



MEMORANDUM

TO: CITY COUNCIL

FROM: WHITNEY McDONALD, CITY MANAGER

**SUBJECT: SUPPLEMENTAL INFORMATION
AGENDA ITEM 9.a. – SEPTEMBER 28, 2021 CITY COUNCIL MEETING
CONSIDERATION OF APPROVAL OF A RESOLUTION DECLARING A
STAGE 1 WATER SHORTAGE EMERGENCY**

DATE: SEPTEMBER 28, 2021

Attached is correspondence received by 4:00 PM for the above referenced item.

cc: Assistant City Manager/Public Works Director
Administrative Services Director
City Attorney
City Clerk
City Website (or public review binder)

From: [Norm Stewart](#)
To: [public comment](#)
Subject: FW: ADOPTION OF A RESOLUTION DECLARING A STAGE 1 WATER SHORTAGE EMERGENCY
Date: Friday, September 17, 2021 12:28:17 PM

Members of Arroyo Grande City Council:


Thank you for the opportunity to provide input regarding the consideration of a water emergency declaration.

I am a 34 year resident of Arroyo Grande and native Californian. I have experienced a number of California droughts.

There is a recurring, and disturbing, pattern of fee changes during water emergencies. I've seen it in this county, and in San Diego county. When the good citizens of the county respond to the water shortage and reduce consumption, the result is decreased revenue to the Water District. Since many of the Water District O&M costs are "sunk costs" the District finds itself operating at a non-sustainable deficit. The customary remedy is to "temporarily" raise the billing rate for the water to maintain the original income.

I'm sure that the Council is fully aware of the citizens' mistrust in this process, as the billing rate never seems to recede to pre-drought levels when the city approves the return to normal use rates.

I will be interested to see what actions the Council will take (beyond verbal assurances), and what rules the Council will establish, to prevent the recurring "temporary rate" from becoming permanent.

Respectfully,
Norman Stewart

Arroyo Grande

From: Krista Jeffries [REDACTED] >

Sent: Tuesday, September 28, 2021 2:47 PM

To: Kristen Barneich; Jimmy Paulding; Caren Ray Russom; Keith Storton; Lan George

Subject: Council Meeting 9/28, Item 9

Good Afternoon Council Members,

Please see the attached comments for tonight's meeting regarding water restrictions. I believe AG can be really proactive on this issue by seeing water and land-use as inherently connected, especially as we wrestle with housing affordability.

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Krista Jeffries
SLO County YIMBY
Lead Organizer
[REDACTED]



To The City Council of Arroyo Grande,

My name is Krista Jeffries and I'm providing public comment on Item Number 9.

As you may be aware, I am an advocate for abundant housing and active transportation across the Central Coast. Frequently, when I engage in conversations with local city staff or elected officials, I'm repeatedly told that our water supply presents a large constraint on our region's ability to accommodate more housing stock. While our local governments cannot control our annual rainfall or rising sea levels, I believe our councils can make considerable progress on residential water conservation and address housing affordability in a single stroke.

Now that the Arroyo Grande Housing Element has been certified by HCD, the city has two years to update development codes to reflect the constraints and findings provided in that document.

It is no secret that the vast majority of water usage in our region is agricultural rather than urban, as is true of the state overall. While the majority of water conservation should be happening within the agricultural sector, the fact remains that in residential areas, anywhere from half to two-thirds of water used is for landscaping, particularly in Southern California.

This is no accident. We have made this problem ourselves, through decades of prioritizing large-lot single family homes. We've enforced this wasting of water by mandating large front and rear setbacks, also known as "yards," which are expensive to xeriscape, and small maximum lot coverages that prohibit using all of an owner's land for housing people instead of grass or cars. Neither of these codes serve any function of safety or affordability but are merely aesthetic preferences, based on the mid-century fantasy of endless land, endless water, and endless free parking. For multiple reasons, we cannot afford that fantasy any longer.

