

Pinal AMA Assured Water Supply Issues

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Assured Water Supply Program

- Developers must demonstrate 100 year assured water supply (AWS) before recording plats/selling parcels in an Active Management Area (AMA)
- To obtain a certificate of AWS, developer must show that water to meet a subdivision's demand for 100 years is:
 - Physically available
 - Continuously available
 - Legally available
 - Of adequate quality
 - Provider/developer is financially capable of constructing water system
 - Water use is consistent with the AMA management plan
 - Water use is consistent with the AMA management goal

Physical Availability

- Rules for demonstrating physical availability depend on the water source. Groundwater historically has been the primary supply for Pinal AMA developments.
- In the Pinal AMA, demonstrating physically available groundwater requires a hydrologic study showing that depth to water for wells that will serve a development will not exceed 1100 feet below surface, or reach bedrock, after 100 years.
 - Demands for other uses and certificates/analyses of AWS included in calculation
- ADWR decisions based on ADWR's regional groundwater flow model
 - 2014 model update showed insufficient groundwater to meet 100 years of assigned demand – referred to as “unmet demand”
 - 2019 model update made various changes, including large reductions in assumed Ag demands, but still showed significant “unmet demand”
 - ADWR currently will not issue new AWS determinations based on that unmet demand

2019 Model Unmet Demand

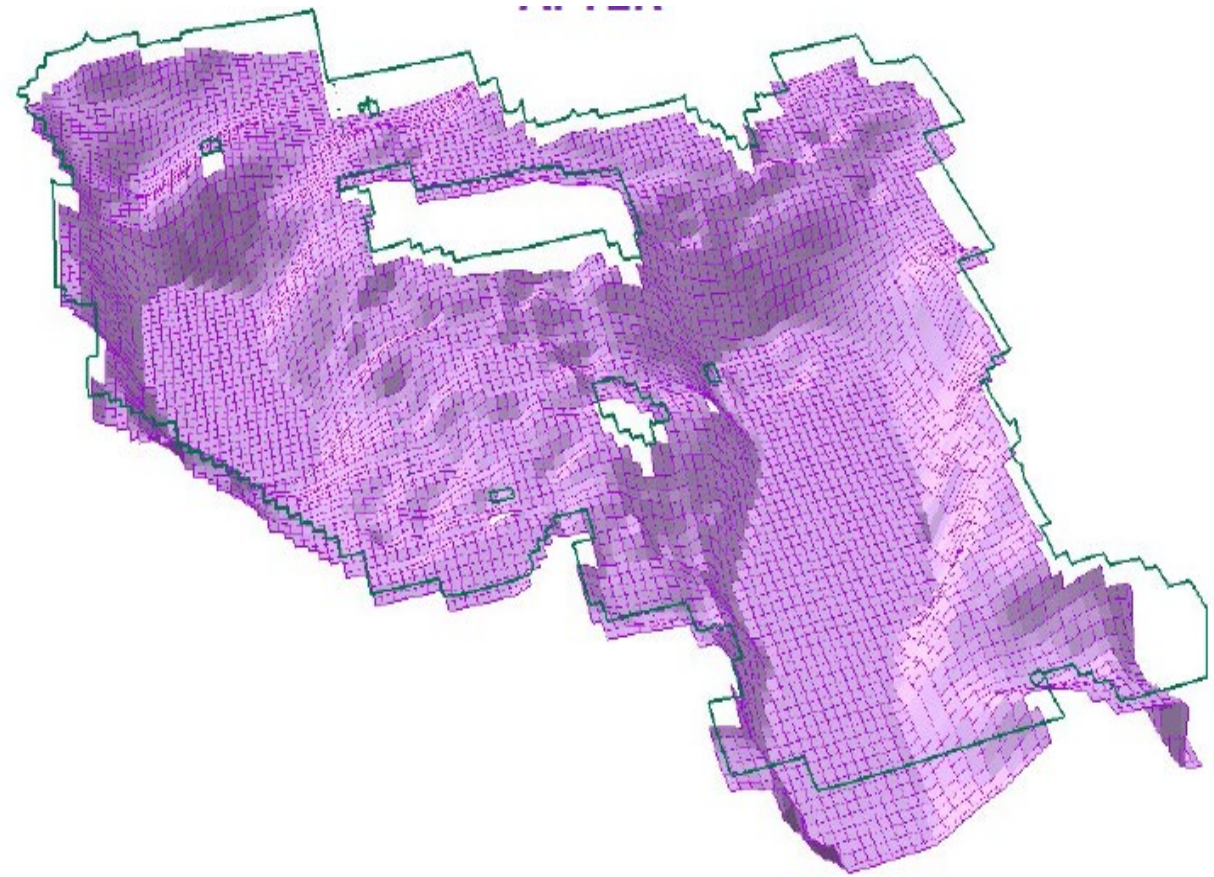
2016 - 2115 100 Year Total, Simulated, and Unmet Demand				
Sectors	Total Demand	Percent of Total Demand	Simulated Demand	Unmet Demand
	(AF)		(AF)	(AF)
Analysis (AAWS)	11,687,181	14.49%	10,616,411	1,070,770
Certificates (CAWS)	4,875,410	6.05%	4,609,484	265,926
Designations (DAWS)	4,886,490	6.06%	4,253,237	633,253
<i>AWS Subtotal</i>	<i>21,449,081</i>	<i>26.60%</i>	<i>19,479,131</i>	<i>1,969,950</i>
Agriculture	48,573,365	60.23%	43,514,309	5,059,056
Municipal	2,005,524	2.49%	1,952,338	53,187
GRIC M&I	500,342	0.62%	500,339	3
Industrial	2,329,255	2.89%	1,600,332	728,922
<i>Existing Uses Subtotal</i>	<i>53,408,486</i>	<i>66.22%</i>	<i>47,567,318</i>	<i>5,841,168</i>
Existing LTSC	1,169,993	1.45%	1,131,929	38,064
Future LTSC	4,620,964	5.73%	4,382,316	238,648
<i>LTSC Subtotal</i>	<i>5,790,958</i>	<i>7.18%</i>	<i>5,514,245</i>	<i>276,712</i>
TOTAL (ALL SECTORS)	80,648,525	100.00%	72,560,695	8,087,830

