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Acting Manager, Water Quality Division  
Arizona Department of Environmental Quality  
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Phoenix, AZ 85007

Water Quality

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Docket No. W-01303A-02-0908

May 10, 2005

Arizona Corporation Commission  
DOCKETED

MAY 18 2005

RE: Request for an Exemption from the new arsenic MCL for Arizona  
American Water Company-Tubac, PWS 12001

DOCKETED BY [Signature]

Dear Mr. Graf:

Arizona American Water (the Company) is submitting the following to document that the Company meets the requirements listed under A.A.C. R18-4-111. This submittal is in response to Mr. Jeff Stuck's April 4, 2005, letter regarding an arsenic exemption for the Arizona American Water Company -Tubac public water system.

- 1. The public water system is unable to comply with a MCL or treatment technique requirement because of compelling factors (which may include economic factors).

Arizona American Water and its Tubac water district customers demonstrate herein to the Department the existence of compelling long-term negative economic factors from meeting the new arsenic MCL in Tubac

The Company and its customers believe the requested exemption is necessary to either avoid or mitigate the compelling long-term negative economic factors discussed below. If as a result of obtaining the exemption period, a cheaper alternative can be substituted, then the exemption will have been worth it. If, alternatively, it is discovered that it is not technically possible to avoid or significantly mitigate the compelling negative economic factors at least all participants will know that a serious effort was undertaken in this regard.

On April 15, 2005, the Company filed testimony and schedules at the Arizona Corporation Commission (ACC) containing cost and rate estimates of removing arsenic in Tubac. As the Department knows, construction of the central treatment option is on hold while the Department considers this application. However, if the

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central treatment option is ultimately completed as estimated, it will require an initial average residential surcharge of \$71.47 per month per customer in Tubac. The present average monthly bill in Tubac is \$53.39. Therefore, new average water bills totaling \$124.86 per month in Tubac are likely. The bills of individual customers will either be higher or lower depending on their water consumption in comparison to the average per customer residential consumption of 13,177 gallons per month in 2004 in Tubac.

The Company estimates that the initial average monthly residential surcharge will be \$18.06 in Havasu, \$8.97 in Sun City West, and \$5.61 in Agua Fria water districts - each a significantly lower impact. The Company is not aware of any arsenic removal project in Arizona in design, construction or operation that will result in a monthly increase comparable to that estimated for Tubac.

The 2000 U.S. Census presents Tubac's annual pre-tax *median* household income as \$39,444. This figure for Arizona as a whole was \$40,558 and was \$40,762 in 2003, suggesting little change since 2000. The "household" as defined by the U.S. Bureau of the Census is the demographic unit that most closely aligns with the housing unit served by a connected water meter.

The estimated annual average impact on Tubac households from the water bill surcharge expressed as a percent of annual median household income in Tubac is 2.2% ( $\$71.47 \times 12$  divided by \$39,444). This means that, on average, each household in Tubac must newly allocate 2.2% of its household income solely to pay for removing arsenic to the new standard.

Total water bills including arsenic removal in Tubac will require 3.8% of pre-tax household income. This is a demonstrable long-term compelling negative impact.

Tubac residents are participating in public processes regarding this project at high levels unlike other communities and commensurate with this demonstrated economic impact. Residents have also indicated they need longer advance notice to prepare for the rate impact associated with the new arsenic standard.

In the Company's Havasu district, the arsenic surcharge as a percent of median household income is 0.6% and public concern and participation to-date is but a fraction of that in Tubac, a community one-third the size of Havasu.

Only 39.4% of people in Tubac participated in the labor force in 2000 as 35.3% of people in Tubac are 65 years or older as compared to a state wide average of 13%. It is very likely a high percentage of Tubac's retiree residents are living on fixed or semi-fixed incomes.

While the housing data indicates the presence of a relatively affluent minority in Tubac, a number of these affluent households have recently sunk exempt wells

which will exacerbate the arsenic cost problem for those less affluent customers remaining on the system. As of April 8, 2005, ADWR identified 12 to 14 wells drilled since November 2003. The Company for the first time publicly announced the potential future Tubac water rate increase in October 2003. Anecdotal data suggest at least that many more wells are pending drilling at this time. And this level of drilling is happening nearly 12 months prior to the arsenic related rate increase in Tubac. The Company cannot predict how many customers may drill wells.

The cost and rate estimates described above do not take into account the loss of any high-water-use households switching to new, private wells.

**2. The exemption will not result in an unreasonable risk to human health.**

In order to demonstrate that the exemption for an additional year will not result in an unreasonable risk to human health, Arizona American Water underscores the fact that EPA delayed the implementation date of the arsenic standard until 2006, the EPA health based risk assessment is based on consumption of two liters per day for a 70 year period, and the health risk from the exemption will be identical to that faced historically in Tubac with the EPA MCL of 50 ppb.

**3. The water system is unable to make management or restructuring changes that will result in compliance with the MCL**

Arizona American Water does not control all aspects of management. As a private regulated utility we are unable to set our water rates as to recover the costs of this project. The Arizona State Constitution grants the authority to set water rates solely to the ACC. The Company is unable to make management or restructuring changes which guarantee the recovery for arsenic treatment. In addition, there are similar past projects with a high level of public opposition, that resulted in the Company being unable to recover its costs and which have set precedence.