Therefore I'm recommending that, as a component of long-term water strategy, this council take a long, hard look at the codes that limit density and efficient use of land. Allow full use of lots, particularly close to jobs, bus stations, schools, and within close proximity to parks or public open spaces. Allow higher density of homes so that those large lots get used to produce the affordable and accessible housing our neighbors need, instead of large McMansions. Allow for subdivision of large lots and for the minimum residential lot sizes to be far smaller than they are today, so that building a cute, quaint starter home is once again a feasible project.

As the three cities begin working together on Central Coast Blue, it is imperative that we take a regional approach not only to diversify our water portfolio and improve infrastructure, but that we look at our land-use patterns as a critical component of long term water stability. Below I have tabled the residential lot coverages and minimum lot sizes across Pismo Beach, Grover Beach, and Arroyo Grande.

You will notice in the tables below that, out of the three cities, AG has some of the lowest allowable lot coverage, the most rural land, and the largest lot sizes. This means that AG has the most room to improve on residential water use when it comes to development codes and the

water scarcity it creates. But you are hardly an outlier, and I strongly urge you to approach your regional colleagues to address this very common problem as a team. We all share the same water sources; we're going into CCB as a region; it's time we adjust our codes as a region.

Pismo Beach Residential Lot Coverage

Reference:

Development Code

https://codelibrary.amlegal.com/codes/pismo_beach/latest/pismo_ca/0-0-0-15369

Res. Zone	RSL	RSM	RRL	RRH
Min Lot Size	All residential zones have min lot 5,000sqft			
Max Lot Coverage	All residential zones have max lot coverage of 55% (20% min landscaping)			
Specific Plan Areas	Baycliff Village Mattie Road Pacific Estate Pismo Oaks Spyglass Ridge South Palisades Sunset Palisades/Ontario Ridge Toucan Terrace			
Max Lot Coverage	55% (20% min landscaping)			

Grover Beach Residential Lot Coverage

Reference:

2020 Housing Element

https://www.grover.org/DocumentCenter/View/10920/Housing-Element_11_16_20_final

GB Dev Code PDF

<https://www.groverbeach.org/DocumentCenter/View/2758/Chapter-4-Standards-for-Specific-Development-and-?bidId=>

Res. Zone	R1	CPR1	CR1	R2	CR2	R3	CR3
Min Lot Size	All residential zones have min lot of 6,000sqft						
Max Lot Coverage	45%	45%	45%	50%	50%	60%	60%

Arroyo Grande Residential Lot Coverage

Reference:

AG Development Code

https://library.municode.com/ca/arroyo_grande/codes/code_of_ordinances?nodeId=CD_ORD_IT16DECO_CH16.32REDI

Table 16.32.050-A, Table 16.32.050-B

Res. Zone	Res Est	Res Hill	Rural Res	Res Sub	SFR	Village Res
Min Lot Size	92,500	49,000	40,000	12,000	7,200	6,750
Max Lot Coverage	35	35	35	30	40	40
Res Zone	MF	MFA	MFVH	MHP		
Min Lot Size	10,000	10,000	20,000	5 acres		
Max Lot Coverage	40%	45%	60%	50%		

The AG Housing Element Policy A.13. reads “The City shall pursue adequate water sources and conservation programs to accommodate projected residential development.” I want us to pay particular attention to the term “conservation.”

In the additional agenda materials, this chart is being listed as the recommended conservation goals across all the types of water customers.

TABLE B

Single Family Residential Water Customers

2020 Customers by Tier	Total Customers	Percentage	Total Units	% Reduction	Usage after Reduction
0-9 units	1,998	33%	65,005	0%	65,005
10-18 units	1,998	33%	163,649	7%	152,194
19 + units	2,120	34%	412,567	14%	354,808
Total	6,115	100%	641,221	11%	572,006

Customer Type	2020 Usage	% Reduction	Usage after Reduction
SFR	641,221	11%	572,006
MFR	99,494	10%	89,545
Commercial	110,000	0%	110,000
Irrigation meter	79,289	20%	63,431
Total	930,004	10%	834,982

Target Overall Total	930,004	10%	837,004
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The modified recommendations are identified in highlighted grey above.

