

RECLAMATION

Managing Water in the West

Henry's Fork Basin Study February, 2013 Update

In Cooperation with:
Idaho Water Resource Board



and



U.S. Department of the Interior
Bureau of Reclamation

Henry's Fork Watershed Council

DRAFT Interim Report

Documents –

- Study Process
- Alternatives Considered
- Next Steps

Further Storage Study Needs

- ✓ Compare Teton Dam alternative with other storage alternatives
- ✓ Reconfigure Lane Lake – Design/Costs
- ✓ Optimize Island Park Raise
- ✓ Hydrologic Impacts
- ✓ Environmental Impacts
- ✓ Water Availability

Further Managed Recharge Study Needs

- ✓ None identified – State of Idaho to pursue current recharge program

Further Conservation Alternative Study Needs

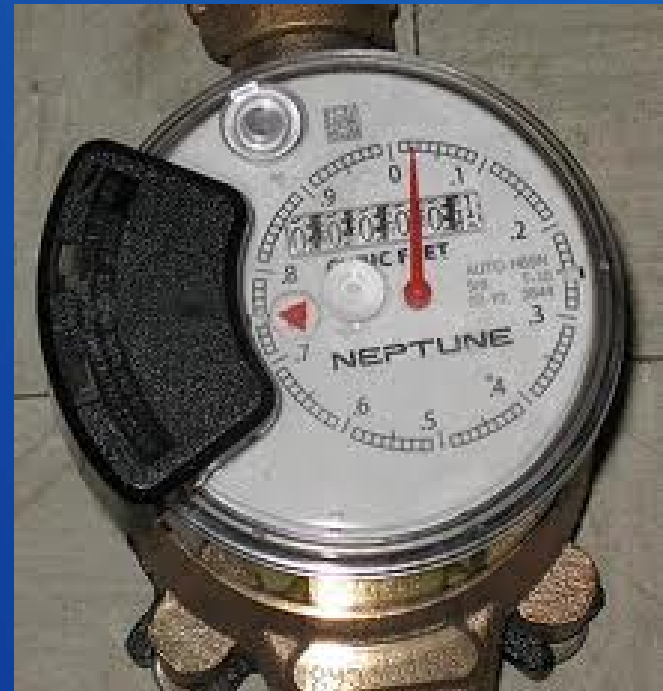
- ✓ Automated Canals
- ✓ Irrigation Pipelines – North Freemont
- ✓ Hydrologic Impacts
- ✓ Environmental Impacts

Further Municipal and Industrial Conservation Study Needs

- ✓ None identified – Individual cities to pursue as applicable

Further Water Market Study Needs

- ✓ Investigate Use of Water Markets In Conjunction with Alternatives Evaluated
- ✓ Demand Reduction