**4. The water system is taking all practical steps to meet the MCL and cannot complete capital improvements before the effective date of the MCL.**

Arizona American Water used the Arizona Arsenic Master Plan (AMP) to determine which treatment option would be the best for the Tubac system. The AMP directed water systems that serve more than 150 service connections to install centralized treatment due to individual POU devices being cost prohibitive. Arizona American Water followed this guidance document, and based on cost estimates in the AMP, determined that Granular Iron Media (GIM) at a centralized location would be the most affordable and technically sound treatment option for Tubac. Arizona American Water moved forward with this implementation plan and notified the Tubac community of the treatment decision in October 18, 2004. Since that time, Arizona American has received a great deal of public protest to the centralized GIM treatment plant and public demand for an alternate treatment technique due to the

high cost of the centralized treatment. Due to the public protest, the Company has delayed the construction of the Tubac GIM treatment facility.

The Tubac community has researched the POU treatment alternative and is in favor of installing POU devices. Arizona American Water is willing to continue to look into this alternative, however, the Company cannot make a solid cost estimate nor a compliance determination on whether or not POU devices would be a viable option due to the lack of a guidance documents from EPA and ADEQ on the compliance issues related to POU devices. An exemption will allow ADEQ time to provide additional necessary guidance.

The Company is unable to make a cost/compliance determination on the use of POU option due following questions remaining unanswered.

- a) How many POU devices and/or compliance points of use will be required for each residential a customer? For example, will a single unit under the kitchen sink be sufficient to meet compliance?
- b) What are the requirements for commercial water customers, specifically retail shops, restaurants, hotels and resorts?
- c) Is every customer required to have a POU device for the system to be in compliance with the arsenic rule?
- d) Would every POU device be required to be installed by the January 2006 deadline?
- e) Will existing RO devices be required to be removed and replaced with NSF approved devices?
- f) What kind of sampling on the POU devices would be required?
- g) What are the timeframes for sampling the POU devices?
- h) What type of maintenance is required on POU devices
- i) What frequency of maintenance would be required on the POU devices?
- j) What specific requirements would there be on seasonal visitors to the area?
- k) If customers refuse to allow a POU in their home, what are the Company's options?
- l) What are the technical requirements on a POU (alerts, alarms, etc.) to make it an approved device?

- m) If a customer has multiple use points from a single unit, such as at the kitchen sink and also the refrigerator/ice maker, are compliance samples required for each point? Would the Company be required to maintain the refrigerator/ice maker connection?

Arizona American Water is anxious to meet the January 2006 deadline for compliance with the new arsenic standard, and is also anxious to review the POU guidance documents from EPA or ADEQ. We anticipate that with each day we delay construction due to the remaining unanswered POU compliance questions, which prohibits us from being able to determine if POU is a viable option, we will not meet the January 2006 deadline.

**5. The water system needs financial assistance for necessary capital improvements and has entered into an agreement to obtain the financial assistance.**

Arizona American Water is unable to finance the Tubac project on its own and has completed financial assistance applications from its own parent company. The parent company is requiring a high degree of assurance of cost recovery in rates for the investment, which as you are aware, is not under Arizona American Water control.

**6. Time frame and detailed steps that result in compliance with the arsenic MCL by January 23, 2007.**

- a) Within 60 days of ADEQ publishing guidance for POU, the Company will determine if POU are a viable option for Tubac.
- b) If the Company determines POU to be best treatment, within six months of determination the Company will contract with a vendor/consultant and if required, submit an application for Approval to Construct (ATC) to ADEQ.
- c) If the Company determines POU is not the best treatment, within six months the Company will submit an application for ATC for centralized treatment to ADEQ.
- d) Within three months of ADEQ issuing an ATC, the Company will begin construction/installation of treatment (centralized/POU).
- e) By 12/31/06, the Company will have completed all construction/installation and will submit an application for Approval of Construction to ADEQ.

May 10, 2005

Tubac Exemption Request

Page 6 of 6

Arizona American Water appreciates the opportunity to submit this exemption request and will make additional information available upon request. If you have any questions about this request please contact me at (623) 445-2406.

Sincerely,



Nina Miller

Environmental Compliance Manager  
Arizona American Water Company

Enclosures

cc: Troy Day, AAW w/out enclosures  
Brian Biesemeyer, AAW w/out enclosures  
Tom Broderick, AAW w/out enclosures  
~~Gay Brasher, Santa Cruz Valley Citizens Council~~  
Facility File: 04-12-001 Tubac Drinking Water



