

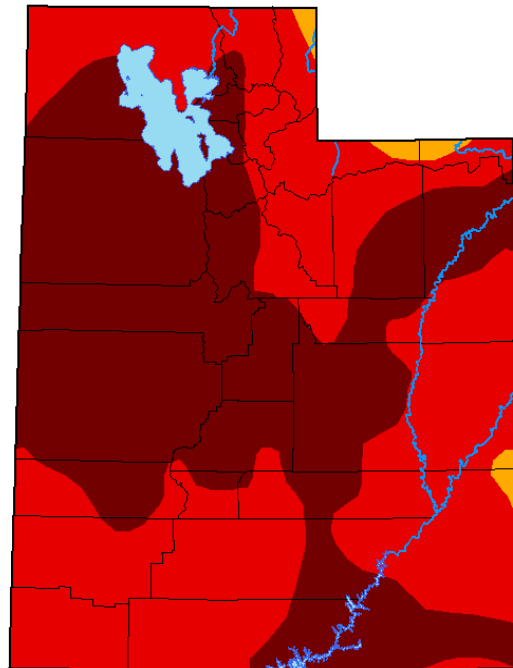
2021 Drought Response and Water Supply and Demand Planning

Salt Lake City Department of Public Utilities

City Council Work Session

August 24, 2021

U.S. Drought Monitor Utah



August 17, 2021
(Released Thursday, Aug. 19, 2021)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	98.75	50.50
Last Week 08-10-2021	0.00	100.00	100.00	100.00	98.75	50.50
3 Months Ago 05-18-2021	0.00	100.00	100.00	97.94	90.20	58.83
Start of Calendar Year 12-29-2020	0.00	100.00	100.00	97.38	90.11	68.56
Start of Water Year 09-29-2020	0.00	100.00	99.62	93.20	87.26	12.80
One Year Ago 08-18-2020	1.23	98.77	97.87	78.88	28.60	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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National Drought Mitigation Center



droughtmonitor.unl.edu

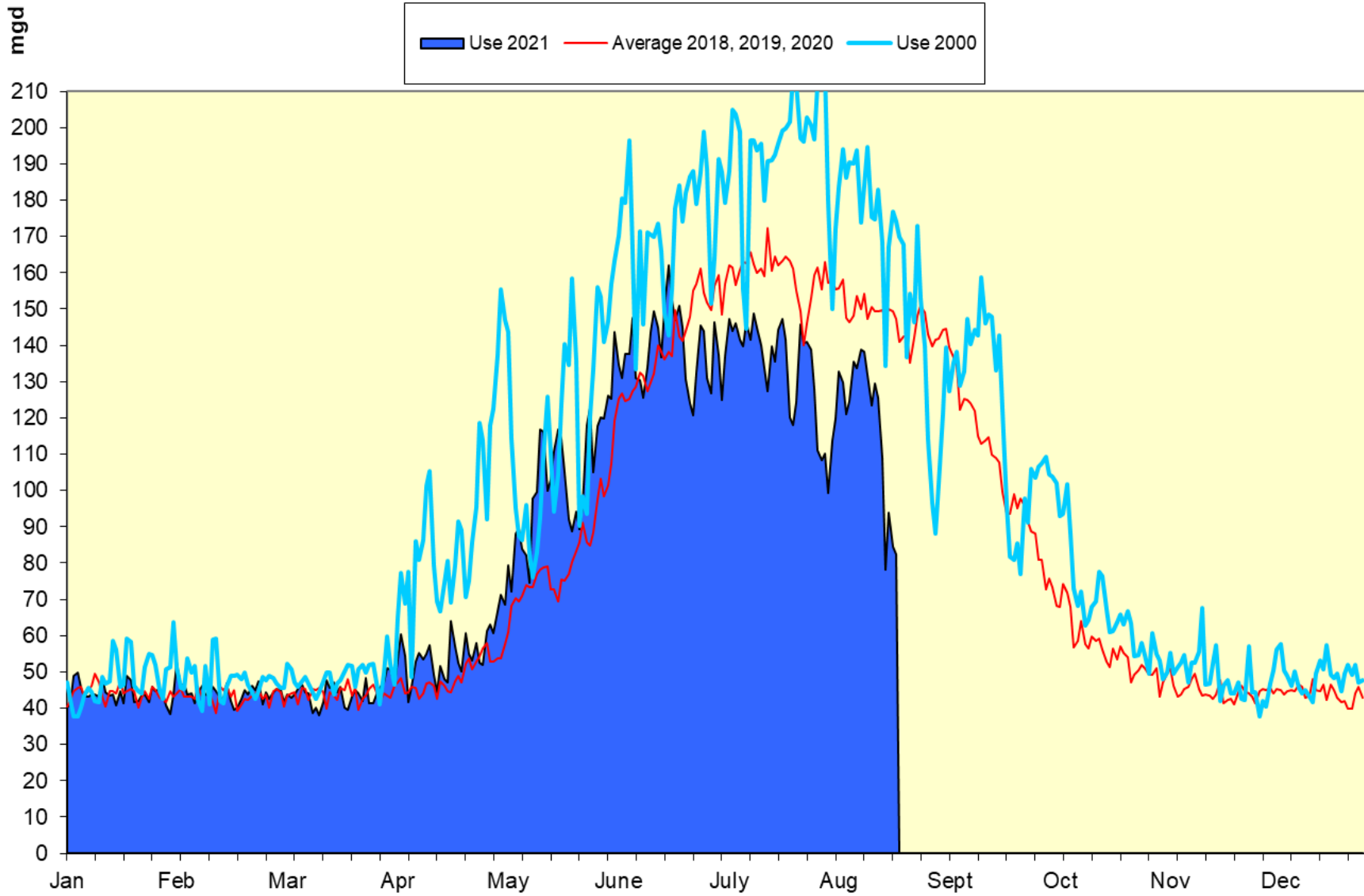
Drought Response is Meeting Goals of Water Shortage Contingency Plan