Given that a sizeable portion of SFR water use is for grass - a non-native plant that does not feed or clothe anyone - I consider the reduction goals of SFR and MFR to be both unfair and unrealistic. MFR water use is much lower per capita and is predominantly essential uses, as they have considerably less landscaping. Any deficient appliances or leaks are the responsibility of the landlord or ownership corporation and out of the price range of most tenants. Contrast this with owner-occupied single family homes, with large lawns and gardens, in buildings that are more likely to have old plumbing and inefficient toilets, sinks, showers, and tubs. SFR water use is almost seven times more than MFR use. Why should the target reduction for these two groups be so similar, when their usage patterns and occupants are so different? The target reduction for SFR should be at least twice that of MFR.

Please be the leaders our region needs you to be on this critical issue. It means making hard choices, but I think you can do it.

Respectfully,

Krista Jeffries
Lead Organizer
SLO County YIMBY



Post Script: Please see additional materials below and the relevant excerpts I included

PPIC Water Study 2019 <https://www.ppic.org/publication/water-use-in-california/>

California Dept Water Resources Single Family Water Use Efficiency Study 2011
<https://www.irwd.com/images/pdf/save-water/CaSingleFamilyWaterUseEfficiencyStudyJune2011.pdf>

Indoor water use is fairly consistent across all regions of California:

Examination of the data from the individual sites shows that there is relatively little variation in indoor uses, which range from a low of 146 gphd to a high of 222 gphd. Outdoor use shows much more variability, ranging from a low of ~0 gphd to a high of over 850 gphd. Having such a range of use is a benefit for the study group, since it better captures the range of uses in the state population. It also allows for the models of water use to have a larger range of input values, which provides a greater responsiveness in the models to the factors that affect water use. If all of the homes had similar water use patterns, the models would not have been able to predict water use except over a very narrow range of values, which would greatly decrease their usefulness. Thus, having a wide range of data produces much more robust, realistic and useful models.

Table 34: Comparison of Annual Water Use for Agencies in Study Group

Agency	No. SF Accts.	Annual Use (kgal/yr)		Mean Daily Use (gpd)		
		Population SF	Sample SF	Annual	Indoor (from data logging)	Outdoor
Davis Water Dept.	13,194	158	160	432	171	261
EBMUD	306,950	107	105	293	164	129
SCWA	63,624	107	106	293	161	132
Redwood City	15,777	101	106	277	176	101
SFPUC	52,349	65	65	178	182	~0
City of San Diego	217,893	114	115	312	146	166
IRWD	45,878	148	147	406	179	227
LADWP	485,000	153	159	419	181	238
Las Virgenes MWD	17,016	392	392	1073	222	851
San Diego County	84,213	147	147	404	187	217
Total N	1,301,894	1,492	1,502	4,087	1,769	2,322
Weighted Avg.	NA	132	134	361	171	190
Percent of Total				100%	47%	53%

Scenarios that provide large potential for Outdoor Water Savings:

The results of the three scenarios of outdoor water use are shown in Table 103. The total savings estimated from the three outdoor conservation efforts described above range from 15% to 23% of the total single-family baseline water use.

Table 103: Estimated outdoor water savings for single-family residences in California

	Baseline Current Estimate of SF Outdoor Water Use	Scenario 1 Reduce Rate of Over-irrigation by 50%	Scenario 2 Reduce Average Landscape Ratio to 0.8	Scenario 3 Reduce Average Irrigated Area by 20%
Income corrected Water Use (kgal/yr/)	87.103	62.152	55.872	46.692
(MAF)	2.27	1.62	1.48	
Savings (kgal/yr)		24.95	31.23	40.41
Savings (MAF)		0.631	0.790	1.022
% reduction for SF Outdoor use		28%	35%	45%
% Reduction of total SF use		14%	18%	23%

Scenario Number One: Reduce Over-Irrigators

Table 100 shows that this simple expedient would reduce average outdoor use from 87.103 kgal per year to 62.152 kgal, and results in statewide savings of 0.631 million acre feet of water. Based on our best estimate of 4.4 MAF of single-family water use from Table 89 this means that a savings of nearly 15% of total single-family use could be achieved simply by cutting the number of over-irrigators in half--not eliminating over irrigation, but just halving it.