FACT SHEET

✓ **Tubac CDP, Arizona**

**Census 2000 Demographic Profile Highlights:**

**General Characteristics - show more >>**

	Number	Percent	U.S.		
Total population	949	100.0	100%	map	brief
Male	456	48.1	49.1%	map	brief
Female	493	51.9	50.9%	map	brief
Median age (years)	58.5	(X)	35.3	map	brief
Under 5 years	27	2.8	6.8%	map	
18 years and over	832	87.7	74.3%		
65 years and over	334	35.2	12.4%	map	brief
One race	942	99.3	97.6%		
White	842	88.7	75.1%	map	brief
Black or African American	0	0.0	12.3%	map	brief
American Indian and Alaska Native	11	1.2	0.9%	map	brief
Asian	4	0.4	3.6%	map	brief
Native Hawaiian and Other Pacific Islander	0	0.0	0.1%	map	brief
Some other race	85	9.0	5.5%	map	
Two or more races	7	0.7	2.4%	map	brief
Hispanic or Latino (of any race)	173	18.2	12.5%	map	brief
Average household size	1.97	(X)	2.59	map	brief
Average family size	2.45	(X)	3.14	map	
Total housing units	569	100.0	100.0%	map	
Occupied housing units	481	84.5	91.0%		brief
Owner-occupied housing units	414	86.1	66.2%	map	
Renter-occupied housing units	67	13.9	33.8%	map	brief
Vacant housing units	88	15.5	9.0%	map	

**Social Characteristics - show more >>**

	Number	Percent	U.S.		
Population 25 years and over	723	100.0			
High school graduate or higher	635	87.8	80.4%	map	brief
Bachelor's degree or higher	295	40.8	24.4%	map	
Civilian veterans (civilian population 18 years and over)	181	24.2	12.7%	map	brief
Disability status (population 21 to 64 years)	49	14.0	19.2%	map	brief
Foreign born	15	1.8	11.1%	map	brief
Now married (population 15 years and over)	565	71.3	54.4%		brief
Speak a language other than English at home (5 years and over)	158	19.0	17.9%	map	brief

**Economic Characteristics - show more >>**

	Number	Percent	U.S.		
In labor force (population 16 years and over)	304	39.4	63.9%		brief
Mean travel time to work in minutes (population 16 years and over)	19.1	(X)	25.5	map	brief
Median household income (dollars)	39,444	(X)	41,994	map	
Median family income (dollars)	59,375	(X)	50,046	map	
Per capita income (dollars)	46,643	(X)	21,587	map	
Families below poverty level	6	2.1	9.2%	map	brief
Individuals below poverty level	56	6.6	12.4%	map	

**Housing Characteristics - show more >>**

	Number	Percent	U.S.		
Single-family owner-occupied homes	358	100.0			brief
Median value (dollars)	193,000	(X)	119,600	map	brief
Median of selected monthly owner costs	(X)	(X)			brief
With a mortgage	1,159	(X)	1,088	map	
Not mortgaged	319	(X)	295		

(X) Not applicable.



**DP-3. Profile of Selected Economic Characteristics: 2000**  
 Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data  
 Geographic Area: Tubac CDP, Arizona

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>		
Population 16 years and over	771	100.0
In labor force	304	39.4
Civilian labor force	304	39.4
Employed	295	38.3
Unemployed	9	1.2
Percent of civilian labor force	3.0	(X)
Armed Forces	0	0.0
Not in labor force	467	60.6
<b>Females 16 years and over</b>		
Population 16 years and over	424	100.0
In labor force	114	26.9
Civilian labor force	114	26.9
Employed	114	26.9
<b>Own children under 6 years</b>		
Population 0 to 6 years	21	100.0
All parents in family in labor force	11	52.4
<b>COMMUTING TO WORK</b>		
Workers 16 years and over	295	100.0
Car, truck, or van -- drove alone	173	58.6
Car, truck, or van -- carpooled	30	10.2
Public transportation (including taxicab)	0	0.0
Walked	20	6.8
Other means	9	3.1
Worked at home	63	21.4
Mean travel time to work (minutes)	19.1	(X)
<b>Employed civilian population 16 years and over</b>		
Population	295	100.0
<b>OCCUPATION</b>		
Management, professional, and related occupations	98	33.2
Service occupations	17	5.8
Sales and office occupations	146	49.5
Farming, fishing, and forestry occupations	0	0.0
Construction, extraction, and maintenance occupations	25	8.5
Production, transportation, and material moving occupations	9	3.1
<b>INDUSTRY</b>		
Agriculture, forestry, fishing and hunting, and mining	15	5.1
Construction	31	10.5
Manufacturing	19	6.4
Wholesale trade	7	2.4
Retail trade	68	23.1
Transportation and warehousing, and utilities	0	0.0
Information	18	6.1
Finance, insurance, real estate, and rental and leasing	41	13.9
Professional, scientific, management, administrative, and waste management services	28	9.5
Educational, health and social services	16	5.4

