

The Threat to Nipomo Mesa Water Supply

FREQUENTLY ASKED QUESTIONS

What is the Nipomo Community Services District?

The Nipomo Community Services District (NCSD) is the local public agency responsible for operating clean water and wastewater systems, solid waste collection and certain street lighting systems that serve our local community. As a local government “special district”, NCSD is governed by a five-member publicly elected Board of Directors. NCSD is one of four large water providers on the Nipomo Mesa – others are Golden State Water Company, Rural Water Company, and Woodlands Mutual Water Company.

Where does our water come from?

ALL of the fresh water used by our community comes from a natural underground aquifer located hundreds of feet below the Nipomo Mesa and Santa Maria River Valley. This precious fresh water source known as the Santa Maria Groundwater Basin is our ONLY water source.

Why is relying solely on the Groundwater Basin for our fresh water a concern?

If the source becomes unusable, we have no alternative other than severe water use restrictions. As demand on the supply continues to increase, our community is becoming increasingly vulnerable to interruptions in our solely groundwater-dependent water supply. Over the past decade, engineers and water experts commissioned by the State and County have studied our local water supply and concluded that there is simply not enough water to meet existing, much less future, needs.

Isn't there plenty of fresh water underlying the Mesa to meet current and future demands?

No. We are using more water than is being replaced in our fresh water supply. Over the past decade, water levels beneath the Nipomo Mesa have fallen significantly. In many areas of the Mesa current groundwater levels have fallen [below sea level](#).¹ Since 1970, groundwater levels in the Blacklake area have dropped by more than [58 feet](#).²

[Studies over the past 20 years](#) have concluded that water providers must obtain an

¹ [Nipomo Mesa Management Area 2nd Annual Report, 2010](#), pp25 & 26.

Figure 3-1 shows nine wells in the Nipomo and adjacent Northern Cities areas that have water elevations below sea level in Spring, 2009, while Figure 3-2 shows 13 wells below sea level the following Fall.

² [Water Resources of the Arroyo Grande – Nipomo Mesa Area](#), 2002, pg 72, Fig. 16

additional (supplemental) source of water.³ Without an additional water source, we face critical water shortages that would severely affect our quality of life.

How do we know we have a water shortage?

The California Department of Water Resources (DWR) conducted [a groundwater study](#) that shows that groundwater usage in the Nipomo Mesa area exceeds supply.⁴ This finding is consistent with the conclusions of the [County's Resource Management Agency](#) which has put conditions in the Nipomo Mesa Area at "Level of Severity - III," meaning that existing demand currently equals or exceeds the dependable water supply.⁵ Both the DWR and San Luis Obispo County Department of Public Works have determined the safe volume of groundwater water that can be pumped from our wells (without harmful depletion of the aquifer). Since 2007, our community has been using twice that amount of fresh water per year.⁶ Without an additional fresh water source, this difference will eventually lead to seawater intrusion.

We have had a lot of rain the past two winters. Didn't that solve our water shortage?

While above-average rainfall over the past two winters has helped, it is not nearly enough to solve the problem. A "[Key Well Index](#)" developed by the Nipomo Mesa Management Area Technical Group shows water levels dropping since before the year 2000.⁷

I have heard from long-term residents that our local aquifers are replenished every year, or in multiple years of ample rain. Is this true?

No. Our fresh water aquifers are replenished by natural rainfall, but current demand (even without additional urban development) is exceeding supply. Recent studies show that our community is actually using twice as much water today as is being replenished by rain. Safe pumping levels in the past allowed for aquifer replenishment. This is no longer the case. Today we are seeing an unmistakable drop in our fresh water supply.

What do studies say about our local groundwater level?

For over 30 years, studies have identified a water problem in our community. A 1979

³ [Draft Evaluation of Supplemental Water Alternatives – Technical Memorandum No. 1 Constraints Analysis](#). 2007

⁴ [Water Resources of the Arroyo Grande-Nipomo Mesa Area. 2002](#), pg.153.

Table 29 on page 153 shows that the dependable yield of 4,800-6,000 acre-feet per year of the Nipomo Mesa portion of the Santa Maria Groundwater Basin. Every year since 2003, water extraction has exceeded 6,000 acre-feet per year, reaching 12,000 acre feet per year in 2009 (NMMA 2nd Annual Report, pg. 33, Table 3-6).

⁵ [Nipomo Mesa Groundwater Resource Capacity Study. 2004](#).

⁶ 12,000 acre-feet per year use, vs. 4,800-6,000 acre-feet per year dependable yield.

⁷ [Nipomo Mesa Management Area 3rd Annual Report](#). 2010, pg. 56, Fig. 7-2.

Study by the State of California Department of Water Resources (DWR) reported that groundwater levels were declining in all parts of the South County. This condition was found to be a direct consequence of water demand exceeding the natural supply.⁸ In 1993, the DWR renewed and expanded this study. In the early 2000s, a number of water resource evaluations were conducted by independent consultants,⁹ and all of these studies have concluded that current water demand exceeds the natural supply. The studies also say that continued over-use could lead to seawater intrusion into the fresh groundwater supply.

What will happen if we continue to use water at current levels?

