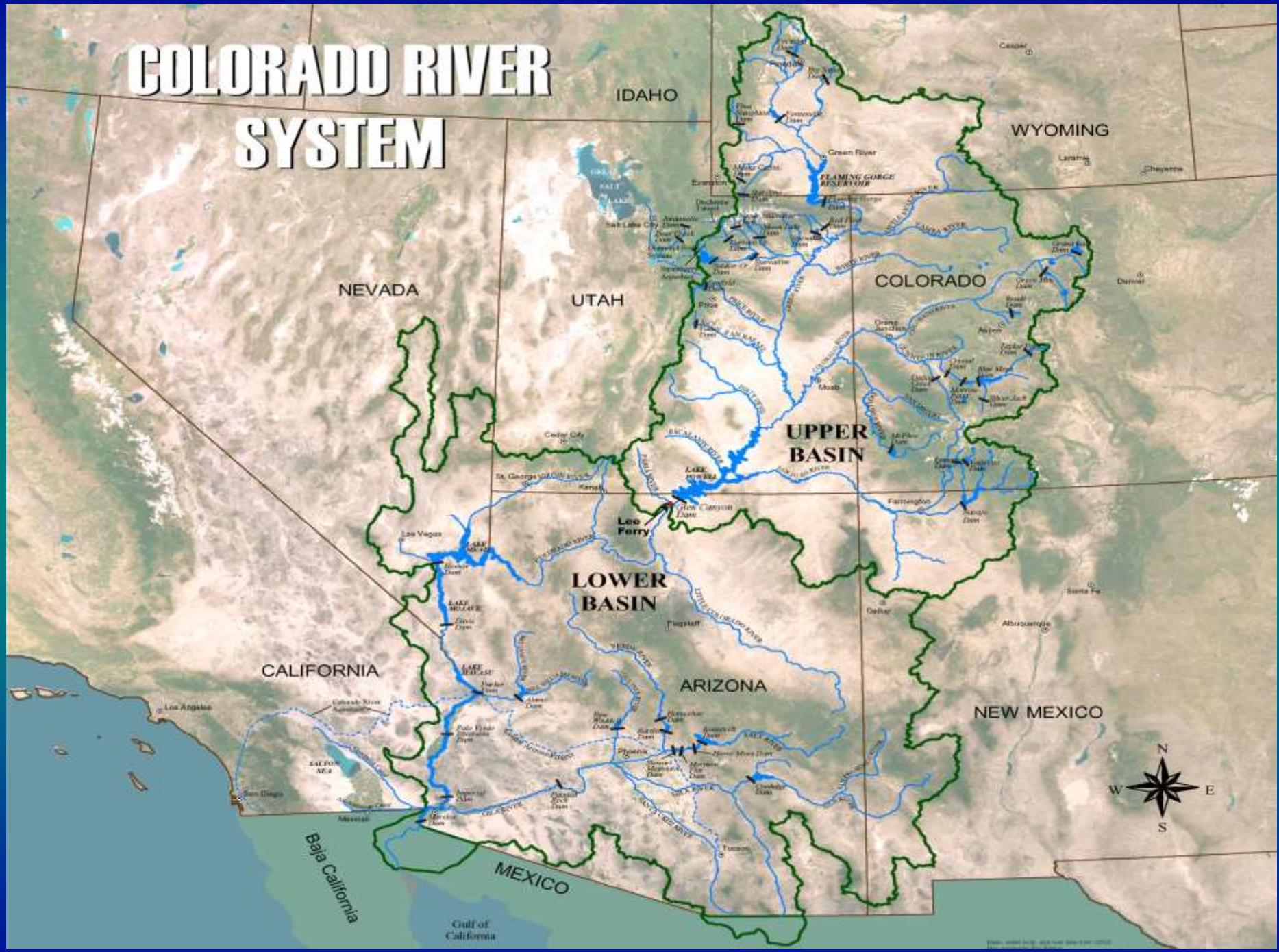
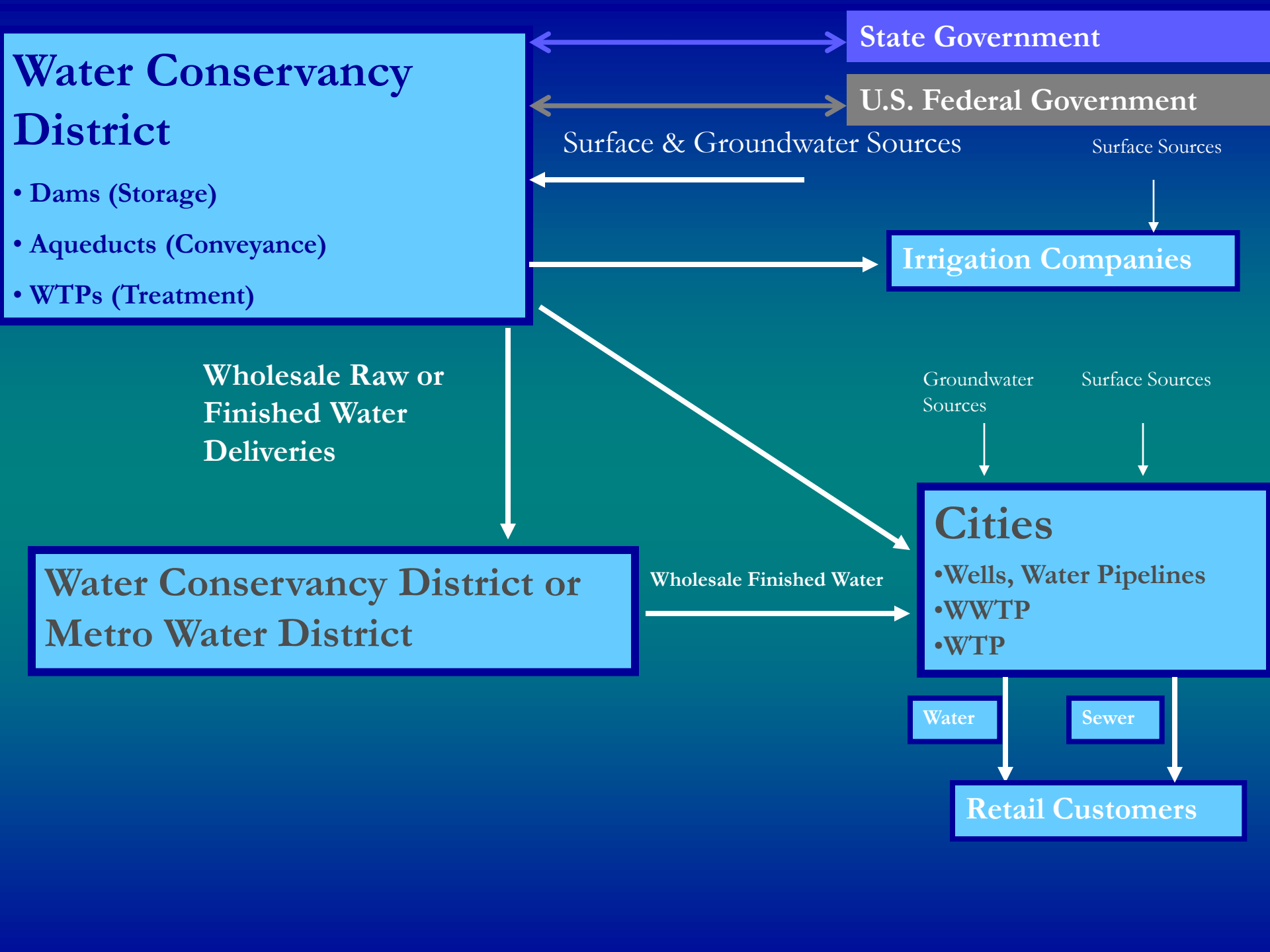
