# Bear River Development Project

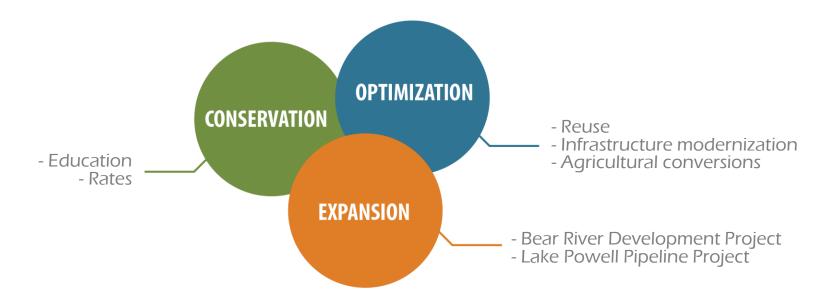
Providing Northern Utah's Future Water Supply



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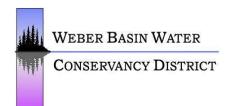
# Why Are We Planning for the Bear River Project?

- Utah's population will double by 2060
- We need additional water for that population
- This will require three strategies to be successful:



# Bear River Project Participants

- State of Utah Division of Water Resources
- Participating Agencies
  - Bear River Water Conservancy District
  - Cache County
  - Jordan Valley Water Conservancy District
  - Weber Basin Water Conservancy District
- Study Team
  - Bowen Collins, HDR, Gerhart Cole

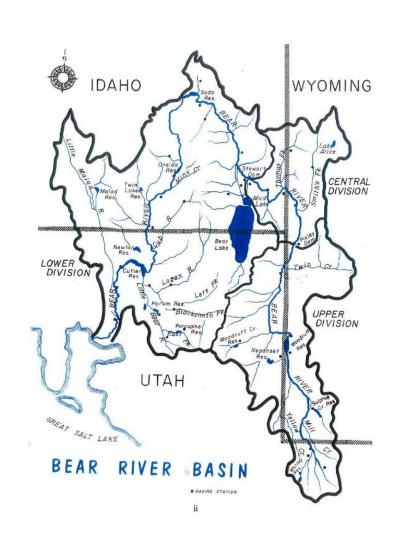








#### Bear River Watershed



# Bear River Compact

- Agreement between Utah, Idaho, and Wyoming in 1958
- Amended in in 1980
- Allocates water between the three states

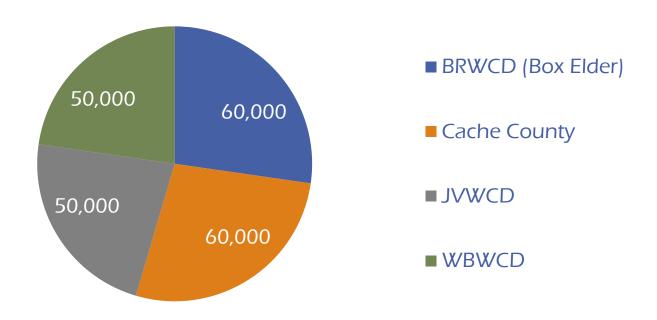


# Bear River Development Act -1991

"The Division shall develop the surface waters of the Bear River and its tributaries through the planning and construction of reservoirs and associated facilities as authorized and funded by the Legislature; own and operate the facilities constructed; and market the developed waters"

### Bear River Development Act -1991

Project Allocation
State of Utah Water Rights (acre-feet)



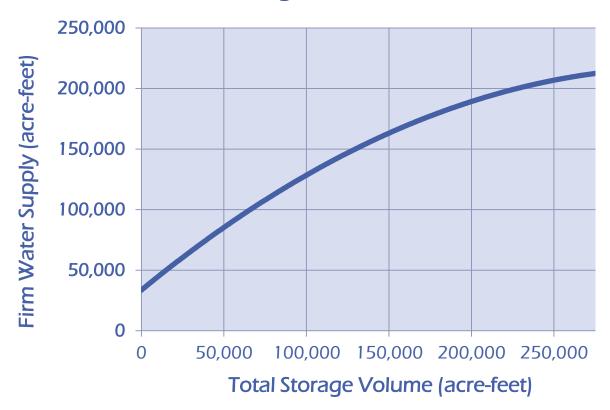
Total project water rights: 220,000 ac-ft

