

# Presentation to Powder-Tongue Basin Advisory Group

December 13, 2000



**Sue Lowry**

Director of Policy and Administration  
Wyoming State Engineer's Office

# Topics to Cover

- ❖ Background on Wyoming State Engineer's Office duties
- ❖ Overview of Wyoming Water Law
- ❖ Compacts affecting rivers in northeastern Wyoming

# State Engineer's Office

- ❖ Water Rights have been issued since Territorial Times
- ❖ Agency responsible for the administration of water in the state
- ❖ Water designated the property of the state by the Constitution (Art. 8)



5495—JULY 30TH, 1916, DITCHING SUGAR BEETS U. S. JONES FARM WHEATLAND, WYO.







**Elwood Mead while Wyoming State Engineer.**

**(1890-1899) (Wyoming State Museum)**





**An early day photograph of Hoover Dam  
discharging water from Lake Mead.**





# State Engineer's Office Organizational Chart



# Functions of the SEO

- ❖ Permitting and Regulatory Responsibilities
- ❖ Interstate Compact/Decree Administration
- ❖ Water Resource Data Collection & Distribution
- ❖ Water Education

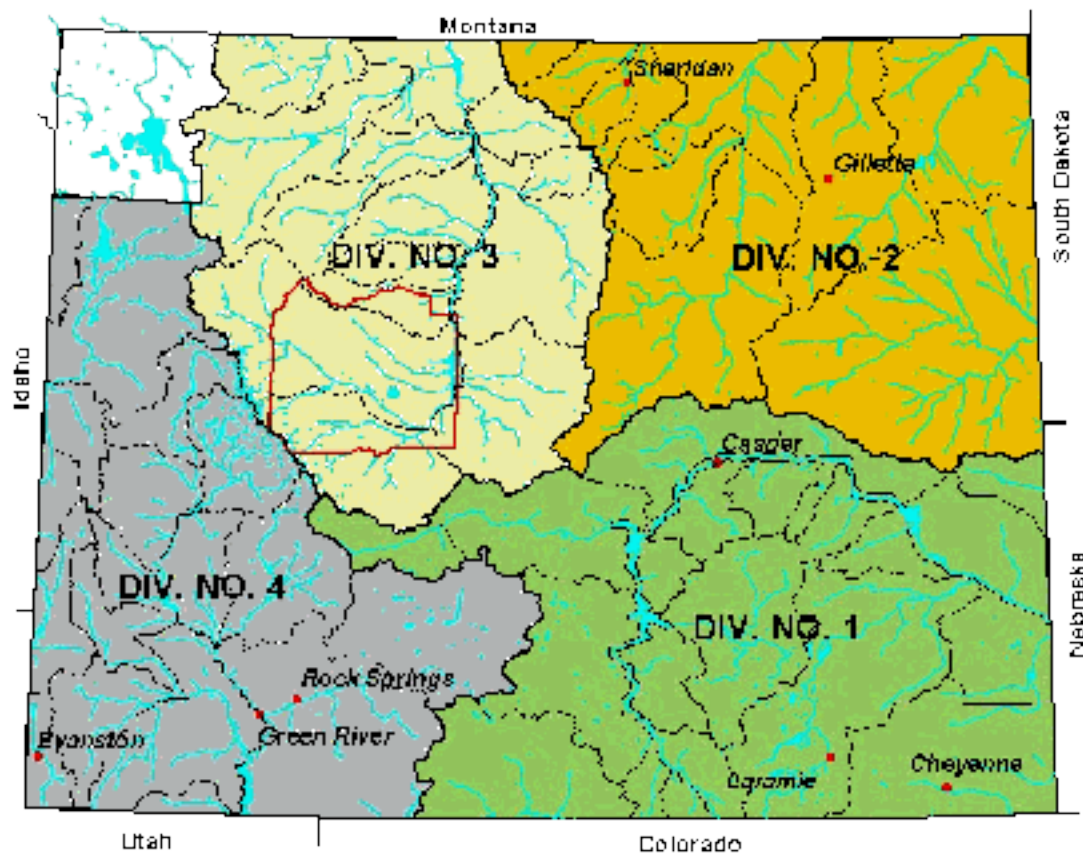
Application Received By Surface Water or Ground Water Division	Application is reviewed by Staff And moves to permit stage if all is in order	Once water is put to Beneficial use, proof is taken by SEO staff	Proof comes before Board of Control for adjudication
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## Functions of the Board of Control

- ❖ Made up of 4 Water Division Superintendents & State Engineer
- ❖ Meet quarterly
- ❖ Act on adjudications, change in point of diversion, change in use, transfers of adjudicated rights



