

Utah's State Water Planning

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Utah Division of Water Resources







Mission Statement:

**Plan, Conserve, Develop & Protect
Utah's Water Resources**

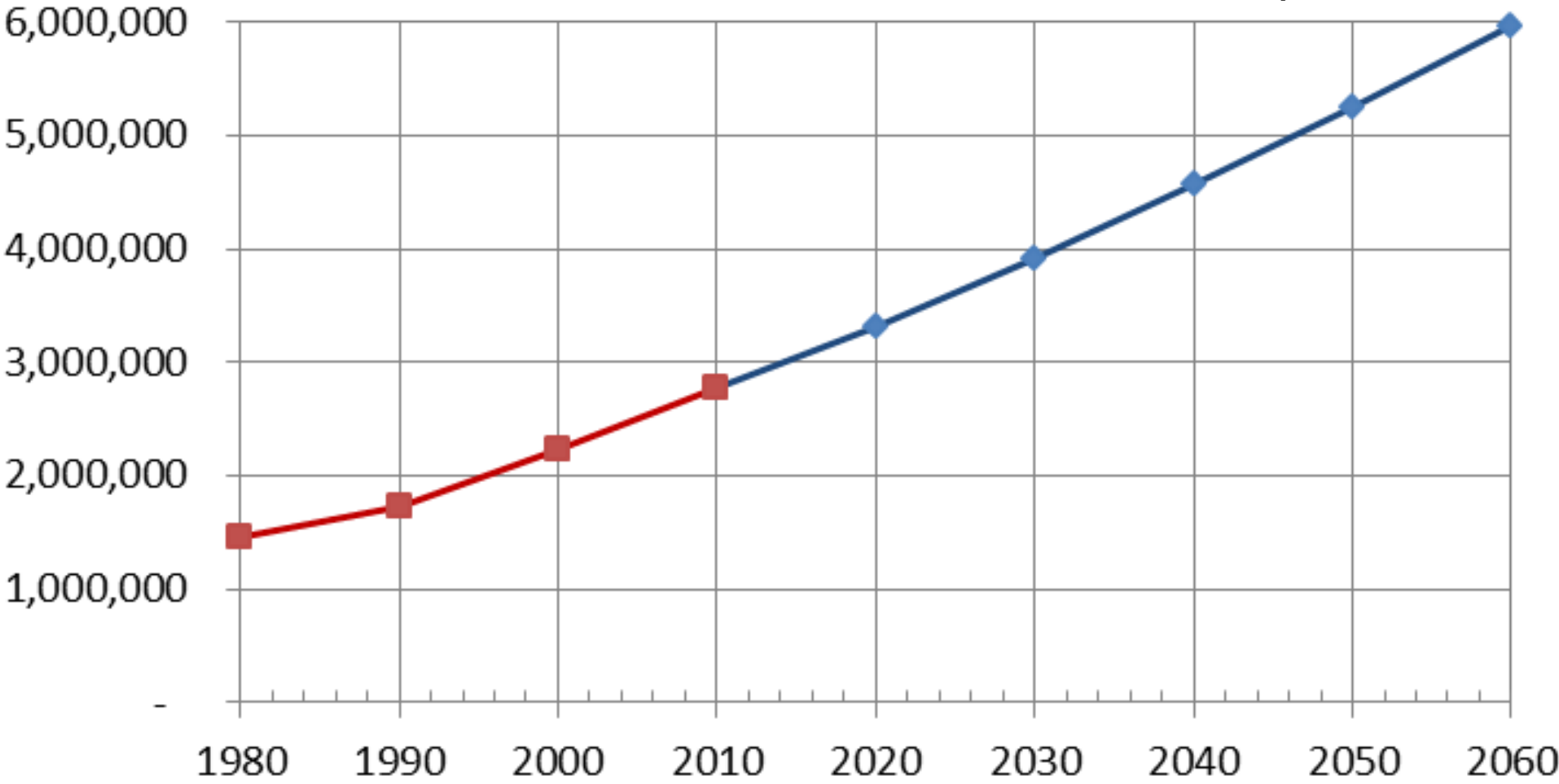
Legislative Authority

- Provide comprehensive water planning.
- Protect Utah's rights to interstate streams.
- Manage Utah's water resource construction programs.
- Research, evaluate and oversee Utah's cloud seeding program.
- Oversee Water Conservation Plan Act.
- Oversee the development of Bear River and Lake Powell Pipeline projects.



