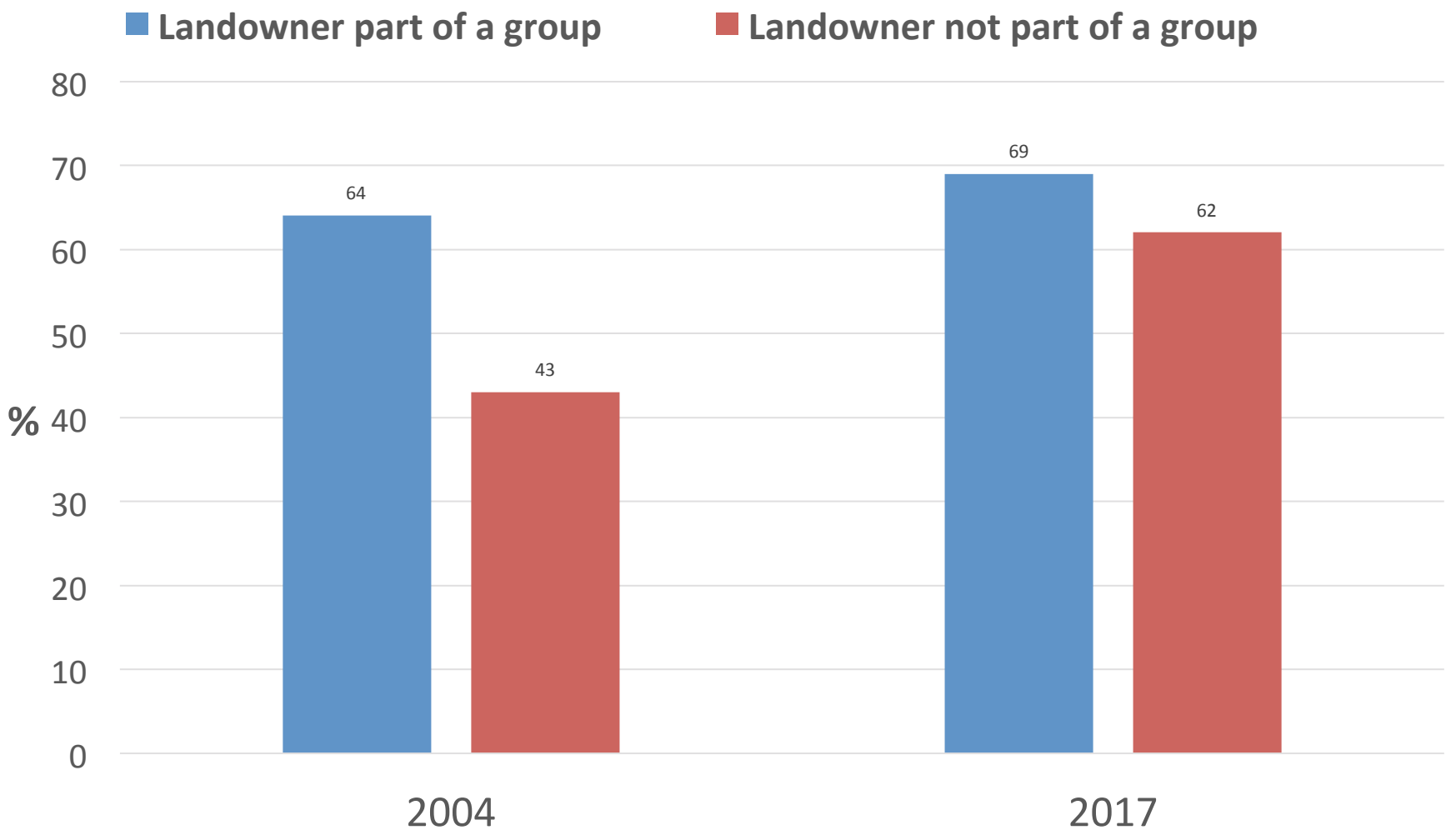
POST-MORTEM
RECEIVING

## Key Principles

