

Water Supply WaQSP

Salt Lake Countywide Watershed Symposium

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by

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Water Supply

Purpose

- Summarize current potable water situation
- Identify changes
- Identify water quality impacts



Water Supply

Question 1:

- Raise hand if you think most of our drinking water comes from groundwater in Salt Lake County



Water Supply

Question 3:

- Raise hand if you think that we have less than average water quality drinking water.



Water Supply Providers

- There are 33 Community Water Systems in Salt Lake County.
- 40 Non-Community Water Systems
- Entities may report overlapping populations.

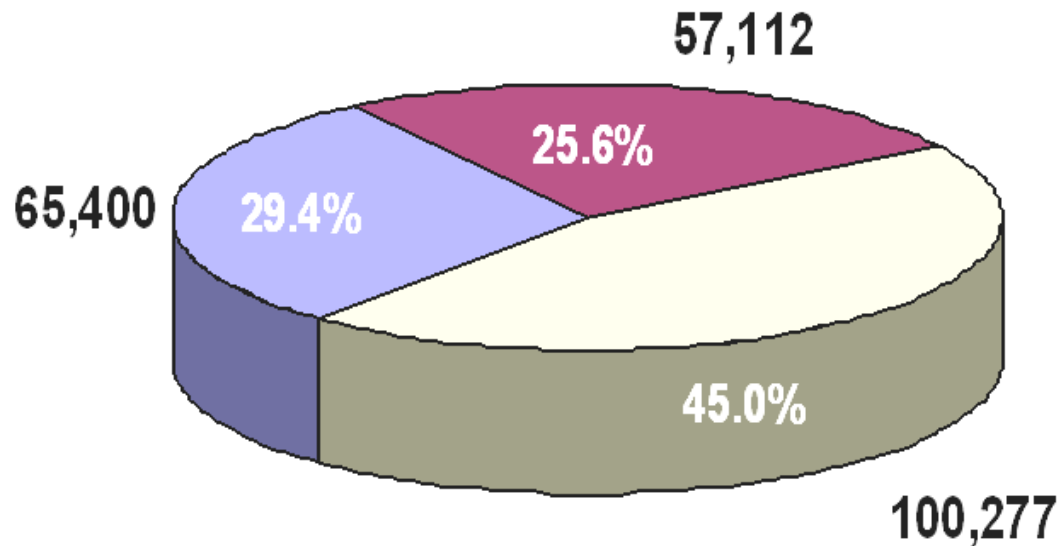


Big Three Water Providers

- MWD of Salt Lake & Sandy
- Salt Lake City Dept. of Public Utilities
- Jordan Valley Water Conservancy District



Salt Lake County Potable Water Sources (2005) acre-feet



■ Groundwater ■ Wasatch Front Streams □ Imports (Provo River)

Big Three Water Sources

	Sources of Water (ac-ft)		
Provider	Groundwater	Wasatch Streams	Imports (Provo River)
Salt Lake City	1,288	38,255	0 –(from MWD only)
MWD for SL & Sandy	Na	16,966	36,351
JVWCD	8,859	1,891	63,926
Total	10,147	57,112	100,277

Wasatch Mtn. Stream Sources

Supplier	Sources for Potable Waters
Salt Lake City Public Utilities Corporation	City Creek Parley's Creek Big Cottonwood Creek
Jordan Valley Water Conservancy District	Middle Fork of Dry Creek South Fork of Dry Creek Rocky Mouth Big Willow Bells Canyon
Metropolitan Water District of Salt Lake & Sandy	Little Cottonwood Creek Bells Canyon

Community Water Providers

Sources of water:

- Jordan Valley Water Conservancy District
- Groundwater
- Secondary Water
- Springs
- Other Culinary Water



Water Quality Standards

- Surface Water Standards
 - Class 1C for Drinking Water
- Groundwater
 - Class I - Pristine
 - Class II – Drinking Water
- Drinking Water
 - Primary
 - Secondary



Water Quality Standards

Drinking Water:

Maximum Contaminant Levels (MCLs)

- Primary Standards
 - Legally enforceable
 - Nitrate and Nitrite
- Secondary Standards
 - Non-enforceable guidelines
 - Total Dissolvable Solids (TDS)

