



WATER BRIEFING

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SNWA Responsibilities



CONSERVATION

Incentives, Programs,
Regulation and Pricing



WATER SUPPLY PLANNING

Developing and managing
regional water supplies



WATER QUALITY

Maintaining and
protecting water quality



INFRASTRUCTURE

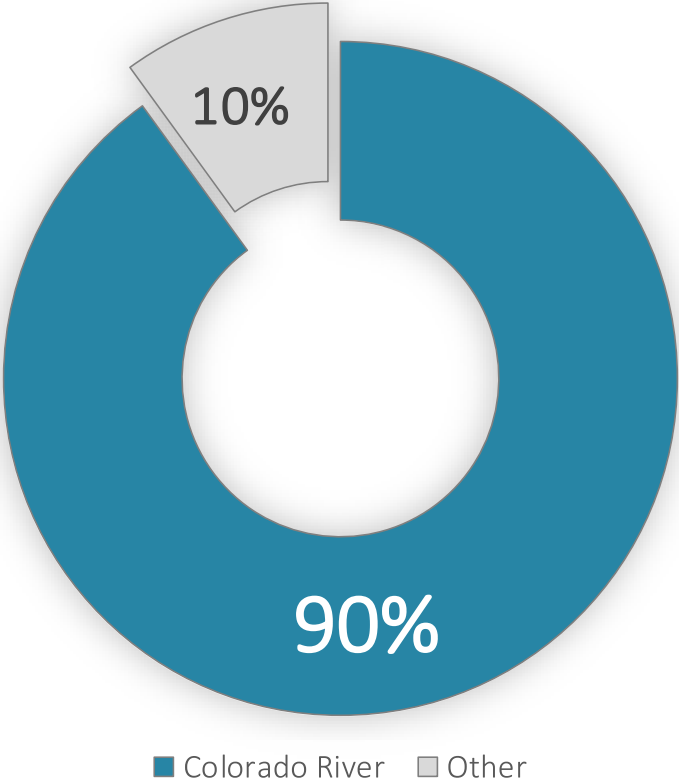
Building and operating
major facilities



STEWARDSHIP

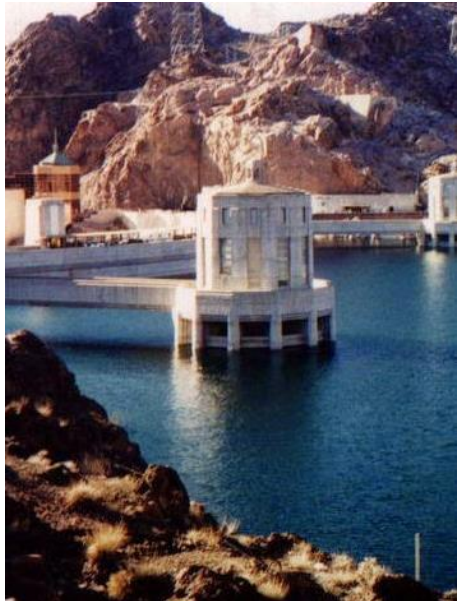
Protecting
environmental resources

Southern Nevada is nearly fully reliant on the Colorado River to meet the community's water demands.



Drought conditions have significantly depleted Lake Mead's storage.

