

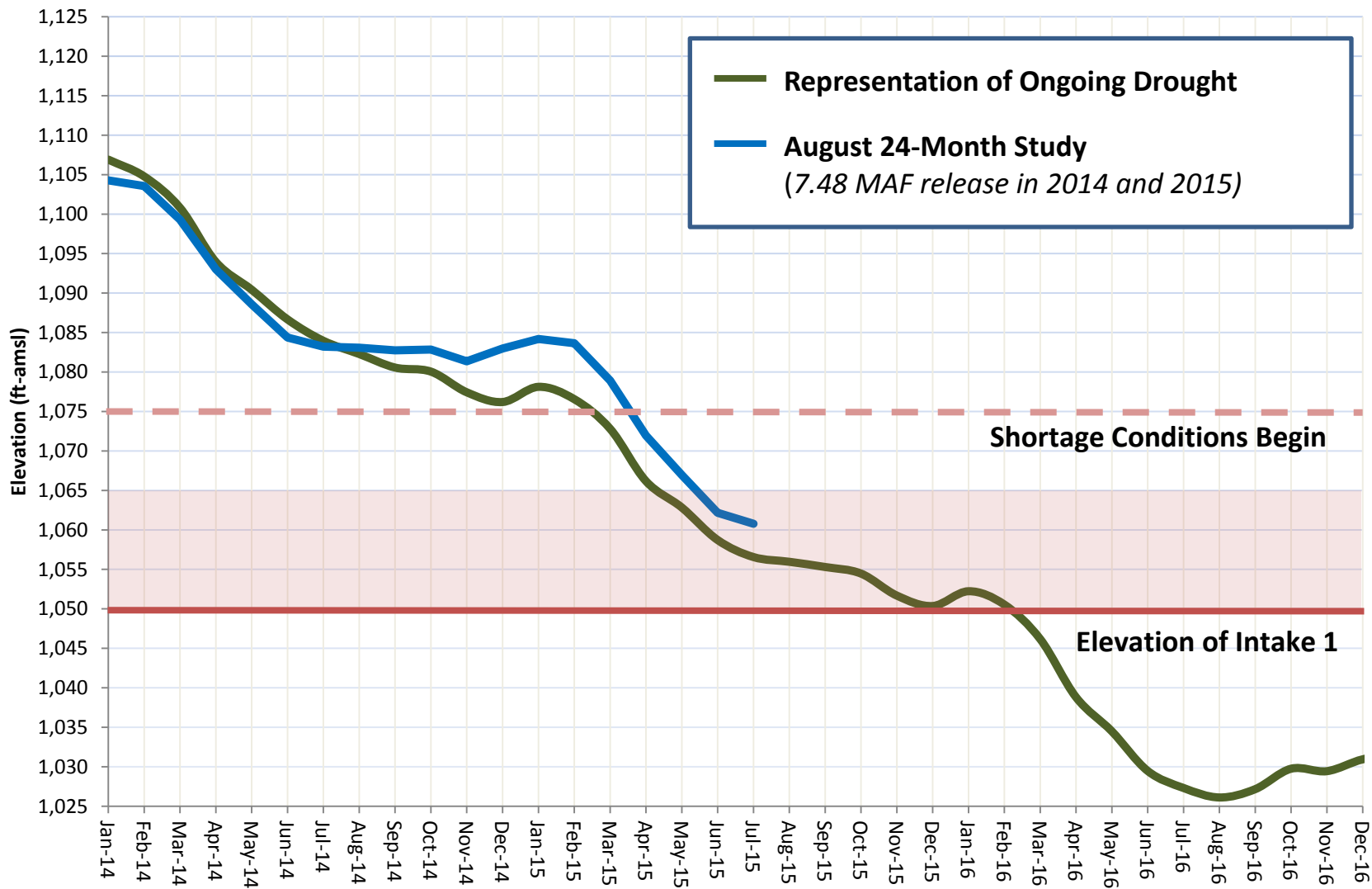
Near-Term Risks:
Options to Address Declining Reservoirs

