

RECLAMATION

Managing Water in the West

Boise River Reservoir Operations

Treasure Valley CAMP Meeting
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U.S. Department of the Interior
Bureau of Reclamation

Boise River & Reservoir System

- Drainage area – 2650 square miles
- Provides water for full and supplemental irrigation to approx. 275,000 acres
- Electrical generation at Anderson Ranch, Arrowrock, Lucky Peak, and Boise Diversion Dam
- Flood operations in conjunction with Army Corps of Engineers
- Max. recorded discharge – 35,500 cfs, June 14, 1896

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Boise River Diversion Dam

- Completed 1908 by USRS
- 68-ft high concrete and masonry dam
- Constructed to divert water into New York Canal and to provide power for Arrowrock construction
- Three 1100 kW generators



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Arrowrock Dam

- Completed 1915 by USRS
- 350-ft high thick- concrete arch dam
- 272,200 AF storage capacity
- Authorized for irrigation storage



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Anderson Ranch Dam

- Completed 1950 by USBR
- 456-ft high embankment dam
- 413,100 AF storage capacity
- Authorized for irrigation, power and flood control



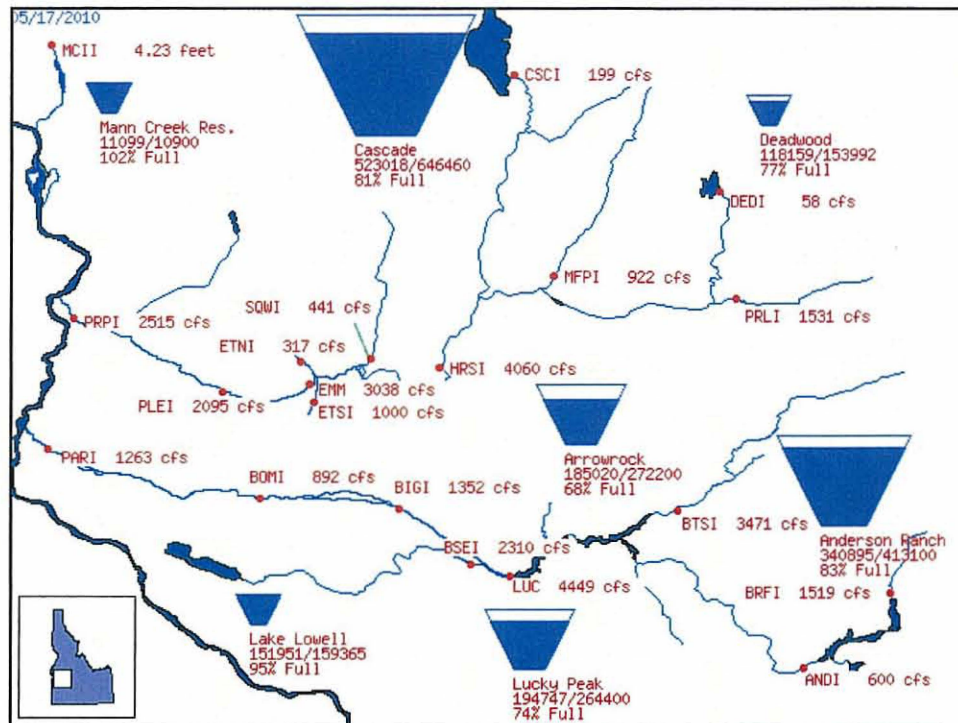
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Lucky Peak Dam

- Completed 1954 by Army Corps of Engineers
- 340-ft high embankment dam
- 264,370 AF storage capacity
- Authorized for flood control and storage



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Boise River Reservoir Operations

- Primary objective is flood control
- Second objective is water supply storage
- Flood control operations primarily driven by runoff forecast
- Flood control operations dictated by Army Corps "rule curves" based on nearly 100 years of hydrologic record and current snowpack conditions

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Boise River Reservoir Operations (cont.)