Utah's Population & Projection

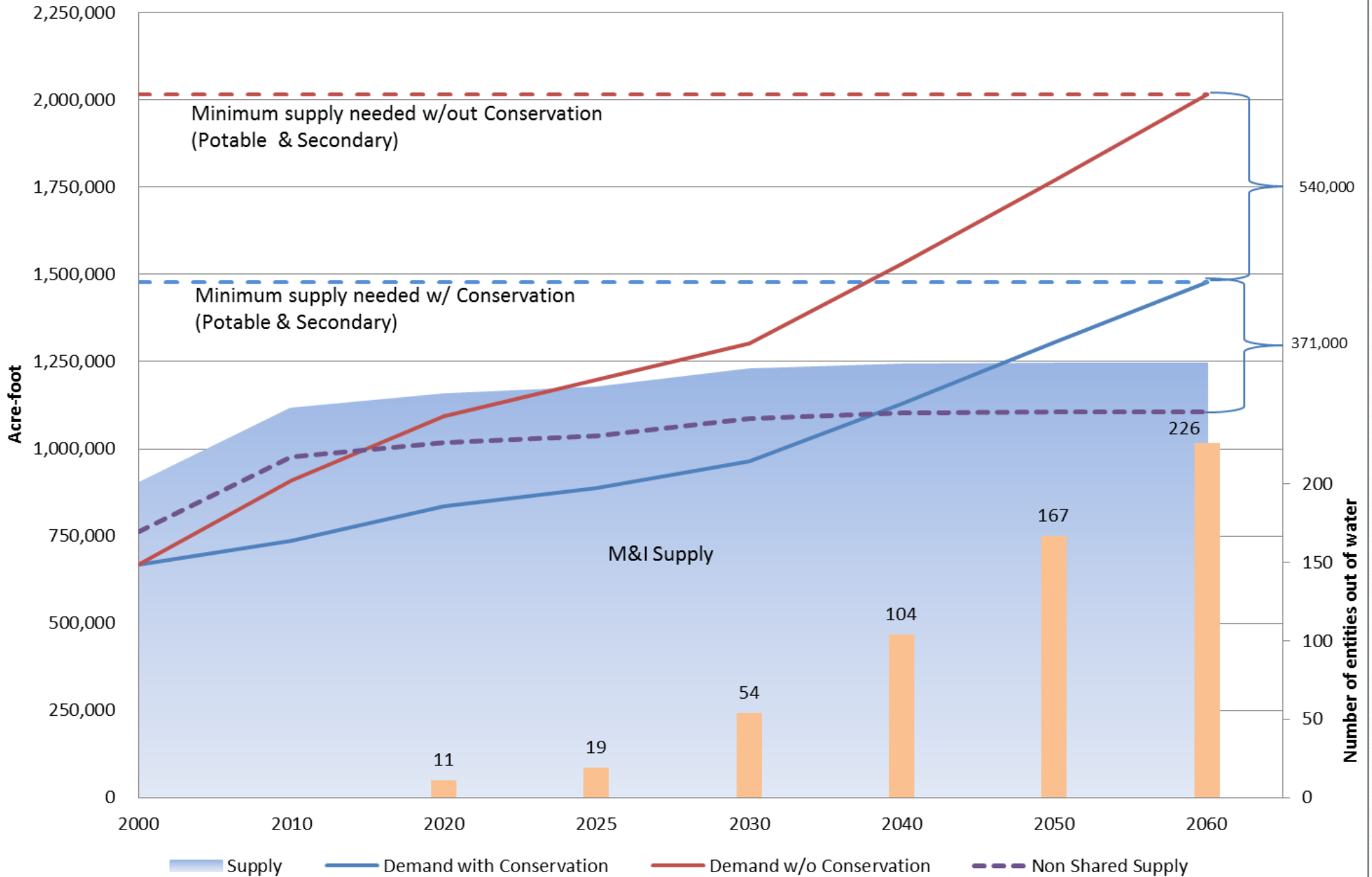
2060 Population 5,966,000



Utah GOMB 2012 Baseline Projections



Utah's Projected M&I Potential Water Demand & Supply

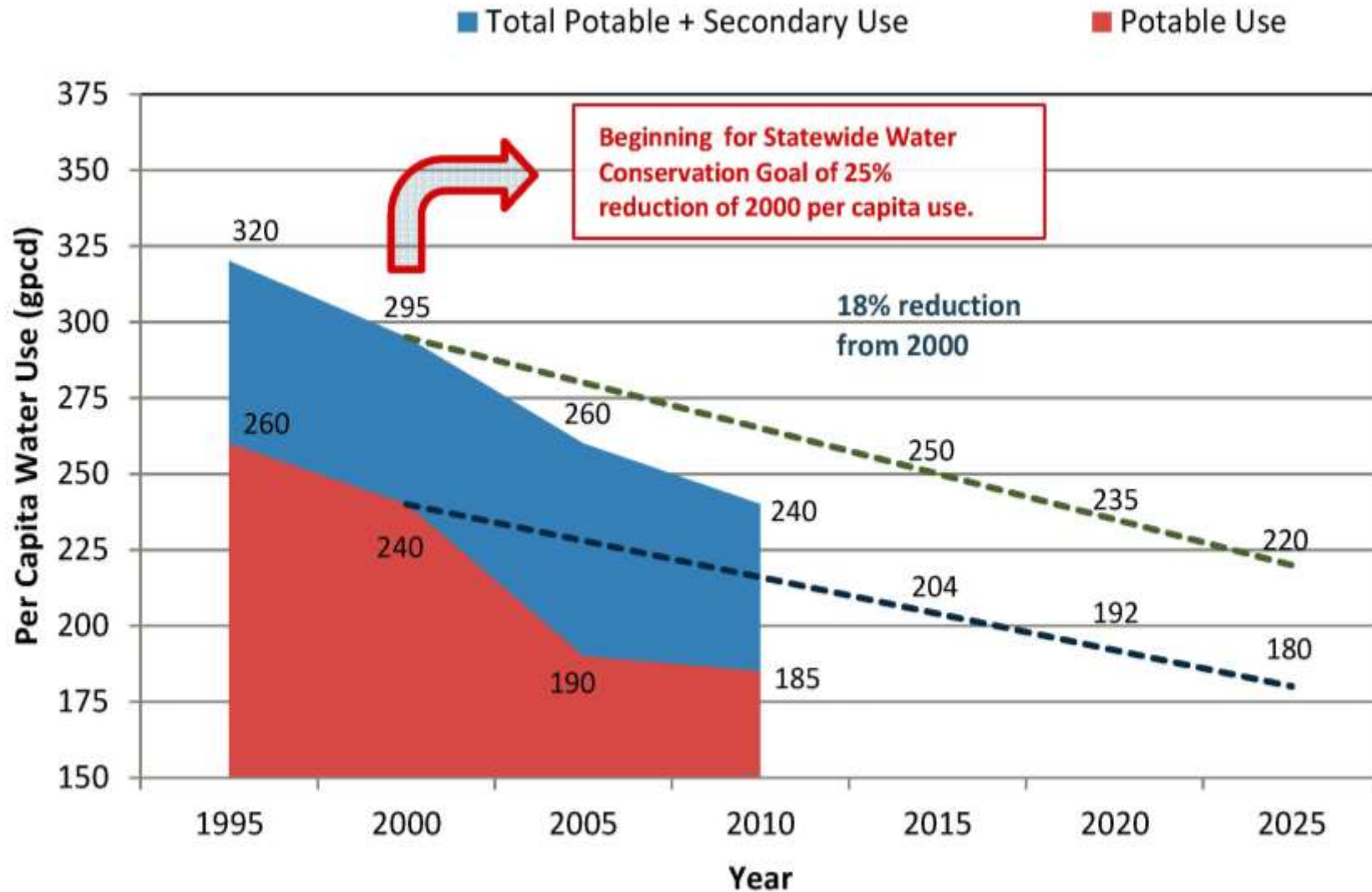


Utah's Water Conservation Goal

- The State's goal is a reduction of per capita water use of at least 25% by 2025
- Long term ethic, not just in response to drought
- Focus has been on bringing water use in line with actual needs
- New water Savings Technologies