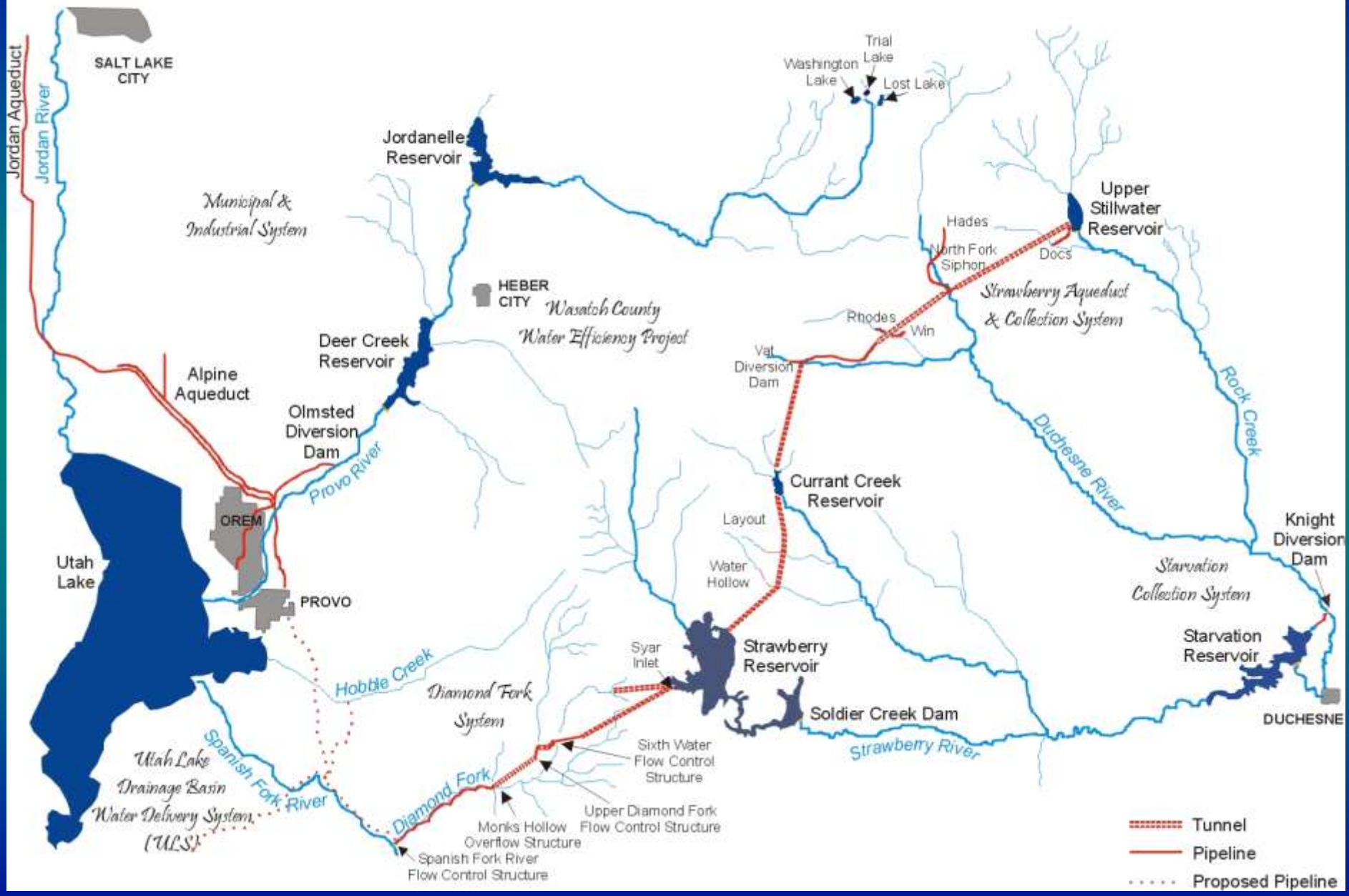
CUWCD Water Resources Capital Program