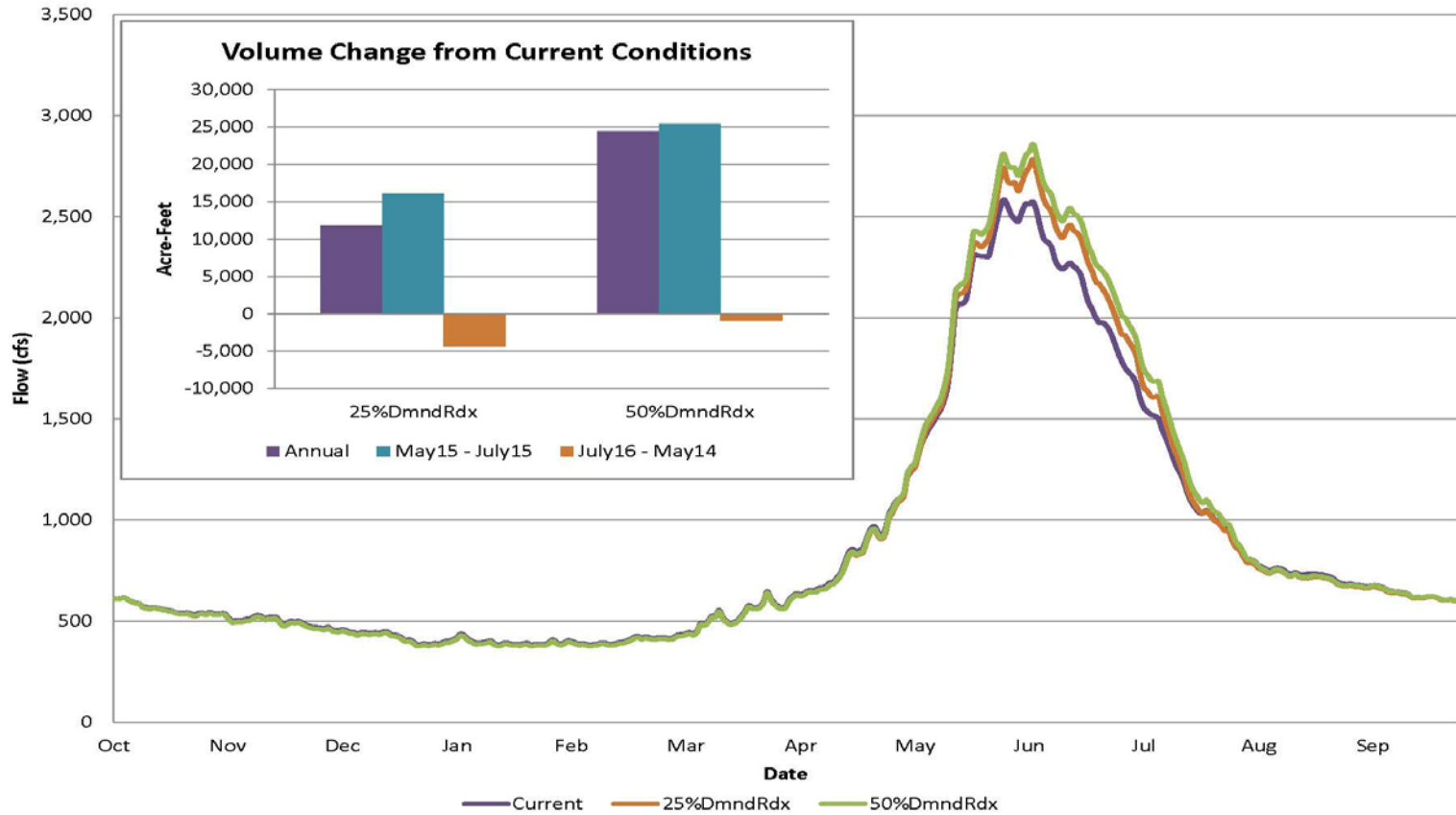


RECLAMATION

• Hydrologic / Hydraulic Modeling

- Impact of Alternatives on Water Budget
- Change in Hydrograph – Environmental Impacts
- Impact of Climate Change

Average Teton River Flow at St. Anthony due to Teton Valley Irrigation Alternative 14: Demand Reduction