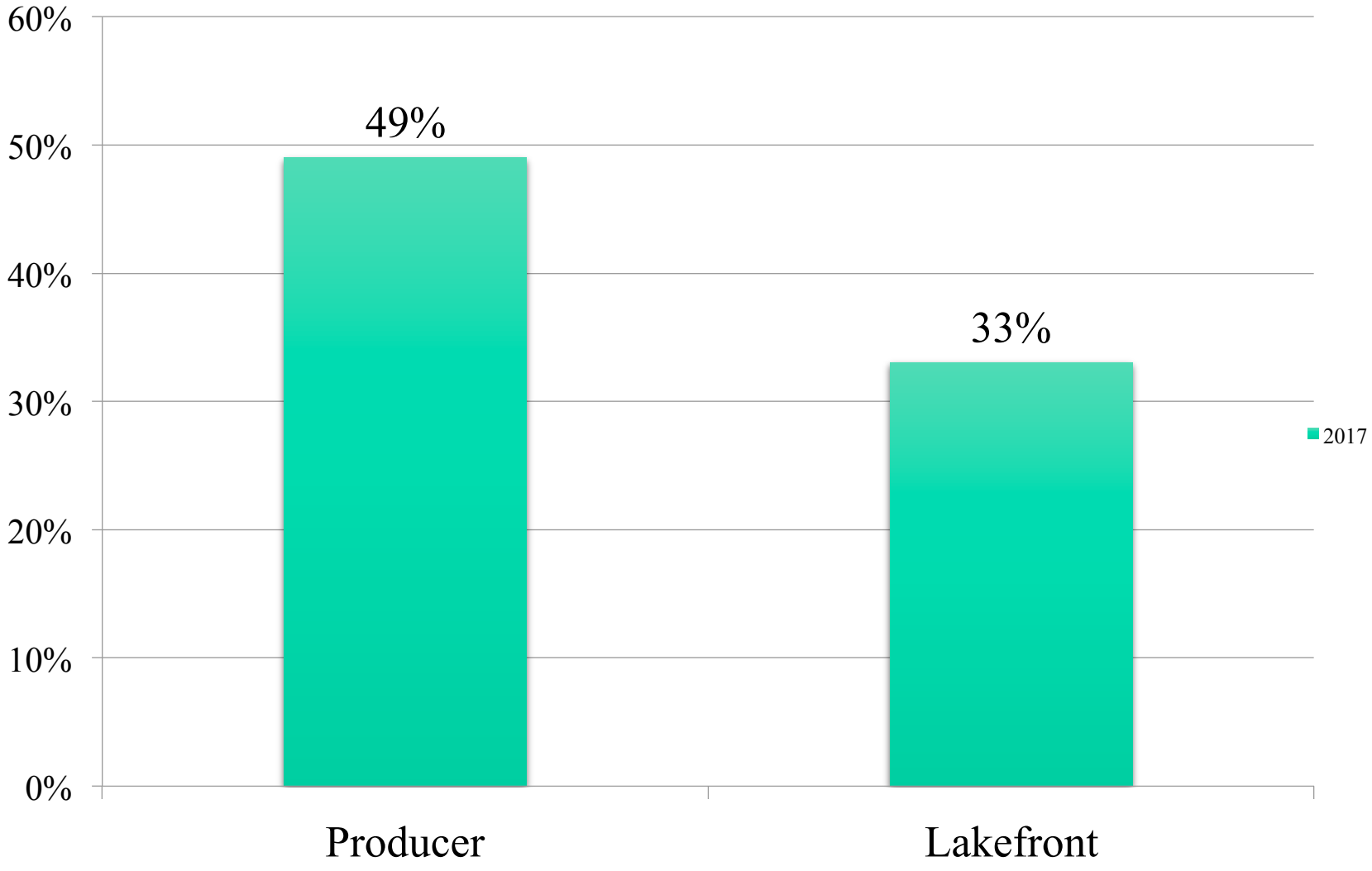
The appropriate scale to work at is the community, watershed level.