Subject	Number	Percent
Arts, entertainment, recreation, accommodation and food services	32	10.8
Other services (except public administration)	0	0.0
Public administration	20	6.8
<b>CLASS OF WORKER</b>		
Private wage and salary workers	138	46.8
Government workers	45	15.3
Self-employed workers in own not incorporated business	112	38.0
Unpaid family workers	0	0.0
<b>INCOME IN 1999</b>		
<b>Households</b>	<b>418</b>	<b>100.0</b>
Less than \$10,000	38	9.1
\$10,000 to \$14,999	41	9.8
\$15,000 to \$24,999	57	13.6
\$25,000 to \$34,999	58	13.9
\$35,000 to \$49,999	48	11.5
\$50,000 to \$74,999	34	8.1
\$75,000 to \$99,999	40	9.6
\$100,000 to \$149,999	61	14.6
\$150,000 to \$199,999	0	0.0
\$200,000 or more	41	9.8
Median household income (dollars)	39,444	(X)
<b>With earnings</b>	<b>264</b>	<b>63.2</b>
Mean earnings (dollars)	101,399	(X)
<b>With Social Security income</b>	<b>226</b>	<b>54.1</b>
Mean Social Security income (dollars)	13,025	(X)
<b>With Supplemental Security Income</b>	<b>0</b>	<b>0.0</b>
Mean Supplemental Security Income (dollars)	(X)	(X)
<b>With public assistance income</b>	<b>8</b>	<b>1.9</b>
Mean public assistance income (dollars)	4,900	(X)
<b>With retirement income</b>	<b>121</b>	<b>28.9</b>
Mean retirement income (dollars)	11,113	(X)
<b>Families</b>	<b>285</b>	<b>100.0</b>
Less than \$10,000	6	2.1
\$10,000 to \$14,999	11	3.9
\$15,000 to \$24,999	15	5.3
\$25,000 to \$34,999	52	18.2
\$35,000 to \$49,999	48	16.8
\$50,000 to \$74,999	34	11.9
\$75,000 to \$99,999	32	11.2
\$100,000 to \$149,999	46	16.1
\$150,000 to \$199,999	0	0.0
\$200,000 or more	41	14.4
Median family income (dollars)	59,375	(X)
Per capita income (dollars)	46,643	(X)
<b>Median earnings (dollars):</b>		
Male full-time, year-round workers	36,528	(X)
Female full-time, year-round workers	30,268	(X)
<b>POVERTY STATUS IN 1999 (below poverty level)</b>		
<b>Families</b>	<b>6</b>	<b>(X)</b>
Percent below poverty level	(X)	2.1
<b>With related children under 18 years</b>	<b>0</b>	<b>(X)</b>
Percent below poverty level	(X)	0.0
<b>With related children under 5 years</b>	<b>0</b>	<b>(X)</b>
Percent below poverty level	(X)	0.0
<b>Families with female householder, no husband present</b>	<b>0</b>	<b>(X)</b>
Percent below poverty level	(X)	0.0

Subject	Number	Percent
With related children under 18 years	0	(X)
Percent below poverty level	(X)	(X)
With related children under 5 years	0	(X)
Percent below poverty level	(X)	(X)
<b>Individuals</b>	<b>56</b>	<b>(X)</b>
Percent below poverty level	(X)	6.6
18 years and over	51	(X)
Percent below poverty level	(X)	6.8
65 years and over	30	(X)
Percent below poverty level	(X)	7.9
Related children under 18 years	0	(X)
Percent below poverty level	(X)	0.0
Related children 5 to 17 years	0	(X)
Percent below poverty level	(X)	0.0
Unrelated individuals 15 years and over	43	(X)
Percent below poverty level	(X)	28.1

(X) Not applicable.

[Detailed Occupation Code List \(PDF 42KB\)](#)

[Detailed Industry Code List \(PDF 44KB\)](#)

[User note on employment status data \(PDF 63KB\)](#)

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P30, P32, P33, P43, P46, P49, P50, P51, P52, P53, P58, P62, P63, P64, P65, P67, P71, P72, P73, P74, P76, P77, P82, P87, P90, PCT47, PCT52, and PCT53



**DP-4. Profile of Selected Housing Characteristics: 2000**  
 Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data  
 Geographic Area: Tubac CDP, Arizona

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

Subject	Number	Percent
<b>Total housing units</b>	<b>551</b>	<b>100.0</b>
<b>UNITS IN STRUCTURE</b>		
1-unit, detached	482	87.5
1-unit, attached	17	3.1
2 units	0	0.0
3 or 4 units	15	2.7
5 to 9 units	0	0.0
10 to 19 units	0	0.0
20 or more units	0	0.0
Mobile home	27	4.9
Boat, RV, van, etc.	10	1.8
<b>YEAR STRUCTURE BUILT</b>		
1999 to March 2000	8	1.5
1995 to 1998	43	7.8
1990 to 1994	63	11.4
1980 to 1989	139	25.2
1970 to 1979	145	26.3
1960 to 1969	74	13.4
1940 to 1959	47	8.5
1939 or earlier	32	5.8
<b>ROOMS</b>		
1 room	14	2.5
2 rooms	40	7.3
3 rooms	10	1.8
4 rooms	51	9.3
5 rooms	122	22.1
6 rooms	110	20.0
7 rooms	128	23.2
8 rooms	54	9.8
9 or more rooms	22	4.0
Median (rooms)	5.9	(X)
<b>Occupied Housing Units</b>	<b>455</b>	<b>100.0</b>
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>		
1999 to March 2000	22	4.8
1995 to 1998	151	33.2
1990 to 1994	85	18.7
1980 to 1989	85	18.7
1970 to 1979	63	13.8
1969 or earlier	49	10.8
<b>VEHICLES AVAILABLE</b>		
None	42	9.2
1	129	28.4
2	200	44.0
3 or more	84	18.5

