



SNWA WATER RESOURCE UPDATE

September 21, 2021



SOUTHERN NEVADA
WATER AUTHORITY

Key Messages for Southern Nevadans

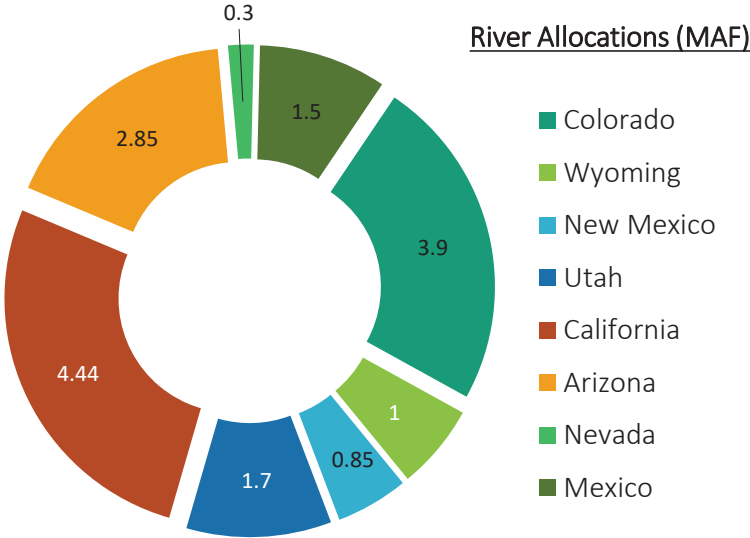
- Water is the single most vital resource to our community.
- The Colorado River is our lifeline.
- We have access to just 1.8 percent of its waters.
- The river and its storage are shrinking from prolonged drought.
- Our allocation will decline 7 percent next year.
- 2021 runoff was dismal, barely besting 2002's record low.
- Climate change will continue to exacerbate this situation.
- Eliminating wasteful uses of water is vital.

We Have but a Small Share

Nevada is allocated 300,000 acre-feet of Colorado River water annually.

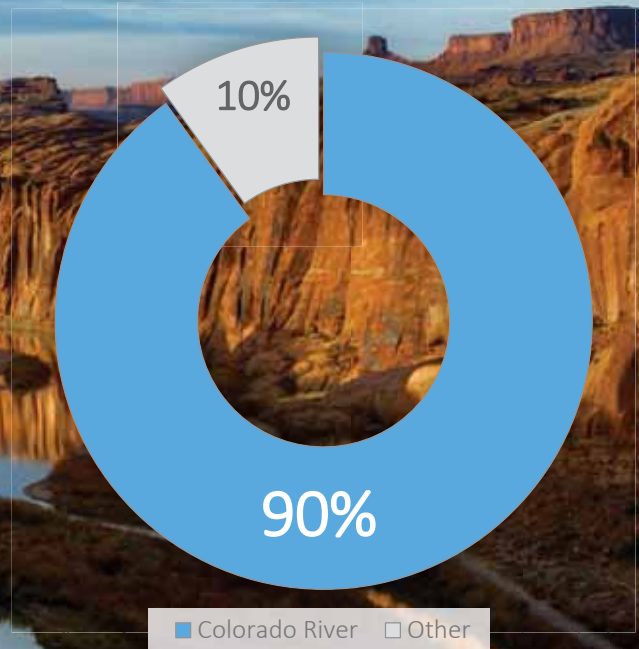
It's about 98 billion gallons.

That's 1.8 percent of the 16.5 million acre-feet allocated.



