



Date: July 9, 2020
To: Planning Commission
From: Department of Planning & Building, Long Range Planning Division
Subject: Los Osos Growth Rate Calculations

Context. The 2015 Updated Basin Plan for the Los Osos Groundwater Basin (“Basin Plan”) prepared by the three water purveyors in Los Osos and the County as part of the adjudication of groundwater resources recommends programs to implement to provide a sustainable water supply for existing and future development, halt and reverse seawater intrusion, and remove nitrate contamination. The draft Estero Area Plan Los Osos Urban Area (commonly known as the “Los Osos Community Plan” or “LOCP”) restricts new development in the urban area, except for dwelling types exempt from the Growth Management Ordinance (“GMO”), Title 26 of the County Code, (e.g., affordable housing, accessory dwelling units) until the following programs recommended for immediate implementation to accommodate existing water demand (with a marginal increase in new development) and halt seawater intrusion are complete, accounting for program modifications made through the Plan’s adaptive management provision:

- Program “M” – Groundwater Monitoring
- Program “E” – Urban Water Use Efficiency
- Program “U” – Urban Water Reinvestment
- Program “A” – Infrastructure Program A
- Program “C” – Infrastructure Program C
- Program “P” – Wellhead Protection

The calculations in this memo are for the annual growth rate for new residential development in the Los Osos Urban Area once the updated Los Osos Community Plan has been adopted and the required Basin Plan Programs are implemented to allow marginal new development. As additional Basin Plan Programs are implemented to increase the sustainable basin yield, the growth rate shall be re-calculated based on the best available data at the time, such as annual monitoring reports prepared for the Basin Management Committee, a committee comprised of representatives from all three water purveyors and the County, responsible for implementing the Basin Plan. The growth rate is codified in the GMO. Affordable housing, accessory dwelling units, agricultural worker dwellings, and replacement dwellings are exempt from the growth rate restrictions.

Method. The draft Los Osos Community Plan estimates 6,321 existing dwelling units and 8,182 dwelling units at buildout in 2040. The compounding annual growth rate formula is

used for the 20-year period from 2020-2040 to determine the increase in new dwelling units each year based on the existing number of dwelling units from the previous year, which is the method specified in the GMO. As shown in the calculation below, the compounding annual growth rate to allow residential buildout by 2040 is 1.3%.

$$\begin{aligned}\text{Compounding annual growth rate} &= (\text{final value}/\text{starting value})^{(1/\text{years})} - 1 \\ \text{Compounding annual growth rate} &= (8,182/6,321)^{(1/20)} - 1 = 1.3\%\end{aligned}$$

The GMO specifies 65% of new units will be for single family and 35% for multi-family. This ratio is close to the ratio of the waitlist for vacant parcels in the sewer service area that may not connect until the Los Osos Community Plan and Community-Wide Habitat Conservation Plan are adopted (62% single, 38% multi), so it is appropriate for Los Osos at this stage. All vacant multi-family and commercial parcels are located in the sewer service area. There are currently 439 RSF vacant parcels in the sewer service area and 113 RSF or RS vacant parcels outside of the sewer service area within the urban area. In accordance with this ratio, 80% of the single family allocation is reserved for inside the sewer service area, and 20% for outside. The breakdown of the 1.3% increase in existing dwelling units is as follows:

- Multi- Family
 - 0.46% annual increase from total existing dwelling units in urban area
 - 35% of total maximum annual increase in dwelling units
- Single Family within the sewer service area
 - 0.68% annual increase from total existing dwelling units in urban area
 - 52% of total maximum annual increase in dwelling units
- Single Family outside the sewer service area
 - 0.17% annual increase from total existing dwelling units in urban area
 - 13% of total maximum annual increase in dwelling units

The water demand estimate assumes 130 gallons per day of water use per dwelling unit, or 0.15 acre-feet per year (AFY). This estimate is based on the average water use for a single family connection based on data provided by the Los Osos Community Services District for average usage per connection type per billing cycle in 2019. It is assumed there is one dwelling unit per single family connection. Usage data for multi family connections does not indicate the number of dwelling units per connection, so the data for average water usage per multi family dwelling unit is not available. It is assumed that a multi-family dwelling unit has the same water demand as a single family dwelling unit, which is a conservative assumption because multi-family units typically have lower outdoor water use per unit than single family dwellings. The provided data is included in Attachment 1.

Results. The estimated allowed increase in new dwelling units per year and associated increase in water demand, assuming all allocations are used each year, is shown in Table 1 for a five-year period.

