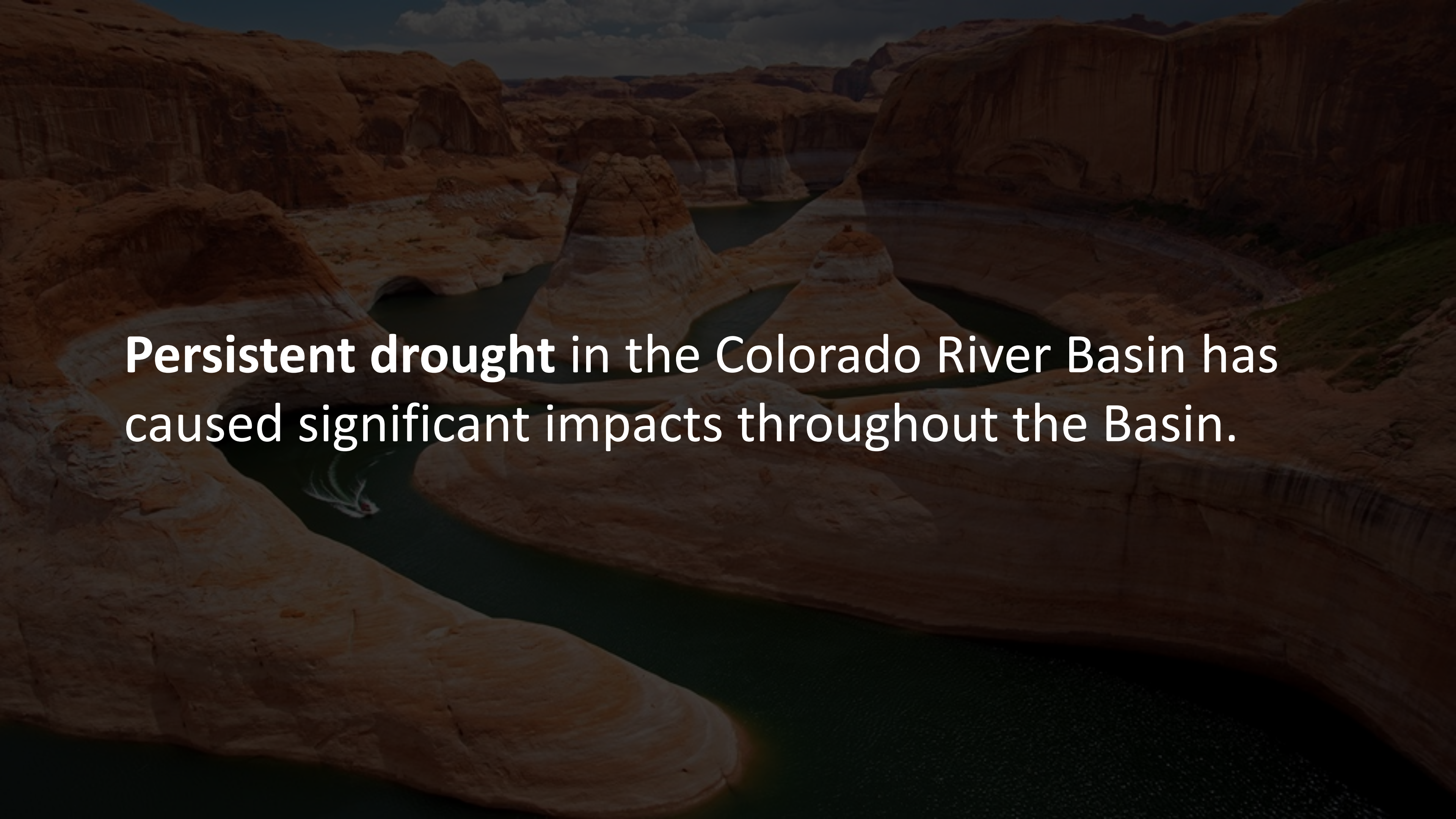
SYSTEM CONSERVATION

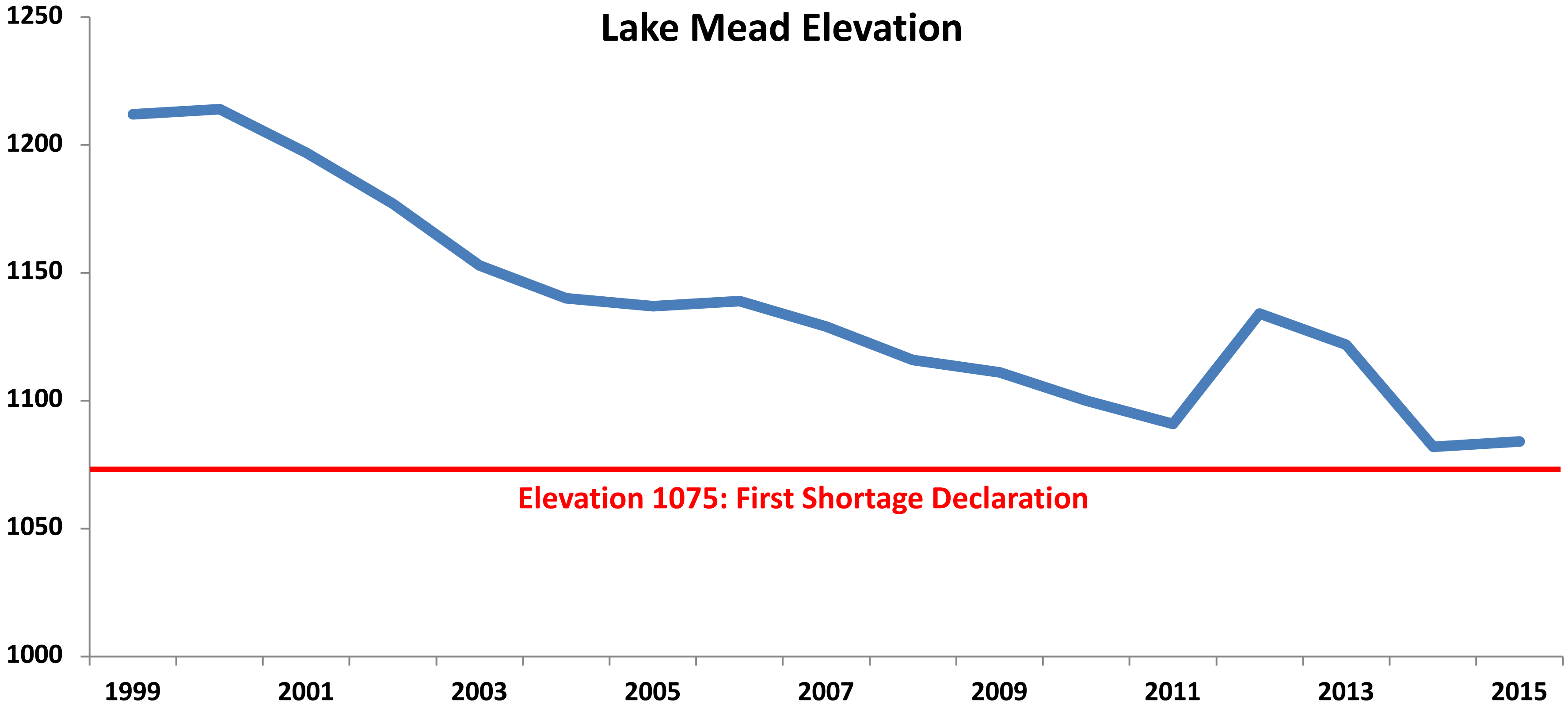
Colby Pellegrino, Colorado River Programs Manager
Southern Nevada Water Authority