# WYOMING

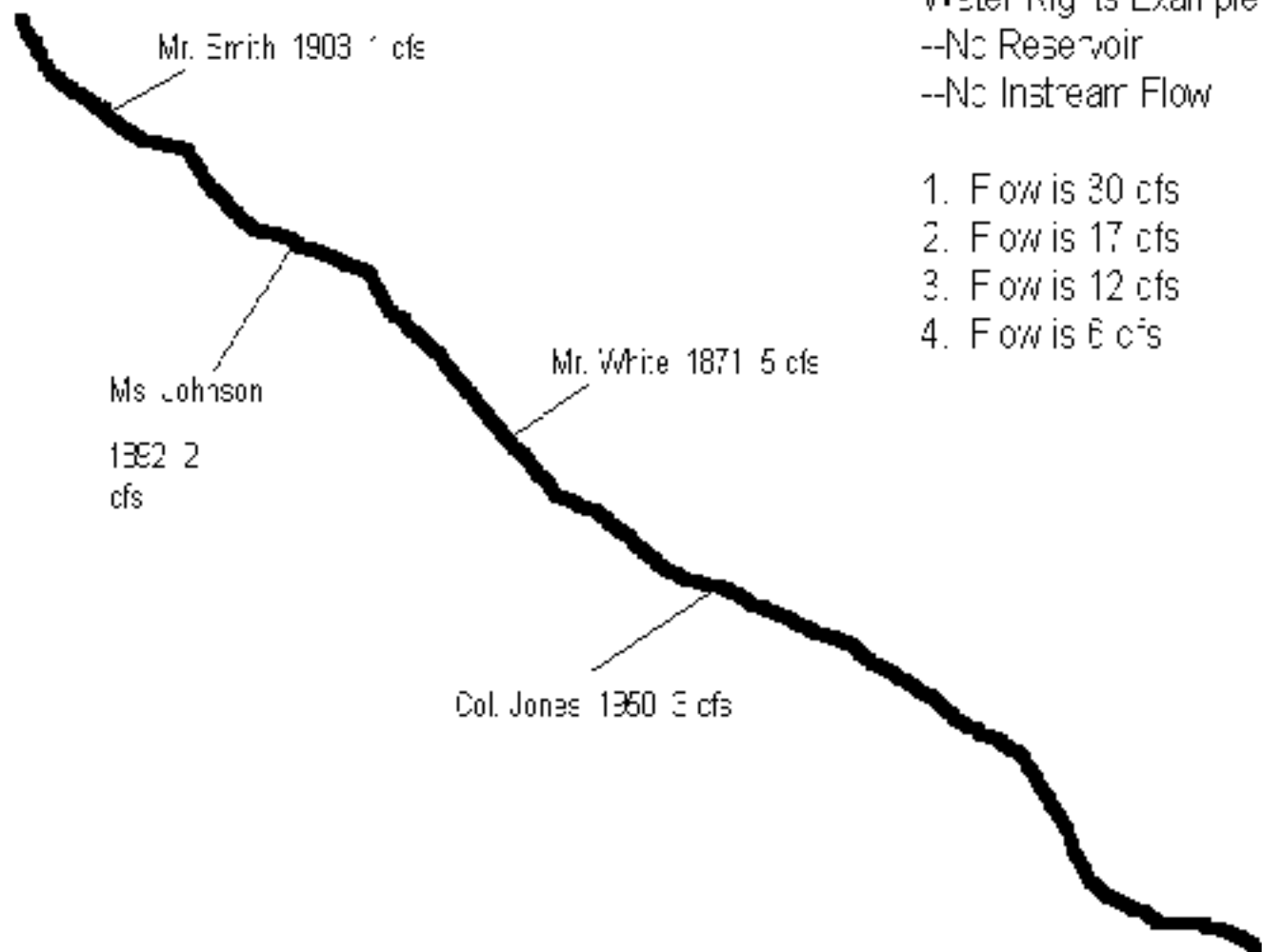




## Water Rights Example

- No Reservoir
- No Instream Flow

1. Flow is 30 cfs
2. Flow is 17 cfs
3. Flow is 12 cfs
4. Flow is 6 cfs



## Water Rights Example

with Reservoir

Jones #1 Reservoir 3200 acre feet 1954 priority

Mr. Smith 1903 1 cfs

Ms. Johnson  
1892 2  
cfs

Mr. White 1871 5 cfs

Col. Jones 1950 3 cfs

Jones #1 Reservoir 3200 acre feet 1954 priority

Mr. Erich 1903 1 cfs

Ms Johnson

1992 2  
cfs

Mr. White 1871 5 cfs

Col. Jones 1950 3 cfs

## Water Rights Example

with Instream  
Flow Water  
Right

State held Instream Flow right  
1907 priority  
4 cfs year-round



# Contemporary uses and demands for water

- ❖ Wyoming water law generally flexible enough to allow consideration of new uses, such as wetlands, waterfowl production
- ❖ May be desirable to provide additional incentives for water conservation
  - ◆ Salvage Water
  - ◆ Leasing Options