Table 1: Estimated Increase in Dwelling Units and Water Demand for Proposed Growth Rate

Fiscal Year After LOCP Conditions Are Met to Allow New Growth	Existing Dwelling Units	Increase in Dwelling Units								Increase in Water Demand (AFY) ²	
		Multi-Family (35% of total)		Single Family, Within the Sewer Service Area ¹ (52% of total)		Single Family, Outside the Sewer Service Area ¹ (13% of total)		Total			
		Per Year	Cumulative	Per Year	Cumulative	Per Year	Cumulative	Per Year	Cumulative	Per Year	Cumulative
1	6,321	29	29	43	43	11	11	82	82	12	12
2	6,403	29	58	43	86	11	21	83	165	12	25
3	6,486	29	87	44	130	11	32	84	249	13	37
4	6,570	30	117	44	174	11	44	85	335	13	50
5	6,656	30	147	45	219	11	55	86	421	13	63

¹The allowance for new dwelling units outside the sewer service area may be used inside the sewer service area if there are fewer requests than the allowance.

²Assuming 0.15 AFY water use per dwelling unit, based on attached 2019 water usage data.

Based on this table, the proposed growth rate would allow an annual increase of 82-86 new dwelling units each year, 11 outside and 71-75 within the sewer service area with an estimated 12-13 AFY annual increase in water demand, and a total increase of 421 new dwelling units and 63 AFY estimated increase in water demand over five years.

Waitlist. There are currently requests for 215 single family and 130 multi-family units on the waitlist. Based on this projected timeline, all of the applicants on the waitlist could apply for construction permits by the 5th year after the conditions in the Los Osos Community Plan are met to allow new residential growth, assuming the maximum allocation was issued each year.

Historic Growth Rate. While the retrofit-to-build requirement has been in place, an average of two construction permits per year have been issued for new dwelling units outside of the sewer service area, so the increase of 11 dwelling units per year allowed outside of the sewer service area per this proposed growth rate should be sufficient to meet demand. The growth rate is reviewed annually and may be amended if 11 units per year is not sufficient. The allowance for new dwelling units outside the sewer service area may be used inside the sewer service area if there are fewer requests than the allowance.

Water Supply. The 63 AFY proposed estimated increase in residential urban water demand over five years is significantly less than the difference between estimated sustainable basin yield and 2019 total groundwater extraction. In 2019, the total groundwater production was estimated as 1,900 AFY, 69% of the estimated sustainable basin yield of 2,760 AFY once the Basin Plan Program A 8th Street expansion well is complete, as required by the draft Los Osos Community Plan before new development may occur.

Annual Review. The GMO requires this proposed growth rate, if adopted, to be reviewed annually based on the most recent Resource Summary Report. The Los Osos Community Plan requires the annual review of the growth rate to consider the most recent annual monitoring report prepared for the Basin Management Committee. The growth rate shall be adjusted based on significant changes in existing usage rate or an updated evaluation of the effectiveness of Basin Plan programs, and/or the implementation of additional Basin Plan programs to increase the available sustainable basin yield. After five years, the growth rate shall be re-evaluated and the GMO amended to establish a new growth rate.

Sources:

Cleath-Harris Geologists, Inc. (CHG). 2020. *Los Osos Basin Plan Groundwater Monitoring Program 2019 Annual Monitoring Report.*

Interlocutory Stipulated Judgment Working Group (ISJWG). 2015. *Updated Basin Plan for the Los Osos Groundwater Basin*

Attached:

- 1) Los Osos Community Services District 2019 Water Consumption Data

Los Osos Community Service District Water Consumption			
Cycle 1 for 2019 Averages			
	Number of Connections	Average Usage (Hundred Cubic Feet)	Average Usage per Connection
Single Family Residential	1024	10203	10.0
Multi Family Residential	99	1909	19.3
Commercial	85	1454	17.1
Irrigation	2	421	210.5
Totals	1210	13987	
Cycle 2 for 2019 Averages			
	Number of Connections	Average Usage (Hundred Cubic Feet)	Average Usage per Connection
Single Family Residential	1444	14986	10.4
Multi Family Residential	60	1114	18.6
Commercial	55	2303	41.9
Irrigation	4	15	3.8
Totals	1563	18418	
Totals for Both Cycles for 2019 Averages			
	Number of Connections	Total Water Usage (Hundred Cubic Feet)	Average Usage per Connection
Single Family Residential	2468	25189	10.2
Multi Family Residential	159	3023	19.0
Commercial	140	3757	26.8
Irrigation	6	436	72.7
Totals	2773	32405	

Cycle 1 and Cycle 2 represent two groups of CSD clients, 43% and 57% respectively.

Average usage is reported per billing period, averaged for CY 2019. 1 billing period = 2 months.

Average daily usage for single family residential connection:

Assume 30 day month.

$10.2 \text{ hundred cubic feet per cycle} * (7.48 \text{ gallons/cubic foot}) / 30 \text{ days} / 2 \text{ months per billing period} =$

127 gallons per day

130 gallons per day, rounded

0.15 acre-feet per year (AFY)