

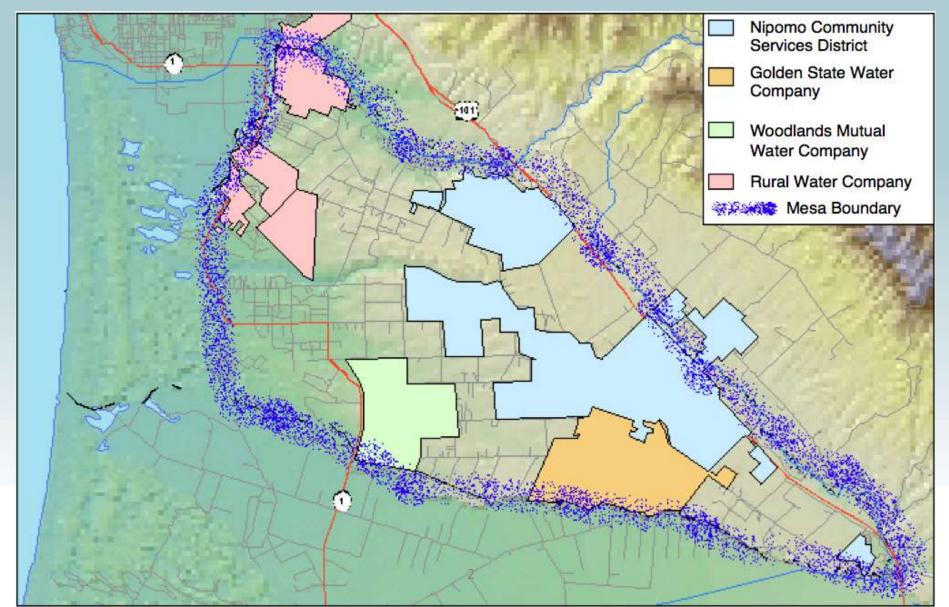
September 4th 2014

Nipomo CSD Board Room

How We are Responding to the Drought and

Meeting Community Water Supply Needs

### Nipomo Mesa Water Purveyors



### **Our Water Problem**

The Nipomo Mesa has only ONE source of water . . .

. . . the groundwater pumped from beneath us.