**1906 Priority-Rancher Smith**

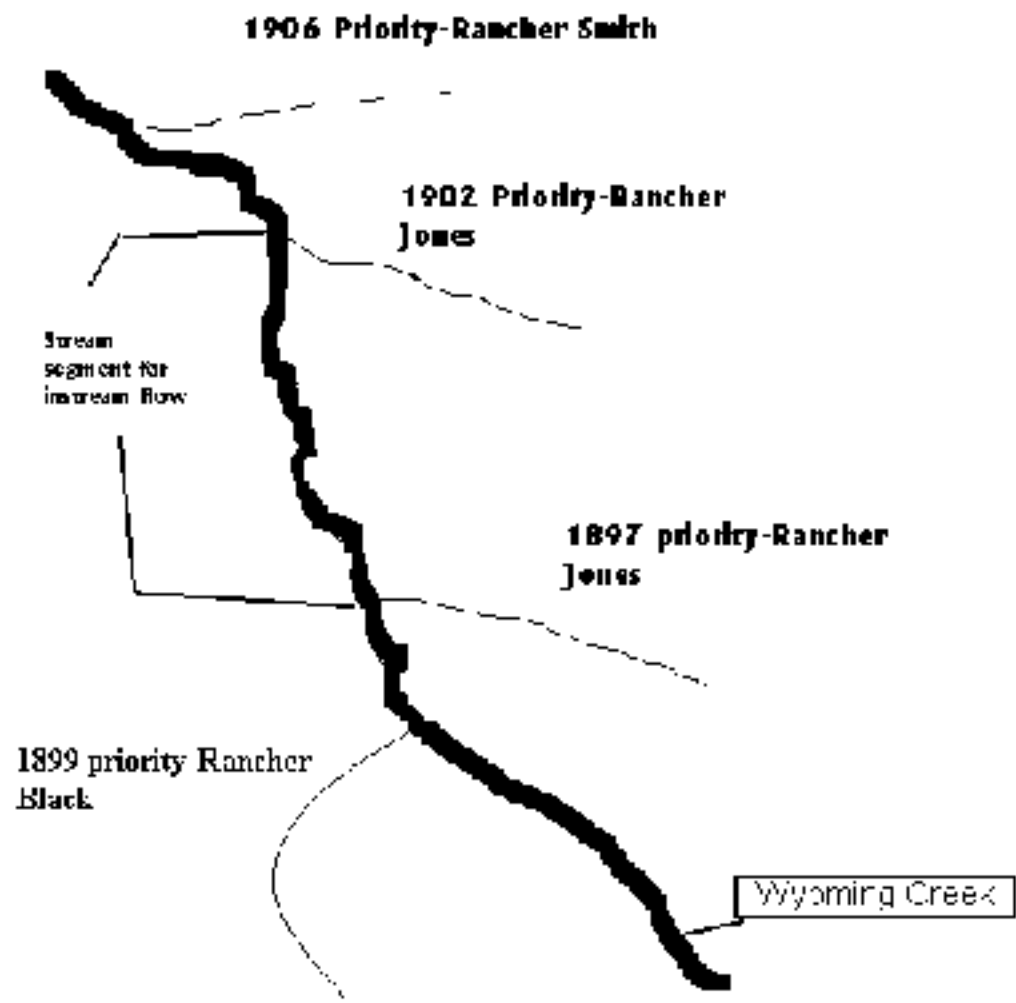
**1902 Priority-Rancher  
Jones**

Stream  
segment for  
instream flow

**1897 priority-Rancher  
Jones**

**1899 priority Rancher  
Black**

Wyoming Creek

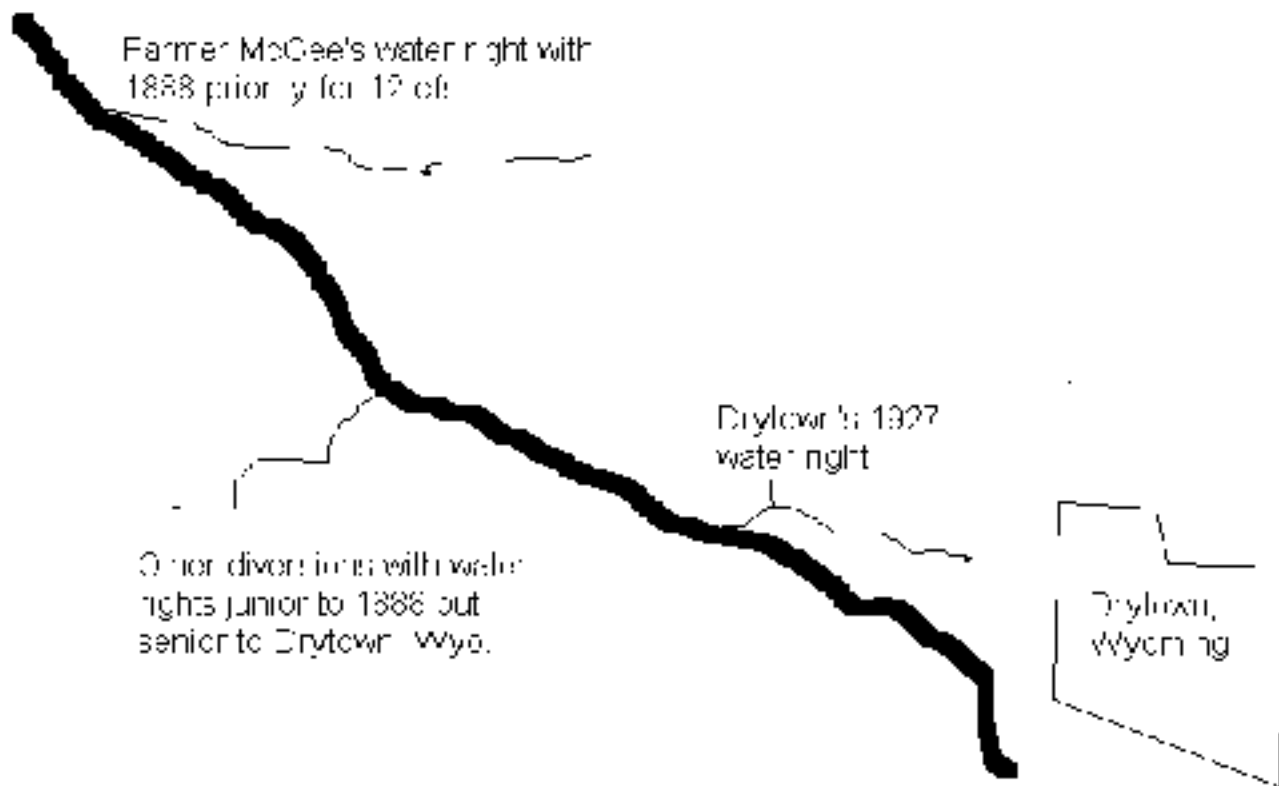


Farmer McGee's water right with  
1888 priority for 12 cfs

Drytown's 1927  
water right

Other diversions with water  
rights junior to 1888 but  
senior to Drytown, Wyo.

Drytown,  
Wyoming



Interstate River  
Compacts affecting the  
River basins in  
Northeastern Wyoming

# Wyoming River Basin Compacts and Decrees





# Yellowstone River Compact in Wyoming



*Legend*

- Cities
- ~ Major Streams
- Lakes/Reservoirs
- Major River Basins

- Yellowstone River Compact, 1950
- Exceptions within the Yellowstone River Compact Area

Allocates the flows of the Powder, Tongue, Big Horn and Clark's Fork Rivers (including Yellowstone National Park) between Montana and Wyoming.