# Made a practice change

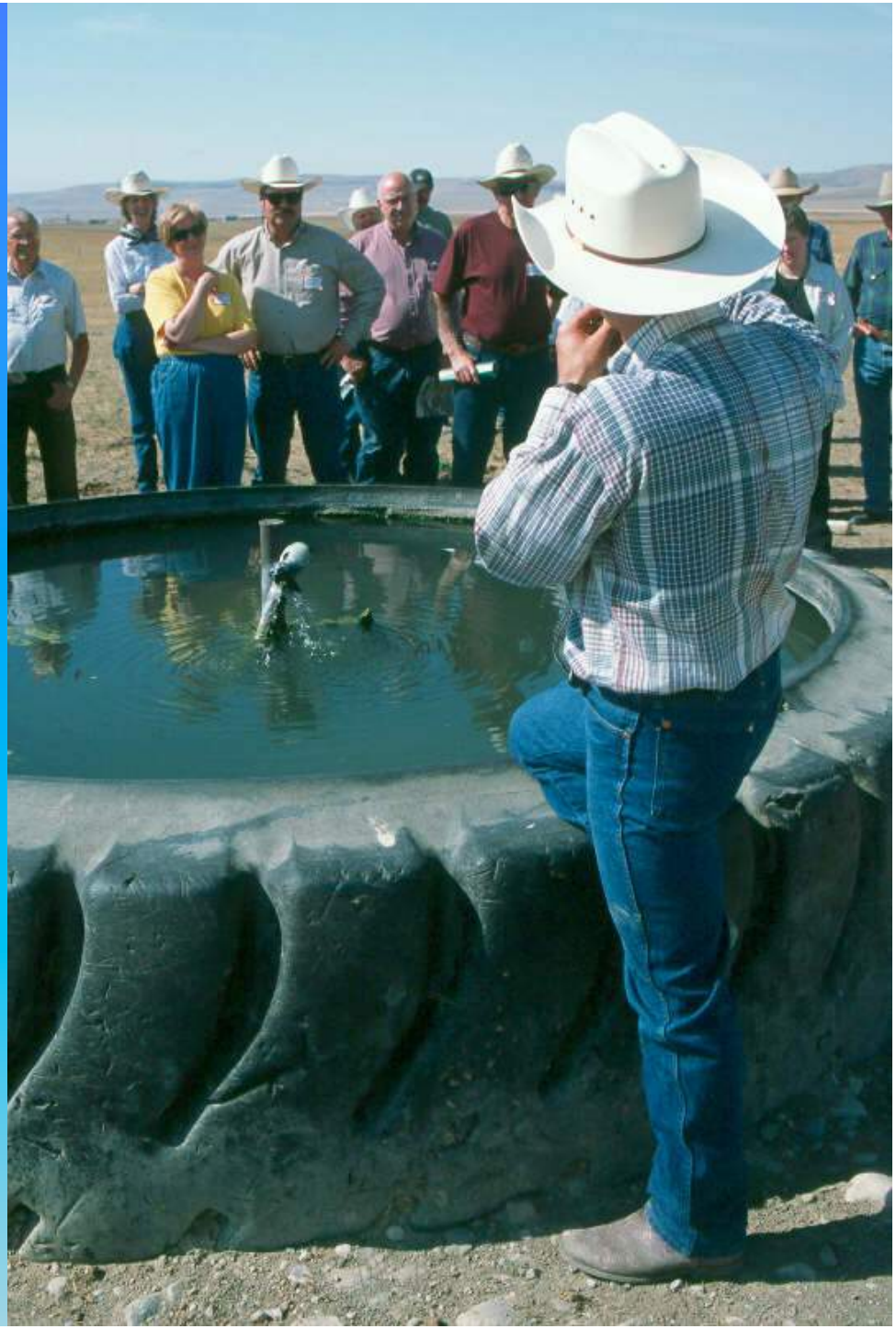


# Implemented Changes Sooner as a Result of Cows and Fish (Producer; n=129, Lakefront; n=12)



## Key Principles

Management changes are practical, economical, restorative and sustainable.