1999



95%

2004



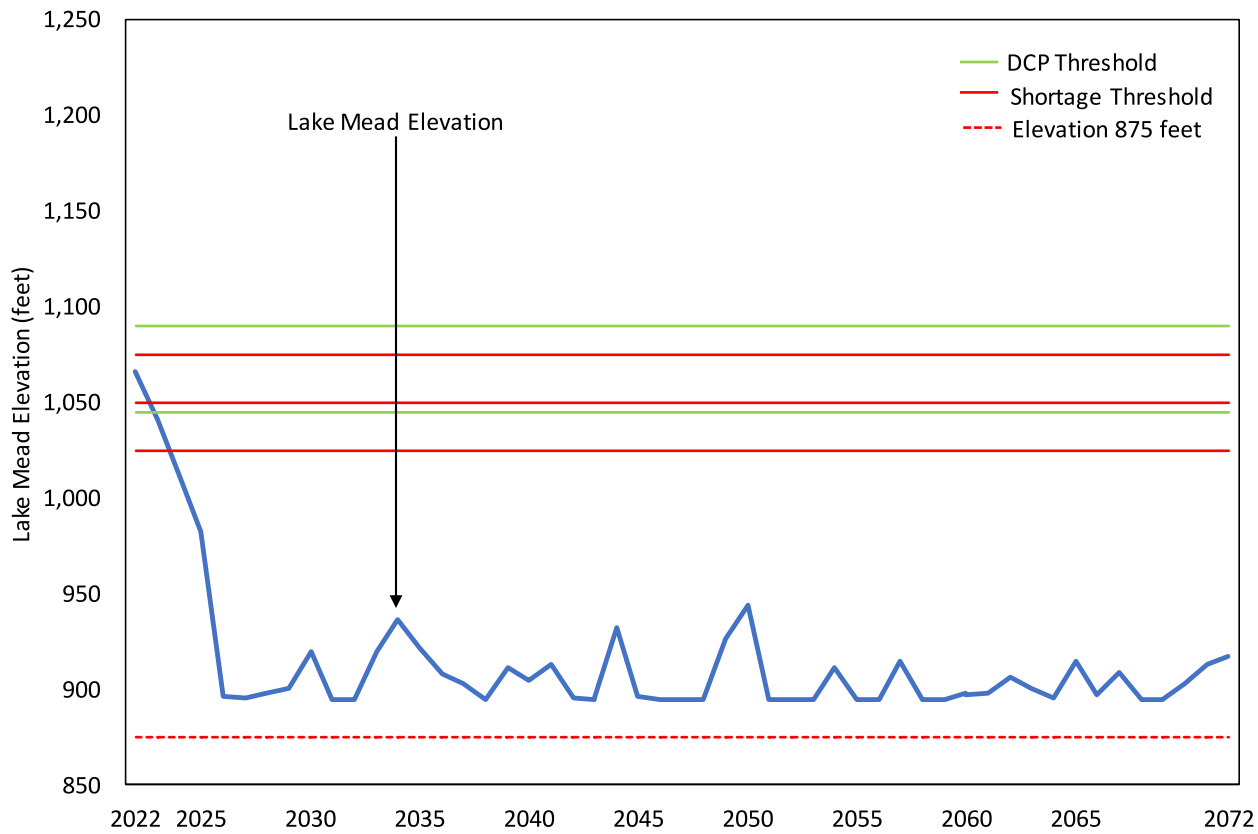
46%

2022



34%

2021 SNWA Water Resource Plan

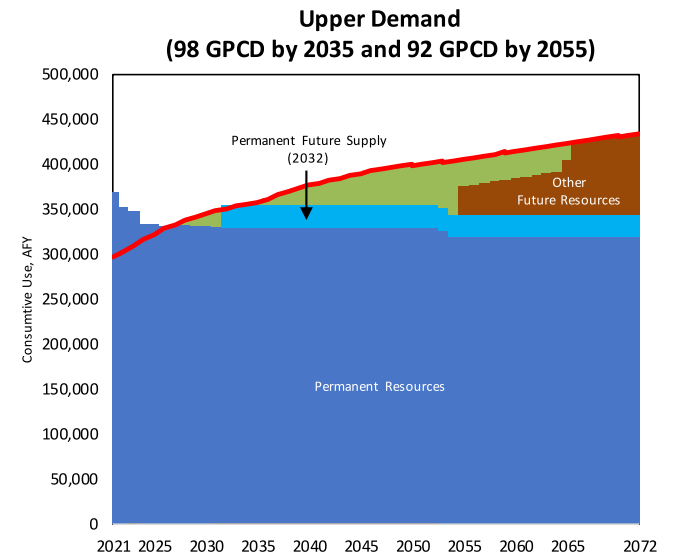
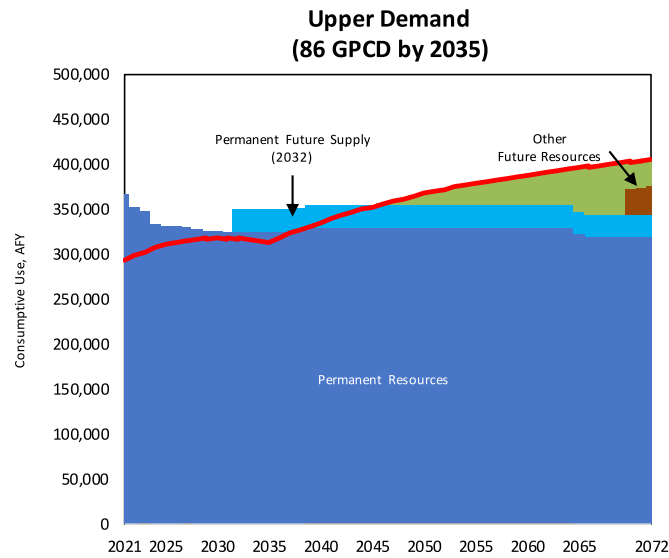
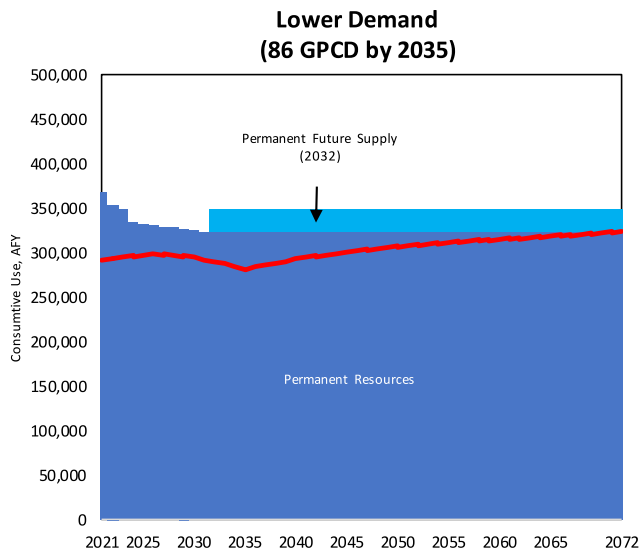