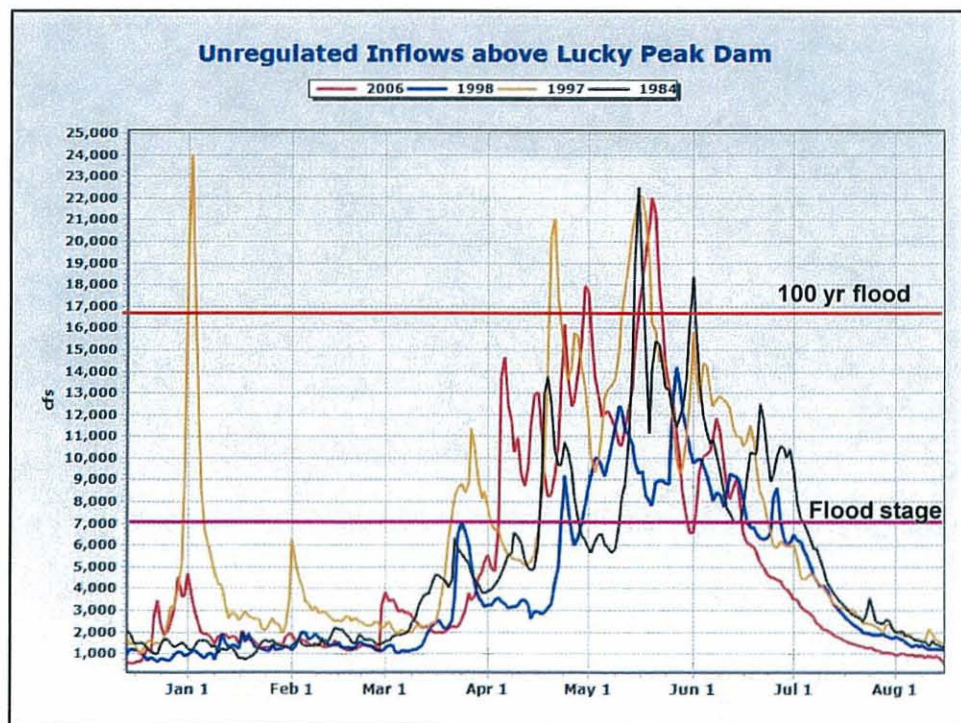
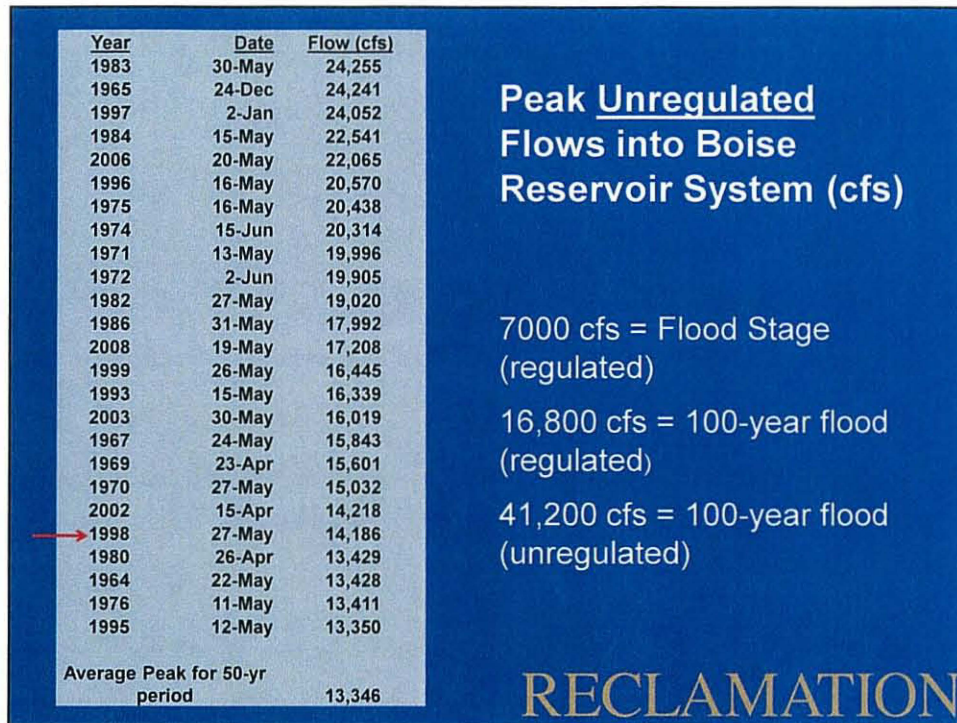
- Irrigation operations primarily driven by irrigation demand
- Irrigation releases are ordered daily by the Boise River Water Master
- Reclamation works with the Corps of Engineers, Boise River Watermaster, and others to manage the reservoir system for multiple objectives