Subject	Number	Percent
<b>HOUSE HEATING FUEL</b>		
Utility gas	223	49.0
Bottled, tank, or LP gas	104	22.9
Electricity	128	28.1
Fuel oil, kerosene, etc.	0	0.0
Coal or coke	0	0.0
Wood	0	0.0
Solar energy	0	0.0
Other fuel	0	0.0
No fuel used	0	0.0
<b>SELECTED CHARACTERISTICS</b>		
Lacking complete plumbing facilities	0	0.0
Lacking complete kitchen facilities	0	0.0
No telephone service	10	2.2
<b>OCCUPANTS PER ROOM</b>		
<b>Occupied housing units</b>		
	<b>455</b>	<b>100.0</b>
1.00 or less	445	97.8
1.01 to 1.50	10	2.2
1.51 or more	0	0.0
<b>Specified owner-occupied units</b>		
	<b>358</b>	<b>100.0</b>
<b>VALUE</b>		
Less than \$50,000	7	2.0
\$50,000 to \$99,999	26	7.3
\$100,000 to \$149,999	107	29.9
\$150,000 to \$199,999	48	13.4
\$200,000 to \$299,999	80	22.3
\$300,000 to \$499,999	75	20.9
\$500,000 to \$999,999	7	2.0
\$1,000,000 or more	8	2.2
Median (dollars)	193,000	(X)
<b>MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS</b>		
<b>With a mortgage</b>		
	<b>168</b>	<b>46.9</b>
Less than \$300	0	0.0
\$300 to \$499	8	2.2
\$500 to \$699	18	5.0
\$700 to \$999	32	8.9
\$1,000 to \$1,499	41	11.5
\$1,500 to \$1,999	43	12.0
\$2,000 or more	26	7.3
Median (dollars)	1,159	(X)
<b>Not mortgaged</b>		
	<b>190</b>	<b>53.1</b>
Median (dollars)	319	(X)
<b>SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999</b>		
Less than 15 percent	187	52.2
15 to 19 percent	63	17.6
20 to 24 percent	16	4.5
25 to 29 percent	16	4.5
30 to 34 percent	24	6.7
35 percent or more	42	11.7
Not computed	10	2.8
<b>Specified renter-occupied units</b>		
	<b>21</b>	<b>100.0</b>
<b>GROSS RENT</b>		
Less than \$200	0	0.0
\$200 to \$299	0	0.0
\$300 to \$499	0	0.0
\$500 to \$749	0	0.0

Subject	Number	Percent
\$750 to \$999	6	28.6
\$1,000 to \$1,499	7	33.3
\$1,500 or more	0	0.0
No cash rent	8	38.1
Median (dollars)	1,018	(X)
<b>GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999</b>		
Less than 15 percent	0	0.0
15 to 19 percent	0	0.0
20 to 24 percent	7	33.3
25 to 29 percent	0	0.0
30 to 34 percent	0	0.0
35 percent or more	6	28.6
Not computed	8	38.1

(X) Not applicable.

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices H1, H7, H20, H23, H24, H30, H34, H38, H40, H43, H44, H48, H51, H62, H63, H69, H74, H76, H90, H91, and H94



## U.S. Census Bureau

### American FactFinder

#### FACT SHEET

### Arizona

#### Census 2000 Demographic Profile Highlights:

##### General Characteristics - show more >>

	Number	Percent	U.S.		
Total population	5,130,632	100.0	100%	map	brief
Male	2,561,057	49.9	49.1%	map	brief
Female	2,569,575	50.1	50.9%	map	brief
Median age (years)	34.2	(X)	35.3	map	brief
Under 5 years	382,386	7.5	6.8%	map	
18 years and over	3,763,685	73.4	74.3%		
65 years and over	667,839	13.0	12.4%	map	brief
One race	4,984,106	97.1	97.6%		
White	3,873,611	75.5	75.1%	map	brief
Black or African American	158,873	3.1	12.3%	map	brief
American Indian and Alaska Native	255,879	5.0	0.9%	map	brief
Asian	92,236	1.8	3.6%	map	brief
Native Hawaiian and Other Pacific Islander	6,733	0.1	0.1%	map	brief
Some other race	596,774	11.6	5.5%	map	
Two or more races	146,526	2.9	2.4%	map	brief
Hispanic or Latino (of any race)	1,295,617	25.3	12.5%	map	brief
Average household size	2.64	(X)	2.59	map	brief
Average family size	3.18	(X)	3.14	map	
Total housing units	2,189,189	100.0	100.0%	map	
Occupied housing units	1,901,327	86.9	91.0%		brief
Owner-occupied housing units	1,293,556	68.0	66.2%	map	
Renter-occupied housing units	607,771	32.0	33.8%	map	brief
Vacant housing units	287,862	13.1	9.0%	map	