11.0 MAFY Inflow

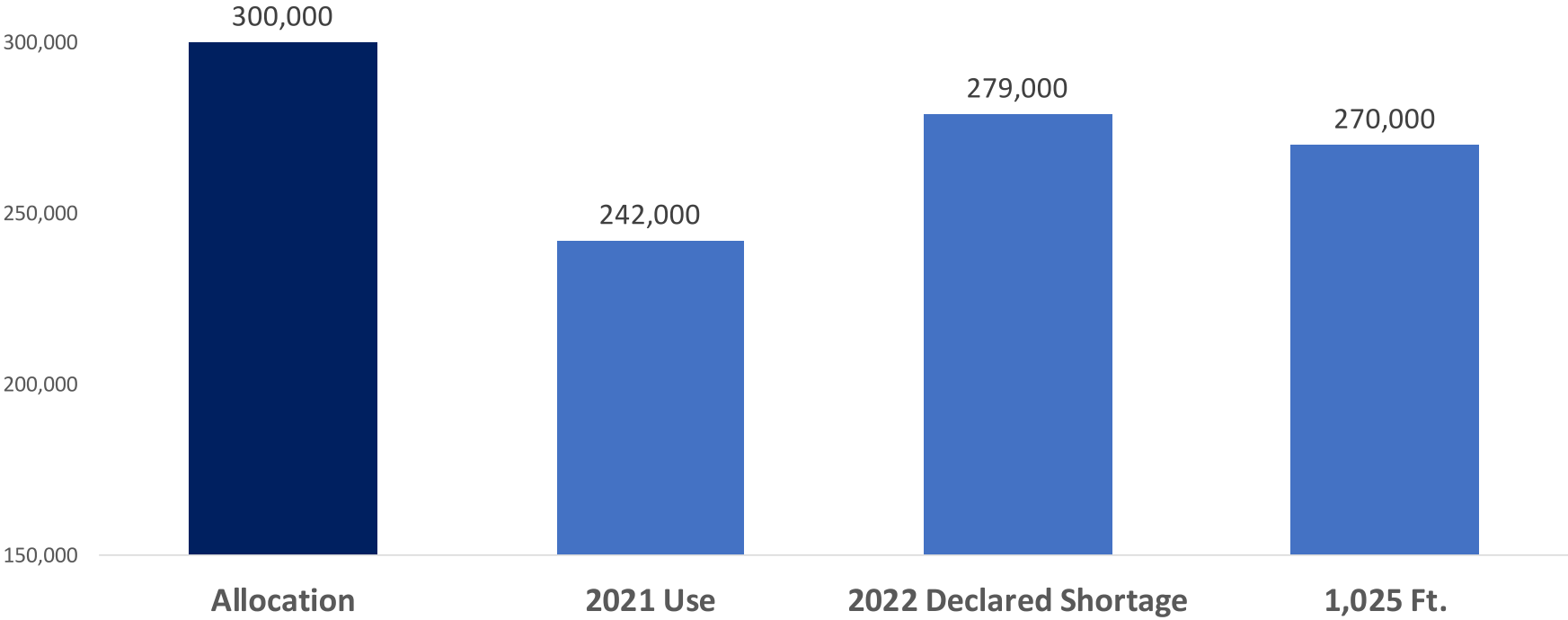
Over the most recent 22-year period, there were nine years with inflows at or below 11.0 MAF.