John Entsminger
Senior Deputy General Manager
Southern Nevada Water Authority



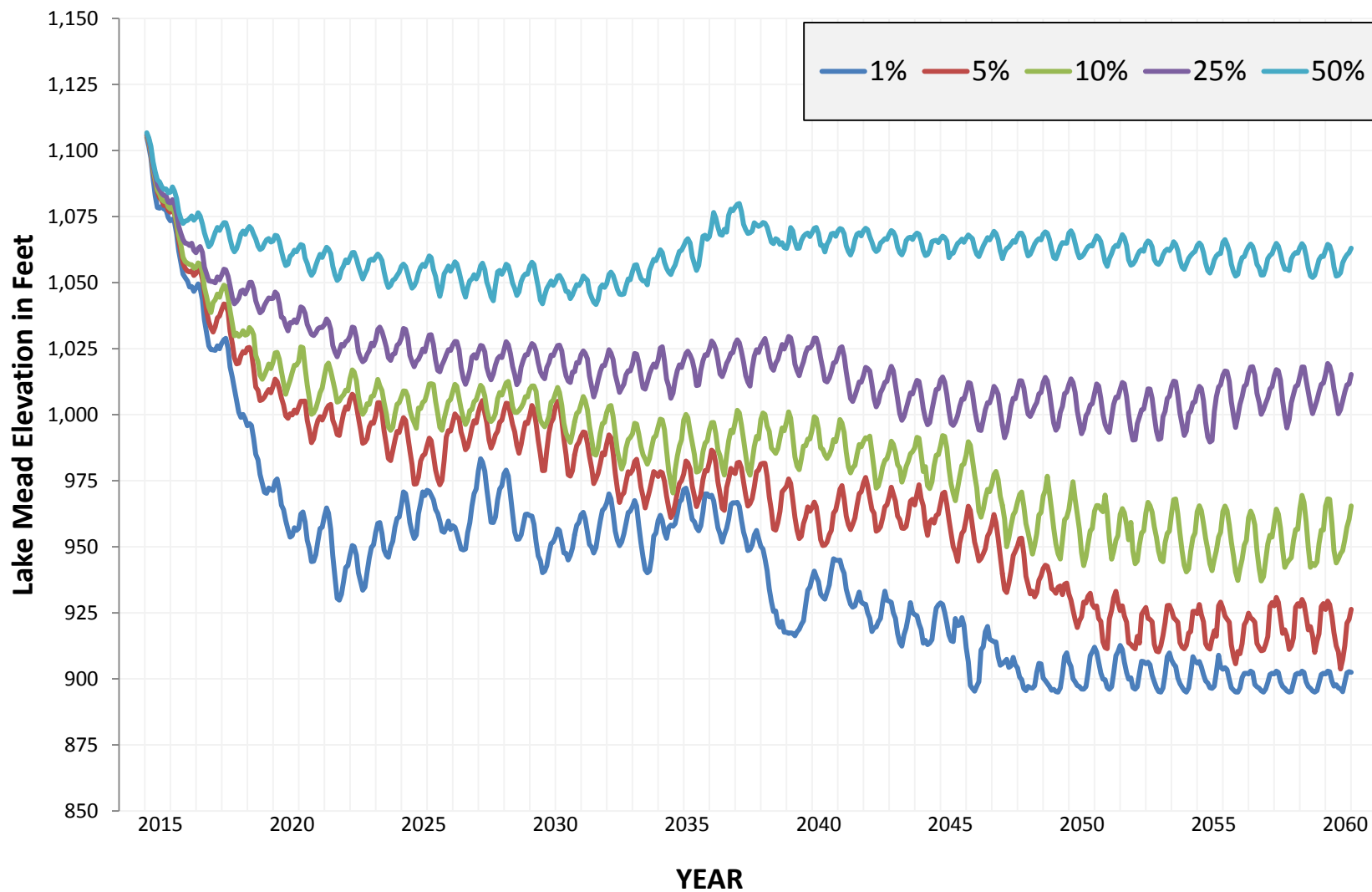
NEAR-TERM RISKS: Facility Interruptions

Lake Mead Elevation Projections



NEAR-TERM RISKS: Supply Shortages

Statistical Percentiles for Lake Mead Elevations



**Addressing impacts from declining reservoirs
will require multiple actions.**

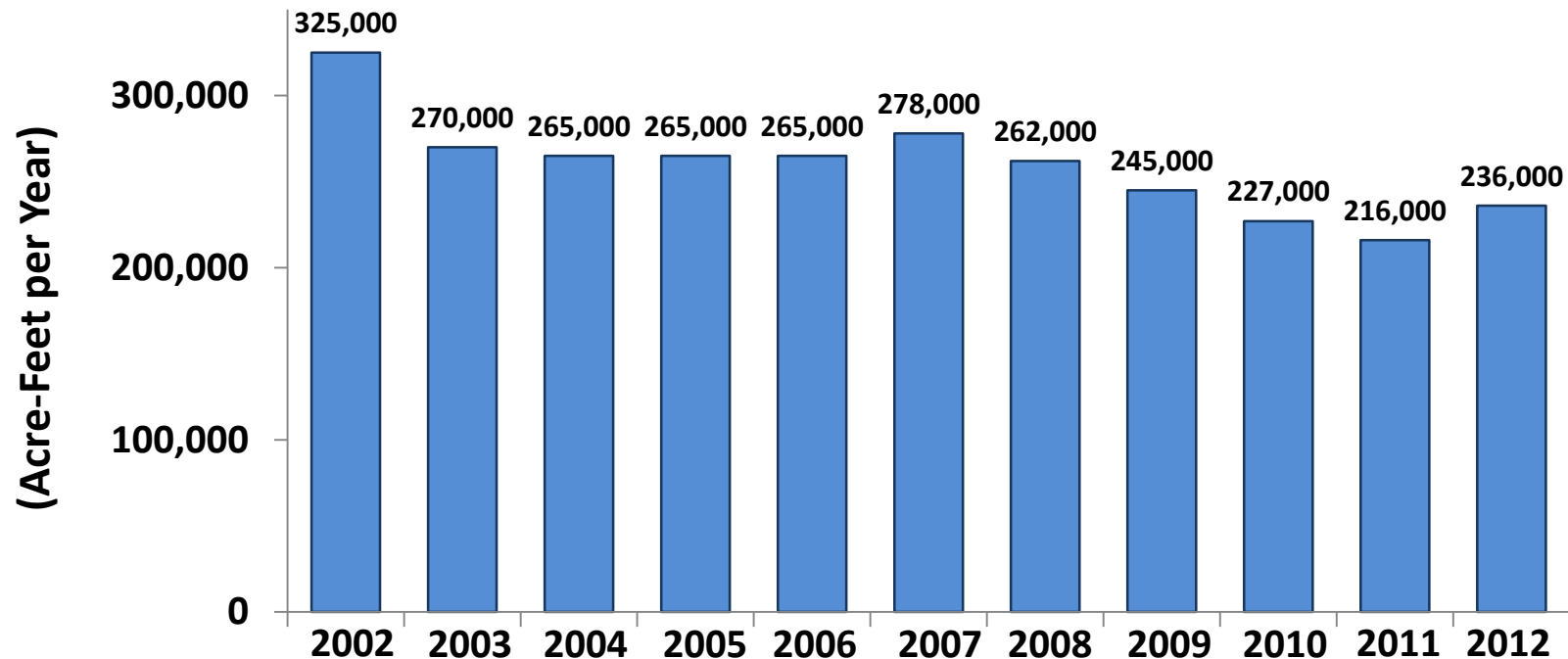
There is no single solution.



Photo Credit: Associated Press/Julie Jacobsen

***ACTION:* Reduce Water Use**

Southern Nevada's Annual Consumptive Use



Southern Nevada uses nearly 90,000 acre-feet less water than it did ten years ago, despite annual population increases and millions of annual visitors.

***ACTION:* Develop Temporary Supplies**

Southern Nevada has secured temporary resources to meet short-term demands.

Groundwater Banks

- **Arizona**
- **California**
- **Southern Nevada**

Intentionally Created Surplus Projects

- **Binational ICS**
- **Brock Reservoir ICS water**
- **Yuma Desalting Plant ICS water**
- **Coyote Spring ICS**
- **Virgin and Muddy River ICS**

SNWA's ICS Projects



***ACTION:* Evaluate Facility Risks**

A new drinking water intake in Lake Mead protects Nevada's ability to draw Colorado River water at low lake elevations.