# Principles vs Practices

Do this… vs Think about this…

*What do you want them to achieve?*

*Riparian Grazing Principles*

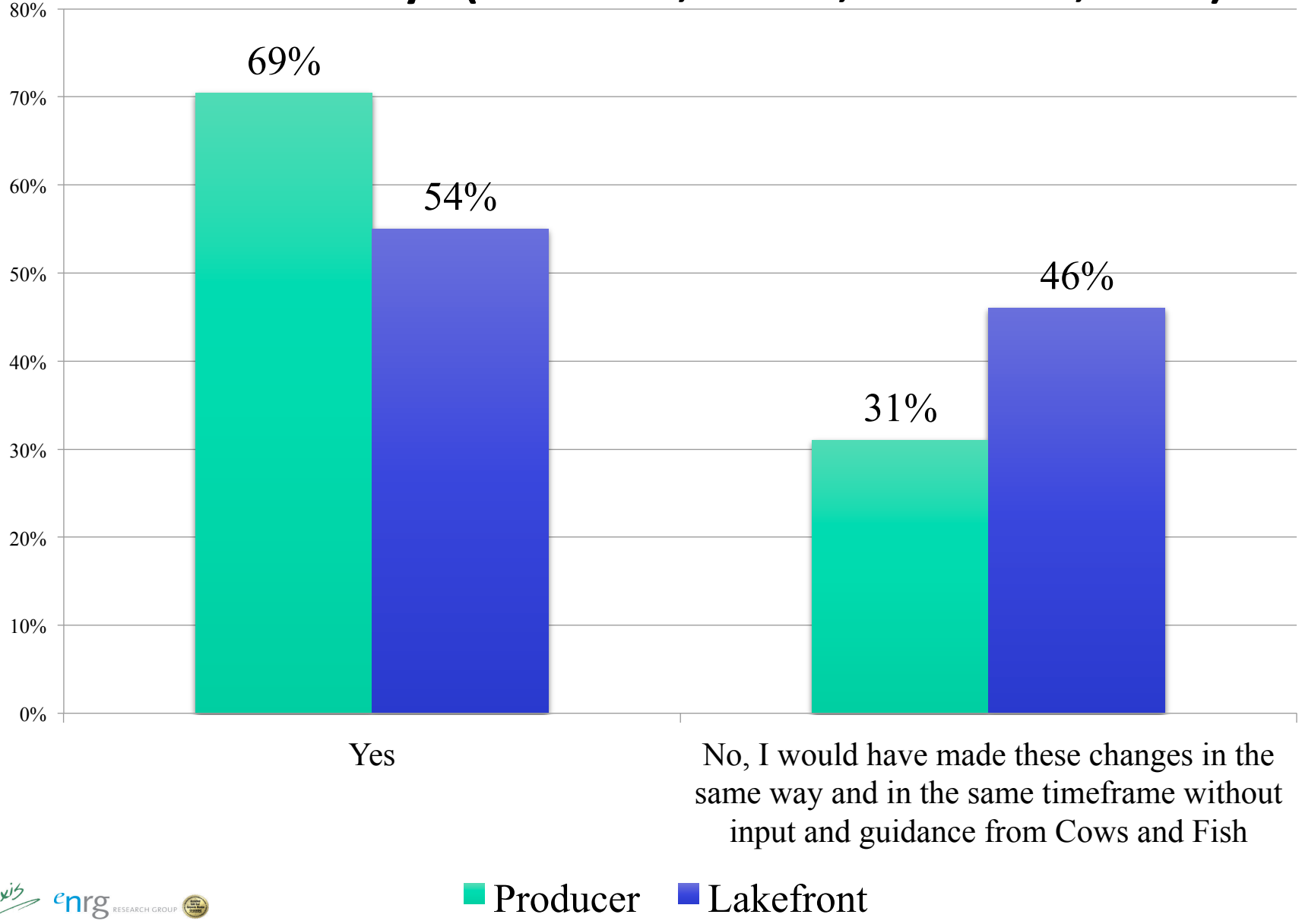
1. Balance animal demand with the available forage supply
2. Provide effective rest after grazing
3. Avoid or minimize grazing the range during fragile or vulnerable periods
4. Distribute livestock evenly