2021 SNWA Water Resource Plan

11.0 MAFY Inflow Scenarios

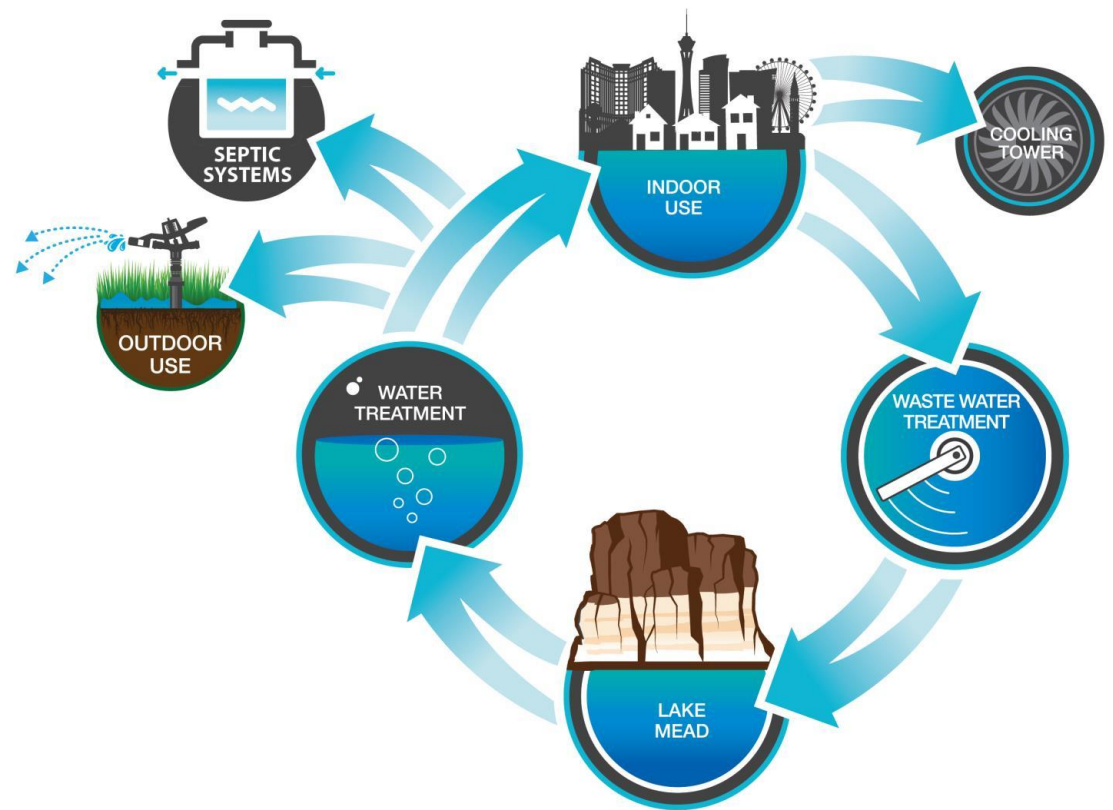


Nevada's Colorado River Availability



When wastewater is conveyed to a septic system and not a treatment plant, it is lost forever and cannot be reused.

Behind landscape irrigation, septic systems represent one of Southern Nevada's largest consumptive uses.



Reducing Consumptive Use

The SNWA is focused on reducing consumptive water use.



Landscape Efficiency



Cooling Efficiency



Water Loss Control



Irrigation Compliance



New Development Efficiency

Reducing Consumptive Use

Programs/Policies Underway

- Existing conservation programs
- Converting cool season turf
- Enhance leak resolution (AMI)
- Enhance watering schedule compliance
- Asset management investments
- Septic conversions
- No new golf courses*
- Large water user policy*
- AB 356 / Turf conversions*
- Cooling efficiency standards (evaporative cooling)*
- Limit new turf installations*

**Indicates recently-approved initiative*

Future Programs/Policies

- Reducing golf course water budgets
- Pool size regulations
- Park efficiency improvements (park water budgets)
- Implement pricing changes

