Fisheries Conservation Through Instream Flow Protection and Angling Closures

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Montana Department of Fish, Wildlife and Parks

Instream Protection Methods

- Murphy Rights (Statutory Designation)
- Water Reservations
- Water Leasing
- Storage
- Basin Closures

- **Yellowstone River Basin**
    - 8 municipalities
    - 14 conservation districts, and
    - 6 state and federal agencies

    (Priority date December 15, 1978)

- **Upper Missouri River Basin**

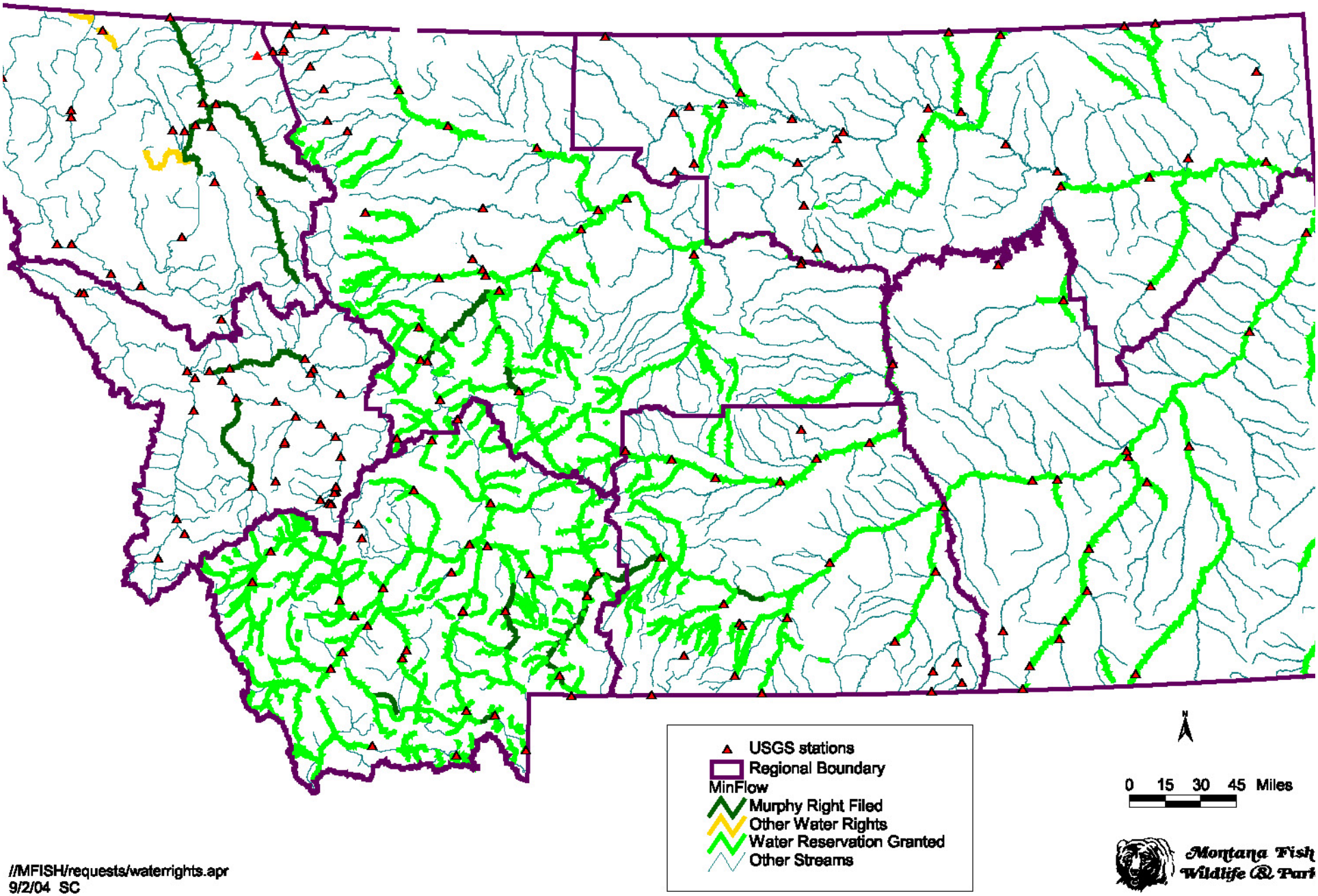
    (Above Fort Peck Dam)
    - 17 municipalities,
    - 15 conservation districts, and
    - 4 state and federal agencies.

    Priority date July 1, 1985

- **Lower Missouri River Basin**
- (Below Fort Peck Dam)
    - 9 municipalities,
    - 8 conservation districts, and
    - 1 state agency.

- **Little Missouri River basin**
- Water Reservations granted to:
    - 2 municipalities,
    - 3 conservation districts, and
    - 1 state agency.

    (Priority date July 1, 1985)



