#### **CONSUMER CONFIDENCE REPORT**

Report Covers Calendar Year: January 1 - December 31, 2013 Este informe contiene información muy importante sobre el aqua usted bebe.

**Public Water System (PWS) Information** 

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PWS Name	Town of Wellt	Town of Wellton							
PWS ID #	AZ04-14-022	AZ04-14-022							
Owner / Operator	erator Name: Town of Wellton / Brandon Howard								
Telephone #	928-785-3348	928-785-3348         Fax #         928-785-4374         E-mail         Bhoward@town.wellton.az.us							
We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact Town Hall at <b>928-785-3348</b> for additional opportunities and meetings dates and times.									

#### **Drinking Water Sources**

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

Our water source(s):

Colorado River supplied by the Wellton-Mohawk Irrigation & Drainage District canal system

### **Drinking Water Contaminants**

<u>Microbial contaminants</u>, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

<u>Inorganic contaminants</u>, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

#### **Vulnerable Population**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

#### Source Water Assessment

Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a **low risk designation** for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ, 602-771-4641.

## **Definitions**

AL = Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

MCL = Maximum Contaminant Level - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MFL = Million fibers per liter.

MRDL = Maximum Residual Disinfectant Level.

MRDLG = Maximum Residual Disinfectant Level Goal.

MREM = Millirems per year – a measure of radiation absorbed by the body.

NA = Not Applicable, sampling was not completed by regulation or was not required.

ND = Not Detected, contaminant was not found or was below minimum reporting limits.

NTU = Nephelometric Turbidity Units, a measure of water clarity.

 $\underline{\text{PCi/L} = \text{Picocuries per liter}} \text{ - picocuries per liter is a measure of the radioactivity in water.}$ 

<u>PPM = Parts per million</u> or Milligrams per liter (mg/L).

<u>PPB = Parts per billion</u> or Micrograms per liter ( $\mu$ g/L).

ppm x 1000 = ppb

PPT = Parts per trillion or Nanograms per liter.

ppb x 1000 = ppt ppt x 1000 = ppq

PPQ = Parts per quadrillion or Picograms per liter.

TT = Treatment Technique - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

# Health Effects Language

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA *Safe Drinking Water Hotline* at 1,800,416,4701

**Trihalomethanes** (TTHM) Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

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Water Quality Data  Contaminant (units)	Violation Y/N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Absent (A) or Present (P) OR Range of All Samples (L-H)	MCL	MCLG	Sample Month/Year	Likely Source of Contamination
Microbiological					l		
Total Coliform Bacteria (System takes ≥ 40 monthly samples) 5% of monthly samples are positive; (System takes ≤ 40 monthly samples) 1 positive monthly sample	N	0	ABSENT	0	0	Continuous Monthly	Naturally Present in Environment
Fecal coliform and E. Coli (TC	N	0	ABSENT	0	0	N/A	Human and animal fecal waste
Rule) Total Organic Carbon (ppm)	N	2.9	2.2 – 2.9	TT	n/a	Monthly	Naturally present in the environment
Turbidity (NTU), surface water only	N	.412	.035412	TT	n/a	Continuous	Soil Runoff
Disinfectants							
Chlorine (ppm)	N	1.91	.23 – 1.91	MRDL = 4	MRDLG = 4	RRA	Water additive used to contro microbes
Disinfection By-Products				l .	<u>'</u>		
Haloacetic Acids (ppb) (HAA5)	N	RAA=.029	.012047	.060	n/a	Quarterly	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	Y	RAA=.256	.08767	.080	n/a	Quarterly	Byproduct of drinking water disinfection
Lead & Copper	1		1	T	T	ı	T
Copper (ppm)	N	90 <sup>th</sup> Percentile = .0039	.0039045	AL = 1.3	ALG = 1.3	8/20/2013	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	90 <sup>th</sup> Percentile = .0012	ND0012	AL = 15	0	8/20/2013	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	1		T .	ı	1	1	
Alpha emitters (pCi/L) Combined Radium 226 & 228 (pCi/L)	N N		1.4 +/- 1.0 ND	15 5	0	2/23/2010 2/23/2010	Erosion of natural deposits Erosion of natural deposits
Uranium (pCi/L)	N		1.6 +/- 0.6	30	0	2/23/2010	Erosion of natural deposits
Inorganics							
Antimony (ppb)	N		ND	6	6	2/23/2010	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic (ppb)	N		.002	10	0	2/23/2010	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N		ND	7	7	4/25/2007	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N		.11	2	2	2/23/2010	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N		ND	4	4	2/23/2010	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N		ND	5	5	2/23/2010	Corrosion of galvanized pipes, natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N		ND	100	100	2/23/2010	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N		ND	200	200	2/23/2010	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N		.34	4	4	2/23/2010	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

