

COWS, FISH, CATTLEDogs & KIDS!

ACTIVITIES



GET IN THE GREEN ZONE

Cows, Fish, Cattledogs and Kids can all be found in **riparian areas**, the **green zones** of water-loving plants next to streams, wetlands, lakes and sloughs. Trees and shrubs such as spruce, cottonwoods (poplars), willows and saskatoon, and other plants such as cattails, bulrushes, and tall grasses are found in **riparian areas**.

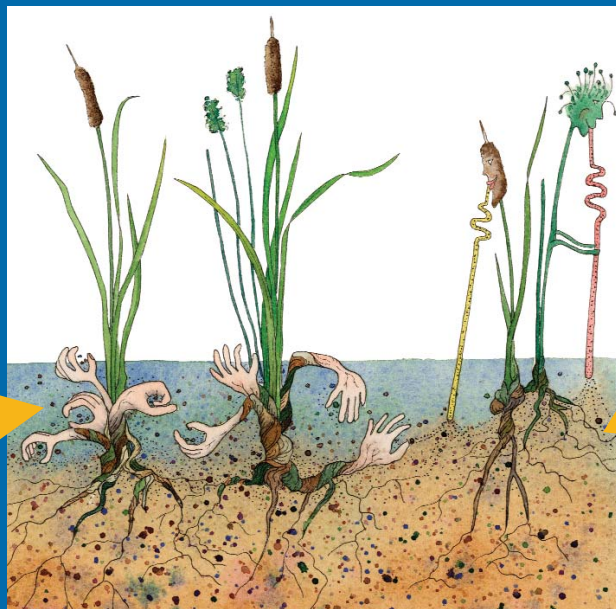
Can you find and circle the **riparian area** in these pictures?



GREEN AND CLEAN!

Riparian areas clean our water, making it safer for people and livestock to drink and cleaner for wild animals to live in.

Riparian plants grab and hold bits of soil (called sediment)



Riparian plants also suck up nutrients that can pollute the water



ANIMAL MAGNETS!

Riparian areas are like magnets to wildlife. They provide food, shelter and clean water for wildlife and fish (as well as for people and livestock!). Most (80%) of Alberta's wildlife use riparian areas for feeding, nesting, seeking shelter and travelling.

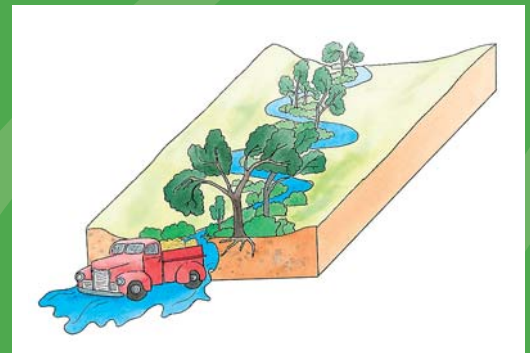
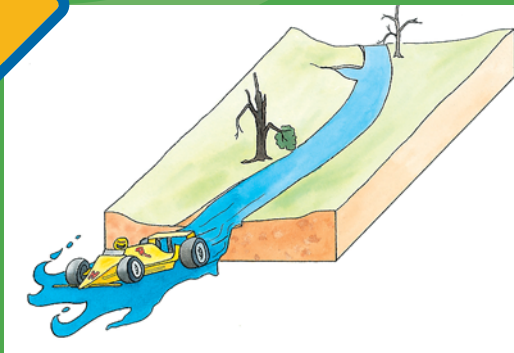
Can you name these Alberta wildlife?



How many of these six animals use riparian areas?



Riparian areas slow down water. A straight stream with not many riparian plants will move quickly - like a race car. This fast moving water will cause erosion (the carving away of soil from streambanks). A healthy stream with many riparian plants will meander (curve and bend) across the land and there will be less erosion.