##### Social Characteristics - show more >>

	Number	Percent	U.S.		
Population 25 years and over	3,256,184	100.0			
High school graduate or higher	2,636,637	81.0	80.4%	map	brief
Bachelor's degree or higher	766,212	23.5	24.4%	map	
Civilian veterans (civilian population 18 years and over)	562,916	15.0	12.7%	map	brief
Disability status (population 21 to 64 years)	546,773	19.4	19.2%	map	brief
Foreign born	656,183	12.8	11.1%	map	brief
Now married (population 15 years and over)	2,188,689	55.0	54.4%		brief
Speak a language other than English at home (5 years and over)	1,229,237	25.9	17.9%	map	brief

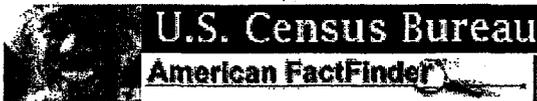
##### Economic Characteristics - show more >>

	Number	Percent	U.S.		
In labor force (population 16 years and over)	2,387,139	61.1	63.9%		brief
Mean travel time to work in minutes (population 16 years and over)	24.9	(X)	25.5	map	brief
Median household income (dollars)	40,558	(X)	41,994	map	
Median family income (dollars)	46,723	(X)	50,046	map	
Per capita income (dollars)	20,275	(X)	21,587	map	
Families below poverty level	128,318	9.9	9.2%	map	brief
Individuals below poverty level	698,669	13.9	12.4%	map	

##### Housing Characteristics - show more >>

	Number	Percent	U.S.		
Single-family owner-occupied homes	1,032,103	100.0			brief
Median value (dollars)	121,300	(X)	119,600	map	brief
Median of selected monthly owner costs	(X)	(X)			brief
With a mortgage	1,039	(X)	1,088	map	
Not mortgaged	268	(X)	295		

(X) Not applicable.



**DP-3. Profile of Selected Economic Characteristics: 2000**  
 Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data  
 Geographic Area: Arizona

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

Subject	Number	Percent
<b>EMPLOYMENT STATUS</b>		
<b>Population 16 years and over</b>	<b>3,907,229</b>	<b>100.0</b>
In labor force	2,387,139	61.1
Civilian labor force	2,366,372	60.6
Employed	2,233,004	57.2
Unemployed	133,368	3.4
Percent of civilian labor force	5.6	(X)
Armed Forces	20,767	0.5
Not in labor force	1,520,090	38.9
<b>Females 16 years and over</b>	<b>1,977,757</b>	<b>100.0</b>
In labor force	1,074,588	54.3
Civilian labor force	1,071,563	54.2
Employed	1,011,126	51.1
<b>Own children under 6 years</b>	<b>429,041</b>	<b>100.0</b>
All parents in family in labor force	229,045	53.4
<b>COMMUTING TO WORK</b>		
<b>Workers 16 years and over</b>	<b>2,210,395</b>	<b>100.0</b>
Car, truck, or van -- drove alone	1,638,752	74.1
Car, truck, or van -- carpoled	340,447	15.4
Public transportation (including taxicab)	41,105	1.9
Walked	58,015	2.6
Other means	50,918	2.3
Worked at home	81,158	3.7
Mean travel time to work (minutes)	24.9	(X)
<b>Employed civilian population 16 years and over</b>	<b>2,233,004</b>	<b>100.0</b>
<b>OCCUPATION</b>		
Management, professional, and related occupations	730,001	32.7
Service occupations	362,547	16.2
Sales and office occupations	636,970	28.5
Farming, fishing, and forestry occupations	13,893	0.6
Construction, extraction, and maintenance occupations	245,578	11.0
Production, transportation, and material moving occupations	244,015	10.9
<b>INDUSTRY</b>		
Agriculture, forestry, fishing and hunting, and mining	32,676	1.5
Construction	193,464	8.7
Manufacturing	228,590	10.2
Wholesale trade	73,441	3.3
Retail trade	273,864	12.3
Transportation and warehousing, and utilities	111,186	5.0
Information	62,577	2.8
Finance, insurance, real estate, and rental and leasing	175,311	7.9
Professional, scientific, management, administrative, and waste management services	229,660	10.3
Educational, health and social services	402,183	18.0