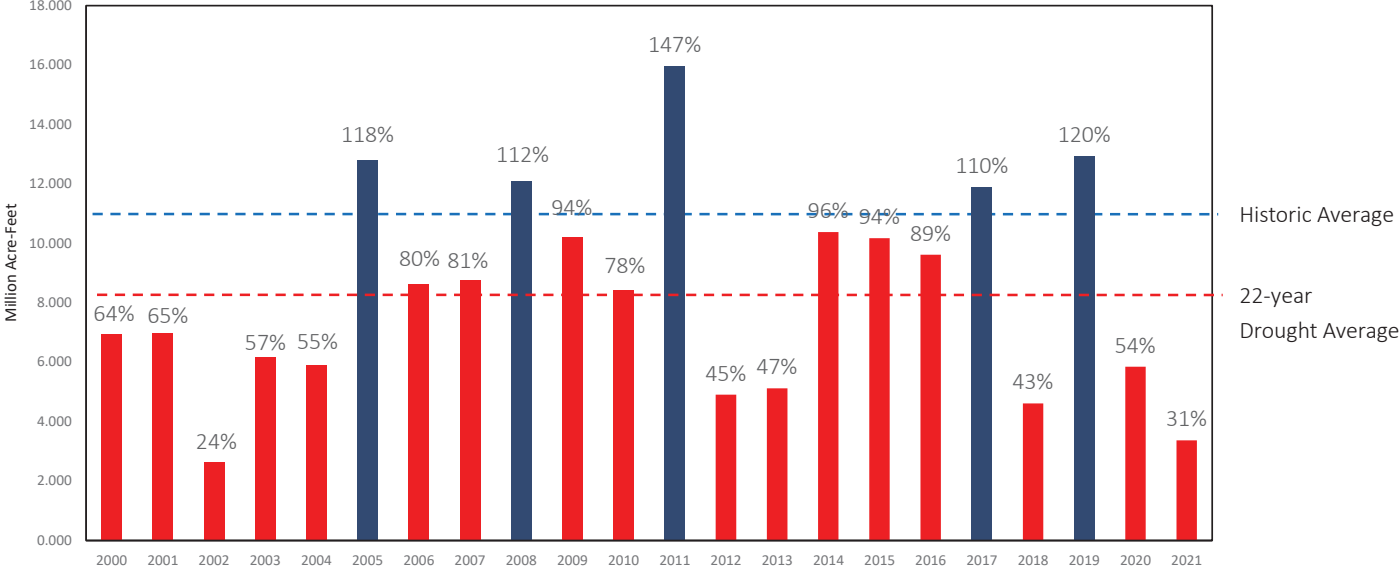
The Colorado River is Our Lifeline

Southern Nevada is heavily reliant on the Colorado River to meet our community's water demands. The river provides 90 percent of our supply.



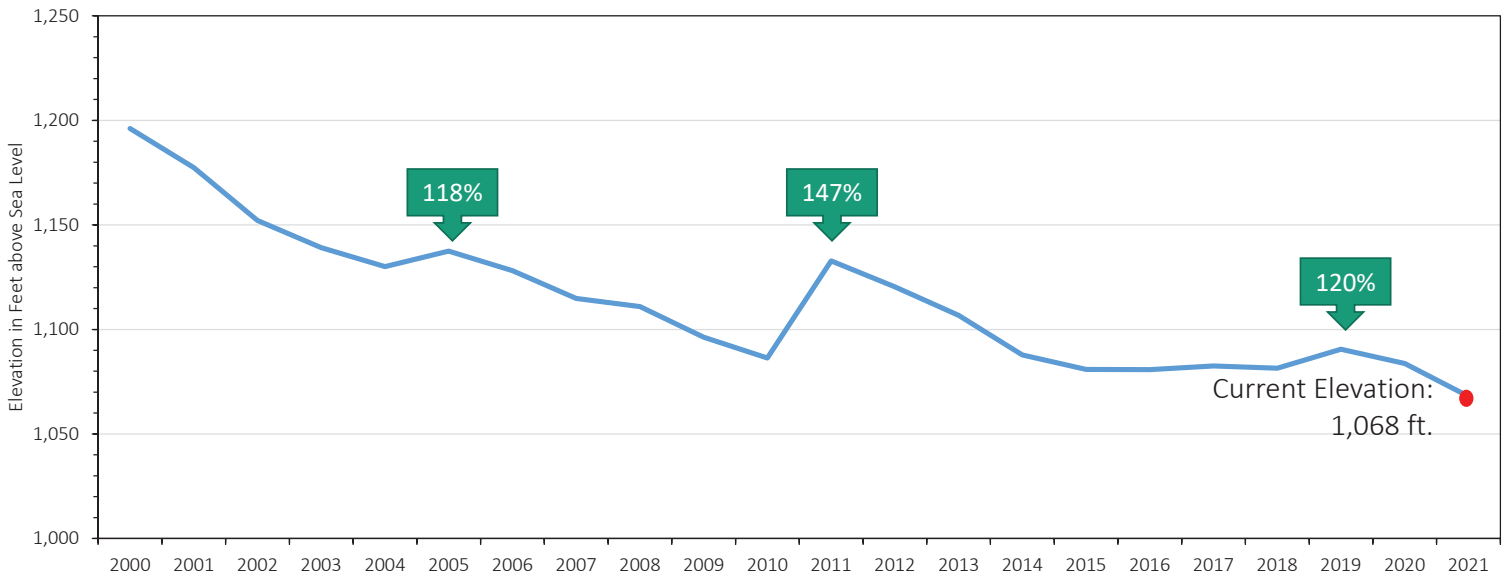
Drought is Taking a Toll

In the early 2000s, Colorado River inflows began to decrease and have not rebounded.

