

**Fisheries
of the
Big Horn Basin**

Cody Region



- HOW DO WE MANAGE THESE FISHERIES
 - HOW MANY WATERS ARE MANAGED
- SPECIES OF THE CODY REGION
- FISHERIES RELATED CONCERNS
 - SPECIAL PROJECTS

HOW DO WE MANAGE THIS FISHERIES



BASIN MANAGEMENT PLANS

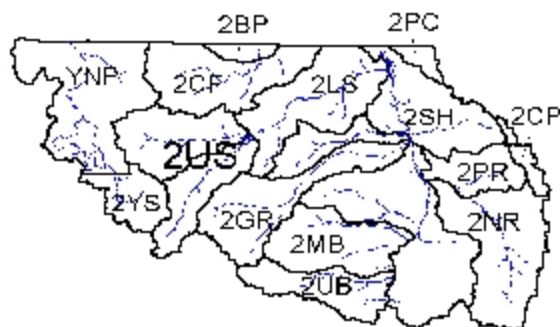


Figure GY1. Gray Region Sub-Basin delineation containing YRC, 1999

Key	
YNP	Yellowstone National Park
2YS	Upper Yellowstone drainage
2BP	Bearfoot Plateau
2CF	Clark Fork River drainage
2LS	Upper Shoshone River
2CS	Lower Shoshone River drainage
2MB	Middle Big Horn River & tributaries
2LB	Upper Big Horn River & tributaries
2PC	Porcupine Creek & tributaries
2SH	Snake Creek drainage
2CP	Cloud Peak Mountain Lakes
2PR	Pawnee Creek drainage
2NR	Newman River & tributaries

MANAGE BY CONCEPT

FIVE MANAGEMENT CONCEPTS

- CATCHABLE
- BASIC YIELD
- TROPHY
- WILD
- UNIQUE

Beck Lake

CATCHABLE



BASIC YIELD- T LAKE



TROPHY-EAST NEWTON LAKE

NEWTON LAKES RECREATION AREA



A historic recreation project in
cooperation with the Wyoming Game and
Fish Dept., U.S. Bureau of Reclamation,
Westwood Hunt-Wooden Ingot
District, Park County, Park County
Recreation Board City of Cody, The
Crest Ranch and other recreational
groups of Park County & its Fisheries
and Trout streams.

LETTERS IS PROHIBITED AND
YOUR TRAILS AND RESPECT PEOPLE
PROPERTY.



NO DISORDERLY CONDUCT.
SPECIAL PERMITS REQUIRED TO
RECOVER TREES.

Newton Lakes Recreation Area

**ARCHEOLOGICAL
RESOURCES
ARE PROTECTED
BY LAW**

A. A. Hays and others, Trustees of
Newton Lakes Recreation Area, Wyoming
Trustees of Newton Lakes Recreation
Area, in their own right and in
trust for the benefit of the
Newton Lakes Recreation Area
Trustees, Newton Lakes Recreation
Area, Wyoming.

U.S. Bureau of Reclamation,
Department of the Interior

WILD-SUNLIGHT CREEK



UNIQUE-
GREYBULL RIVER



HOW MANY WATERS
DO WE MANAGE IN
THE CODY REGION?

Cody Region-

1,452 Streams and Standing Waters





917 suitable for trout

Classification

Blue => 900 pounds/mile—Shoshone R.

Red = 500 to 900 pounds/mile—Big
Horn River at Thermopolis

Yellow = 100 to 500 pounds/mile—Crandall Creek

Green = 1 to 100 pounds/mile—Grass Creek

Orange = Wrm & Cool Water Game Species

Brown = No Game Fish

Species

What best describes the fisheries of the Big Horn Basin?

