



Watershed Education & Related Outreach

Presented to: Ghost Watershed Alliance Society

Presented by: Sharlene Fritz

Presented at: Annual General Meeting,

November 28, 2020

A Year In Review

What did we do since the last
AGM?

Adapt and go with the flow!



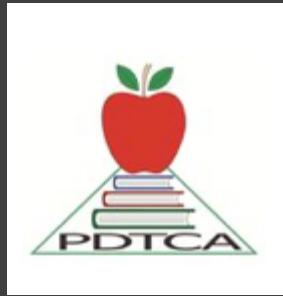
Waiparous Creek




Kids, meet the bugs.
Bugs, meet the kids.
(and tadpoles)



1. Brought families and GWAS volunteers together at 3 community events



2. Built teacher resources, hosted booth at Palliser District Teacher's Convention



Against the Current:

the story of westslope cutthroat trout in Alberta's headwater ecosystems

Grade 7 Science - Interactions and Ecosystems




Image source: Rocky Mountain Outlook, August 2011

Watershed Education Programs

For more information please visit:
www.ghostwatershed.ca
Or contact Sharlene Fritz:
sharlene@ghostwatershed.ca

Water Connects Us:

from mountain headwaters to prairie rivers

Program Overview

The classroom program introduces students to their watershed and how it connects to the Ghost Watershed within the Bow River Basin. Students will explore the impact of human activities on water quality and quantity. The field program offers students a chance to visit a site along the Ghost River. Working in teams, students will use Trout Unlimited Water-Edu Kits to measure water quality.

Grade 8 Science: Freshwater and Saltwater Ecosystems
Grade 9 Science: Environmental Chemistry

Against the Current:

the story of westslope cutthroat trout in Alberta's headwater ecosystems

Program Overview

The classroom program introduces students to the biology of westslope cutthroat trout (WSCT), threats to its survival, and a summary of federal and provincial recovery plans. The field program offers students a chance to visit a site along the Ghost River with the purpose of assessing habitat suitability for the re-introduction of WSCT.

Grade 7 Science: Interactions and Ecosystems
Grade 9 Science: Biological Diversity



AGAINST THE CURRENT

The story of westslope cutthroat trout in Alberta's headwater ecosystems

TEACHER'S GUIDE

Science 7 Unit A: Interactions and Ecosystems
GHOST WATERSHED ALLIANCE SOCIETY
Watershed Recovery and Care Study

What is my quest?



My quest is for **survival**.

I used to live in mountain waters, foothill creeks, and prairie rivers. Today I am confined to headwater streams and lakes, roughly 10% of my historic **habitat** or range in Alberta. This is comparable to someone living in only one room of their ten-room house. Where I live is called my **distribution**.

My population numbers or **abundance** has also decreased over time as human population in Alberta has increased. Let's find out why.



Image source: favpng.com

Ghost River Watershed Case Study



The Ghost River Watershed contains westslope cutthroat trout within its freshwater ecosystems.

GUIDING QUESTIONS

- What is a watershed?
- Where is the Ghost Watershed?
- Where do westslope cutthroat trout currently live in the Ghost Watershed? Where could they live?
- What specific challenges do they face here?
- What is being done about it?
- Who is the Ghost Watershed Alliance Society?



Part of the Ghost River Watershed:
North Ghost River looking toward Black Rock Mountain. Photo credit: S. Fritz



