



# **BULL LAKE RESERVOIR ALLOCATIONS**

Dam Crest Elev. 5813.0

Maximum Water Surface / Top of Active Conservation Elev. 5805.0 (152,459 Acre-Feet)



RECREATION



**FLOOD CONTROL** 

Gated Spillway Crest Elev. 5794.0

**Active Conservation - 151,737 Acre-Feet** 



FISH



**IRRIGATION** 

Top of Inactive Conservation / Dead Elev. 5739.0 (722 Acre-Feet)

Outlet Works Elev. 5739.0

Inactive & Dead - 722 Acre-Feet Estimated

Streambed Elev. 5737.0

7/28/00



### **Riverton Unit Benefits**

### Irrigation

- Water Supply From Bull Lake Creek and the Wind River serves 72,197 acres of Midvale ID lands

### **Power Generation**

- Two 800 kW generators at the inlet of Pilot Butte Reservoir
- Average annual generation of 3,000,000 kWh

### Flood Control

- No space allocated for flood control but some flood protection is provided by operation for other purposes
- The Corps of Engineers estimates Bull Lake Reservoir has prevented \$2,690,300 in flood damages since 1950

#### Recreation

- Pilot Butte Reservoir is managed By the Bureau of Reclamation
- Ocean Lake is managed by the Wyoming Game and Fish Department
- Lake Cameahwait is managed by the Wyoming Game and Fish Department

# Riverton Unit Project Features

Bull Lake Reservoir - 152,459 acre-feet capacity at top of conservation pool

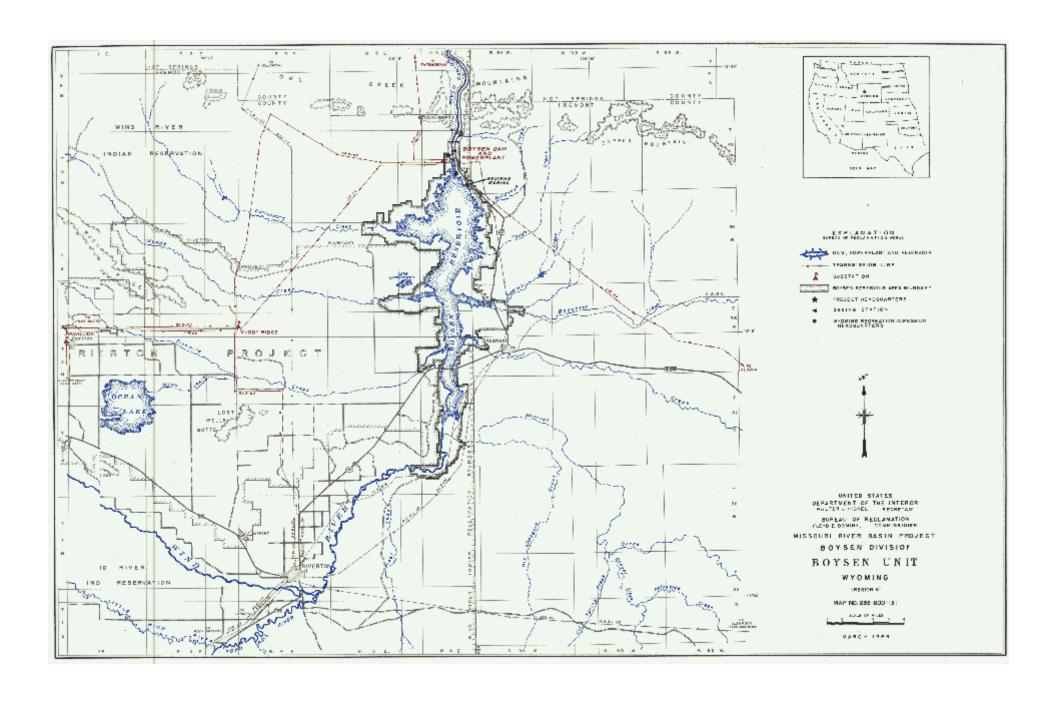
Pilot Butte Reservoir - 33,721 acre-feet capacity at top of conservation pool