Western States Water Resources Infrastructure Symposium
Phoenix, AZ, November, 2012


COLORADO RIVER SYSTEM
IDAHO
WYOMING
NEVADA
UTAH
COLORADO
UPPER BASIN
LOWER BASIN
Lee Ferry
CALIFORNIA
ARIZONA
NEW MEXICO
Baja California
MEXICO
Gulf of California
N
S
E
W


State Government
U.S. Federal Government
Water Conservancy District
• Dams (Storage)
• Aqueducts (Conveyance)
• WTPs (Treatment)
Surface & Groundwater Sources
Surface Sources
Irrigation Companies
Wholesale Raw or Finished Water Deliveries
Groundwater Sources
Surface Sources
Cities
•Wells, Water Pipelines
•WWTP
•WTP
Water Conservancy District or Metro Water District
Wholesale Finished Water
Water
Sewer
Retail Customers

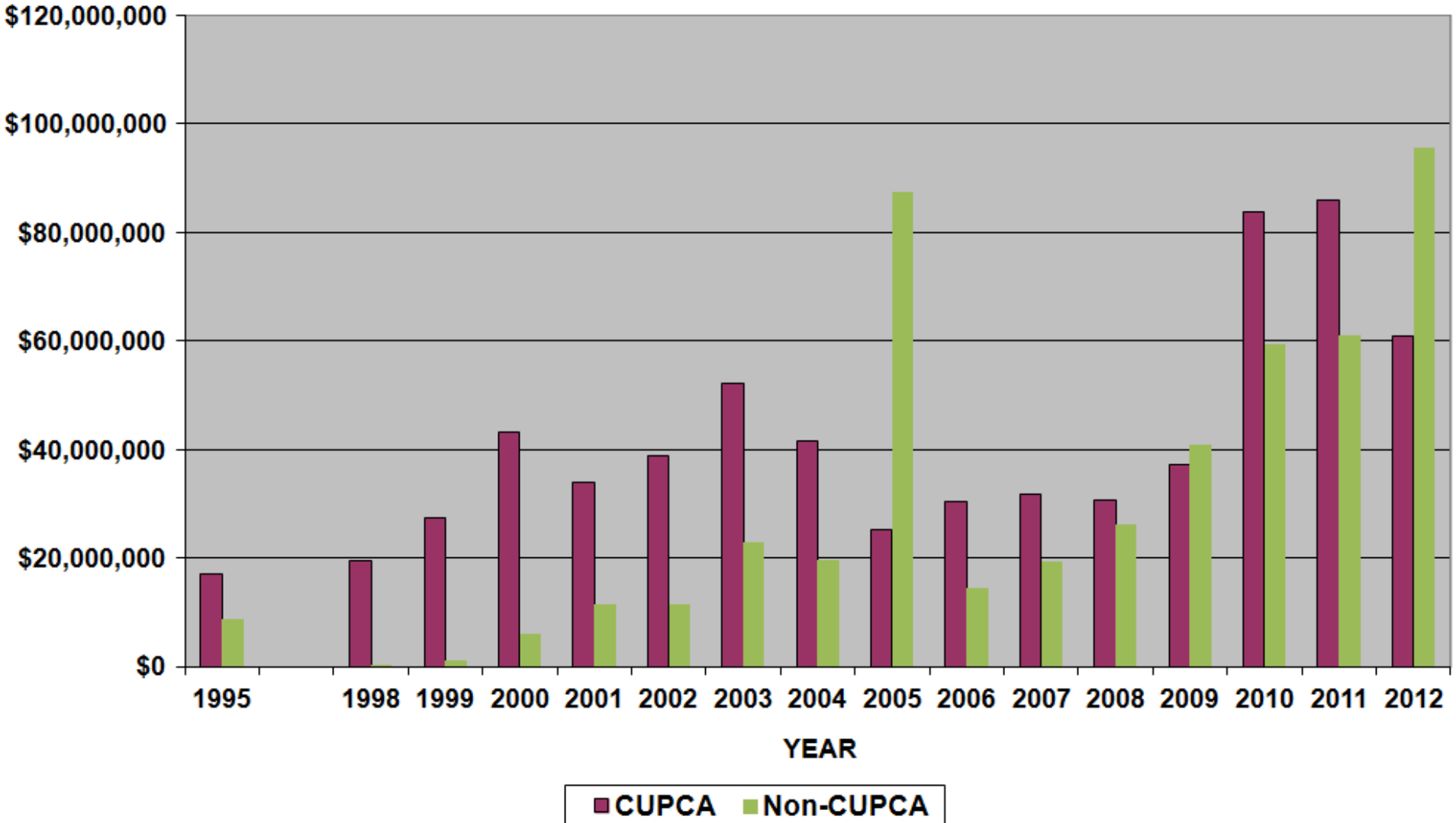
Bonneville Unit Area Map



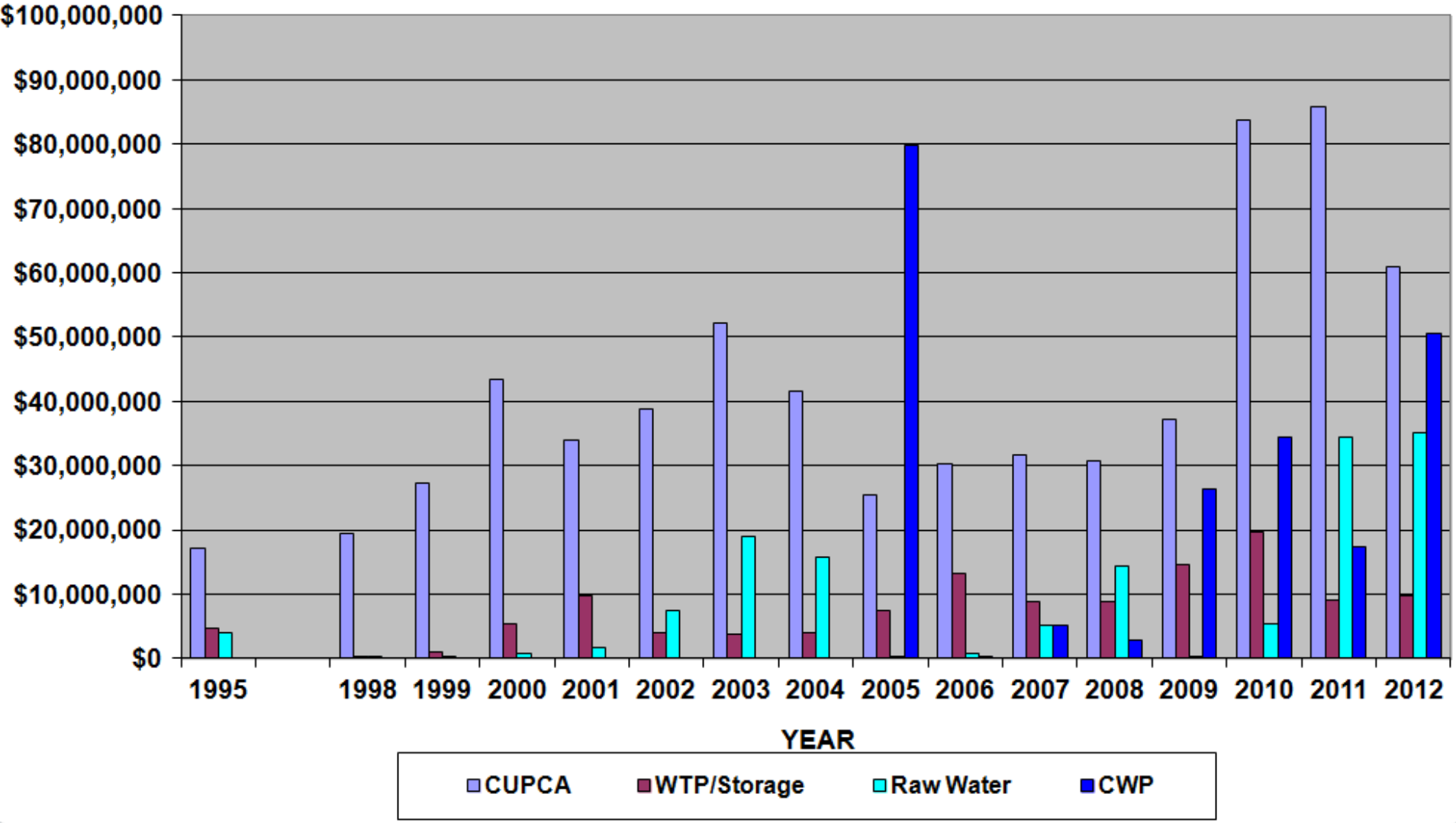
Public Law 102-575 – Reclamation Projects Authorization and Adjustment Act of 1992

- Contained Central Utah Project Completion Act (CUPCA)
- Transferred responsibility for planning, NEPA, design, and construction to CUWCD – local control
- Required local cost share - CUWCD responsibility
- Raised CUP authorized costs by $924,206,000
- Created separate federal environmental reclamation and mitigation commission
- Mandated environmental and water development projects to proceed jointly