- City Code: *Water Shortages*
Chapter 17.16, Article II
- Five stages with increasing
restrictions and response measures.
- Stage 2 declared May 27th— goal is
to reduce 5%-15%.
- Since Stage 2 Declaration: 5%
reduction, likely more by the end of
the irrigation season.
- Since July 1st, 15% reduction
- Saved more than 900 million
gallons (more than Mt. Dell
capacity)



Daily Water Use Calendar Year 2021

Salt Lake City Department of Public Utilities
Service Area



2020 Water Conservation Program Highlights

- **Outreach**
- Effective collaboration and coordination across partner-City public facilities to reduce water use
- Water Checks (178 so far this year) and WaterMAPS in progress
- **Economics**
- *Localscapes* and *Flip Your Strip* landscape rewards program expanded into service area
- SLC Turf Trade Seed sales and irrigation device rebates launch September
- Pilot CII Audits and Fixture program
- **Utility**
- Concord Lift Station Landscape Upgrade nearing completion; 50% water reduction
- Water Audit and Loss control program in progress
- **Law and Policy**
- Landscape and water waste codes survey in progress
- **Research and Metrics**
- Golf Turf Study: 6+ acres of native/adaptive grasses planted
- CII Water use analysis ongoing

Planning for Growth: Water Supply and Demand Plan through 2060

- Guides decisions and strategies related to water resources, water demand, conservation, infrastructure, and risk
- Addresses:
 - Regulatory and legal requirements
 - Land use changes and growth
 - Climate change impacts
- Major components include: *Projections through 2060; Water Demand Planning Scenarios; Climate Change; Risk and Redundancy Factors*
- Last updated in 2019



Service Area and Population through 2060

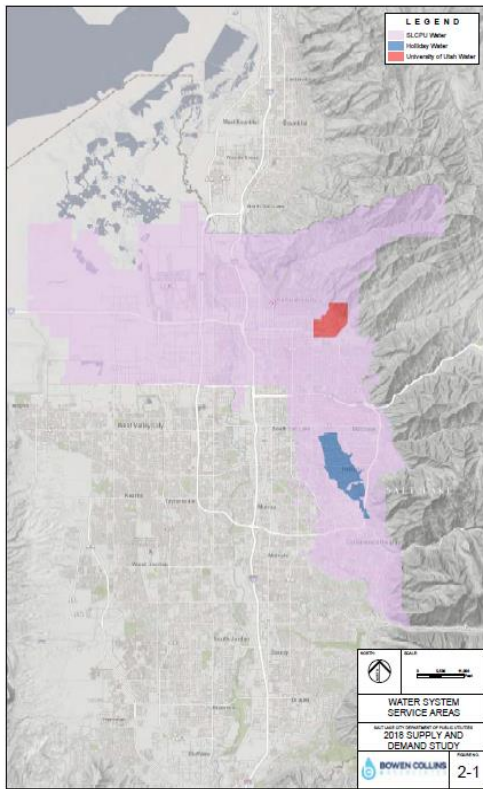


Table 2-2
ULS Equivalent Population

Year	ULS Equivalent Population
2018	363,826
2020	369,786
2025	386,315
2030	401,049
2035	411,921
2040	424,671
2045	436,653
2050	447,804
2055	459,111
2060	470,704