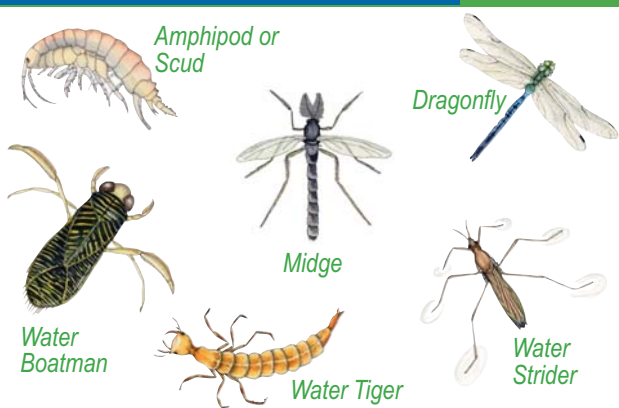
Solve these puzzles online at www.cowsandfish.org

Which of the two streams below will have less erosion? **A or B**



Invertebrates are an important part of riparian areas. They provide food for many birds, mammals and fish. They can also be fun to watch.

INVERTEBRATE MATCH-UP



Can you name these six invertebrates and match them with their pictures on the left?

1. My legs are like oars
2. I walk on water
3. I am named after a stripey cat
4. I don't breath fire, despite my name
5. I am small and people confuse me for a mosquito
6. I look like a tiny shrimp and fish like to eat me!

RIPARIAN LIBRARIAN

W I L L O W T B K J N D J C T
M I N H I N K Z L R N F I K M
C D L F I S H O R E L I N E T
S Z R D V R I V E R B A N K N
E D N A L T E W D F B A M Q O
D U M R G I Z V N M H C G H R
G E C R E O F A A P E O P L E
E F H A W C N E M E D T R M H
F R H S T J R F A E B T I H P
Y R E E R T J E L Z O O P S Q
N A O D S E A T A Y A N A U Z
R E L G N A T I S T T W R R W
P E L I C A N A L L I O I L U
P U K W C U E M W X N O A U Z
A T A R K S U M M V G D N B N

Find and circle the following words that relate to riparian areas. Some words are hidden backwards and some are diagonal!

- | | |
|------------|------------|
| ANGLER | PEOPLE |
| BEAVER | RECREATION |
| BOATING | RIPARIAN |
| BULRUSH | RIVERBANK |
| CATTAIL | SALAMANDER |
| CATTLEDOG | SEDGE |
| COTTONWOOD | SHORELINE |
| DRAGONFLY | STREAMBANK |
| FISH | WATERSHED |
| FROG | WETLAND |
| HERON | WILDLIFE |
| MEANDER | WILLOW |
| MUD | |
| MUSKRAT | |
| PELICAN | |

BONUS WORD GAME!

Can you fit the correct words from the word search into these sentences? The first and last letter of each word is given.

Riparian areas are important for p_____ e, w_____ e, f___ h, cattle, and water quality.

C_____ d trees and w_____ ws are often found growing along r_____ ks.

C_____ ls, s_____ es and b_____ hes are plants that grow at the edges of w_____ ds.

FAST FACTS

Circle these facts as TRUE or FALSE!



1. Too much sediment from soil erosion can smother fish eggs in streams, lakes and wetlands. T F
2. Surgeon, Spike and Cow Trout are all types of fish found in Alberta rivers. T F



7. A meander is a small island in the middle of a river. T F
8. Alberta holds 2.2% of Canada's fresh water T F



3. Riparian areas provide "one stop shopping" for cattle - they have food, shelter and water all in one place. T F
4. A cow's hoof puts ten times more pressure per unit area than a bulldozer. T F



9. Riparian areas make up 2 to 5% of the landscape in Alberta. T F
10. Marshes, bogs, swamps and wetlands all have flowing water. T F