CUWCD Capital Projects



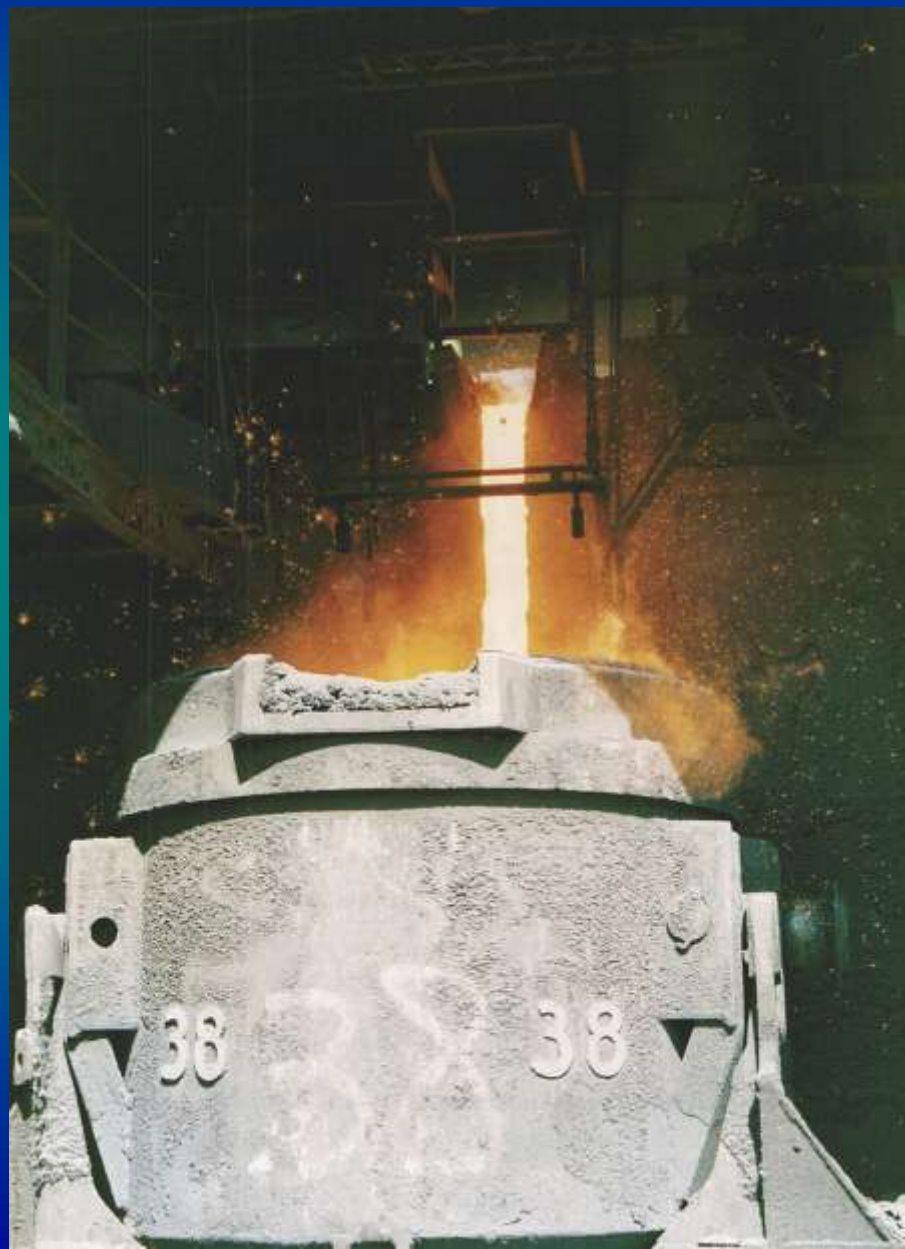
CUWCD Capital Projects



History of Geneva Steel

Geneva Steel's Water Rights

- Geneva's water rights consisted of +80,000 acre-feet of water in 66 water rights
- The rights entitled Geneva to divert from:
  - Wells (44 rights)
  - Drains (14 rights)
  - Springs (5 rights)
  - Canal Wasteways (2 rights)
  - Provo River (1 right)



Geneva Operations

- The plant was operated by US Steel from 1946 until 1986
- The facilities were then sold to local investors for $47,000,000, who operated the mill from 1987 through 2001
- Difficult market conditions caused the owners to declare bankruptcy in 1999 and again in 2002

New Water Sources for the Public

- In May of 2005, the CUWCD purchased 42,400 acre-feet water rights and related assets during the bankruptcy liquidation of the former Geneva Steel
- The assets included
  - 42,400 acre-feet of water
  - 21 Wells
  - 24-inch pipeline from the Provo River to the Geneva Site, easements, and licenses
  - Provo River Pump Station
  - New Pipeline Easements

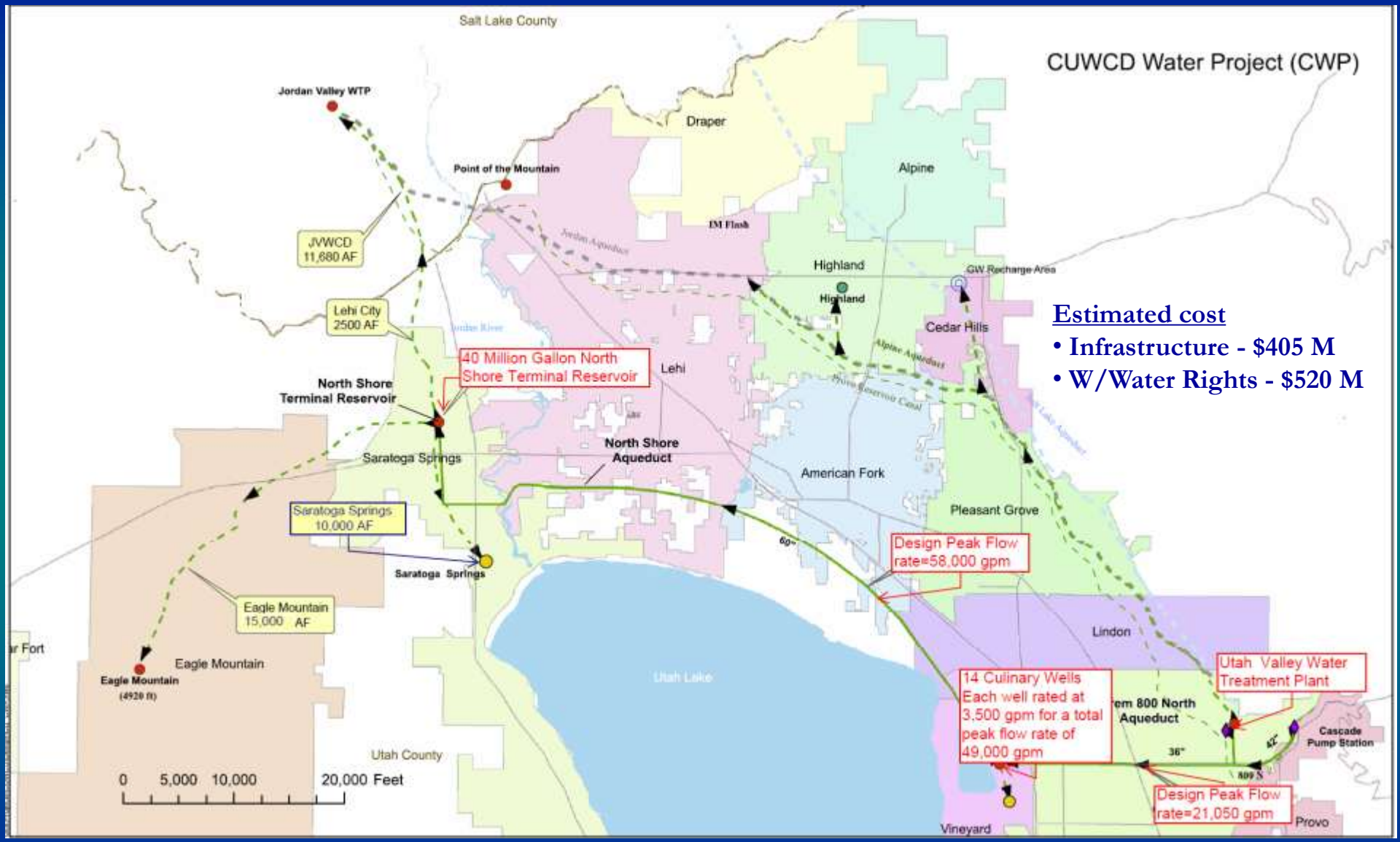
CUWCD Water Development Project

- The Geneva water rights and assets were combined with previously purchased District water rights to comprise a new District project to help meet future water demands within the District

This project is a new aspect of water development for the CUWCD and is called the **C**entral **U**tah Water **C**onservancy **D**istrict **W**ater Development **P**roject—or the **CWP**

CUWCD Water Development Project

- The objectives of the CWP are to:
  - Identify existing and potential water customers and their future water needs
  - Acquire and develop water rights to help satisfy future water demands
  - Develop and implement a financial plan that will permit construction, operation, and payback of 100% of the cost of the project by CUWCD wholesale customer agencies
  - Design and install the infrastructure necessary to deliver water to identified wholesale customers