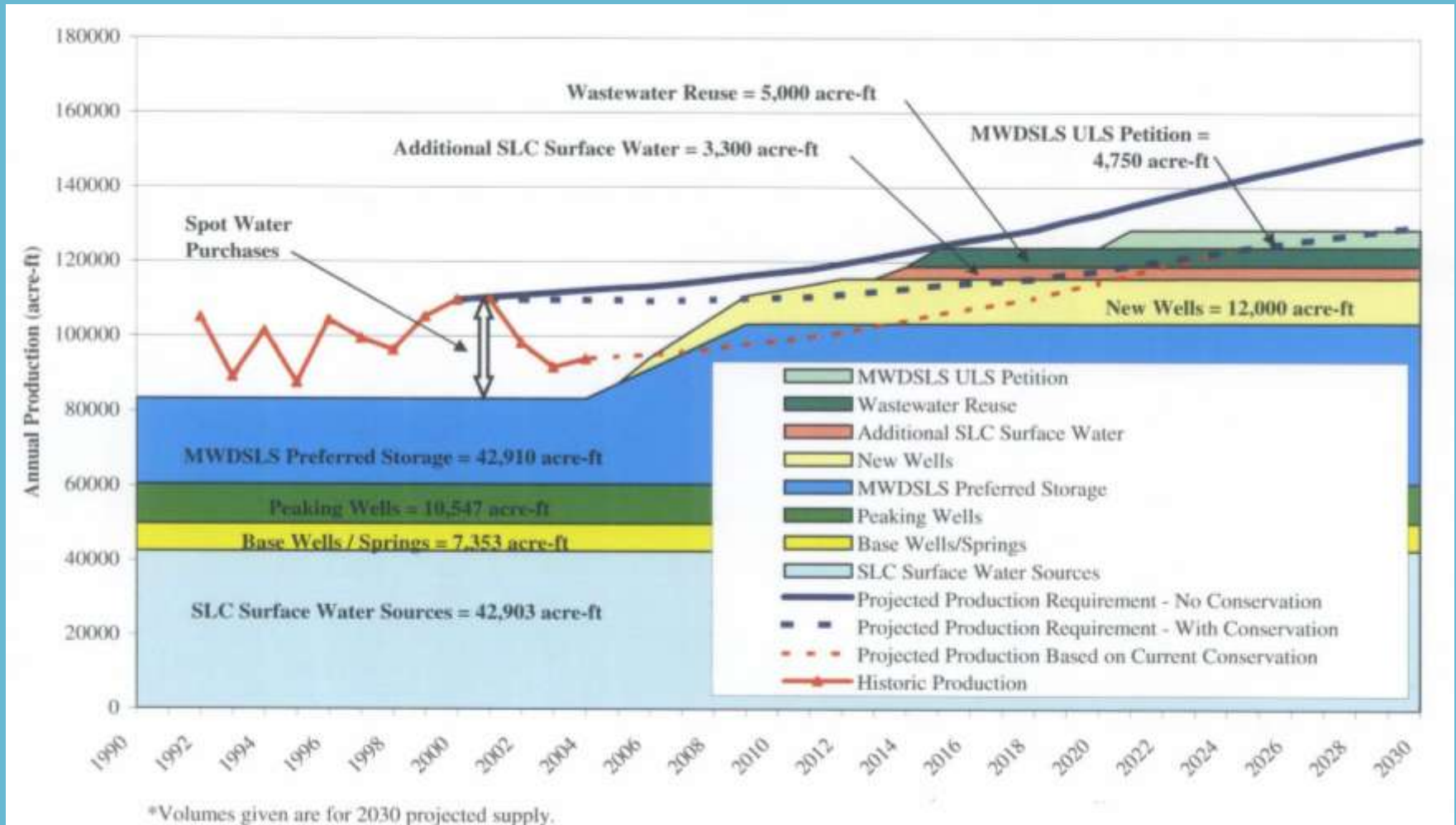


Salt Lake City Department of Public Utilities

- Demand > Supply in 2030. Even with projected sources
- New Sources:
 - Groundwater
 - Surface Water
 - ULS
 - Reuse



Projected SLC Production Requirements vs. Supply (Dry Year)