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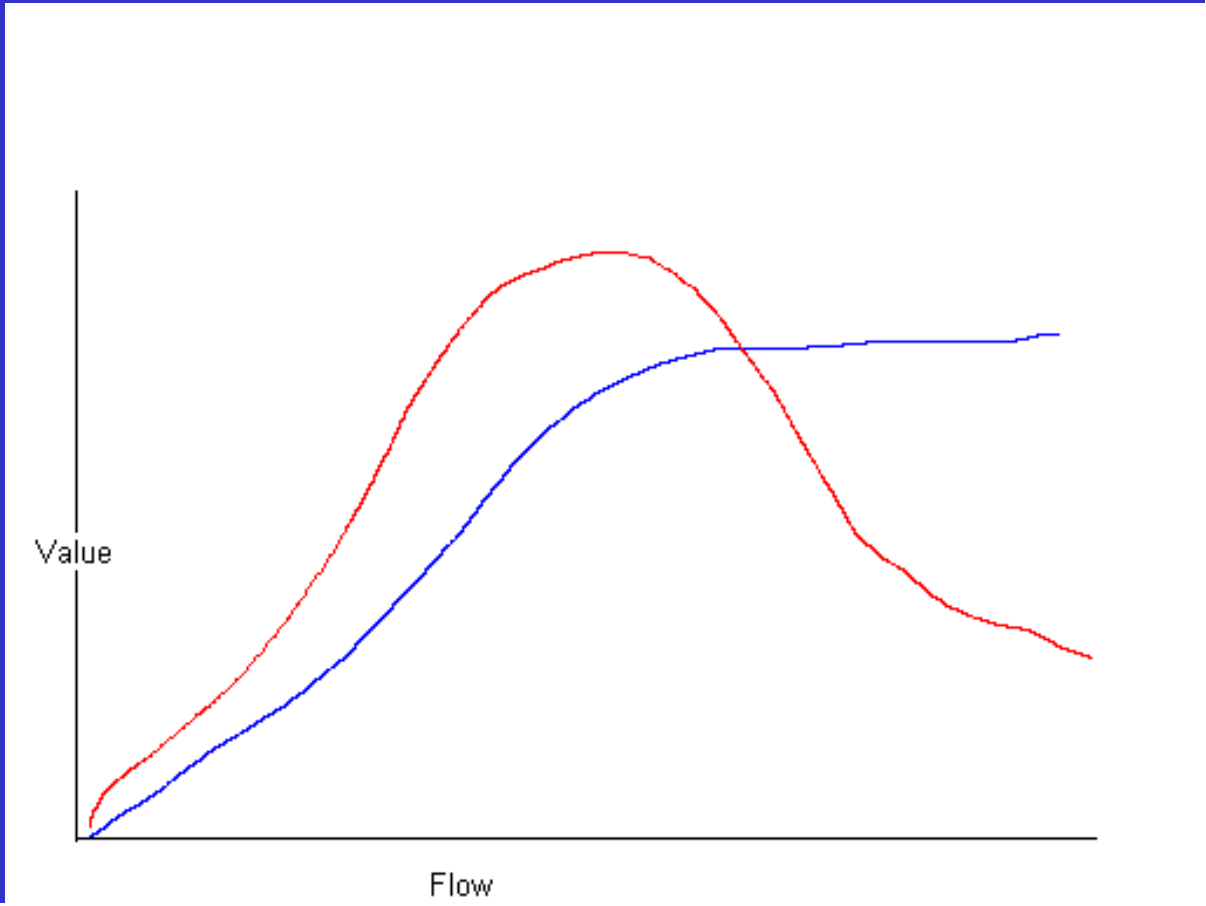
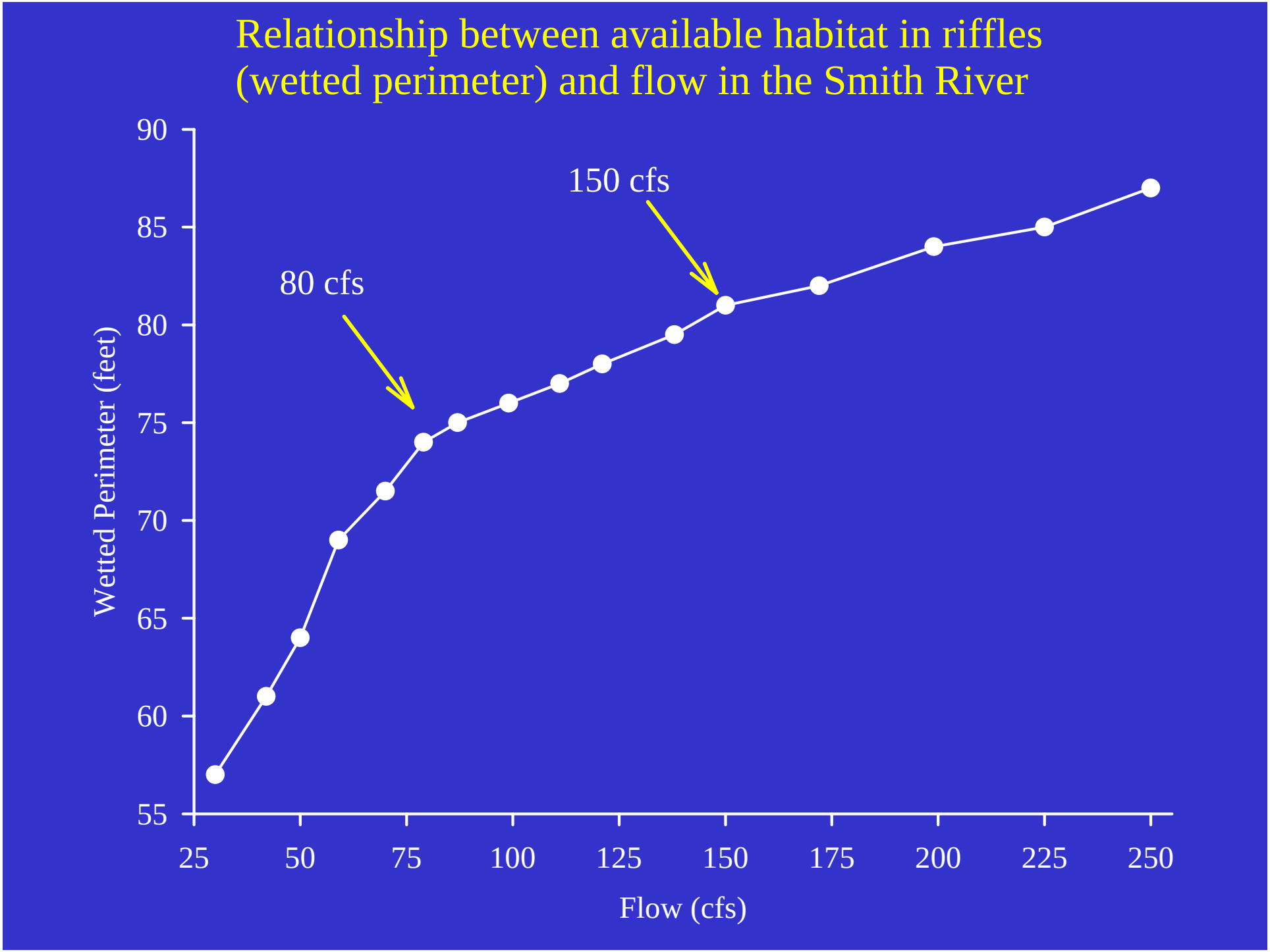
Instream Flow Needs