If we continue using fresh water at current levels, the most likely result will be seawater intrusion from the Pacific Ocean moving progressively eastward inland into the aquifer under the Nipomo Mesa. If seawater intrusion occurs in our community (as it has in other nearby coastal communities) it will ultimately contaminate our only water supply, making it unsafe and unusable for drinking and agriculture – this could trigger a drastic reduction in property values and impact the local economy.

Are water levels being measured at different points within the Groundwater Basin?

Yes. The County and local water agencies, including Nipomo Community Services measure groundwater level in more than 200 different wells throughout the Nipomo area. The representative ‘index’ of these water levels has trended down over the last several years.

We have been getting along with local wells for years. Why is this a problem now?

Water demand across the Mesa has increased steadily for decades while the supply of water (groundwater) is linked to long-term average rainfall and remains essentially constant. As long as there is sufficient groundwater in storage above sea level, there is no danger of seawater intrusion. When fresh water well levels fall below sea level, salt water from the Pacific Ocean can contaminate the aquifer. We know much more about the warning signals of seawater intrusion now that it has occurred along other areas of the Pacific Coast including neighboring communities. We are seeing those warning signals (supply wells operating below sea level) now in Nipomo. We must address this problem before seawater intrusion occurs, not after.

What about agriculture on the Nipomo Mesa and the Conoco Phillips Refinery?

Large commercial growers and ConocoPhillips have their own water rights, and they pump their own water directly from the Santa Maria Groundwater Basin. The amount that they pump is based on their water rights and not under our control. However, the largest users of water in the Nipomo area currently are urban residential consumers. Further, urban use has increased steadily the past two decades and is projected to continue to increase in the future.

⁸ [*Evaluation of Alternative Supplemental Water Supplies. 1994.*](#)

⁹ [*Nipomo Mesa Groundwater Resource Capacity Study. 2004.*](#)

If seawater intrusion occurs – WHEN will it occur?

The exact timing cannot be determined, but every case of seawater intrusion has been preceded by aquifers being pumped below sea level. The heaviest production wells in our community are either consistently or seasonally below sea level. Once seawater contaminates an aquifer, reversing the damage is nearly impossible without a large additional (supplemental) water supply. Most seawater intrusions are dealt with by 1) abandoning the contaminated water wells; 2) flooding the area with fresh water (unavailable to Nipomo); and 3) accessing an existing additional (supplemental) water supply (which Nipomo currently does not have).

If seawater intrusion does occur here, what can we expect? WHAT will happen?

If seawater intrusion occurs in the Santa Maria Groundwater Basin, we will have to stop pumping groundwater from the affected wells and severely curtail our demand on the groundwater basin. Absent a supplemental supply, this would require significant reduction in water use across the Mesa. Non-essential water uses (irrigation of landscapes, including golf courses and parks) would likely be curtailed or prohibited. These restrictions could be in place for years and would significantly impact property values in the area. The only viable way to avoid seawater intrusion is to reduce groundwater pumping before it happens (conservation) and import a supplemental source of fresh water to meet the existing demand.

Honestly, isn't the threat of seawater intrusion many years down the road?

The threat of seawater intrusion is here and now. While it is not possible to predict exactly when it will occur, the recent experience of our neighbors is a good guide. By 2005, Los Osos had seawater intrusion over 1 mile inland. By 2009, the seawater intrusion accelerated to 2 miles inland. Within two years after of Oceano's near-coastal well levels dropped below sea level, seawater intrusion was identified 1/2 mile inland - within just 1 mile of their municipal wells.

What other communities have experienced seawater intrusion and contamination?

As demand for fresh water increases, the available supply of fresh groundwater decreases and the groundwater table (level) lowers. This has led to a number of instances throughout the State where seawater has intruded into groundwater basins, contaminating local drinking water. Close to home, the communities of Los Osos, Avila Beach, Ventura/Oxnard area, and the Monterey Bay area have all been forced to deal with difficult and expensive seawater intrusion issues. Without careful planning and alternative options, the same thing could happen here.

Isn't this a regional problem that is better dealt with by the State or the County?

No. This is a local problem that threatens the Santa Maria Groundwater basin as a whole and the Nipomo Mesa most seriously. All other water agencies that rely on the Santa Maria Basin have already developed supplemental water sources (reservoir and state water). Urban water users on the Mesa must now make the same effort and

commitment to develop supplemental water sources. When our neighbors in Oceano experienced seawater intrusion they significantly reduced groundwater pumping and used their supplemental water supplies to meet demand.

Can conservation of the existing water supply solve the groundwater shortage?

No. Simply conserving water cannot solve this problem. Conservation does extend the current supply but it does not provide a supplemental supply or alternative supply. Nipomo area water conservation efforts are important and necessary—these efforts are already exceeding local and State conservation goals and expectations.¹⁰ Even with no new development in our community, we are still over taxing the water supply at our current level of use. The fact is for over 20 years our community has over used the existing water supply.

How can I stay informed about the water shortage problem?

To learn more, visit www.NCSD.ca.gov or contact NCSD General Manager Michael S. LeBrun at (805) 929-1133 or email him at mlebrun@ncsd.ca.gov.

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¹⁰ [*Urban Water Management Plan 2010*](#). 2011, pp. 3-6, Figure 15.