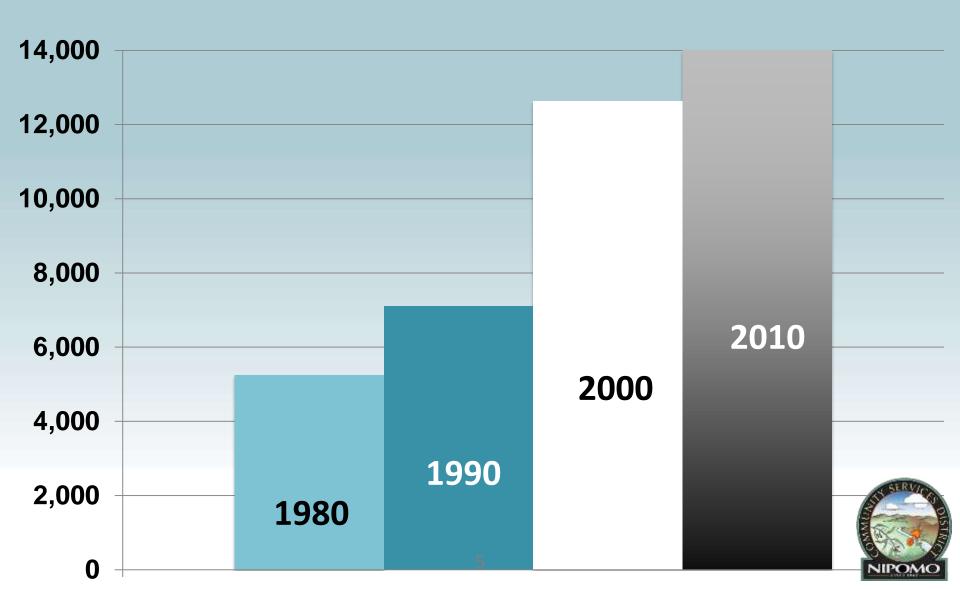


## Groundwater Levels Are Dropping.

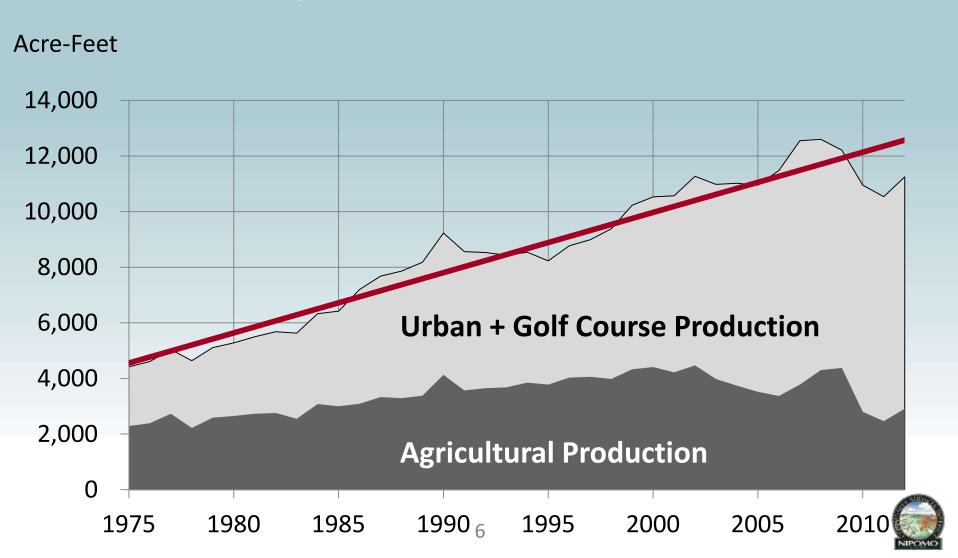
Here's Why...