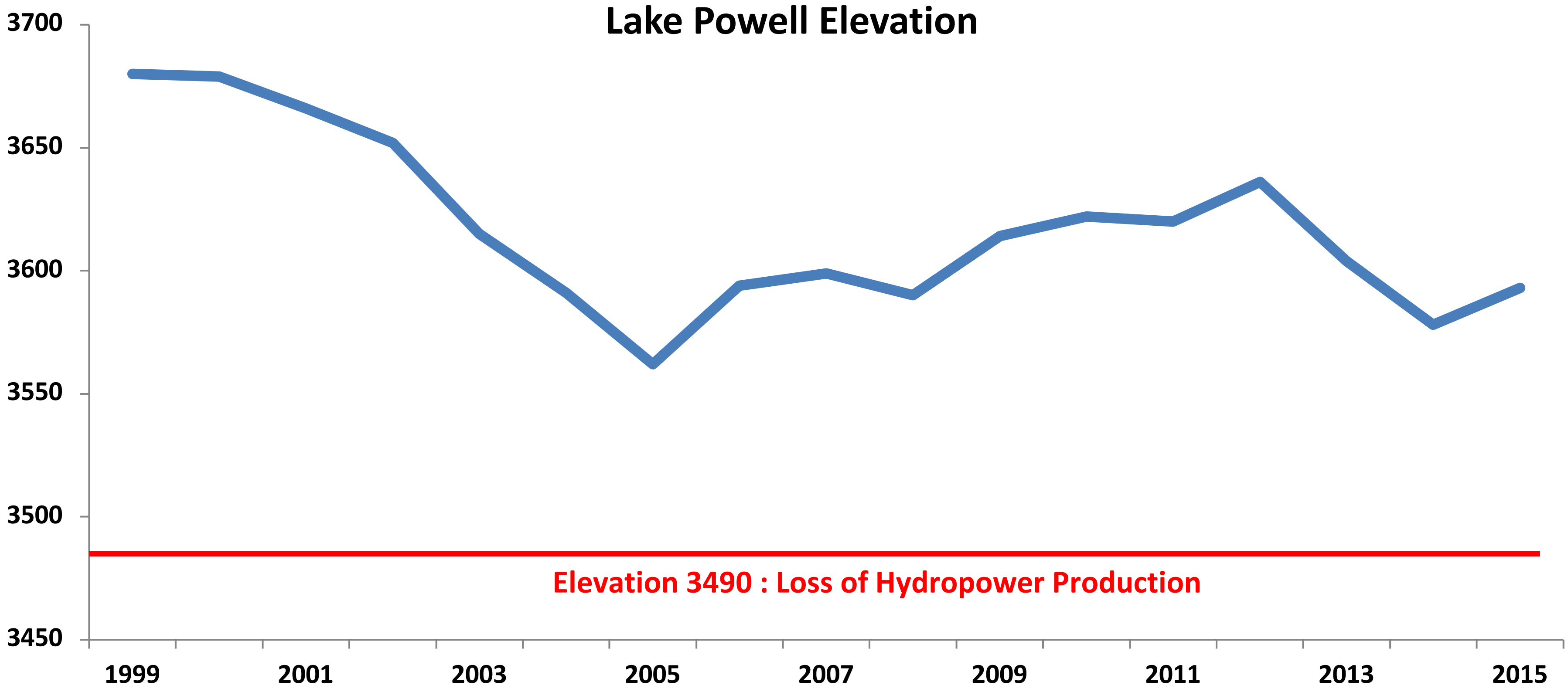
Persistent drought in the Colorado River Basin has caused significant impacts throughout the Basin.

HISTORY HAS SHOWN:
Partnership and collaboration is key
to finding long-term solutions on the Colorado River