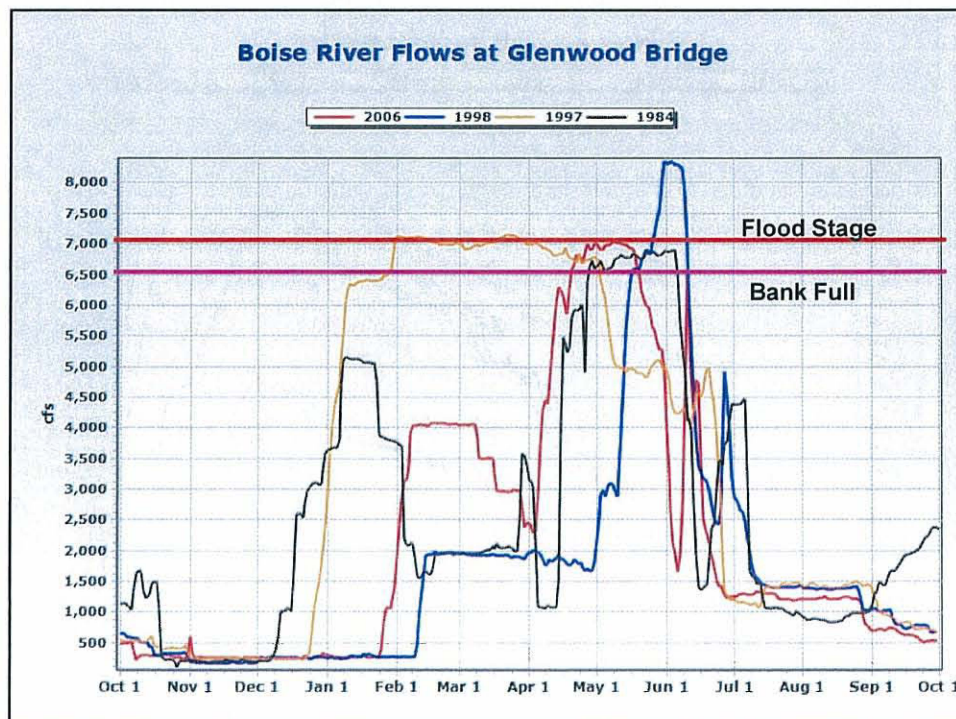
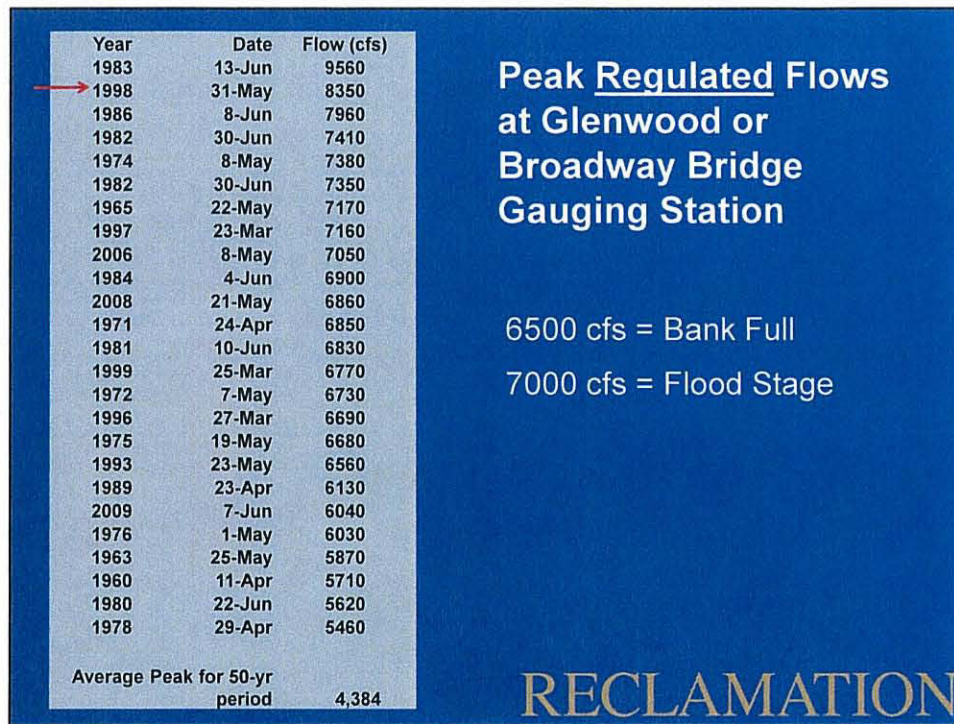
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