Septic Systems in Southern Nevada

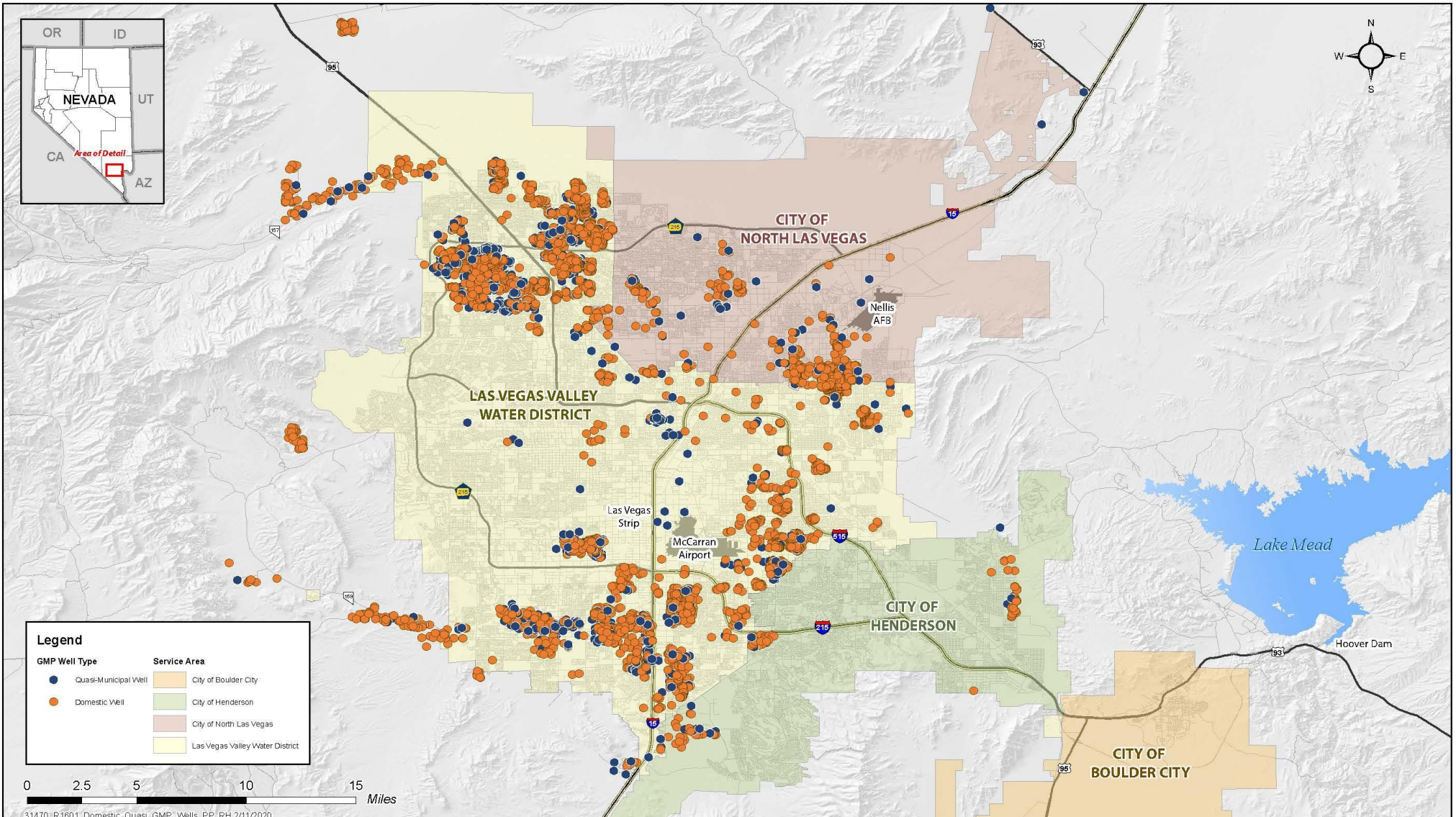
Septic systems are posing a threat to Southern Nevada's water resources:

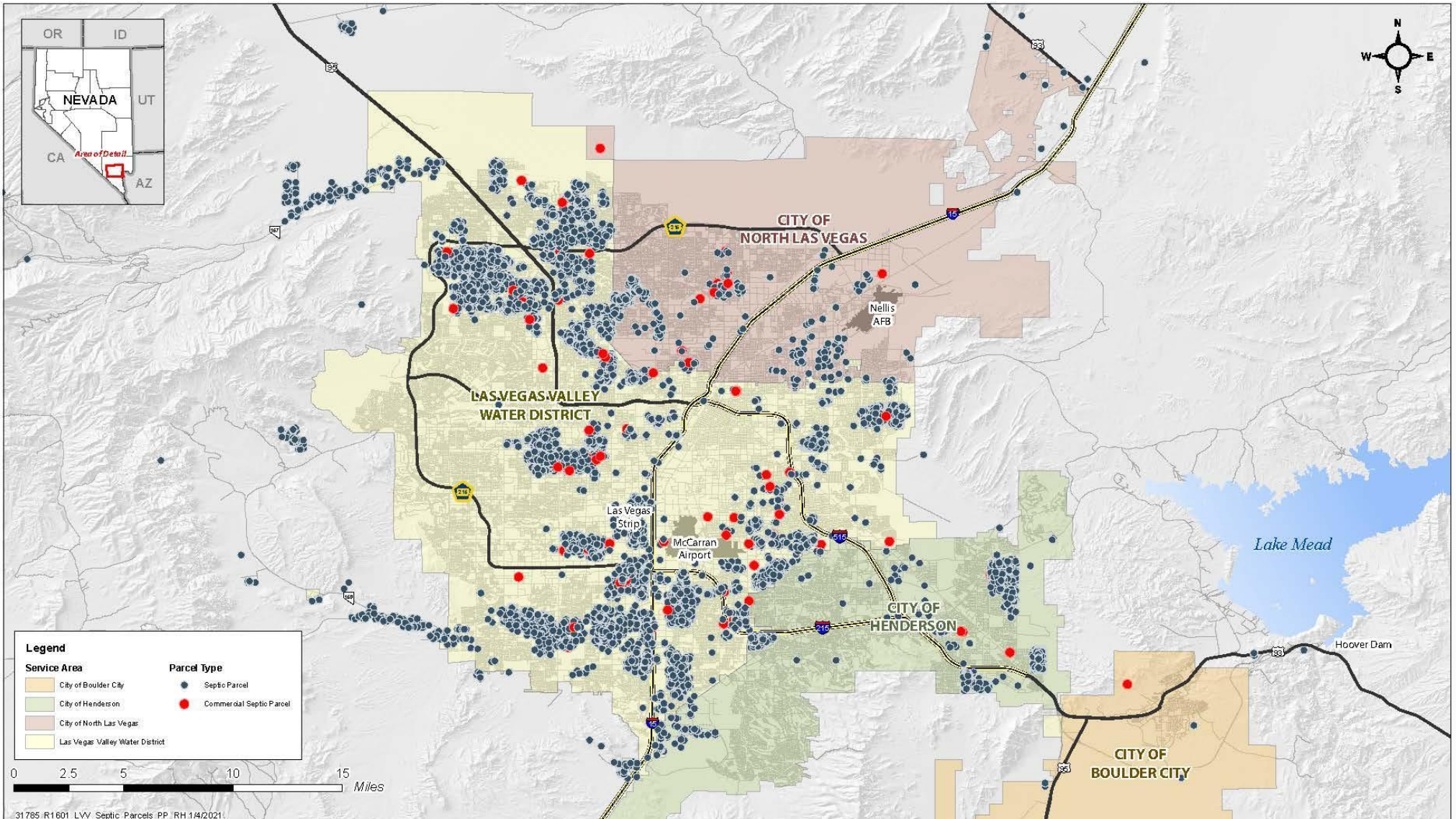
- **Loss of Resource:** Wastewater discharged to septic systems cannot return to Lake Mead for return flow credits
- **Water Quality:** Septic tank effluent contains nitrates, which are being detected in LVVWD monitoring wells

Septic Systems in Southern Nevada

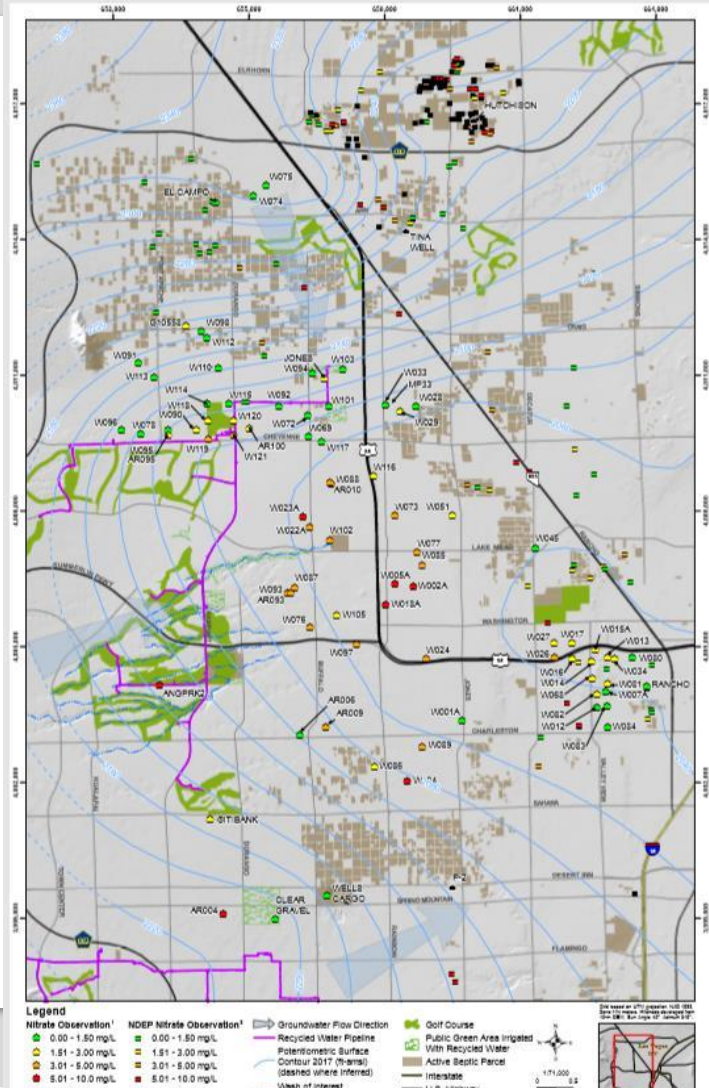
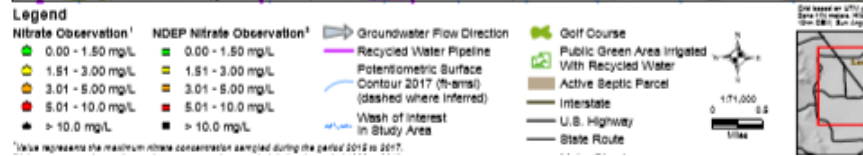
Septic Systems:

- ~14,500 septic systems in the Las Vegas Valley
Estimated 2020 water use: 15,700 af
- ~4,500 septic users served by LVVWD
Estimated 2020 water use: 5,000 af





Nitrates



Reducing Consumptive Demands

In December 2020, the Las Vegas Valley Water District Board of Directors approved changes to its service rules prohibiting water service to properties with septic systems.

- Protects Colorado River water from being inefficiently used
- Disincentivizes the installation of more septic systems

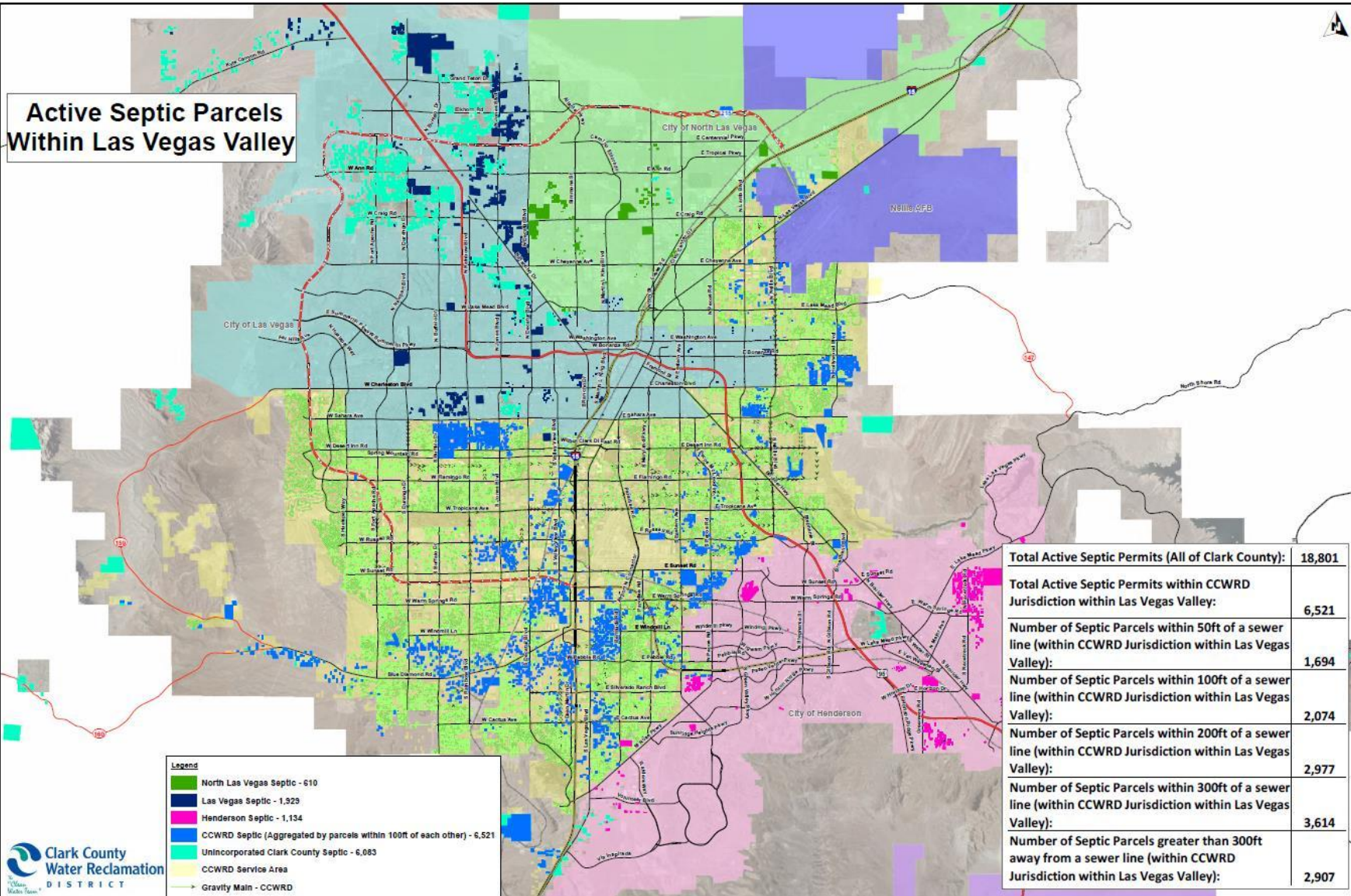
Working with Sewer Agencies

Since 2020, the SNWA has been working with the municipal wastewater providers to develop a regional approach to reducing the proliferations of septic systems:

- Septic Conversion Program
- Identification of septic systems near municipal sewer systems



Active Septic Parcels Within Las Vegas Valley

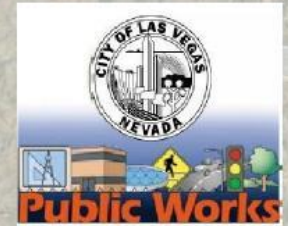


Legend

- North Las Vegas Septic - 610
- Las Vegas Septic - 1,929
- Henderson Septic - 1,134
- CCWRD Septic (Aggregated by parcels within 100ft of each other) - 6,521
- Unincorporated Clark County Septic - 6,083
- CCWRD Service Area
- Gravity Main - CCWRD

Total Active Septic Permits (All of Clark County):	18,801
Total Active Septic Permits within CCWRD Jurisdiction within Las Vegas Valley:	6,521
Number of Septic Parcels within 50ft of a sewer line (within CCWRD Jurisdiction within Las Vegas Valley):	1,694
Number of Septic Parcels within 100ft of a sewer line (within CCWRD Jurisdiction within Las Vegas Valley):	2,074
Number of Septic Parcels within 200ft of a sewer line (within CCWRD Jurisdiction within Las Vegas Valley):	2,977
Number of Septic Parcels within 300ft of a sewer line (within CCWRD Jurisdiction within Las Vegas Valley):	3,614
Number of Septic Parcels greater than 300ft away from a sewer line (within CCWRD Jurisdiction within Las Vegas Valley):	2,907





Septic Parcels within CLV Sewer Service Area

DISTANCE

- > 50 Feet
- > 100 Feet
- > 200 Feet
- > 300 Feet
- <= 300 Feet

Septic Permits within CLV Sewer Service Area

Distance to Sewer	# Septic Permits	CLV	County Island
Less than 50 Feet	2018	714	1304