CUWCD Water Project (CWP)
Salt Lake County
Jordan Valley WTP
Point of the Mountain
Draper
Alpine
JVWCD
11,680 AF
Lehi City
2500 AF
40 Million Gallon North
Shore Terminal Reservoir
North Shore
Terminal Reservoir
Lehi
Highland
GW Recharge Area
Cedar Hills
Saratoga Springs
North Shore
Aqueduct
American Fork
Pleasant Grove
Saratoga Springs
10,000 AF
Design Peak Flow
rate=58,000 gpm
Eagle Mountain
15,000 AF
Eagle Mountain
Eagle Mountain
(4920 ft)
Lindon
Utah Lake
14 Culinary Wells
Each well rated at
3,500 gpm for a total
peak flow rate of
49,000 gpm
Utah Valley Water
Treatment Plant
800 North
Aqueduct
Cascade
Pump Station
Design Peak Flow
rate=21,050 gpm
Utah County
0 5,000 10,000 20,000 Feet
Vineyard
Provo
Estimated cost
• Infrastructure - $405 M
• W/Water Rights - $520 M

CWP Overall Map

CWP CHALLENGES

- Funding
- Routing and Design
- Construction

Water Just Comes out of the Tap! Doesn't It?

How does a water utility develop new water sources and fund, design, and construct a large, regional water projects without immediate users to fund initial construction or financing costs?

Financing Challenges

OPTION 1 - Users pay up front for system and District installs infrastructure now and customer grows into the system capacity.

- District gets reimbursed immediately and Users pay for costs upfront but existing users would have to carry that burden primarily.

Show Me the Money!!

Financing Challenges

OPTION 2 - District pays for and installs infrastructure now and users reimburse District when they need and take water

- Revenue uncertainties and limitations of bonding

Just Build It and They will Come!!

Financing Challenges

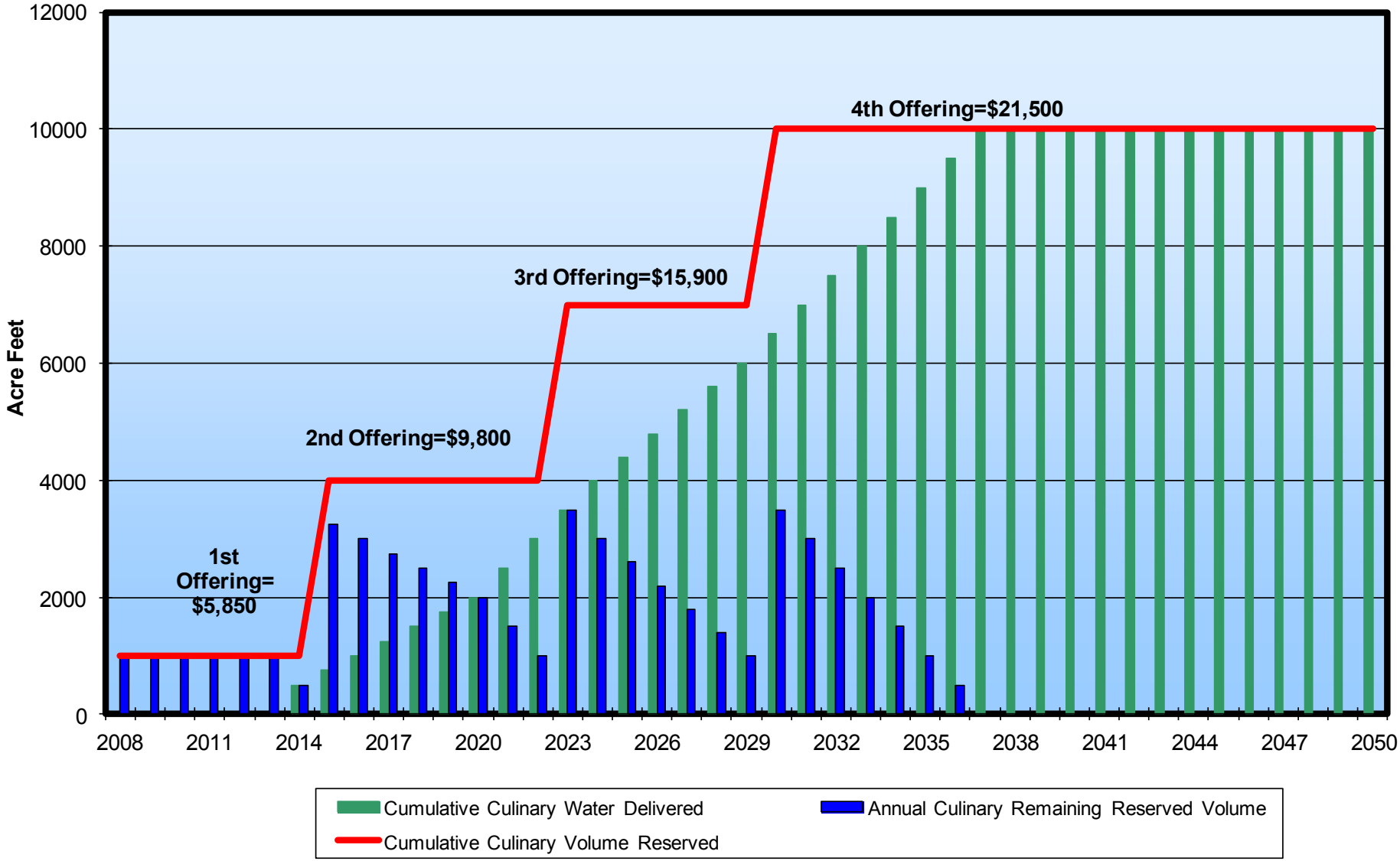
- Neither option was feasible for the users or the District
- Option "sharing the risks and costs" was negotiated
- A 'hybrid' financial model was necessary to permit development of the project

CWP Finance Keys

- Structure CWP as a self-sufficient project (No Federal Funds—District and Customers Revenue Only)
  - Need to finance significant capital expenditures before receipt of revenues—thus bonding will be required
  - Execute "take or pay" water supply agreements with users prior to commencement of construction of project
  - Bond for existing capital needs using financial strength of CUWCD and from executed water sales agreements
  - Repay bonds from water sales and operations revenue

CWP Finance Plan Strategy

- Project Financing required the combination of:
  - Development Fee (One time Capital Charge to recover % of capital costs)
  - Reservation Fee (Reserving water & capacity that has been purchased and/or built but not being used)
  - Annual Water Fee (Annual O&M, replacement reserve, remaining debt repayment)


Estimated Culinary Contract Volumes and Deliveries
Eagle Springs
Acre Feet
12000
10000
8000
6000
4000
2000
0
2008
2011
2014
2017
2020
2023
2026
2029
2032
2035
2038
2041
2044
2047
2050
1st Offering= $5,850
2nd Offering=$9,800
3rd Offering=$15,900
4th Offering=$21,500
Cumulative Culinary Water Delivered
Annual Culinary Remaining Reserved Volume
Cumulative Culinary Volume Reserved