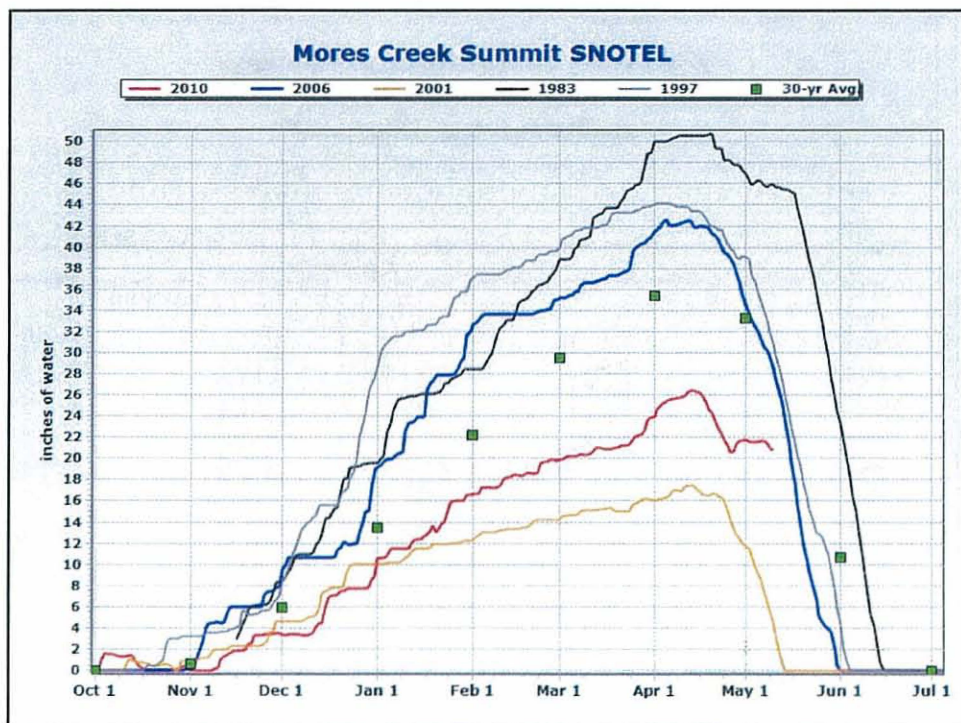
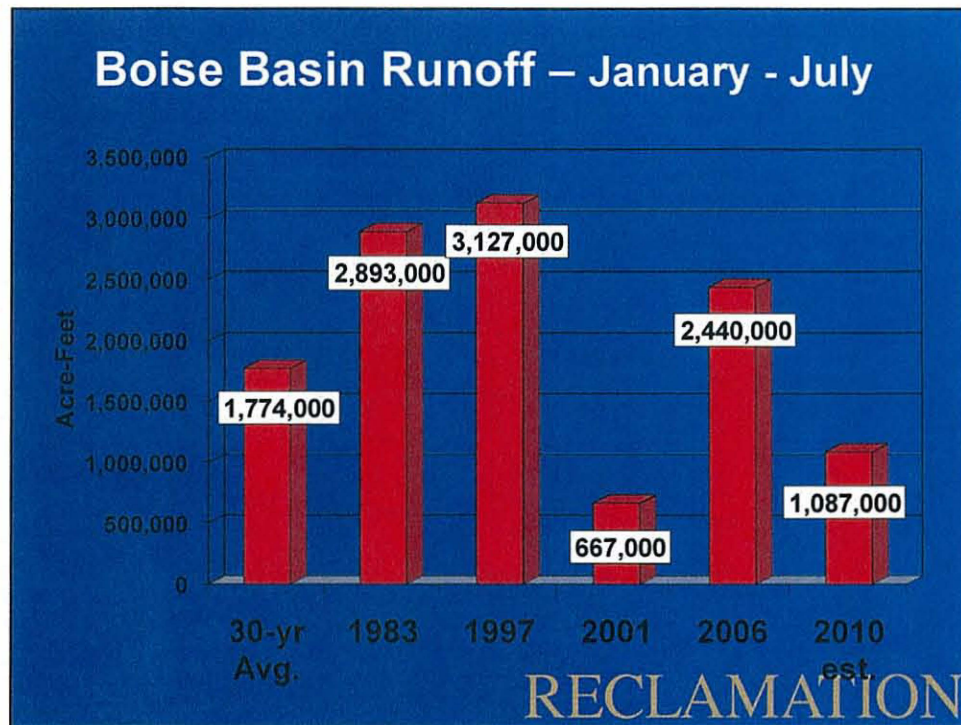
Flood Control Operations