Subject	Number	Percent
Arts, entertainment, recreation, accommodation and food services	225,129	10.1
Other services (except public administration)	103,305	4.6
Public administration	121,618	5.4
<b>CLASS OF WORKER</b>		
Private wage and salary workers	1,743,777	78.1
Government workers	339,554	15.2
Self-employed workers in own not incorporated business	143,564	6.4
Unpaid family workers	6,109	0.3
<b>INCOME IN 1999</b>		
<b>Households</b>	<b>1,901,625</b>	<b>100.0</b>
Less than \$10,000	163,221	8.6
\$10,000 to \$14,999	120,770	6.4
\$15,000 to \$24,999	264,392	13.9
\$25,000 to \$34,999	265,645	14.0
\$35,000 to \$49,999	332,857	17.5
\$50,000 to \$74,999	365,024	19.2
\$75,000 to \$99,999	184,026	9.7
\$100,000 to \$149,999	131,068	6.9
\$150,000 to \$199,999	35,926	1.9
\$200,000 or more	38,696	2.0
Median household income (dollars)	40,558	(X)
<b>With earnings</b>	<b>1,496,606</b>	<b>78.7</b>
Mean earnings (dollars)	52,835	(X)
<b>With Social Security income</b>	<b>515,892</b>	<b>27.1</b>
Mean Social Security income (dollars)	11,955	(X)
<b>With Supplemental Security Income</b>	<b>69,281</b>	<b>3.6</b>
Mean Supplemental Security Income (dollars)	6,529	(X)
<b>With public assistance income</b>	<b>54,645</b>	<b>2.9</b>
Mean public assistance income (dollars)	2,596	(X)
<b>With retirement income</b>	<b>351,587</b>	<b>18.5</b>
Mean retirement income (dollars)	18,248	(X)
<b>Families</b>	<b>1,296,593</b>	<b>100.0</b>
Less than \$10,000	73,164	5.6
\$10,000 to \$14,999	57,940	4.5
\$15,000 to \$24,999	157,508	12.1
\$25,000 to \$34,999	171,160	13.2
\$35,000 to \$49,999	234,708	18.1
\$50,000 to \$74,999	279,982	21.6
\$75,000 to \$99,999	149,831	11.6
\$100,000 to \$149,999	109,198	8.4
\$150,000 to \$199,999	30,271	2.3
\$200,000 or more	32,831	2.5
Median family income (dollars)	46,723	(X)
Per capita income (dollars)	20,275	(X)
<b>Median earnings (dollars):</b>		
Male full-time, year-round workers	35,184	(X)
Female full-time, year-round workers	26,777	(X)
<b>POVERTY STATUS IN 1999 (below poverty level)</b>		
<b>Families</b>	<b>128,318</b>	<b>(X)</b>
Percent below poverty level	(X)	9.9
<b>With related children under 18 years</b>	<b>102,378</b>	<b>(X)</b>
Percent below poverty level	(X)	15.2
<b>With related children under 5 years</b>	<b>56,623</b>	<b>(X)</b>
Percent below poverty level	(X)	19.3
<b>Families with female householder, no husband present</b>	<b>52,017</b>	<b>(X)</b>
Percent below poverty level	(X)	25.8

Subject	Number	Percent
With related children under 18 years	46,150	(X)
Percent below poverty level	(X)	32.1
With related children under 5 years	23,205	(X)
Percent below poverty level	(X)	43.7
<b>Individuals</b>	<b>698,669</b>	<b>(X)</b>
Percent below poverty level	(X)	13.9
18 years and over	440,959	(X)
Percent below poverty level	(X)	12.0
65 years and over	54,737	(X)
Percent below poverty level	(X)	8.4
Related children under 18 years	249,327	(X)
Percent below poverty level	(X)	18.8
Related children 5 to 17 years	170,524	(X)
Percent below poverty level	(X)	17.8
Unrelated individuals 15 years and over	203,211	(X)
Percent below poverty level	(X)	22.4

(X) Not applicable.

[Detailed Occupation Code List \(PDF 42KB\)](#)

[Detailed Industry Code List \(PDF 44KB\)](#)

[User note on employment status data \(PDF 63KB\)](#)

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P30, P32, P33, P43, P46, P49, P50, P51, P52, P53, P58, P62, P63, P64, P65, P67, P71, P72, P73, P74, P76, P77, P82, P87, P90, PCT47, PCT52, and PCT53



**U.S. Census Bureau**  
**American FactFinder**

**DP-4. Profile of Selected Housing Characteristics: 2000**  
 Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data  
 Geographic Area: **Arizona**

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

Subject	Number	Percent
<b>Total housing units</b>	<b>2,189,189</b>	<b>100.0</b>
<b>UNITS IN STRUCTURE</b>		
1-unit, detached	1,244,172	56.8
1-unit, attached	131,317	6.0
2 units	31,947	1.5
3 or 4 units	75,288	3.4
5 to 9 units	82,205	3.8
10 to 19 units	81,462	3.7
20 or more units	212,836	9.7
Mobile home	302,575	13.8
Boat, RV, van, etc.	27,387	1.3
<b>YEAR STRUCTURE BUILT</b>		
1999 to March 2000	111,389	5.1
1995 to 1998	299,679	13.7
1990 to 1994	230,230	10.5
1980 to 1989	540,122	24.7
1970 to 1979	517,059	23.6
1960 to 1969	231,071	10.6
1940 to 1959	210,845	9.6
1939 or earlier	48,794	2.2
<b>ROOMS</b>		
1 room	71,102	3.2
2 rooms	152,582	7.0
3 rooms	268,102	12.2
4 rooms	382,355	17.5
5 rooms	473,455	21.6
6 rooms	382,459	17.5
7 rooms	236,466	10.8
8 rooms	131,384	6.0
9 or more rooms	91,284	4.2
Median (rooms)	5.0	(X)
<b>Occupied Housing Units</b>	<b>1,901,327</b>	<b>100.0</b>
<b>YEAR HOUSEHOLDER MOVED INTO UNIT</b>		
1999 to March 2000	509,759	26.8
1995 to 1998	630,852	33.2
1990 to 1994	307,916	16.2
1980 to 1989	254,383	13.4
1970 to 1979	128,265	6.7
1969 or earlier	70,152	3.7
<b>VEHICLES AVAILABLE</b>		
None	140,579	7.4
1	734,414	38.6
2	742,322	39.0
3 or more	284,012	14.9