# Critical thinking training

*Riparian Functions*

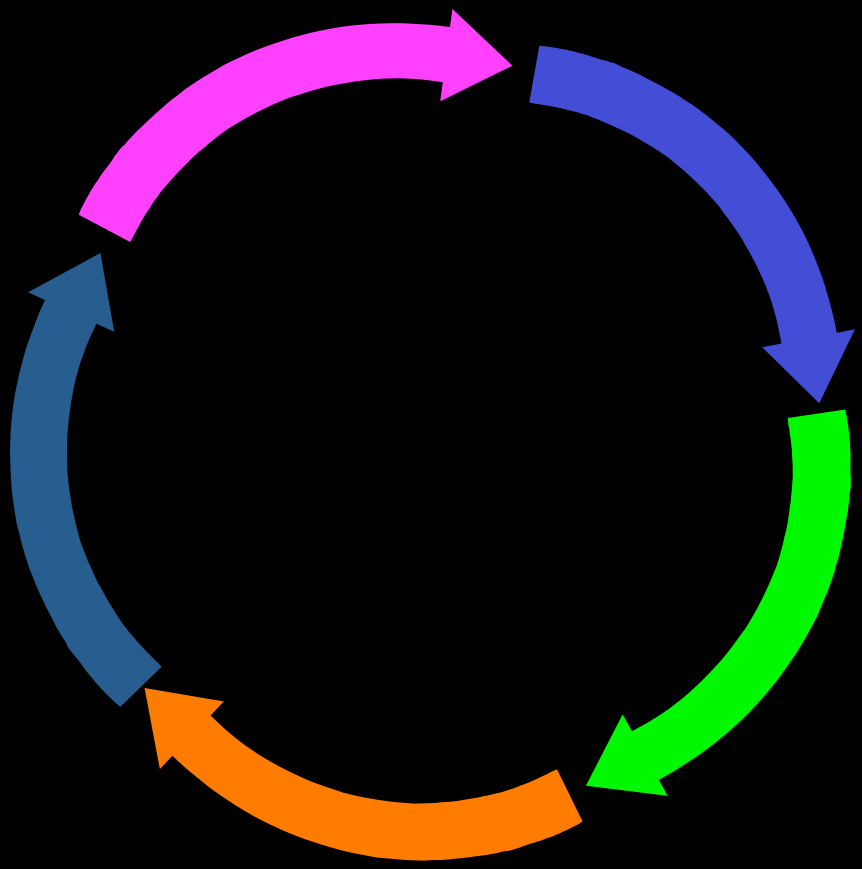
- trap and store sediment
- build and maintain banks and shorelines
- store water and energy
- recharge aquifers
- filter and buffer water
- reduce and dissipate energy
- create primary productivity
- maintain biodiversity

# Did Cows and Fish Interaction Result in the Changes Being Made Differently? (Producer; n=124, Lakefront; n=11)

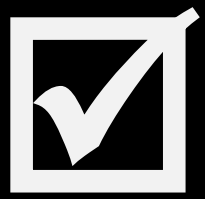


# It takes time!

# Program & Process vs Project

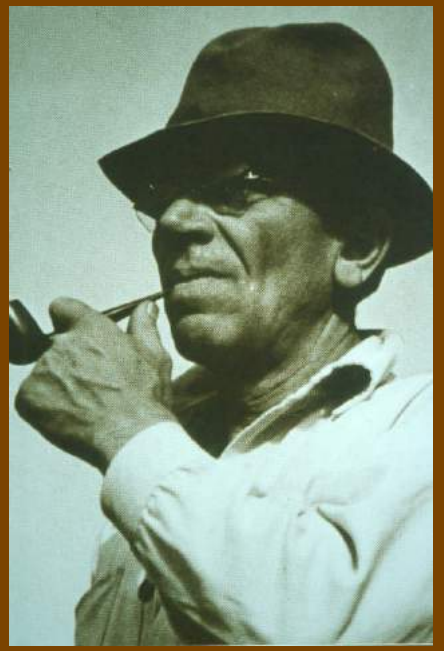


vs



"The real substance of conservation [stewardship] lies not in the physical projects of government, but in the mental processes of citizens…all the acts of government, in short, are of slight importance to conservation except as they affect the acts and thoughts of citizens."