Lambert Conformal Conic Projection

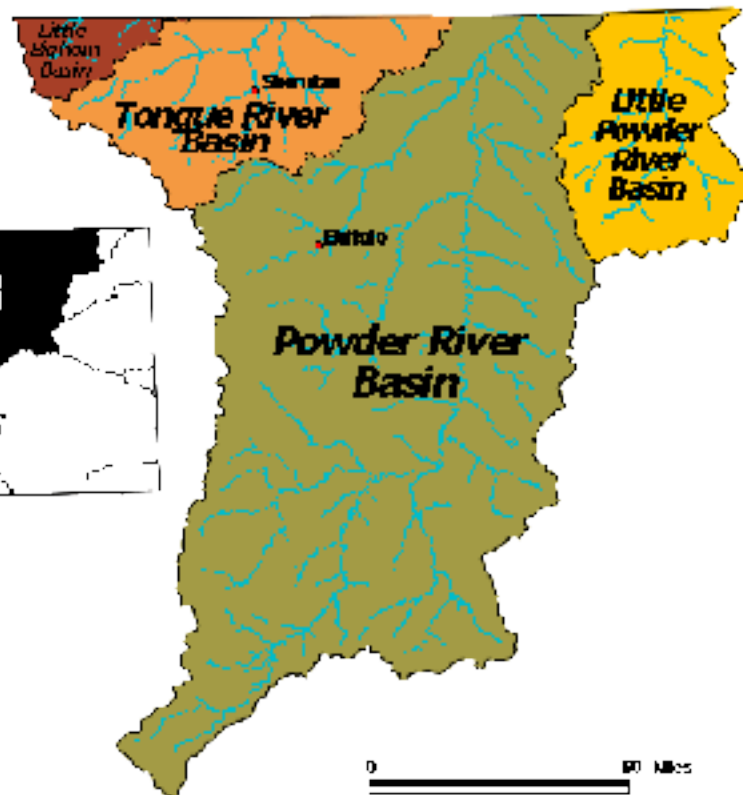


# Powder/Tongue River Basin Plan Area in Wyoming



*Legend*

- Cities
- ~ Major Streams
- Lakes/Reservoirs
- Major River Basins



River Basins in the Powder/Tongue  
River Basin Plan Area

- Little Bighorn River Basin
- Little Powder River Basin
- Powder River Basin
- Tongue River Basin



0 60 Miles

Lambert Conformal Conic Projection

# Yellowstone River Compact

- ❖ Allocates the flows of the Clarks Fork, Wind/Bighorn, Powder and Tongue Rivers (excludes the Little Bighorn)
- ❖ Recognizes all beneficial uses in place January 1, 1950
- ❖ Supplemental supplies to pre-1950 lands are exempt

## Commission members

- ❖ One member from Montana and Wyoming appointed by the Governor
- ❖ Federal Chairman selected by the Director of the USGS
- ❖ Generally meet annually in late November or early December, rotating between Wyoming and Montana

# Compact Allocations

## ❖ Clarks Fork

- ◆ Wyoming 60%
- ◆ Montana 40%

## ❖ Wind/Bighorn

- ◆ Wyoming 80%
- ◆ Montana 20%

# Compact Allocations (con't)

## ❖ Tongue

- ◆ Wyoming 40%
- ◆ Montana 60%

## ❖ Powder

- ◆ Wyoming 42%
- ◆ Montana 58%

# Current issues before the Commission

- ❖ Coalbed methane development
  - ◆ Water Quantity and Quality concerns
- ❖ Compact Administration
- ❖ Tribal Reserved Water Rights