Ghost River Watershed

Headwaters and outlet

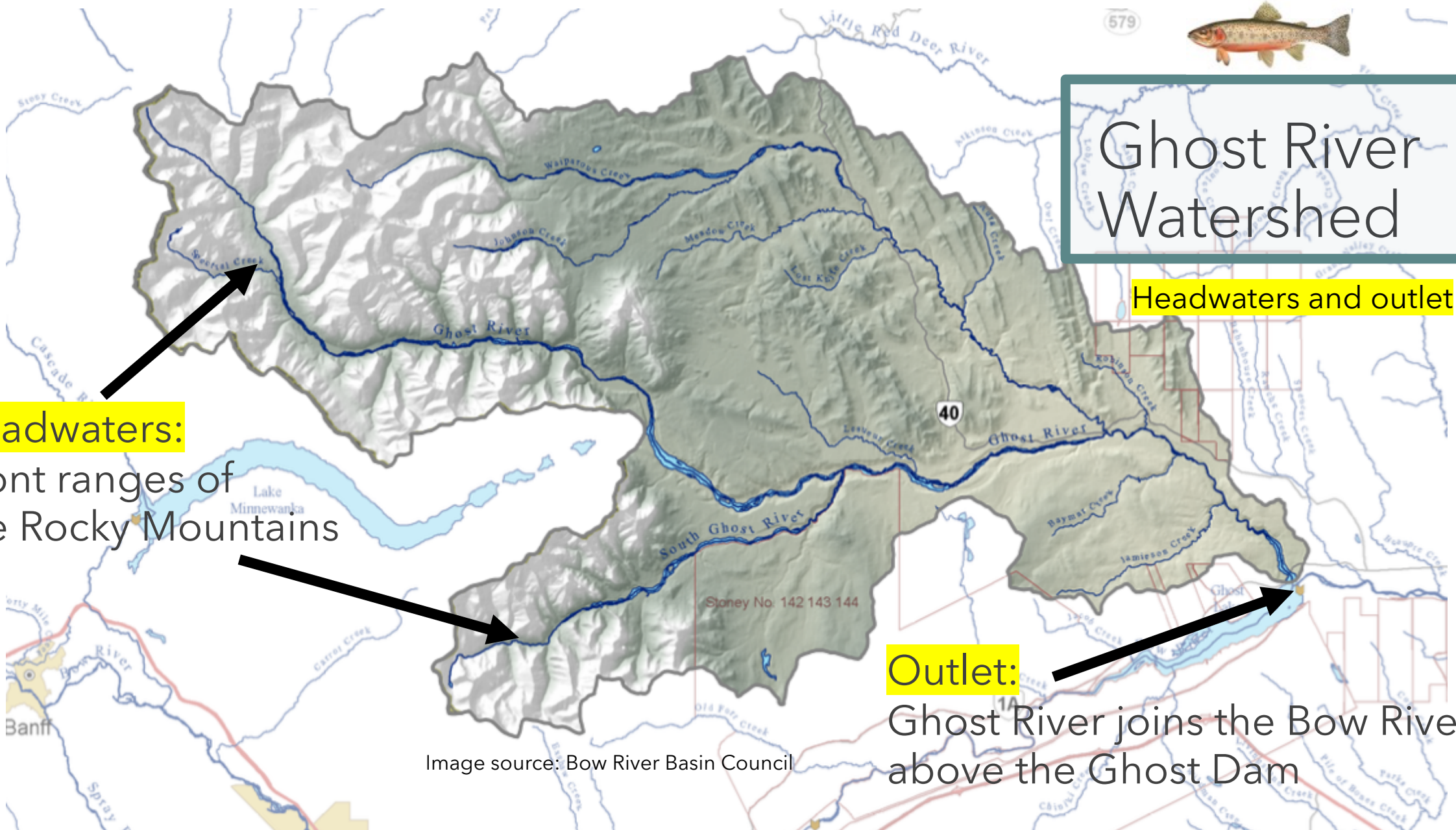
Headwaters:

Front ranges of
the Rocky Mountains

Outlet:

Ghost River joins the Bow River
above the Ghost Dam

Image source: Bow River Basin Council



3. Went virtual and made a video called “Source Water Stories”



(local film stars)