Diverse

Very Diverse

SEVEN NATIVE GAME
SPECIES

YELLOWSTONE CUTTHROAT TROUT

MOUNTAIN WHITEFISH

SAUGER

STONECAT

CHANNEL CATFISH

BURBOT-LING

SHOVELNOSE STURGEON



CHANNEL CATFISH—BIG HORN RIVER



BURBOT (LING)--- BIG HORN RIVER

Native Non-game Species-12

- Fathead minnow-Flathead chub-Lake Chub-Longnose dace
- Mountain sucker-rivercarp sucker-white sucker
- Plains minnow-western silvery minnow- sturgeon chub
- Sand shiner-shorthead redhorse sucker



WHITE SUCKER— MANY LAKES AND STREAMS

SHOVELNOSE STURGEON
PLANTING



NON-NATIVE SPECIES-28

RAINBOW-SR CUTTHROAT-BR CUTTHROAT-
BROOK TROUT-BROWN TROUT-LAKE
TROUT- WALLEYE-YELLOW PERCH-WHITE
CRAPPIE-BLACK CRAPPIE-LM BASS-SM
BASS-SPLAKE-BLACK BULLHEAD-BLUEGILL-
GREEN SUNFISH- CARP-GRASS CARP-
GRAYLING-GOLDEN TROUT-EMERALD
SHINER-GOLDEN SHINER-SPOTTAIL SHINER-
BROOK STICKLEBACK-GREEN SUNFISH x
BLUEGILL HYBRID-LONGNOSE SUCKER-
PLAINS KILLIFISH-GOLDFISH. **Piranha ?**

Shoshone River Piranha- Piranhas nowayas inshoshonas



Splake from Upper Sunshine Reservoir



BROWN
TROUT

BIG
HORN
RIVER



FISHERIES RELATED CONCERNS

HABITAT LOSSES

- EROSION-NATURAL/MANMADE
- OVERGRAZING-LIVESTOCK/WILDLIFE
- FIRE SUPPRESSION

INSTREAM FLOWS—DEWATERING

BARRIERS—FISH LOSSES TO DIVERSIONS

NON-POINT POLLUTION

➤ EROSION-NATURAL



OVERGRAZING-BEFORE





AFTER



OVERGRAZING-WILDLIFE=ELK, MOOSE-SUNLIGHT



PRESCRIBED BURNS

INSTREAM FLOWS—DEWATERING



W.S. 41-3-1001 (b)

- Water flowing in any stream may be appropriated for instream flows to maintain or improve existing fisheries and declared a beneficial use of water

COMPONENTS OF RIVER SYSTEMS

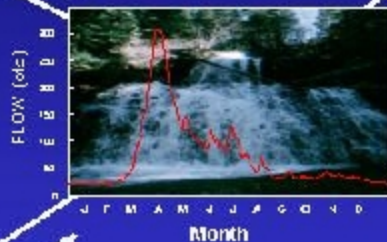
ENERGY PATHWAYS / CONNECTIVITY



BIOLOGY



HYDROLOGY



GEOMORPHOLOGY



WATER QUALITY



INSTREAM FLOWS

NEED CONSIDERATION
WHEN PLANNING FOR
FUTURE USES OF WATER.

BARRIERS TO FISH MOVEMENT

4 MAJOR DIVERSIONS ON THE
BIG HORN RIVER

6 MAJOR DIVERSIONS ON THE
SHOSHONE RIVER

NUMEROUS SMALLER PUSHUP
DIVERSIONS

LOWER HANOVER DIVERSION DAM



FISH LOSSES TO IRRIGATION DIVERSIONS



HOW MANY FISH ARE LOST?

ABOUT 3,600 WERE ESTIMATED LOST IN STUDIES CONDUCTED IN 1990-1992 ON THE WILLWOOD, GARLAND AND FRANNIE CANALS

22,555 FISH WERE LOST IN THE HEART MOUNTAIN CANAL WITH ABOUT 70% GAME FISH—CAPTURED WITH SIEVE NET.

TROUT UNLIMITED SALVAGED OVER 2,500 GAME FISH FROM A CANAL NEAR CODY



Sieve Net at terminus of Shoshone Conduit—Heart Mountain canal



NON-POINT POLLUTION

SPECIAL PROJECTS

- NATIVE SAUGER-BIG HORN RIVER

- YELLOWSTONE CUTTHROAT -
GREYBULL/WOOD RIVER

- INSTREAM FLOW
RECOMMENDATIONS - SHOSHONE
RIVER - BUFFALO BILL RESERVOIR TO
CORBETT DAM

➤ NATIVE SAUGER-BIG HORN RIVER



YELLOWSTONE
CUTTHROAT

GREYBULL/WOOD
RIVER



INSTREAM FLOW RECOMMENDATIONS



THE END