# Tribal Reserved Water Rights

## ❖ Montana Reserved Water Rights Compact Commission

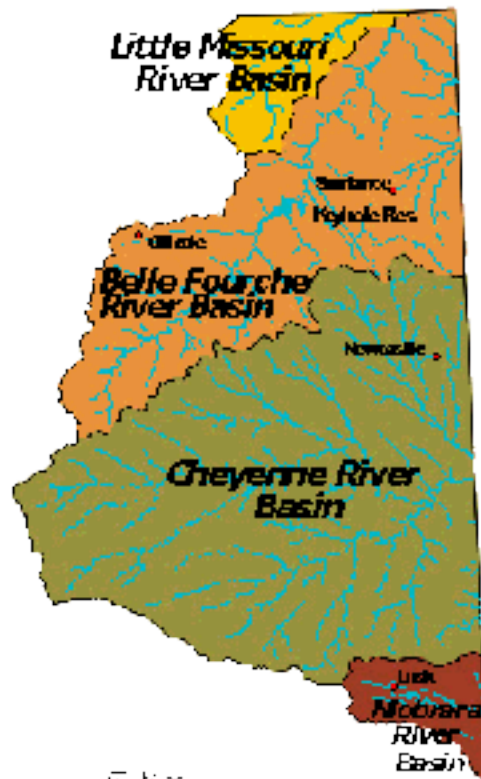
### ◆ Northern Cheyenne

- ❖ Tongue River Reservoir Rehab

### ◆ Crow Tribe

- ❖ Compact ratified by MT. legislature

# Northeast River Basin Plan Area in Wyoming



0 50 Miles

Unscaled, Conformal Conic Projection

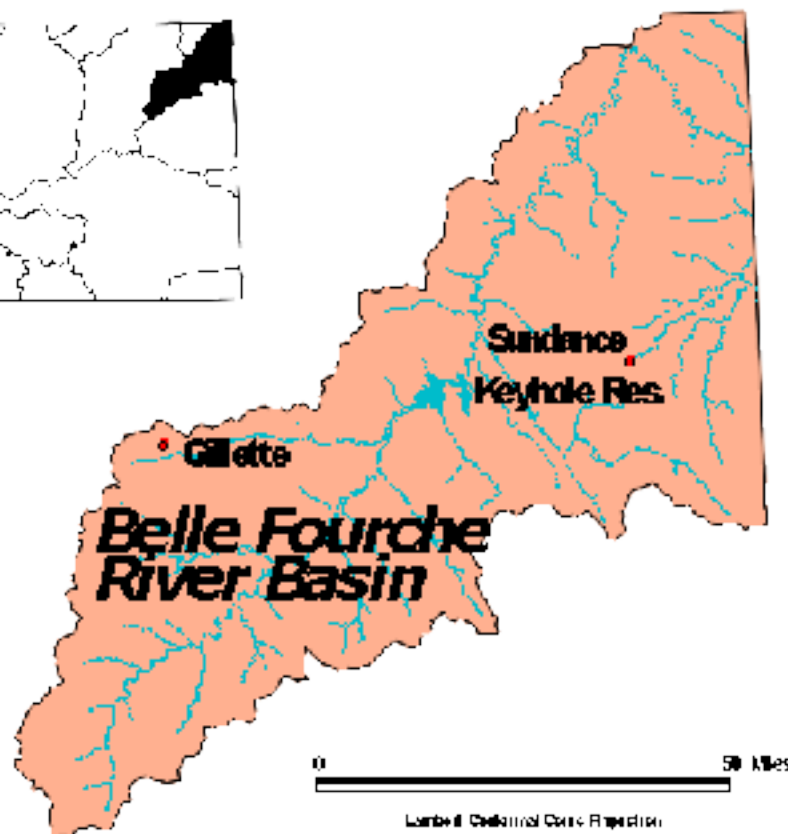
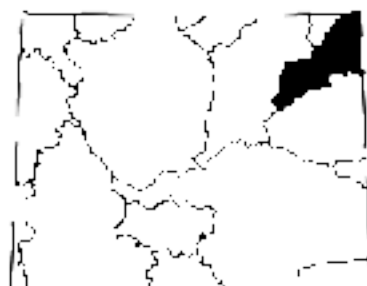
- Legend*
- Cities
  - ~ Major Streams
  - Lakes/Reservoirs
  - Major River Basins

River Basins in the Northeast  
River Basin Plan Area

- Niobrara River Basin
- Little Missouri River Basin
- Cheyenne River Basin
- Belle Fourche River Basin