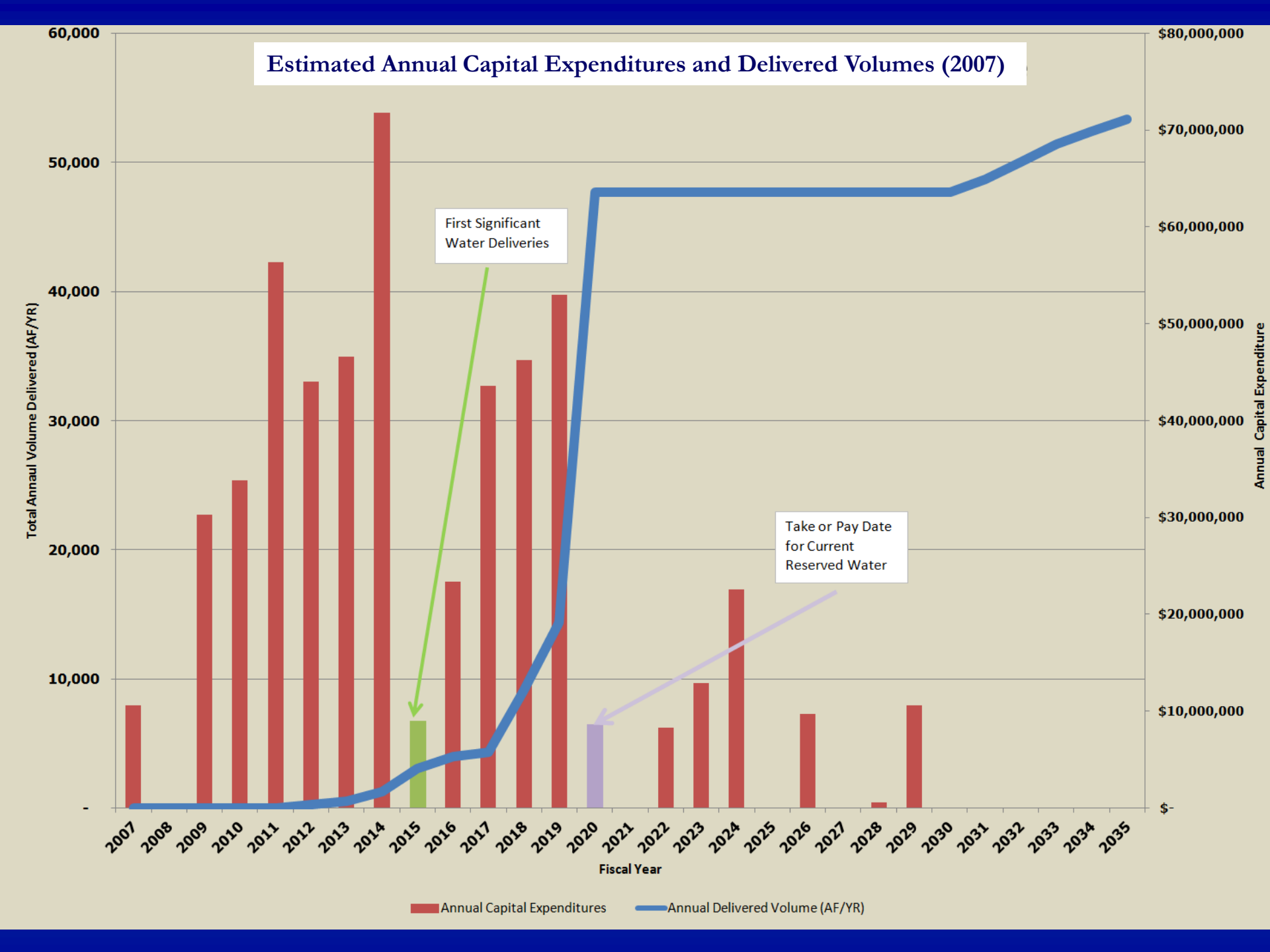
Summary of CWP Water Supply
March, 2012

		Acre-Feet	Commencing In	Acre-Feet
II.	Total CWP Infrastructure Water (Culinary Water)			53,312
III.	FY2009 A Water Supply Agreements (September, 2008)			
	Jordan Valley Water Conservancy District	11,680	July, 2014	
	Lehi City	2,500	July, 2019	
	Eagle Mountain City	2,500	July, 2011	
	Sub-total -	16,680		16,680
V.	FY2010 A Water Supply Agreements (October 2009)			
	City of Saratoga Springs	10,000	July, 2019	
	Eagle Mountain City	1,000	July, 2019	
	Eagle Mountain City	11,500	July, 2019	
		22,500		22,500
VI.	FY2010 B Water Supply Agreement (June 2010)			
	Pacificorp	2,840	July, 2015	2,840
V.	FY 2011 A Water Supply Agreement (June, 2011)			
	Town of Vineyard -	70	July, 2011	70
	Remaining CWP Infrastructure Water -			11,222
	Geneva Water Rights Purchase Reservation (AGDI) until 2020 -			7,930
	Remaining CWP Infrastructure Water without reservations -			3,292

Estimated Fee Schedule

CWP Actual and Estimated Fees
(Actual Fees Are Shown In Colors)

Fiscal Year	Development	Annual	Reservation
FY 2008-2009	$5,850	$300	$0
FY 2009-2010	$6,200	$314	$0
FY 2010-2011	$7,000	$328	$250
FY 2011-2012	$7,800	$342	$250
FY 2012-2013	$8,400	$358	$250
FY 2013-2014	$9,100	$374	TBD
FY 2014-2015	$9,800	$391	TBD
FY 2015-2016	$10,600	$408	TBD
FY-2016-2017	$11,300	$427	TBD
FY-2017-2018	$12,000	$446	TBD
FY-2018-2019	$12,700	$466	TBD
FY-2019-2020	$13,500	$487	TBD