Pilot Butte Powerplant - 1,600 kW generating capacity

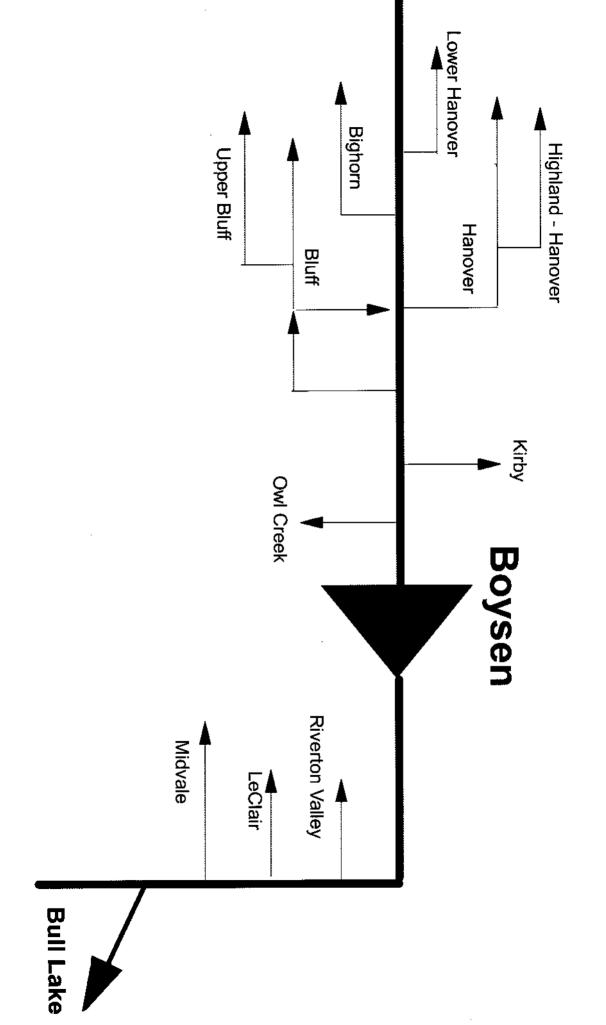
Diversion Dam - diverts water from the Wind River into the Wyoming Canal

Wyoming Canal - diversion capacity of 2,200 cfs

Pilot Canal - diversion capacity of 1,000 cfs







# **BOYSEN RESERVOIR ALLOCATIONS** Dam Crest Maximum Water Surface / top of Surcharge Elev. 4752.0 (1,412,905 Acre-Feet) Surcharge - 520,679 Acre-Feet Top of Flood Control Elev. 4732.2 (892,226 Acre-Feet) **Exclusive Flood Control 150.632 Acre-Feet** Top of Joint Use - Elev. 4725.0 (741,594 Acre-Feet) Joint Use - 144.229 Acre-Feet Top of Active Conservation Elev. 4717.0 (597,365 Acre-Feet) Gated **Spillway Crest** Elev. 4700.0 **POWER** IRRIGATION FLOOD CONTROL RECREATION Active Conservation - 378,184 Acre-Feet MUNICIPAL FISH **INDUSTRIAL** Top of Inactive Conservation Elev. 4685.0 (219,181 Acre-Feet) Inactive Conservation - 179,097 Acre-Feet **Outlet & Penstock**

Top of Dead Elev. 4657.0

Streambed Elev. 4608.0 Dead - 40.084 Acre-Feet

Inverted Elev. 4657.0

7/28/00

# **Boysen Unit Benefits**

### Irrigation

Water Supply From the Wind River to:

- Federal Projects Hanover Bluff Unit serving 8,490 acres, and Owl Creek Unit serving 11,251 acres
- Non-Federal Long Term Contractors LeClair ID, Riverton Valley ID, Hanover ID, Bighorn Canal ID
- Municipal and Industrial Contractors Towns of Thermopolis, Kirby, and Shoshoni, and Lucerne