Less than 100 Feet	454	148	306
Less than 200 Feet	1304	242	1062
Less than 300 Feet	838	596	242
300 Feet or Greater	1673	411	1262
Total	6287	2111	4176

GIS Maps are normally produced only to meet the needs of the City. Due to continuous development activity this map is for reference only.

Geographic Information System

Created by Engineering Planning
Tel: (702) 229-0541





Working with Sewer Agencies

SNWA and the municipal sewer entities have made progress towards addressing septic systems:

- Shared map/GIS portal
- Identification of properties that are located within 400 feet of sewer lines
- Approval of Septic Conversion Interlocal and development of financial assistance guidelines
- Prohibition of municipal water service to septic systems

SNHD Regulations Governing ISDS

Section 2: Permission to Construct

2.7: Permission to construct shall be denied if:

2.7.2: A public or community sewerage system is available within four hundred feet of the nearest property line and can be accessed by a gravity flow line, and is accessible per the sewer authority of jurisdiction.

SNHD Regulations Governing ISDS

Section 12: Sewer Connection

- 12.1 When community sewers become available, the owner of any property served by an individual sewage disposal system shall abide by the local governmental regulation requiring connection to the community sewerage system.
- 12.2 The individual septic system shall be discontinued and the structure shall be connected to the community sewerage system when the owner is notified to do so

Addressing Septic Systems

- Deny waivers on new septic permits
- Deny extensions to expired permits
- Incentivize connection to public sewer and disincentivize continued septic use (Annual permit fee)
- Revoke permits for property owners with access to sewer (<400 ft.)
- Require domestic well users to monitor groundwater quality
- Require sewer hookup in future septic permits

Addressing Septic Systems

The SNWA is committed to addressing septic systems to meet regional conservation goals.

- Technical support
- Funding
- Staffing resources



 SOUTHERN NEVADA WATER AUTHORITY™