- Assumption that there is a relationship between flow and instream resource values (e.g., fish, recreation, navigation, etc.)

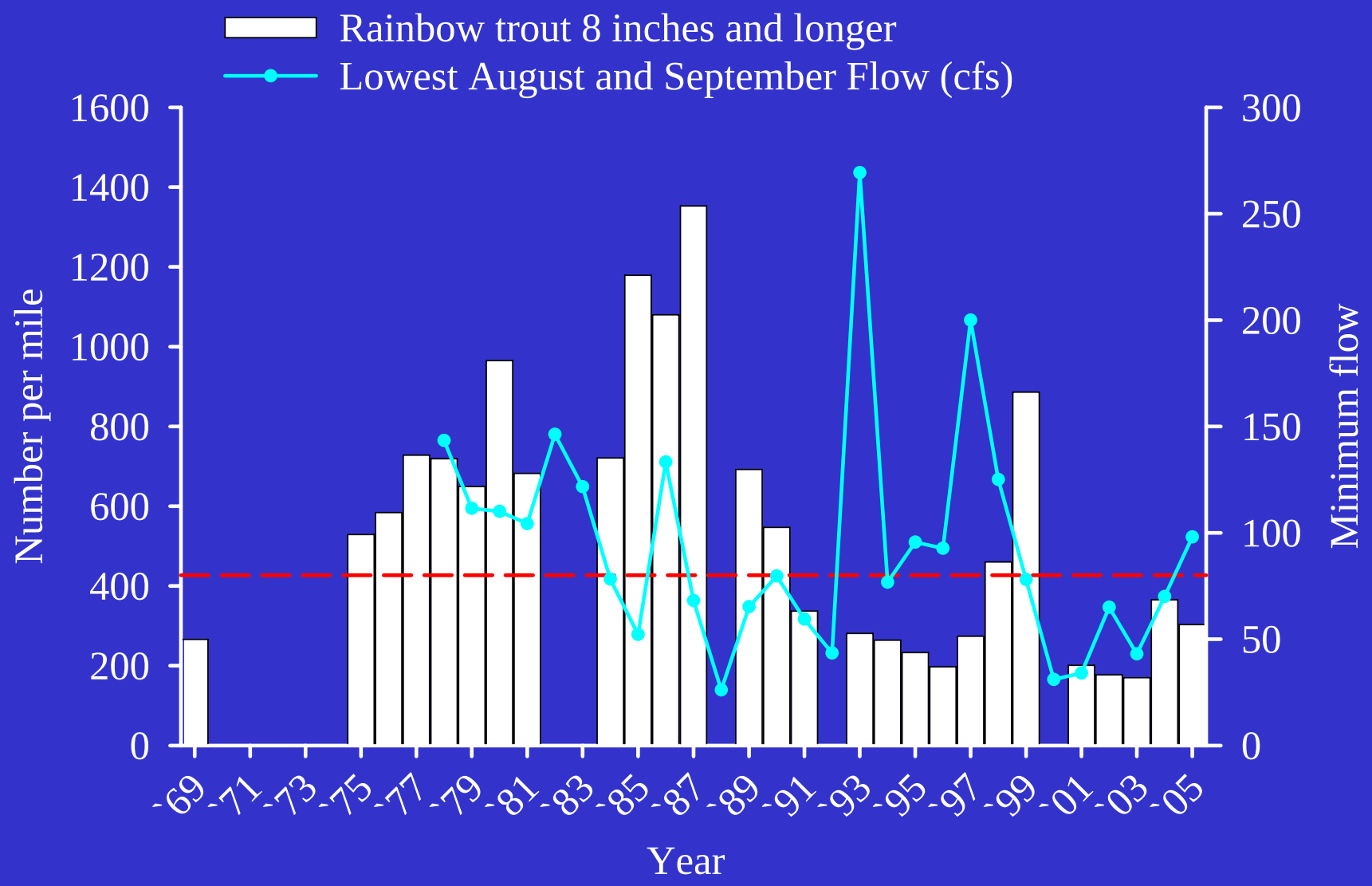


Smith River

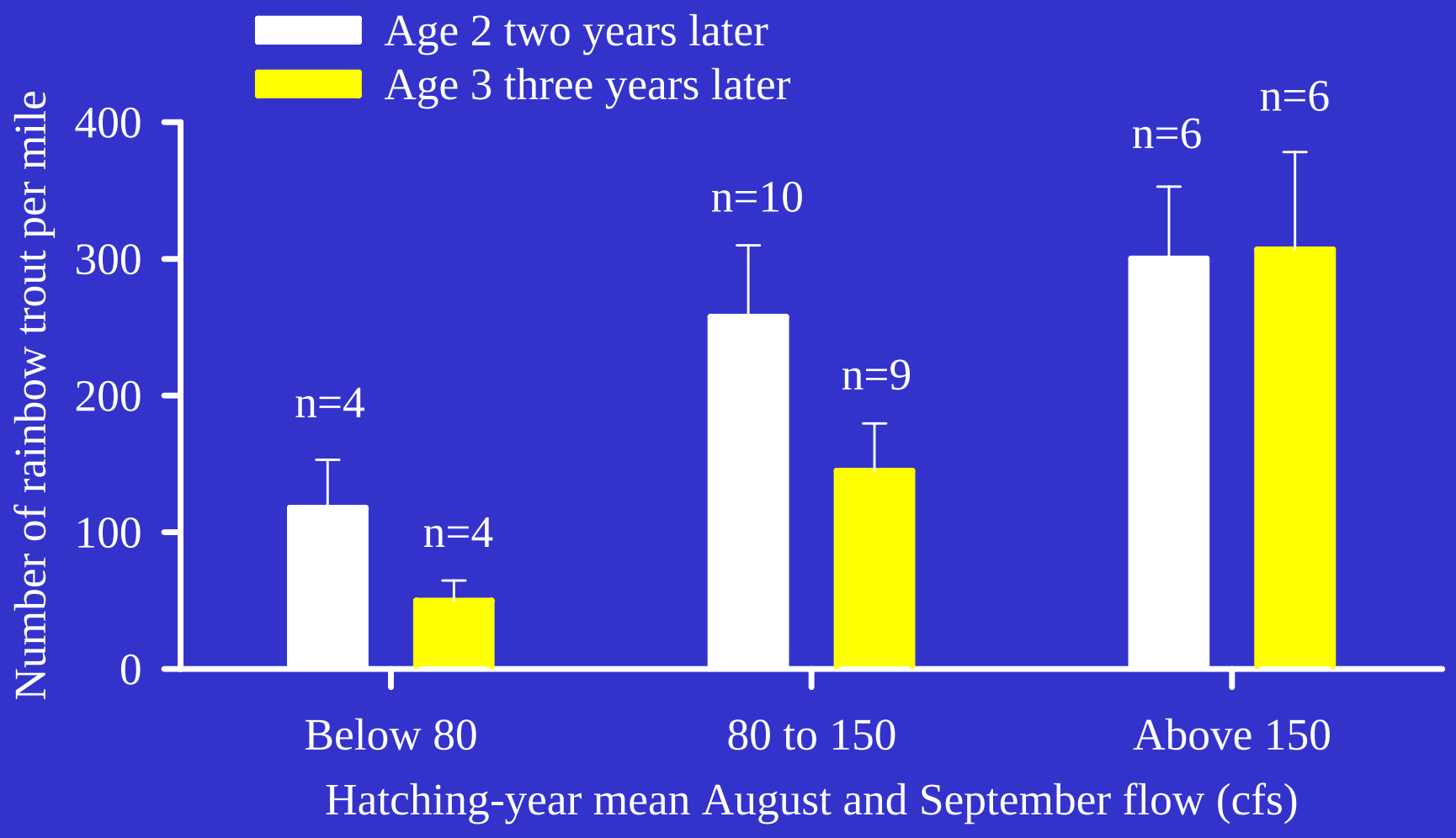
Recruitment and Summer Flows


Relationship between available habitat in riffles (wetted perimeter) and flow in the Smith River
150 cfs
80 cfs
Wetted Perimeter (feet)
90
85
80
75
70
65
60
55
25
50
75
100
125
150
175
200
225
250
Flow (cfs)

Adult rainbow trout and low summer flows



Relationship between rainbow trout recruitment and average hatching-year flow during August and September in the Smith River



FWP Fishing Closure Considerations Flow Chart

For Cold Water Streams in Summer Low Flow Conditions

1. Stream has a site-specific low flow/drought response plan with FWP approved fishery management recommendations (e.g. Big Hole, Jefferson, Blackfoot).

→ **Action:**
Implement management plan.

2. Classified as "Critical Salmonid Stream". Stream supports important recreational fishery and/or species of special concern.

→ **Condition:**
Summer flows and/or temperature are expected to create excessively stressful conditions for fish. Stream receives sufficient pressure that angling will add an unacceptable lethal threat to adult fish in drought conditions.

→ **Action - Watch**

- Included in FWP drought reporting.
- Active FWP temperature and flow monitoring, and low flow response planning if applicable.

→ **Condition:**

- Thresholds for flow and/or temperatures are reached. Angling pressure continues to be significant and detrimental to fish health.
  - Flow threshold = 95% monthly exceedence level.
  - Temperature threshold = maximum daily water temperature equals toe exceeds 73 degrees F (23 degrees C) for three consecutive days.

  and/or

  - In critical bull trout spawning and rearing streams, maximum daily temperature equals or exceeds 60°F (15°C) for three consecutive days. Fish are concentrating and vulnerable in cold water refuges.