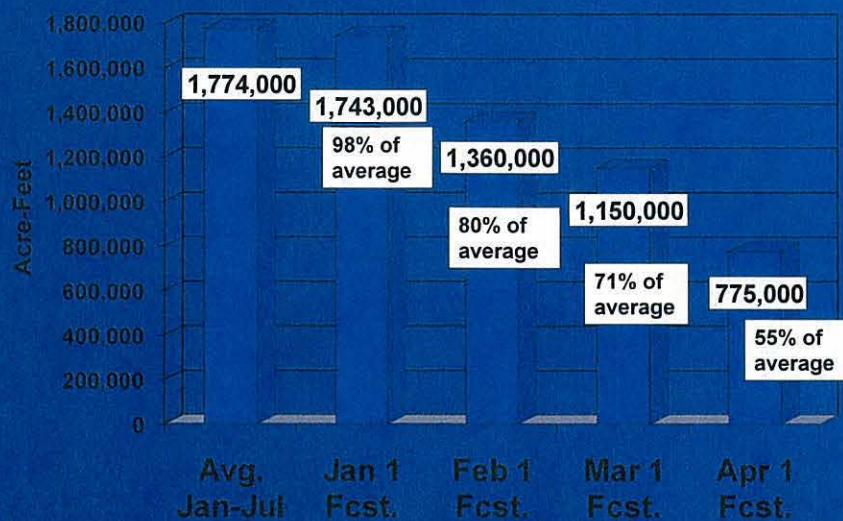
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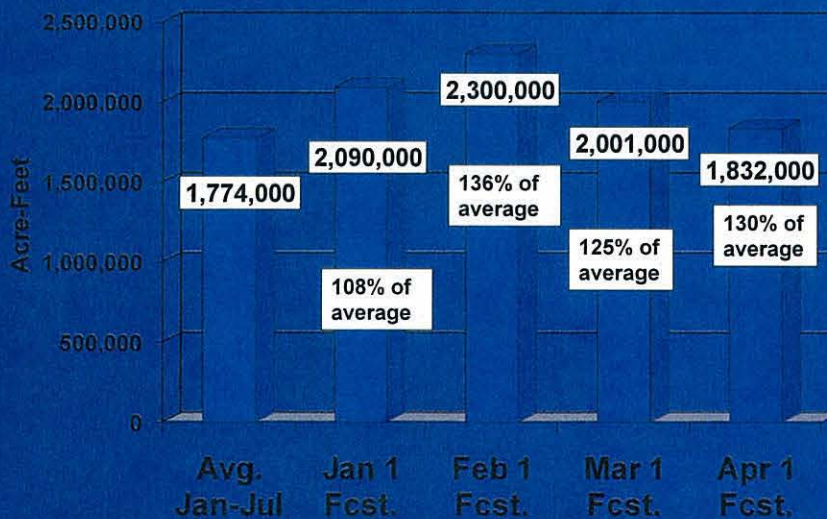