Table 100: Outdoor case 1: reduction in rate of excess irrigators by 50%

Parameter	Coefficient	Study Mean	Assumed Value	Predicted Outdoor Use
Factor	1.6207E-04	--		1.6207E-04
Irrigated Area (sf)	0.682	3802.615	3802.615	275.348
Net Eto (in)	1.659	42.193	42.193	496.060
Landscape Ratio	0.506	0.960	0.960	0.979
Excess Irrigators (%)	3.130	0.505	0.253	1.538
In ground sprinklers (%)	1.212	0.739	0.739	1.157
Swimming pool (%)	1.385	0.158	0.158	1.061
Log_household_income (\$1000)	0.125	83.97	83.970	1.74
Correction	-9.200			-9.200
Observed Mean Use (kgal)				87.103
Predicted Value (kgal)				62.152
Savings (kgal)				24.951
Irrigating SF Homes (87% of total)				8,242,701
Total savings (kgal)				205,660,996
Total savings (MAF)				0.631

Scenario Number Two: Reducing Average Landscape Ratio

For this scenario, we estimated the water savings that would result from reducing the average landscape ratio from its current average of 0.96 to 0.80, which is the suggested ratio in the model landscape ordinance. This would be done by replacing turf and high water-using trees and shrubs with plants having a lower water requirement. Note that this scenario does not involve reducing landscaped area, since creating additional hardscape could increase impervious cover and runoff, and may not be a recommended practice. Making this modification to the outdoor water use model achieves an additional 0.16 MAF, bringing total outdoor savings potential to 0.790 MAF, which is an equivalent savings to 18% of the total single-family demands.

Table 101: Outdoor case 2: reduction in landscape ratio to 0.80

Parameter	Coefficient	Study Mean	Assumed Value	Predicted Outdoor Use
Factor	1.6207E-04	--		1.6207E-04
Irrigated Area (sf)	0.682	3802.615	3802.615	275.348
Net Eto (in)	1.659	42.193	42.193	496.060
Landscape Ratio	0.506	0.960	0.800	0.893
Excess Irrigators (%)	3.130	0.505	0.253	1.538
In ground sprinklers (%)	1.212	0.739	0.739	1.157
Swimming pool (%)	1.385	0.158	0.158	1.061
Log_household_income (\$1000)	0.125	83.97	83.970	1.74
Correction	-9.200			-9.200
Observed Mean Use (kgal)				87.103
Predicted Value (kgal)				55.872
savings (kgal)				31.231
Irrigating SF Homes (87% of total)				8,242,701
total savings (kgal)				257,424,478
Total savings (MAF)				0.790

Scenario Number Three: Reduction in Landscape Area

Table 102: Outdoor case 3: reduction in landscape area by 20%

Parameter	Coefficient	Study Mean	Assumed Value	Predicted Outdoor Use
Factor	1.6207E-04	--		1.6207E-04
Irrigated Area (sf)	0.682	3802.615	3042	236.503
Net Eto (in)	1.659	42.193	42.193	496.060
Landscape Ratio	0.506	0.960	0.800	0.893
Excess Irrigators (%)	3.130	0.505	0.253	1.538
In ground sprinklers (%)	1.212	0.739	0.739	1.157
Swimming pool (%)	1.385	0.158	0.158	1.061
Log_household_income (\$1000)	0.125	83.97	83.970	1.74
Correction	-9.200			-9.200
Observed Mean Use (kgal)				87.103
Predicted Value (kgal)				46.692
savings (kgal)				40.411
Irrigating SF Homes (87% of total)				8,242,701
total savings (kgal)				333,093,996
Total savings (MAF)				1.022