#### **Previous Studies**

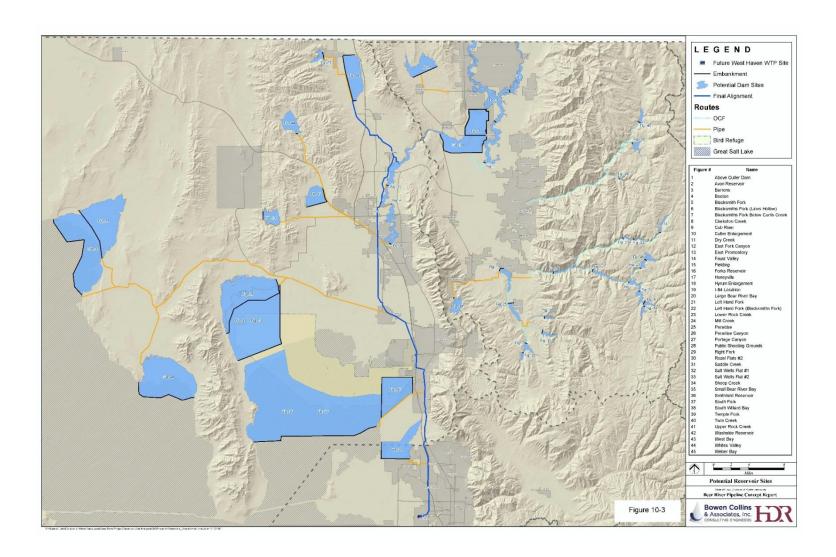
- Studies on the Bear River began in the 1960s by USBR
- State of Utah has studied project since 1970s
  - Various reservoir sites in the basin
- JVWCD and WBWCD
  - Routing studies on pipelines from state project to their service areas
  - Purchase of right-of-way
- Ongoing State of Utah studies
  - Bear River water quality sampling, 1996-present
  - Bear River Project preliminary studies, since 2006-2014

## Water Supply Development

#### Firm Water Supply Versus Total Storage Volume

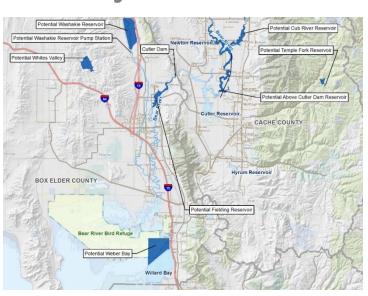


#### Potential Reservoir Sites in the Basin



# **Current Project Study Areas**

- Storage is required to develop the 220,000 ac-ft
- Project has examined numerous storage sites within the Bear River Basin
- State of Utah studied Washakie site in 2006
- Project has shortlisted six other potential reservoir sites for further study:
  - Whites Valley
  - Above Cutler
  - Cub River
  - Temple Fork
  - Fielding
  - Weber Bay



## **Project Features**

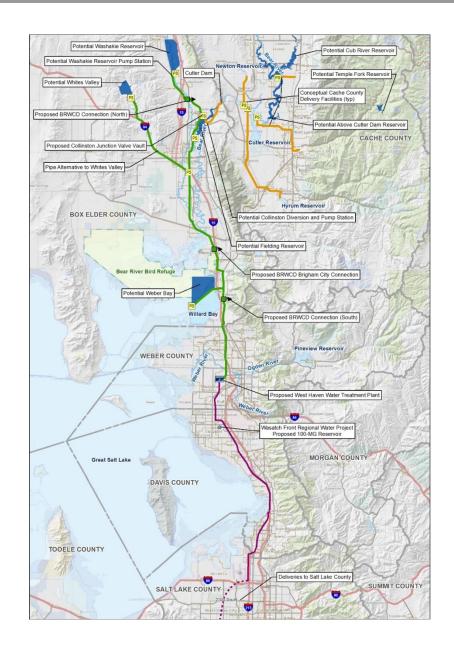
- Multiple reservoirs
- Diversions from the Bear River
- Cache County delivery
- Raw water pipelines to West Haven WTP
- Box Elder County delivery facilities
- Finished water pipeline/storage reservoir/pump stations to Weber, Davis, and Salt Lake Counties

# Study Activities

- Perform site investigations at six potential reservoir locations
- Further refine overall project facilities
- Prepare updated cost estimates
- Begin environmental permitting process
- Agency coordination

# Conceptual Design

- Seven shortlisted reservoir sites
- Raw water pipeline system to West Haven WTP
- Finished water
   pipeline from West
   Haven to Weber,
   Davis, and Salt Lake
   Counties
- Cache County delivery facilities



Project

Components

# Preliminary Project Investment

#### Bear River Project Costs by Phase

\$197,012,613

Initial storage and pipeline to Box Elder County

\$918,025,455

Additional storage and pipeline to West Haven WTP

\$217,343,665

Cache County storage and delivery facilities

\$149,913,500

Project completion

Total investment over four phases: \$1.5 billion

# Preliminary Project Schedule

(Based on First Water Needed by 2035)

	YEAR																							
TASK	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Real Estate Acquisition								11 September 1			40 A									100				e de
Government Parcels	L		L	9									£ 0		. Y			L	8 4				$\perp$	
Private Parcels	L																							
NEPA Process																								
Baseline studies and monitoring																					- 10			
404 Permit application and USACE processing																								
NEPA Compliance		8 3						8 5														0 3		
Mitigation Development										1											-05			
Design and Construction (Project completed five years befo	re e	esti	ma	ited	l ne	ed	)								0 0							500 - 10		
Construction Funding	Г		Г																				П	
Design (Three year design process)	Г	Г	Г	Г		Г			Г	П		П						П		П	П	П	T	Т
Bidding (One year bidding period for major project packages)			Г																		5 75		7	
Construction Begins (Five year construction period, major project	t)																							
Project Water Supply Needed		100		· ·																				
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#### **Questions?**

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