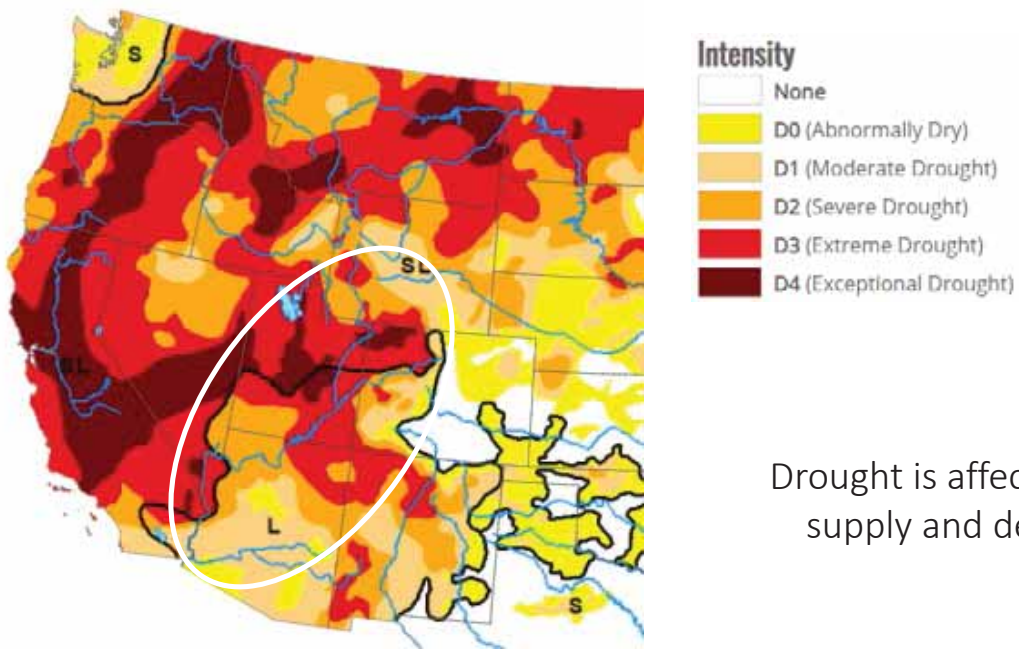


Lake Mead Level is Our Indicator of System Health

Below average inflows led to declines in Lake Mead water levels. Multiple years of extraordinary runoff would be required to recover.

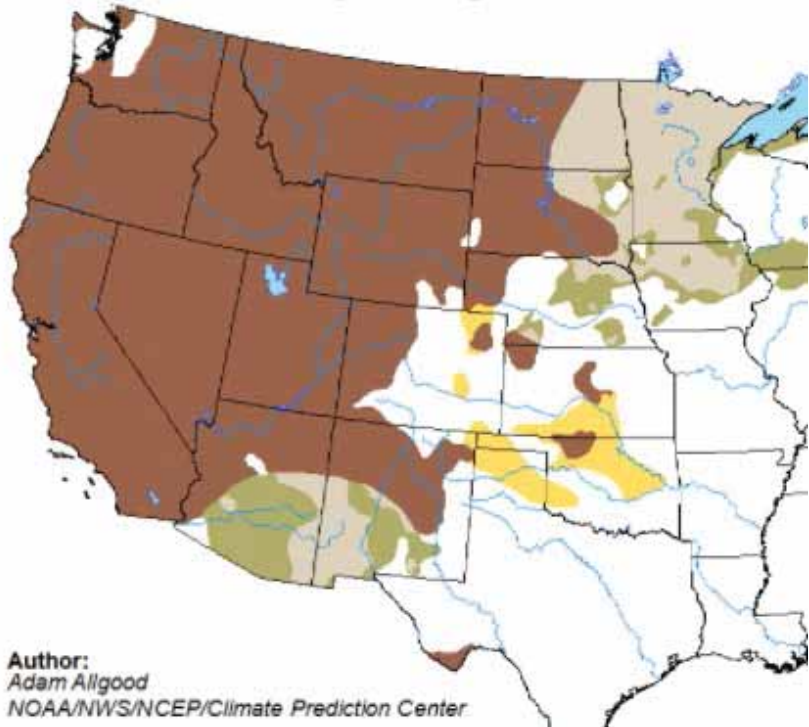


It's Crispy in the West



Drought is affecting both supply and demand.