Boise Basin Runoff Forecasts - 2007

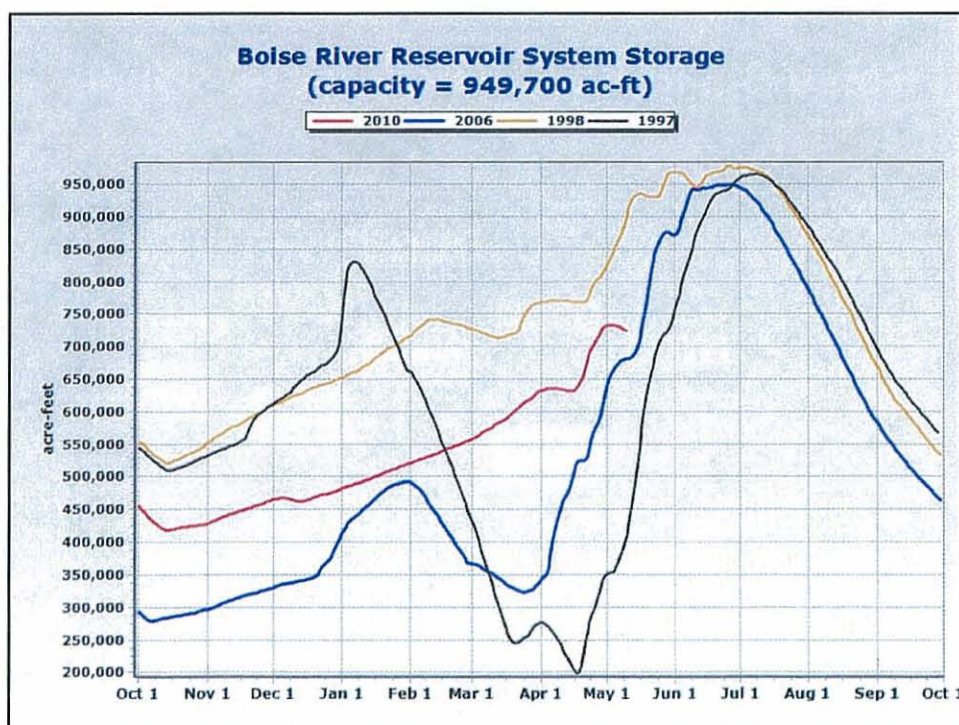
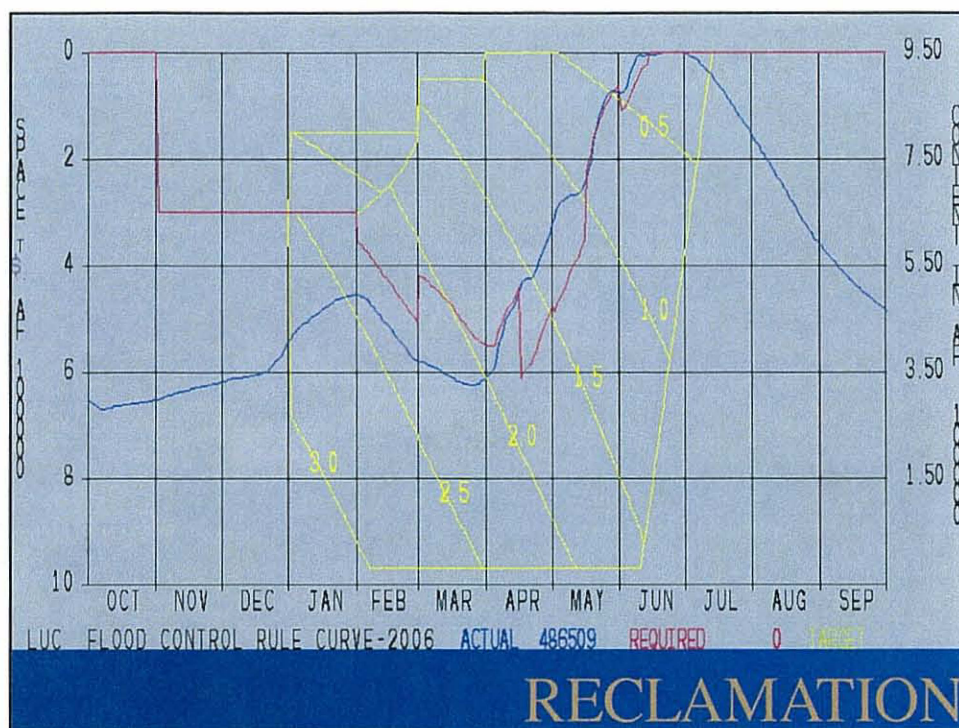