#### Water and Sewer District

- Temporary Contracts contingent on availability of water and demand

### **Power Generation**

- Two 7,500 kW generators
- Average annual generation of 79,200,000 kWh
- Discharge capacity of approximately 2,200 cfs

### Flood Control

- Flood Control Pool operated by the Corps of Engineers
- The Corps of Engineers estimates Boysen Reservoir has prevented \$76,397,400 in flood damages since 1952

### Recreation

- Boysen State Park is managed By the Wyoming State Parks and Historic Sites

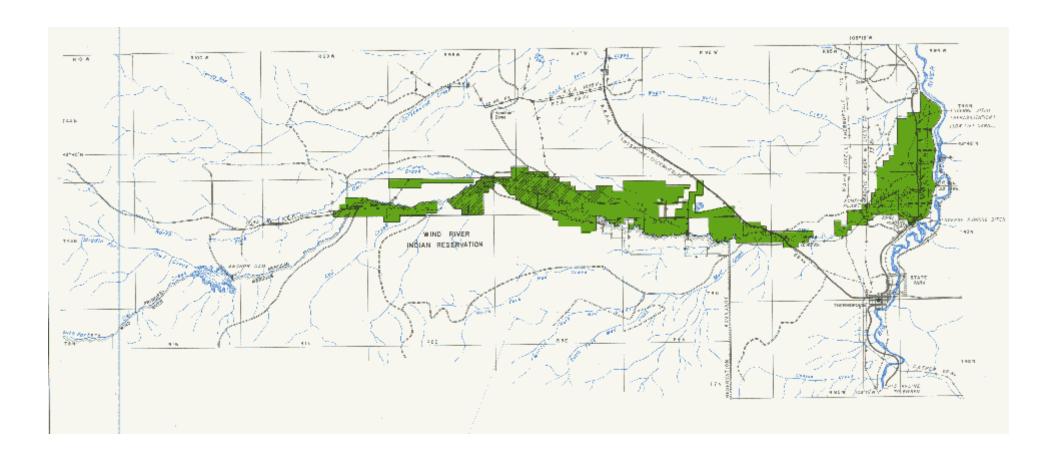
#### Fish and Wildlife

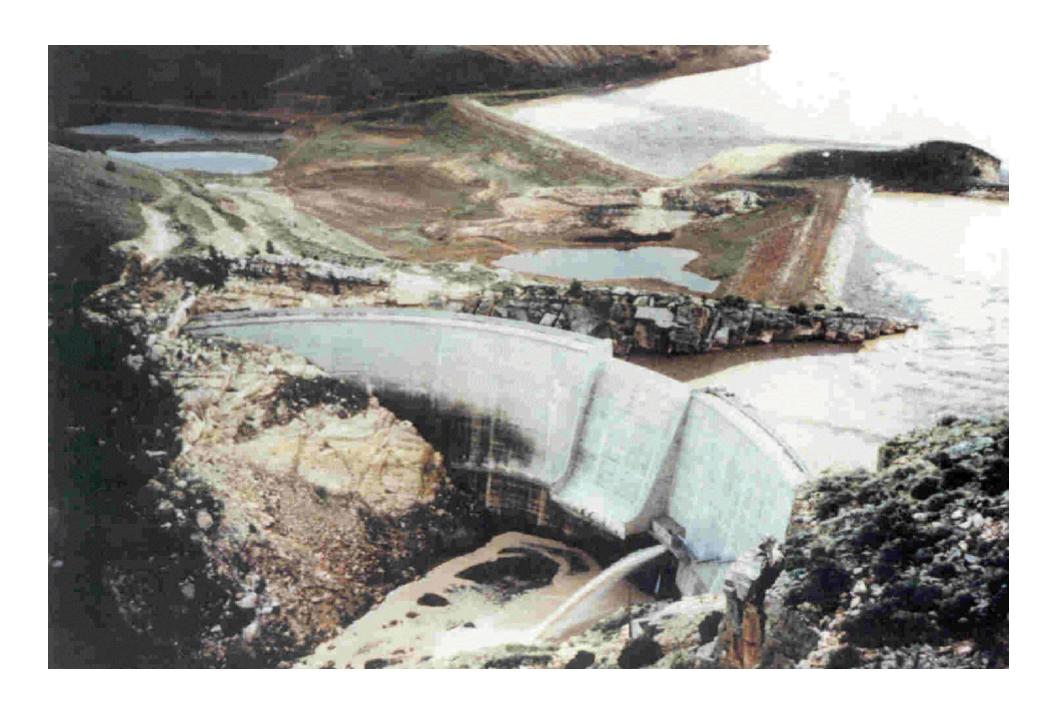
- Boysen Reservoir fishery is managed by the Wyoming Game and Fish Department