Drought Will Persist



Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

- Drought persists**
- Drought remains but improves**
- Drought removal likely**
- Drought development likely**

DROUGHT RESPONSE



Southern Nevada has spent **decades** preparing for drought to ensure reliability of water supplies for Southern Nevada



WATER BANKING

2.1 MAF in storage (appx. 8 years' current demand)



RESOURCE PLANNING

Working with partners & developing comprehensive plans to manage supplies



CONSERVATION

Incentives, programs, regulation & pricing



INFRASTRUCTURE

Constructing major facilities and asset management

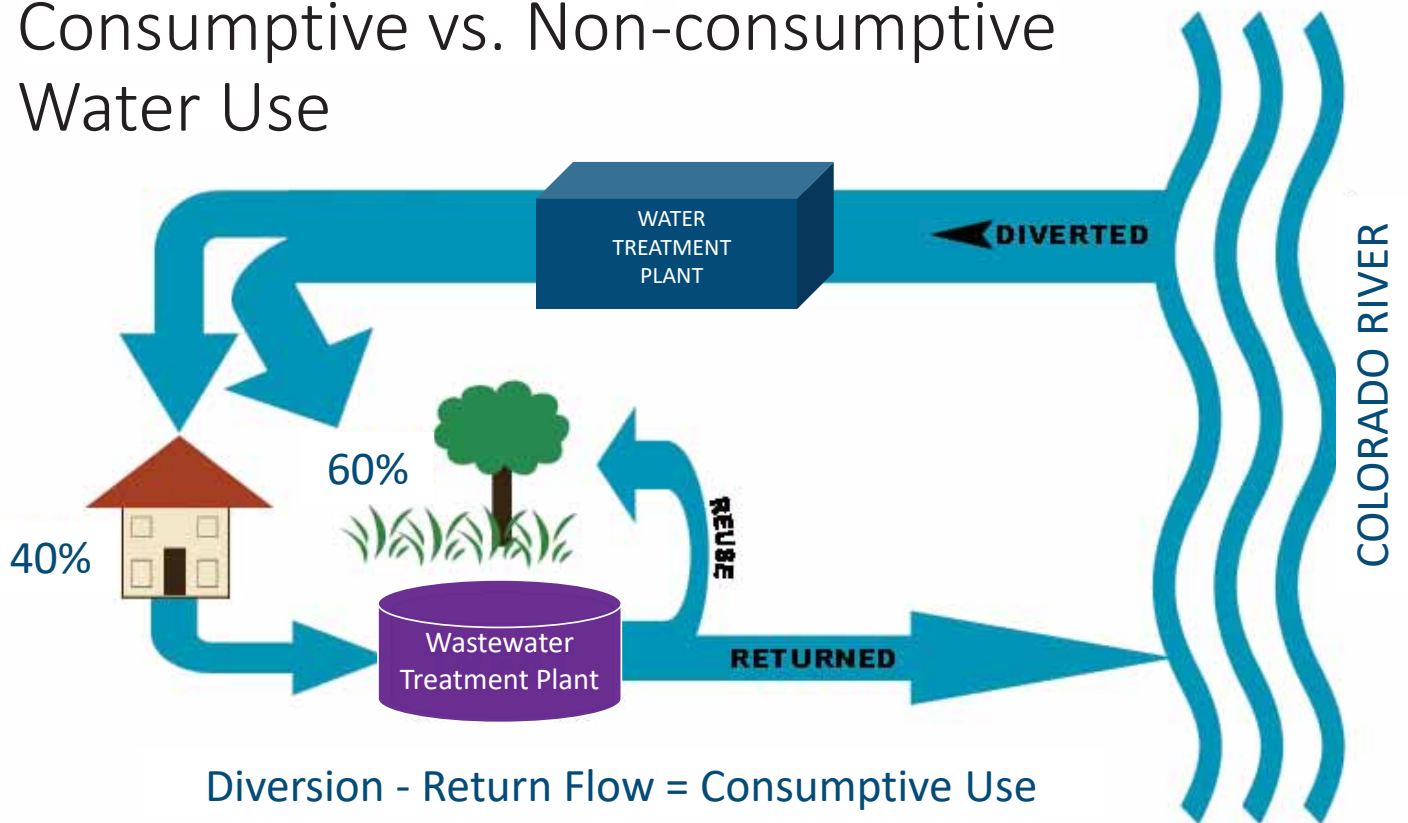
PROTECTING LAKE MEAD

Colorado River Basin States Agreements

The Interim Surplus Guidelines (2007) and the Drought Contingency Plan (2019) help reduce the risk of Colorado River reservoirs reaching critical elevations.

LAKE MEAD WATER LEVEL (FT above Sea Level)	SHORTAGE AMOUNT (AFY)	DCP CONTRIBUTION (AFY)	TOTAL (AFY)
Above 1,090	0	0	0
At or below 1,090	0	8,000	8,000
At or below 1,075	13,000	8,000	21,000
Below 1,050	17,000	8,000	25,000