# Belle Fourche River Compact in Wyoming



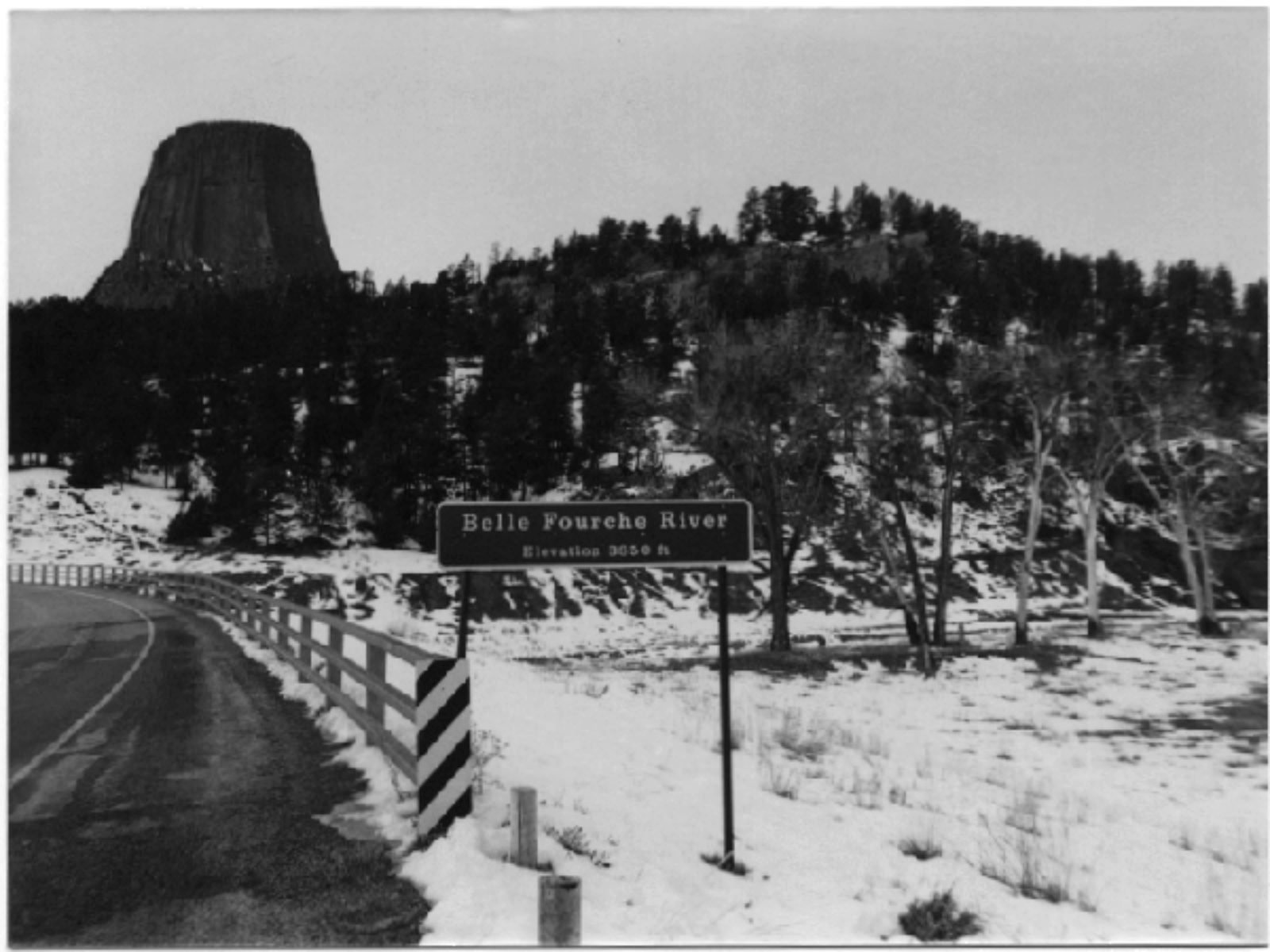
*Legend*

- Cities
- ~ Major Streams
- Lakes/Reservoirs
- Major River Basins

Belle Fourche River Compact 1943

Allocates new uses after 1943, 10% to Wyoming and 90% to South Dakota.





Belle Fourche River

Elevation 3850 ft

# Belle Fourche River Compact

## 1943

- ❖ Allocates unappropriated waters “as of the date of the compact”:
  - ◆ 90% to South Dakota
  - ◆ 10% to Wyoming
- ❖ Limits new Wyoming reservoirs to less than 1000 acre feet in capacity



# Keyhole Reservoir Minimum Pool Discussions

- ❖ Drought of late 1980's resulted in very low storage levels at Keyhole Reservoir
- ❖ Citizens approached Gov. Sullivan about getting a minimum recreation pool established
- ❖ Legislation in 1994 appropriated \$883,500 for water purchases and O&M fees
- ❖ Unable to reach agreement with CCID

# Upper Niobrara River Compact in Wyoming



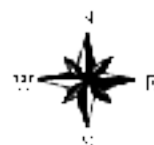
*Legend*

- Cities
- ~ Major Streams
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- Major River Basins



■ Upper Niobrara River Compact, 1962

Restrictions on storage in larger (over 500 acre feet) facilities.



0 10 20 Miles

Landform Classification Data Projection

Bill Davis, R. G. G. & S. 2000  
Wyoming State Engineers Office



# Upper Niobrara River Compact


- ❖ Completed in 1962
- ❖ Applies some storage restrictions on reservoirs built after 1957
- ❖ Agree to share groundwater data and collection additional groundwater information