## Boysen Unit Project Features

Boysen Reservoir - 741,594 acre-feet capacity at top of conservation pool

Boysen Powerplant - 15,000 kW generating capacity





# **ANCHOR RESERVOIR ALLOCATIONS**

Dam Crest Elev. 6452.5

Maximum Water Surface / Top of Surcharge Elev. 6451.5 (22,264 Acre-Feet)

Surcharge - 5,036 Acre-Feet

Top of Active Conservation Elev. 6441.0 (17,228 Acre-Feet)

SPILLWAY CREST ELEV. 6441.0



FISH



RECREATION



**FLOOD CONTROL** 



IRRIGATION

**Active Conservation - 17,162 Acre-Feet** 

Top of Inactive or Dead Conservation Elev. 6343.75 (66 Acre-Feet)

River Outlet Works Sill Elev. 6343.75

Inactive and Dead - 66 Acre-Feet

Streambed Elev. 6295.0

7/28/00

Note: Symbols represent typical reservoir uses.

## Owl Creek Unit Benefits

## Irrigation

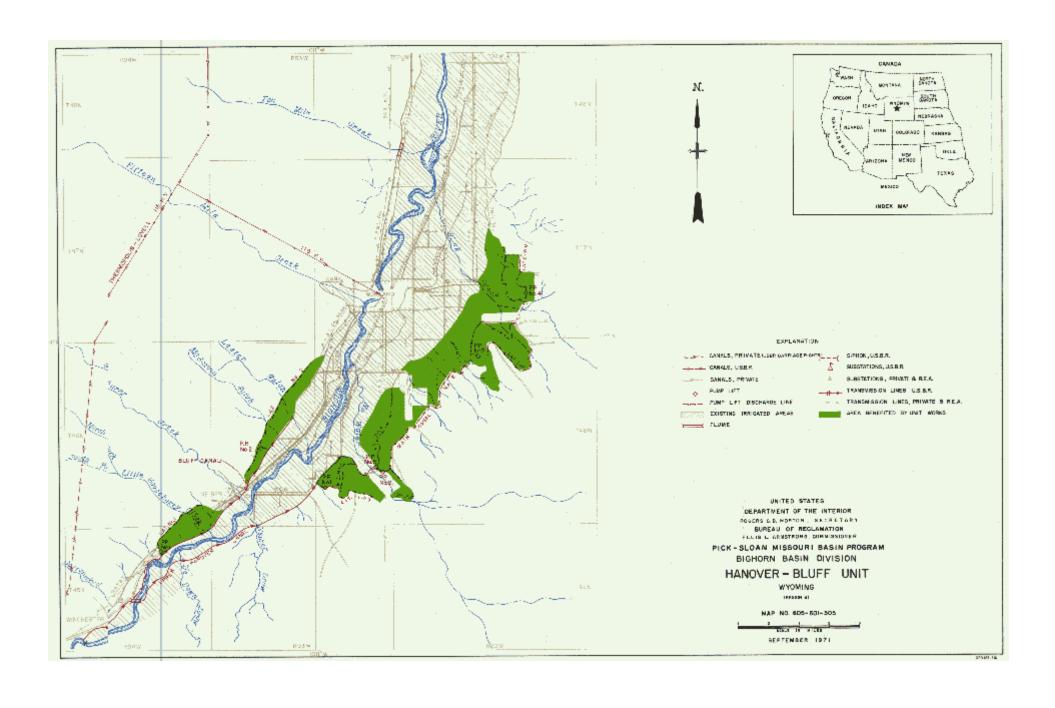
Water Supply from Owl Creek and the Bighorn River serves 11,251 acres of Owl Creek ID lands