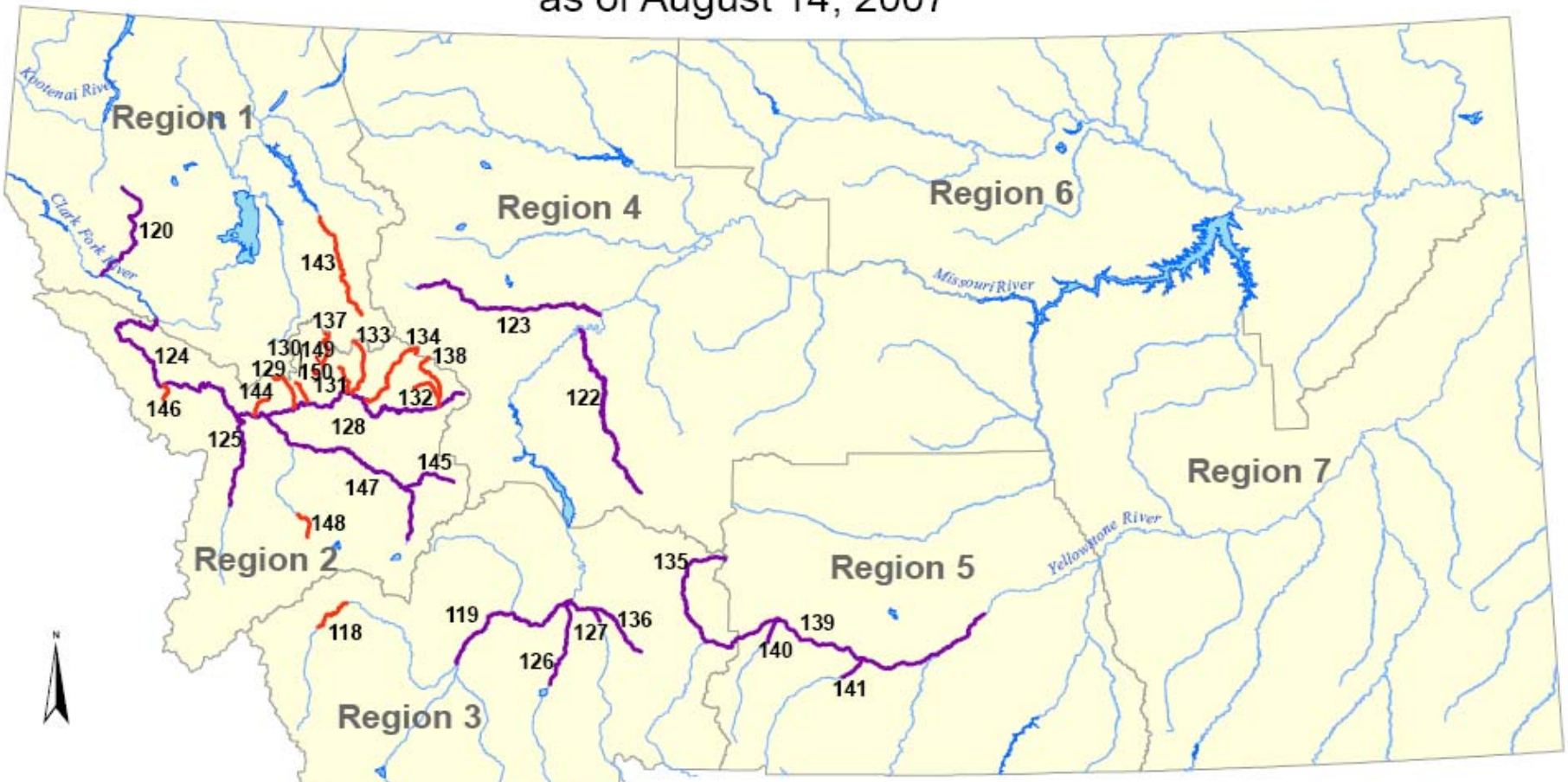
→ **Action - Mandatory Closure:**
Applicable when priority streams reach flow or temperature thresholds, or when voluntary restrictions are ineffective or inadequate. Post restrictions at access points and distribute to shopes, outfitters, etc. Monitor effects of restriction sat least three times weekly.

- Time of Day Closure prohibits angling between the hours of 2 PM and 12:00 AM (Midnight).
- Full Closure prohibits all angling. Necessary to protect fishery resource.
- *Broader application of closures may be necessary to address overcrowding on open waters in extreme drought conditions. Appropriate levels of response to this issue will be based on further discussion.*

→ **Lifting of Summer Closures:**
Closures will be lifted on September 15 unless an earlier/ later date is designated by the FWP Commission for specific water. Closure may be lifted when re-opening criteria are met and by Commission approval.

Fishing Restrictions and Closures

as of August 14, 2007*



No	NAME	No	NAME	No	NAME	No	NAME
118	Big Hole River	127	Gallatin River	135	Shields River	144	Rattlesnake Creek
119	Jefferson River	128	Blackfoot River	136	East Gallatin River	145	Little Blackfoot River
120	Thompson River	129	Gold Creek	137	Morrell Creek	146	Fish Creek
122	Smith River	130	Belmont Creek	138	Landers Fork	147	Clark Fork River
123	Sun River	131	Cottonwood Creek	139	Yellowstone River	148	Rock Creek
124	Clark Fork River	132	Copper Creek	140	Boulder River	149	Seely Lake
125	Bitterroot River	133	Monture Creek	141	Stillwater River	150	Placid Lake
126	Madison River	134	North Fork Blackfoot R.	143	South Fork Flathead River		

Mandatory Closure - [24 hour]