Service area of 141 square miles, includes portions of other cities

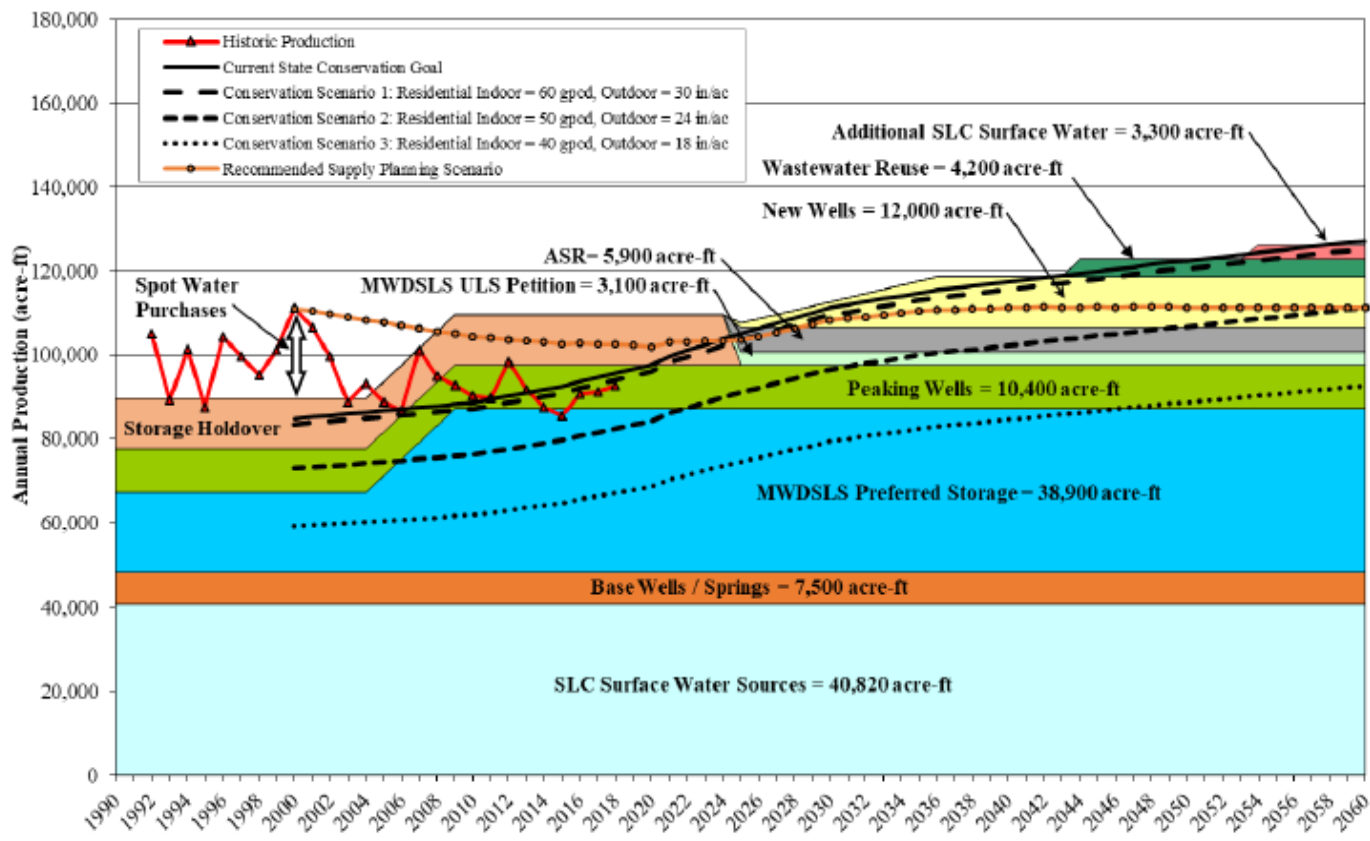
Population projections include resident population and employment projections