# Owl Creek Unit Project Features

Anchor Reservoir - 17,229 acre-feet capacity at top of conservation pool

Lucerne Pumping Plant No. 1 - 84 cfs capacity

Lucerne Pumping Plant No. 2 - 33 cfs capacity



# Hanover - Bluff Unit Benefits

### **Irrigation**

Water Supply from the Wind River serves 6,992 acres of Highland - Hanover ID lands and 1,498 acres of Upper Bluff ID lands

# Hanover - Bluff Unit Project Features

Hanover Diversion Dam - Diversion Capacity of 487 cfs

Hanover Pumping Plant No. 1 - 20 cfs capacity

Hanover Pumping Plant No. 2 - 100 cfs capacity

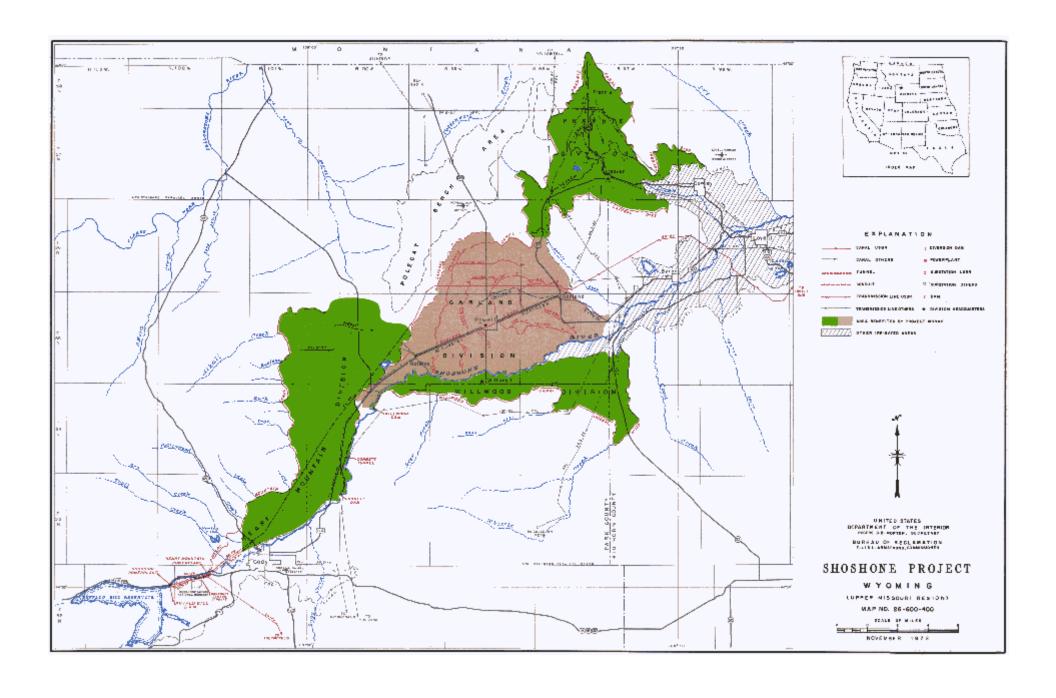
Hanover Pumping Plant No. 3 - 17 cfs capacity