Utah's Water Conservation Progress

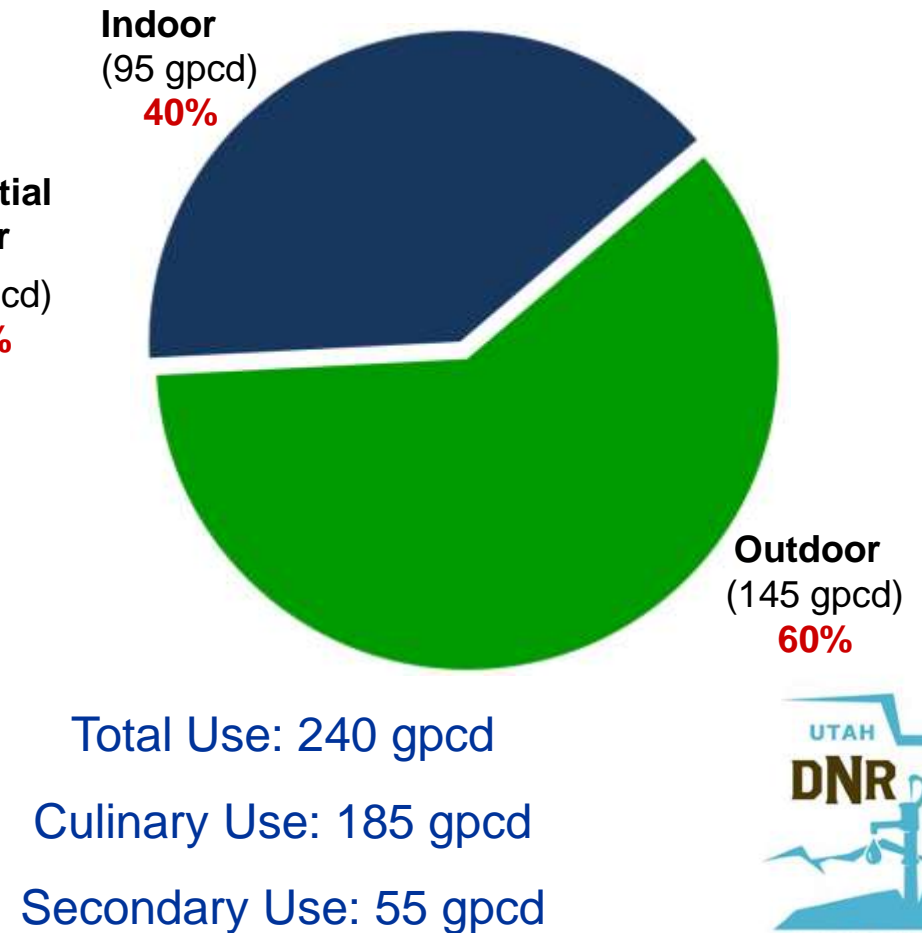
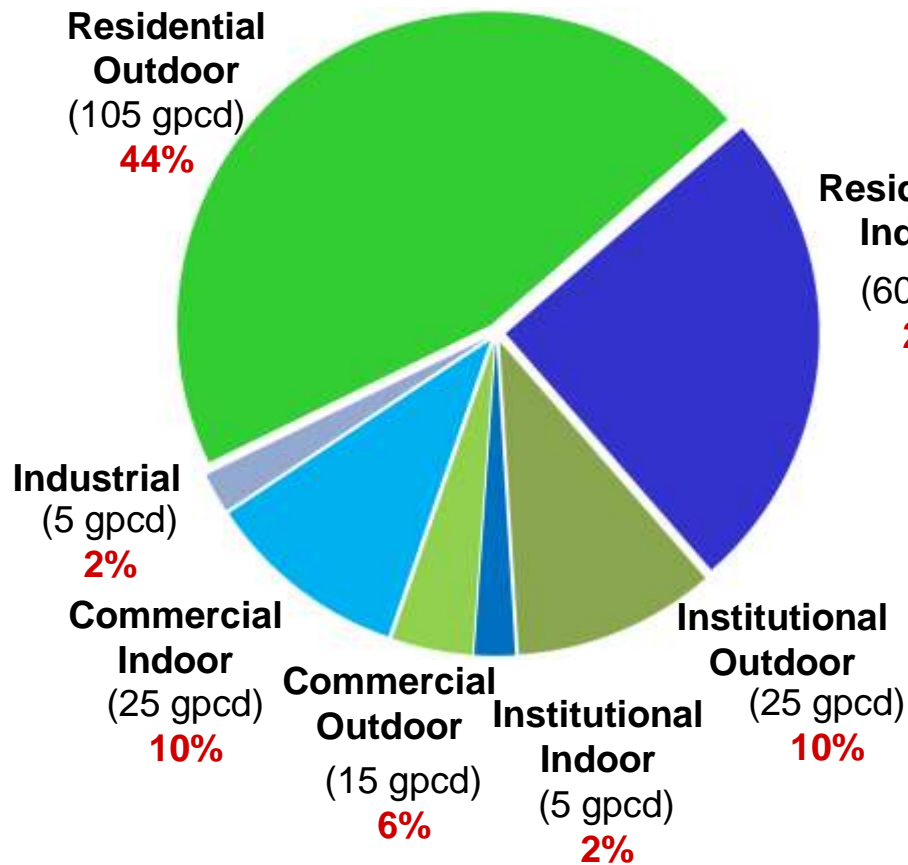