MWWD of SL & Sandy

Utah Lake System – 8,600 AF

No Groundwater

Bells Canyon

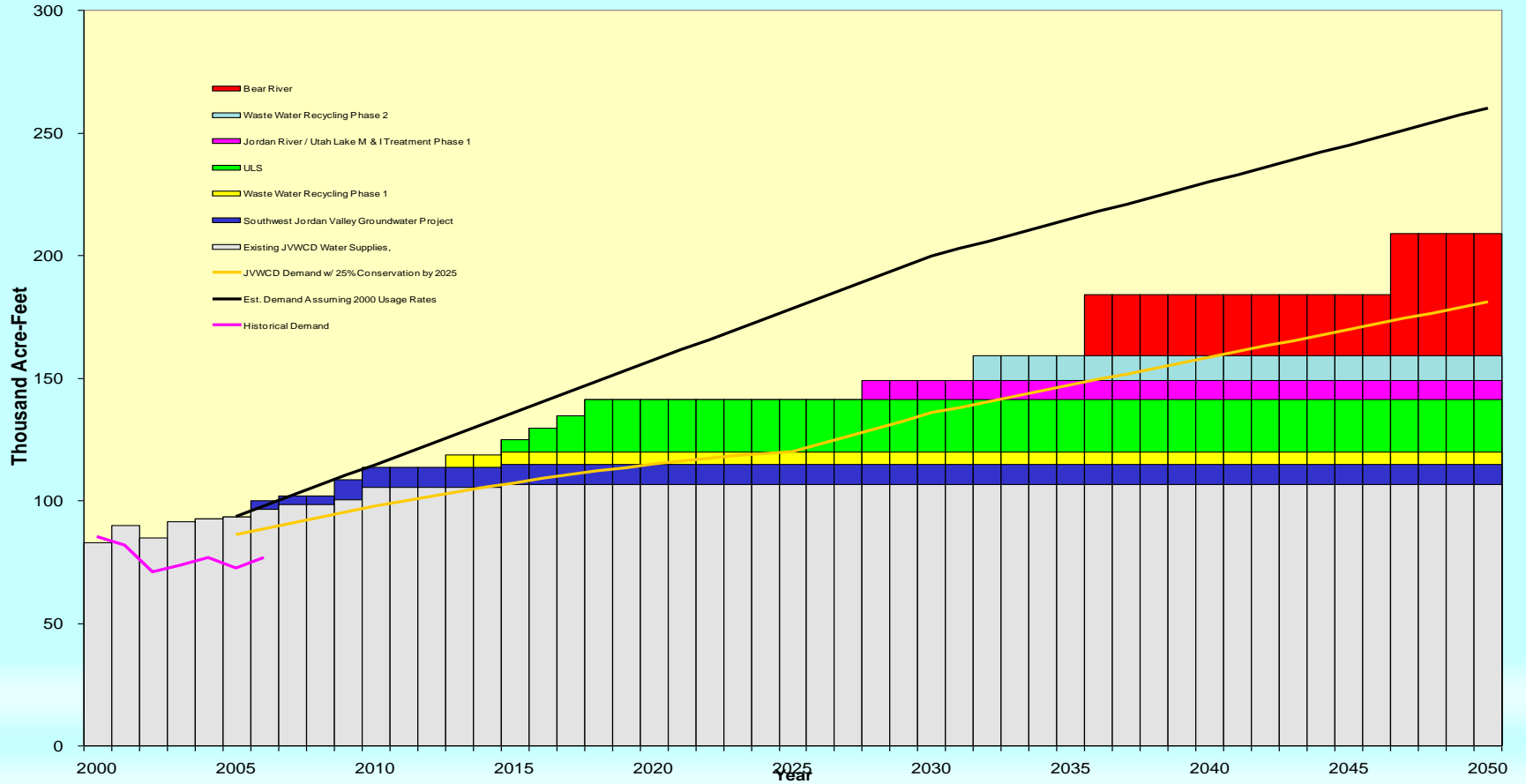


Jordan Valley WCD

Source	Acre-feet	First Year Delivered
Southwest Groundwater Project	8,200	2009
Wastewater Reuse Phase 1	5,000	2013
Utah Lake System (CUWCD)	21,400	2015
Jordan River, shallow groundwater	8,000	2028
Wastewater Reuse Phase 2	10,000	2032
Bear River Phase 1	25,000	2036
Bear River Phase 2	25,000	2047
Total New Water Sources	102,600	



**Jordan Valley Water Conservancy District
Drought Year Water Supply Plan
(With 25% Conservation by 2025)**



Potable Water Treatment Plants

Water Treatment Plant	Agency	Capacity (MGD)	Water Source(s)
Jordan Valley	JVWCD	180	Provo River/Jordan River
Southeast Regional	JVWCD	20	Bells Canyon, Middle Fk, South Fk, Rocky Mouth, Big Willow
Bingham Canyon	JVWCD	3	Groundwater
Draper	Draper Irrigation Co.	6.6	Bells Canyon
Little Cottonwood	MWD of SL & Sandy	150	Provo River, Little Cottonwood and Bells Canyon
Point of the Mountain	MWD of SL & Sandy	70	Provo River
Big Cottonwood	Salt Lake City	38	Big Cottonwood
Parleys	Salt Lake City	35	Parleys Creek
City Creek	Salt Lake City	13	City Creek

Import Water

		Projected Future Sources of Water (ac-ft)	
Provider	Geneva Groundwater	ULS	Bear River
Salt Lake City	0	From MWD	0
MWD for SL & Sandy	0	8,600	0
JVWCD	9,000	21,400	50,000
Total	9,000	30,000	50,000

Import Water Quality

Source	Source Water Quality		
	TDS (ppm)	Nitrate + Nitrite (ppm)	Phosphate (ppm)
ULS ¹	150		.066-
Bear River ²	600	.02	
Geneva Steel groundwater ³	141	ND	



Import Salt Loading

Source	TDS (ppm)	Annual Tons Salt
Provo River (current)	296	40,300
Bear River (post treatment)	250	16,978
ULS	150	6,112
Geneva Groundwater	141	1,724
Total		65,128

Summary

- Generally – Water quality of potable water sources is very high
- 89,000 AF of new import water planned
- Impacts to Salt Lake County
water quality is positive