Hanover Pumping Plant No. 4 - 17 cfs capacity

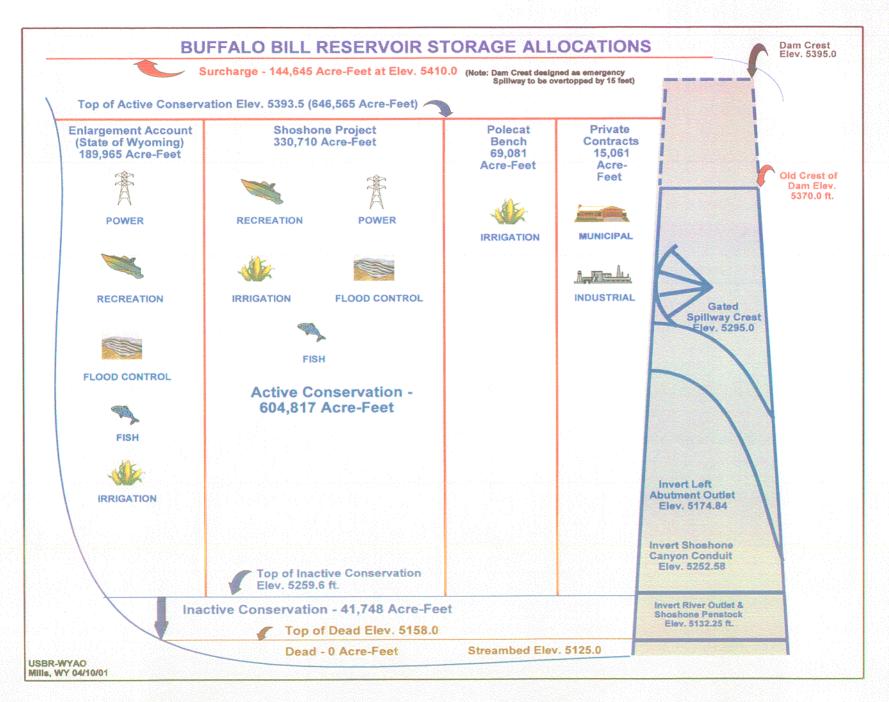
Hanover Pumping Plant No. 5 - 25 cfs capacity

Bluff Pumping Plant No. 1 - 17 cfs capacity

Bluff Pumping Plant No. 2 - 20 cfs capacity







Note: Symbols represent typical reservoir uses.

# **BUFFALO BILL RESERVOIR ALLOCATIONS**

Dam Crest Elev. 5395.0



Surcharge - 144.645 Acre-Feet at Elev. 5410.0

(Note: Dam Crest designed as emergency Splilway to be overtopped by 15 feet)

South Fork Dike Crest Elev. 5401.0

South Fork Ungated Spillway Crest Elev. 5394.0

Content 2575 Acre-Feet

Top of Active Conservation Elev. 5393.5 (646,565 Acre-Feet)

North Fork Dike Crest Elev. 5370.0 Content 1639 Acre-Feet

South Fork Outlet Elev. 5367.6

North Fork Ungated Spillway Crest Elev. 5365.0 **Active Conservation - 604,817 Acre-Feet** 

North Fork Outlet Elev. 5340.0







RECREATION



**POWER** 









FLOOD CONTROL

FISH

INDUSTRIAL

MUNICIPAL

▼ Top of Inactive Conservation Elev. 5259.6 (41,748 Acre-Feet)