Unmet Demand and AWS Analyses

2016 - 2115 100 Year Total, Simulated, and Unmet Demand				
Sectors	Total Demand	Percent of Total Demand	Simulated Demand	Unmet Demand
	(AF)		(AF)	(AF)
Analysis (AAWS)	0	0.0%	0	0
Certificates (CAWS)	4,875,437	7.1%	4,790,808	84,629
Designations (DAWS)	4,886,484	7.1%	4,381,594	504,890
AWS Subtotal	9,761,921	14.2%	9,172,402	589,519
Agriculture	48,573,368	70.4%	46,011,206	2,562,162
Municipal	2,005,522	2.9%	2,004,172	1,350
GRIC M&I	500,339	0.7%	500,339	0
Industrial	2,329,252	3.4%	1,704,304	624,948
Existing Uses Subtotal	53,408,481	77.4%	50,220,021	3,188,460
Existing LTSC	1,169,991	1.7%	1,152,844	17,147
Future LTSC	4,620,964	6.7%	4,523,562	97,401
LTSC Subtotal	5,790,955	8.4%	5,676,406	114,549
TOTAL (ALL SECTORS)	68,961,357	100.0%	65,068,829	3,892,528

Physical Availability/Unmet Demand

- Reflects a term of art for a particular regulatory program, not really a prediction that groundwater physically does not exist in Pinal AMA for uses
 - Well locations static for 100 year run – shallow wells/wells over shallow bedrock go dry even if water available elsewhere
 - Demand assumptions are based on AWS regulatory framework, not necessarily reality on the ground
 - E.g. full buildout demand assumed for all of years 1-100
- Modeled unmet demand more a function of location than volume
 - Large demand reductions yield only small improvements
 - Trying to cut Ag assumptions proves ineffective



Pinal Stakeholders Process

- Formed to allow local stakeholders to develop solutions
- Efforts have focused on revising model assumptions and possible changes to laws and ADWR rules/policies
- Model proposals show that tweaking assumptions can eliminate unmet demand, but it remains to be seen if ADWR will accept proposed changes
 - Even if current unmet demand is eliminated, non-groundwater supplies probably will be necessary to support most future development in the Pinal AMA
- Bills have been introduced to address particular issues regarding water provider service areas, storage credit recovery, water accounting, among other things (HB2549)
- Challenges are real, but solutions are available

Questions