January 8, 2013 around 4 pm in Salt Lake City

Public Community Systems 2010 per Capita Use (gpcd)

(Includes Potable and Secondary Water)



Water-Related Land Use Program

To identify and quantify the actual irrigated agricultural lands in the state.

Including:

- crop/land use type
- irrigation type
- acreage



Statewide Inventory = 3 million acres
or 4.7% of the state

Data is used to...

Quantify Utah's irrigated agricultural lands.

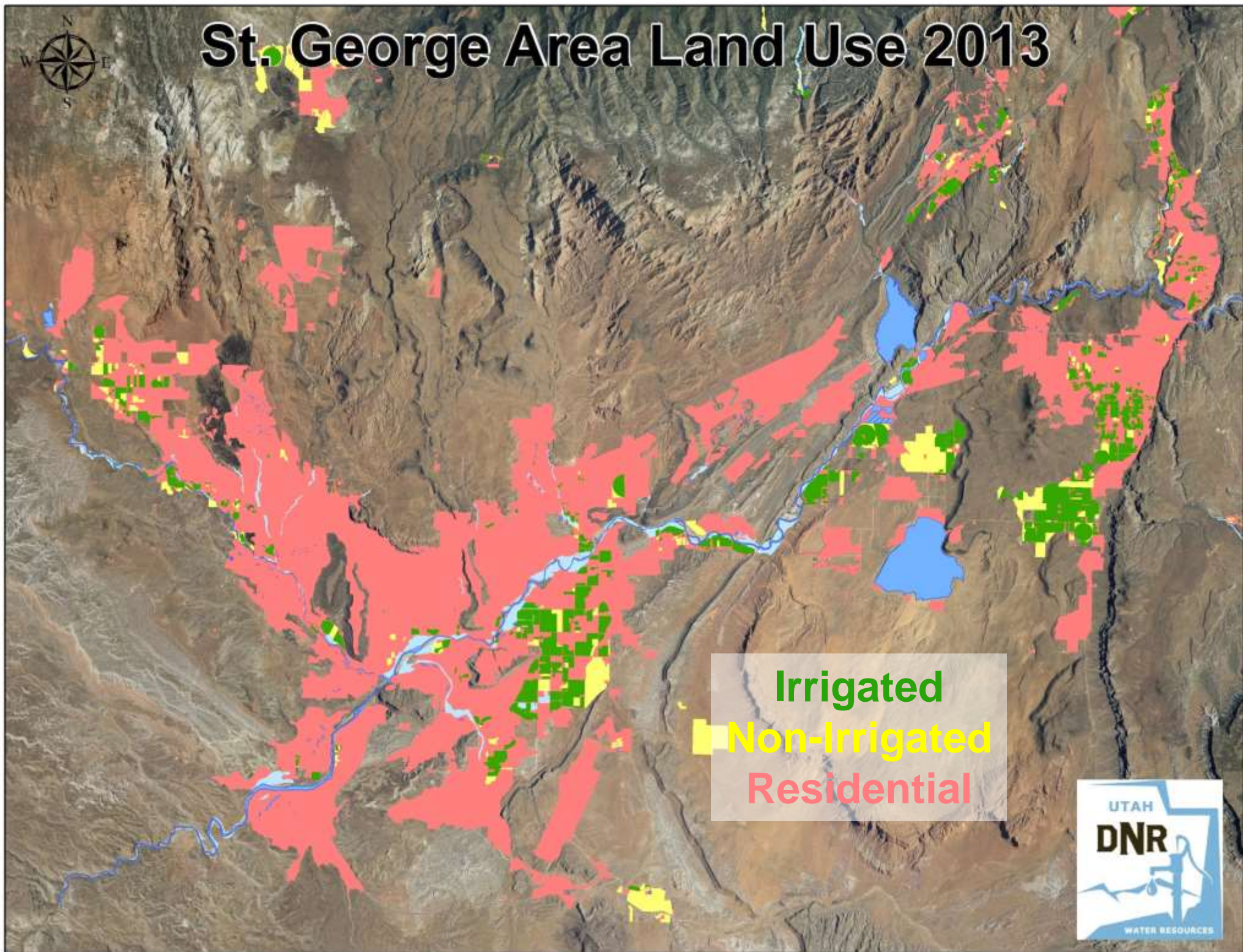
Identify agricultural and water-use trends.

