

Key Point 3: Ag-to-Urban would save significant amounts of groundwater across the Phoenix, Pinal, and Tucson AMAs.

IGFRs Across the Phoenix, Pinal, and Tucson AMAs ¹

	Phoenix AMA	Pinal AMA	Tucson AMA
Total Irrig. Acres	138,124 acres	253,398 acres	33,710 acres
Effective <u>Unreplenished</u> Use ³	3.24 AF/ac	2.48 AF/ac	3.15 AF/ac

**Savings per
Irrig. Acre:
Reduced
Groundwater**

**Potential Savings
Across the AMA**

**Savings per
Irrig. Acre:
New Water
Captured**

**Potential Savings
Across the AMA**

	Savings per Irrig. Acre: Reduced Groundwater	Potential Savings Across the AMA	Savings per Irrig. Acre: New Water Captured	Potential Savings Across the AMA
Phoenix AMA	1.14 AF/ac = 3.24 AF/ac Unreplenished Use – 2.1 AF/ac PAC	157,461 AF/yr = 1.14 AF/ac x 138,124 acres 15.7 million AF = 157,461 AF/yr x 100 years	4.26 AF/ac = 1.14 AF/ac + CAGR + Effluent + Rainwater	588,407 AF/yr = 4.26 AF/ac x 138,124 acres 58.8 million AF = 588,407 AF/yr x 100 years
Pinal AMA	0.38 AF/ac = 2.48 AF/ac Unreplenished Use – 2.1 AF/ac PAC	96,291 AF/yr = 0.38 AF/ac x 253,398 acres 9.6 million AF = 96,291 AF/yr x 100 years	3.50 AF/ac = 0.38 AF/ac + CAGR + Effluent + Rainwater	886,893 AF/yr = 3.50 AF/ac x 253,398 acres 88.7 million AF = 886,893 AF/yr x 100 years
Tucson AMA	1.05 AF/ac = 3.15 AF/ac Unreplenished Use – 2.1 AF/ac PAC	35,396 AF/yr = 1.05 AF/ac x 33,710 acres 3.5 million AF = 35,396 AF/yr x 100 years	4.17 AF/ac = 1.05 AF/ac + CAGR + Effluent + Rainwater	140,572 AF/yr = 4.17 AF/ac x 33,710 acres 14.1 million AF = 140,572 AF/yr x 100 years

Data Sources:

- (1): ADWR's [List of Current IGRs and Allotment data query](#) lists IGFRs and includes their Allotment and number of Irrigation Acres. The listed value equals the Allotment divided by the number of Irrigation Acres, with both high and low outlier values filtered out which appear to have typos in their Current Allotment or number of Irrigation Acres.
- (2): In a [2022 report on Management Goals](#), ADWR calculates agricultural incidental recharge as 30 percent of demand, accounting for transmission and application losses. The listed value equals the Avg Allocation x 0.30.
- (3): Equals the Avg IGFR Water Allocation, less the amount considered as Incidental Recharge.
- (4): Estimated based on the [City of Phoenix's 2021 Water Resource Plan Update](#), which reports that approximately 40 percent of total deliveries ends up at wastewater treatment plants. The listed 0.84 AF/ac value equals the 2.1 AF/ac PAC x 0.40.
- (5): Zoning codes require [stormwater retention basins](#). Dry wells constructed in these basins recharge stormwater that would otherwise evaporate or be lost as surface water. The 0.18 AF/ac value was calculated based on a hypothetical 640-acre development in Buckeye, considering [precipitation](#), evaporation and [runoff coefficients](#) for different uses.

Potential Water Savings Under Ag-to-Urban Legislation

SB 1172, HB 2647

Key Point 1: Continued farming of IGFRs uses significant amounts of groundwater, even when accounting for incidental recharge from irrigation.

IGFR Allocation and Incidental Recharge

	Phoenix AMA	Pinal AMA	Tucson AMA	Avg Across the AMAs
Avg IGFR Water Allotment ¹	4.63 AF/ac	3.54 AF/ac	4.50 AF/ac	3.97 AF/ac
Avg Incidental Recharge ²	1.39 AF/ac	1.06 AF/ac	1.35 AF/ac	1.19 AF/ac
Effective <u>Unreplenished</u> Groundwater Use ³	3.24 AF/ac	2.48 AF/ac	3.15 AF/ac	2.78 AF/ac

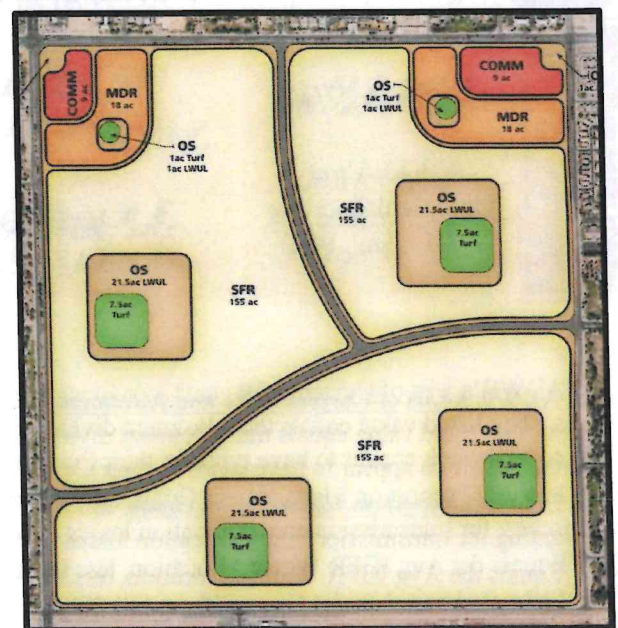
Key Point 2: Ag-to-Urban uses less water, would require 100% replenishment through CAGR, and would allow additional water sources to be captured.

Ag-to-Urban PAC and Recharge Data

PAC per Irrigation Acre	CAGR Obligation	Effective Groundwater Use
2.1 AF/ac	100%	0 AF/ac

Additional Water Sources Captured

Effluent ⁴	0.84 AF/ac
Increased Rainwater Capture ⁵	0.18 AF/ac



AF/ac data for capture of precipitation through stormwater retention and drywells calculated based on a 640-acre conceptual land use plan using historic precipitation and Buckeye runoff coefficient values.