At or below 1,045	17,000	10,000	27,000
Below 1,025	20,000	10,000	30,000

Consumptive vs. Non-consumptive Water Use



Diversion - Return Flow = Consumptive Use

Water conservation *focused on consumptive uses* remains Southern Nevada's most effective means to maintain reliable water supplies.



WATER SMART LANDSCAPES
PROGRAM FACTS

200 MILLION

Square feet of grass has been replaced with water-smart landscaping since 1999

THAT'S EQUIVALENT TO:

Enough grass to cover more than

Rolling an 18" wide strip of sod



OR



3,472

FOOTBALL FIELDS

101%

AROUND THE EARTH

152 BILLION

Gallons of water saved to date.

That's enough water to fill the Luxor Hotel Pyramid

422
TIMES



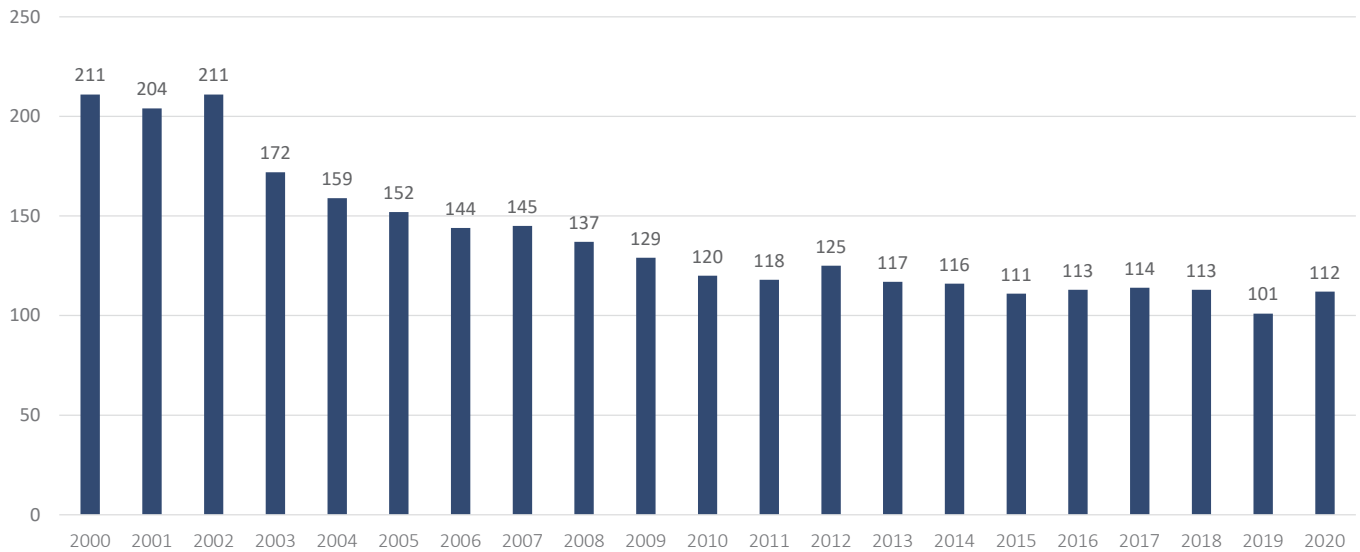
Resiliency takes practice

- 200 million square feet of non-functional turf retrofitted.
- Non-functional turf prohibited in new development, including residential front yards, since 2004.
- Updated 28 high school stadiums to synthetic turf.
- Leading interagency research on new cooling technologies.
- Championed legislation to compel non-functional turf retrofit on non-residential properties.