Estimated Annual Capital Expenditures and Delivered Volumes (2007)
First Significant Water Deliveries
Take or Pay Date for Current Reserved Water
Total Annaul Volume Delivered (AF/YR)
Annual Capital Expenditure
Fiscal Year
60,000
50,000
40,000
30,000
20,000
10,000
-
$80,000,000
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
$10,000,000
$-
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
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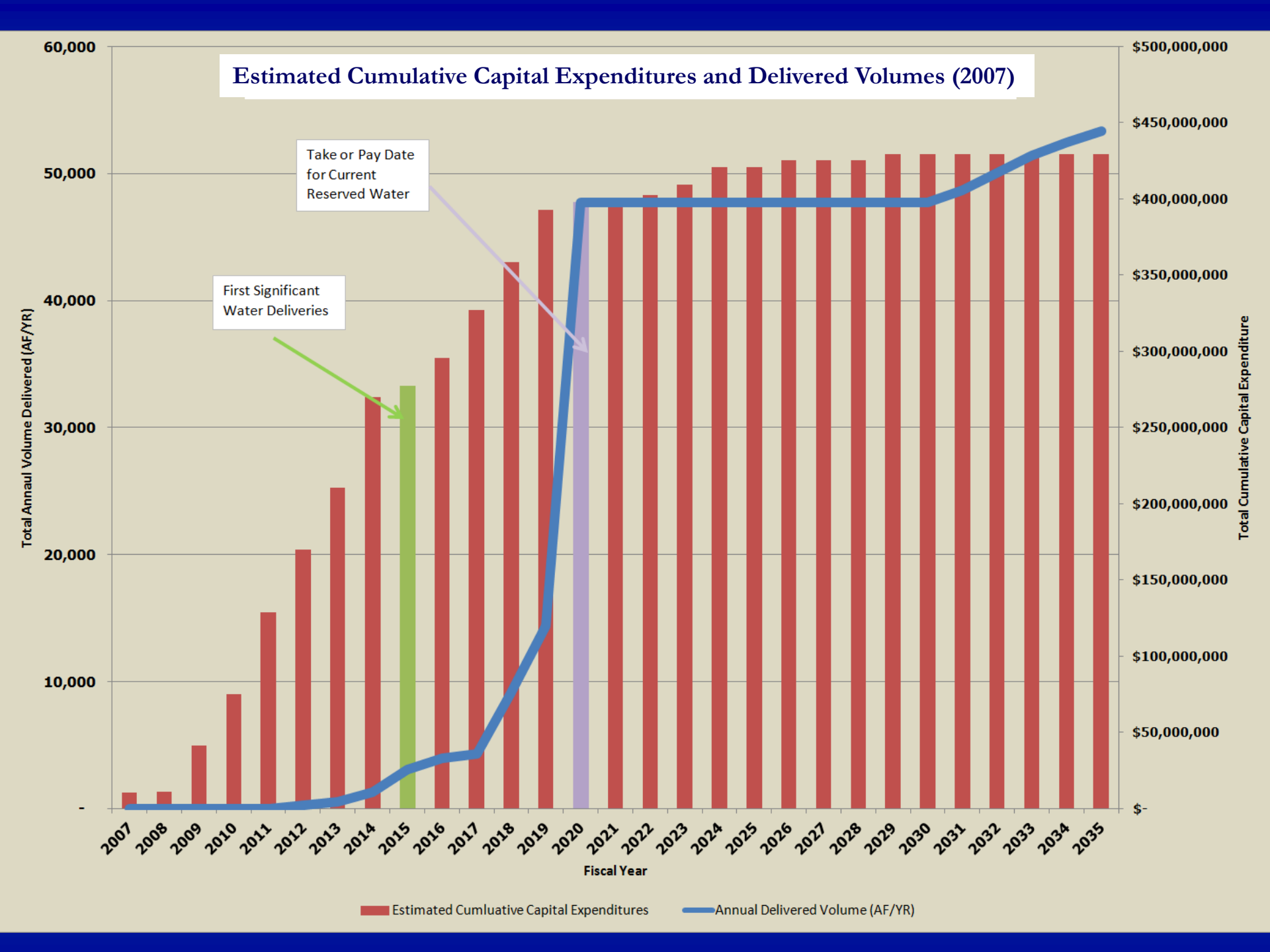
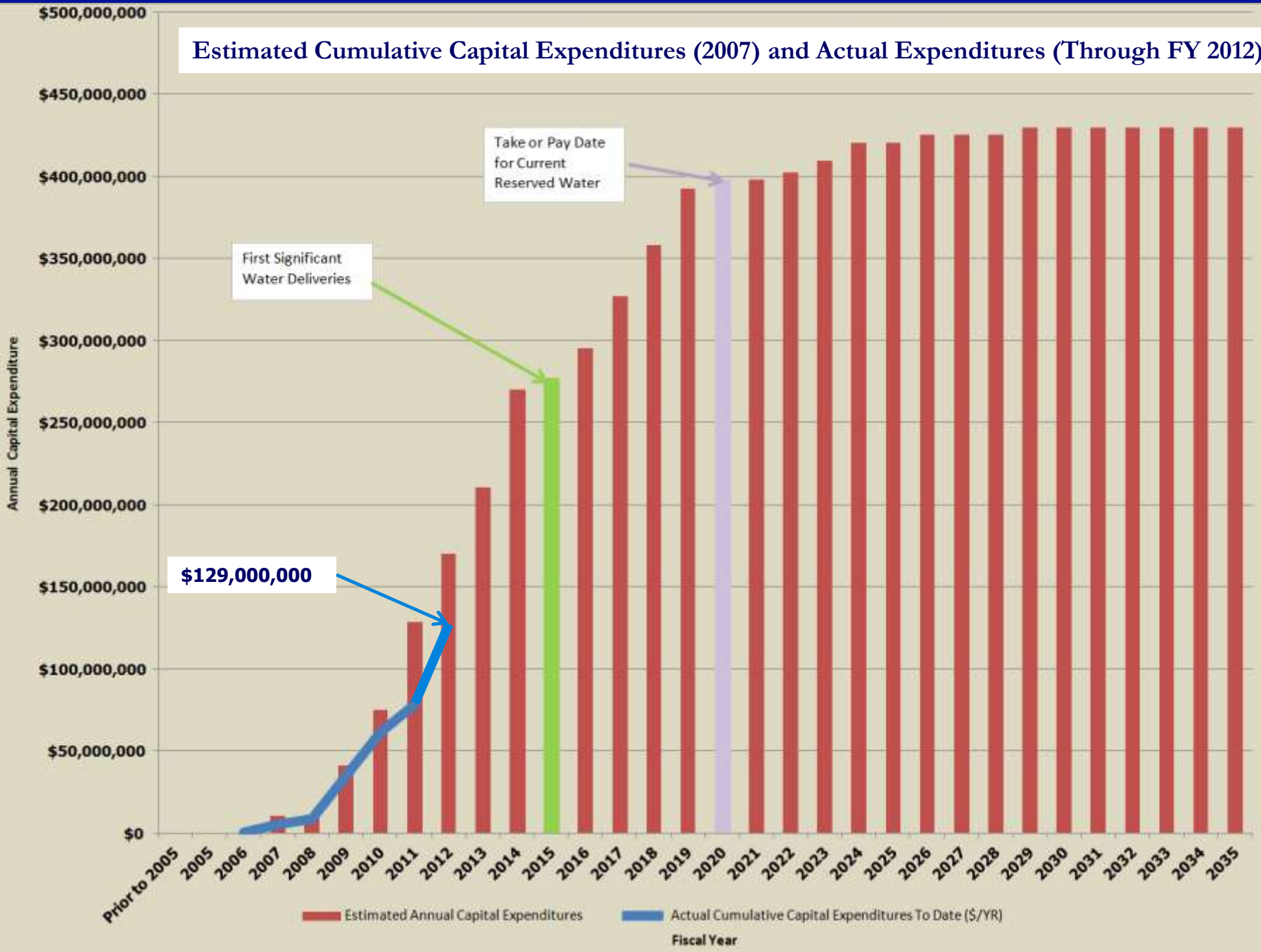
2028
2029
2030
2031
2032
2033
2034
2035
Annual Capital Expenditures
Annual Delivered Volume (AF/YR)