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Boise Basin Runoff Forecasts - 2006



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Eagle Island, Spring 1998

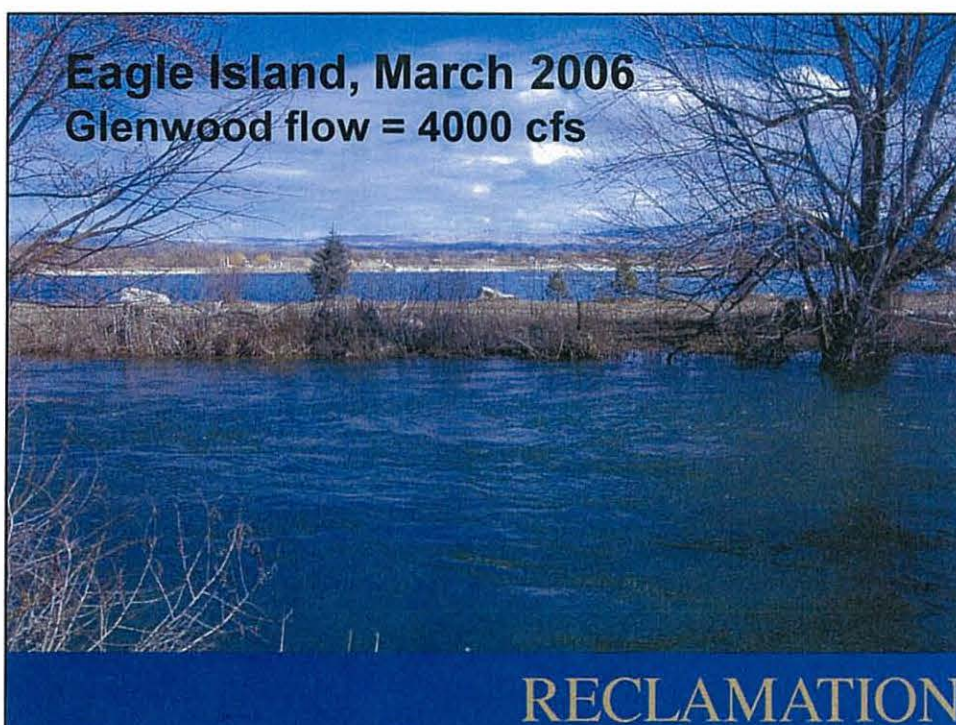


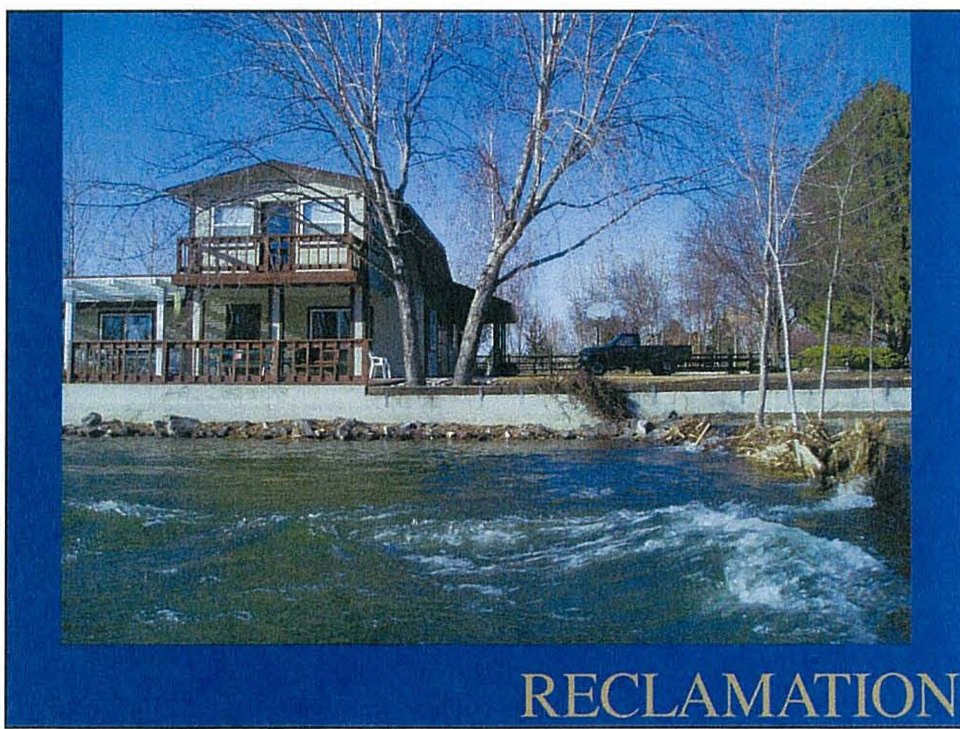
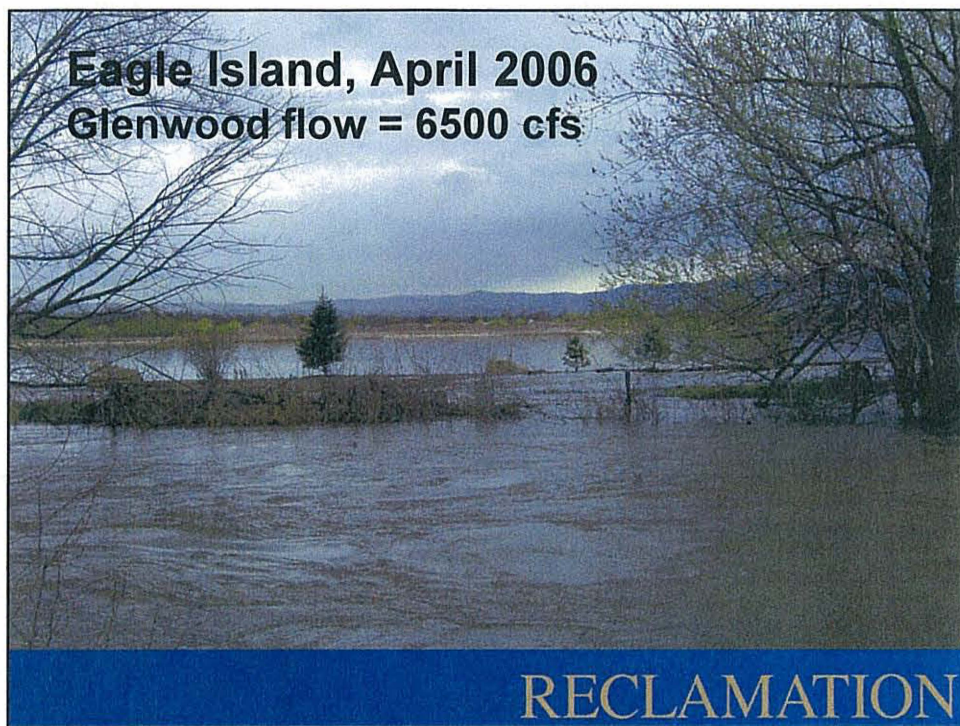
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Eagle Island, Spring 2006



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Water Supply Operations



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Year	Total Outflow (ac-ft)
1997	3,571,000
1996	2,902,000
→ 2006	2,719,000
1995	2,447,000
1999	2,417,000
1998	2,226,000
1993	2,096,000
→ 2008	1,764,000
2009	1,700,000
2000	1,647,000
2003	1,638,000
2002	1,527,000
2004	1,427,000
2005	1,254,000
→ 2007	1,241,000
1990	1,170,000
1991	1,012,000
1994	905,000
2001	884,000
1992	804,000
Average of past 20 years =	1,767,000