COLORADO RIVER WATER USE

We've come a long way, but conservation progress has plateaued.

SNWA Gallons Per Capita Per Day
(measured as consumptive use)



CONSERVATION ACHIEVEMENTS SINCE 2002...

Southern Nevada
POPULATION



Per Capita
WATER USE



Colorado River Water
CONSUMPTION



PRIORITIES

- Reduce consumptive use while sustaining quality of life and environment.
- Further increase efficiency of new development.
- Maximize water reuse via Lake Mead.
- Advance SNWA's capital plan, which includes water resource and conservation measures.
- Work with Colorado River peers on new resources and management strategies .



NON-FUNCTIONAL TURF

Unused turf is wasted water

73 gallons per square foot annually (9.8 feet rainfall equivalent)

- Medians
- Roundabouts
- Streetscapes
- Monument signs
- Parking lots
- Neighborhood entries
- Front yards
- Unused back yards

Recreational turf in parks and schools is valued, but non-functional turf has little or no recreational value.



Aerial Vegetation Assessment

Red color is
irrigated plants.

Turf is
crosshatched

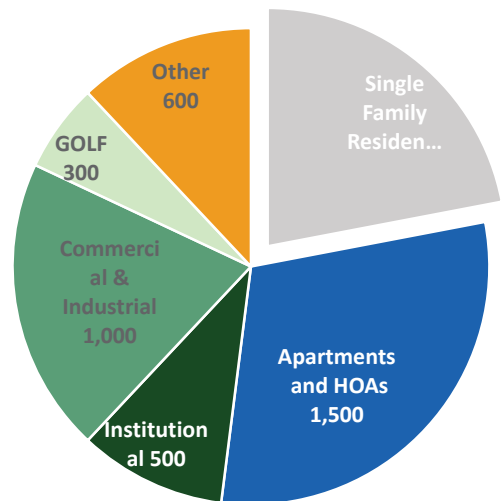


NON-FUNCTIONAL TURF And AB356

AB356 requires a five-year *transition* to replace non-functional lawns in commercial and governmental settings by prohibiting their irrigation with SNWA water.

- Single family homes are excluded.
- Up to 170 million square feet.
- Savings of almost 10 billion gallons annually.
- Projects eligible for SNWA rebates.

Estimated Non-Functional Turf Eligible for Replacement (Acres)