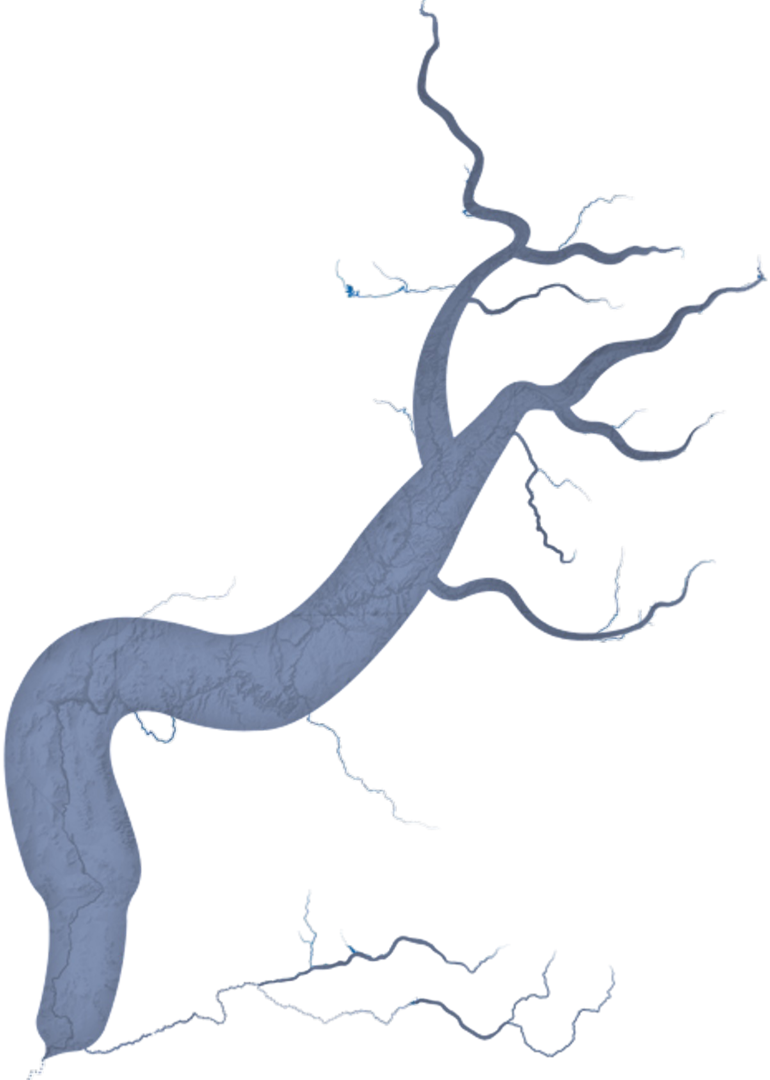
DROUGHT


Lake Mead Elevation
1250
1200
1150
1100
1050
1000
Elevation 1075: First Shortage Declaration
1999
2001
2003
2005
2007
2009
2011
2013
2015

DROUGHT



Lake Powell Elevation
3700
3650
3600
3550
3500
3450
1999
2001
2003
2005
2007
2009
2011
2013
2015
Elevation 3490 : Loss of Hydropower Production



WATER QUALITY

POWER GENERATION

DECLINING WATER LEVELS

SUPPLY/DEMAND IMBALANCE

ENVIRONMENTAL EFFECTS

Water conservation is an effective method to addressing drought impacts.

PILOT PROGRAM

2 YEAR

Pilot Program

COST: $11 MILLION

Bureau of Reclamation – Denver Water – Metropolitan Water District of Southern California – Central Arizona Project – Southern Nevada Water Authority

PURPOSE

Evaluate feasibility of mitigating drought impacts and demand imbalance through compensated voluntary reductions in use or loss

PILOT PROGRAM DETAILS

What System Conservation Does:

- Offers monetary compensation for voluntary reductions in water use
- Seeks participants throughout the Basin
- Seeks water from diverse interests (municipal, industrial, recreational, agricultural and others)
- Protects the critical elevations of lakes Powell and Mead
- **Benefits the system as a whole**, not any particular user

PILOT PROGRAM DETAILS

<u>What System Conservation Does Not Do:</u>

- Targets a specific water use
- Shepherds the water to Lake Powell
- Benefit any single state or water user

PILOT PROGRAM IMPLEMENTATION

- The program is being administered separately in the Upper and Lower Basins
- Bureau of Reclamation is the administrator for the Lower Basin
- Upper Colorado River Commission is the administrator for the Upper Basin
- Initial funding allocations were no more than $8.25 million in the Lower Basin and $2.75 million in the Upper Basin

PILOT PROGRAM: **LOWER BASIN STATUS**

Description	*Estimated Water Savings*	*Project Status*
Conveying Muddy and Virgin River water to Lake Mead	15,000 AF	Executed
Recovering lost effluent water by injection wells installation	4,400 AF	Executed
Curtailment of off-stream storage	10,080 AF	Executed
Golf course turf removal and irrigation system improvements	2,872 AF	Contract Negotiation
Rebates for switching from flood/furrow irrigation to drip irrigation	5,000 AF	Contract Negotiation
Reduction in agricultural deliveries of Colorado River water	25,000 AF	*Pre-Proposal*
TOTAL	**62,352 AF**	

PILOT PROGRAM: UPPER BASIN STATUS (2015)

Description	*Estimated Water Savings*	*Project Status*
Split season irrigation (7 projects; eliminating diversions for a portion of the year)	1,907 AF	Executed
Land fallowing	668 AF	Executed
Funding a portion of the water savings from an already established research effort on deficit and split season irrigation to extend research money to other uses	118 AF	In Progress
Reduction in transbasin diversions	TBD	Contract Negotiation
TOTAL	**~ 3,027 AF**	

PILOT PROGRAM: **UPPER BASIN STATUS (2016)**

- 32 project proposals have been submitted for the Upper Basin Program in 2016

- Project costs range from less than $200 per acre-foot to more than $3,000 per acre-foot

- Project proposals exceed $6 million in funding requests

LESSONS LEARNED SO FAR…

- We all have day jobs, and we miss them!
- Water Conservation ≠ Paper Conservation!
- Interest exceeds funding allocations
- Word-of-mouth has been beneficial

SOUTHERN NEVADA WATER AUTHORITY®