Inactive Conservation - 41,748 Acre-Feet

Top of Dead Elev. 5158.0

Dead - 0 Acre-Feet

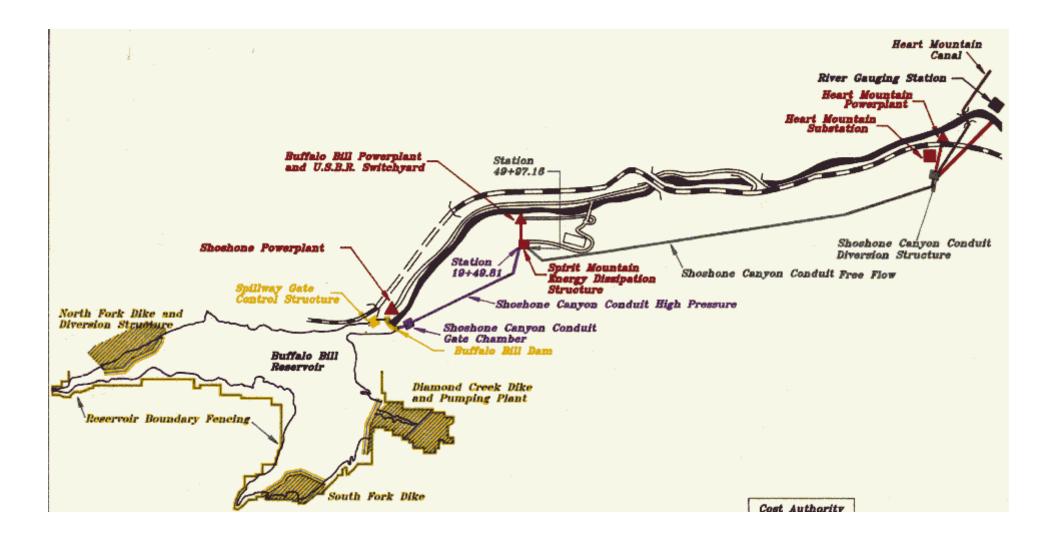
Streambed Elev. 5125.0

Gated Spillway Crest Elev. 5295.0

Invert Left Abutment Outlet Elev. 5174.84

> Invert Shoshone Canyon Conduit Elev. 5252.58

Invert River Outlet & Shoshone Penstock Elev. 5132.25



# Shoshone Project and Buffalo Bill Unit

### Irrigation

Water Supply from the Shoshone River to:

- Federal Projects Shoshone Project serving 93,824 acres
- Non-Federal Long Term Contractors Cody Canal, North Fork Valley Ditch Co.
- Municipal and Industrial Contractors Shoshone Municipal Water Joint Powers Board

### **Power Generation**

- Heart Mountain Powerplant (Shoshone Project)
  - One 6,000 kW generator
  - Average annual generation of 13,400,000 kWh
  - Discharge capacity of approximately 360 cfs
- Shoshone Powerplant (Buffalo Bill Unit)
  - One 3,000 kW generator
  - Average annual generation of 21,900,000 kWh
  - Discharge capacity of approximately 200 cfs
- Buffalo Bill Powerplant (Buffalo Bill Unit)
  - Three 6,000 kW generators
  - Average annual generation of 78,400,000 kWh
  - Discharge capacity of approximately 930 cfs
- Spirit Mountain Powerplant (Buffalo Bill Unit)
  - One 4,500 kW generator
  - Average annual generation of 3,000,000 kWh
  - Discharge Capacity of approximately 560 cfs

### Flood Control

- No space allocated for flood control but some flood protection is provided by operation for other purposes
- The Corps of Engineers estimates Buffalo Bill Reservoir has prevented \$9,440,700 in flood damages since 1950

### Recreation

- Buffalo Bill State Park is managed By the Wyoming State Parks and Historic Sites

### Fish and Wildlife

- Buffalo Bill Reservoir fishery is managed by the Wyoming Game and Fish Department

## **Shoshone Project Features**

- Buffalo Bill Reservoir 646,565 acre-feet capacity at top of conservation pool
- Heart Mountain Powerplant 6,000 kW generating capacity
- Shoshone Canyon Conduit diversion capacity of 2,130 cfs
- Heart Mountain Canal diversion capacity of 915 cfs
- Corbett Diversion Dam diverts water from the Shoshone River into the Garland Canal
- Garland Canal diversion capacity of 1,000 cfs
- Willwood Diversion Dam diverts water from the Shoshone River into the Willwood Canal
- Willwood Canal diversion capacity of 320 cfs

### **Buffalo Bill Unit Features**

- Shoshone Powerplant 3,000 kW generating capacity
- Buffalo Bill Powerplant 18,000kW generating capacity
- Spirit Mountain Powerplant 4,500 kw generating capacity
- North Fork Dike and South Fork Dike- designed to hold water in areas that would become dry as the reservoir level decreased to reduce the area of dry lake bed
- Diamond Creek Dike constructed to prevent Diamond Creek and Irma Flats from being inundated by the enlarged reservoir
- Diamond Creek Reservoir holds the flow of Diamond Creek at the base of Diamond Creek Dike
- Diamond Creek Pumping Plant pumps water from Diamond Creek Reservoir into Buffalo Bill Reservoir