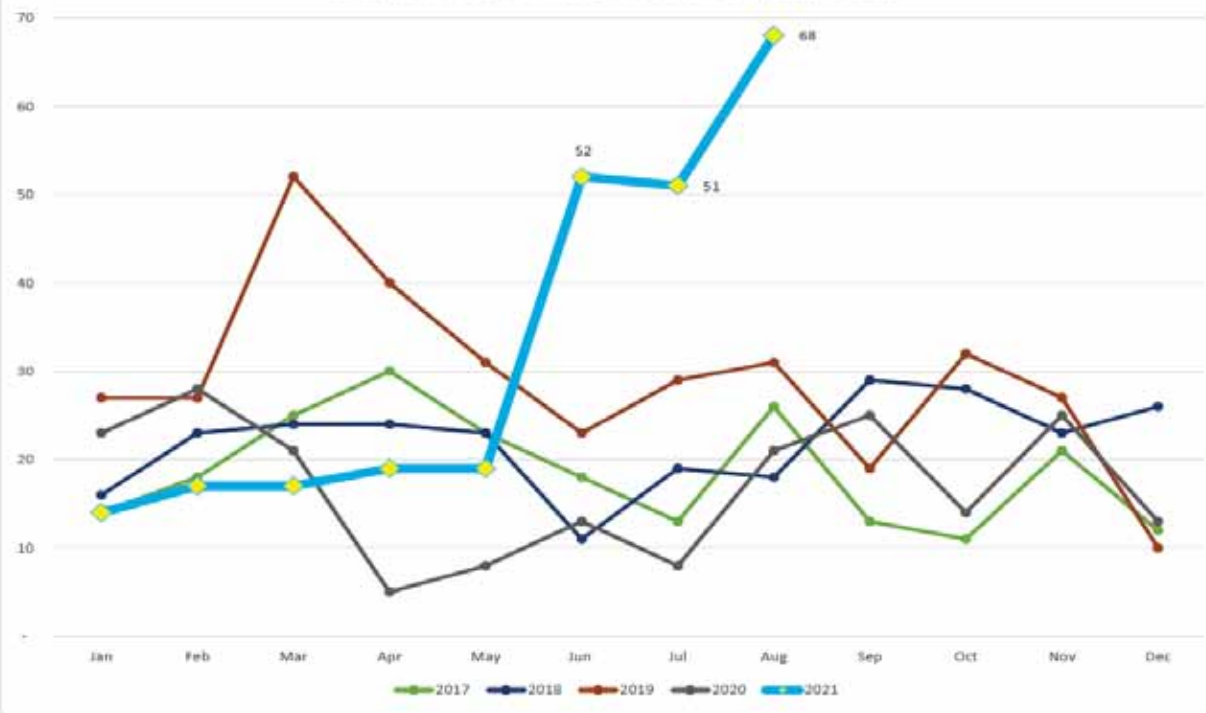


Implementation of AB356

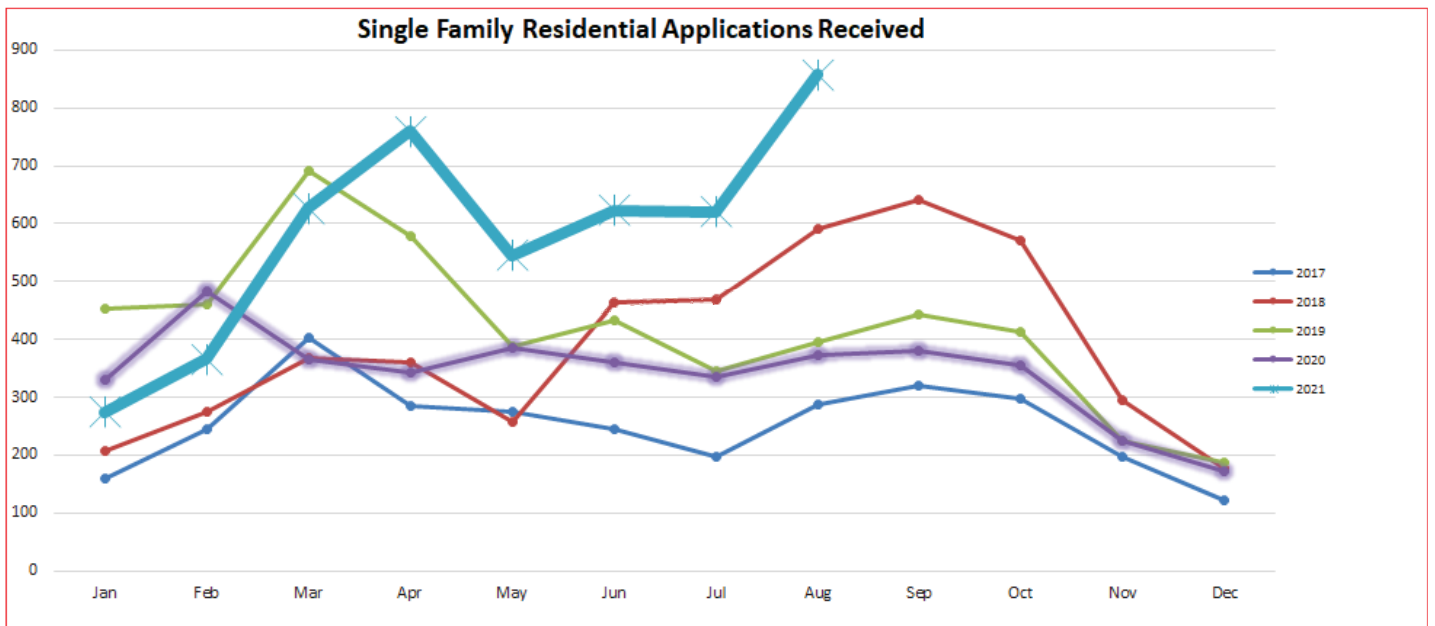
- Outreach to the landscape and nursery industry.
- 9-member advisory committee of affected landowners convenes this fall to help formalize definitions.
- Aerial imagery and land use data will identify affected properties.
- SNWA is amplifying its workforce and streamlining rebate processes.



Enterprise WSL Pre-Measures Scheduled, 2017 - 2021



Single Family Res WSL Apps



Questions?