Mandatory Closure - 2 PM to Midnight

Lake Mandatory Closure - 24 hours

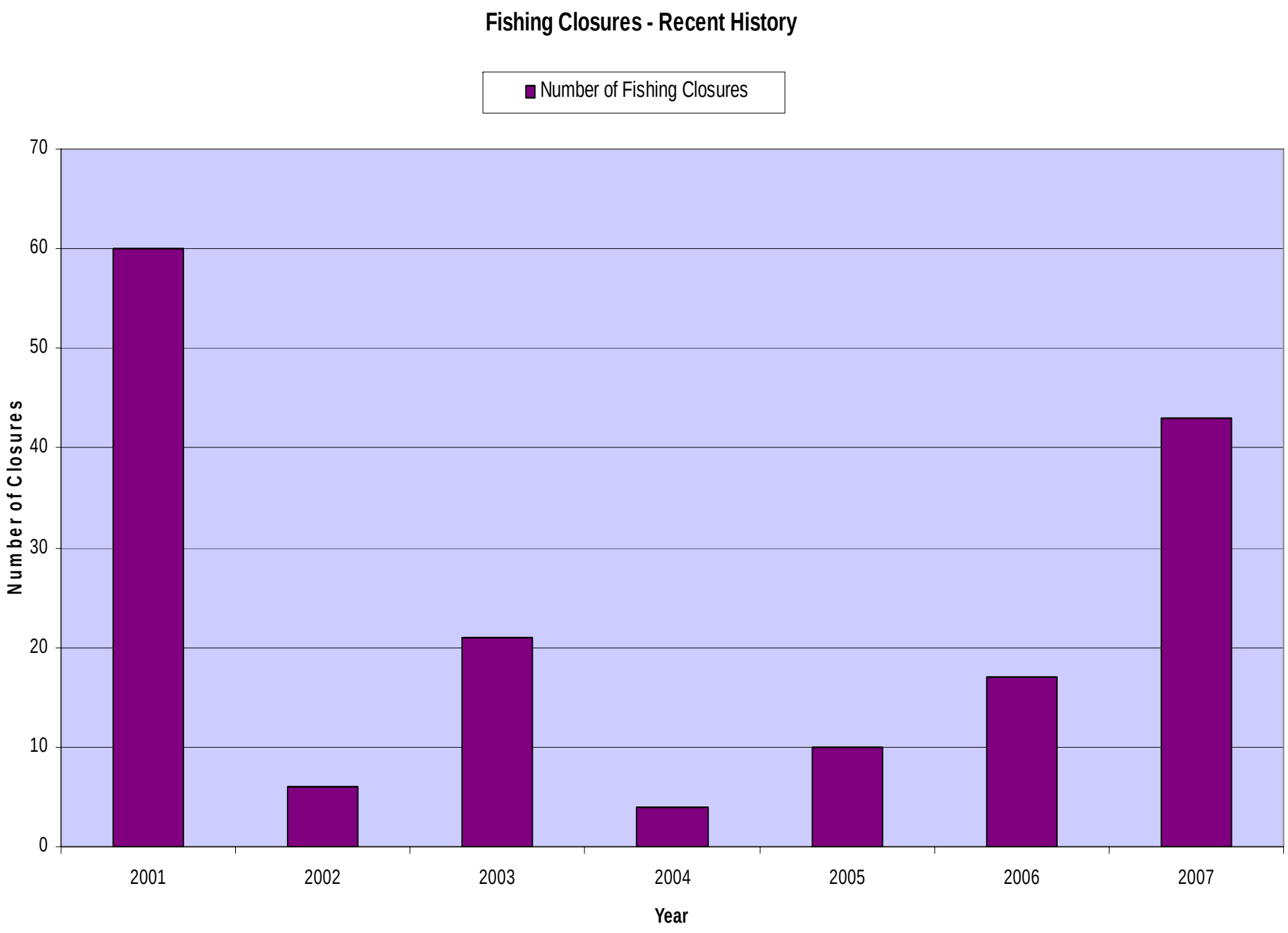
Streams

FWP Region

*Map is updated as new closures are posted.
Refer to http://fwp.mt.gov/fishing/guide/waterclosure.aspx for a current list of all active closures.
Rev.14

0 12.5 25 50 75 100 Miles

Montana Fish, Wildlife & Parks


Fishing Closures - Recent History
Number of Fishing Closures
70
60
50
40
30
20
10
0
Number of Closures
2001
2002
2003
2004
2005
2006
2007
Year

Local Planning Areas

- Nearly 50 local planning groups / watershed groups.
- Collaborative, multi-stakeholder & often consensus based decision making.
- Management focus vs. quantification of rights.

Watershed Group List

Big Hole Watershed Committee
Big Spring Creek Watershed Partnership
Bitter Root Water Forum
Blackfoot Challenge - Blackfoot River Watershed
Bobtail Creek Watershed Group
Buffalo Rapids Watershed Project
Bullhead Water Quality Project
Careless Creek Watershed
Cedar Creek Watershed Project
Deep Creek Watershed
Devil`s Kitchen Management Team
East Pioneer Experimental Stewardship Committee
Elk Creek Watershed Council
Flathead Basin Commission
Flint Creek Watershed
Kootenai River Network, Inc.
Lake Creek Partnership
Lonesome Lake Coordinated Resource Management Group
Lower Missouri River - Coordinated Resource Mananagement
Milk River Watershed
Nevada Creek Watershed
Prospect Creek
Rock Creek Trust
Ruby Valley Watershed Program
Snowline Grazing Association - CRM
Sourdough Creek
Stone Creek
Sun River Watershed
Sweathouse Creek
Teton River Watershed Group
Tri-State Implementation Council
Upper Clark Fork River Basin Steering Committee
Upper Shields
Upper Tenmile Watershed Steering Group
Upper Yellowstone River Task Force
White Pine Creek

Blackfoot Emergency Drought Response Plan

Basin Water Use

- **3,185 surface water rights in basin.**
- **40% (1,270 water rights) > 1 cfs (448 gpm)/65% irrigators.**
- **10% of these water rights are on the Blackfoot river mainstem.**