Expected population increase by more than 100,000 people by 2060

Evaluated land use changes – NWQ, prison, and densification

Projected Annual Water Supply and Demand Scenarios

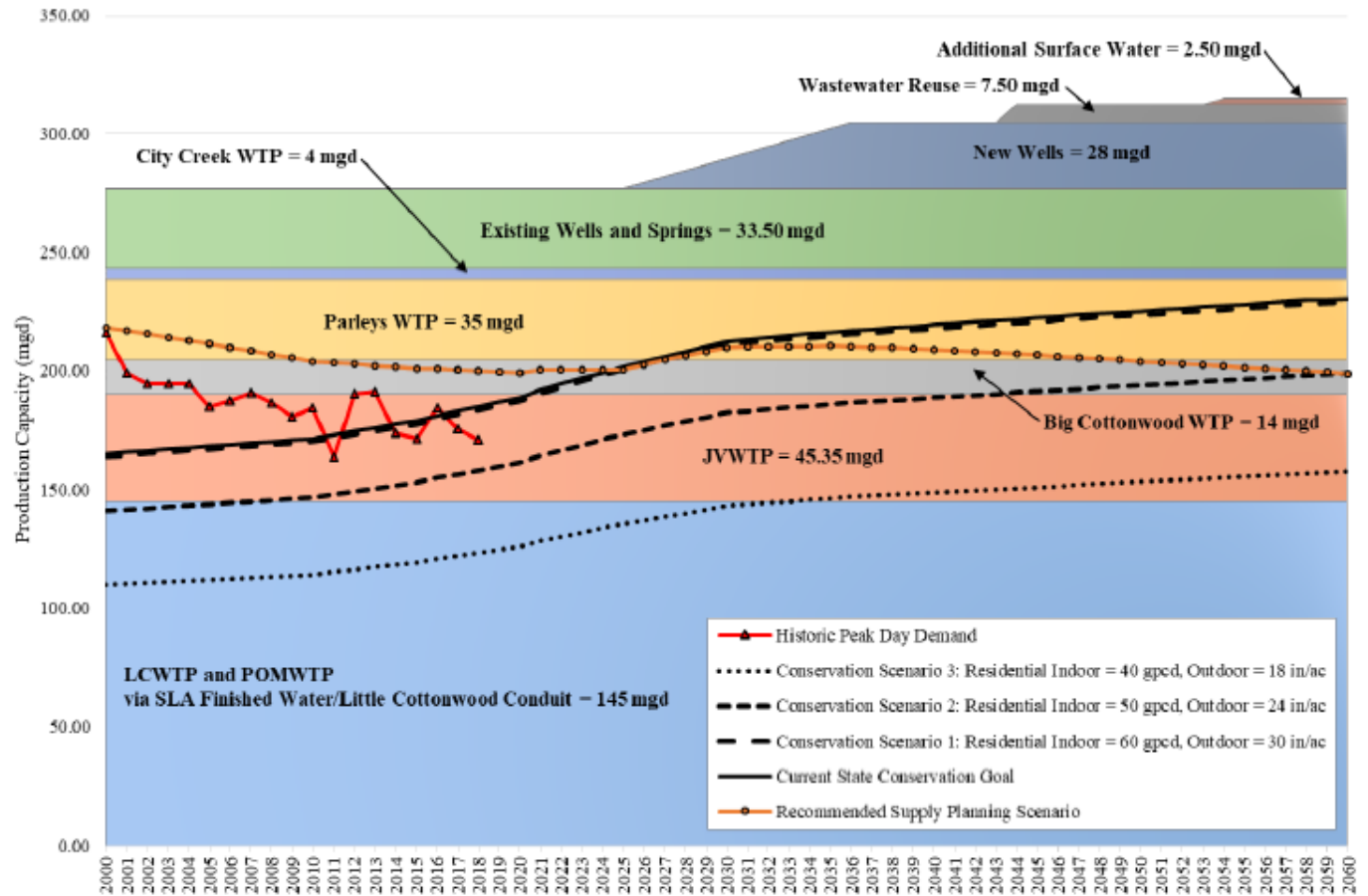
Figure 3-1
Projected Salt Lake City Annual Production Requirements vs. Supply (Dry Year)
Conservation Alternatives



*Volumes given are for 2060 projected supply.

Projected
Peak Day
Water Supply
and Demand
Scenarios

Figure 3-3
Projected Salt Lake City Peak Day Production Demands vs Production Capacity (Dry Year)
Conservation Alternatives



Risk and Redundancy Planning through 2060



- Single Source Loss
 - Loss of a groundwater well or equivalent quantity
- Catastrophic Source Loss
 - For annual supply, loss of Big Cottonwood Creek or equivalent quantity
 - For peak day, loss of Parleys, or equivalent quantity
- Climate Change
 - Planning scenario loss of 15% of water supplies due to climate impacts

Water Supply and Demand Plan Conclusions

Conservation

- Set new conservation targets
 - Implement additional conservation measures
- New 2020 Conservation Plan addresses these recommendations

Water Supplies

- All identified water supplies will be needed
ULS and ASR should be developed by 2025
- New wells should be developed between 2026 and 2036
- Other new sources (reuse and surface water) could be longer depending on conservation measures

Climate Change

- Decreases in supply and increases in demand are anticipated.
- Ongoing monitoring and studies are recommended, and changes to this plan may be necessary as a result