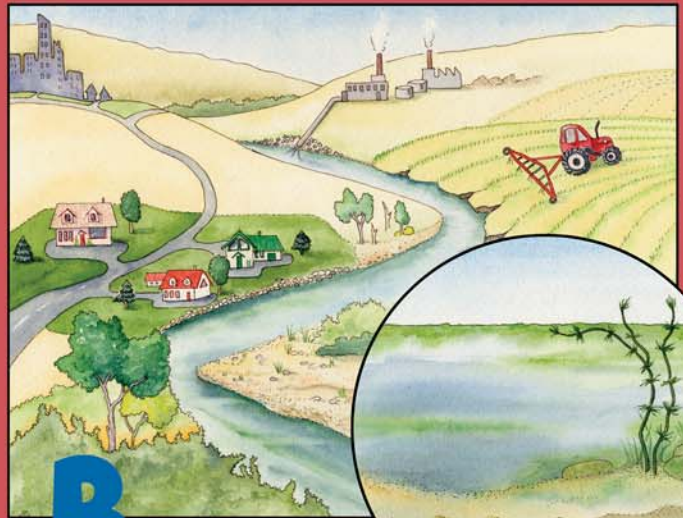
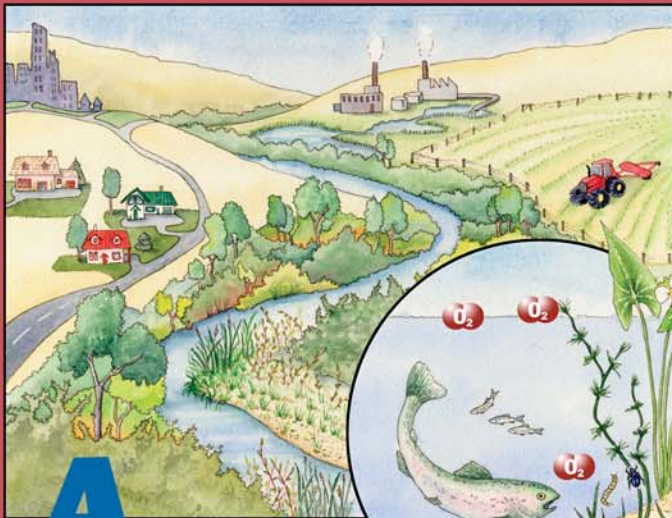


5. The Piping Plover is a shorebird that feeds on sandy beaches and mudflats along shorelines. T F
6. 80% of Alberta's wildlife use riparian areas for things like breeding, nesting, raising their young, feeding and hiding. T F



11. In healthy riparian areas you would find trees and shrubs that are all the same age. T F
12. Roots of plants provide the glue that holds streambanks and shorelines together and prevents erosion. T F

CAN YOU SEE THE DIFFERENCE?



A

B

These two **riparian areas** have the same land uses around them, but there are some differences in how they are done. *Can you spot three differences?*

Differences:

- 1.
- 2.
- 3.

Do these differences change the water in the stream?

YES or NO

If you were a fish, which stream would you prefer to live in?

A or B

ANSWERS

Animal Magnets: 1. Black-capped Chickadee, 2. Dragonfly (Blue Darter), 3. Red-wing Blackbird, 4. Chorus Frog, 5. Great Blue Heron, 6. Coyote. ALL SIX animals use riparian areas.

Slow Down: Stream A will have less erosion.

Invertebrate Match-Up: 1. Water Boatman, 2. Water Strider, 3. Water Tiger, 4. Dragonfly, 5. Midge, 6. Amphipod or Scud (sometimes called shrimp)

Riparian Librarian: See left for word search answers

Bonus Word Game: Riparian areas are important for **people, wildlife, fish, cattle,** and water quality. **Cottonwood** trees and **willows** are often found growing along **riverbanks**.

Cattails, sedges and bulrushes are plants that grow at the edges of **wetlands**.

Fast Facts: 1-T, 2-F (Sturgeon, Pike & Bull Trout) 3-T, 4-T, 5-T, 6-T, 7-F (a meander is a bend in the river), 8-T, 9-T, 10-F (marshes, bogs, swamps and wetlands have standing water), 11-F (all ages of trees and shrubs are found in a healthy riparian area), 12-T

Can You See the Difference?: In A: Farmer's field has a buffer between the crop and the river. Industry has settling ponds to clean water before it goes into the river. Lawns are smaller and do not go right up to the river. Acreages are further from the river, leaving a buffer between them and the river. YES these differences will affect the water quality. The water quality would be better in A (e.g. more oxygen and less sediment) - so a fish would prefer to live in A.



Credits: Photographs - Lorne Fitch. Illustrations - Elizabeth Saunders (Insect and "Spot the Difference" illustrations originally produced for the Bow Habitat Station)



Working with producers and communities on riparian awareness

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Cows and Fish Partners

Producers & Community Groups, Alberta Beef Producers, Trout Unlimited Canada, Canadian Cattlemen's Association, Alberta Agriculture & Rural Development, Alberta Sustainable Resource Development, Alberta Environment, Fisheries & Oceans Canada, Agriculture & Agri-food Canada - PFRA, Alberta Conservation Association

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