# Little Missouri River Basin in Wyoming



*Legend*

-  Major Streams
-  Lakes/Reservoirs
-  Major River Basins

 Little Missouri River Basin

No Compacts or Treaties



0 20 miles

Lambert Conformal Conic Projection



# Cheyenne River Basin in Wyoming



*Legend*

- Cities
- ~ Major Streams
- Lakes/Reservoirs
- Major River Basins

■ Cheyenne River Basin

No Compacts or Decrees

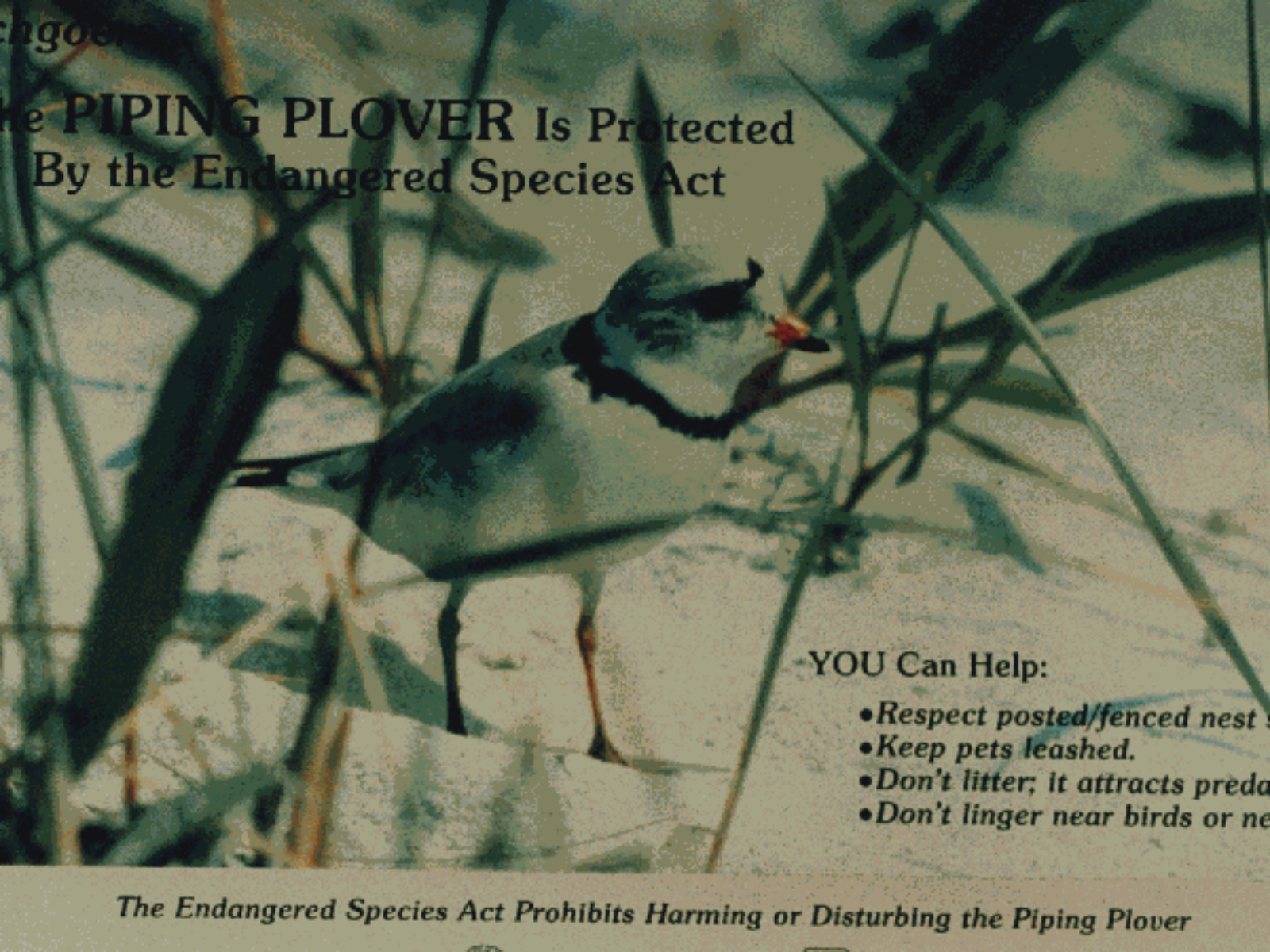


0 50 Miles

Barlett Geotek and Geak Projection







ngoes

# The PIPING PLOVER Is Protected By the Endangered Species Act

## YOU Can Help:

- Respect posted/fenced nest
- Keep pets leashed.
- Don't litter; it attracts predators
- Don't linger near birds or nests

*The Endangered Species Act Prohibits Harming or Disturbing the Piping Plover*

# Wyoming's participation in Missouri River Basin Association

- ❖ 8 states in the Missouri River basin  
plus Tribal representation through  
Mni Sose
- ❖ Master Manual Review and Update
  - ◆ Faster response during drought periods
- ❖ Final Biological Opinion  
completed by the Fish and Wildlife  
Service Nov. 30, 2000



**Photograph 8. The pallid sturgeon links back to prehistoric times. It is well adapted to live in the large, turbid rivers like the Missouri, however, changes to the river habitats and hydrology have reduced or eliminated reproduction. In the upper river, only a few aging adults remain.**