### Nipomo Mesa Population Growth

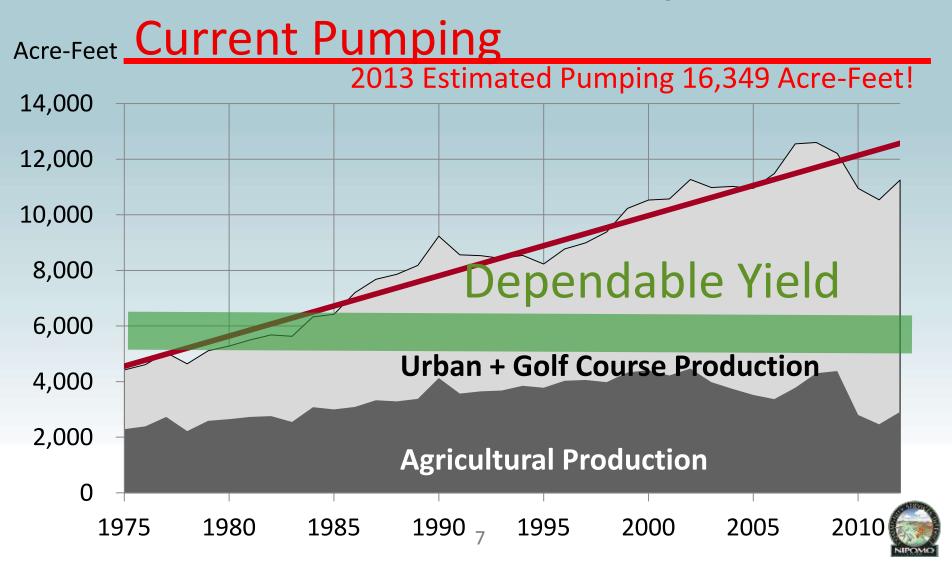


### Nipomo Mesa Water Use Steady Increases Since 1970s

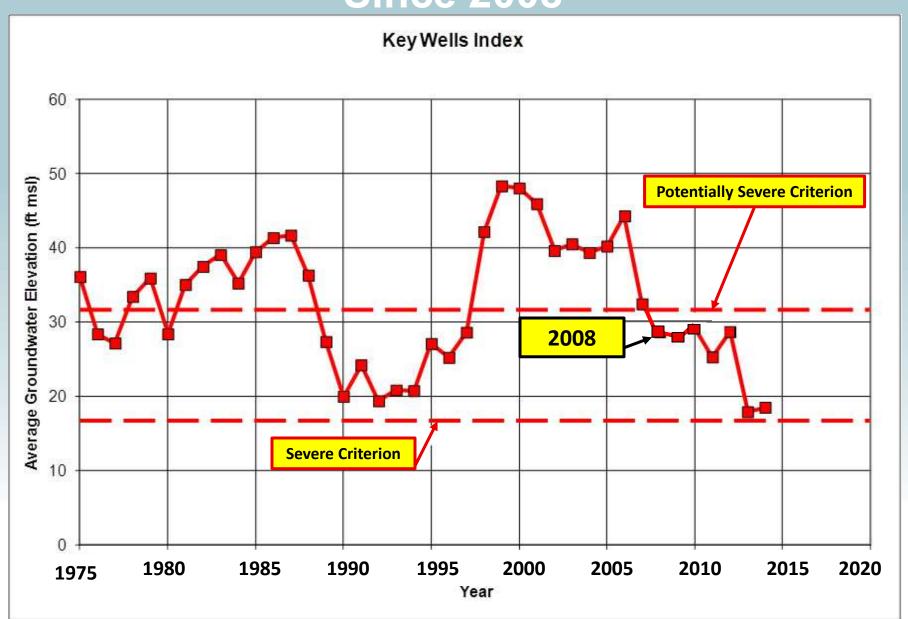


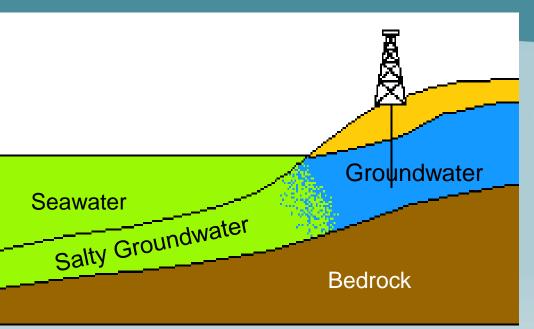
### We are pumping twice the dependable yield

The Amount The Can Be Pumped Reliably Into the Future



## Groundwater at "*Potentially Severe Shortage*" Since 2008

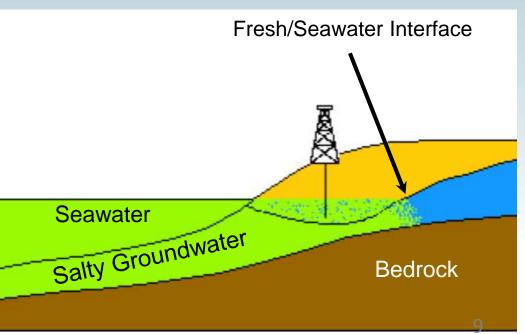




## Our Aquifer is Next to the Pacific Ocean

When fresh water table stays above sea level...

Seawater stays offshore.



Too much pumping can cause the fresh water table to fall below sea level...

Creating opportunity for seawater intrusion.

# Seawater Intrusion Would Contaminate Our Groundwater.



### Regional Seawater Intrusion Problem

	Los Osos	Five Cities Area	Nipomo Mesa
Aquifer shared with the Pacific Ocean	X	X	X
Decreasing well levels	X	X	X
Pumping freshwater wells below sea level	X	X	X
Seawater intrusion documented	X	X	Not yet
Freshwater Wells Permanently Lost to Seawater Intrusion	X	Not yet	Not yet