- **Protects system capacity and reliability if lake levels fall below elevation 1,050 feet and Intake No. 1 cannot operate**
- **Accesses better water quality**



Current Progress

Current Tunnel Progress - 50%

INTAKE TUNNEL

INTAKE STRUCTURE

Completed Mar 2012

ACCESS SHAFTS (Complete)

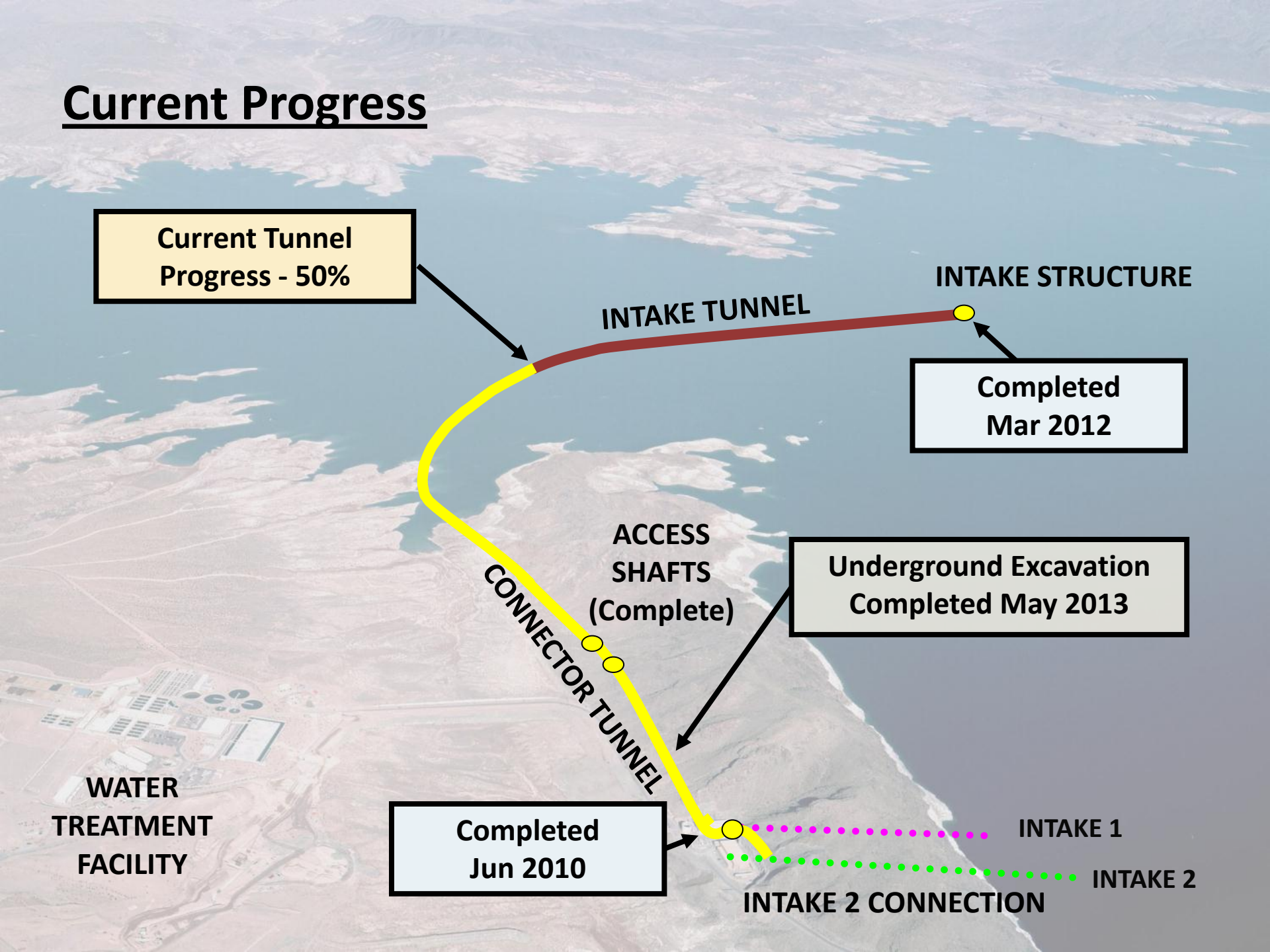
Underground Excavation Completed May 2013