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Contaminant (units)	Violation Y/N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Absent (A) or Present (P) OR Range of All Samples (L-H)	MCL	MCLG	Sample Month/Year	Likely Source of Contamination	
Mercury (ppb)	N		ND	2	2	2/23/2010	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.	
Nitrate (ppm)	N		.30	10	10	02/16/2012	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Nitrite (ppm)	N		.010	1	1	10/28/2007	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Selenium (ppb)	N		ND	50	50	2/23/2010	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	
Thallium (ppb)	N		ND	2	0.5	2/23/2010	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	
Synthetic Organic Contamina	nts				1	1		
2,4-D (ppb)	N		ND	70	70	10/22/2001	Runoff from herbicide used on row crops	
2,4,5-TP (Silvex) (ppb)	N		ND	50	50	10/22/2001	Residue of banned herbicide	
Alachlor (ppb)	N		ND	2	0	2/23/2010	Runoff from herbicide used on row crops	
Atrazine (ppb)	N		ND	3	3	10/22/2001	Runoff from herbicide used on row crops	
Chlordane (ppb)	N		ND	2	0	2/23/2010	Residue of banned termiticide	
Dalapon (ppb)	N		ND	200	200	10/22/2001	Runoff from herbicide used on rights of way	
Dibromochloropropane (ppt)	N		ND	200	0	2/23/2010	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	
Endrin (ppb)	N		ND	2	2	2/23/2010	Residue of banned insecticide	
Ethylene dibromide (ppt)	N		ND	50	0	2/23/2010	Discharge from petroleum refineries	
Glyphosate (ppb)				700	700	2/22/22/2	Runoff from herbicide use	
Heptachlor (ppt) Heptachlor epoxide (ppt)	N N		ND ND	400 200	0	2/23/2010 2/23/2010	Residue of banned temiticide Breakdown of heptachlor	
Lindane (ppt)	N		ND	200	200	2/23/2010	Runoff/leaching from insecticide used on cattle, lumber, gardens	
Methoxychlor (ppb)	N		ND	40	40	2/23/2010	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	
PCBs [Polychlorinated biphenyls] (ppt)	N		ND	500	0	2/23/2010	Runoff from landfills; discharge of waste chemicals	
Pentachlorophenol (ppb)	N		ND	1	0	10/22/2001	Discharge from wood preserving factories	
Picloram (ppb)	N		ND	500	500	10/22/2001	Herbicide runoff	
Simazine (ppb)	N		ND	4	4	10/22/2001	Herbicide runoff	
Toxaphene (ppb)	N		ND	3	0	2/23/2010	Runoff/leaching from insecticide used on cotton and cattle	
Volatile Organics								
Benzene (ppb)	N		ND	5	0	2/23/2010	Discharge from factories; leaching from gas storage tanks and landfills	
Carbon tetrachloride (ppb)	N		ND	5	0	2/23/2010	Discharge from chemical plants and other industrial activities	
Chlorobenzene (ppb)	N	-	ND	100	100	4/25/2007	Discharge from chemical and agricultural chemical factories	
o-Dichlorobenzene (ppb)	N		ND	600	600	2/23/2010	Discharge from industrial chemical factories	
p-Dichlorobenzene (ppb)	N		ND	75	75	2/23/2010	Discharge from industrial chemical factories	

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Contaminant (units)	Violation Y/N	Running Annual Average (RAA) OR Highest Level Detected	Absent (A) or Present (P) OR Range of All Samples (L-H)	MCL	MCLG	Sample Month/Year	Likely Source of Contamination
1,2-Dichloroethane (ppb)	N		ND	5	0	2/23/2010	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N		ND	7	7	2/23/2010	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N		ND	70	70	4/25/2007	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N		ND	100	100	2/23/2010	Discharge from industrial chemical factories
Dichloromethane (ppb)	N		ND	5	0	2/23/2010	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N		ND	5	0	2/23/2010	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N		ND	700	700	2/23/2010	Discharge from petroleum refineries
Styrene (ppb)	N		ND	100	100	2/23/2010	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N		ND	5	0	2/23/2010	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N		ND	70	70	2/23/2010	Discharge from textile- finishing factories
1,1,1-Trichloroethane (ppb)	N		ND	200	200	2/23/2010	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N		ND	5	3	2/23/2010	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N		ND	5	0	2/23/2010	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N		ND	1	1	2/23/2010	Discharge from petroleum factories
Vinyl Chloride (ppb)	N		ND	2	0	2/23/2010	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N		ND	10	10	2/23/2010	Discharge from petroleum or chemical factories

**Secondary Contaminants** — Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

Contaminant	Secondary Standard	MCLG	Units	Level Detected	Violation (Y or N)	Sample Date	Likely Source
Sodium	N/A	N/A	ppm	140	N/A	2/23/2010	Naturally present in the environment
Nickel	.1	0	Ppm	ND	N/A	2/23/2010	Naturally present in the environment

Stage 2 Disinfectants and Disinfection By-products Rule - Stage 2 DBP Rule requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBP Rule compliance. The following table summarizes the individual sample results for the IDSE monitoring in 2009:

Contaminant	Number of Analyses	Minimum Level Detected	Highest Level Detected
Haloacetic Acids (HAA5) (ppb)	8	.012	.047
Total Trihalomethanes (TTHM) (ppb)	8	.087	.67

**Explanation of Violations** 

Type / Description	Compliance Period	Corrective Actions taken by PWS
Total Trihalomethanes (TTHM) (ppb)	January 1 <sup>st</sup> – December 31 <sup>st</sup> 2013	<ol> <li>The Town of Wellton is working with the Arizona Department of Environmental Quality to reduce the formation of TTHM's in the system. AZDEQ has obtained a grant for the Town of Wellton and has hired an independent engineering firm to conduct a system evaluation.</li> </ol>

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