Assess conversion of irrigated lands to urban uses.

Support other planning activities.



St. George Area Land Use 2013



Irrigated
Non-Irrigated
Residential



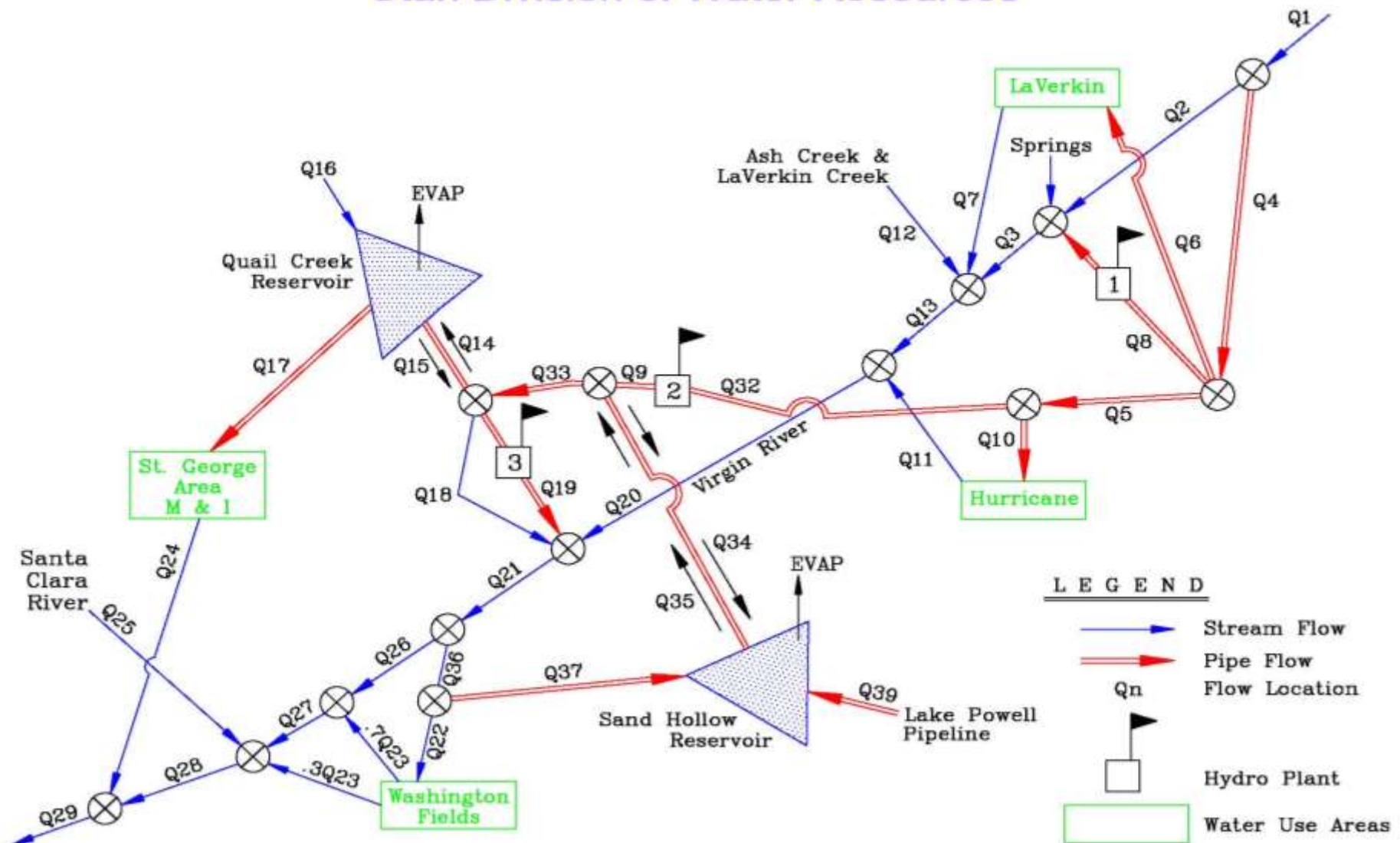
Agricultural Water Conversion

- Total irrigated land ~ 1.4 million acres
- Approx. 10% of the farm land will be urbanized by 2050
 - Not buy-and-dry (willing buyer – willing seller)
 - “Natural conversion” as irrigated lands are sold for municipal and industrial purposes
- Some of this Ag water can be treated for drinking water use, exchanged for high quality water or used in secondary water systems