Subject	Number	Percent
<b>HOUSE HEATING FUEL</b>		
Utility gas	712,868	37.5
Bottled, tank, or LP gas	98,536	5.2
Electricity	1,033,095	54.3
Fuel oil, kerosene, etc.	1,813	0.1
Coal or coke	993	0.1
Wood	39,842	2.1
Solar energy	1,226	0.1
Other fuel	2,642	0.1
No fuel used	10,312	0.5
<b>SELECTED CHARACTERISTICS</b>		
Lacking complete plumbing facilities	21,088	1.1
Lacking complete kitchen facilities	20,999	1.1
No telephone service	70,321	3.7
<b>OCCUPANTS PER ROOM</b>		
Occupied housing units	1,901,327	100.0
1.00 or less	1,737,864	91.4
1.01 to 1.50	83,126	4.4
1.51 or more	80,337	4.2
Specified owner-occupied units	1,032,103	100.0
<b>VALUE</b>		
Less than \$50,000	50,181	4.9
\$50,000 to \$99,999	317,145	30.7
\$100,000 to \$149,999	316,724	30.7
\$150,000 to \$199,999	156,722	15.2
\$200,000 to \$299,999	115,491	11.2
\$300,000 to \$499,999	53,773	5.2
\$500,000 to \$999,999	17,196	1.7
\$1,000,000 or more	4,871	0.5
Median (dollars)	121,300	(X)
<b>MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS</b>		
With a mortgage	773,328	74.9
Less than \$300	4,286	0.4
\$300 to \$499	33,410	3.2
\$500 to \$699	93,950	9.1
\$700 to \$999	229,940	22.3
\$1,000 to \$1,499	262,470	25.4
\$1,500 to \$1,999	91,445	8.9
\$2,000 or more	57,827	5.6
Median (dollars)	1,039	(X)
Not mortgaged	258,775	25.1
Median (dollars)	268	(X)
<b>SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999</b>		
Less than 15 percent	359,216	34.8
15 to 19 percent	180,180	17.5
20 to 24 percent	147,807	14.3
25 to 29 percent	102,233	9.9
30 to 34 percent	65,802	6.4
35 percent or more	167,553	16.2
Not computed	9,312	0.9
Specified renter-occupied units	605,183	100.0
<b>GROSS RENT</b>		
Less than \$200	19,571	3.2
\$200 to \$299	21,664	3.6
\$300 to \$499	124,413	20.6
\$500 to \$749	234,646	38.8

Subject	Number	Percent
\$750 to \$999	111,043	18.3
\$1,000 to \$1,499	48,722	8.1
\$1,500 or more	12,207	2.0
No cash rent	32,917	5.4
Median (dollars)	619	(X)
<b>GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999</b>		
Less than 15 percent	95,354	15.8
15 to 19 percent	83,421	13.8
20 to 24 percent	79,363	13.1
25 to 29 percent	66,612	11.0
30 to 34 percent	47,066	7.8
35 percent or more	186,727	30.9
Not computed	46,640	7.7

(X) Not applicable.

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices H1, H7, H20, H23, H24, H30, H34, H38, H40, H43, H44, H48, H51, H62, H63, H69, H74, H76, H90, H91, and H94

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 CITY: Green Valley DATE 4-8-5 PAGE: 1 OF 1

# Many Tubac property owners drill 'exempt' wells to save costs

By Jim Lamb  
 Green Valley News

Facing higher costs for water, some Tubac-area property owners have drilled so-called "exempt" wells to help meet their needs.

So far 12 to 14 such wells have been drilled since last November, said the area director of the Arizona Department of Water Resources.

No permit is needed to dig an exempt well, said Alejandro Barcenas, director of the department's Santa Cruz Active Management Area Friday.

Barcenas said he made the estimate by looking at the legal description of the well lo-

cations and comparing them to a map.

The wells are in and around the village of Tubac, a non-incorporated community.

Persons with legal rights to Santa Cruz River Valley water must get a permit and register their larger wells.

An exempt well is allowed to pump 85 gallons a minute or less. Generally, they're used for such things as non-commercial irrigation on two acres or less and for household uses according to the department.

About 60 exempt wells a year are drilled in the Santa Cruz Active Management Area.

The active management area generally consists of the

river valley from the border to just about the Pima County line.

Generally it costs about \$50 a foot to drill an exempt well. A registered driller must drill it.

If the well's going to be used for household uses, it must be tested periodically for safety.

Arizona American Water Co., the utility serving the Tubac area, has notified its users that rates will be going up sharply to cover the costs of removing or significantly reducing the arsenic level of the water it pumps.

There are about 520 Arizona American Water Co. customers in Tubac.

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