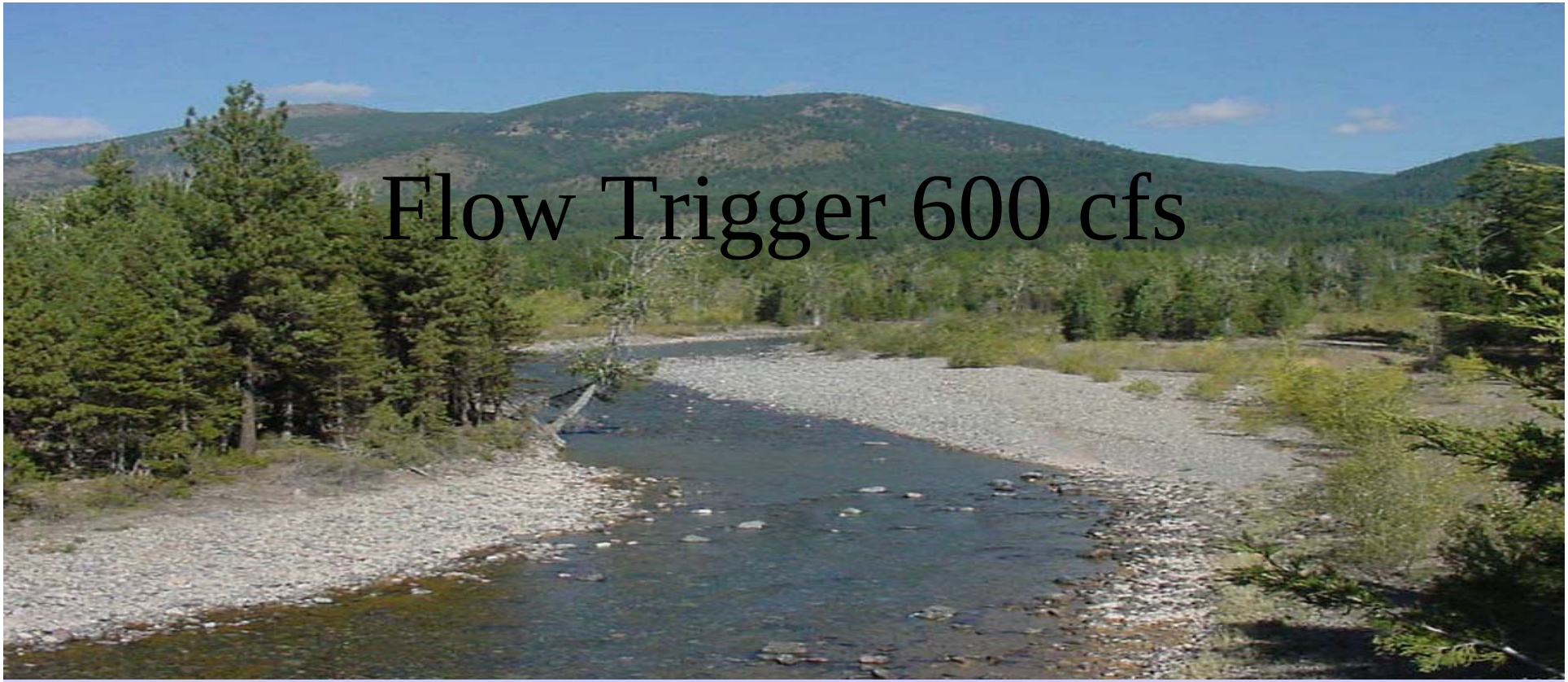
DNRC water rights data base - 2000

Plan Premise:

- Shared Sacrifice
- Voluntary actions
- Equity and Parity in participation:
  - Junior and Senior water users
  - Multiple users and uses
  - Basin-wide participation