CONNECTOR TUNNEL

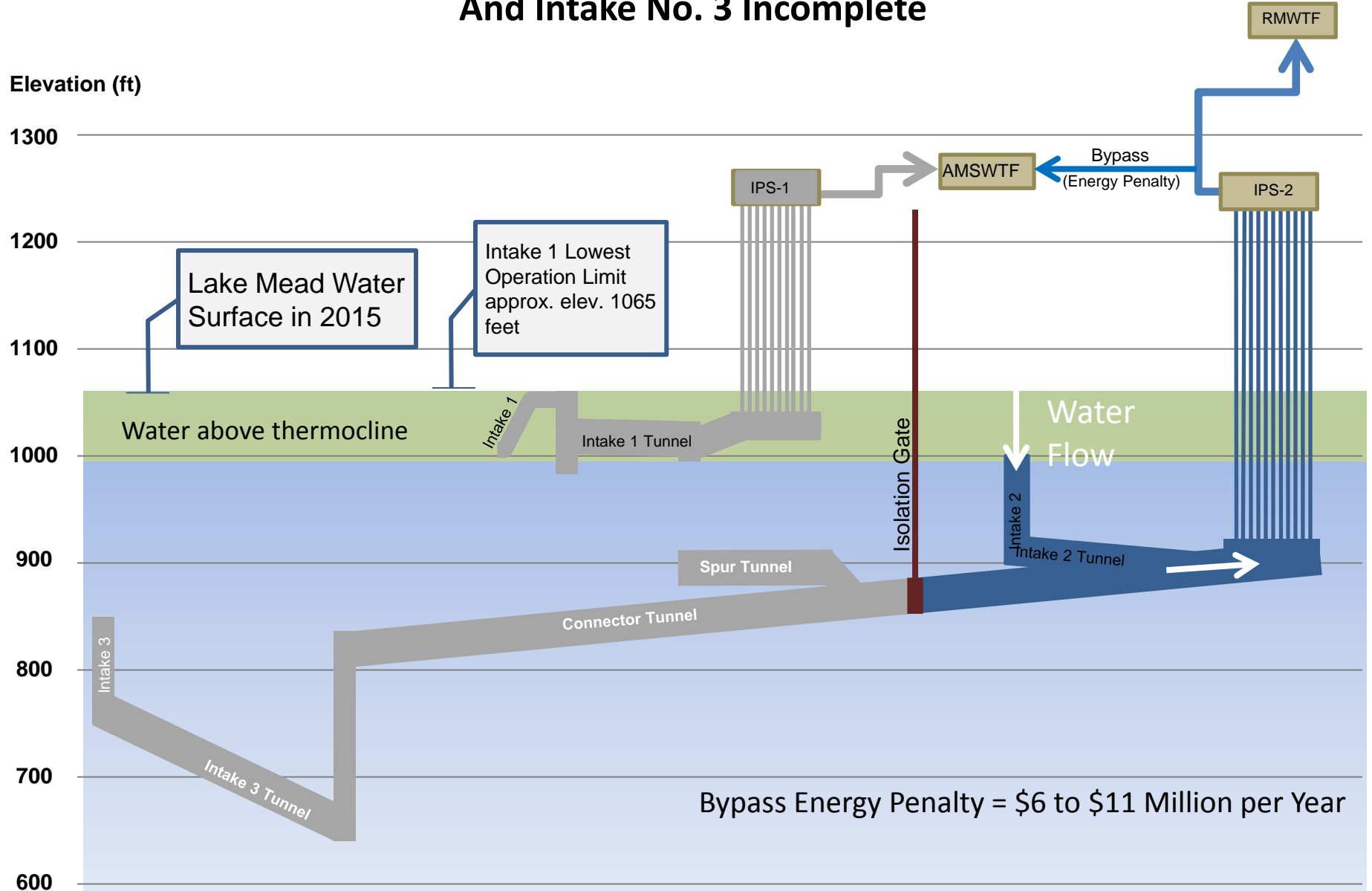
Completed Jun 2010

WATER TREATMENT FACILITY

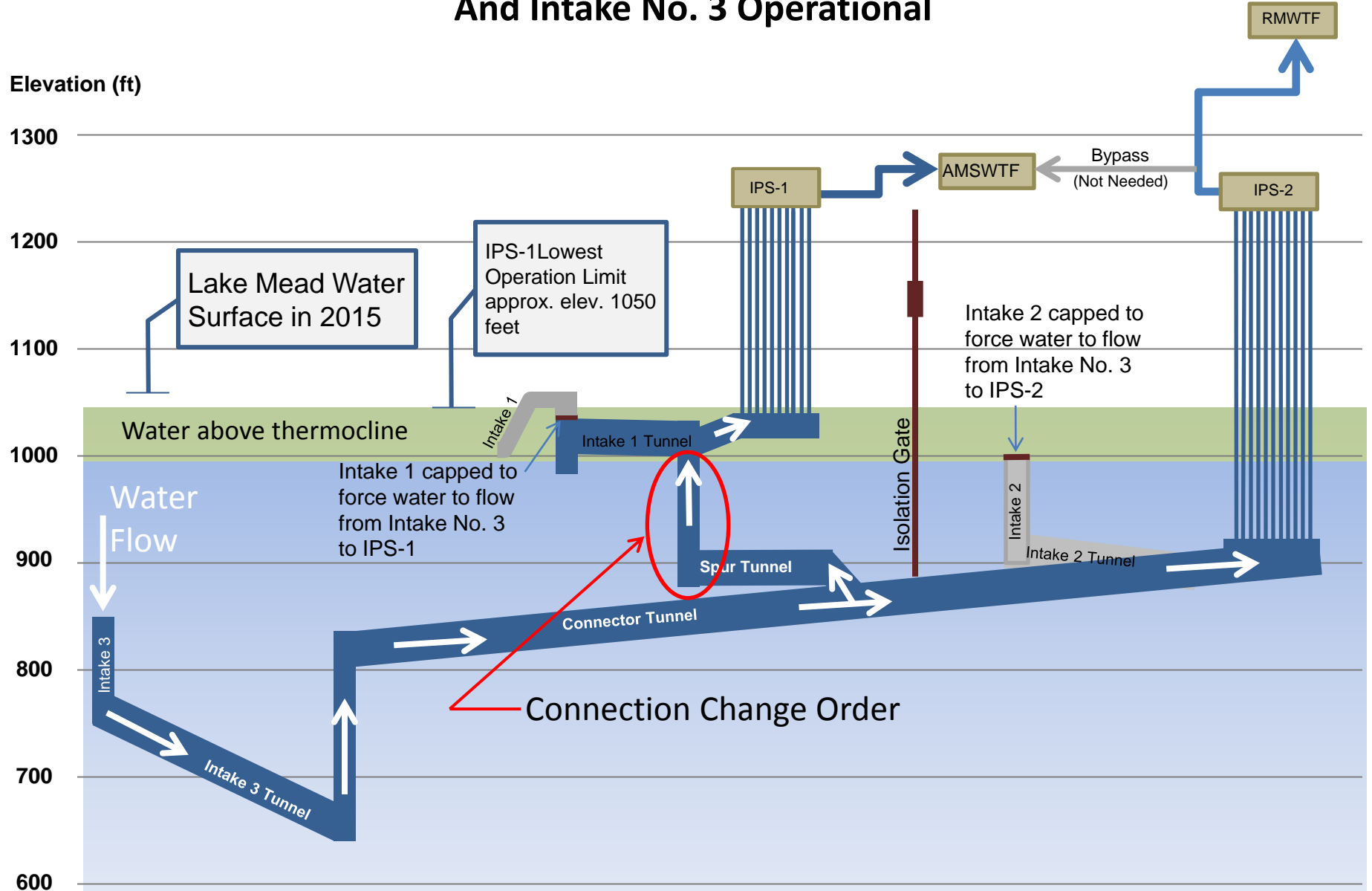
INTAKE 1
INTAKE 2 CONNECTION
INTAKE 2



Intake System Operations With Intake Pumping Station No. 1 Out of Service And Intake No. 3 Incomplete



Intake System Operations With Spur Tunnel Connected to Intake Pumping Station No. 1 And Intake No. 3 Operational



ACTION: Be Creative

Rather than trying to reopen the Colorado River Compact, Nevada has benefitted from the flexibility it offers.

- **Coordinated operations** of Lakes Powell and Mead have helped protect Lake Mead's elevations.
- Resources secured through **Intentionally Created Surplus** provisions help meet current demands and provide some relief in the event of supply shortages.





SOUTHERN NEVADA WATER AUTHORITY®