Basin Study – Solution vs. Constraints

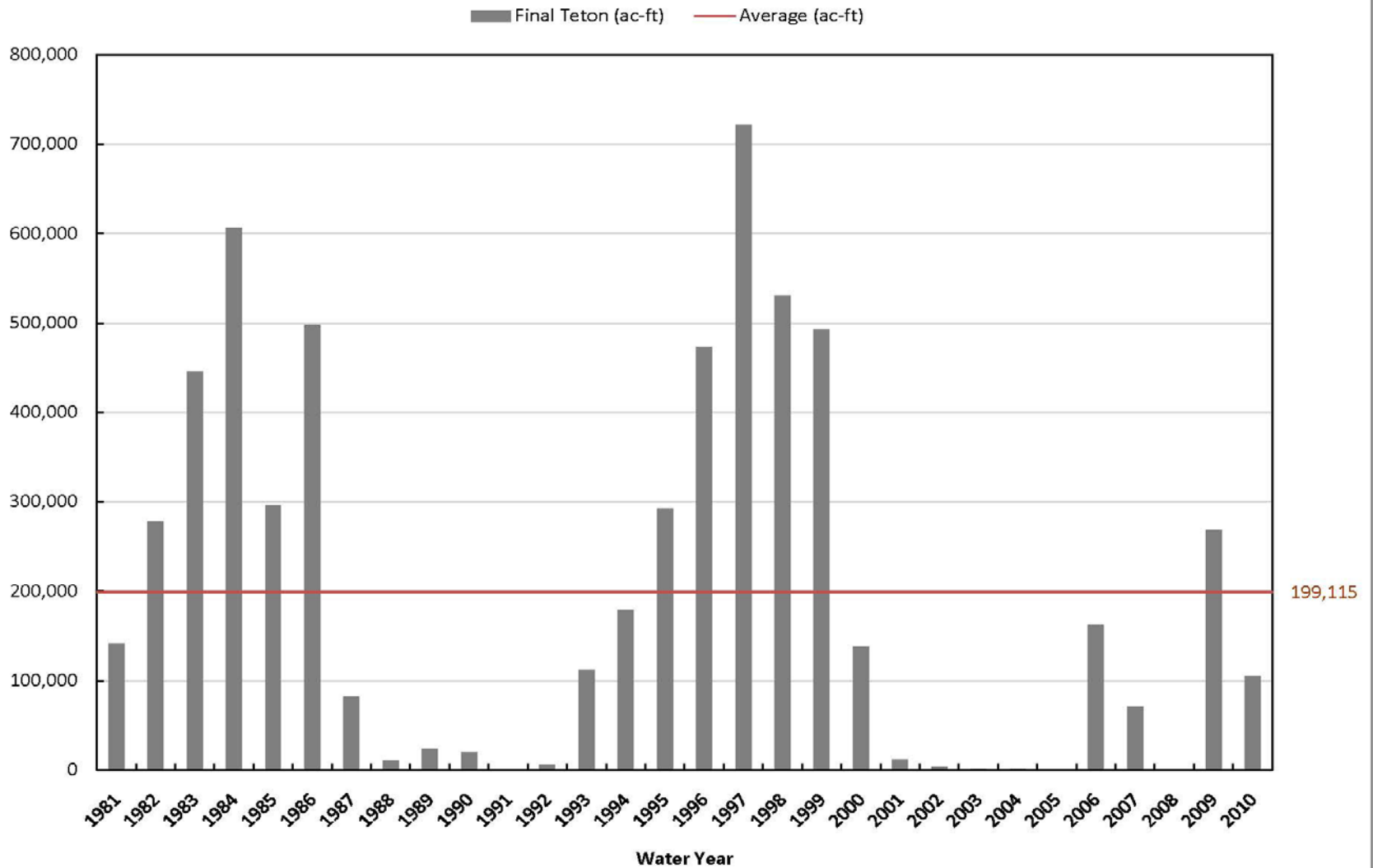


Physical Hydrology / Hydraulics

Spread Sheet Analysis

- ✓ Assumptions/ Mgmt. Decisions
 - ✓ Water Availability

Henrys Fork Annual Potential Storage from Teton River



Assumes Unlimited Storage

Illustrative Example Only

Illustrative Example

Minimum Flows		
Milner Dam	250	cfs
Rexburg Ga.Sta.	800	cfs
Teton Ga. Sta.	50	cfs

Storage Capacity	Average Capture	Ac-
Ac-Ft	Ft	Percent
300,000	142,917	48%
200,000	108,106	54%
100,000	63,797	64%
50,000	33,916	68%

Teton Watershed

RECLAMATION



CADSWES

The Center for Advanced Decision Support for Water and Environmental Systems

RiverWare



C351-300-021198
Parker Dam

RECLAMATION

Climate and Hydrology Datasets for Use in the River Management Joint Operating Committee (RMJOC) Agencies' Longer-Term Planning Studies

Part IV – Summary



U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Regional Office
Boise, Idaho
Technical Service Center
Denver, Colorado



U.S. Army Corps of Engineers
Northwestern Division
Portland District
Portland, Oregon



Bonneville Power Administration
Portland, Oregon

September 2011

RECLAMATION

Climate Change – Scenarios

w/ each alternative

1. Average Year
2. Wet Year
3. Dry Year