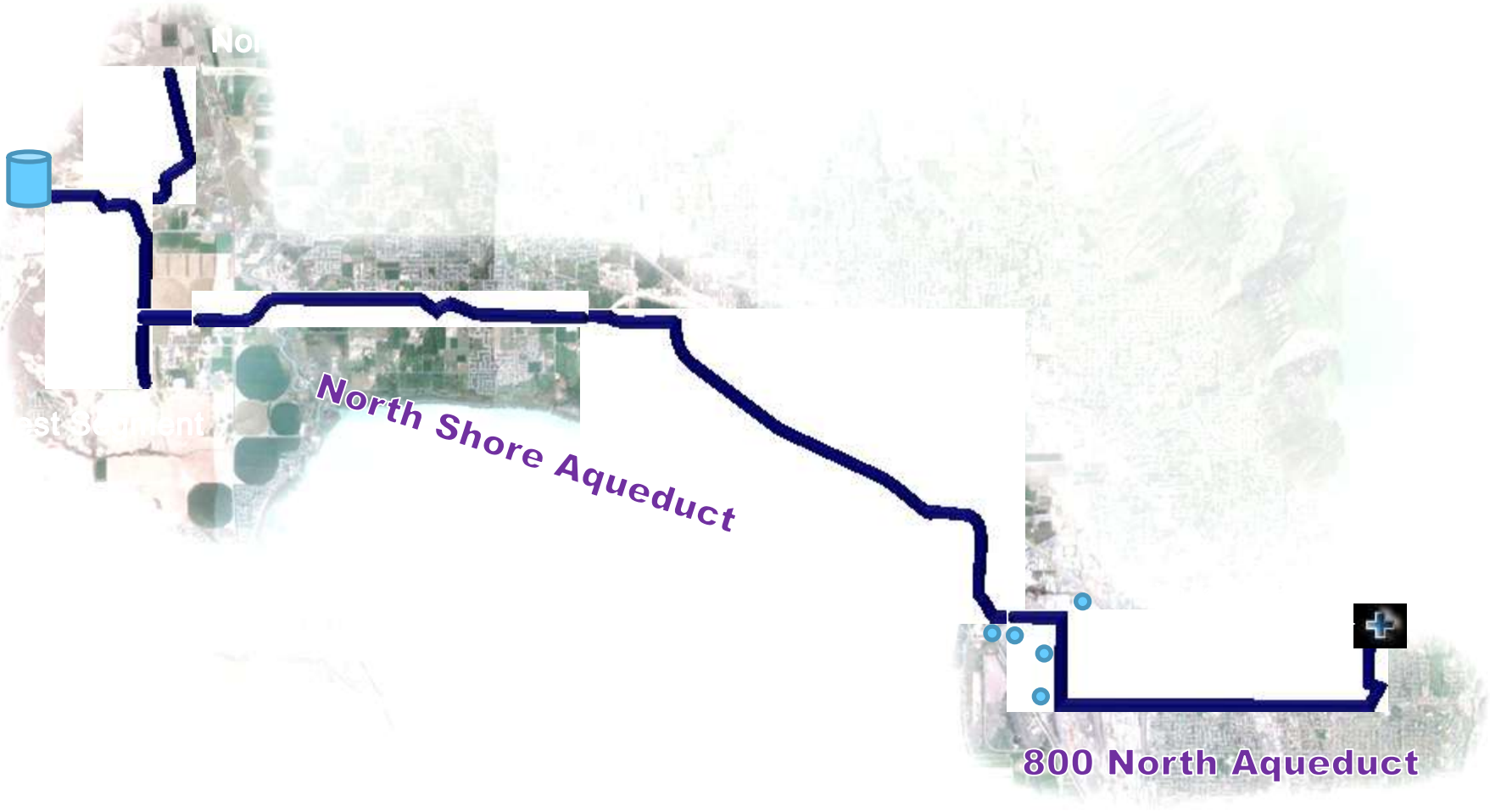

Estimated Cumulative Capital Expenditures and Delivered Volumes (2007)
Take or Pay Date for Current Reserved Water
First Significant Water Deliveries
Total Annaul Volume Delivered (AF/YR)
Total Cumulative Capital Expenditure
60,000
50,000
40,000
30,000
20,000
10,000
-
$500,000,000
$450,000,000
$400,000,000
$350,000,000
$300,000,000
$250,000,000
$200,000,000
$150,000,000
$100,000,000
$50,000,000
$-
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
Fiscal Year
Estimated Cumluative Capital Expenditures
Annual Delivered Volume (AF/YR)

Estimated Cumulative Capital Expenditures (2007) and Actual Expenditures (Through FY 2012)



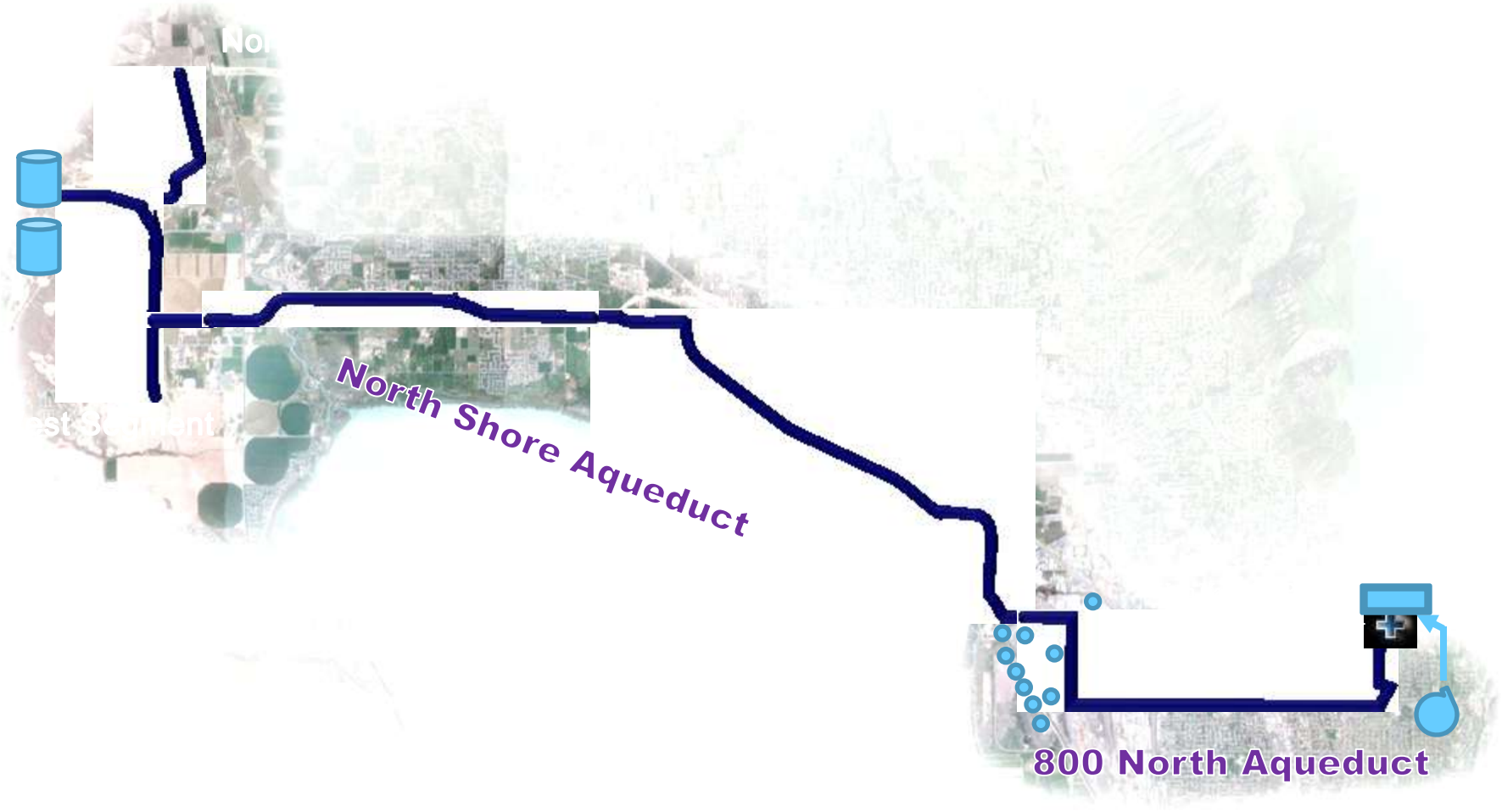
Constructed and Operational By July 2014

- 800 North Aqueduct
- North Shore Aqueduct
- North Shore Terminal Reservoir (Phase 1—10MG)
- High Head Wells 11-15



Constructed and Operational By July 2019

- Additional High Head Wells
- North Shore Terminal Reservoir (Phase 2—15 MG)
- Cascade Raw Water Pump Station and Aqueduct
- Process Improvements at Utah Valley Water Treatment Plant



Summary

- The CWP:
  - Will provide approximately 53,000 AF of high quality culinary water to water deficient areas
  - Has required an innovative and creative method of financing
  - Provides financial and operational flexibility to the purchasers


QUESTIONS?