A. Leopold 1937



What will you do?

Cows and Fish

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Cows and Fish

# Members and Supporters

Trout Unlimited Canada

SINCE 1969 Alberta Beef Producers

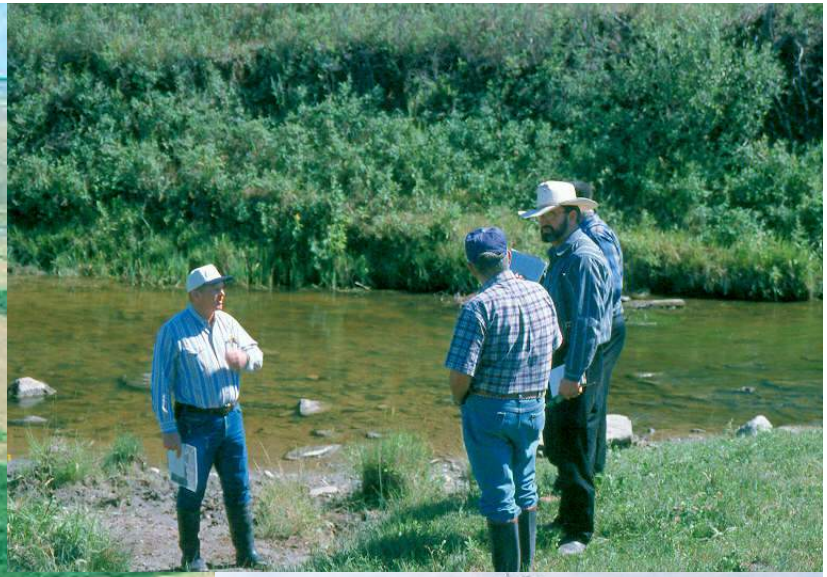
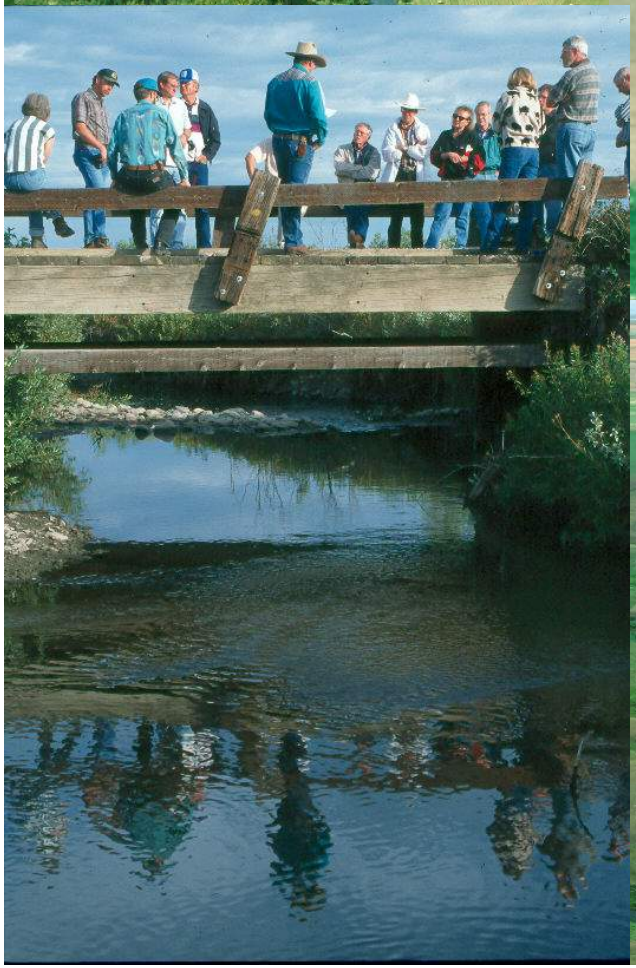
Alberta Government

Alberta Environment & Parks
Alberta Agriculture & Forestry

cca

Alberta Conservation Association

*Landowners, producers, watershed groups, municipalities & community groups*

**Additional funding: Gov. of Canada, RBC Bluewater Fund, Calgary Foundation, Alberta Ecotrust & more**

Canada