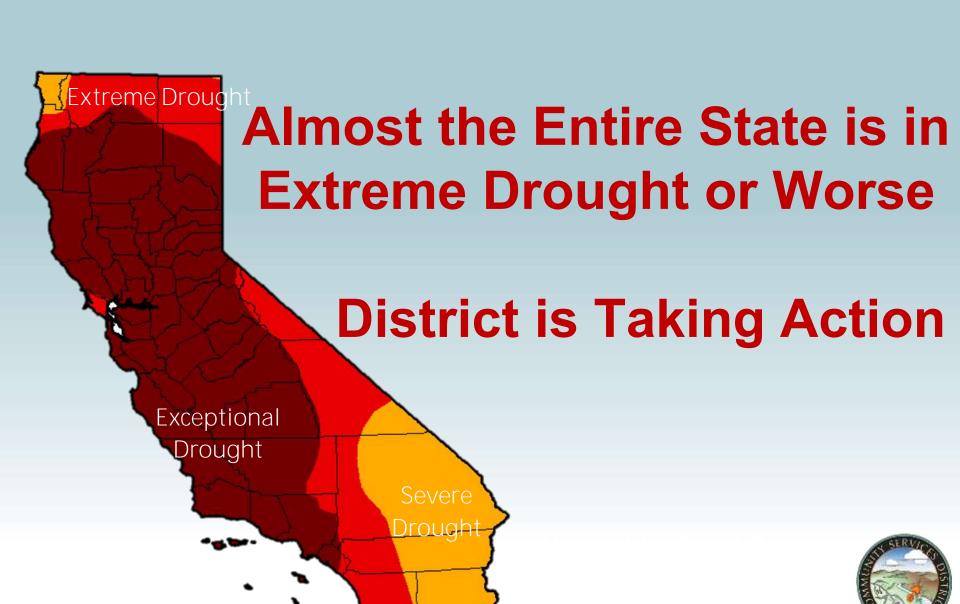
### Looming Likelihood of Seawater Intrusion

### **ALL cases of seawater intrusion elsewhere started with:**

- 1. Pumping aquifers beyond the dependable yield
- 2. Consistent dropping of water levels in wells
- 3. Well levels falling below sea level

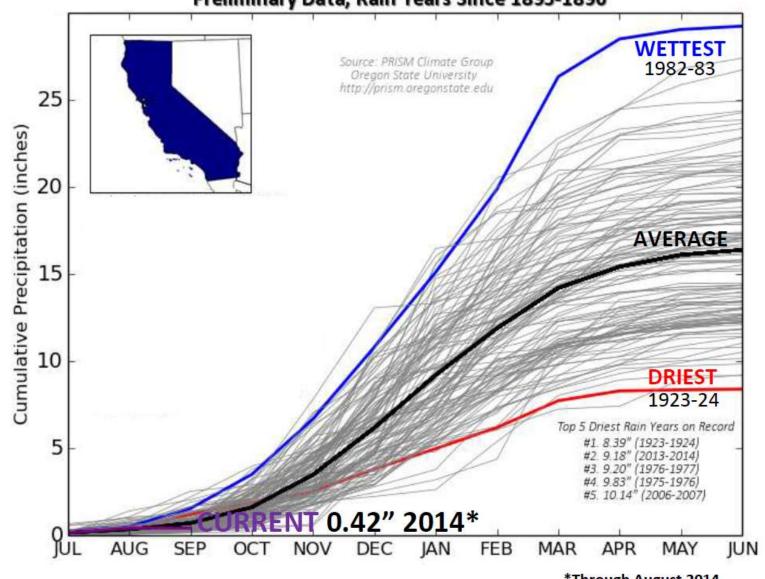
We are experiencing all three of these conditions