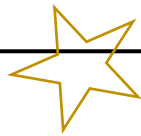
City of Calgary: *Virtual Mayor’s Expo*



Friends of Fish Creek: *Creekfest-Reimagined*



View west along Waiparous Valley Road



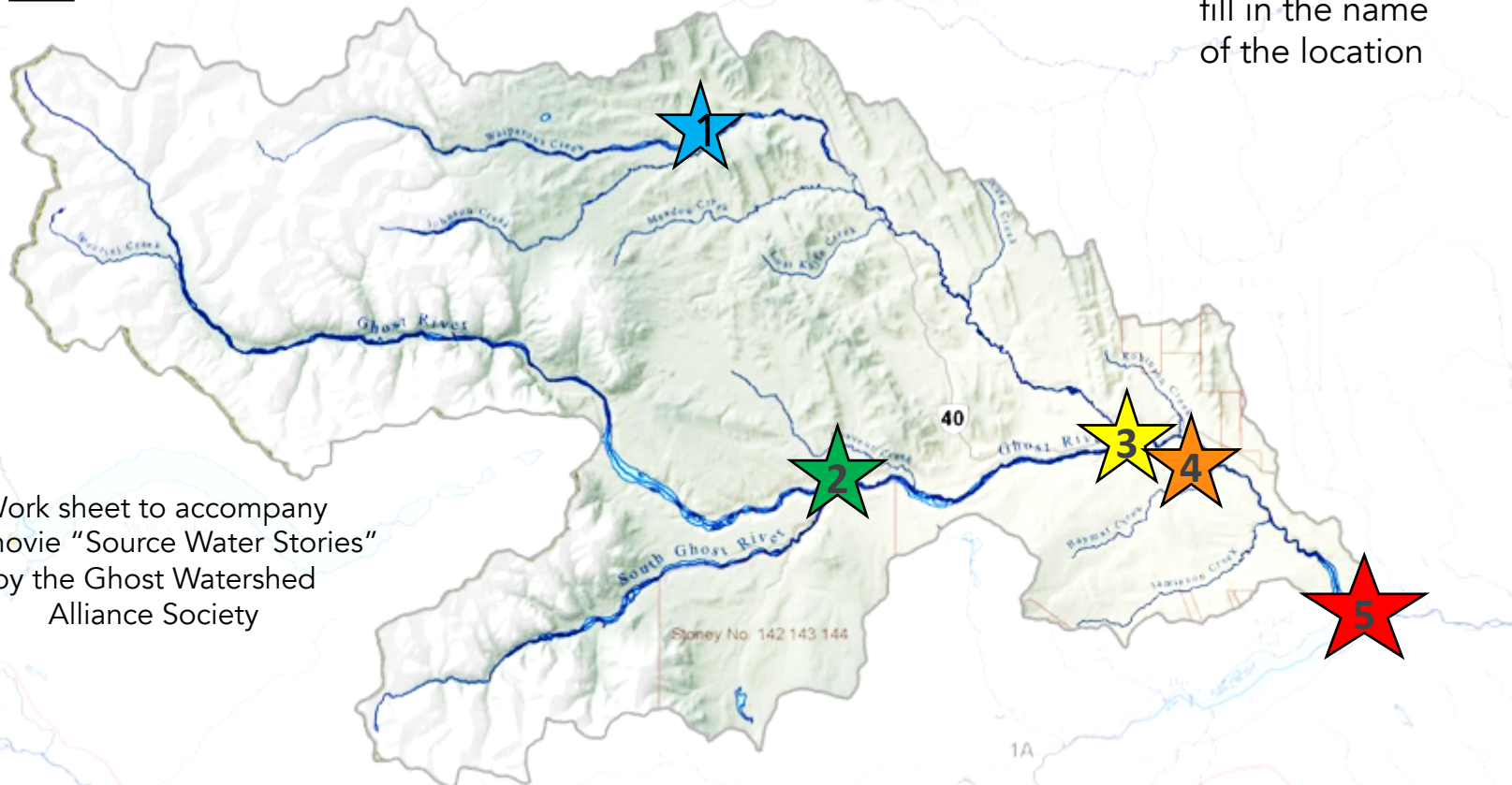
TRAVEL PASSPORT:

Five Star Tour of the Ghost River Watershed



Use the box to check or stamp location

Use the lines to fill in the name of the location



Work sheet to accompany
the movie "Source Water Stories"
by the Ghost Watershed
Alliance Society

WATERSHED CUSTOMS

1. What three stages does the City of Calgary look at before safe drinking water reaches your cup?
2. Name the two source watersheds for the City of Calgary. Which one contains the Ghost River Watershed?
3. What are the 3 main parts of a watershed?
4. Name one mountain peak in the Ghost.
5. In one of the stories about how the Ghost River got its name, who were the two battling groups?
6. Describe one way that the Waiparous Creek and Ghost River are different. How are they the same?
7. Why was the berm built in Benchlands?
8. Where does the City of Calgary take water quality samples?
9. How many confluences do you visit in this tour?
10. What is a bayhead delta and why is it forming in the Ghost Arm?
11. Give one example each of an inorganic and organic particle in sediment.
12. Of these 5 spots, what's your top pick to visit?



4. Supported City of Calgary's Source Water Protection Policy

- coordinated tour of Ghost Watershed for City staff
- co-wrote letter in support for Policy to City Council



View west from Waiparous Valley Lookout

5. Raised awareness about recreational issues

- co-wrote letter and document highlighting observed problems with random camping and shooting
- spoke with two media outlets
- met with and coordinated tour for Banff-Kananaskis MLA



Target shooting debris near Four Mile Creek



UNIVERSITY OF
CALGARY

Alberta Environment
and Parks



6. Supported and
collaborated with education
partners & institutions

The Year Ahead

What will we do after the
AGM?

Adapt and keep our heads
above water!

Continue to offer quality watershed education
to the local community, the broader
educational community, our partner
organizations, and the public



Waiparous Creek



TD Friends of the
Environment
Foundation

Our work would not be possible without the financial support of the above organizations and our amazing GWAS board, executive director, and volunteers.
Thank you!