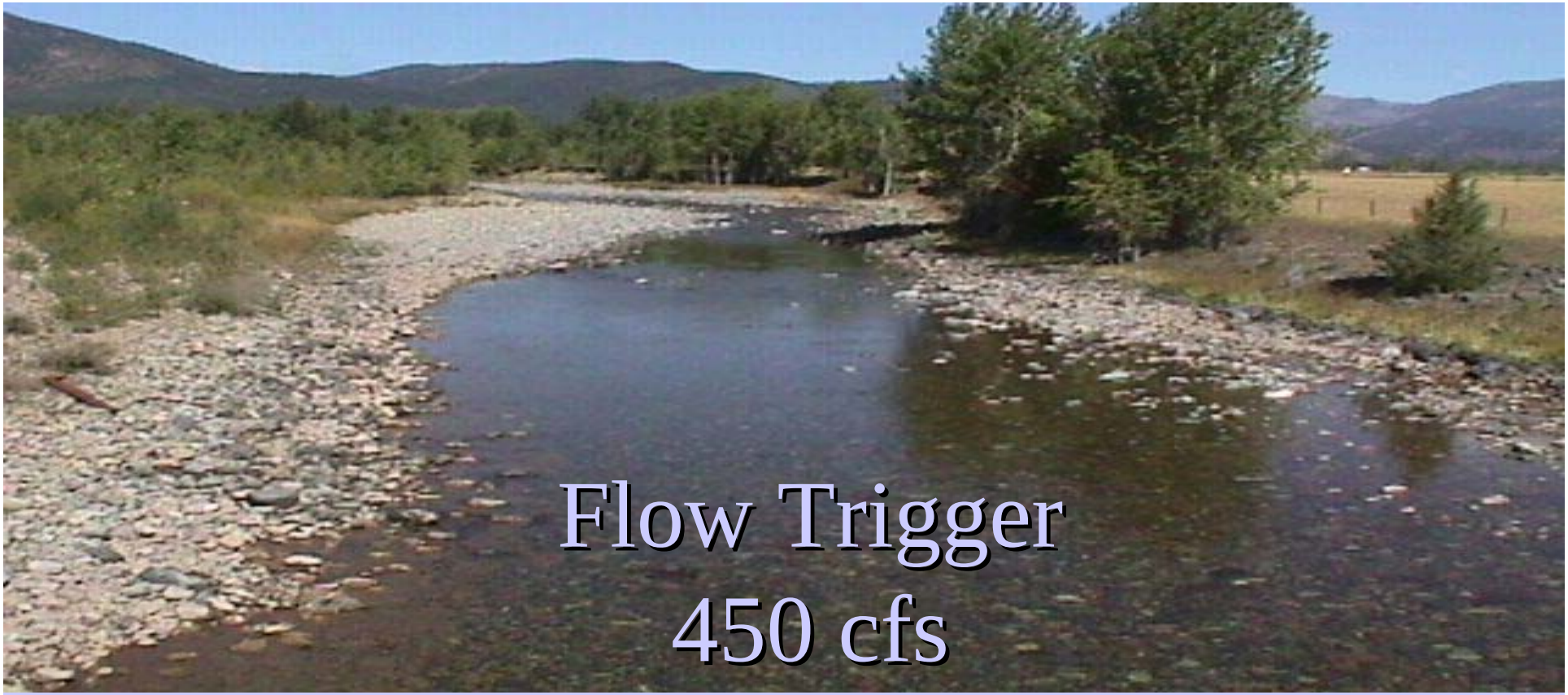
Flow Trigger
700 cfs

- In-stream flow water right at Bonner, MT
- Contact Plan Participants to implement Conservation Plans.
- Confer with FWP regarding low flow & temperature conditions.
- FWP/DNRC begin monitoring river/streams
- Drought Committee recommends “Call List” to FWP.
- FWP reviews/issues Murphy Right “Call.”



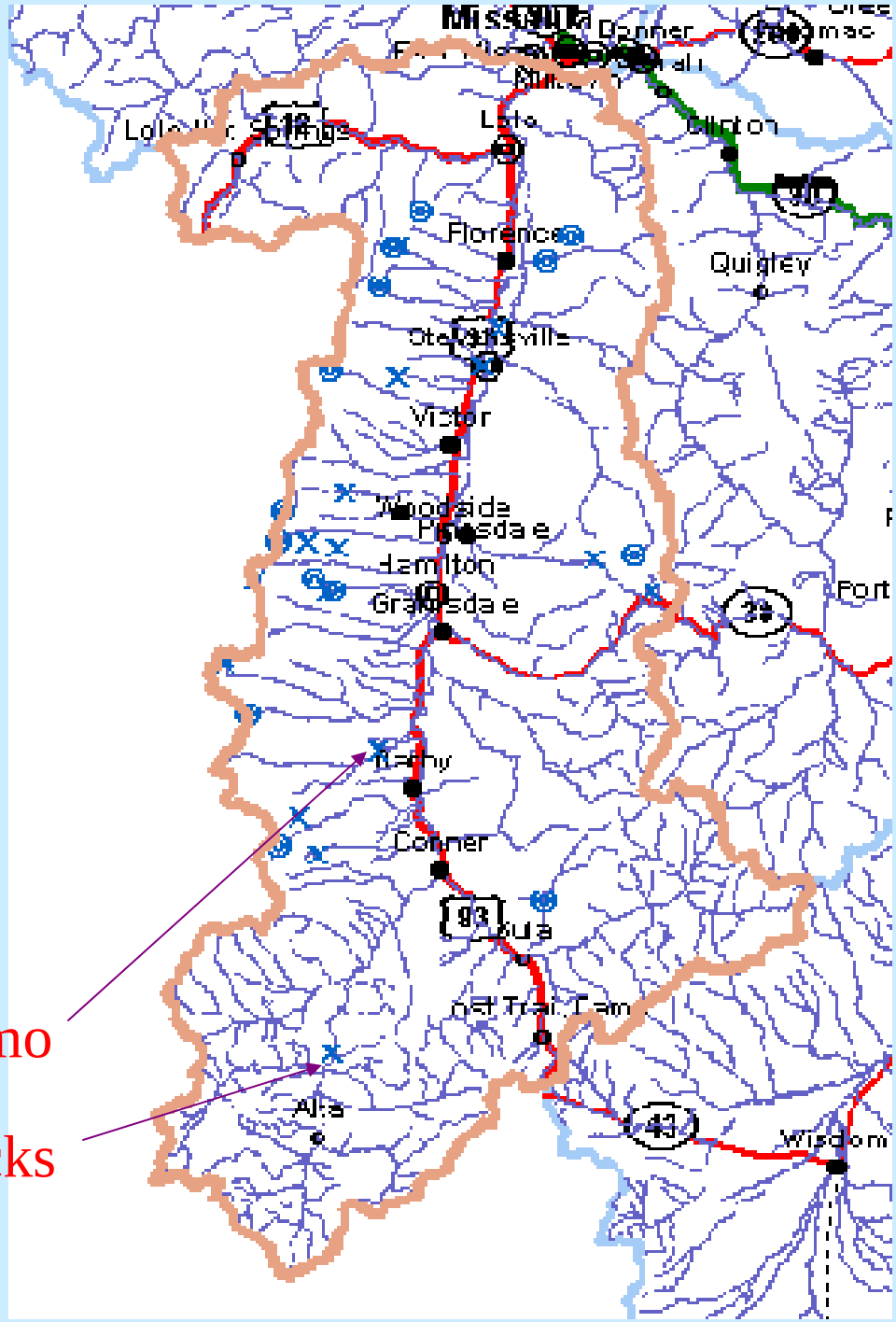
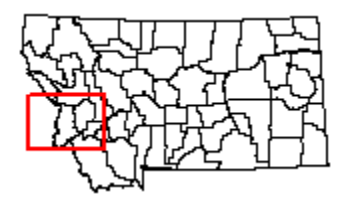
Flow Trigger 600 cfs

- Committee convenes and confirms participation.
- Voluntary fishing restrictions implemented.
- Anglers & Outfitters asked to reduce fishing pressures
- Based upon temperatures mandatory restrictions on fishing & angling.
- Additional “Call” on core “bull trout” tributaries



Flow Trigger
450 cfs

- Emergency Meeting of Drought Committee called.
- Close core Bull Trout streams and reaches to all fishing.
- Request participation or additional participation, especially to senior water users.
- Evaluate junior users and determine if additional “Calls” should be made by FWP.

Storage

- 10,000 A.F. Dedicated storage in Painted Rocks; 2,000 in Como
- Goal: 402 cfs at Bell Crossing