River Basin Models

VIRGIN RIVER DAILY SIMULATION MODEL Utah Division of Water Resources



Great Salt Lake Modeling

Bear: 1,200,000 AC-FT

Weber: 400,000 AC-FT

Jordan: 400,000 AC-FT

Precipitation = 1.0 FT = 1,000,000 AC-FT

Evaporation = 3.0 FT =
3,000,000 AC-FT

Inflow = 2,000,000 AC-FT

Surface Area = 1,000,000 Acres

Volume = 15,000,000 AC-FT

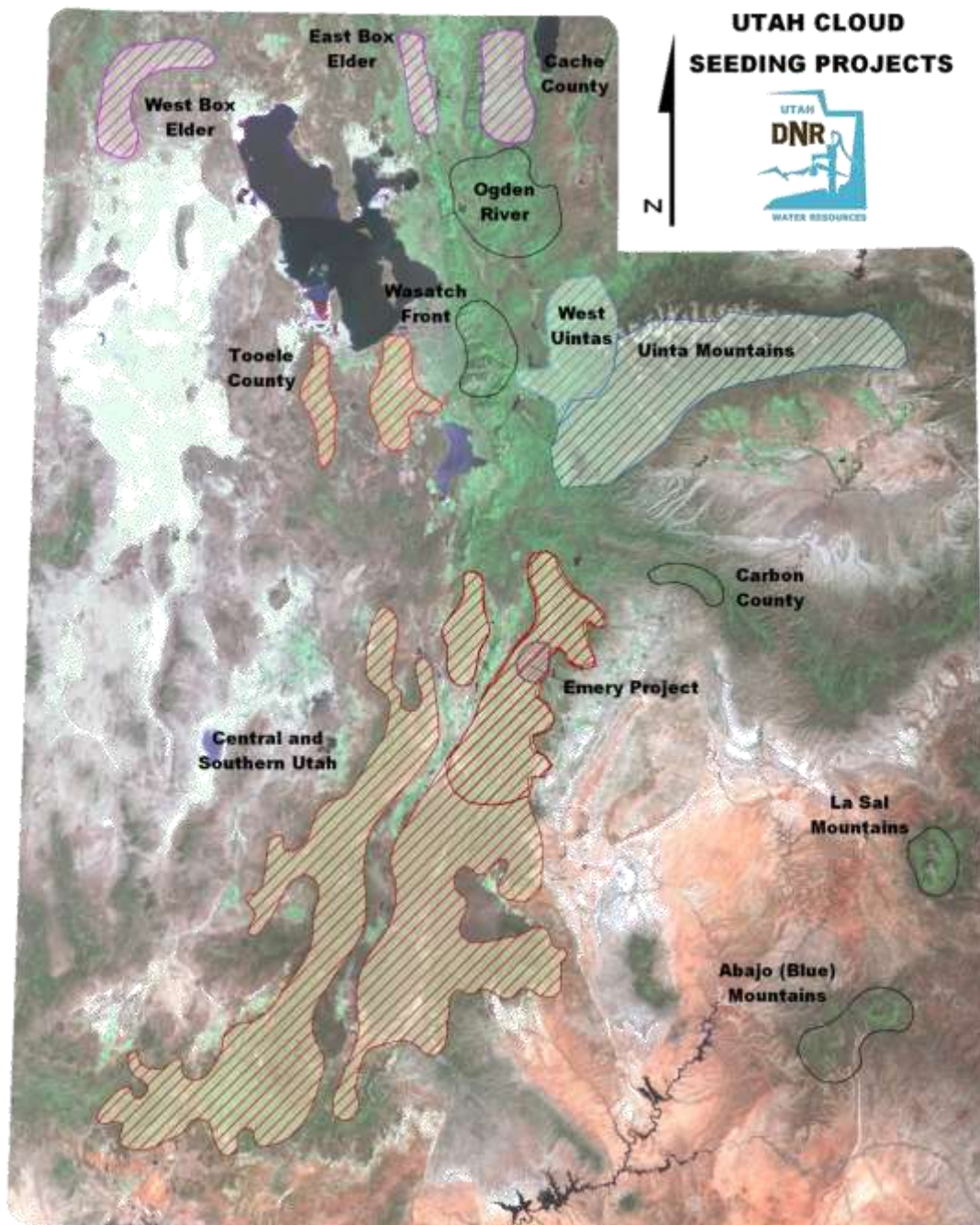
Elevation = 4,200 FT MSL

Total Inflow = 3,000,000 AC-FT

Outflow = 3,000,000 AC-FT

Net = 0

Cloud Seeding Project Areas



2010 Cloud Seeding Summary

	Increased Runoff (Acre-feet)	Cost (\$)	Cost (\$/Acre-foot)
Total	182,000	412,000	2.27

Water Development

The Board of Water Resources manages three loan funds.

Revolving Construction Fund

Cities Water Loan Fund

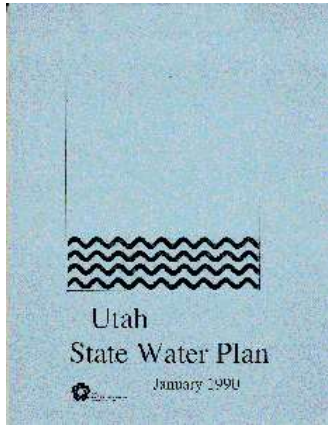
Conservation and Development Fund

**These loan funds provide monies to build
and or improve local water projects**



State Water Plans & River Basin Plans

1990



1990-2001



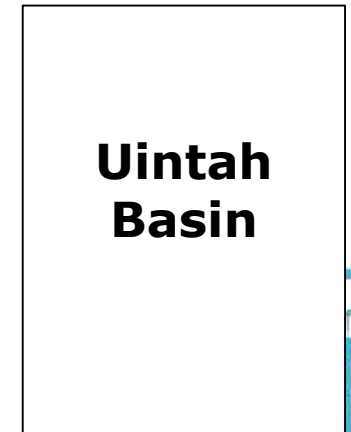
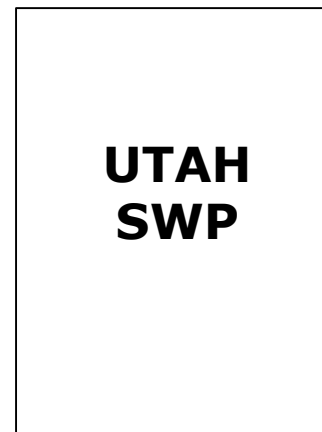
2001



2001-2014



2015



State Water Plan Management Strategies / Special Studies

2001-2012



Topics Include:

Water Conservation, Water Reuse, Conjunctive Management, Drought, Sedimentation in Reservoirs, Residential Water Use, Municipal & Industrial Water Use, Cost of Water, Water & Energy and Cloud Seeding.

All publications are on-line at <http://water.utah.gov>



State Water Plan Process

- Project Scoping (seek input from key stakeholders)
- Internal Review (develop and polish content)
- Committee Review:
 - Division of Water Rights
 - Division of Wildlife Resources
 - Division of Parks and Recreation
 - Division of Drinking Water
 - Division of Water Quality
- Advisory Review (key water providers)
- Public Review (including public meeting)
- Publish Final



Changes to State Water Plan Outline

2001

1. Introduction
2. Water Supply
3. Population and Water Use Trends & Projections
4. Water Conservation
5. Water Transfers & Eff. Management of Developed Supplies
6. Water Development
7. Water Quality, the Environment & Other Considerations
8. Conclusion

2015

1. Introduction
2. Population and Water Use Trends & Projections
3. Water Supply
4. Water Conservation
5. Efficient Water Management Strategies
6. Water Development & Infrastructure Maintenance
7. **Water Rights**
8. Water Quality
9. Environment & Recreation Considerations
10. **Other Issues**



New Topics Covered in 2015 Plan

- Climate Change
- Tar Sands and Oil Shale Development
- Infrastructure Maintenance & Replacement Needs
- Canal Safety



Think Big!