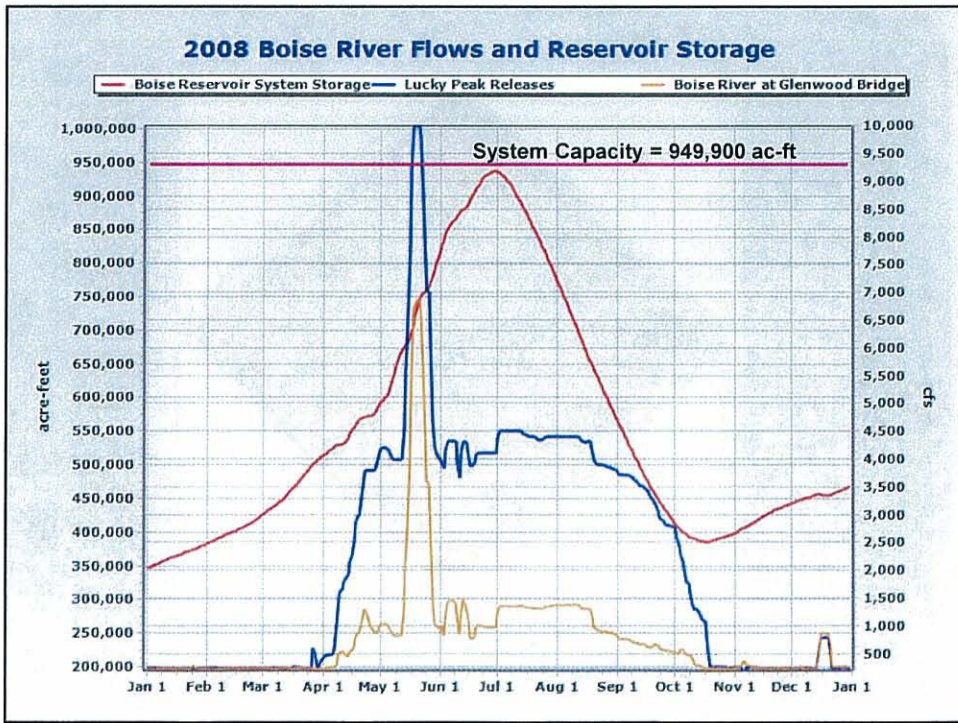
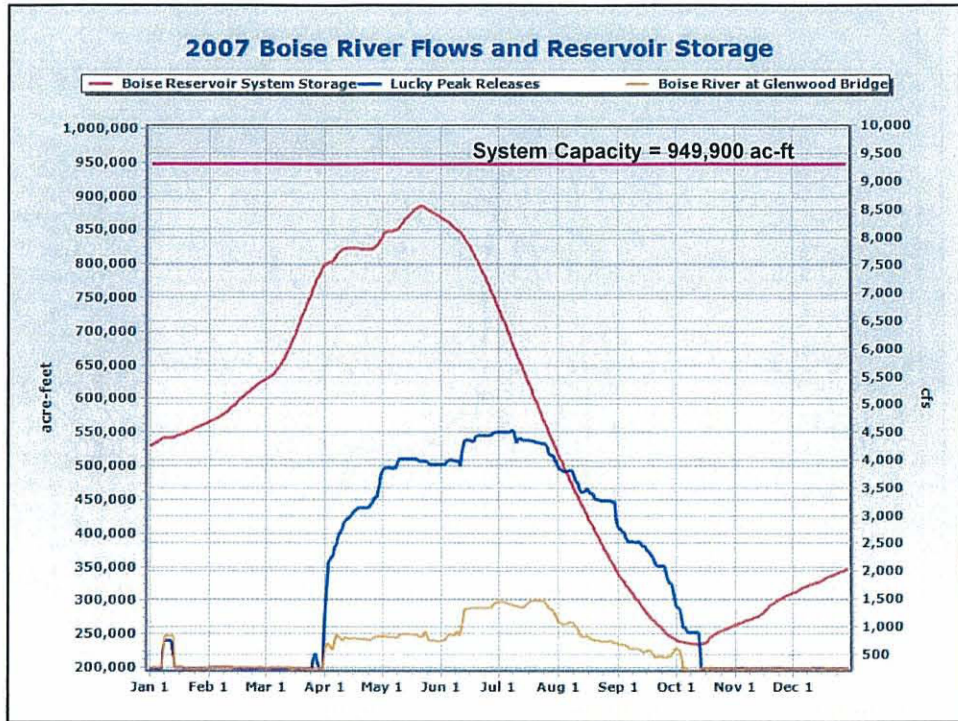
Water Year Total Runoff Volume Upstream of Lucky Peak Reservoir

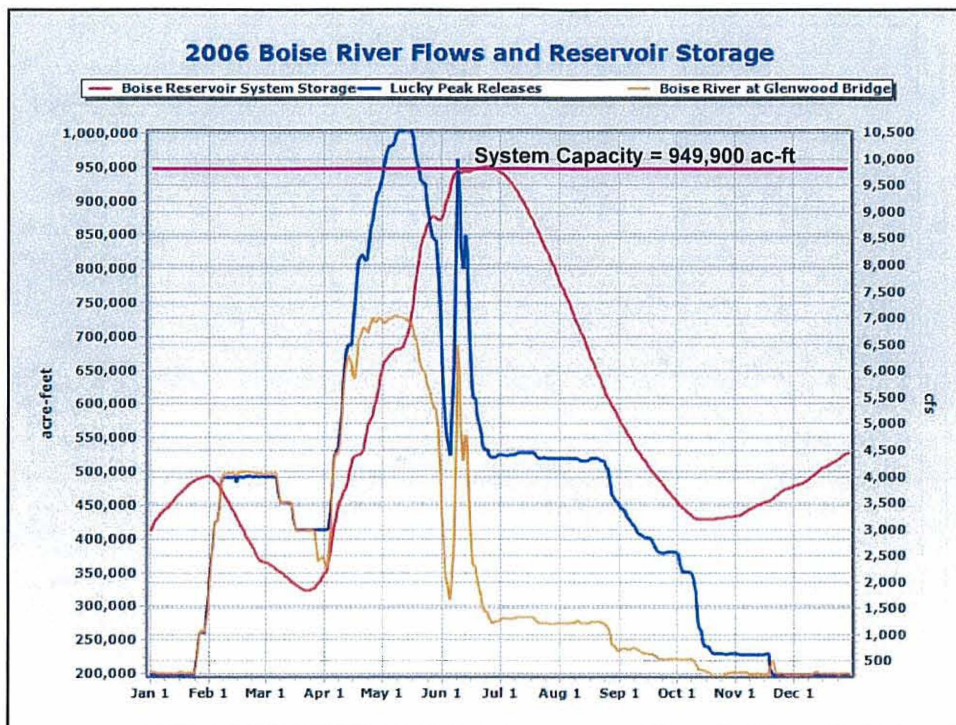
2006 – Above average runoff

2008 – Average runoff

2007 – Below average runoff

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