### **Accumulated Rainfall in California**

Preliminary Data, Rain Years Since 1895-1896





## Assuring Adequate Water Supplies #1 Obtain Supplemental Supply

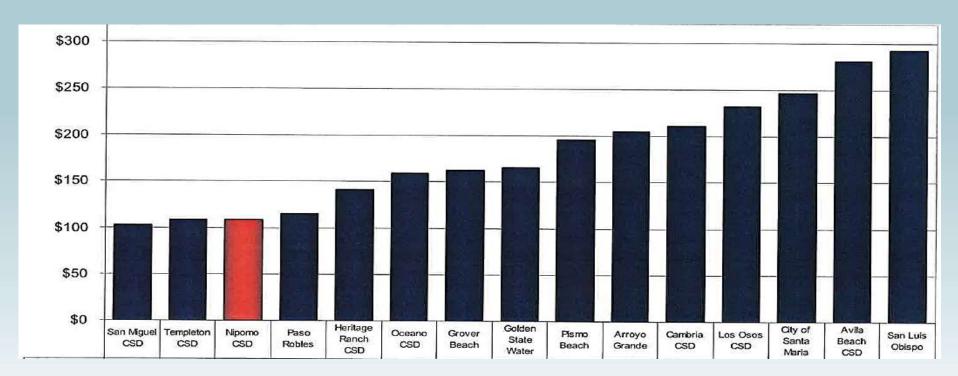
- 3,000 acre-feet of new water to our community.
- Construction is underway and 650 acre-feet of new water supply will be available next year.
   More in future years.





## Assuring Adequate Water Supplies #1 Obtain Supplemental Supply

Our rates are among the lowest in the region.



### Need supplemental charge when new water arrives DETAILS IN A FEW MINUTES

Additional investment is needed to bring in remaining 2,350 acre-feet of new supply.



### Water Shortage Response Plan

### #2 Water Shortage Response & Management Plan

Follows Five Water Shortage Stages tied to court approved groundwater condition measurements

Stage	Trigger	Response
1	All Times	Conservation Education
2	Potentially Severe Water Shortage	More Intensive Education
3	Severe Water Shortage	30% Reduction in Groundwater
4	Severe Water Shortage More Than 1 Year or is Triggered by Both Key Wells Index and Coastal Criterion	50% Reduction in Groundwater
5	Severe Water Shortage More Than 2 Years with Both Key Wells Index and Coastal Criterion Triggered	60% Reduction in Groundwater

## Water Shortage Response Plan #2 Water Shortage Response & Management Plan POTENTIAL RATES

In the event the District reaches water shortage stages 3, 4 or 5, rates could increase to:

- motivate people to conserve increasing amounts of water; and
- balance financial loss from reduced water sales.



## Assuring Adequate Water Supplies More Details on Proposed Water Shortage Rates

#### If Another Dry Year in 2015...

- Groundwater may fall to Severe Level
- This may trigger stages 3, 4, or 5 of water shortage response plan – and water shortage rates could be adopted in early 2015
- Water shortage rates would incentivize customers to further reduce their usage and to make up for the revenue loss from reduced water sales.

### Water Shortage Response Plan

## #2 Water Shortage Response & Management Plan

Also Following State Mandated Water Waste Prohibitions

### Water Waste is Prohibited – Examples of Water Waste:

Washing down driveways and sidewalks

Excessive watering of landscapes or watering that causes excess runoff

Using a hose without a shut-off nozzle to wash vehicles

Using potable water in a fountain unless water is recirculated



## Assuring Adequate Water Supplies #3 Unified, Regional Program

#### **Collaborating with**

- neighboring water suppliers
- the County of San Luis Obispo
- the Groundwater Court

to ensure an effective and coordinated Basin wide water shortage response that all participate in



## Assuring Adequate Water Supplies # 4 Conservation Promotion

**Advertisements** 

Newsletters And more... **Banners** 

Web



## Assuring Adequate Water Supplies #4 Conservation Promotion

#### **Saving Water Also Saves Money**

- NCSD has a 4-tiered rate structure
- The rate structure rewards conservation and penalizes waste
- Board of Directors sets goal for 30% reduction in pumping



## Assuring Adequate Water Supplies #4 Conservation Promotion

Customers Cut Water Use Over 15% in July
Thank You!
But We Need a 30% Cut Back

Most water usage is from outdoor landscaping.



www.slowaterwiselandscaping.com

## Must Implement Effective Water Shortage Plan: Cutbacks in Use and Bring in New Water

### These Actions Are Designed to Alleviate or Prevent

- Seawater Intrusion Contaminated Groundwater
- Permanent Loss of Fresh Water Wells
- Extreme Water Rationing
- Prolonged Water Shortages
- Significant Negative Property Value Impacts



### Questions?

